Virtual Property in MMOGs

Daniel Gould, June, 2008

Massively multi-player online games ("MMOGs') played in virtual "worlds" have taken off in recent years, and the law is racing to catch up. Many basic issues remain unresolved by the courts, and predictions vary as to whether the law will expand to police games run by private companies[1], given that such games now involve millions of people investing substantial amounts of time and money.[2]

This paper will survey issues with virtual property in virtual worlds, with special focus on the game Second Life run by Linden Labs. MMOGs can be divided into two groups – scripted story-based games with missions and character levels, and open-ended games with no preset goals.[3] Second Life falls in the latter category, and is somewhat unique in that the majority of the game's content is generated by users rather than the game operator, and the users are explicitly given the intellectual property rights to their creations. However, Linden Labs explicitly claims the rights to the *data* representing both in-game creations and in-game purchases of virtual land or objects.

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[1] *See generally* Kevin Deenihan, *Leave Those Orcs Alone: Property Rights in Virtual Worlds* (3/26/08), available at SSRN: http://ssrn.com/abstract=1113402, last visited 4/12/08 (arguing for private ordering between game companies and players because it will preserve community and "fun"); *But Cf.* Kurt Hunt, *This Land Is Not Your Land: Second Life, CopyBot, and the Looming Question of Virtual Property Rights*, 9 Tex. Rev. Ent. & Sports L. 141 (2007) (arguing that the rights of players must be protected by extending property and IP protections to virtual worlds).

[2] One of the largest in-game markets is in Second Life, where users are investing 25 million hours per month and spending a quarter of a billion dollars per year on in-game property and objects. *See* http://secondlife.com/whatis/economy-graphs.php, last visited 3/25/08. The largest subscription revenues come from World of Warcraft, where 10 million players generated half a billion dollars of *profit* in 2007. *See* Reena Jana and Matt Vella, "Activision-Vivendi's game-changing deal", http://www.businessweek.com/technology/content/dec2007/tc2007123_075300_page_2.htm, last visited 4/12/08.

[3] Although scripted games dominate in terms of number of users and subscription revenues worldwide, the greatest legal uncertainty surrounds the non-scripted games.

Since the caselaw from virtual world disputes is limited, arguments both for and against recognizing new property rights will be explored. This paper concludes that the recognition of a limited set of virtual property rights would benefit both users and virtual world companies. For a statutory solution, a dual sovereignty approach modeled on the Indian Civil Rights Act is advanced, in which most disputes would be adjudicated in-world. For common-law expansion with respect to virtual land in particular, it is advised to adapt a model from existing real property forms, such as a fee simple with reversion, a long-term lease, or a housing cooperative.

I. **Distinguishing virtual property from intellectual property**

The number one problem hindering the development of virtual property rights is that everybody from journalists to judges tends to conflate virtual property with copyright, and consider virtual property as a subset of intellectual property.

Although both are intangible, virtual property is information that mimics some of the qualities of real-world property, such as rivalrousness, persistence and interconnectivity, as that information is interpreted by the rules of a computer program.[4] For example, a virtual hat in Second Life cannot be used by two persons at the same time, it retains its location even when the user is not logged in, and it can be seen by multiple Second Life users at the same time. Other examples of virtual property under this definition include locators (domain names, email accounts, phone numbers, etc.) identity

[4] *See* Charles Blazer, *The Five Indicia of Virtual Property*, 5 Pierce L. Rev. 137 (2006), citing Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1053-54 (2005).

data sets such as web site profiles (MySpace, Facebook), and financial instruments such as money and securities.[5]

Copyright interests, on the other hand, involve creative expression that must be fixed in a tangible form[6], but is to be distinguished from the particular "copy" in which it is fixed. The confusion between virtual and intellectual property arises because the Copyright Act defines copies as "physical objects," and information stored in computer memory does not evoke the idea of physical tangibility. Therefore, it is natural to think that the virtual object *is* the intellectual property, but that is incorrect. The virtual object as it appears in the game is virtual property that also functions as a "copy" of a work of intellectual property.[7]

Furthermore, bits in memory do not, by themselves, possess the qualities of real world property mentioned above. Rather, it is the bits in the context of the MMOG application interpreting them that simulates the features of physical property. This has also been described as "bits in context," since the bits are typically of no value to the user without access to the MMOG.[8] In various areas of the law, it is this reliance on a third party service that makes it counter-intuitive to recognize such bits as property.

Money stored in a bank works in a similar fashion – the computer representation of funds you have on deposit, which is not matched by actual cash on hand at the bank, is of no value without the banking system that permits payments, and prevents an increase

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[5] Since financial instruments have other unique qualities, it might be clearer to consider virtual property, intellectual property, and financial instruments to each be subsets of a broader category of "intangible property," similar to the concept of "general intangibles" from Article 9 of the U.C.C.. *See also* U.C.C. Revised §9-105(1)(providing that electronic chattel paper must consist of a single authoritative copy of the chattel paper record or records which is "unique, identifiable, and generally unalterable.")

[6] Bits in computer memory qualify as fixation for the purposes of the Copyright Act. *See* Mai Systems Corp. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993).

[7] This principle is well-understood in the context of sales of digital music files as "phonorecords" under the Copyright Act, and the payment of royalties associated with each music file copy.

[8] Michael Meehan, *Virtual Property: Protecting Bits In Context,* 13 Rich. J. L. & Tech. 1 (2006).

of the supply of money by means of duplication.[9] Nevertheless, most bank customers would say that they have relinquished possession of their money to the bank, not that the bank has agreed to maintain a digital representation of money that mimics the properties of a physical object only by virtue of statutes, technology, and social norms.

On the other hand, money in the bank is convertible into cash -- a fungible, physical object that can be exchanged for value in the real world, even between people operating under different laws and norms. The virtual sword's simulated physical characteristics cannot take shape in the real world, which is perhaps why some people are uncomfortable with using the property label to describe such a "thing."

II. In-game intellectual property

MMOG players can create a variety of intellectual property types, depending upon the tools provided in the game, which are fairly well defined and expected to be considered intellectual property. Often players will be creating text, stories, and characters merely by interacting with the game. More advanced toolsets may permit the uploading and recombination of music and images, or the creation of arbitrary character or object images with unique in-game properties.[10]

Some virtual creations still inhabit a legal grey area:

- Machinima
- Architectural works

[9] Even if matched by cash, the cash is no longer backed by gold, and therefore money has no intrinsic barter value without the banking system and the laws that support it. Notably, however, re are a few important distinctions between money and virtual property in an MMOG: (1) Money is fungible

[10] For example, Second Life contains a design tool for creating 3-D shapes that is nearly as sophisticated as some CAD tools. See, e.g., "Second Life Construction Tutorial," http://www.youtube.com/watch?v=mVSzh_QTE00, last visited 4/12/08.

- Fashion and useful articles

Machinima is the art of making movies by exporting video created through normal game interactions, and then overdubbing audio and dialogue to create an original story that could not be experienced in the game. Most game companies would consider such works to be unauthorized derivative works, with any joint rights ceded by the end-user under the End-User License Agreement ("EULA"), but some game companies tolerate machinima because it may increase publicity for the game. In Second Life, machinima is actually encouraged[11], and the founder of Linden Labs has created a machinima "demo" of an indie film for which he seeks financing.[12]

Buildings in the virtual world present a novel question – should they be covered under Section 120 of the Copyright Act as architectural works? Arguably they should not be protectible as architectural works because they cannot be inhabited or occupied by humans.[13] But then should they be considered designs or building plans, which are also considered architectural works? Yes, because the definition of architectural work includes designs embodied in "any tangible medium of expression."[14]

A more difficult question is whether the copying of an already constructed real-life building into the virtual world should be considered a "pictorial representation" of that building, and therefore exempted from a copyright infringement claim.[15] Such an in-

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[11] Second Life | Machinima, http://secondlife.com/showcase/machinima.php, last visited 4/12/08.
[12] Eric Linden, "Silver Bells and Iron Spurs," http://www.youtube.com/watch?v=OWY-adiPrKw, last visited 4/12/08.
[13] 37 C.F.R. §202.11. (mentioning both habitable structures and "permanent and stationary structures that are designed for human occupancy.") *See* Viad Corp. v. Stak Design, 2005 WL 894853 (E.D. Tex. 2005) (holding a kiosk does not qualify as a "building" under the Architectural Works Act merely on the basis of human use). However, the legislative history mentions that "building" includes structures "used, but not inhabited, by human beings; such as churches….gazebos…." H.R. Rep No. 101-735, 101st Cong. 2d Sess. 18-21, 24 (1990).
[14] 17 U.S.C. 120(a).
[15] *Id.*

world building is literally a 2D image, and yet it may be used in ways different from an image.

Another vexing issue is the treatment of clothing in Second Life. Much of the commerce involves the purchase of clothing for avatars. While Linden Labs generally will remove content that infringes copyright upon receiving a DMCA takedown notice, it has declined to do so for clothing based on the useful article doctrine.

It seems a bit odd to say that clothing on avatars is functional on the grounds that it would be embarrassing to have a naked avatar. Certainly, one cannot argue avatar clothing provides protection from the elements. Avatar clothing seems to function primarily as an aesthetic expression. In fact, avatar clothing and avatar bodies themselves can take any shape the game permits.

However, the cases distinguishing masks and costume heads from costume bodies suggest that the outcome for in-game fashion is unclear.[16] The Copyright Office embraced a mask/costume distinction under the theory that masks merely portray their own appearance, while costumes have a secondary purpose of clothing the body.[17]

In one recent case that might give some guidance on how to treat avatar clothing, a federal district court held that Teddy Bear doll clothing is not a useful article.[18] Avatar clothing should likewise be considered as a prop for a toy, albeit a virtual one, that is has no purpose other than to portray its aesthetic appearance in the game. If it is not, that also opens the door to invalidation of copyrights in virtual furniture and other objects that comprise an important part of the virtual economy.

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[16] *Compare* Masquerade Novelty Inc. v. Unique Industries, 912 F.2d 663 (3d Cir. 1990) *with* Whimsicality, Inc. v. Rubie's Costume Co., 891 F.2d 452 (2d Cir. 1989); *See also* Celebration Intern., Inc. v. Chosun Intern., Inc., 234 F.Supp.2d 905 (S.D.Ind. 2002).
[17] Policy Decision on the Registrability of Costume Designs, 56 FR 56530 (1991).
[18] Boyds Collection, Ltd. v. Bearington, 360 F.Supp.2d 655 (M.D.Pa. 2005).

III. Bragg v. Linden Labs - where contract and property law collide

In one of the few cases involving the assertion of rights to virtual land, a Second Life member's account was cancelled for an alleged violation of the terms of service, and his virtual land was seized by Linden Labs. Bragg had exploited a security hole in land auctions to purchase land at the opening price. Linden Labs not only seized that land, however, but also other land and objects that Bragg had rightfully purchased or created in his two years as a subscriber.

Bragg brought claims for breach of contract, unfair trade practices, fraud, and injunctive relief. As a threshold matter, a Pennsylvania district court judge held that the Second Life EULA's arbitration clause was substantively and procedurally unconscionable under California law, and then the case was settled.[19]

Bragg probably has little precedential value, both because a contemporaneous case addressing the same arbitration clause issues in Pennsylvania went the other way[20], and because the weight of caselaw suggests that procedural unconscionability will only be found if the user truly is not confronted with the onerous terms prior to use of the product or service in question.[21]

But the judge's language was important for what it reveals about the court's tendency to conflate virtual and intellectual property. In explaining the facts, the court

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[19] Bragg v. Linden Research, Inc., 487 F.Supp.2d 593 (E.D.Pa.,2007); *following* Comb v. PayPal, Inc., 218 F.Supp.2d 1165, 1172 (N.D.Cal.2002).
[20] *See* Feldman v. Google, 513 F. Supp. 2d 229 (E.D.Pa 2007).
[21] *See, e.g.,* ProCD v. Zeidenberg, 86 F.3d 1447, 1451 (7th Cir.1996); Hotmail Corp. v. Van$ Money Pie Inc., 47 U.S.P.Q.2d 1020, 1025 (N.D.Cal.1998). *Cf.* Specht v. Netscape Communications Corp. 306 F.3d 17 (2nd Cir. 2002) (holding that prudent reader would not have read onto next scrollable screen prior to accepting invitation to download and use free software).

wrote: "In November, 2003, Linden announced that it would recognize participants' full intellectual property protection for the digital content they created …. As a result, Second Life avatars may now buy, own, and sell virtual goods."[22] Further on, the court continued, "Second Life was the first and only virtual world to specifically grant its participants property rights in virtual land."[23]

Both of these statements are false. Although Linden did grant intellectual property rights, Linden's EULA explicitly states that users have no rights to any data that Linden stores, whether it represents virtual land or virtual objects.[24] There's also no distinction based on whether the virtual property was created or purchased. Linden Labs can delete the bits representing virtual land or objects from its servers at will for any reason or no reason, even though those bits have real-world resale value.[25]

What Linden cannot do under the EULA is claim intellectual property rights to images and other objects that users can make in the game using tools created by Linden. However, most users fail to realize that, unless they have a way of backing up their creations outside of Linden's servers, those intellectual property rights might be of limited value.

It is important to note why Bragg brought fraud claims – it is because Linden Labs' marketing heightened the confusion surrounding the distinction between intellectual and virtual property rights. The Second Life website states, "Make real money in a virtual world. That's right, **real money.**"[26]

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[22] Bragg at 595-96.
[23] *Id.* at 606.
[24] Second Life Terms of Service §3.3, http://secondlife.com/corporate/tos.php, last visited 4/12/08.
[25] *Id.* at §5.3. In fact, Linden Labs resells seized land on the market. Second Life Billing Policies, http://secondlife.com/corporate/billing.php, last visited 4/12/08.
[26] Second Life Marketplace, http://secondlife.com/whatis/marketplace.php, last visited 4/12/08.

The former CEO of Second Life, Philip Rosedale, stated, "What you have in Second Life is real and it is yours. It doesn't belong to us."[27] But compare those statements with this text from the Terms of Service:

> "3.2 You retain copyright and other intellectual property rights with respect to Content you create…. 3.3 Linden Lab retains ownership of the account and related data, regardless of intellectual property rights you may have in content you create or otherwise own."[28]

There can be no doubt that Linden Labs did not grant Bragg rights to any data when it sold him the real estate. What did Bragg actually buy then? According to the Second Life Knowledge Base, he bought the right to exclude other users of Second Life and alienate the land *inside the game*.[29] The global right to exclude and transfer is the very essence of property. What must be decided is whether those rights should extend outside the virtual world to restrict the game operator and other players, and what purchasers typically believe *ex ante*, so as to avoid fraudulent inducement to contract.

A survey of other cases further highlights the IP/VP (virtual property) distinction. For example, in Second Life, the case of *Eros v Simon* resulted in a $525 default judgment against a Second Life member for copying and selling virtual erotic furniture to

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[27] Michael Fitzgerald, "How I Did It: Philip Rosedale, CEO, Linden Labs", http://www.inc.com/magazine/20070201/hidi-rosedale_pagen_2.html, last visited 4/12/08.
[28] *Supra* note 24 at §§3.2 and 3.3.
[29] *See* "How do I reclaim land parcels from tenants in a Private Region?", https://support.secondlife.com/ics/support/KBAnswer.asp?questionID=4886 " How do I sell land?", https://support.secondlife.com/ics/support/KBAnswer.asp?questionID=4530 ; "How do I keep people off my land?', https://support.secondlife.com/ics/support/KBAnswer.asp?questionID=4064, last visited 4/18/08.

other players.[30] *Eros* was an intellectual property case, because it was the design of the furniture rather than specific instances of the furniture that was at issue.

In the Chinese game Redmoon, run by Arctic Ice, a hacker stole a player's virtual weapons that represented two years of work and $1200 in purchases, and the player managed to secure an injunction against the game operator to replace the stolen objects.[31] That case was a virtual property case, as it was the transfer of control of the virtual objects rather than the duplication or distribution of the underlying designs that was at issue. The court held that the game operator had a duty to make its servers more secure.

IV. Extending property law into the virtual world

A. International view

Although there has been no legislation on virtual property in the U.S., Asian countries have been enforcing various related rights for years. In 2006, a theft law in Taiwan was updated to apply to "those who acquire, delete, or change others' computer, or electronic record of relevant equipment [[i.e., virtual property] without cause"[32] This law specifically grants ownership of an electromagnetic record to the entity who controls it rather than the owner of the server upon which it resides.

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[30] Eros, LLC v Simon, http://virtuallyblind.com/files/ecf.nyed.uscourts.gov_cgi-bin_show_temp.pdf (E.D. NY 2006).
[31] "Online company taken back to court for virtual theft", http://news.xinhuanet.com/english/2004-02/11/content_1310083.htm, last visited 4/12/08.
[32] Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1056 (FN 204) (2005).

In South Korea, the law specifically recognizes a property interest in virtual possessions independent of the game operator[33], and as early as 2003, an astounding 22,000 claims of virtual theft were investigated by the police.[34]

In the U.S., other laws have been used to protect virtual property interests. For example, Blizzard Entertainment, the operator of World of Warcraft, successfully obtained an injunction against In Game Dollar, as part of a settlement, for making and distributing a program that automates some of the boring aspects of gameplay.[35] The claim proceeded under the Computer Fraud and Abuse Act and trespass to chattels claims, but the underlying motivation for bringing the suit was probably because the use of such tools, in addition to being perceived as "cheating," devalues the relative strength of all other players' virtual assets.

Blizzard has more recently filed a motion for summary judgment in a dispute over a similar game "bot", although this time alleging violations of the anti-circumvention provisions of the DMCA.[36] The use of copyright claims to resolve these kinds of disputes will only further confuse intellectual property and virtual property issues.

B. Benefits of virtual property in virtual worlds

There are numerous arguments for the extension of property rights into the virtual world. First, one of the most widely used arguments for private property, so common

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[33] Peter Brown, *Can Virtual Property Gain Legal Protection?*, IPLaw360 (Feb. 9, 2006) at 3, http://www.thelen.com/resources/documents/060209_IPL360.pdf, last visited 4/12/08.
[34] *See* Mark Ward, *Does Virtual Crime Need Real Justice?*, BBC NEWS, Sept. 29, 2003, http://news.bbc.co.uk/2/hi/technology/3138456.stm, last visited 4/12/08.
[35] Complaint, Blizzard Entertainment, Inc. v. In Game Dollar, Inc., http://virtuallyblind.com/files/in_game_dollar_complaint.pdf, last visited 4/12/08.
[36] Complaint, MDY INDUSTRIES, LLC, Plaintiff, v. BLIZZARD ENTERTAINMENT, INC., and Vivendi Games, 2006 WL 4028376 (D. Az. 2006).

that we take it for granted, is that property rights provide a utilitarian economic function that serves the public good.[37] Capitalism, and the competitive incentives which come with it, could not exist without property law. In the context of MMOGs, this argument becomes more and more compelling as the size of the market and the number of players grows.[38] Currently, the numbers are small enough that the absence or presence of such rights in MMOGs does not have a substantial impact on the majority of the public.

Second, Lockean labor theories suggest that gamers deserve the fruits of their labors so long as the public good is unharmed.[39] Many of the thornier areas of intellectual property law turn on balancing the interest of the public with the incentive to create that the private right provides. This argument works well for virtual objects created by gamers in the game, but works poorly for virtual land or objects purchased with a game currency that can be easily obtained with cash.

Third, Hegelian philosophy has been adapted to argue that property is linked to identity and personality.[40] This fits virtual worlds quite well, because the creation of a new identity imbued with personality from virtual clothing, weapons, accomplishments and other indicators is one of the social benefits of MMOGs.

Fourth, nearly every online game has generated a real-world market for the trading of both virtual objects and virtual currencies. Most game EULAs prohibit such activities, and therefore the existence of this grey market increases the possibility of fraud in online auctions.

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[37] *Id.* at 25.
[38] Balkin makes the strongest case that legal expansion in the virtual realm is inevitable because of the growing amount of time invested and the diverse purposes of the "players." Jack Balkin, Virtual Liberty: Freedom To Design And Freedom To Play In Virtual Worlds, 90 Va L Rev 2043, 2045 (2004).
[39] *See* Gregory Lastowka and Dan Hunter, *The Laws of Virtual Worlds*, 92 Cal. L. R. 1, 24 (2004), *citing* John Locke, Second Treatise of Government § 27, at 17 (Thomas P. Peardon ed., 1952) (1690); Margaret Jane Radin, REINTERPRETING PROPERTY 105-06 (1993) (defining the "Lockean labor-desert theory").
[40] *Id.* at 23, *citing* Margaret Jane Radin, *Property and Personhood*, 34 Stan. L. Rev. 957 (1982).

Fifth, regarding virtual land in particular, one might ask, if it isn't property, then what is the consideration the game operator gives to the game player? The answer is the right to exclude other players and alienate property in the game.[41] The key question is whether and how such rights should extend outside the virtual world, and further, whether they should be exercisable against parties who do not have privity of contract (i.e. other players) with the virtual property owner. There are many conflicts in which it would be more efficient and effective for one player to have standing in an action directly against another player rather than being forced to sue the game operator.

Sixth, virtual property laws would reduce self-help. Squads of vigilantes have already formed in Second Life. More importantly, however, there is the potential for real-world conflict. A dispute in China turned deadly when authorities refused to help a gamer recover a stolen virtual sword. So, the gamer tracked down the thief in the real world and stabbed him.[42]

C. Problems with virtual property rights in virtual worlds

Game operators have a different view of virtual property than game players, due to the underlying technology costs. Each parcel of virtual land of a given size requires a certain amount of Internet bandwidth and CPU power to support a reasonable number of players and objects interacting there at the same time. This variable cost is part of the reason why land is "taxed" via a monthly fee in Second Life. Unlike real world property,

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[41] According to the Second Life web site, "[o]wning land allows you to control land. You can prevent others from visiting or building there, change the shape of the land, sub-divide and sell it, and much more." Second Life, Land: How To, http://secondlife.com/community/land-howto.php (last visited Sept. 2, 2007).

[42] *Chinese gamer sentenced to life*, BBC News, http://news.bbc.co.uk/2/hi/technology/4072704.stm, last visited 4/12/08.

the creation of a new piece of virtual property consumes resources not just at the time of creation, but also by continuing to exist.

In early versions of Second Life, there was a 'tragedy of the commons' because there was a fixed number of virtual objects or "prims" that was determined by the total number of players, but no limit on the objects any one player might control. This led to certain players hoarding prims at the expense of other players. Linden Labs responded by setting a fixed number of objects per parcel of land.[43]

Therefore, one argument against recognition of virtual property rights suggests that it would overly restrict the game operator's freedom to make necessary updates that may adversely impact a minority of players' virtual property rights. These worlds are not static - the rate of service updates to fix problems caused by heavy server load (rather than just by programming bugs) is quite frequent.[44] In practice, however, serious disputes between players and the game operator tend to erupt not because of global rule changes, but because of a lack of due process or arbitrary singling out of a particular player for deprivation of virtual property.[45] Although most EULAs permit selective enforcement of game rules, this conflicts with the reasonable expectations of the players.[46]

Another argument is that the primary purpose of virtual worlds is to have fun, and virtual property is meant to provide status amongst the game community and escape from

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[43] *See* "Prim hogging", Second Life Wiki, http://secondlife.wikia.com/wiki/Prim_hogging, last visited 4/18/08.
[44] "Archive for the Service-Status Category," Second Life Blog, http://blog.secondlife.com/category/service-status/, last visited 4/18/08.
[45] "YOU … AGREE THAT LINDEN LAB HAS THE RIGHT, BUT NOT THE OBLIGATION, TO REMOVE ANY CONTENT (INCLUDING YOUR CONTENT) … AT ANY TIME FOR ANY REASON OR NO REASON, WITH OR WITHOUT NOTICE AND WITH NO LIABILITY OF ANY KIND." Second Life Terms of Service #5.5, http://secondlife.com/corporate/tos.php, last visited 4/18/08.
[46] "You release Linden Lab from your claims relating to other users of Second Life. Linden Lab has the right but not the obligation to resolve disputes between users of Second Life." *Id.* at #5.1 *See also* Bobby Glushko, *Tales of the (Virtual) City: Governing Property Disputes In Virtual Worlds*, 22 Berkeley Tech. L.J. 507, 527-530 (2007).

the real world.[47] For many people, games are played for the enjoyment of playing rather than as a means to an end outside the game, even though the entertainment is purchased. This notion is in tension with investing time or money in virtual property *as an asset.*

To continue, the imposition of property laws might ruin the game for the following reasons: (1) game operators ought to be able to protect players from the exploitation of in-game errors[48], (2) if a player can skip required work in a game by purchasing objects or powers of high status on the market, many other players view this ability as "cheating," and may be disinclined to play, and (3) some players play for the very purpose of engaging in behavior that would not be tolerated in the real world.

The first reason is a real problem in Second Life. For example, there are landbot software programs which search the land sales database for sales mistakenly set to be public rather than private, or sales accidentally priced too low, or situations where an earlier intended transfer failed due to a service outage. In these cases where players had trouble with the tools provided by Linden Labs, they had no recourse under the EULA.[49]

The second reason, regarding cheating, is best exemplified by the "gold-farming" problems in World of Warcraft, as mentioned above.[50] The automation of even tedious

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[47] *See generally* Kevin Deenihan, Leave The Orcs Alone: Property Rights In Virtual Worlds, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1113402, last visited 4/18/08. *Cf.* Edward Castronova, *The Right to Play*, 49 N.Y.L. Sch. L. Rev. 185 (2004).

[48] Although Second Life does not, 2 out of 5 virtual worlds go so far as to ban discussion of bugs on the game operator's forums. Andrew Jankowich, EULAW: THE COMPLEX WEB OF CORPORATE RULE-MAKING IN VIRTUAL WORLDS, 8 Tul. J. Tech. & Intell. Prop. 1, 31-32 (2006).

[49] To effect a gift, a user listed land worth $500 for one cent and told the intended gift recipient to purchase it immediately, but mistakenly set the sale to be public, and a landbot purchased it instantly. Eric Reuters, "Residents threaten lawsuit to force landbot ban", Second Life news center, http://secondlife.reuters.com/stories/2007/10/24/residents-threaten-lawsuit-to-force-landbot-ban/, Oct. 24, 2007, last visited 4/18/08. *Cf.* Taran, "Beware Landbaron Merlin: 'Poof and Your Land is Gone'", http://www.knowprose.com/node/17505?page=1, last visited 4/20/08.

[50] *Supra*, page 6.

aspects of gameplay is disfavored by some players, and they want the game operator to retain the power to punish such "cheaters."

The third reason, regarding players' varying motivations, goes to the philosophical core of gaming. Latowska has pointed out that the rules of many games are arbitrary and distinguishable in function from state laws, and therefore the judgments of referees should not be reviewable by the judicial system.[51] In the same paper, he noted that some courts have declined jurisdiction over disputes between players and game referees, and that many states have statutes protecting game referees from tort liability for errors made on the job.[52]

However, this position creates an uncomfortable tension between rules and laws when games involve activity that can border on the criminal.[53] In many sports, there are certain physical assaults, usually punishable with foul calls, which are considered part of the game and which do not subject players to criminal liability under the theory that the victim has given implied consent by participating in the game.

Hockey is one sport that pushes the boundaries of what is acceptable assault, and around a dozen NHL players have been successfully prosecuted.[54] The caselaw is more developed in Canada, where there have been over one hundred sports violence

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[51] Edward Latowska, "Rules of Play", at 13, draft paper presented at the Association of Internet Researchers' 8th Conference, Oct. 16, 2007, http://terranova.blogs.com/RulesofPlay.pdf, last visited 4/18/08. *Cf.* Orin Kerr, *Criminal Law in Virtual Worlds*, University of Chicago Legal Forum, http://ssrn.com/abstract=1097392, last visited 4/18/08 (collecting old poker cases where players were cheated and "stole" their bets back, and the court could only find no theft by analyzing whether the rules of the game were violated).

[52] *Id., citing* Biedzinksy, K.W., *Sports Officials Should Only Be Liable for Gross Negligence: Is That the Right Call?,* University of Miami Entertainment and Sports Law Review 11, 375 (1994).

[53] *See generally*, Dan Hunter and Greg Lastowka, Virtual Crimes, 49 NY L Sch L Rev 293 (2004-05).

[54] Tracey Oh, *From Hockey Gloves to Handcuffs: The Need for Criminal Sanctions in Professional Ice Hockey,* 28 Hastings Comm. & Ent. L.J. 309, 327 (2006).

convictions, than in the United States.[55] But penalties often remain mild. In one high profile hockey case, McSorley of the Boston Bruins was found guilty of assault with a deadly weapon by a British Columbia Provincial court for swinging his hockey stick at the victim's head, but his sentence was merely 18 months probation.[56] There have been some attempts at a U.S. sports violence bill, but none have made it out of committee.[57]

Returning to virtual worlds, in some games, crimes such as robbery and killing of characters are a deliberate and accepted part of the game. In less scripted MMOGs such as Second Life, however, the rules of misconduct are less clear, as are the player's goals, thus the implied consent of the players is more difficult to determine. The Community Standards in Second Life do provide prohibitions on actions such as assault, indecency, and harassment, and Linden Labs allows players to file reports of abuse or violation directly.[58] Furthermore, there is a multi-stage process for notifying and warning violators prior to account termination. However, the definitions of virtual offenses are vague, and, as *Bragg* demonstrates, Linden Labs is under no obligation to follow the process[59] and may terminate accounts without notice.[60]

One might wonder whether non-scripted MMOGs are even "games" since there is no scoring and no way to win or lose. In the case of Entropia, another non-scripted MMOG with an emphasis on selling virtual land, the EULA states that the company is

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[55] Diane White, *Sports Violence as Criminal Asssault: Development of the Doctrine in Canadian Courts*, 1986 Duke L.J. 1030 (1986).
[56] Ron Jourard, "McSorley found guilty of assault with weapon", Criminal Lawyer Ron Jourard, Oct. 17, 2000, http://www.defencelaw.com/hockey-assault.html, last visited 4/18/08.
[57] *See, e.g.*, H.R. 2263, 97th Cong., 1st Sess., 127 CONG. REC. 3480 (1981).
[58] Guide to filing an abuse report, Second Life Knowledge Base, https://support.secondlife.com/ics/support/default.asp?deptID=4417&task=knowledge&questionID=3989, last visited 4/18/08.
[59] *Supra* note 44. *See also* Glushko at 520 (describing how one player in the game Eve Online defrauded other players out of thousands of dollars via the Eve Investment Bank, and the game operator's inaction despite the fact that the alleged thief clearly violated the Terms of Service).
[60] 2 out of 5 virtual worlds have provisions for termination without notice. *Supra*, note 47 at 47-48.

providing the Entropia Universe as a "service" that is "not a game."[61] If an MMOG is not a game, then it seems a fair assumption that typical common law crimes occurring in game should generate legal consequences independent of the EULA.

A potential compromise solution called "interration", advocated by Edward Castronova, would split all MMOGs into two types: open or closed.[62] Open worlds would have economic exchange with the real world and be generally subject to real world property laws. Closed worlds would be designed solely for "play," and would therefore be held to a fixed number of rules designed to protect participants, and otherwise would be shielded from most real world laws. The closed world would achieve such status via a charter, not unlike a corporation. Whereas a corporation is a fictional person, the closed world would be recognized as a fictional place by virtue of compliance with the rules of the charter.

D. Intangibility and Services vs. Property

The most common attack made on virtual property rights is to point out that there are no tangible objects to which rights may attach. This argument is also the weakest. Property laws have consistently expanded to encompass new intangible rights, and many

[61] Entropia Universe EULA #2, dated 12/11/07, provided by MindArk, https://account.entropiauniverse.com/pe/en/rich/107004.html, last visited 4/18/08.
[62] *See* Edward Castronova, *The Right to Play*, 49 N.Y.L. Sch. L. Rev. 185 (2004).

commentators have argued persuasively that the intangibility of virtual assets should not be a factor in determining the existence and allocation of property rights in such assets.[63]

Furthermore, game operators explicitly admit the existence of the intangible rights by asserting ownership of those rights in the EULAs. For example, Entropia is careful to distinguish real and virtual property: "Virtual items will often have names similar or identical to corresponding physical categories such as 'people,' 'real estate,' 'possessions,'…. Despite the similar names, … MindArk retains all rights, title, and interest in…Virtual Items."[64]

The problem with tangibility as a precondition for property rights will become especially clear one day when a business holding substantially valuable virtual property goes bankrupt, and the creditors attempt to collect from the game operator. Article 9 of the U.C.C. provides for securitization of general intangibles, but provides no clear mechanism for creditors to seize them. States vary on this point. Some, such as Virginia, explicitly restrict garnishment to "liabilities," and refuse to recognize virtual goods as such. Others, such as California, recognize that all property of a debtor, both tangible and intangible, is subject to enforcement of a money judgment.[65]

These issues have already been addressed in a few cases involving domain names.[66] In *Umbro v. NSI*, the highest court in Virginia had to decide whether Network Solutions, the registrar for a domain name, could be forced to give the domain name to a

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[63] *See, e.g.,* ; Juliet M. Moringiello , *False Categories In Commercial Law: The (Ir)relevance of (In)tangibility*, 35 Fla. St. U.L. Rev. 119, 143-46 (2007). Joshua Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1089 (2005); Latowksa, *supra* note 37. *But see* Yochai Benkler, *There Is No Spoon*, *in* THE STATE OF PLAY: LAW AND VIRTUAL WORLDS (Jack Balkin & Beth Noveck, eds., 2006).
[64] *Id.* at #7.
[65] CAL. CIV. PROC. CODE. § 708.205 (West 1987). Cf. Constant v. Advanced Micro-Devices, Inc., 1993 U.S. App. LEXIS 31939, at *10 (9th Cir. 1993).
[66] *See generally* David Nelmark, Virtual *Property: The Challenges of Regulating Intangible, Exclusionary Property Interests Such as Domain Names*, 3 NW. J. TECH. & INTELL. PROP. 1 (2004).

creditor in a garnishment action.[67] The court found that a domain name is more of a service contract than a piece of property, and therefore outside the reach of creditors. Notably, the court reached this conclusion by treating the domain name as a type of intellectual property.[68]

The flaw in treating services and property as mutually exclusive in this context is that there are already important types of financial service-property hybrids recognized by Article 9 of the U.C.C.: accounts receivable, deposit accounts, chattel paper and negotiable instruments.[69] A related argument suggests that something which depends on a third-party service for its existence cannot be property. But the reliance on third-party banks to provide infrastructure and act as bailors does not lead one to conclude that money is not property.

In *Kremen v. Cohen,* a case involving conversion through fraud of the domain "sex.com," a California federal appeals court declined to follow *Umbro* and entered an injunction forcing the registrar to change ownership of the disputed domain name.[70] Although not troubled by the service element, the judge was constrained by the "merger" theory of intangibles which suggests that intangible rights must be represented by a

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[67] Network Solutions, Inc. v. Umbro Int'l Inc., 529 S.E.2d 80 (Va. 2000) *Followed by* Am. Online, Inc., v. Huang, 106 F. Supp. 2d 848, 858 n.29 (E.D. Va. 2000) (describing *Umbro* as standing for the proposition that "a domain name is not a 'thing' with a particular location, as it does not 'exist[] separate from [the] service that created it and that maintains its continued liability' "). *See also* Wornow v. Register.com, 778 N.Y.S.2d 25, 26 (N.Y. App. Div. 2004) ("We are in accord with authorities holding that a domain name that is not trademarked or patented is not personal property, but rather a contract right that cannot exist separate and apart from the services performed by a registrar . . . .").

[68] *Id.* at 86 n.13 (Va. 2000).

[69] U.C.C. §9-105.

[70] 337 F.3d 1024 (9th Cir 2003).

"document," such as in the case of a stock certificate. Therefore, he identified the entire domain name system ("DNS") as the document.[71]

Kremen was followed in New York in *Thyroff*, where the Second Circuit analyzed whether a claim of conversion could be brought to recover computer data.[72] In that case, a terminated employee claimed conversion of personal data stored on a company computer network to which he was denied access. The court found New York caselaw on the conversion of intangibles to be split, prompting a certified question to the New York Court of Appeals.

The Court of Appeals answered that the tort of conversion should be extended to cover intangible documents.[73] The court argued that electronic documents have come to possess value equivalent to physical documents in the business world, and discussed by way of analogy the evolution of financial intangibles. On this basis, the growing value of virtual world activities should lead courts to reach a similar result for virtual property.

A potentially stronger argument is to say that the right (though not necessarily the ability) to *control* something to the exclusion of others should be the dominant factor in recognizing property interests.[74] As applied to *Kremen*, the property interest in sex.com would depend in part on the NSI's system for controlling domain names, regardless of whether that system involves tangible or intangible "documents."

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[71] The California Supreme Court went even further quite some time ago, doing away with the merger requirement entirely. Payne v. Elliot, 54 Cal. 339, 341 (1880) (holding an action for conversion may apply to "any species of personal property.") *But Cf.* AdVnt Biotechnologies, LLC v. Bohannon, 2007 U.S. Dist. LEXIS 47160 (D. Ariz. June 28, 2007).

[72] Thyroff v. Nationwide Mut. Ins. Co. (Thyroff I), 460 F.3d 400, 403-04 (2d Cir. 2006).

[73] Thyroff v. Nationwide Mut. Ins. Co. (Thyroff II), 864 N.E.2d 1272, 1278 (N.Y. 2007).

[74] The RESTATEMENT (SECOND) OF TORTS § 222A(1) (1965) defines conversion as "an intentional exercise of dominion or control over a chattel which so seriously interferes with the right of another to control it that the actor may justly be required to pay the other the full value of the chattel."

Putting it all together, the above cases establish that (1) the (in)tangibility of game data is irrelevant to recognizing a property interest given the system of virtual land and object control, without which the putative virtual property has no real-world value, and (2) the game operator's *ability* to control that data on the servers does not dispose of whether an *in rem right* to the data exists, separately from both the ownership of the server chattel and any intellectual property rights embodied in the data.[75]

The evolution of tangibility and control as factors affecting property recognition can be better understood by examining corporate securities and Article 8 of the U.C.C.. Originally, ownership of stock was transferred by having the issuing company indicate the transfer in its books. This proved unwieldy as the equity markets grew, so the property right was merged into stock certificate documents, which could then be physically exchanged by brokers.[76]

As the volume and speed of modern finance transactions increased further, participants wished to reduce the costs associated with closing trades at the end of the day, so the indirect holding system emerged, in which a small number of securities intermediaries hold security certificates on behalf of the owners and mark changes of ownership on internal accounts.[77] The revised Article 8 further provides for "uncertificated securities," or in other words, intangible stock interests. Thus, ownership has been divorced from possession, and the property right has been recognized independent of anything other than the computer record of a third party.

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[75] The fair allocation of the right is a different matter, since the game operator explicitly claims the right under contract law via the EULA. However, an alternate model in which the game operator holds virtual property on behalf of players is not out of step with property jurisprudence.
[76] Ronald Mann & Jane Winn, ELECTRONIC COMMERCE 665-660 (2005).
[77] U.C.C. §8-102.

Is governmental interference and infrastructure of such complexity warranted in virtual worlds? To the extent that virtual worlds meld commerce and play, the pressure will build on the government to protect players and guarantee clarity of title in intangible interests. The EULAs in use today are confusing, often inconsistent with game operator marketing efforts, and insufficient to set expectations of the parties or resolve conflicts between game players.

Limited virtual property rights could be extended via statute, although the creation of too many non-contractual duties and liabilities for game operators will discourage new operators from entering the market, and existing operators might be prevented from experimenting with different forms of "government," thereby leading to a reduction in game diversity.

IV. In Search of a Metaphor

The benefits of defining some virtual property rights appear to outweigh the liabilities, but the best way forward remains unclear. What is needed is a metaphor for the relationship between the real world government, game operators and game players.

A. Game operator as feudal lord

The treatment of land in virtual worlds is often similar to the feudal system. The game operator never truly relinquishes title in the virtual land under the EULA and land

sale agreements, and requires land use fees distinct from player subscription fees. Put another way, the initial transfer of land from the game operator to the game player does not involve merely a fee simple, but rather includes the concept of reversion like a feudal *escheat*. Although some game operators provide a means to transfer land by operation of will upon death[78], in the absence of heirs the land will revert to the game operator.

Furthermore, as we have seen from disputes such as *Bragg*, the game operator reserves the right to seize land upon violation of the terms of service. In real property terms, this is a fee simple with condition subsequent, although unlike in the real world, the condition continues in perpetuity regardless of to whom the land is transferred.

Notably, Linden Labs has encouraged multi-tier ownership structures. A condominium system has emerged in Second Life whereby a game player can purchase a virtual island and then sell plots on the island to other players, often conditioned on covenants expressing the unique rules and personality of the island.[79]

B. Game operator as private college

The relationship between university and student is generally treated as contractual, and yet there is some notion of additional duties and obligations placed upon the university that go beyond the typical private actor, even when the university is a private university rather than a state university.

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[78] "How do I bequeath my Second Life account and assets?", Second Life Knowledge Base, https://support.secondlife.com/ics/support/KBAnswer.asp?questionID=4265.

[79] *See, e.g.*, Extropia Core Covenant at #3, http://core.extropiacore.net/?q=node/9 (mentioning enforcement of an architectural "theme" of futuristic technological utopia); C&F Virtual Estates Resident Covenant, http://www.secondland.com/covenant.aspx .

For example, consider the due process implications of expelling a student. That student loses all of the tuition previously paid, and any intangible value in the partially completed degree. In addition, degrees are considered to have real future economic value as a marital asset in the context of a divorce.[80]

Normally, disciplined students are only entitled to the specific procedural safeguards outlined in the university handbook.[81] Although private actors are generally not subject to the Fourteenth Amendment due process requirements, there has been some movement in the courts towards requiring due process and fundamental fairness[82], or similarly, requiring that decisions not be "arbitrary and capricious."[83] The bar for finding unfairness is quite high, however, and in school hearings, students cannot require the use of rules of evidence such as exclusion of prejudicial statements and hearsay.[84] Moreover, the evidentiary standard is usually a preponderance of the evidence or clear and convincing evidence rather than "beyond a reasonable doubt," even where the infraction involves criminal activity, the most common example being sexual assault.[85]

A less common dispute in this arena is the complaint of substantive vagueness in the rules, but this is perhaps relevant to the virtual worlds cases simply because of the nature of the EULAs used. In *Soglin v Kaufmann*, a political student group at a state university prevented other students from attending job interviews by physically blocking

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[80] *See* Richard Raymond, *A Biased Valuation: The Treatment of a Professional Degree in Divorce Actions*, The American Journal of Economics and Sociology, July, 1995.
[81] *See* Boehm v. University of Pennsylvania School of Veterinary Medicine, 573 A.2d 575, 579 (Pa. Super. 1990)(collecting cases); Tedeschi v. Wagner College, 404 N.E.2d 1302 (N.Y. 1980). *See also* Silets, *Of Student's Rights And Honor: The Application Of The Fourteenth Amendment's Due Process Strictures To Honor Code Proceedings At Private Colleges And Universities*, 64 Den.U.L.Rev. 47 (1987).
[82] *Id.* at 580 (collecting cases), *citing* Clayton v. Trustees of Princeton University, 608 F.Supp. 413 (D.N.J.1985).
[83] Ahlum v. Administrators of Tulane Educ. Fund, 617 So. 2d 96, 98-99 (4th Cir. 1993). Coveney v. Pres. of Coll. of the Holy Cross, 445 N.E.2d 136, 138 (Mass. 1983).
[84] *See* Schaer v. Brandeis Univ., 735 N.E.2d 373 (Sup. Ct. Mass. (2000).
[85] *Id.* at 379 (holding the school's clear and convincing evidence standard not fundamentally unfair).

a doorway, and some students were expelled for "misconduct."[86] The school's code did not provide further definition of "misconduct," and the court found the term vague enough to potentially violate First and Fourteenth Amendment rights.

The game operator is similar to a school insofar as it maintains a parallel and simplified system of rules which include some form of disciplinary process with lighter procedural safeguards, and in some cases, vague definitions of misconduct as compared with laws. Additionally, both entities use contracts that are arguably non-negotiated adhesion contracts.

C. Game operator as corporate town state actor

Largely a vestige of the 19th century, the corporate town was a town where all property was owned by a private corporation that typically employed the majority of residents. In one of the very few exceptions to the general rule that private actors are not bound by the First Amendment, the Supreme Court found in *Marsh v Alabama* that the company town performed all municipal functions and was therefore a state actor.[87]

This doctrine was further refined in *Rendell-Baker v. Kohn*, where the court laid out the public function test as asking "not simply whether a private group is serving a public function" but also rather "whether the function performed has been traditionally the *exclusive* prerogative of the State."[88] That case involved former teachers bringing an action against a private high school.

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[86] 418 F.2d 163 (7th Cir. 1969).
[87] 326 U.S. 501, 508 (1946).
[88] 457 U.S. 830, 842 (1982).

Although the game operator is a corporation that effectively controls all of the virtual world's property, and this is a better metaphor than a university or a feudal lordship, it would not be possible to say that the state is traditionally the exclusive provider of such gaming services.

D. Game operator as tribal nation

The unique type of dual sovereignty relationship that persists between the federal government and Indian tribal nations illustrates one potentially interesting model for balancing the interests of the virtual community and the state.

The Indian Civil Rights Act of 1968 was a statutory Bill of Rights for the Indian tribes, covering nearly every amendment, including due process, equal protection, the takings clause, and freedom of speech. However, in 1978 the Supreme Court held that, with the exception of *habeas corpus* actions, the Act must be enforced by the Indian tribal courts and federal courts shall have no jurisdiction.[89]

The majority wished to preserve some of the sovereignty of the tribal nations, and it is in this idea that there may be the seed of a compromise on virtual property laws. Congress could pass a statute requiring some basic rights to be extended in virtual worlds beyond the contractual EULAs, including recognition of virtual property rights and a related takings clause, but require that all but the most serious issues be adjudicated in the virtual world. This type of jurisdictional compromise might satisfy both sides because

[89] *See* Santa Clara Pueblo v. Martinez, 436 U.S. 49 (1978).

game players probably are not eager to incur the costs of litigation, and game operators would retain substantial power.[90]

The downside of this proposal is that, although it will make it easier for players to pursue actions against each other, it provides players with little recourse against the game operator. As Justice White noted in his dissent in *Santa Clara Pueblo*, "I cannot believe that Congress desired the enforcement of these acts to be left up to the very tribal authorities alleged to have violated them."[91]

In addition, the administrative burden and expense of running a more enhanced virtual judicial system would likely be passed on to game players in the form of higher subscription fees, unless the game players can create their own system of self-government for resolution of disputes between players.

V. Common law and the *numerus clausus* - Keep it simple?

The principle of *numerus clausus* refers to the judicial tendency to recognize a limited number of property forms so as to reduce information costs for persons other than the owner.[92] Property rights are *in rem* - they are tied to a particular thing and allow the owner to restrict the rest of the world from use of the thing without the necessity of forming contracts with each person. The greater the variety of covenants that may be

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[90] Following *Bragg*, Linden Labs has already modified its arbitration clause to provide for in-game arbitration for disputes involving less than $10,000. Robin Linden, "A Change to the Terms of Service, Aug. 17, 2007, http://blog.secondlife.com/2007/09/18/a-change-to-the-terms-of-service/ .

[91] *Id.* at 69.

[92] *See generally* Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*110 Yale L.J. 1 (2000).

attached to a piece of property, the more difficult it becomes for the public to learn of the restrictions, and the less likely it becomes to form a liquid market for such property due to high information costs. Thus, where property law meets contract law, the interests of simplicity sometimes trump the desires of the contracting parties.[93]

Given the complexity and variety of different virtual worlds' EULAs, it must be difficult for game players to discern potentially important differences between virtual properties. Therefore, courts might consider adapting existing common-law property forms, rather than intellectual property, to attack the problem.

For example, the sales of land to a game player by Linden Labs in Second Life could be described as a fee simple with reversion to the government upon abandonment or termination. Alternatively, to better balance the interests of game operators and game players, land sales by the game operator could be restructured as long term leases, which would provide more protection to game players than EULAs do currently, but still leave the game operator with the flexibility to customize the packaging of rights.

A third possibility would be to blend property and contract rights in already established hybrid forms. For example, equitable servitudes, or covenants running with the land, make the condominium or cooperative housing ownership model possible.[94] For co-ops, game operators could create subsidiary non-profit corporations to represent land or buildings in which occupants purchase various shares. In that system, since the entire property is jointly owned, forced forfeiture is not possible without a vote of the shareholders.

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[93] *But Cf. Id.* at 23, *citing* Garner v. Gerrish, 473 N.E.2d 223 (N.Y. 1984) (holding a "lease for life" enforceable, and overturning earlier caselaw that would convert such agreements into tenancy-at-will).
[94] *Supra* note 92, at n55, *citing* Neponsit Property Owners' Ass'n v. Emigrant Industrial Sav. Bank, 278 N.Y. 248 (NY 1938).

One example of expansion moving in the other direction, from property to contract law, is the evolution of the implied warranty of habitability in landlord-tenant law. Until somewhat recently, landlords could force tenants to waive any implied warranty as to the condition of the rental. But a reform movement in the 1970s took hold and, through caselaw and housing codes, it became impossible to enforce such a contractual waiver under many circumstances for residential tenants[95].

VI. Conclusion

This paper has explored a broad range of emerging property issues in virtual worlds, with an emphasis on distinguishing intellectual property jurisprudence from "virtual property," and some examination of legislative and judicial solutions based on analogous areas of the law.

Proposals for property rights expansion in virtual worlds might be criticized as overly ambitious, misguided, or perhaps premature.[96] But already, game operators are preemptively making changes based on other legal issues. In Second Life, Linden Labs introduced age verification for certain adult activities in 2007.[97] It also banned gambling,

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[95] Thomas E. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 Colum. L. Rev. 773, 826-27 (2001). *Cf.* U.C.C. §3-215.

[96] *Supra* note 1. *See also* Jullian Dibbell, "OWNED! Intellectual Property in the Age of eBayers, Gold Farmers, and Other Enemies of the Virtual State", available at http://www.juliandibbell.com/texts/owned.html, last visited 4/21/08.

[97] Daniel Linden, "Age and Identity Verification In Second Life," May 4, 2007, http://blog.secondlife.com/2007/05/04/age-and-indentity-verification-in-second-life/, last visited 4/21/08.

which led to a run on in-game banks and substantial losses for depositors.[98] This, in turn, led to the banning of unlicensed banks.[99]

As virtual worlds have evolved, they have blurred the line between games, community and business. The less scripted the game, the more likely it is to reflect the same conflicts and disputes found in the real world. Leaving these matters in the realm of contract law ignores serious transactional and reliance costs, and failing to meet modern expectations about *in rem* property rights will ultimately inhibit the real promise of creative expression and commerce growth that we now see in the distance.

[98] Robin Linden, Anti-Gambling Policy Update: FAQ, Aug 9, 2007, http://blog.secondlife.com/2007/08/09/anti-gambling-policy-update-faq/ last visited, 4/21/08
[99] Ken Linden, "New Policy Regarding In-World 'Banks'", Jan. 8, 2008, http://blog.secondlife.com/2008/01/08/new-policy-regarding-in-world-banks/, last visited 4/21/08.