

VIRTUAL PROPERTY

DAN HUNTER AND F. GREGORY LASTOWKA

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Abstract

Virtual worlds—online worlds where millions of people come to interact, play, and socialize—are a new type of social order. In this Article, we examine the implications of virtual worlds for our understanding of property, and ask whether it is possible to say that virtual world users have real world property interests in virtual objects. Adopting economic accounts that demonstrate the real world value of these objects and the exchange mechanisms for trading these objects, we show that, descriptively, these types of objects are indistinguishable from real world property interests. Further, the normative justifications for property interests in the real world apply—sometimes more strongly—in the virtual worlds.

The issues of virtual property constitute legal challenges for our online future. Though virtual worlds may be games now, they are rapidly becoming as significant as other real-world places where people interact, shop, sell, and work. As society and law begin to develop within virtual worlds, we need to have a better understanding of the interaction of the laws of the virtual worlds with the law of this world.

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DAN HUNTER[□] AND F. GREGORY LASTOWKA[•]

[A] Virtual World is a place you co-inhabit with hundreds of thousands of other people simultaneously. It's persistent in that the world exists independent of your presence, and in that your actions can permanently shape the world. The fact that you exist with other real people from around the globe adds a level of immersion that just has to be experienced to be believed. –*Ultima Online Website*¹

I. INTRODUCTION

A snow-capped mountain range stretches over the town's northern border and tapers down to a southward-facing concave bay embracing a small archipelago of glittering islands. Homes are clustered in predictable locations: on the islands, against the seaside, and close to the mountains. This is the community of Blazing Falls, a town with over 25,000 inhabitants—roughly the size of Timbuktu or Poughkeepsie. Its young and attractive twenty-something inhabitants can be found chatting and working together in their diverse and eclectically furnished dwellings. Most live with roommates, with whom they share both rights of ownership and the duties of taking out the garbage, washing the dishes, and paying for parties and furniture. In their leisure time, they chat with neighbors, attend shows, dance at nightclubs, work out, and visit local attractions. Undoubtedly many Blazing Falls residents are engaged in such activities at this very moment. As you are reading this they are eating, sleeping, or resting on comfortable couches in front of television sets while they discuss politics and the latest movies with their roommates.

[□] Robert F. Irwin IV Term Assistant Professor of Legal Studies, Wharton School, University of Pennsylvania. Email: hunterd@wharton.upenn.edu.

[•] Associate, Dechert LLP, Philadelphia. Email: greglas@aya.yale.edu.

¹ See "Ultima Online Visitor's Center: What is a Virtual World?," available online at <<http://www.uo.com/visitor/whatisvw.html>> (visited 2/2/03).

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All variety of social groups exist in Blazing Falls. Christians, Wiccans, Goths, Punks, and poets and all have their own homes and communities. There are cafes and nightclubs, discos and gyms, and a large number of modestly furnished beachside bungalows where individuals gather. There are a variety of professional types who work there: some work as telemarketers, others work as repairmen, there are aspiring musicians, and there are even a number of people who manufacture lawn gnomes for a living. Most people do business honestly, but there is a shady side to Blazing Falls as well. Some people work as confidence men, preying on gullible newcomers with false promises. There are even a few brothels and strip clubs, though the legality of these establishments is dubious.

All of this probably seems familiar. Yet there is much about Blazing Falls that is decidedly unfamiliar. For instance, a casual visitor might at first be nonplussed by the common social practices in the community. Homeowners in Blazing Falls generally encourage strangers to enter their property, lie in their beds, eat their food, use their bathrooms, and monopolize their possessions. And when these visitors break their pinball machines and exercise equipment, the owners may complain a bit, but for the most part they just cheerfully repair the items and let the visitors have at them again.

Harder to explain, though, are some other aspects of Blazing Falls. For instance, no one there has ever been ill. And although marriages occur often enough, no children have ever been seen. Even if one of the nubile and newly married residents were to become pregnant, there are strangely no hospitals for a town of 25,000 where a child might be delivered. But most importantly (for the purposes of the legal scholar) there are no courts, no halls of Congress, and no visible mechanisms of civic governance in Blazing Falls. In fact, Blazing Falls doesn't even have a visible police force—yet not one murder has ever been reported.

If you ask the average resident of Blazing Falls what she thinks about the absence of such legal systems and institutions, however, she will generally seem more intrigued than alarmed. In Blazing Falls, she will ask, is all of that messy business of law and government truly necessary? After all, none of this is *real*.

Blazing Falls (as you probably guessed) is a virtual world. Using less lofty language, you might call it a computer game. Blazing Falls is just one town in the larger environment of *The Sims Online*, a popular game reportedly having over 80,000 current subscribers. Other contemporary virtual worlds include the

tropical beaches of Tiki (There.com's *There*), the fantasy world of Norrath (Sony's *Everquest*), the interstellar expanses of the Milky Way (Electronic Art's *Earth & Beyond*), and even a galaxy far far away (Sony's *Star Wars Galaxies*). In Blazing Falls and these other places, millions of people with Internet connections are currently living large portions of their lives, forming friendship with others, building and acquiring virtual property, and forming social organizations.² In South Korea, the game *Lineage* is currently more popular than television,³ with some 4 million registered participants.⁴ In the United States, *Everquest's* Norrath is the most popular virtual world, with over 420,000 subscribers at last count. *Ultima Online* and *Dark Age of Camelot* are close competitors, having respectively 250,000, and 200,000 participants.⁵

In *The Sims Online*, or in *Everquest* or *Ultima Online*, each tiny figure on the computer screen represents a real person reacting in real time. Your computer monitor will display tiny figures talking, dancing, and eating in the living room of a spacious home, or confronting a dragon in the mountains. One of these figures will be "you," while the other ones will be representations of other real people who are speaking and interacting with you through their virtual representations. These people gathered in your virtual living room in Blazing Falls will in all likelihood be hundreds or thousands of miles away in reality.

This is obviously a new concept in games, if it is even properly characterized as a game at all. Normal computer games resemble the mental world of a two year old: everything revolves around you and nothing happens when you are not present. But virtual worlds are different. *The Sims Online*, like all virtual worlds, is both persistent and dynamic. Which is to say that even when you are not in Blazing Falls, the environment persists and changes. While you sleep in

² Geoff Keighley, *The Sorcerer of Sony*, BUSINESS 2.0, Aug. 2002, available online at <<http://www.business2.com/articles/mag/0,1640,42210,FF.html>>

³ Brad King, *Online Games Go Multicultural*, WIRED, Jan. 30, 2002, available online at <<http://www.wired.com/news/games/0,2101,50000,00.html>>

⁴ *Id.*; "Lineage," available online at <<http://www.lineage-us.com/>>

⁵ Brad King, *Gamers Click Home for the Holidays*, WIRED, Dec. 11, 2002, available online at <<http://www.wired.com/news/games/0,2101,56759,00.html>>; Edward Castronova, *Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier*, CESifo Working Paper No 618, available at <<http://papers.ssrn.com/abstract=294828>> (visited 3/2/03) [hereinafter Castronova *Virtual Worlds*]; *Dark Age of Camelot News*, May 9, 2002, available online at <<http://www.darkageofcamelot.com/news/>>.

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real life, other people's avatars may be dancing, eating, and micturating in your home in Blazing Falls; your neighbor's virtual houses will be re-modeled and re-decorated while you commute to work; virtual weddings will take place while you chat at the physical world water cooler; and new social structures will emerge while you have dinner. By the time you get back to Blazing Falls in the evening, you may find the entire infrastructure and social character of your neighborhood has changed. The virtual field passed today will be a virtual office building tomorrow, and the virtual community will pass a new resolution even if you don't take time to vote.

Representational proxies in virtual spaces are known as "avatars," a word of Hindu religious origin.⁶ Avatars, unlike prior video-game alter-egos, are supportive of rich customization and are designed primarily for social interaction. Currently, the avatars of virtual worlds speak with each other either through chat windows or "speech bubbles" which float over their heads. Soon, however, communication may take place telephonically. Avatars express themselves through appearance as well. You can choose the face, clothes, and body shape of your avatar and communicate with others through body language. For instance, in *The Sims Online*, avatars yawn, clap, shout, shake their fists, cry, hug, kiss (in a variety of ways), dance (in a variety of ways), and do hundreds of other ordinary human actions to let others know how they're feeling.⁷

Perhaps because virtual worlds support this kind of rich social interaction, many of those who have chosen to visit virtual worlds have remained residents of them. The average Everquest player and Norrath avatar, for instance, exists there almost twenty hours a week.⁸ Virtual world participants design costumes,

⁶ See Edward Castronova, *On Virtual Economies*, CESifo Working Paper No. 752 at 7 (July 2002), available at <http://papers.ssrn.com/abstract_id=338500> (visited 3/3/03) [hereinafter Castronova, *Virtual Economies*].

⁷ Charles Herold, *Win Friends, Influence People, or Just Aim and Fire*, N.Y. TIMES, Feb. 6, 2003, available online at <<http://www.nytimes.com/2003/02/06/technology/circuits/06game.html>> ("You can also have sex. I came across one home devoted to erotica, where a girl named Tanea offered to have sex with me for 100 simoleons.").

⁸ Castronova, *Virtual Economies*, supra note 6 at ____; see also Nick Yee, *The Norrathian Scrolls: Real-Life Demographics* (2002), available online at <<http://www.nickyee.com/eqt/demographics.html#3>>; Nick Yee, *Codename Blue: An ongoing study of MMORPG gamers* (2002), available online at <<http://www.nickyee.com/codeblue/Report.PDF>>.

furniture, and houses for their avatars and sell their creations to others.⁹ They buy and barter virtual chattels on eBay.¹⁰ They form clubs and organizations devoted to mutual aid and protection.¹¹ They pressure their roommates and organizational members to spend more time in the virtual world in order to foster the common good.¹² But you might reply, so what? What do computer games have to do with law?

For the purposes of this paper the short answer is “property.” Take the example of *There*, a virtual world set up to facilitate social interaction, not role playing. If you’re going on a virtual date with a new acquaintance you met in *There*, you’ll probably want to dress to impress. So perhaps you’ll pick up some baggy Levi jeans, a Nike sweatshirt, or maybe a snazzy new hoverboard for your avatar. You may even want to fine-tune your avatar’s face and haircut. All of these virtual chattels and services might set you back about a tidy sum of Therebucks at the *There*-controlled rate of 1787 Therebucks to the US dollar.¹³ Your non-virtual credit card will be charged for these purchases. It seems that Nike and Levi-Strauss are intrigued by a market for virtual “goods” which requires no costly physical inputs, and which is apparently a remarkable example of people being prepared to pay for nothing except the perceived value of the brand.

⁹ See Julian Dibbell, *The Unreal Estate Boom*, WIRED, Jan. 2003, available online at <<http://www.wired.com/wired/archive/11.01/gaming.html>> [hereinafter Dibbell, *Unreal Estate*]; eBay miscellaneous listings for Internet games, available online at <<http://listings.ebay.com/pool2/listings/list/all/category4596/index.html>> .

¹⁰ See *id.*; Part III, *infra*.

¹¹ See Open Directory: Massive Multiplayer Online Clans and Guilds, available online at <http://dmoz.org/Games/Video_Games/Roleplaying/Massive_Multiplayer_Online/Clans_and_Guilds/> (listing hundreds of guild websites); Allakhazam’s Magic Realm, available online at <<http://links.allakhazam.com/Everquest/Guilds/>> (listing hundreds of Everquest guild websites).

¹² See N’Gai Croal, *Sims Family Values*, NEWSWEEK, Nov 25, 2002 (“Upon our return [our roommate] JB said, “You’re not online enough to help the cause,” and kicked us out of the house.”).

¹³ Julian Dibbell, *Your Next Customer Is Virtual. But His Money Is Real*, BUSINESS 2.0, Mar. 2003, available at <<http://www.business2.com/articles/mag/0,1640,47157,00.html>> at <<http://www.business2.com/articles/mag/0,1640,47157%7C2,00.html>> (visited 3/27/03). The 1787 to a dollar rate is said to be arbitrary, but it has interesting implications, coinciding with the year of the enactment of the Northwest Ordinance and the framing of the United States Constitution.

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This notion of buying nothing but intangible representations may seem ludicrous, but perhaps it isn't much more ludicrous than paying an extra dollar for a swoosh printed on a real t-shirt. As a *There* executive notes: "If the way I dress is part of how I define myself in the real world, and I make style choices and brand choices based on that, it's a logical transition to do those same things in this virtual world."¹⁴ There.com, the company behind *There*, is so serious about the creation of the parallel *There* economy that they have a economist on staff to investigate and advise them on monetary and fiscal policy.¹⁵ A similar world, *Project Entropia*, is planning to also market virtual chattels, though they will be spaceships and laser guns rather than designer clothing.¹⁶

Even where the creator of the virtual world does not facilitate markets for virtual goods, the residents may take it upon themselves to do so. For instance, if one spends enough time in virtual worlds, one can accumulate property that other people value: virtual castles, swords, silk sashes, and even one's own avatar. By listing a well-developed avatar and its virtual castle on eBay, you can transfer your virtual asset from a virtual value to real US dollars.¹⁷ In fact, these transfers happen so often that one economist has calculated an exchange rate between virtual and real world currencies.¹⁸

Simply put, the real and the virtual have bleeding edges – it is possible for some people to work in fantasy worlds in order to pay their rent in reality. The sound

¹⁴ *Id.* at <<http://www.business2.com/articles/mag/0,1640,47157%7C3,00.html>> (visited 3/27/03).

¹⁵ See Matthew Maier, *Can a Metaverse Have Inflation?*, BUSINESS 2.0, Mar. 2003, available online at <<http://www.business2.com/articles/mag/0,1640,47159,00.html>> .

¹⁶ See "What is Project Entropia," available online at <<http://www.project-entropia.com/main.asp>>. The main reason for the confidence of the *Entropia* developers that people will pay real money to buy things in-world is that these sorts of payments are made all the time on eBay, in unauthorized auctions for chattels, realty, and avatars in games such as *Ultima Online*. See *supra* note 9; discussion in Part II, *infra*. *Entropia* is intended to avoid the market bypass inherent in these trades, and instead the market is made within the game, not by outsiders such as eBay.

¹⁷ See eBay auction listings for in-world assets, available at <<http://listings.ebay.com/pool2/listings/list/all/category1654/index.html?from=R11>> (visited 3/24/03).

¹⁸ Castronova, *Virtual Worlds*, *supra* note 5, at 2.; Edward Castronova, Economic Indices for Virtual Worlds, available online at <http://business.fullerton.edu/ecastronova/economic_data.htm>.

you can hear is Walter Mitty, eating his heart out.¹⁹ The process differs little from, say, a Filipino overseas contract worker who works in another country for a period, and sends money back to the Philippines.²⁰ The inevitable implication is that some day people will walk their well-dressed avatars to virtual offices, where they, through their avatars, will labor to convince other avatars to cough up real cash for virtual goods. The obvious question that emerges is how we deal with the “jurisdictional” issues presented when the laws of the virtual worlds intersect with real world laws. Should we apply United States laws to resolve disputes over virtual property? Or should we apply principles of comity to the laws of the virtual worlds?

In the next part of this paper we provide a framework for understanding the issue of property in virtual worlds. Adopting economic accounts that demonstrate the real world value of virtual objects and the exchange mechanisms for trading these objects, we show that, descriptively, these types of objects are indistinguishable from other legally recognized property interests. Further, the normative justifications for permitting property interests to obtain apply—sometimes more strongly—in the case of virtual worlds. We conclude that property probably does inhere in virtual assets, and ask who should be able to exploit and own these assets.

II. VIRTUAL PROPERTIES

There is nothing which so generally strikes the imagination, and engages the affections of mankind, as the right of property; or that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe... –William Blackstone²¹

Central to the operation of most modern virtual worlds is a property system, with all of the familiar real world features of exclusive ownership, persistence of rights, transfer under conditions of agreement and duress, and a currency

¹⁹ See Part II, *infra.*; James Thurber, *The Secret Life of Walter Mitty*, NEW YORKER, Mar. 18, 1939. Arguably, Hollywood proved this proposition some time ago.

²⁰ Castronova, *Virtual Worlds*, *supra* note 5, at ____.

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system to support trade in these property-based assets. In Blazing Falls, for example, an avatar can purchase a basic plot of land for around ten thousand simoleons. To build a truly appealing home, one has to purchase walls, windows, and perhaps an Olympic-sized swimming pool, all of which costs serious simoleons. Or, alternatively, one can buy an completed attractive mansion, built by property speculators who, like their real world counterparts, buy prime land early, throw up an anodyne house that appeals to a broad range of would-be-owners, and sell it off.²²

Property in today's virtual worlds is not confined to virtual realty. In each there is a flourishing trade in various chattels. In *Ultima Online's* Britannia, a standard hammer might cost 200 gold pieces, but higher level Britannians are willing to fork out around 150,000 gold pieces for a (considerably more lethal) War Hammer of Vanquishing Power.²³ In Blazing Falls, everything your avatar will need costs money: not only will you have to furnish your avatar's house with couches, beds, a toilet, and maybe a pizza-oven, but all of the objects and chattels in your place are subject to wear and tear. If you want to keep attracting guests, you will have to refresh the buffet, unblock the toilet, and fix the broken weight-lifting machine, all of which will cost you simoleons.

Perhaps the most striking feature of the property systems of the virtual worlds is how closely they mirror the real world, or at least the subset of the real world known as Western capitalist economies. No virtual world, not even a community-conscious, social MUD like *LambdaMOO*, has an entirely communal property system. Private property is the default. Capitalists feel right at home here: virtual worlds assume the timeworn metaphor of property being a bundle of rights, the fundamental rights usually rendered as the rights to use, exclude, and transfer.²⁴ This is certainly true of virtual chattels. In Britannia or

²¹ 2 WILLIAM BLACKSTONE, COMMENTARIES *2.

²² See Computer and Video game Reviews, available at <[http://www.computerandvideogames.com/reviews/reviews_story.php\(que\)id=86941](http://www.computerandvideogames.com/reviews/reviews_story.php(que)id=86941)> (visited 3/3/03).

²³ See Blackdagger Forums, <<http://boards.blackdagger.com/viewthread.php?tid=861>> (visited 12/30/02).

²⁴ See A.M. Honore, *Ownership*, in OXFORD ESSAYS IN JURISPRUDENCE 108 (A.G. Guest ed., 1961) (defining liberal view of ownership as the right to use property, stop others from using it, lend it, sell it, or leave it by will); Cheryl I. Harris, *Whiteness as Property*, 106 HARV. L. REV. 1709, 1724-25 (1993) (describing property characteristics).

Norrath you, and only you, can use or sell your battleaxe. And you can certainly exclude anyone else from using your leather pants at the same time as you. Which is, perhaps, a good thing.

Slightly different approaches are adopted in each game when it comes to virtual realty. For example, in Blazing Falls, as stated above, real property can be relatively expensive. A plot of land costs about the amount that an avatar receives when she is first created—and furnishing a new home complete with sofas, beds, and gnome-making machines can really add up.²⁵ The best way to make money to pay for all of this is to attract guests to your home—your avatar receives bonus income (from the central government) based on the number of people who come to her place and how long they stay. This creates a market incentive to open your home at all hours and obtain the maximum number of unknown visitors. But to do this alone, you would need to be logged into Blazing Falls 24/7/365, attending to house-repairs and guest desires. Since this is clearly impossible, avatar roommates are needed to share house chores, repair broken computers, and buy the house an improved oven. As a result, the vast majority of houses in *The Sims Online* represent a type of limited commons ownership regime, with property interests spread between multiple housemates.²⁶

This preponderance of limited commons property arrangements in Blazing Falls mirrors the real world. As Robert Ellickson notes, the majority of Americans live in limited commons property households, typically family homes.²⁷ However, the Blazing Falls communal property system has emerged for different reasons—hardly any of us in real life have roommates just so that we can stay open all hours and party like it's 1999.

²⁵ Will Wright decided that building lawn gnomes should be one way for avatars in *The Sims Online* to make money.

²⁶ Carol M. Rose, *The Several Futures of Property: Of Cyberspace and Folk Tales, Emissions Trades and Ecosystems*, 83 MINN. L. REV. 129 (1998). Dagan and Heller term this a “liberal commons property” regime. See Hanoch Dagan & Michael A. Heller, *The Liberal Commons*, 110 YALE L.J. 549 (2001) .

²⁷ Robert C. Ellickson, *Property in Land*, 102 YALE L.J. 1315, 1394-95 (1993) (noting that the majority of Americans live in limited “commons” property environments within multi-person households)

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The treatment of public and private spaces also varies among different virtual worlds.²⁸ Looking at the map of Blazing Falls, one is struck by the realization that something is oddly out of place. It may take a second or two to recognize that there are no roads, parks, playgrounds—no public space at all. But one wonders if such places are really necessary? After all, one can teleport directly into homes, and the vast majority of these, due to the financial incentive system, are the equivalent of an open-all-hours fraternity party. In *Dark Age of Camelot* and *Everquest*, on the other hand, all of the land is nominally public and avatars don't own title to virtual realty at all. Still, there are certainly places where less powerful avatars are effectively denied entry. Visiting Norrath's visually stunning "Planes of Power" for instance, is beyond the ability of most of the game's noob²⁹ and average avatars, essentially making The Planes of Power an exclusive club for the avatar jet-set.³⁰

Ultima Online's Britannia provides an interesting admixture of public and private ownership. Though custom castle-building is advertised as an important selling point, there are vast tracts dangerous wastelands in Britannia where one cannot build a home and orcs, ogres, and dragons roam free.³¹ *There.com* is likewise a mix of public and private spaces: though most spaces will be public, there are also plans to allow avatars build their own homes for a fee, and to allow avatars to rent virtual spaces for dune buggy parties with a private guest list.³²

The real property systems within all of these worlds essentially conform to the expectations of modern private property systems, with free alienation of property, transfers based on the local currency, and so forth. Even in the Tolkienesque leveling worlds, the Middle Earth trappings are largely superficial

²⁸ And contrasted with, say, their application in the real world, where there are clear distinctions between commons, common property, public, private, regulatory property. See Bruce Yandle and Andrew P. Morriss, *The Technologies of Property Rights: Choice Among Alternative Solutions to the Tragedies of the Commons*, 28 ECOL. L.Q. 123 (2001).

²⁹ See *supra* note ____.

³⁰ Internet Games Network, *EverQuest: Planes of Power Review*, <<http://pc.ign.com/articles/376/376138p1.html>> (visited 3/3/03).

³¹ See Jere Lindell, Tutorial to new players of ULTIMA ONLINE v. 1.3, <<http://cheathappens.com/text/uonlinefaq.zip.txt>> (visited 3/3/03).

from a cultural perspective. A mediæval veneer is certainly there: the rich hang around in castles decorated with tapestries and crossed halberds, and armor and weaponry is that which existed *circa* 1500. But when one scratches the surface and looks at how most property rights are structured, these Tolkienesque worlds are really little different from some of the more pretentious parts of Southern California, fish steaks and all.³³

The transfer of virtual chattels also occurs in very familiar ways.³⁴ If my avatar wants to sell her invulnerable chainmail armor, she's free to do so.³⁵ If she wants to seek multiple in-game buyers, there are well-known markets within each world where she might peddle her goods: places like the East Commons Tunnel and Greater Faydark in Norrath,³⁶ or Subway in Dereth.³⁷ And if your avatar dies others can strip the armor from her lifeless body and make it their own.³⁸

This reliance on real world expectations and flexible markets is easily explicable and, seemingly, inevitable. The current crop of popular virtual worlds is the

³² See There.com, Frequently Asked Questions, available at <<http://www.prod.there.com/faq.html>> (visited 3/3/03).

³³ Fish steaks are one of the staple food groups, but, helpfully, they provide not only sustenance, but also useful products for home decoration, see Ultima Online Vault, decorations page, available at <<http://uovault.ign.com/decorations/decorations.asp>> (visited 3/3/03).

³⁴ See Molly Stephens, *NOTE: Sales of In-Game Assets: An Illustration of the Continuing Failure of Intellectual Property Law to Protect Digital-Content Creators*, 80 TEX. L. REV. 1513, 1515 (2002) [Hereafter Stephens, *In-Game Assets*].

³⁵ *Id.*

³⁶ Dibbell, *Unreal Estate supra* note 9. These virtual markets change regularly, and as soon as one place is identified in print it is probably out of date. Letters to the editor in a subsequent edition of *Wired* excoriated Dibbell for identifying Greater Faydark as a trade center, since, of course, the best markets were to be found in Nexus on Norrath's moon, Luclin and in the Bazaar, see Dave Brogden, *Lessons in Geekonomics*, 11.03 WIRED 26 (Mar 2003).

³⁷ Edward Castronova, *A Traveler's Guide to Virtual Worlds*, <http://business.fullerton.edu/ecastronova/other_worlds.htm> (visited 1/3/03).

³⁸ Other virtual worlds have specific norms/laws regulating corpse looting. For example, LegendMUD, a text-based virtual world set in three different eras, only allows looting amongst clanned characters, <<http://www.legendmud.org/firstpagecontents.html>> (visited 1/20/03) ("Looting player corpses is also considered against the rules, UNLESS you and the player whose corpse you are looting are BOTH clanned. In the case of clanned characters stealing from clanned players' corpses, the 'legality' of it is up to the clans involved.")

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creation of large, private, property-owning corporations, which are typically based in the United States. In imagining how property rights should be structured, one hardly expects these organizations to be boosters for communal, socialist, or communist property-holding systems. More importantly, perhaps, these commercial products must attract large numbers of paying customers to be profitable, and so they must not disappoint the expectations of the public. This means mirroring the features of real world systems which make sense for the 21st Century participants. Even if the real estates of England were once feudal or held in commons,³⁹ modern players—even those looking for medieval virtual worlds—will have ingrained assumptions about how realty (as they know it) should work. This effort to give the people what they want can be seen at many levels of the environment—for instance there are no serfs in the Tolkienesque worlds, because who would want to risk a business model on the assumption that individuals will pay \$9.95 a month to be a feudal vassal?⁴⁰ Neither is anyone forced to play the role of a leper or village idiot.

Thus, even if a virtual world were to start without market systems in property, they would probably develop before long if the world were to remain commercially viable. Blazing Falls, for instance, began as an exception to the free market rule and people generally found it unpleasant for this reason. One purchased chattels from something like a central government agency that refused to negotiate on price. A pizza stall would cost you \$25,000, take it or leave it, *tovarich*. However, like the former communist bloc countries of Eastern Europe, *The Sims Online* understood what its citizens wanted and declared that it would be an economy in transition—free alienability of property would come soon. By the time of this Article's publication, this market reality will have arrived. Given that vast numbers of people have designed and built objects for

³⁹ See Marc Bloch, *FEUDAL SOCIETY* (L. A. Manyon trans., 1961); Joseph R. Strayer, *FEUDALISM* (1965); Walter Phelps Hall & Robert Greenhalgh Albion, *A HISTORY OF ENGLAND AND THE BRITISH EMPIRE* (3d ed. 1953); Daniel R. Coquillette, *THE ANGLO-AMERICAN LEGAL HERITAGE* (1999).

⁴⁰ This may be a US-specific cultural observation. Vassals and serfdom is, to some extent, the model for one of the most successful virtual worlds today, *Lineage's* Aden. In this predominately South Korean virtual world, avatars are divided into castes of leaders and their followers. Once one chooses to be a follower, one can never be a leader. Adopting a permanent subservient role within a virtual world is apparently acceptable to South Koreans, whereas in Western worlds, designers assume that every avatar aspires to be king.

The Sims,⁴¹ the precursor to *The Sims Online*, the real world market essentially demanded the institution of a virtual market in Blazing Falls.⁴²

In the abstract, the existence of contemporary property system within virtual worlds may seem no different than the observation that *Monopoly* has a property system; indeed the entire game of *Monopoly* is just an entertaining simulation of capitalist markets in real property. However, if trade in property were taking place between the players in *Monopoly* and the real world, we might have a different view of the importance of Park Place and Baltic Avenue. Virtual properties actually do attract real-world values, sometimes in the order of thousands of dollars.⁴³

Yet there are competing claims over who owns these assets and who can claim the value of them. Is the owner of a virtual world's physical server also the owner of virtual castles created on that server, or does the castle belong to the person who spent years of her life building the virtual castle brick by virtual brick?⁴⁴

⁴¹ See e.g. The Sims Resource, <<http://www.thesimsresource.com/static/downloadsindex.html>> (visited 1/5/03) (index of "skins" for your Sim, static objects for your house, etc); 8th Deadly Sim, <<http://www.8thdeadlysim.com/>> (same, including adult content such as skins of porn stars); FileShack, <<http://www.fileshack.com/browse.x?cat=613>> (same, including skins of real world people like Britney Spears, Bruce Lee, or Christina Aguilera).

⁴² Chris Trottier, lead designer for *The Sims Online*, has foreshadowed this, see *MMORPG.net Interview With Chris Trottier*, available at <<http://mmorpg.net/article.php?a=1004&p=2>> (discussing how user-created content is not in the first alpha of TSO, but once "we get support for this, these will be available for in-game shop owners to buy wholesale and price for the secondary consumer.") (visited 2/1/03).

⁴³ See Stephens, *In-Game Assets*, supra note 34 at 1516; Dibbell, *Unreal Estate* supra note 9.

⁴⁴ A couple of student Notes have investigated this question. See Daniel C. Miller, *Note: Determining Ownership in Virtual Worlds: Copyright and License Agreements*, 22 Rev. Litig. 435, 435 (2003); Stephens, *In-Game Assets*, supra note 34. Stephens has an interesting conclusion: she argues that avatar owners are currently the legal owners of their virtual assets, but that this points to a failure of intellectual property law. See *id.* at ___ ("If anything, intellectual property law perversely grants players property rights in the characters they have developed to permit sales of those characters. These sales illustrate the general failure of intellectual property law to protect digital-content creators, and this Note concludes that creators of digital content must turn to contractual or technological measures to protect their intellectual property.") Miller's Note is more equivocal. He investigates the application of various aspects of copyright law to the question of ownership and queries whether the existence of end-user license agreements might make the debate moot.

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This has actually been the subject of some real world litigation and posturing.⁴⁵ And this potential for conflict over virtual properties will inevitably increase. Indeed, the invention of some new rules regarding virtual properties seems invited by forthcoming virtual worlds like *There* or *Entropia* which incorporate direct market exchange mechanisms and allow participants to purchase virtual objects. If my avatar agrees to pay \$10 for a pair of virtual pants, doesn't that sound a lot like a real-world contract? But wait a second—what exactly did my avatar just purchase? And under the UCC, if I discover a pixilated rip or some bad stitching, can I return the pants for a refund?

In the sections that follow we will examine the nature of virtual world property systems, and articulate the fundamental issues that emerge over the ownership of virtual property. To begin, we explain how early social MUDs dealt with property issues, in virtual world environments that were intended to be open, community-minded, and enjoyed by all. We then examine the nature of property in the current virtual worlds, which are overwhelmingly privately owned by large corporations. Our fundamental question here is not to obtain a final answer to the question of who might own virtual properties, but merely to ask whether a claim of property in this context is ridiculous. We begin by focusing on the similarities and differences between property in the virtual and real worlds, and find that, from a descriptive perspective, there is little to distinguish virtual world property from real world property. Then we advance some normative claims about the issues inherent in recognizing virtual world property interests. In keeping with our overall thesis, we conclude here that we cannot simply ignore the property interests because they are not “real.” We conclude by asking how we are going to resolve property-based disputes between the corporate owners of virtual worlds, and the people who spend so much of their time in-world, creating the property at the heart of the dispute.

A. “Early” Conceptions of Virtual Property

Property rights in early leveling MUDs, like Trubshaw and Bartle's *MUD1*, were essentially rights in the avatar alone—there were some in-game markets for objects, but these were mostly gift economies—e.g. a more advanced player might

⁴⁵ See Stephens, *In-Game Assets*, supra note 34 at 1516.

sometimes give a newer player a helmet and armor in exchange for a favor. Early social MUDs, however, with their focus on object and room creation, spawned a host of new properties and potential markets. Despite this, cyberlibertarianism seem to dominate social MUDs, leading to public and commons property as a typical form of ownership.⁴⁶

For instance, in *LambdaMOO*, if I made a particularly interesting bonker—an object that forces another avatar to say “oif” or do something when you bonk them on the head with it⁴⁷—the normal practice was to let others copy it freely. Nor would I mind if you created a newer, better bonker by improving on my code. Not only does your appropriation of my code cost me nothing, but my *LambdaMOO* reputation is dramatically enhanced if there are hundreds of avatars going around using my bonker to bonk the unsuspecting. In a way, this sharing ethos hearkened back to the free release of the *Space War* and *ADVENT* code. And also like those programs, it had an element of pragmatism. Even if someone really wanted to sell bonkers, the challenge of establishing a functioning market for properly licensed bonkers (and policing against licensing violations) was probably not worth the candle.⁴⁸

However, even within the *LambdaMOO* community, the concepts of “property” and “ownership” in virtual assets surfaced almost immediately. For instance, in the earliest stages of *LambdaMOO*, a dispute arose over who owned the air-space over privately-owned territories, which became an important issue for the navigation of virtual aircraft.⁴⁹ Property disputes also arose over whether certain popular rooms and objects that people built were truly private or public, whether it was possible to bequeath personal objects to another when one’s avatar

⁴⁶ See e.g. Elizabeth Hess, *Yib’s Guide to MOOing*, at 67 (noting that various features of *LambdaMOO*’s objects are owned by all, available at <<http://www.yibco.com/ygm/>> (visited 3/21/03) [hereinafter Hess, *Guide*].

⁴⁷ See JargonFile, <<http://www.jargon.net/jargonfile/b/bonkoif.html>> (visited 3/21/03); Hess, *Guide*, *supra* note 46 at 146.

⁴⁸ Even building a functioning market in valuable property, ie diskspace quota, was beyond the governance structures of *LambdaMOO*. See Dibbell, *TINY LIFE*, 163, 167-9.

⁴⁹ *Margeaux vs. Yib*, see Philip Giordano, *Invoking Law as a Basis for Identity in Cyberspace*, 1998 STAN. TECH. L. REV. at *64. See also Jennifer L. Mnookin, *Virtual(ly) Law: The Emergence of Law in LambdaMOO*, 2 J. COMPUTER-MEDIATED COMM. (1996), available at <<http://www.ascusc.org/jcmc/vol2/issue1/lambda.html>> (visited 1/17/2003) [hereinafter Mnookin, *Virtual(ly) Law*].

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died, and exactly how much data space a participant people could use for building new rooms and objects.⁵⁰ This last conflict was resolved by a governance mechanism: an official Architecture Review Board imposed a “quota system” where additions to the *LambdaMOO* database above a certain limit would require official approval.⁵¹

In one property dispute noted by Lawrence Lessig, Martha Jones and Dank, neighbors in *LambdaMOO*, engaged in a nasty and protracted battle over Martha’s poisonous flowers and Dank’s dog.⁵² Both the flowers and the dog were—like the adjoining “properties” that Martha and Dank inhabited—nothing more than programmed objects in the database. But Dank was genuinely angered when his “dog” was killed by eating a poisonous “petal” from one of Martha’s “flowers” that had come onto Dank’s property. For her part, Martha was indignant: there was no reason for the “dog” to have “died,” as Dank could have programmed a hardier dog that was immune to Martha’s virtual poison. As a result, a real dispute existed over the boundaries between virtual real estate and the adverse effects of virtual chattels. Moreover, both parties invested in the dispute the kind of passion and righteous indignation usually reserved for real world, across-the-fence, property disputes.⁵³

It is revealing of the psychology of virtual worlds, and particularly of virtual property, that the property interests felt real to the parties in the arguments mentioned above. That is, none of the disputes simply dissipated with a realization that the whole enterprise was “just a game.”⁵⁴ This is not

⁵⁰ Mnookin, *Virtual(ly) Law*, *supra* note 49 at _____. See also Dibbell, TINY LIFE, 163-7. (discussing diskspace quotas and the governance mechanism introduced to deal with this).

⁵¹ Dibbell, TINY LIFE, 163-69.

⁵² LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE, 9-13 (1999)

⁵³ *Id.* at 12-13.

⁵⁴ For a discussion of the use of this “just a game” device, see Elizabeth M. Reid, *Text-Based Virtual Realities: Identity and the Cyborg Body*, in HIGH NOON ON THE ELECTRONIC FRONTIER: CONCEPTUAL ISSUES IN CYBERSPACE (Peter Ludlow ed., 1996) [Hereafter Reid, *Cyborg Body*]. Much the same issue emerged during the notorious “rape in cyberspace”, popularized by Julian Dibbell. See Dibbell, TINY LIFE, 11-30. For similar events occurring in JennyMUSH, a different MUD, see Elizabeth Reid, *Hierarchy and Power—Social Control in Cyberspace*, in COMMUNITIES IN CYBERSPACE 11107-33, at 115-6 (Marc A. Smith and Peter Kollock eds., 1999) For a discussion of the psychology of human rights in virtual worlds, see Part III, *infra*.

surprising—researchers in behavioral economics have found that people tend to become personally invested in objects that they perceive as belonging to them.⁵⁵ The “endowment effect” is a persistent cognitive bias where people over-value assets that they have acquired, against those that others own.⁵⁶ That is, people place higher values on objects they understand to be their own. For example, in one experiment students at Cornell were given a Cornell coffee mug and assigned the role of sellers, and other students were assigned the role of buyers. Students who were sellers valued the mugs much higher than the buyers, and were loathe to part with them, even at prices that were significantly higher than the stated value of the mugs.⁵⁷

One doesn’t need to witness many arguments between two year-olds over the ownership of a toy neither of them really need—“Mine!”, “No, mine!!” —to understand the primal appeal of ownership in our society.⁵⁸ This same ownership urge is present in the intangible as well. Consider how seriously some people take the protection of “their ideas,” even in contexts where those ideas cannot be protected using the laws of intellectual property.⁵⁹ As the early MUD disputes illustrate, the instinct to assert ownership—and even litigate—over what we believe is “ours” is inherent. It does not dissipate in virtual worlds.

B. The Descriptive Account of Virtual Property

If you want to own a castle in Britannia, home of *Ultima Online*, there are two ways to do it. The first way involves spending about 40,000 gold coins and

55 Richard Thaler, *Towards a Positive Theory of Consumer Choice*, 1 J. ECON. BEHAV. & ORG. 3 (1979);

56 For a comprehensive review of the experiments confirming the endowment effect, see Daniel Kahneman, Jack. L. Knetsch, & Richard H. Thaler, *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POLIT. ECON. 1325 (1990).

57 Daniel Kahneman, Jack. L. Knetsch, & Richard H. Thaler, *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POLIT. ECON. 1325, 1328-30 (1990).

58 Both authors wish to note their indebtedness to their children for this observation.

59 See *infra*, Part II.B.

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receiving a small house property deed, which is essentially a building permit.⁶⁰ You then spend the time and effort necessary to build up enough online wealth to afford the materials to build a modest wood hut. To do this, you could try killing monsters with your weapons, but obtaining wealth through such heroic pursuits is risky and the rewards are uncertain. If you're really serious about getting virtual gold pieces, the smarter way to proceed is by being a blacksmith. This means sitting in front of the computer clicking on iron ore deposits, carting them back to a forge, and knocking out breastplate after breastplate.⁶¹ If you do this for days on end you will eventually accumulate enough of the local currency to afford to build your hut, or if you are extraordinarily committed, perhaps, in time, a castle. Of course, in addition to the "click-slavery" of toiling over a virtually red-hot forge, you will need to pay real money—between ten and thirteen US dollars—month on month, for *Ultima Online's* subscription charge.

This method assumes that one is best off traveling the place where the work will need to occur. By analogy, consider the dilemma of an American in search of an Indonesian mask or South African Zulu basket. True, a person could conceivably travel to those places, study the art of making masks and baskets, and after years of toil produce your heart's desire with your own hands—just in the way you could produce a castle in Britannia. But most people would regard this as insanity—why not just buy one on eBay? And so the second method is just taking your US dollars and buying the foreign product from the native seller.

It took almost no time for this realization to dawn in virtual worlds. Foreign exchanges in currency and direct investment operate constantly between Britannia, Rubi-Ka, Blazing Falls, or Norrath, and real world bank accounts in the US, Canada, Australia, and Korea.⁶² The mechanics of it are simple: possessing some valuable asset in the virtual world (e.g., 1 million simoleons, a sword, or a level 50 avatar), I list it for sale on eBay, in the section devoted to such

⁶⁰ Dibbell, *Unreal Estate supra* note 9.

⁶¹ Dibbell, *Unreal Estate supra* note 9 at 108-9.

⁶² Dibbell, *Unreal Estate supra* note 9 at 109-11; Castronova, *Virtual Worlds, supra* note 5, at 2-5.

auctions.⁶³ The auction occurs, denominated in US dollars, and a bidder wins. The winner uses eBay payment mechanisms (Visa, Mastercard, PayPal) to transfer the agreed price in the real world.⁶⁴ I then agree with the auction winner on a meeting place in the virtual world, and when we meet there I hand over the in-world property.⁶⁵

This practice is so common that one can now establish reliable US dollar prices for various virtual world property. *Ultima Online* products range from a US \$5 for a pair of sandals, through US \$150 for spiffy battle-axes, to US \$750 for an impressive fortresses bound to make you the envy of the community.⁶⁶ In *The Sims Online*, the most popular asset for sale on eBay is currency, and one million simoleons will set you back about US\$180.⁶⁷ Other worlds have different exchange rates and different assets for sale. In fact, the amount of trade is so vast that it is possible to analyze the economies of virtual worlds in exactly the same way as we analyze real world national economies. Edward Castronova, in the study previously mentioned, has done exactly this for Norrath, the virtual world in *Everquest*.⁶⁸ He found some remarkable economic results. The *per capita* gross national product was U.S. \$3.42 per hour, which is a figure significantly higher than the *per capita* GNP of India or China.⁶⁹ Trade occurs regularly between Norrath and the United States, and as a result foreign exchange between the Norrathian currency and the US dollar is highly liquid. The value of one Norrathian platinum piece value is greater than the Japanese Yen or the Italian Lira.⁷⁰

63 See <<http://listings.ebay.com/pool2/listings/list/all/category1654/index.html?from=R11>> (visited 3/24/03). See also Dibbell, *Unreal Estate* *supra* note 9 at 109; Stephens, *In-Game Assets*, *supra* note 34 at 1516.

64 Stephens, *In-Game Assets*, *supra* note 34 at 1516.

65 *Id.*

66 Dibbell, *Unreal Estate* *supra* note 9 at 108.

67 See <<http://listings.ebay.com/pool2/listings/list/all/category1654/index.html?from=R11>> (visited 3/24/03).

68 Castronova, *Virtual Worlds*, *supra* note 5.

69 *Id.* at 3.

70 *Id.*

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The proof of the pudding of virtual economies is in the eating, or perhaps, more accurately, the selling. There are individuals who buy virtual property at low rates, from those who have no idea what the item may be worth, and then resell it on eBay for real world profit.⁷¹ There are some who make U.S. dollar, six figure incomes,⁷² and tales of one or two individuals who may make even more.⁷³ Moreover, there is an arbitrage possibility here that leads to the possibility of indirect employment: if the effective hourly wage is greater in Norrath than in the real world, then surely it should be possible to extract this differential? And of course, it is. A fly-by-night operation called Blacksnow Interactive set up a “point-and-click sweatshop” in Tijuana, where the hourly wage is considerably less than U.S. \$3.42.⁷⁴ Blacksnow paid unskilled Mexican laborers to play *Dark Age of Camelot* around the clock, and then sold the virtual assets they created.⁷⁵ When Mythic Interactive, the owners of *Dark Age*, cracked down on this practice, claiming intellectual property infringements, Blacksnow sued on the basis that Mythic was engaging in unfair business practices.⁷⁶ Blacksnow’s lawyer threw down the gauntlet:

What it comes down to is, does a...player have rights to his time, or does Mythic own that player's time? It is unfair of Mythic to stop those who wish to sell their items, currency or even their own accounts, which were created with their own time.⁷⁷

⁷¹ Dibbell, *Unreal Estate supra* note 9 at 108-11.

⁷² *Id.*

⁷³ Julian Dibbell, Audio Lecture on Virtual World Economies, Stanford Law School, available at http://videotux.stanford.edu:8080/ramgen/Courses/CIS/12022002_CIS_Virtual_Communications.rm (visited 3/20/03).

⁷⁴ Dibbell, *Unreal Estate supra* note 9 at 110.

⁷⁵ *Id.*

⁷⁶ *Id*; See also “Blacksnow sues Mythic for Online Property Rights”, <<http://www.kanga.nu/archives/MUD-Dev-L/2002Q1/msg00362.php>

⁷⁷ “Blacksnow sues Mythic for Online Property Rights”, <<http://www.kanga.nu/archives/MUD-Dev-L/2002Q1/msg00362.php>

Though the case *Blacksnow Interactive v. Mythic Interactive* vanished when the plaintiff's other legal problems forced a hasty retreat,⁷⁸ the issues remain. Virtual "property" has real world value. So does that mean it is really property, and if so, whose is it? The remainder of this section is devoted to a consideration of these questions, focusing initially on drawing comparisons between property in the real world, and the objects in issue here.

1. *Metaphysical Problems*

Any consideration of property interests in virtual assets probably needs to begin with their peculiar characteristics. After all, the broadswords, chairs, and castles of Britannia are simply entries in a database resident on a server, which permit the computer monitor of a participant to display one of many possible images that is already present within the software.⁷⁹ If Electronic Arts, the corporate owner of *The Sims Online*, turns off the servers, or just engages in a periodic database wipe, every piece of virtual property in Blazing Falls immediately disappears.⁸⁰ The dune buggies, dogs, and tiki bars of *There* are not real things but just electromagnetic shadows of underlying code—just like Oakland, and despite its name, there is no there *There*. Starting from scratch, one might assume that something so intangible can't be property at all because property, after all, should be something real.

⁷⁸ Dibblell, *Unreal Estate supra* note 9 at 110. See also Julian Dibblell, Audio Lecture on Virtual World Economies, Stanford Law School, available at http://videotux.stanford.edu:8080/ramgen/Classes/CIS/12022002_CIS_Virtual_Communications.rm (visited 3/20/03).

⁷⁹ Stephens, *In-Game Assets*, *supra* note 34 at 1518:
 "For example, multiple players may possess an iron sword. Only one copy of the software code that defines the appearance of an iron sword exists in the server memory, and the location of that code in the memory has an address. The character database only stores this address to represent the asset. When a player loses an iron sword, the server program simply deletes its address from the list of assets associated with that player's character; when a player gains an iron sword, the server program adds its address to the list."

⁸⁰ Database wipes are common during the beta phase of the development of any virtual world. The last wipe before the game goes live is sometimes called The Wipe. See e.g. "As the Big Wipe looms, players are mad... Why?", *The Sims Online Tribunal*, available at <http://tsotribune.net/xoops/html/modules/sections/index.php?op=viewarticle&artid=89> (visited 3/24/03).

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Yet the development of Western property law and property systems over the last 200 years has been characterized by a shift from the tangible to the intangible. In the distant past, property interests were indeed tied directly to the land or chattel.⁸¹ This was reflected the rituals of land transfer, which typically involved physically handing over of some soil from the plot. Leases had to be transferred for some physical object or amount, even if it were only a peppercorn.⁸² However, a metaphysical shift has occurred so that while today's real property interests may be *associated* with a tangible thing, the interests *themselves* are commonly understood as intangible. We are now blasé about this idea. We might call a piece of land our own, but what we mean is that we own a freehold interest, or leasehold, or easement. The common law property system of England and America has recognized these real but wholly intangible interests for hundreds of years.

Furthermore, while realty and personalty may still touch upon physical objects, intellectual property rights today are completely virtual interests. Copyrights and patents may obtain only upon tangible fixation or invention, but the property rights encompassed are not right in the physical evidence of their existence. Trade secrets involve absolutely no requirement of fixation or physical existence.⁸³ The secret ingredient in Coca-Cola⁸⁴ may never be written down, but the intellectual property system protects the subject matter nonetheless.⁸⁵ While we think of intellectual property rights as rights of property ownership, they are, in fact, really a means to exclude others from taking certain actions related to intangible notions. Upon these already-intangible property rights, a vast number of subsidiary intangible interests can

⁸¹ WILLIAM B. SCOTT, *IN PURSUIT OF HAPPINESS: AMERICAN CONCEPTIONS OF PROPERTY FROM THE SEVENTEENTH TO THE TWENTIETH CENTURY* (1977)

⁸² Nominal rents, especially during the feudal era, were often characterized as a "peppercorn rent", a peppercorn being the smallest value item that one could transfer. See CORNELIUS J. MOYNIHAN, *INTRODUCTION TO THE LAW OF REAL PROPERTY* ch. 1 §8 (2d ed. 1988) (discussing medieval English land law after the Norman Conquest, specifically the use of peppercorn rents in different types of feudal transactions); 1 *AMERICAN LAW OF PROPERTY* §1.5 (A. James Casner et al. eds., 1952) (same).

⁸³ Robert K. Hur, *Takings, Trade Secrets, and Tobacco: Mountain or Molehill*, 53 *STAN. L.REV.* 447, 469-70 (2000).

⁸⁴ Which is nutmeg, by the way.

⁸⁵ *Stewart v. Hook*, 45 *S.E.* 369, 370 (*Ga.* 1903) (establishing trade secret protection for the Coke formula).

be further created, including mortgages,⁸⁶ limited period licenses⁸⁷ or assignments, and so forth.⁸⁸

In fact, legal scholars have noted how markets in similar intangible properties have been conjured into existence through the expedient of simply declaring a saleable interest. Jessica Litman⁸⁹ has documented the emergence of the inchoate property interests, such as Hollywood's recognition of rights in subject's "true life" stories.⁹⁰ There is no legal intellectual property interest in life stories,⁹¹ but significant parts of the movie industry are built around the informal recognition of these interests as property. Recognition of these illusory property interests is vital, as they are used as collateral to obtain financing.⁹² Other scholars have suggested that a new type of property might exist in people's

⁸⁶ See e.g. Lorin Brennan, *Financing Intellectual Property Under Revised Article 9: National and International Conflicts*, 23 HAST. COMM. & ENT.L.J. 313 (2001) (examining all of the financial instruments possible using intellectual property as underlying asset).

⁸⁷ See e.g. Nicole Chu, Note: *Bowie Bonds: A Key to Unlocking the Wealth of Intellectual Property*, 21 HAST. COMM. & ENT.L.J. 469 (1999) (discussing David Bowie's time delimited securitization of his back catalogue).

⁸⁸ Novel divisions of the property are constantly being created. The GNU GPL allows for open source development of code, while reserving copyright to the creator. See GNU General Public License, available at <<http://www.gnu.org/copyleft/gpl.html>> (visited 3/4/03). Creative Commons is popularizing forms of "open source" license for non-software products, which reserve a minimal number of rights to the author and allow broader public access. See Creative Commons, *Licenses Explained*, available at <<http://creativecommons.org/learn/licenses/>> (visited 3/4/03).

⁸⁹ Jessica Litman, *Information Property/Information Privacy*, 52 STAN. L.REV 1283 (2000).

⁹⁰ *Id* at 1293-4.

⁹¹ See, e.g., *Seale v. Gramercy Pictures*, 964 F. Supp. 918, 929-31 (E.D. Pa. 1997) (dismissing Bobby Seale's right of publicity claims stemming from an unauthorized television depiction).

⁹² Jessica Litman, *Information Property/Information Privacy*, 52 STAN. L.REV 1283, 1293-4 (2000). See also William J. Murphy, *Proposal for a Centralized and Integrated Registry for Security Interests in Intellectual Property*, 41 IDEA 297 (2002) (discussing the different securities possible with IP).

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personal, private data, and might be pressed into service to protect privacy.⁹³ And, as scholars like Margaret Radin, Jerome Reichman, and James Boyle demonstrate, new property interests are generated by new cultural objects such as data,⁹⁴ ova,⁹⁵ and cell lines,⁹⁶ as soon as they become commercially valuable. Property regimes involving completely intangible subject matter and interests are therefore legion, making the tangibility problem of property really no problem at all.⁹⁷

Another obvious objection to virtual property being property might be their temporal restrictions. Participants in competitive or social virtual worlds

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- 93 Alan F. Westin, *PRIVACY AND FREEDOM* 324-25 (1967) (suggesting that we might protect information privacy by using property protection with tort liability); Kenneth C. Laudon, *Markets and Privacy*, *COMM. ACM* Sept. 1996, at 92 ("Why not let individuals own the information about themselves and decide how the information is used?"); Patricia Mell, *Seeking Shade in a Land of Perpetual Sunlight: Privacy as Property in the Electronic Wilderness*, 11 *BERKELEY TECH. L.J.* 1, 26-41 (1996) ; Richard S. Murphy, *Property Rights in Personal Information: An Economic Defense of Privacy*, 84 *GEO. L.J.* 2381, 2383 (1996) ; Jerry Kang, *Information Privacy in Cyberspace Transactions*, 50 *STAN. L. REV.* 1193, 1246-94 (1998) (arguing for information privacy as a commodity subject to default rules); Lawrence Lessig, *The Architecture of Privacy*, 1 *VAND. J. ENT. L. & PRAC.* 56, 63-65 (1999) ; Lawrence Lessig, *CODE AND OTHER LAWS OF CYBERSPACE* 122-35, 160-1 (1999) ; Pamela Samuelson, *A New Kind of Privacy? Regulating Uses of Personal Data in the Global Information Economy*, 87 *CAL. L. REV.* 751, 769-73 (1999) (noting benefits of a market in personal information); *Developments in the Law--The Law of Cyberspace*, 112 *HARV. L. REV.* 1574, 1644-48 (1999) (arguing for property in personal information through code not law); Pamela Samuelson, *Privacy as Intellectual Property?*, 52 *STAN. L. REV.* 1125 (2000) . *But see* Litman, *supra* note ____, at 1290-1302 (arguing against propertizing information as inimical to constitutional protections and incapable of providing the modern data privacy protections aimed for); Ellen Alderman & Caroline Kennedy, *THE RIGHT TO PRIVACY* 329 (1995) (arguing that personal information ownership is inconsistent with the First Amendment); Arthur R. Miller, *THE ASSAULT ON PRIVACY: COMPUTERS, DATA BANKS, AND DOSSIERS* 211-2 (1971) (arguing that real and personal property concepts are incommensurate with the moral values inherent in protecting privacy); Edward J. Janger, *Muddy Property: Generating and Protecting Information Privacy Norms in Bankruptcy*, 44 *WILLIAM & MARY L. REV.* ____ (2002, forthcoming) (noting problems with privacy regulation by property-based mechanisms).
- 94 J.H. Reichman, and Jonathan A. Franklin, *Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information*, 147 *U. PA L. REV.* 875 (1999).
- 95 *See* MARGARET JANE RADIN, *CONTESTED COMMODITIES* (1996) ; Margaret Jane Radin, *Cloning and Commodification*, 53 *Hastings L.J.* 1123, 1124 (2002) (noting how biological entities have now become propertized).
- 96 JAMES BOYLE, *SHAMANS, SOFTWARE AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY* (1996).

typically are logged on for a few hours a night, perhaps more on the weekend.⁹⁸
 In total, they are in-world on average about twenty hours per week.⁹⁹

Of course, if a monthly fee is not paid, they can't participate in the virtual world at all. Surely this sort of temporal restriction works against recognition of property here? Surely we are right in assuming that property interests cannot be evanescent. Like the Energizer Bunny they must keep going and going and going. But in the real world, many forms of property have temporal restrictions. Consider leaseholds, which involve temporal limitations to an otherwise unfettered use of the property.¹⁰⁰ Temporally delimited interests also include rights in possession, rights to occupy a place such as a hotel room for short periods, or time-limited riparian or agrarian or mineral-use leases. In our early property system an important interest was the usufruct, which was an immutable but non-transferable package of land rights which terminated on the death of the usufruct's owner.¹⁰¹ However, usufructs can exist for significantly shorter periods than the entire length of the owner's life: a towel draped on a beach for the day is considered to be a usufruct.¹⁰² Outside the Anglo-American property system, various other property systems have recognized the need for time-limited property rights: some pre-modern, indigenous groups recognized property interests that inured only during various seasons or at other specific periods.¹⁰³ In intellectual property systems, time also plays an important role.

- 97 As noted earlier, another commentator has concluded that rights in avatar properties do exist, and that the current problem is that they are possessed by avatars. See Stephens, *In-Game Assets*, supra note 34.
- 98 Axelsson and Regan, *Asheron's Call*; Castronova, *Virtual Worlds*, supra note 5, at 10; Nicholas Yee, *The Norrathian Scrolls: A Study of EverQuest (Version 2.5)*, available at <http://www.nickyee.com/eqt/report.html> (visited 3/21/03).
- 99 Axelsson and Regan, *Asheron's Call*, supra note ____; Castronova, *Virtual Economies*, supra note ____ at 10.
- 100 Robert Ellickson, Property in Land, 102 Yale L.J. 1315 , 1372-3 (1993).
- 101 *Id* at 1367-8.
- 102 *Id.*
- 103 WILLIAM CRONON, CHANGES IN THE LAND: INDIANS, COLONISTS, AND THE ECOLOGY OF NEW ENGLAND (1983). ("Sometimes property rights were limited to specific, temporary use interests--the right to farm in one place, or to hunt or fish in a given spot, or to use an area to collect firewood or forage for berries.")

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Patents and copyrights, in theory, expire after a set period of years.¹⁰⁴ Trademarks can be abandoned over time if they are not used in the marketplace. The time limitations inherent in virtual property are hardly different from those other temporally-limited interests which we see in real, personal, and intellectual property systems.

As we can see, the objections to virtual property sounding in tangibility, or time are descriptively implausible. Our property system cheerfully accommodates all of these characteristics, in one form or another, in various types of property interests. If there is a plausible descriptive objection to granting property interests in virtual assets then it isn't found here. If then the problem with granting virtual property rights is not in a descriptive disjunction between it and real world property, perhaps the concern rests with our normative justifications for the grant of property?

C. The Normative Account of Virtual Property

From the previous descriptive account it seems that it is not completely ridiculous to claim that there might be property rights in virtual assets. Virtual property is no less reasonable a concept than other types of intangible, temporary, contestable property interests. This is helpful, but insufficient. In this century and the last, entire fields of study have explored the justifications for the existence of various property rights. It is therefore necessary to consider normative accounts of property to determine where the justification for virtual property stands in relation to established forms of property.

There are as many normative accounts of property as there are property theorists, but we will confine ourselves to the three main accounts, and discuss

¹⁰⁴ *U.S. Const. Art. I, s 8, cl. 8.* "The Congress shall have Power . . . to Promote the Progress of Science and the Useful Arts, by securing for limited Times to Authors and Inventors the exclusive right to their respective Writings and Discoveries." Recent concerns over copyright term extensions go to the question of the constitutional limitations generated by the phrase "for limited Times". See e.g. Lawrence B. Solum, *Congress's Power to Promote the Progress of Science: Eldred v. Ashcroft*, 35 LOY. L.A.L.REV. 1 (2002); Scott M. Martin, *The Mythology of the Public Domain: Exploring the Myths Behind Attacks on the Duration of Copyright Protection*, 35 LOY. L.A.L.REV. 253 (2002); Kevin D. Galbraith, *Forever on the Installment Plan? An Examination of the Constitutional History of the Copyright Clause and Whether the Copyright Term Extension Act of 1988 Squares with the Founders' Intent*, 12 FORD. INT. PROP. MED. & ENT. L.J. 1119 (2002).

them in more-or-less chronological order: the utilitarian theory of Bentham and his economist-acolytes, the labor-desert theory of Locke, and the personality theories that stem from Hegel. These accounts differ in significant ways, and will often come to different conclusions about whether a given activity or transaction is appropriately characterized as property. Strangely, it transpires that all three theories would conclude—with qualifications perhaps—that those virtual entities claimed as property are, in “reality”, property.

1. Utilitarian Theories of Virtual Property

An action then may be said to be conformable to the principle of utility...when the tendency it has to augment the happiness of the community is greater than any it has to diminish it. —Jeremy Bentham¹⁰⁵

Jeremy Bentham’s “felicific calculus”¹⁰⁶ and the utilitarianism that flows from it, has become the dominant justification for the creation of private property. The utilitarian baseline principle of seeking “the greatest good for the greatest number”¹⁰⁷ provides the basis for the modern application of economics to almost every walk of human endeavor,¹⁰⁸ and for the creation of theories of justice predicated on social welfarist conceptions of utility, rather than immanent or deontological precepts of the good.¹⁰⁹ Within the subset of law that concerns itself with property, utilitarianism is invoked to give a warrant to private property generally and to provide a relatively simple bright-line policy. Thus, we should grant private property interests if to do so would increase overall

¹⁰⁵ JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION 12–13 (J.H. Burns & H.L.A. Hart eds., Athlone Press 1970) (1789) [Hereafter BENTHAM, MORALS].

¹⁰⁶ *Id* at 38- 41.

¹⁰⁷ *Id* at 12–13 .

¹⁰⁸ *See e.g.* RICHARD A. POSNER, FRONTIERS OF LEGAL THEORY, 95-141 (2001).

¹⁰⁹ LOUIS KAPLOW & STEVEN SHAVELL, FAIRNESS VERSUS WELFARE (2001) (arguing that public policy and the social weal will be best served by a welfarist view of justice, rather than deontological alternatives);

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utility, which is to say social welfare.¹¹⁰

The property literature on the granting of interests in tangible property is replete with utilitarian accounts: the “tragedy of the commons” is, for example, a utilitarian conception.¹¹¹ Intellectual property is no different. The Constitution says that Congress may protect patents and copyright “[t]o promote the Progress of Science and useful Arts,” and this justification is, of course, utilitarian.¹¹² The economic emphasis in current American intellectual property is equally utilitarian at heart. Scholars arguing whether intellectual property grants are too broad¹¹³ or too narrow¹¹⁴ for the public interest are using the felicific calculus as their normative ground. Even the Supreme Court has invoked utilitarianism in deciding intellectual property cases dealing with copyright,¹¹⁵ and patent.¹¹⁶

The invocation of utilitarianism within the property system is, therefore, an invocation of the assumption that the grant of property rights in an object will increase the production of such objects. People will only create/build/render into a useable form/make a given thing if we grant some type of (more-or-less) exclusive right to them to use that thing. If we assume that the creation of such objects is socially desirable, then the increase in these objects is also socially

¹¹⁰ RICHARD A. POSNER, *FRONTIERS OF LEGAL THEORY*, 95-141 (2001).

¹¹¹ Garrett Hardin is usually credited with the “discovery” of the tragedy: Garrett Hardin, *The Tragedy of the Commons*, 162 *SCI.* 1243, 1244-45 (1968) (demonstrating that a common resource will be prone to overuse since the value of the property will be sought by all, and none has a right to preclude other’s use). However, Scott Gordon and Anthony Scott had independently made the observation a decade earlier, but lacked Hardin’s remarkable turn of phrase. See H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 *J. POL. ECON.* 124, 134 (1954) (providing earlier description of the tragedy of the commons, using fishery as example) and Anthony D. Scott, *The Fishery: The Objectives of Sole Ownership*, 65 *J. POL. ECON.* 116-124 (1955) (same).

¹¹² See e.g. Linda R. Cohen and Roger G. Noll, *Intellectual Property, Antitrust and the New Economy*, 62 *U. PITT. L. REV.* 453, 461 (2001) (noting the relationship between the aims of the clause and utilitarianism).

¹¹³ Mark A. Lemley, *The Modern Lanham Act and the Death of Common Sense*, 108 *YALE L.J.* 1687, 1688-9 (1999) (arguing that trademark rights are greater than can be economically justified).

¹¹⁴ William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 *J.L. & ECON.* 265, 265-6 (1987) (arguing that grants of trademark are economically appropriate and efficient).

¹¹⁵ See e.g. *Mazer v. Stein*, 347 U.S. 201, 219 (1954); *New York Times Co. v. Tasini*, 533 U.S. 483, 495(2001).

¹¹⁶ *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945).

desirable.

What then of the utilitarian justification for real world property in the virtual world? For most of the assets in question, their creation or otherwise is presumably of little concern to society. Unlike, say a groundbreaking novel, or new building, the creation of a new avatar or a new invuln breastplate is of little obvious value to the outside world. However, to the individual owner, the creation of his or her avatar is of some significance. It is clear from the amount of (real world) time and (real world) money invested in the virtual world property that individuals are placing a very high value on the virtual objects they create. Castronova notes the amount of time and money that individuals lavish on the property that they create online.¹¹⁷ From the utilitarian perspective, society is just individuals in aggregate. And since millions of people are spending vast amounts of time and money in virtual worlds, it is easy to see that on utilitarian grounds there are strong reasons for the grant of property based on the value of the transaction to the individual user.¹¹⁸ Even on this narrow view of the social utility of avatars and virtual assets, utilitarianism provides adequate justification for considering these artifacts property.

There are two obvious objections to the grant of property rights in virtual worlds based on utilitarianism, the first of which stems from the application of the theory within intellectual property law. Utilitarianism may provide the necessary warrant for providing, say, exclusive rights to authors, but this is not an unfettered warrant. So we place limitations upon the grant of these rights: for various periods, for certain subject matter only, for limited purposes, and so on. This is, then, not so much an objection to the assertion of property rights in avatars, as an indication that we might place limitations of time, subject matter, or scope on these property rights. At the risk of appearing to duck the question, we think it too early in the development of virtual property types to ascertain what the appropriate balance in these interests might be. It is possible, for

¹¹⁷ Castronova, *Virtual Worlds*, *supra* note 5, at 10, 13-4,22-5.

¹¹⁸ As Castronova says: “If we take the economist’s view...and see [the users]...behavior as rational choice, we must concludes that VWs offer something that is perhaps a bit more than entertainment to which the players have become addicted. Rather, they offer an alternative reality, a different country in which one can live most of one’s life if one chooses.” Castronova, *Virtual Worlds*, *supra* note 5, at 10.

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example, that we will conclude that avatars in a social world such as *There* will be more worthy of protection than those in a leveling world such as *Everquest*. Or the reverse may be true. Who can tell at this stage? The conclusion here is to recognize that we might, in future, engage in a social balancing act with the nature of the provision of property rights based on the utilitarian theory. But this is not an objection to the general theory of virtual property which we have been advancing.

A second objection is that granting property interests to virtual world users reduces the welfare of the virtual world owners and other virtual world participants and as such reduces the utility to society. As a result, this argument goes, we should reject virtual property rights on utilitarian grounds. However, this objection is misplaced: we are using the utility function to provide a justification for the creation of property interests, not for the allocation of those interests. At this stage we can remain indifferent as to who receives the benefit of the property, while still maintaining—as we do—that utilitarianism provides adequate normative backing for the creation of property rights in virtual assets. Let us bracket the allocation issue for the moment,¹¹⁹ and return to it after considering the effect of the other property theories.

2. Lockean Theories of Virtual Property

[I]n the beginning all the world was America – John Locke¹²⁰

It is fitting, or amusing perhaps, that we consider how Locke's theory of property might apply to the virtual worlds. As the quotation demonstrates, Locke's conception of property stemmed in part from his understanding of an America of boundless, endless land. It is hardly surprising therefore that his view of property can be pressed into service in this new, seemingly boundless environment called cyberspace, in arenas like domain names,¹²¹ or more generally in the limitless, largely non-rival, arena that is intellectual

¹¹⁹ See *infra* Part II.D.

¹²⁰ JOHN LOCKE, TREATISE OF CIVIL GOVERNMENT AND A LETTER CONCERNING TOLERATION 32 (Charles L. Sherman ed., 1937) (1689)

¹²¹ Anupam Chander, *The New, New Property*, 81 TEX. L.REV ____, 25 (forthcoming 2002).

property.¹²² Virtual worlds are such an open-ended, endless resource that we might misquote Locke and claim that, in the beginning all the virtual worlds were America.

Locke's central property thesis is that "[w]hatsoever [man] removes out of the state that nature hath provided and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property."¹²³

Locke's property theory is a theory of desert-from-labor; that is, the person who expended labor to render the "thing in nature" into valuable form deserves to reap the value of it.¹²⁴ It is due to the application of work and expenditure of effort that, at least in the protean world that was "America," justifies the allocation of property interests. He examines the possibility that the value of the interest was inherent, that is, it came from nature itself, and concludes "if we will rightly estimate things as they come to our use...we shall find that in most of them, ninety-nine hundredths are wholly to be put on the account of labour [as opposed to any inherent value]."¹²⁵

Players and avatars therefore have a property claim in their virtual world assets based on the Lockean labor-desert theory. Clearly the assets in question emerge from the time and effort of the players. Though one might claim that playing a game isn't labor, there is no principled distinction that one can make between these two states, especially in a world where professional sportspeople get paid fortunes to play games. And, as anyone who has slaved over a virtual forge will tell you, "playing" the games comprising these virtual worlds can involve at

¹²² See William Fisher, *Theories of Intellectual Property*, in STEPHEN MUNZER, *NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY* 168, 184-9 (2001); PAUL GOLDSTEIN, *COPYRIGHT'S HIGHWAY* 11 (1994) ("Bubbling beneath all [intellectual property]...is the intuition that people should be able to hold on to the value of what they create, to reap where they have sown."); Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 *YALE L.J.* 1533, 1557-58 (1993) [hereafter Gordon, *Self-Expression*]; Justin Hughes, *The Philosophy of Intellectual Property*, 77 *GEO. L.J.* 287, 296-330 (1988); Seana Valentine Shiffrin, *Lockean Arguments for Private Intellectual Property*, in STEPHEN MUNZER, *NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY* 138-67 (2001).

¹²³ JOHN LOCKE, *SECOND TREATISE OF GOVERNMENT* § 27, at 19 (1980) (1690).

¹²⁴ See STEPHEN MUNZER, *A THEORY OF PROPERTY* (1990) (explaining Locke in terms of desert from labor); MARGARET JANE RADIN, *REINTERPRETING PROPERTY* 105-06 (1993) (calling the theory the "Lockean labor-desert theory").

¹²⁵ JOHN LOCKE, *TREATISE OF CIVIL GOVERNMENT AND A LETTER CONCERNING TOLERATION*, 28 (Charles L. Sherman ed., 1937) (1689).

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least as much tedium as any real world work.¹²⁶

All is not settled for our Locke-invoking avatar, however. There are objections that one can make to the application of Locke's theory to the virtual world. The standard objection made to Locke's vision is best summarized by Robert Nozick: "If I own a can of tomato juice and spill it into the sea so that its molecules mingle...do I thereby come to own the sea?"¹²⁷ Here, the corporate owners of the virtual world might argue that a player in their world could not claim property in any aspect of the virtual world, since his or her playing actions are little more than releasing tomato juice.¹²⁸ Unfortunately, two standard defenses to this objection apply here. The first defense notes that Locke's theory only grants property where the "labor makes for the greatest part of the value of [the asset]"¹²⁹ If the tomato juice made up the greatest part of the value of the sea, then we might think differently about granting maritime property rights to the tomato juice polluter. Or, if we could divide up the sea, and found that the tomato juice made up the greatest part of the value of one component, then again we might expect property rights in that component for our juice pourer. Within the virtual world context, the conclusion is that the player cannot claim property interests in the whole of the virtual world; but might legitimately claim them in small smaller divisible entity of the virtual world where his or her labor makes up the greatest part of the value of that entity. Which, of course, is exactly what

¹²⁶ "Stolle had had to come up with the money for the deed. To get the money, he had to sell his old house. To get that house in the first place, he had to spend hours crafting virtual swords and plate mail to sell to a steady clientele of about three dozen fellow players. To attract and keep that clientele, he had to bring [his avatar's] blacksmithing skills up to Grandmaster. To reach that level, Stolle spent six months doing nothing but smithing: He clicked on hillsides to mine ore, headed to a forge to click the ore into ingots, clicked again to turn the ingots into weapons and armor, and then headed back to the hills to start all over again, each time raising Nils' skill level some tiny fraction of a percentage point...Take a moment now to pause, step back, and consider just what was going on here: Every day, month after month, a man was coming home from a full day of bone-jarringly repetitive work with hammer and nails to put in a full night of finger-numbingly repetitive work with "hammer" and "anvil" - and paying \$9.95 per month for the privilege. Ask Stolle to make sense of this, and he has a ready answer: "Well, it's not work if you enjoy it.", Dibbell, *Unreal Estate supra* note 9 at 109.

¹²⁷ ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA 175 (1974)

¹²⁸ Which, given the amount of bloodshed involved in competitive worlds, is perhaps a more apposite metaphor than even Nozick might have imagined.

¹²⁹ LOCKE, TREATISE *supra* note ____ at 28

they are claiming in their virtual castles, swords, breastplates, and avatars.¹³⁰

The second defense to the Nozickian objection is that any property claim in the sea (or another other common resource) applies only to the extent of the so-called Lockean Proviso. That is, the property claim can only occur to the point where the property interest leaves “enough and as good” in common for others.¹³¹ Unlike physical resources like the sea, the provision of property interests in virtual worlds is not going to reduce any other property interests, since the world is essentially limitless.¹³² As a result, the Nozickian objection clearly fails.

3. *Personality Theories of Virtual Property*

[On Hegel’s view]...property was an extension of personality. Ownership expanded the natural sphere of freedom for the individual beyond his body to part of the material world. —Thomas Grey¹³³

Hegel’s conception of property as an extension of personality has been adopted and extended by a number of modern theorists, and in a number of ways.¹³⁴ In essence, the theories advance the thesis that property rights are related—either as necessary conditions for, or as connected to—human rights such as liberty, identity, privacy, amongst others. A simple example is the property interest which one has in a wedding ring or a house: rather than being merely property interests these objects and rights are deeply connected to one’s sense of self. As a result, even absent any other normative justification for having property rights in these objects, the theory of personality would argue in favor of property, in

¹³⁰ A second defense to the Nozickian objection is the so-called Lockean Proviso: the property claim based on Locke can only occur to the point where the property interest leaves “enough and as good” in common for others. See LOCKE, TREATISE *supra* note ___ at 22; Gordon, *Self-Expression*, *supra* note ___ at 1565-6. This is clear

¹³¹ LOCKE, TREATISE *supra* note ___ at 22;. See also Gordon, *Self-Expression*, *supra* note ___ at 1565-6.

¹³² Again, as in our discussion of Bentham, we emphasize that we are not suggesting that any particular party should be granted ownership of virtual property, but simply noting that *in itself*, the creation of a property right in virtual objects does not seem to infringe on the ability of others to possess virtual objects.

¹³³ Thomas Grey, *The Disaggregation of Property*, in 22 NOMOS, PROPERTY 74 (J. Roland Pennock & John W. Chapman eds., 1980).

¹³⁴ See e.g. Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982).

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order for the self to be realized, or other human need secured.¹³⁵

This theory cashes out in the virtual world in a particularly interesting way. First, it draws no distinction between the accumulation of real world chattels/land and its virtual analog. That is, to the extent that personality theory justifies private property in land or goods, it justifies property in virtual land or goods. The theory is predicated on the effect of the property interest on human needs like self-reliance, liberty, and so forth; and these are presumably not different just because the property in issue is virtual. More importantly, when it comes to my avatar, personality theory would seem to be strongly in favor of granting property rights. It is, by now, well-documented that people feel extremely connected to their avatar, not as a thing but a projection of their self.¹³⁶ As we shall discuss in more detail in Part III, the concept of the cyborg—the mechanical extension of one’s persona—is widely accepted.¹³⁷ One need only be attacked once in any first-person-shooter to realize quite how one projects a sense of one’s self into an avatar. And, of course, there are numerous examples of people who spend far too much time projecting their selves into their avatars, to the exclusion of the real world.¹³⁸ Indeed, some users identify more with their online persona than their real one.¹³⁹ As a result, it seems that the personality theory of property clearly justifies property rights in virtual realty, virtual chattels, and, *a fortiori*, avatars.

The cynic might argue that the identification of the human with the avatar would mean that there are significant limitations on the alienability of the property justified by this theoretical position. However, just as we assume alienability for wedding rings, or even non-essential body parts, the personality theory provides few limitations on the alienability of the avatar. As the Restatement of Property notes:

¹³⁵ The application of the personality theory to non-meaningful, fungible objects is unnecessary to consider here. In essence these objects must be tied to some other personal right for the property right to be justified. See Waldron, *supra* note ____ at 295-310. The simplified special case discussed here will be sufficient for our purposes.

¹³⁶ See *infra* Part III.B.

¹³⁷ *Infra* Part III.B.

¹³⁸ See Castronova, *Virtual Worlds*, *supra* note 5, at 10, fn. 10.

¹³⁹ Castronova, *Virtual Worlds*, *supra* note 5, at 22-4. See also the discussion on the nature of the cyborg, *infra* Part III.B.

Property interests are, in general, alienable. If a particular property interest is not alienable, this result must be due to some policy against the alienability of such an interest. The policy of the law has been, in general, in favor of a high degree of alienability of property interests. This policy arises from a belief that the social interest is promoted by the greater utilization of the subject matter of property resulting from the freedom of alienation of interests in it.¹⁴⁰

It is not obvious what policy one could formulate to justify inalienability of the property in avatars.

From the above discussion of the three main normative theories of property we have come to a surprising conclusion: there are strong normative grounds for finding that property rights should inhere in virtual assets, whether these be chattels, realty, or avatars. Further, based on the earlier discussion, we can conclude that there is no descriptive disconnection between our real world property system and virtual assets. From both descriptive and normative positions, it seems that virtual assets do, or should, attract property rights.

In saying this we do not suggest that virtual assets are unquestionably property; we merely suggest that the claim for property rights is stronger than the claim against it. Assuming that we can accept property rights in virtual assets, we next need to consider how these property interests should be allocated, and who owns the property.

III. OWNERSHIP OF VIRTUAL PROPERTY

The *Blacksnow Interactive* case was the first dispute over virtual property to make it to the real world court system, but it is unlikely to be the last.

Disagreements between the corporate-gods and the avatar-players are seemingly inevitable: in each of the leveling worlds we find either a flourishing real world trade in virtual assets,¹⁴¹ or heavy-handed attempts to squash these trades.¹⁴²

¹⁴⁰ Restatement of Property § 489 cmt. a (1944).

¹⁴¹ See <http://listings.ebay.com/pool2/listings/list/all/category4596/index.html> .

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Sony outlawed all trade in *Everquest* assets; though the prohibition has been relatively ineffective, and has moved the auctions away from eBay and onto less-tractable auction sites.

If we accept the property analysis given above, the obvious question is who owns the property, and how can disputes in virtual property be best resolved.

Unfortunately, though the question is obvious, the answer is not. It will depend on a number of factors including the nature of the world and the legal superstructure surrounding it. For instance, in LambdaMOO and other textual MUDs, the ethos is one of sharing and community, and property disputes seem to be capable of resolution within the confines of the virtual world.¹⁴³

Within the corporate worlds the resolution is less likely to be as tidy. Though property rights may exist in virtual assets, the allocation of those rights will depend largely on the End-User License Agreements (EULAs) that mark out the terms of access to the world.¹⁴⁴ Since they are written by the corporate owners, these EULAs inevitably grant all rights to the owner of the world.¹⁴⁵ Though it would seem then that the resolution of property disputes is simple—the god-companies get everything and the subscribers get nothing—virtual worlds are increasingly going to challenge the strength of EULA-based property demarcations. Consider situations, such as in *There* or *Entropia*, where a EULA grants all rights to the god-company, but the users of the world seem to be purchasing some kind of right directly from the corporations. It is likely that we will see courts rejecting EULAs to the extent that they are overly restrictive upon the economic interests of the participants within the world. And since there is already so much money and property at stake in these worlds—and there will be significant more in the future—we can expect a large number of suits surrounding the property issue, raising various legal theories that may try to circumvent or attack EULA restrictions.

As we said at the beginning: as we live out more of our lives in these worlds, any simple resolution of the property rights issues will become more difficult.

¹⁴² Castronova, *Virtual Worlds*, *supra* note 5, at 3.

¹⁴³ *Supra* note ____ and associated text.

¹⁴⁴ Daniel C. Miller, NOTE: Determining Ownership in Virtual Worlds: Copyright and License Agreements, 22 Rev. Litig. 435, 435 (2003); Stephens, *In-Game Assets*, *supra* note 34.

¹⁴⁵ *Id.*