WHO OWNS THE VIRTUAL ITEMS?

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ABSTRACT

Do you WoW? Because millions of people around the world do! Due to this increased traffic, virtual wealth amassed in MMORPGs are intersecting in our real world in unexpected ways. Virtual goods have real-life values and are traded in real-life markets. However, the market for trading in virtual items is highly inefficient because society has not created property rights for virtual items. This lack of regulation has a detrimental effect not just the market for virtual items, but actually the market for MMORPGs. Assuming we want to promote the production of MMORPGs as a market, society requires a set of distinct property rules to decrease the inefficiencies in the virtual market. In creating these regulation, we may be able to take cues from intellectual property laws, as many of the problems surrounding virtual goods are akin to intellectual property.

Introduction

The presence of Mass Multiplayer Online Role Playing Games (MMORPGs) is becoming more prevalent every day. Playing MMORPGs allows a normal person to become an elf, a wizard, a Navy Seal, or any other imaginable creature to fight in a virtual world against other real-life players. In these mystical, fantastical worlds, players seek to defeat virtual monsters, uncover virtual artifacts, and use these artifacts to battle with other online players. Over time, these virtual items have grown to be very valuable—both within the virtual world, and in the real world.

Recognizing a legal property right in these virtual items remains unsettled law, even though such rights would have real implications for society. For example, in 2005, a Chinese gamer murdered another player over the theft of a virtual item because he had no legal recourse against the

¹ Duke University School of Law, J.D. Expected, 2010; Executive Editor, Duke Law & Technology Review.

² See Massively Multiplayer Online Role-Playing Game, http://en.wikipedia.org/wiki/Massively_multiplayer_online_role-playing_game (last visited Nov. 30, 2009) (explaining that revenues from MMORPGs grew from half a billion dollars world-wide in 2005 to over \$1.4 billion in 2008 in the Western market alone).

³ See Steven J. Horowitz, Note, Competing Lockean Claims to Virtual Property, 20 HARV. J. L. & TECH. 443, 443–45 (2007).

thief.⁴ In 2006, Anshe Chung emerged as the first millionaire who traded exclusively in virtual items, even though these items could be erased by the game creator and operator without explanation.⁵ In 2007, a MMORPG player created a level-70 Night Elf rogue named Zeuzo, and sold it for almost \$10,000.⁶ The European Network and Information Security Agency estimates that the virtual market trades around two billion dollars worldwide of unregulated and legally nonexistent virtual items in 2008.⁷ The actual value is likely to be even higher, due to the prevalence of illegitimate trades that occur without the knowledge of the game operators.

- Without the guidance of any property regime for virtual items, some courts have simply chosen to treat virtual property as any other personal property owned by the players. However, treating virtual property as real-life personal property does not help decide who owns the virtual property. The game operator will argue that they have greater property rights, because they created the platform that made the virtual item possible. The players, on the other hand, argue that they have greater property rights because the player expended time and effort within the game to find the item. 9
- The reason why these disputes exist is simple: when virtual items are "created" by players within the virtual world, these items intersect with the real world and often have a real-world value. However, while the

property was necessary because the players pay real-life cash to play the game

and for the virtual items).

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⁴ See Cao Li, Death Sentence for Online Gamer, CHINA DAILY, June 8, 2005, available at http://www.chinadaily.com.cn/english/doc/2005-06/08/content 449600.htm.

⁵ Rob Hof, *Second Life's First Millionaire*, BUSINESSWEEK ONLINE, Nov. 26, 2006,

http://www.businessweek.com/the_thread/techbeat/archives/2006/11/second_lifes fi.html.

⁶ Cristina Jimenez, *The High Cost of Playing Warcraft*, BBC NEWS, Sept. 24, 2007, *available at* http://news.bbc.co.uk/2/hi/technology/7007026.stm (explaining that the highest legitimate trade is recorded at \$10,000 but trades in the black market could have gone for even higher).

⁷ Simon Hill, *Most Expensive Items Ever Sold in an MMO*, BRIGHT HuB!, Mar. 14, 2009, http://www.brighthub.com/video-games/mmo/articles/29070.aspx.

⁸ Mari Yamaguchi, *Angry Online Divorcee 'Kills' Virtual Ex-Hubby*, MSNBC NEWS, Oct. 23, 2008, http://www.msnbc.msn.com/id/27337812 (explaining that when a Japanese woman destroyed her virtual ex-husband's in-game character, she was charged with illegally manipulating electronic data); *'Virtual Theft' Leads to Arrest*, BBC WORLD NEWS AMERICA, Nov. 14, 2007, http://news.bbc.co.uk/2/hi/7094764.stm (explaining that the Dutch courts treated the theft of virtual items in the game "Habbo" as theft of real-life personal

⁹ See id.

market can easily price the value of a level-80 Night Elf¹⁰ in the World of Warcraft (WoW), ¹¹ the law is unclear about who is able to buy and sell that character, and whether that character is allowed to be sold in the first place. 12 One of the primary reasons for this lack of clarity is the existence of the End-User License Agreements (EULAs) that players must accept in order to play the game and enter the virtual world. 13 These EULAs all state that the virtual items created by the game are exclusively the property of the game operators, and that the game operators can take away the virtual items without any explanation or reason. 14 The EULAs seem to clearly suggest that the game operators have exclusive control over the game itself. These form contracts, however, have never been unbreakable, and there is a great policy argument that the virtual items would have never existed without the players either. The game operators cannot generate a thriving marketplace for virtual items without players to populate the game and create the demand that gives the virtual items a monetary value.

A more definitive property regime to regulate the trade of virtual items and protect the rights of players and game operators would solve these emerging problems. This iBrief will discuss what regime is best suited for virtual items by analyzing the different property-regime models that might apply to virtual items in Part I. Then, in Part II, this iBrief will present some policy arguments for granting property rights. In looking at these arguments, this iBrief makes the implicit assumption that society would want virtual markets to exist, and that the production of virtual items adds value to society.

I. WHICH PROPERTY REGIME BEST REPRESENTS VIRTUAL PROPERTY?

On a superficial view of virtual items, it seems to share many similar traits to personal property. Like personal property, virtual items are rivalrous goods. If one player has a unique virtual artifact, another player

¹⁰ See WOW Account - Level 80 warrior night elf male - \$499.80/account, http://www.wowgoldgate.com/Level-80-warrior-night-elf-male-p-7446.html (last visited Nov. 30, 2009).

¹¹ World of Warcraft is a massively multiplayer online role-playing game (MMORPG), with 11.5 million online subscriptions. See World of Warcraft Community Site, http://www.worldofwarcraft.com/index.xml (last visited July 31, 2010); see also World of Warcraft,

http://en.wikipedia.org/wiki/World of Warcraft (last visited Nov. 30, 2009). ¹² See Horowitz, supra note 2, at 443–45.

¹³ *Id.* at 444.

¹⁴ See Steven J. Horowitz, Note, Bragg v. Linden's Second Life: A Primer in Virtual World Justice, 34 OHIO N.U. L. REV. 223, 223 (2008).

cannot own the same exact artifact at the same time. ¹⁵ Further, players expend money and labor or trade virtual gold to obtain these virtual items. 16 However, once game-play is explored more thoroughly, many elements of game-play make virtual items more akin to intellectual property. Like property without a material representation, virtual items can be reproduced and supplied at almost zero marginal cost because virtual items are merely streams of code that a game operator can inject into the virtual world at any time. Further, players suffer monetary losses because many MMORPGs have bugs that allow cheating players to create virtual copies of items from absolutely nothing. Influxes of virtual unique items within the virtual world lower the demand of the players' legitimate items. This market failure, colloquially known to those familiar with intellectual property law as the public goods problem, ¹⁷ exists when the non-rivalrous and non-excludable nature of property destroys incentives to create the property in the first place. Thus, while this iBrief does not argue that virtual items should be protected exactly as products of the intellect, it does suggest that the best property regime to deal with virtual items must have some of the same considerations as intellectual property law.

A. The Personal Property Claim of Players

- Analogizing a player's virtual items to a person's personal property is intuitive as long as the law assumes that only the usual and legitimate methods for obtaining virtual items are used. These usual and legitimate methods of obtaining virtual items include methods commonly denoted as (1) "farming," and (2) "boss hunting."
- Farming requires a player to enter the virtual world and defeat monsters (also called "mobs") created by the game in order to obtain ingame money. ¹⁸ Players can then use this virtual money to buy virtual items from in-game venders called a "Non-Player Character" (NPC)¹⁹ or from other players in the virtual world.
- ¶9 "Boss hunting" is a more complicated process. Basically, MMORPGs have varying levels of virtual monsters for the players to defeat. Defeating higher level monsters will result in more rewards for the player than defeating a lower level monster. The highest level monsters are

¹⁷ Public Good, http://en.wikipedia.org/wiki/Public_good (last visited Aug. 12, 2010)

¹⁵ See Joshua A.T. Fairfield, Virtual Property, 85 B.U. L. Rev. 1027, 1052–64 (2005)

¹⁶ Horowitz, *supra* note 2, at 444.

¹⁸ Gold Farming, http://en.wikipedia.org/wiki/Gold_farming (last visited Nov. 30, 2009).

¹⁹ Non-Player Character, http://en.wikipedia.org/wiki/Non-player_character (last visited Nov. 30, 2009).

generally referred to as "bosses," and will give the player the best reward. ²⁰ Boss hunting is a process where the player kills only the bosses to obtain the most coveted virtual items.

These legitimate methods of obtaining virtual items could be easily analogized to a person working for money to buy personal items, and a person spending extra time to create a personal item for himself. "Farming" basically could be analogized to working for cash, and spending that cash to buy a new dress or a new car. Boss hunting is nothing more than investing time to create the item you want. Since boss hunting requires a substantial investment of time and education about the game itself, this is very similar to learning how to build a car and investing the time to build your own car. Thus, in controversies between the players themselves, the personal property regime would create an adequate result. For example, in the situation with the Chinese gamer, ²¹ the personal property regime would require the thief to return the virtual artifact back to the original owner.

B. The Problems with the Personal Property Regime

The analogies between virtual items and personal property come to an end in controversies between the players and the game makers. Because the game operators created the world from which virtual items are found, the game operators are the all-knowing, all-powerful forces of the virtual world. Such a controversy in terms of personal property would be like asking whether personal property laws protect a farmer if Mother Nature decides to decimate the farmers corn crop with a natural disaster.

¶12 The analogy also fails because—unlike cars and personal property—virtual items can be obtained at no cost, or at substantially less cost through bug exploits of computer code. Further, most traditional analysis of MMORPGs observe that very few games are played

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²⁰ Game-play in MMORPGs with virtual creatures is generally built like a beehive. There are many virtual creatures like the "worker-bees" that are easy to defeat, and thus the game does not reward the player too much for defeating the worker-bee. However, the game also includes high-level virtual creatures like the Queen Bee, who is very hard to kill and very well protected by her drone bees. To kill a Queen Bee, the player must actually have already obtained other virtual items to be "strong" enough to defeat the Queen Bee. Because of the difficulty (and thus, the extra time needed) to defeat the Queen Bee, the game will reward the player with a coveted virtual item. The Queen Bees are referred to as "bosses" by players. Thus, boss hunting entails defeating these high-level creatures in order to obtain the rewards that the game gives you for the defeat.

²¹ See Li, supra note 4.

legitimately. ²² It is not currently possible for most programmers to create a game without bugs, and these bugs have unexpectedly huge effects on the players and game-play. ²³ Lastly, it is easy and almost costless to learn how to exploit a bug since most MMORPGs come with player-made discussion forums. ²⁴

¶13 Taking advantage of these bugs—commonly referred to as "bugging" by players—happens on a regular basis within most MMORPGs. ²⁵ In fact, in some games, bugging denotes professionalism within the game. ²⁶ Although not all bugs are deleterious to the game, many bugs are. For example, many MMORPGs suffer the bug of "duping," which allows gamers to take advantage of a bug to effectively copy an item without any cost either to themselves or to the game operators. ²⁸ Duping can occur intentionally or unintentionally, and game operators generally

²² See Matthew Pritchard, How to Hurt the Hackers: The Scoop on Internet Cheating and How You Can Combat It, GAMESUTRA - THE ART & BUSINESS OF MAKING GAMES, Jan. 24, 2000,
http://www.gamasutra.com/yiew/feature/3149/how.to.hurt_the_backers_the_sc

http://www.gamasutra.com/view/feature/3149/how_to_hurt_the_hackers_the_scoop_.php.

²³ Scott Jennings, The Truth Behind Bugs, MMORPG.COM, Nov. 11, 2009, http://www.mmorpg.com/showFeature.cfm?loadfeature=3717&page=1&bhcp=1 (explaining the difficulty of MMORPG creation and the very limited resources that game creators have to create and test these games, and thus ultimately lead to many chances for bug exploitation).

²⁴ See, e.g., Gamers4Life, http://www.gamers4life.com/forums (last visited Nov. 30, 2009); WOW unofficial: WorldofWar.net – the Unofficial WoW Site, http://wow.incgamers.com/forums (last visited Nov. 30, 2009); How to Cheat at WoW (and Not Get Caught), http://kotaku.com/135158/how-to-cheat-at-wow-and-not-get-caught (last visited Nov. 30, 2009).

 ²⁵ Speed boost / Bunny-Hopping / Strafe-Jumping Exploit,
 http://forums.warhammeronline.com/warhammer/board/message?board.id=bugs_careers&thread.id=5352 (last visited Nov. 30, 2009).
 ²⁶ For example, "bunny hopping" is a term coined by gamers in first person

²⁶ For example, "bunny hopping" is a term coined by gamers in first person shooters for a jump that provides a significant advantage to the gamer. This jump is started as a bug in the game, but ended up being a sign of a professional player. *See id.*; Bunny Hopping, http://en.wikipedia.org/wiki/Bunny_hopping (last visited Nov. 30, 2009).

²⁷ Duping, http://en.wikipedia.org/wiki/Duping (last visited Nov. 30, 2009) (explaining that duping involves a player (Player A) who has a valuable item and passes that item to another trusted player (Player B), and then exploits a bug to "roll back" A's character to a previous point, thus A's character returns to the point in the game where A still has the item, and B also has the item).

²⁸ It could be argued that duping allow hurts the game operators because it completely distorts the market for virtual items within the world so much that newer players can never enter the in-game market and play the game competitively, and thus the game operator loses customers. Duping, http://en.wikipedia.org/wiki/Duping (last visited Nov. 30, 2009).

have ineffective ways of dealing with this problem.²⁹ Duping is the easiest and most prevalent method of creating influxes of unique virtual items, and lowering the monetary value of players' legitimate items.³⁰ This problem becomes more complicated when the game allows the player to combine items to create better items. If the gamers combine "duped" items with legitimately earned items, then the problem can no longer be easily solved by erasing all "duped" items since that would erase legitimate items as well.

¶14 In a personal property regime, there is simply no recourse when Mother Nature fails to produce crops. Similarly, when the virtual world has bugs that allow for unintentional exploitation, players have no recourse for monetary loss due to bugs like duping.

C. Problems with Virtual Items are Akin to Problems in Intellectual Property

The existence of bug exploitation to cheaply reproduce virtual items ¶15 makes the regulation of virtual items more akin to the regulation of intellectual property. If items can be duplicated at practically no cost, the good is non-rivalrous. This means that if there is even one copy of a virtual item within the game, two players can simultaneously own the same artifact at no cost to the other player. 31 When an item is non-rivalrous, there is no incentive to invest labor to produce the first copy of the item.³² In terms of MMORPGS, a lack of incentive to invest labor translates to a lack of incentive to play the game. Experience has shown that the demise of many popular MMORPGs stem from unregulated duping.³³ Thus, the lack of proper property regulations not only lowers the incentive to produce virtual items, it also lowers the incentive to create new virtual worlds. Creating incentives to produce original products despite potential of unfettered copying is one of the key goals of intellectual-property law.³⁴ Further, a law that adequately addresses this incentive problem would necessarily deal with copying and distribution, not just theft and conversion. Thus, a virtual property law must follow some of the incentive structure of intellectual

²⁹ *Id*.

³⁰ Id

³¹ JAMES BOYLE, THE PUBLIC DOMAIN: ENCLOSING THE COMMONS OF THE MIND 2–5 (2008) (explaining that the key element of intellectual property is that the items protected are non-rivalrous).

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³³ Duping, http://en.wikipedia.org/wiki/Duping (last visited Nov. 30, 2009); Jackal904, Duping Hurts The Game's Longevity, Borderlands Gaming Forum (Nov. 8th, 2009, 04:57 PM),

http://gbxforums.gearboxsoftware.com/showthread.php?t=85682.

property law because unfettered, costless copying of virtual items is currently an unavoidable part of MMORPGs.

Aside from duping, there are a variety of other bugs that also allow players to create virtual items at little to no cost of time or effort. For example, certain bug exploits allow players to kill bosses without the requisite investment of time that the game operators intended. In MMORPGs, more valuable artifacts are rewarded to the players who defeat higher level mobs. The player to defeat. However, if the player knew about a bug that allowed the player to defeat the boss without the usual investment of time, the player would also be able to produce coveted virtual items at little to no cost. This exploitation distorts the value for virtual items by allowing players to obtain items worth \$100 with only \$10 worth of effort.

Players can also use third party programs called "macros" (a program that runs the same commands on your computer continuously) to mimic game-play without actually being at the computer.³⁸ This allows the player to engage in farming in-game gold without any actual time investment. Although creating a macro may seem complicated to a real-life person without a computer science degree, most macros for virtual games are programs that can be freely downloaded in a matter of minutes.³⁹ The player then only has to press an "on" button to begin using the program.⁴⁰ Of course, the internet provides forums that make the cost of obtaining a set of instructions to create a macro practically free.⁴¹

¶18 Although a plethora of bugs exploits exist in MMORPGS, many of these bugs cannot be detected even with thorough testing, and cannot even

³⁷ Rich M, Duping Bug Stirs Inflation in Everquest 2, VGM WATCH, Aug. 16, 2005, http://vgmwatch.com/?p=852 (last visited Nov. 30, 2009).

http://www.askapadwe.com/17/how-do-i-setup-a-wow-macro (last visited Nov. 30, 2009); LotRO Bots and Leveling Guides,

http://www.strategyfreaks.com/games/lord_of_the_rings_online (last visited Nov. 30, 2009) (explaining that a macro involves a download of a free program).
 http://www.strategyfreaks.com/games/lord_of_the_rings_online (last visited Nov. 30, 2009) (explaining that a macro involves a download of a free program).
 https://www.strategyfreaks.com/games/lord_of_the_rings_online (last visited Nov. 30, 2009) (explaining that a macro involves a download of a free program).

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41 See, e.g., id.

³⁵ See supra Introduction, for explanation.

³⁶ See id.

³⁸ Macro, http://en.wikipedia.org/wiki/Macro (computer science) (last visited Nov. 30, 2009).

³⁹ See, e.g., How Do I Setup a WoW Macro?,

be easily patched by game operators. ⁴² Furthermore, cheats like macros are third party programs over which the game operators have limited means of controlling and limiting. Thus, within MMORPGs, it seems the process of costless replication or creation of products will continue to be a problem, and any virtual property law must address this issue.

Finally, there are a variety of key factual differences between virtual property and personal property that makes virtual items more akin to intellectual property items. An implicit assumption with personal property law is that property is scarce, and thus has value. With virtual items, there is no limit to the amount of virtual artifacts that can exist within the game. While varying difficulties are associated with different items, there is no limit to the quantity of the same item that can exist within a virtual game. Unlike personal property, having the potential of limitless amounts of property is one of the fundamental assumptions of intellectual property.

¶20 Also, that the players create virtual items in a game owned and created by another entity mirrors the control of derivatives works by intellectual-property regimes. The game creators create a wonderful product for the players. When the players enter this world and produce virtual items, they are producing derivative virtual items from the game itself. Looking at the relationship this way, the players are directly "standing on the shoulders of giants" to create a new product to which both the gamer operator and the players have a claim. Intellectual property already deals with the issue of derivative works, while real-life personal property law does not. 46 In intellectual property law, creators of derivative works generally obtain rights if the derivative work's author has added enough material to change the nature of the work, and it is socially beneficial to promote the creation of these works. 47 Assuming that it is socially valuable to have a market for virtual items, virtual property law should mirror the intellectual property model to grant rights to players in circumstances when the players have contributed enough to the derivative

⁴² Scott Jennings, The Truth Behind Bugs (Nov. 11, 2009) http://www.mmorpg.com/showFeature.cfm?loadfeature=3717&page=1&bhcp=1

⁴³ J.E. PENNER, THE IDEA OF PROPERTY IN LAW 193 (Oxford University Press Inc. 1997).

⁴⁴ Boyle, *supra* note 30, at 30–31.

⁴⁵ *Id.* at 183.

⁴⁶ See id.

⁴⁷ Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 579 (1994) (holding that a derivative work is protected under fair use if it is transformative of the original work because there is great social value in protecting parodies and satire).

work.⁴⁸ How much more contribution, and what type of contribution requires much more discussion than the limits of this iBrief will allow, but, as in intellectual property law, courts are fully capable of finding the equitable situation based on the facts of the case.

Thus, even though virtual property may seem similar to real-life personal property on the surface, virtual property has many of the elements of intellectual property. Neither regime fits virtual items perfectly. Assuming we want a thriving marketplace for virtual property, only a combination of both types of law could adequately address all the problems of virtual property.

II. WHO SHOULD OWN THE VIRTUAL ITEMS?

¶22 If we want to promote and facilitate the trade in virtual products, the easiest method is to grant players of MMORPGs some rights in their virtual items. However, this does not mean that players *should* have the strongest rights. Game makers and operators would certainly argue that they have the strongest rights to virtual property. After all, without the creation of the game, virtual items would have never existed in the first place.

More a Lockean theory of property rights, both gamers and game-makers have policy justifications for wanting property rights. Game operators provide the platform for all the property, and all the "raw materials" for the virtual items. 49 A player cannot simply sit at his or her computer and begin creating virtual items for MMORPGs that other people will pay for. The player must first enter the virtual world. Even then, the only legitimate sources of obtaining virtual items are also based on the computer code created by the game-makers. 50 Game-makers write code for a virtual mob, and then further encode it to give a valuable virtual item when it is defeated. This takes months of work by the game-maker, and thus it is the game operators who have "mixed [their] Labour with [common property], and joined to it something that is [their] own, and thereby makes

⁴⁸ This iBrief recognizes that in copyright law does not grant rights based on the additional amount of labor that the derivative author contributed to the derivative work. *See* Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991). However, the general theory of allowing property rights when an additional contribution to the creation has been made can be transferred to virtual property law.

⁴⁹ Horowitz, *supra* note 2, at 451.

⁵⁰ See supra Introduction, for explanation of these terms.

it [their] Property."⁵¹ Under this Lockean analysis, game operators would argue that they own all virtual property.

However, to the player, this seems inherently unfair. For example, in many games, to obtain a high class item, the gamers do not simply kill a beast and obtain exactly what they want. Rather, the process to gain coveted items can be exceedingly time-consuming, requiring a high level of education about the game, and likely cannot be achieved without help from other gamers. For example, in a game called Knight Online, 52 one of the most coveted items is the Chitin Shield+8, which only drops from a high level beast called "Isiloon." ⁵³ In order to kill Isiloon, a gamer who starts from scratch will have to go through a long list of steps in order to obtain that item.⁵⁴ First, the gamer must expend time to reach the maximum allowed level in the game. Second, the gamer must expend more time in order to find "clan" or "guild" members because one character is actually incapable of defeating Isiloon by himself. Third, each member of that clan or guild must farm for other items in order to do damage to Isiloon and survive the attack. Fourth, the members must find Isiloon, who is hidden on a "secret level." The gamers then have to find the key to access the secret level. Finally, the gamers must all congregate together at one time to defeat Isiloon. Even if the gamers defeat Isiloon, there is still only a very small chance that it will drop the Chitin Shield. Further, even when the item is obtained, the player must go through another process to upgrade the item to level eight (+8).⁵⁵ This process to increase the level of the Chitin Shield requires the gamer to spend even more virtual money and real-life time. Furthermore, the process to upgrade virtual items is a gambling process. Every upgrade to the next level lowers the probability of success, thus a player may have to upgrade many Chitin Shields before one finally gets to level eight. 56 The entire process of obtaining a Chitin Shield +8 will

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⁵¹ JOHN LOCKE, *The Second Treatise of Government, in* TWO TREATISES OF GOVERNMENT 287–88, BOOK 2, § 27 (Peter Laslett ed., Cambridge Univ. Press 1988) (1690).

⁵² Knight Online World, http://www.knightonlineworld.com/ (last visited, Nov. 30, 2009).

⁵³ Isiloon, http://goqnet.com/kowiki/index.php?title=Isiloon (last visited Nov. 30, 2009).

⁵⁴ See generally Knight Online Fansite - Kalais' Library, http://ko.kalais.net/other.php (last visited Nov. 30, 2009) (explaining that to kill higher level bosses, a player has to a high amount of experience points with the game, and acquire better items in order to do more damage to the higher level bosses).

⁵⁵ See Knight Online Upgrading Guide, https://www.thepowerlevel.com/Game_Info_see.php?id=3187 (last visited Nov. 30, 2009).

⁵⁶ See id.

probably cost the gamer one full year of constant game-play to accomplish. 57 In fact, in the actual game, most of the players will play this game for multiple years without ever coming in contact with a Chitin Shield $+8.^{58}$

Note that the game who successfully obtains the coveted item that mixed his Labour' with the game operators' labor in order to create this virtual item. Under a labor theory, even if the game operators created the original virtual world where the coveted item is created, it would be strange not to grant the player who spent a year finding the virtual item any rights in the virtual item.

¶26 If we try to analogize the situation to a real-life situation where one entity owns farmland and allows other entities to farm corn on the land, then we can see how strong the player's Lockean argument is. In the gamer's eyes, it was the players, not the operators, who turned a barren land into a fruitful harvest of corn. Thus, it should be the gamers who own the corn.

The player's amount of effort and labor is certainly not negligible. Many question whether the gamer contributes any "labor" as they are, after all, playing a game. ⁵⁹ However, professional athletes are also paid to "play" a game, and no one questions whether their efforts constitute labor. ⁶⁰ If gamers are not allowed to claim that time spent to produce items worth real money simply because they take pleasure in playing their games, then anyone who enjoys what they do for a living should relinquish their paychecks.

¶28 Furthermore, recognizing a succinct virtual property rights for the players would benefit the game operators. If virtual items had no real-life monetary value to me, presumably many gamers would choose to do something else with their time since people are always incurring an

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 $^{^{57}}$ Interview with Brian Chiou, Knight Online Gamer 2004-2008, in Durham, N.C. (Mar. 2, 2010).

⁵⁸ See generally Chitin Shield - Knight Online World, Knight Online Forums – Server – Pathos,

http://forum.knightonlineworld.com/forum_en//index.php?showtopic=73834&pid=444315&mode=threaded&show=&st=&#entry444315 (documenting many players' desire to acquire a chitin shield).

⁵⁹ RICHARD A. BARTLE, THEMIS GROUP, PITFALLS OF VIRTUAL PROPERTY 6 (Apr. 20, 2004), *available at* http://www.mud.co.uk/richard/povp.pdf. ⁶⁰ *Id*.

opportunity cost by choosing one thing over another.⁶¹ If the players are never able to recognize the monetary value of the virtual items they farm, this creates an incentive to stop producing the virtual items, which is to say that this produces an incentive for players to stop playing the game.⁶² In addition, the laws of economics dictate that in order to allow the gamers to derive the most benefit from their virtual items, the items must be tradeable.⁶³ Banning trade of virtual items either in the virtual world or in the real world would create a real disincentive for players to continue to play the game.

Thus, equity and policy analysis suggest that granting some rights to players would be beneficial to society. Players invest a substantial amount of time and effort in acquiring their virtual items, and under the Lockean theory of labor should be afforded some protections. Further, allowing some property rights in sale and transfer would actually be beneficial to game operators because it would make the game itself more valuable. Finally, assuming that society wants to promote the production of virtual games, property rights give players an incentive to play virtual games.

CONCLUSION

The market for virtual items is a large, thriving market with little legal protection. The lack of this protection allows for cheaters and scammers to thrive amongst the online community, and leads to tragic circumstances. Certainly, it would be beneficial to the trade of virtual items to have a property regime in place as it would reduce transaction costs in the shape of risks. While virtual items can be treated as real personal property, virtual items also exhibit some elements of intellectual property. Thus, a combination of regimes would probably apply best to the treatment of virtual items. Further, in a normative analysis of who should have greater rights to the virtual items, it is clear that players deserve some rights to the virtual items that they have helped create. Thus, if society wants to promote the production of virtual worlds and virtual items, a property regime must be created to address the unique issues of virtual property.

 $^{^{61}}$ See N. Gregory Mankiw, Principals of Economics 269–270 (2009).

 $^{^{62}}$ Again, assuming we want the virtual market to thrive, this is something society would want to avoid.

⁶³ See id. at 8 (explaining trade makes everyone better off).