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# What Virtual Worlds Can do for Property Law

Juliet M Moringiello



# WHAT VIRTUAL WORLDS CAN DO FOR PROPERTY LAW

# Juliet M. Moringiello\*

#### I. Introduction

This is an article about how disputes over virtual world items, such as virtual money, Second Life islands, and even "sex beds," can inform property law generally. Rights in these virtual world items, like rights in software and many other intangible assets, are transferred by standard-form agreements that are often designated as licenses. Other intangible assets, such as internet domain names, are likewise transferred by standard-form agreements that convey ambiguous property rights. In this article, I suggest that a study of virtual world assets and the agreements used in their transfer can help us to better understand property law as applied to intangible assets. That better understanding of property law can, in turn, assist us in interpreting the contracts that purport to define property rights in intangible assets.

A virtual world is an online environment in which thousands of people can interact with one another on a persistent basis through their online personae known as avatars. For many readers of this article, virtual worlds need no definition; it has been hard to read a major newspaper in the past several years without encountering an article about virtual worlds. In the past several years, Second Life<sup>2</sup> and other virtual worlds were featured in numerous articles in major American newspapers, including the *New York Times*, the *Washington Post*, and the *Wall Street Journal*.

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<sup>&</sup>lt;sup>1</sup> EDWARD CASTRONOVA, SYNTHETIC WORLDS: THE BUSINESS AND CULTURE OF ONLINE GAMES 1 (2005).

<sup>&</sup>lt;sup>2</sup> http://www.secondlife.com (last visited March 14, 2009).

<sup>&</sup>lt;sup>3</sup> See, e.g. Sara Corbett, Portrait of an Artist as an Avatar, N.Y. TIMES MAGAZINE, March 6, 2009, at 22; Stefanie Olsen, Storefronts in Virtual Worlds Bringing in Real Money, N.Y. TIMES, December 8, 2008, at B6; Katie Hafner, At Sundance, A Second Life Sweatshop is Art, N.Y. TIMES, Jan. 28, 2008, at C5; Louise

Virtual worlds have captured the attention of legal and other scholars. The legal literature tends to focus on the application of "real world" laws to the virtual environment. Some have discussed how our property laws should apply in virtual worlds; others have questioned whether virtual worlds need their own governance institutions.

On the other hand, some scholars in disciplines other than law have sought to eradicate the distinction between the "real world" and the "virtual world." Economist Edward Castronova labels virtual worlds "synthetic worlds," which he defines as "crafted places inside computers that are designed to accommodate large numbers of people." Rather than looking from the outside in to determine whether "real world" rules should apply in these synthetic worlds, Castronova argues that the true significance of synthetic worlds lies in the effects that "in world" activity will have on the outside, or "real" world. Anthropologist Thomas Malaby goes a step further, eschewing the term "virtual"

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Story, *Coke Promotes Itself in a New Virtual World*, N.Y. TIMES, Dec. 7, 2007, at C8; Shira Boss, *Even in a Virtual World*, 'Stuff' Matters, N.Y. TIMES, Sept. 29, 2007, at B9.

<sup>&</sup>lt;sup>4</sup> See, e.g. Robert O'Harrow, Jr., Spies' Battleground Turns Virtual; Intelligence Officials See 3-D Online Worlds as Havens for Criminals, WASH. POST, Feb. 6, 2008, at D01; Daniel Greenberg, Hate Those Pesky Security Lines?; Seeing the 'World' the Digital Way on Second Life, WASH. POST, Jan. 6, 2008, at P01; Alan Sipress, Where Real Money Meets Virtual Reality, The Jury Is Still Out, WASH. POST, Dec. 26, 2006, at A01.

<sup>&</sup>lt;sup>5</sup> See, e.g. Alexandra Alter, My Virtual Summer Job, WALL ST. J., May 16, 2008 at \_\_\_\_; Robin Sidel, Cheer Up, Ben: Your Economy Isn't As Bad as This One—In the Make-Believe World Of 'Second Life,' Banks Are Really Collapsing, WALL ST. J., Jan. 23, 2008, at A1; Anjali Athavaley, A Job Interview You Don't Have to Show Up For—Microsoft, Verizon, Others Use Virtual Worlds to Recruit; Dressing Avatars for Success, WALL ST. J., June 20, 2007, at D1; Emily Steel, Avatars at the Office—More Companies Move Into Virtual World 'Second Life'; Ugly Bosses Can Be Models, WALL ST. J., Nov. 13, 2006, at B1.

<sup>&</sup>lt;sup>6</sup> See, e.g., Bryan T. Camp, *The Play's the Thing: A Theory of Taxing Virtual Worlds*, 59 HASTINGS L.J. 1 (2007) (discussing the application of the Internal Revenue Code to virtual world transactions); Erez Reuveni, *On Virtual Worlds: Copyright and Contract Law at the Dawn of the Virtual Age*, 82 IND. L.J. 261 (2007) (arguing that copyright law should apply to virtual world creations); Leandra Lederman, "Stranger Than Fiction:" Taxing Virtual Worlds, 82 N.Y.U. L. REV. 1620 (2007) (discussing the application of United States tax laws to transactions in both scripted and unscripted virtual worlds).

<sup>&</sup>lt;sup>7</sup> See generally Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047 (2005) (proposing a theory of virtual property).

<sup>&</sup>lt;sup>8</sup> See, e.g. F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CAL. L. REV. 1 (2004) (arguing that virtual worlds are jurisdictions separate from tangible world jurisdictions); Jack M. Balkin, *Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds*, 90 VA. L. REV. 2043 (2004) (arguing that legal regulation of virtual worlds is inevitable).

<sup>&</sup>lt;sup>9</sup> EDWARD CASTRONOVA, SYNTHETIC WORLDS: THE BUSINESS AND CULTURE OF ONLINE GAMES 4 (2005). <sup>10</sup> EDWARD CASTRONOVA, SYNTHETIC WORLDS: THE BUSINESS AND CULTURE OF ONLINE GAMES 7 (2005).

in favor of Castronova's "synthetic" because the former term "founders on the very distinction that animates it: the *real* and the *virtual*." <sup>11</sup>

In this article, I will take another approach. Rather than asking whether real world laws can or should apply to virtual worlds, I will discuss the ways in which the study of virtual worlds can contribute to real world law. Specifically, I will explain what the study of virtual world assets can do for property law. As I have discussed in several other articles, lawmaking institutions have difficulty properly classifying rights in intangible assets. Several years ago, Joshua Fairfield identified some significant characteristics of "virtual property," explaining that such property can be experienced in ways that mimic the experiences that people have with tangible assets. In this paper, I argue that because of these unique characteristics, virtual world assets can help us understand the nature of property rights generally and rights in intangible assets in particular. This understanding can help lawmaking institutions fashion better rules governing transfers of rights in intangible assets. In this article, I use the term "intangible assets" to include all rights that cannot be transferred manually, such as intellectual property, internet domain names, and electronically-delivered software.

In an earlier article, I argued that "intangible" is not a significant property category for the purpose of creditors' rights laws. <sup>16</sup> In this paper, I expand my earlier analysis by arguing that virtual world assets graphically illustrate the different rights that

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<sup>16</sup> Moringiello, False Categories, supra note 13.

<sup>&</sup>lt;sup>11</sup> Thomas Malaby, *Parlaying Value: Capital in and Beyond Virtual Worlds*, GAMES AND CULTURE 2006 1, 141 at 144.

<sup>&</sup>lt;sup>12</sup> Two scholars have suggested that virtual worlds might provide a testing ground for legal rules and that such a use of virtual worlds would be desirable because of the difficulty of testing legal rules in the field. Caroline Bradley & A. Michael Froomkin, *Virtual Worlds, Real Rules*, 49 N.Y. L. SCH. L. REV. 103, 104 (2004).

Juliet M. Moringiello, Seizing Domain Names to Enforce Judgments: Looking Back to Look to the Future, 72 UNIVERSITY OF CINCINNATI LAW REVIEW 95 (2003); Juliet M. Moringiello, False Categories in Commercial Law: The (Ir)Relevance of (In)Tangibility, 35 FLORIDA STATE UNIVERSITY LAW REVIEW 119 (2007) (Moringiello, False Categories); Juliet M. Moringiello, Towards a System of Estates in Virtual Property, in Cyberlaw, Security & Privacy 241 (Sylvia Mercado Kierkegaard ed., 2007).

<sup>&</sup>lt;sup>14</sup> Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1049 (2005). Fairfield uses the term "virtual property" to describe all intangible assets that are rivalrous and mimic tangible assets.

<sup>&</sup>lt;sup>15</sup> At least one professor has used virtual worlds as a teaching tool in a first year Property class. *See generally* Elizabeth Townsend Gard & Rachel Goda, *The Fizzy Experiment:* Second Life, *Virtual Property and a 1L Property Course*, 24 Santa Clara Computer & High Tech. L. J. 915 (2008).

persons can hold in an intangible asset. Once we see that intangible assets encompass the very same rights that are embodied in tangible assets, we can understand that the law should not permit the unfettered customization of property rights in intangible assets by standard form agreements, just as the law does not permit the unlimited customization of property rights in tangible assets and real property. My thesis is that a study of virtual world assets can help us understand why the *numerus clausus* principle should be more rigorously applied to rights in intangible assets and that the *numerus clausus* can, in turn, assist us interpreting the standard-form agreements that convey rights in intangible assets.

To frame the discussions in this paper, I use two disputes involving Second Life assets, *Bragg v. Linden Research*<sup>17</sup> and *Eros LLC v. Simon*. <sup>18</sup> Although both disputes ended in settlements, <sup>19</sup> they provide an excellent framework within which to discuss property rights. These cases illustrate that treating "virtual world assets" as a discrete and novel legal category is misleading, because the same property rights that exist in the tangible, or "real" world exist in virtual worlds. Because these cases involve two distinct property issues, they can also illustrate why a study of virtual worlds can help us better understand property rights in intangible assets.

My analysis will proceed as follows. In Part II, I will briefly describe the disputes in *Bragg* and *Eros*. In Part III, I will explain virtual worlds and then parse the Second Life Terms of Service to illustrate the ambiguous nature of the rights granted by virtual world operators to participants in those worlds. In Part IV, I will explore a traditional property principle, the *numerus clausus* principle, and explain why that principle, which prescribes a standard set of property forms, is particularly useful tool for defining rights in intangible assets. In Part V, I will discuss the pervasiveness of licenses today and the

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<sup>&</sup>lt;sup>17</sup> The complaint in this case, originally filed in the Chester County, Pennsylvania court of Common Pleas, can be found at <a href="http://www.lawy-ers.com/BraggvLinden\_Complaint.pdf">http://www.lawy-ers.com/BraggvLinden\_Complaint.pdf</a> ("Bragg Complaint").

<sup>&</sup>lt;sup>18</sup> Complaint, Case 1:07-cv-04447-SLT-JMA (E.D.N.Y., filed 10/24/2007), available at <a href="http://www.citmedialaw.org/sites/citmedialaw.org/files/2007-10-24-Eros%20Complaint.pdf">http://www.citmedialaw.org/sites/citmedialaw.org/files/2007-10-24-Eros%20Complaint.pdf</a> ("Eros Complaint").

<sup>&</sup>lt;sup>19</sup> There are several reports of the *Bragg* settlement. *See, e.g.* <a href="http://www.lawspotonline.com/lawspot/vwlaw/liti/bragg.jsp">http://www.lawspotonline.com/lawspot/vwlaw/liti/bragg.jsp</a>. For the *Eros* settlement, *see* Judgment by Consent as to Defendant Thomas Simon, Case 1:07-cv-04447-SLT-JMA, filed December 3, 2007 ("Eros Settlement").

attempts by statutes and courts to reclassify ambiguous or novel property grants. My conclusion is that an understanding of intangible assets, aided by an appreciation of virtual world creations, will assist us in interpreting the ambiguous property grants that many licenses currently convey.

#### II. BRAGG AND EROS

#### A. Bragg v. Linden Research

Marc Bragg is a lawyer in West Chester, Pennsylvania.<sup>20</sup> In late 2005, he joined Second Life, the virtual world developed by Linden Research ("Linden").<sup>21</sup> In order to join Second Life, Bragg was required to signify his agreement to the Second Life Terms of Service by clicking an "I agree" icon.<sup>22</sup> Bragg was an active participant in Second Life, and according to the complaint that he filed against Linden in the Chester County Court of Common Pleas in October, 2006, he was interested in developing Second Life "real estate" because of his prior interest in land development.<sup>23</sup>

Of course, land in Second Life is *not* land as we know it in the tangible world, but it looks and acts a lot like tangible world land. The parties in *Bragg* defined the asset known as virtual land very differently in their court filings. Bragg, relying on Linden's public representations, <sup>24</sup> conceded that the land was made up of Linden's computer code, but claimed that he received "title and ownership rights separate and apart from the code itself." His complaint further distinguished the property right from its material manifestation by claiming that members' valuables in Second Life are "stored as electromagnetic records" on Linden's servers. <sup>26</sup>

<sup>&</sup>lt;sup>20</sup> http://www.chescolawyers.com.

<sup>&</sup>lt;sup>21</sup> Bragg Complaint, *supra* note at 16.

<sup>&</sup>lt;sup>22</sup> Bragg v. Linden Research, Inc., 487 F. Supp. 2d 593, 603 (E.D. Pa. 2007).

<sup>&</sup>lt;sup>23</sup> Bragg Complaint, *supra* note at 16.

<sup>&</sup>lt;sup>24</sup> On the Second Life web site, Linden tells members that they can "own" land. See notes - *infra* and accompanying text.

<sup>&</sup>lt;sup>25</sup> Bragg Complaint at 2.

<sup>&</sup>lt;sup>26</sup> Bragg Complaint at 13.

Linden, on the other hand, focused on the material making up the land in its answer. Linden denied conveying title to anything, instead describing its grant to Bragg as "a license to access Linden's proprietary server software, storage space, and computational power that enabled the experience of the 'virtual land' in Second Life."27

As I will explain in the next section of this article, there are several ways to acquire land in Second Life. The method at issue in *Bragg* was the auction. Linden periodically creates new parcels of this land and auctions them to Second Life members.<sup>28</sup> Bragg acquired numerous parcels of land – the list of parcels attached to his complaint is three and one-half pages long.

In order to buy land and other items in Second Life, Bragg acquired the Second Life currency, Lindens. Bragg purchased his Lindens with United States Dollars. Second Life members can maintain in-world accounts of their money and before the events that precipitated Bragg's lawsuit, his account held the equivalent of U.S. \$2,000.29

Bragg bought one of his parcels, Taessot, by taking advantage of an exploit in the Second Life system that allowed him to acquire the parcel cheaply. He did so by obtaining access, without authorization, to a page on the Second Life auction web site that enabled him to purchase land not yet released for auction.<sup>30</sup> This act violated the Second Life Terms of Service. Because of this breach of contract, Linden froze Bragg's account and removed Bragg's name from all of the virtual land that he had acquired, thereby depriving Bragg of his Lindens and all of his land.<sup>31</sup> Linden later sold this land to other Second Life members.

<sup>&</sup>lt;sup>27</sup> Linden Answer at 15.

http://secondlife.com/land/purchasing.php (last visited March 14, 2009). Bragg Complaint at 22.

<sup>&</sup>lt;sup>30</sup> Bragg v. Linden Research, Case No. 06-4925 (E.D. Pa.) Defendants Linden Research Inc. and Philip Rosedale's Answer to Complaint and Linden Research, Inc.'s Counterclaims against Plaintiff Marc Bragg (Linden Answer) at 20.

<sup>&</sup>lt;sup>31</sup> Bragg v. Linden Research, Inc., 487 F. Supp. 2d 593, 597 (E.D. Pa. 2007).

Bragg's complaint against Linden alleged several causes of action.<sup>32</sup> Most importantly for this article, Bragg claimed that Linden converted his property.<sup>33</sup> Conversion is defined in the Restatement (Second) of Torts 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."<sup>34</sup> In order to hold Linden liable for conversion, a court would have to find that Bragg had property rights in these Second Life assets.<sup>35</sup>

In October, 2007, the parties in *Bragg v. Linden Research* settled their dispute.<sup>36</sup> There was one published opinion in the case, in which the court held that one provision in the Terms of Service, the arbitration clause, was unconscionable.<sup>37</sup> The court never had the chance to analyze the rights granted to Bragg by the Terms of Service. In Part III of this article, I will describe the Second Life Terms of Use in detail, and explain the method by which Linden grants property rights to its users.

#### B. Eros LLC v. Simon

The plaintiffs in *Eros LLC v. Simon* are described in the complaint as some of the most successful merchants in Second Life. Kevin Alderman, the principal of the lead plaintiff, Eros, built the first in-world sex bed<sup>38</sup> and sells a host of adult-themed items,<sup>39</sup> The other plaintiffs sell items such as virtual clothing,<sup>40</sup> virtual furniture<sup>41</sup> and avatar

<sup>&</sup>lt;sup>32</sup> Bragg Complaint at 33-39.

<sup>&</sup>lt;sup>33</sup> Bragg Complaint at 39-40.

<sup>&</sup>lt;sup>34</sup> RESTATEMENT (SECOND) OF TORTS [add proper section].

<sup>&</sup>lt;sup>35</sup> See Kremen v. Cohen, 337 F. 3d 1024, 1029 (9th Cir. 2003) (addressing the conversion of a an Internet domain name, the court noted that [t]he preliminary question. . . is whether registrants have property rights in their domain names").

<sup>&</sup>lt;sup>36</sup> See <a href="http://www.lawspotonline.com/lawspot/vwlaw/liti/bragg.jsp">http://www.lawspotonline.com/lawspot/vwlaw/liti/bragg.jsp</a>.

<sup>&</sup>lt;sup>37</sup> Bragg v. Linden Research, 487 F. Supp. 2d 593, 611 (E.D. Pa. 2007).

<sup>&</sup>lt;sup>38</sup> A "sex bed" is "a digital bed with built-in sex position animations." Regina Lynn, *Stroker Serpentine*, *Second Life's Porn Mogul, Speaks, available at* 

http://www.wired.com/culture/lifestyle/commentary/sexdrive/2007/03/sex\_drive0330 (Stroker Serpentine is Kevin Alderman's alter ego).

<sup>&</sup>lt;sup>39</sup> Eros Complaint at 4.

<sup>&</sup>lt;sup>40</sup> Plaintiffs DE Designs, Kasi Lewis, and Teasa Copprue are described in the complaint as the sellers of some of the best selling avatar clothing and shoes in Second Life. *See* Eros Complaint at 6, 9, 12.

 $<sup>^{41}</sup>$  According to the Eros Complaint, plaintiff Linda Baca has sold thousands of items of virtual furniture to Second Life members around the world. Eros Complaint at 7-8.

skins.<sup>42</sup> According to the complaint, the items sold by the plaintiffs are protected by trademark and copyright laws.

Defendant Thomas Simon was a Second Life entrepreneur of a different sort. Rather than develop the animation programs, clothing, furniture and skins himself, he simply copied them and sold the copies to Second Life members. All of the objects that he copied were marked "no copy" or "no transfer." These markings make copying theoretically impossible, but there are security flaws in Second Life that enable copying of such objects. <sup>43</sup> Because he copied the items without the plaintiffs' authorization, the plaintiffs sued him for, among other things, trademark and copyright infringement. <sup>44</sup> Simon did not raise much of a defense; he was quoted in the *New York Post* as saying "[plaintiffs] can say whatever they want to say. It's a video game."

In January, 2008, the court entered a judgment by consent against Simon. The judgment required him to pay the plaintiffs \$525 in restitution and to make all of his Second Life transaction records available to the plaintiffs.<sup>46</sup>

#### C. Why Bragg and Eros Matter

If someone takes my bicycle from me without my permission, there is no question that the taker has committed conversion. My bicycle is tangible and historically only property that could be lost and found, in other words, tangible property, could be converted.<sup>47</sup> Whether intangible assets such as domain names and electronic business records can be converted is a question that has vexed several courts in the last decade.<sup>48</sup>

<sup>45</sup> Kathianne Boniello, *Unreality Byte\$*, *New York Post*, Oct. 28, 2007 at . .

<sup>&</sup>lt;sup>42</sup> The Eros Complaint describes plaintiff Shannon Grei as the seller of some of the best-selling avatar skin designs in Second Life. Eros Complaint at 11.

<sup>43</sup> http://virtuallyblind.com/2007/10/27/content-creators-sue-rase-kenzo/

<sup>&</sup>lt;sup>44</sup> Eros Complaint, *supra* note at 15-21.

<sup>&</sup>lt;sup>46</sup> Eros Settlement, *supra* note at 1-2 (entered January 2, 2008).

<sup>&</sup>lt;sup>47</sup> DAN B. DOBBS, ROBERT E. KEETON & DAVID G. OWEN, PROSSER AND KEETON ON TORTS (5<sup>TH</sup> Ed. 1984) 8 15 at 90.

<sup>§ 15</sup> at 90.

48 See, e.g. Kremen v. Cohen, 337 F.3d 1024, 1030-1034 (9<sup>th</sup> Cir. 2003) (holding that a domain name could be converted because it was merged in a document, the domain name system); Thyroff v. Nationwide Mut. Ins. Co., 864 N.E. 2d 1272, 1278 (N.Y. 2007) (holding that conversion applies to electronic business

In those cases, the courts have framed the issues before them broadly, asking whether *intangible property* can be converted.<sup>49</sup> As I discussed in an earlier article, classifying intangibles as a discrete category often leads to results of questionable value to the development of the law.<sup>50</sup>

Virtual world disputes give us a unique opportunity. Because virtual world property *looks* like tangible property (a virtual bicycle is represented in Second Life as a 3-D version of a bicycle), and *behaves* like tangible property (an avatar can ride a virtual bicycle, and if the avatar is doing so, no one else can ride the virtual bicycle), <sup>51</sup> virtual property might help us understand the nature of property rights in intangible assets in ways that disputes involving other intangible assets, such as domain names, cannot. The *Bragg* and *Eros* disputes illustrate why this is so.

Clearly, in the *Bragg* case, the defendant, Linden interfered with the plaintiff's right to use specific things. Those things, land and currency, happened to be intangible, yet they were also rivalrous. Marc Bragg had the right to exclude others from his virtual land,<sup>52</sup> and he had control over his currency account in the same way as we have control over our bank accounts. The second case, *Eros*, *LLC v. Simon*,<sup>53</sup> raises a different property issue, one of intellectual property rights.

Although cited as the first "formal recognition of virtual property by a U.S. court," <sup>54</sup> *Eros v. Simon* seems to be a straightforward trademark and copyright infringement matter. <sup>55</sup> Certainly the consent judgment recognizes that the plaintiffs had

records because "it generally is not the physical nature of a document that determines its worth, it is the imformation that is memorialized in the document that has intrinsic value").

<sup>&</sup>lt;sup>49</sup> Kremen, 337 F. 3d at 1020-1031; Thyroff, 864 N.E. 2d at 1276.

<sup>&</sup>lt;sup>50</sup> See generally Juliet M. Moringiello, False Categories in Commercial Law: The (Ir)relevance of (In)tangibility, 35 FLA. St. UNIV. L. REV. 119 (2007).

<sup>&</sup>lt;sup>51</sup> Joshua A.T. Fairfield, Virtual Property, 85 B.U. L. REV. 1047 (2005) (get pin cite).

<sup>&</sup>lt;sup>52</sup> See notes – and accompanying text.

<sup>&</sup>lt;sup>53</sup> Eros, LLC v. Simon, Civil Action No. 07-4447 (E.D.N.Y.), Complaint filed October 24, 2007.

<sup>&</sup>lt;sup>54</sup> Benjamin Duranske, *Second Life Content Creators' Lawsuit Against Thomas Simon (a/k/a Rase Kenzo) Settles; Signed Consent Judgment Filed [Updated]*, VIRTUALLY BLIND, Dec. 3, 2007, *available at* http://virtuallyblind.com/2007/12/03/kenzo-simon-settlement/.

<sup>55</sup> It is important to note here that the trademark infringement in *Eros* involved the in-world use of an in-world mark. An in-world use of a mark established outside of the virtual world, such as the use of Coca-

intellectual property rights that the defendant infringed, but it is not clear that the fact that the rights were appurtenant to virtual world property is significant. To be eligible for copyright protection, a work of authorship must be "fixed in any tangible medium of expression, now known or later developed, from which [it] can be perceived, reproduced, or otherwise communicated, wither directly or with the aid of a machine or device." <sup>56</sup> "Tangible," for the purpose of the Copyright Act, does not mean only items in paper or sculptural form; it includes works fixed in magnetic form that can be perceived only with a machine. <sup>57</sup> Because the creators' works, the sex beds and other virtual items, clearly are fixed in tangible from under this definition, much in the same way as a law review article that exists only in the author's computer, the classification of the items as "virtual" should have no significance. A creator of copyrightable content should have intellectual property rights in that content regardless of the Terms of Service. <sup>58</sup>

As I will discuss in detail in the next section, Linden purports to grant certain property rights in its Terms of Service. Marc Bragg certainly relied on this grant in his complaint, <sup>59</sup> as did the Eros plaintiffs. <sup>60</sup> It is unclear, however, why the *Eros* plaintiffs believed that they had to rely on such a grant to establish their property rights. They were clearly authors of creative (some might say very creative) works. The Copyright Act grants such persons their intellectual property rights in such creations. <sup>61</sup> Using the Terms of Service to define rights in Marc Bragg's land *may* be justified, after all, people commonly transfer property, particularly land, subject to restrictions. Restrictions on the

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Cola's mark on an in-world item that is not only not Coke, but not even a drink, might raise different issues. Candidus Dougherty & Greg Lastowka, *Virtual Trademarks*, 24 SANTA CLARA COMP. & HIGH TECH. L. J. 749, 774-775 (2008).

<sup>&</sup>lt;sup>56</sup> See 17 U.S.C. § 102(a) ("Copyright . . . vests initially in the author or authors of the work"); MELVILLE B. NIMMER & DAVID NIMMER, 1 NIMMER ON COPYRIGHT, § 5.01 ("the person claiming copyright must either himself be the author, or he must have succeeded to the rights of the author.").

<sup>&</sup>lt;sup>57</sup> MELVILLE B. NIMMER & DAVID NIMMER, 1 NIMMER ON COPYRIGHT § 2.03[B][1] (2008).

<sup>&</sup>lt;sup>58</sup> 17 U.S.C. § 201

<sup>&</sup>lt;sup>59</sup> Bragg Complaint, *supra* note at 3.

<sup>&</sup>lt;sup>60</sup> Eros Complaint, *supra* note at 4. *See also* Eric Sinrod, *Perspective: When Virtual Legal Chickens Come Home to Roost*, CNET News.com, November 7, 2007, *available at* <a href="http://news.cnet.com/When-virtual-legal-chickens-come-home-to-roost/2010-1043">http://news.cnet.com/When-virtual-legal-chickens-come-home-to-roost/2010-1043</a> 3-6217255.html ("Second Life residents are governed by Terms of Service which specifically allow users to retain all intellectual property rights that they create or own in Second Life").

<sup>61 17</sup> U.S.C. § 201 (a).

use of land, however, must take specified forms in order to bind persons other than the parties to the original conveyance. <sup>62</sup>

All items, tangible and intangible, can embody many property rights. Using a bicycle again as an example, a Second Life member, Angie, might own a bicycle in Second Life. Angie is not very creative, so she bought the bike from the hypothetical vendor Second Life Cycles, which makes and markets the SL Wheels brand of bike. Angie, through her avatar, can ride the bike, and while she is doing so, no one else can ride the bike. If another person, Bill, takes the bike, Bill has taken an action similar to that of Linden in the *Bragg* case – he has deprived Angie of her rights to possess and use the bike.

If Bill makes copies of the bike and sells those copies as SL Wheels bikes, however, he violates the property rights of another entity, Second Life Cycles. The rights violated here, however, are analogous to those violated by the defendants in *Eros* – they are intellectual property rights.

Intellectual property rights are often the subject of license agreements. A copyright owner, such as an author, may want to grant the right to distribute her work to another person. The license is a grant of permission to do something that would otherwise result in copyright infringement. Licenses, however, have become ubiquitous on the internet,

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 $<sup>^{62}</sup>$  William B. Stoebuck & Dale A. Whitman, The Law of Property §§ 8.14, 8.23 (3 $^{\rm rd}$  Ed. 2000).

and these licenses bear little resemblance to traditional licenses of intellectual property rights. In the next section, I will briefly explain virtual worlds and then discuss the Second Life Terms of Service. The Second Life Terms of Service is an example of the new breed of internet licenses that grants property rights that bear little resemblance to known rights.

#### III. WHAT IS VIRTUAL PROPERTY AND WHERE DOES IT COME FROM?

### A. Scripted and Non-Scripted Worlds

Discussions of property in virtual worlds inevitably generate one question: "Isn't a virtual world just a game?" In some cases the answer is yes. On the other hand, virtual worlds such as Second Life are not games at all; they are new means of interaction, much as the internet itself was, not long ago, a new means of interaction. In this section, I will explain the differences between scripted worlds and non-scripted worlds, and then discuss portions of the Second Life Terms of Service in detail.

The general definition of virtual world is an online environment that is both persistent and dynamic. It is persistent because it does not cease to exist when the participant turns her computer off; it is dynamic because it is continuously changing.<sup>63</sup> Within this definition are two separate categories of virtual worlds, scripted and non-scripted. Games such as World of Warcraft<sup>64</sup> and social worlds such as Club Penguin<sup>65</sup> fall into the scripted category, while Second Life is a non-scripted world. A key difference between the two worlds is the members' ability to create content. Participants in scripted worlds have no ability to create in-world items.<sup>66</sup> In non-scripted worlds, however, content is generated and provided by members, who have the essentially

<sup>&</sup>lt;sup>63</sup> F. Gregory Lastowka & Dan Hunter, *Virtual Worlds: A Primer, in* The State of Play, Law, Games, and Virtual Worlds, 13, 15 (Jack M. Balkin & Beth Simone Noveck ed., New York University Press 2006).

<sup>64</sup> http://www.worldofwarcraft.com

http://www.clubpenguin.com. Club Penguin is a virtual world designed for children in which children interact through their penguin avatars. http://www.clubpenguin.com/parents/club\_penguin\_guide.htm#what Candidus Dougherty & Greg Lastowka, *Virtual Trademarks*, 24 SANTA CLARA COMP. & HIGH TECH. L.J. 749, 760 (2008).

unfettered ability to create items using raw materials provided by the virtual world developer.<sup>67</sup>

A participant in a scripted game world acquires in-world items by playing the game. A player advances by acquiring game objects. These game objects grant powers to the player, and the player uses these powers to achieve higher status in the game. <sup>68</sup>

Designers of scripted games tend to eschew commodification of their games. One reason for their position is that the game designers have a great interest in the progression of the game. The gamers themselves have certain expectations as well; if a participant spends hundreds of hours achieving a top player level, that participant does not want someone who bought his status to surpass him in the game. William Bartle, a noted game designer, compared the commodification of online games to the ability of any individual to purchase the world high-jump record and be recognized as the best high jumper in the world. According to Bartle and other game designers, game operators should have the ability to terminate traded characters because traded characters interfere with the game's ability to function as a game. <sup>69</sup>

Because of this interest in the progression of the game, the terms of use for virtual worlds such as World of Warcraft forbid real-world trades of these assets. World of Warcraft's Terms of Use make it clear that "[g]ame play is what World of Warcraft is all about." In furtherance of that view, the terms forbid the trading of player accounts, and similarly state that players have no "right or title to . . . the virtual goods or currency appearing or originating in the game." All of the content is provided by the developer,

<sup>&</sup>lt;sup>67</sup> Candidus Dougherty & Greg Lastowka, *Virtual Trademarks*, 24 SANTA CLARA COMP. & HIGH TECH. L.J. 749, 769 (2008).

<sup>&</sup>lt;sup>68</sup> Cory Ondrejka, *Escaping the Gilded Cage: User Created Content and Building the Metaverse*, 49 N.Y.L. SCH. L. REV. 81, 89 (2004).

<sup>&</sup>lt;sup>69</sup> RICHARD A. BARTLE, *Virtual Worldliness, in* THE STATE OF PLAY, LAW, GAMES, AND VIRTUAL WORLDS 31, 35-37 (Jack M. Balkin & Beth Simone Noveck ed., New York University Press 2006).

 $<sup>^{70}</sup>$  World of Warcraft Terms of Use Agreement,  $\P$  9 C. , at

http://www.worldofwarcraft.com/legal/termsofuse.html (last visited March 9, 2009).

<sup>&</sup>lt;sup>71</sup> World of Warcraft Terms of Use Agreement, ¶ 11, *at* <a href="http://www.worldofwarcraft.com/legal/termsofuse.html">http://www.worldofwarcraft.com/legal/termsofuse.html</a> (last visited March 9, 2009). Notwithstanding these prohibitions, property won in World of Warcraft is routinely traded on other web sites. *See, e.g.* <a href="http://www.buymmoaccounts.com/">http://www.buymmoaccounts.com/</a> (last visited March 9, 2009) (promising that all accounts are "protected & guaranteed from being reclaimed or disabled"); <a href="http://accounts.com/buy/mmo/wowaccounts">http://accounts.com/buy/mmo/wowaccounts</a> (last visited March 9, 2009).

and the Terms of Use employ language that clearly grant limited rights to make specified uses of that content.

In non-scripted worlds, participants design the content and dictate the progression of life in the world. A person who joins Second Life can acquire assets in several ways. One way is to make them. Doing so is a complicated process, as Linden provides only the basic building units and textures. To build a house or any other item in Second Life requires both time and skill. As persons with these skills proliferate in Second Life, they establish retail outlets for their creations. A Second Life member without much time or skill can purchase the items she needs or wants for her Second Life existence from these in-world retailers. The plaintiffs in *Eros* are good examples of such virtual world entrepreneurs. The plaintiff in *Bragg*, on the other hand, purchased his Second Life items.

# B. The Second Life Terms of Service and <u>www.secondlife.com</u>: What Does a New Member Receive?

Virtual world developers require prospective members to agree to online terms of service, also called end-user license agreements, which claim to define the members' rights in their in-world assets. The terms of service tend to be "click-wrap" agreements to which the prospective member must assent by clicking an icon labeled "I agree" or something similar before proceeding with the membership process. The Second Life Terms of Service, are typical of these agreements. When printed out, the Second Life Terms of Service consist of 13 printed pages. A prospective member is not required to scroll through the agreement before clicking her assent, but she has the chance to view the agreement by clicking on a hyperlink. As I will explain in detail in this section, the Terms of Service discuss the respective property rights of Linden and the members in

March 9, 2009). There is also an emerging economy of "gold farmers" who employ individuals to play these games for hours on end in order to achieve and sell desirable status. Julian Dibbell, *The Life of a Chinese Gold Farmer*, N.Y. TIMES MAGAZINE, Jan. 28, 2008, at 36.

<sup>&</sup>lt;sup>72</sup> Ondrejka, *supra* note 5, at 92.

<sup>&</sup>lt;sup>73</sup> See Christina L. Kunz, Maureen F. Del Duca, Heather Thayer & Jennifer Debrow, Click-Through Agreements: Strategies for Avoiding Disputes on Validity of Assent, 57 Bus. LAW. 401, 401 (2001) (defining "click-wrap").

<sup>&</sup>lt;sup>74</sup> Second Life Terms of Service, at http://secondlife.com/corporate/tos.php.

fairly ambiguous terms which often contradict the representations that Linden makes about property rights in its public pronouncements and on its website.

Linden distinguished itself from other providers of virtual worlds when it announced that members of Second Life would have property rights in their Second Life creations and acquisitions. In 2003, Linden announced "a significant breakthrough in digital property rights for its customers . . . Second Life's Terms of Service now recognize the ownership of in-world content by the members who make it." Linden explains this property regime to prospective members (and anyone else who is interested) in plain English on the Second Life web site. On the "Create Anything" page, Linden proclaims that "once you've built something, you can easily begin selling it to other residents, because you control the [intellectual property] rights of your creations."

A person who clicks the "Land" link at the top of Second Life home page is taken to a page that describes the types of land in Second Life.<sup>77</sup> The land page contains several links, including those labeled "Purchasing Land," "Renting Land" and "About Land Tool." An individual clicking the "About Land Tool" icon is greeted with language that *seems* to grant the property rights in virtual land that one obtains upon the purchase of "real" land. Linden assures its members that "[o]wning land allows you to control what happens on that land." The page tells users that they have rights that we normally consider to be components of the property bundle of rights: the right to exclude ("you can prevent others from visiting or building"), and the right to alienate ("sell it"). The web site tells members that they can *buy* land three different ways: from residents who put their land up for sale, from Linden in auctions of newly created land, and from Linden if the buyer wants to purchase a larger private region (also known as an island). Private

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<sup>&</sup>lt;sup>75</sup> Second Life Residents to Own Digital Creations, available at http://lindenlab.com/pressroom/releases/03 11 14.

<sup>&</sup>lt;sup>76</sup> http://secondlife.com/create.php (last visited March 4, 2009).

<sup>&</sup>lt;sup>77</sup> http://secondlife.com/land/ (last visited March 4, 2009).

<sup>78</sup> http://secondlife.com/land/

 $<sup>\</sup>underset{\circ}{\text{https://support.secondlife.com/ics/support/default.asp?deptID=4417\&task=knowledge\&questionID=4058.}$ 

https://support.secondlife.com/ics/support/default.asp?deptID=4417&task=knowledge&questionID=4058. 
81 http://secondlife.com/land/purchasing.php

regions vary in cost, with the most expensive being "Full Regions" that can be used for any Second Life purpose and the least expensive being "Open Space Regions" that can be used for scenery.82

While the Second Life web site speaks of land ownership, the Terms of Service make no mention of ownership, nor do they mention land. The greatest right that the Terms appear to give users is a license right, but it is not even clear that they grant a license to use Second Life land. Second Life members are granted a license to "use the Linden Software and the rest of the Service." The "service" is defined as the servers, software, application program interfaces, and websites.<sup>84</sup> It is not clear that the land is part of the Service; in fact, two paragraphs later, the Terms of Service define the graphics as "Content." Later, the Terms state that nothing in the Terms of Service or Linden's websites grant any rights in any Content. 86 When a Second Life member acquires land with the purpose of building something on it, clearly that member thinks that he is acquiring rights in something. The website indicates that the member is buying "land," but the Terms of Service appear to grant nothing.

A member obtains this land by paying for it in Lindens, the Second Life currency that currently trades at 259 Lindens to the U.S. dollar. 87 The Terms of Service are clearer with respect to members' rights in Lindens, but here, the Terms of Service and the Second Life website send contradictory messages. Second Life hosts a currency exchange, the LindeX, through which members can trade Lindens. The LindeX is a part of the Second Life website, and it describes transactions in Lindens and purchases and sales. The website describes the LindeX as "a Linden dollar exchange offering residents of Second Life the ability to either buy or sell Linden dollars." A Second Life member makes these purchases in her local currency, and Linden enables transactions in currency

http://secondlife.com/land/privatepricing.php
 Second Life Terms of Service ¶ 3.1.

<sup>84</sup> Second Life Terms of Service ¶ 1.1

<sup>&</sup>lt;sup>85</sup> Second Life Terms of Service ¶ 1.3.

<sup>&</sup>lt;sup>86</sup> Second Life Terms of Service ¶ 3.1.

<sup>87</sup> http://www.secondlife.com/currency/market.php (last visited February 27, 2009).

<sup>88</sup> http://secondlife.com/currency/.

other than U.S. Dollars through the International Linden Dollar Marketplace. <sup>89</sup> Linden does not agree to repurchase this currency when a participant wishes to leave Second Life; the participant must find a buyer for her virtual currency, which she can do through the LindeX.

Second Life's Terms of Service tell the users something quite different. First, despite the fact that the website tells members that they can *buy* virtual currency, the Terms of Service tell users that their right to use Lindens arise under a *license* to use an "in-world fictional currency." Linden reserves the right to manage, regulate or eliminate the currency for any reason in its sole discretion. <sup>90</sup> According to the Terms of Service, the LindeX is not a currency exchange, but rather an "aspect of the [Second Life] Service through which Linden . . . administers transactions among users for the purchase and sale of *the licensed right to use the currency*." <sup>91</sup>

A Second Life member purchases Lindens with United States Dollars (or any other currency) and uses those Lindens to purchase in-world items. When the Second Life member tires of his Second Life existence, he can sell those Lindens to another member for United States Dollars. Yet Linden insists, in its online Terms of Service, that the member's rights in the Lindens are merely license rights. As I will discuss in the next section, a license should not be a license merely because the person drafting the agreement labels it as such.

In Second Life, not only can a member acquire land, that person can build on the land. Building is difficult – Linden provides some basic building blocks, colors and textures, but putting together a simulation of a building requires both time and skill. Linden has made many representations to the effect that users have property rights in the content that they create. <sup>92</sup> The Terms of Service grant the users "copyright and other

<sup>89</sup> http://wiki.secondlife.com/wiki/L\$ Marketplace.

<sup>90</sup> Second Life Terms of Service at ¶ 1.4.

<sup>&</sup>lt;sup>91</sup> Second Life Terms of Service at ¶ 1.5 (emphasis added).

<sup>&</sup>lt;sup>92</sup> See notes - *supra* and accompanying text. In addition, Linden's Vice President of Product Development, Cory Ondrejka, has written an article to that effect. Cory Ondrejka, *Escaping the Gilded Cage: User Created Content and Building the Metaverse*, 49 N.Y. L. SCH. L. REV. 81, 95 (2004) ("Rather

intellectual property rights" with respect to anything that they create in Second Life. <sup>93</sup> In the next paragraph, however, Linden states that while a creator of content has intellectual property rights in that content, that person's intellectual property rights give him no rights whatsoever in data stored on Linden's servers, *including* "any data representing or embodying" any of the creator's content. <sup>94</sup>

### C. Issues Raised by the Second Life Terms of Service

The Second Life Terms of Service, viewed in the context of the *Bragg* and *Eros* disputes, illuminate some significant issues that often arise in disputes involving intangible assets. In these disputes one party often argues that the extent of the asset holder's property right is limited by the terms of the contract. A classic example of such an argument was that made by Network Solutions (NSI) in *Network Solutions, Inc. v. Umbro Int'l Inc.*, 95 a dispute over a domain name. In that case, NSI argued that its contract with the domain name registrant was "the *only* source of rights . . . and that a registrant receives only the conditional contractual right to the exclusive association of the registered domain name with a given [Internet Protocol] number for a given period of time."

Linden made a similar argument in the *Bragg* dispute. In its answer to Marc Bragg's complaint, Linden argued that its contractual characterization of Bragg's property rights should govern the relationship among Linden, Bragg and the land. Linden characterized Bragg's rights in his Second Life land as "a license to computing resources." Linden's answer attempted to reconcile Linden's public statements with the Second Life Terms of Service by describing the public representations that members would own title to their land as "metaphors or analogies to the concepts of ownership of

than attempting to recreate intellectual property law, Second Life's developers decided to allow real world laws to reach into the virtual world. In November, 2003, Second Life's terms of service were changed to allow users to retain real-world intellectual property rights to their virtual creations.")

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<sup>&</sup>lt;sup>93</sup> *Id.* at ¶ 3.2.

 $<sup>^{94}</sup>$  *Id.* at ¶ 3.3.

<sup>&</sup>lt;sup>95</sup> 529 S.E. 2d 80 (Va. 2000).

<sup>&</sup>lt;sup>96</sup> 529 S.E. 2d 80, 85 (Va. 2000) (emphasis added; internal quotations omitted).

<sup>&</sup>lt;sup>97</sup> Linden Answer at 11.

real property." Linden seemed to claim that the analogy to real property ownership could not possibly be determinative of a member's right to Second Life land. "Ownership" may be a metaphor to Linden, but it might be a determinative one when one separates the property idea from the item at issue. Linden did more than use a metaphor in its public pronouncements; it set forth the important attributes of a member's relationship to the bits that make up the member's "land." Title is an intangible concept. The components of title are likewise intangible, and are made up of relationships. <sup>99</sup> If Linden concedes that members have these relationships with Linden and others with respect to items on Linden's servers, then Linden is recognizing property rights. The property rights that the Terms of Service grant, however, bear little obvious resemblance to known property rights.

The Second Life Terms of Service are rife with novel property forms. For instance, as explained above, Linden describes a participant's right to his virtual money as a license to use a fictional currency. To determine the meaning of this grant, one has to define both "license" and "fictional currency." The term license is often used today to describe a conveyance of rights in intangible assets, the use of the term to describe rights in money is unusual. Perhaps, then, the fact that this currency is "fictional" makes the conveyance by license acceptable. But what is a fictional currency? The value of a United States Dollar has no relation to the value of the paper on which it is printed. Money is based on trust; currency has value because people trust that it can be exchanged

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<sup>&</sup>lt;sup>98</sup> Linden Answer at 11. Here, Linden may have unwittingly stepped into a property theory debate. Many have written about the role of metaphor in property law. *See*, *e.g.* Dan Hunter, *Cyberspace as Place and the Tragedy of the Digital Anticommons*, 91 CAL. L. REV. 439 (2003) (discussing the pervasiveness of the "Cyberspace as Place" metaphor and power of metaphor to affect legal thinking and thus lawmaking); Eduardo M. Penalver, *Property Metaphors and* Kelo v. New London: *Two Views of the Castle*, 74 FORDHAM L. REV. 2971, 2972 (2006) (noting that the "bundle of sticks metaphor continues to serve a useful function for lawyers trying to get their minds around the property doctrine and, consequently, is not likely to disappear any time soon")

<sup>&</sup>lt;sup>99</sup> See RESTATEMENT OF PROPERTY, Introductory Note (1936) ("the word 'property' is used in this Restatement to denote legal relations between persons with respect to a thing"); JOSEPH WILLIAM SINGER, INTRODUCTION TO PROPERTY § 1.1.1 (2<sup>nd</sup> Ed. 2005) ("property concerns relations among people, not relations between people and things... many property rights do not concern 'things' at all, but intangible resources, such as copyright or interests in an ongoing business").

<sup>100</sup> See notes - supra and accompanying text.

<sup>&</sup>lt;sup>101</sup> See notes - infra and accompanying text.

for items of value and for other currencies.<sup>102</sup> In a sense, all money is virtual, as we commonly exchange not paper money, but credit card numbers and bank account numbers.<sup>103</sup> Clearly the members of Second Life trust the Linden as a currency, as they spend Lindens to buy Second Life assets and accept them in exchange for those assets.

Linden's grant of intellectual property rights is also confusing. The creator of a sex bed or other Second Life content ought to have the intellectual property rights to her creation regardless of whether the Terms of Service grant such rights. Copyright law provides that copyright "vests initially in the author or authors of the work." The ownership of a copyright and the ownership of the material object in which the copyrighted work is embodied are separate however, <sup>105</sup> and if the Terms of Service grant only intellectual property rights, then it is not clear what someone who buys currency, land, or a sex bed receives.

It is also unclear what creators like those in the *Eros* case convey. The Second Life web site tells members and potential members that they can sell the items that they make, because they have the intellectual property rights in those creations. <sup>106</sup> Certainly the creators of sex beds, avatar skins, and other virtual world items do not intend to transfer their intellectual property. They must, then, be selling something else, the material embodiment of the intellectual property. It is not clear that they can sell that, however. Linden claims that it licenses its textures and environmental content to its members. <sup>107</sup> These textures and environmental content are the materials that creative members use to create the very assets that they are allowed to "sell" in Second Life.

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<sup>&</sup>lt;sup>102</sup> Thomas Malaby, *Parlaying Value: Capital in and Beyond Virtual Worlds*, GAMES AND CULTURE 2006, Vol. 1, 141, 152. Malaby also reminds us that the Euro was introduced "virtually" before any physical money was introduced, in order to test the new currency's viability.

<sup>&</sup>lt;sup>103</sup> WILLIAM GREIDER, SECRETS OF THE TEMPLE 229-230 (1987) ("when money is no longer represented even by paper, it becomes a pure abstraction").

<sup>&</sup>lt;sup>104</sup> 17 U.S.C. § 201(a).

<sup>&</sup>lt;sup>105</sup> 17 U.S.C. § 202.

http://secondlife.com/whatis/create.php (last visited February 27, 2009).

Second Life Terms of Service ¶ 3.4.

Today, the term license escapes precise definition. In real property law, a license is a revocable permission to "use or enjoy" the licensor's land and it does not grant a possessory interest. <sup>108</sup> In the world of intellectual property, a license grants permission to use intellectual property in ways that would otherwise infringe the exclusive rights of the licensor. <sup>109</sup> The rights granted by a license cannot be defined generally, because a license is a contract and courts generally respect freedom of contract. <sup>110</sup> It is unusual, however, to use the word "license" to describe a grant of rights in a material object. <sup>111</sup> It would be almost unheard of for a bike shop to offer a customer a license to use a bicycle. In Second Life, on the other hand, it seems that the only rights that a purchaser of a virtual bicycle receives are license rights.

Regardless of the definition of license, a license is recognized as a contract. When the right being transferred is copyright, this makes sense. Copyright is a set of exclusive rights granted to creators, and creators are entitles to dictate, for a limited time, the permissible uses of their creations, subject to the limitations of first sale and fair use. The plaintiffs in *Eros* could have been clever creators with no marketing skills. Therefore, after they created their sex beds, avatar skins and other useful Second Life items, they might have turned to someone more skilled in marketing to sell their items, thus giving the marketing expert a license to distribute their work.

Virtual world terms of service are not unique in their attempt to define property rights in ways that do not comport with our common understanding of those rights. Several scholars have identified this problem as it applies to software, and have questioned the almost universal acceptance of licensing as a method of transferring software copies.<sup>113</sup> This licensing practice was common even before software was

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<sup>&</sup>lt;sup>108</sup> MICHAEL ALLAN WOLF, 4 POWELL ON REAL PROPERTY, § 34.01 (2009).

<sup>&</sup>lt;sup>109</sup> RAYMOND T. NIMMER, THE LAW OF COMPUTER TECHNOLOGY, § 7.02 [1] (1992).

 $<sup>^{110}</sup>$  Raymond T. Nimmer, Licensing of Intellectual Property and Other Information Assets 3 (2007).

<sup>&</sup>lt;sup>111</sup> John A Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 33.

<sup>&</sup>lt;sup>112</sup> Copyright Act, 17 U.S.C. § 101 et seq.

<sup>&</sup>lt;sup>113</sup> See, e.g. John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 26-28 (2004) (discussing cases in which courts have accepted the arguments of software publishers that software copies are licensed, not sold); Glen O. Robinson, *Personal* 

routinely delivered electronically, as even software delivered on a tangible disk is accompanied by terms stating that the disk is licensed, not sold. <sup>114</sup> Purchasers of internet domain names must enter into contracts with domain name registrars, and those contracts tend to prohibit forced transfers of the registered names to creditors, <sup>115</sup> despite the fact that in a permitted voluntary transfer, a domain name can sell for a large amount of money. <sup>116</sup> Should the law allow those who transfer intangible assets to define the extent of property rights in those assets without any limitation on the types of rights transferred?

In order to reject licenses, and therefore freedom of contract, as the default mechanism for transferring intangibles, we need guidance in identifying the point at which freedom of contract ends and property right protection begins. As I discuss in the next section, the *numerus clausus* principle provides such guidance.

#### IV. VIRTUAL PROPERTY AND THE NUMERUS CLAUSUS

## A. Contract or Property?

In the last section, I identified some of the aspects of the Second Life Terms of Service that obscure the property rights granted by those terms. Several scholars have identified the problem of allowing the contracts governing virtual worlds to define the boundaries of virtual world property rights. Greg Lastowka and Dan Hunter, in their article *The Laws of the Virtual Worlds*, predicted that "[w]e will likely see courts rejecting [Terms of Service] to the extent that they place restrictions on the economic interests of users," adding that "[a]s we live more and more of our lives in these worlds,

*Property Servitudes*, 71 U. CHI. L. REV. 1449, 1473-1479 (2004) (examining the practice of software licensing and its acceptance by some courts) **[others]** 

<sup>&</sup>lt;sup>114</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 4-5 (2004)

<sup>&</sup>lt;sup>115</sup> See, e.g. Register.com Master Services Agreement ¶ 29, available at <a href="http://www.register.com/policy/servicesagreement.rcmx#18">http://www.register.com/policy/servicesagreement.rcmx#18</a> (last visited February 11, 2009) (stating that any attempt by a creditor to obtain rights in a domain name "renders this Agreement voidable at our option").

<sup>&</sup>lt;sup>1f6</sup> For instance, on February 20, 2009, the domain name "models.net" was listed for sale at \$195,000. Afternic Domain Listing Service, *at* <a href="http://www.afternic.com/names.php?feat=1">http://www.afternic.com/names.php?feat=1</a> (last visited February 20, 2009).

any simple resolution of property rights issues will become more difficult."<sup>117</sup> Joshua Fairfield, in *Virtual Property*, questioned why we permit virtual world developers to "prevent formation of property rights in the first instance any more than we tolerate other restraints on alienation."<sup>118</sup> As Fairfield correctly observed, our law does not normally permit customization of property rights outside of recognized forms. As illustrated in the previuos section, some terms of service not only customize property rights, but do so in an incomprehensible manner. In this section, I will discuss the *numerus clausus* principle, which limits property rights to a list of defined forms, and explain why the justifications for that principle apply with special force to disputes over intangible assets.

To illustrate the problem of allowing those who create and convey intangible assets unfettered discretion to define and limit property rights in those assets, it is helpful to break down an asset transfer into three components: the asset, the property right in the asset, and the contract transferring the asset. Property rights in assets are often transferred by contract, and when a contract transfers rights in a tangible asset, it is easy to separate the three elements. Everyone can distinguish between a house and a contract to sell a house. Lawyers understand that when the house is sold, the contract transfers a property right, such as a fee simple, in that asset. The property right is itself intangible.

When rights in intangible assets are transferred, however, we cannot visualize the asset and therefore we have difficulty separating the asset from the both the property right and the contract transferring it. Courts have this problem as well. For example, in *Network Solutions, Inc. v. Umbro International, Inc.*, <sup>119</sup> a case in which a judgment creditor attempted to garnish internet domain names to satisfy its judgment, the court characterized the names, which were generic and had great economic value, as "products of a contract for services." <sup>120</sup> As a result, the court held that the names were not the type of property that could be garnished. *Umbro* illustrates one reason why the distinction

<sup>&</sup>lt;sup>117</sup> Lastowka and Hunter, Cal. Article at 50-51.

<sup>&</sup>lt;sup>118</sup> Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1084-1085 (2005).

<sup>&</sup>lt;sup>119</sup> 529 S.E. 2d 80 (Va. 2000).

<sup>&</sup>lt;sup>120</sup> *Id.* at 81. I discuss this case in more detail in Juliet M. Moringiello, *Seizing Domain Names to Enforce Judgments: Looking Back to Look to the Future*, 72 U. CIN. L. REV. 95, 103-110 (2003) (discussing judicial treatment of domain names).

between contract and property is significant – under creditors' rights laws only rights that are property can be seized or garnished. The *Bragg* dispute illustrates another: if Marc Bragg acquired property rights in his Second Life currency and land, then Linden Research likely committed conversion when it denied him access to his account. In both the *Bragg* and *Eros* disputes, the plaintiffs were deprived of assets that undoubtedly had value. Property casebooks are filled with cases in which a party who seeks something of value asks the court to find that he or she has a property right in that thing of value.

The distinction between contract and property is ordinarily not relevant to a dispute between the parties to the conveyance. If I buy a house and promise my seller that I will not paint it orange, my seller should be able to enforce that promise against me. There are few limits on the types of contract promises that the law will enforce because contracts create *in personam* rights which bind only the parties to the contract. Some promises are unenforceable as a matter of public policy, and courts may refuse to enforce some contract terms on unconscionability grounds, but beyond these limitations, contract rights are infinitely customizable. A person who has agreed to contract terms should not later have the ability to say that she should not be bound by those terms. Because contract rights bind only the parties to the contract, who presumably have agreed to the scope of those rights, this view comports with the policy of freedom of contract.

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<sup>&</sup>lt;sup>121</sup> In addition, creditors can only create rights against property of their debtors. *See* U.C.C. § 9-203 (stating that a security interest cannot be enforceable unless the debtor has "rights in the collateral." Collateral is a defined term in Article 9, and means "the *property* subject to a security interest." U.C.C. § 9-102(a)(12). <sup>122</sup> *See*, *e.g.* Moore v. Regents of the University of California, 763 P. 2d 479 (Cal. 1990) (plaintiff sued for conversion of cells used in medical research without his permission); *In re* Marriage of Graham, 574 P. 2d 75 (Colo. 1978) (addressing whether the monetary value of a professional degree could be divided as marital property in a divorce proceeding).

<sup>&</sup>lt;sup>123</sup> See Joseph William Singer, Introduction to Property, 2<sup>ND</sup> Ed. § 6.1 (2005) ("When a dispute arises between the original covenanting parties, it is governed by the general rules of contract.") <sup>124</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 Colum. L. Rev. 773, 776-777 (2001).

<sup>&</sup>lt;sup>125</sup> RESTATEMENT (SECOND) OF CONTRACTS § 178.

 $<sup>^{126}</sup>$  Restatement (Second) of Contracts  $\S~208.$ 

<sup>&</sup>lt;sup>127</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The* Numerus Clausus *Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373, S373 (2002); Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The* Numerus Clausus *Principle*, 110 YALE L. J. 1, 3 (2000).

The difference between contract and property *is* relevant, however, to parties who have not agreed to the scope of the right. A third party who wants to or is forced to deal in some way with the right in question, such as by purchasing it, lending against it, or enforcing its rights in it, must learn both the extent of the right and the identity of the holders of that right. Therefore, it is often said that the main difference between a contract right and a property right is the extent to which the right binds persons other than the parties to the contract conveying the right. As a result, the law will enforce my promise not to paint the house orange against subsequent owners of the house only if my promise takes a prescribed form. Because the classic *in rem*, or property, right is enforceable against the entire world, property scholars agree that there must be some method of publicizing such rights. One way to do so is to record the interest in an established recording system. Another is the standardization of property forms provided by the *numerus clausus* principle. 131

## B. The Numerus Clausus and its Justifications

Numerus clausus means "the number is closed." The principle operates to prevent courts from recognizing property interests outside of a closed set. As a result, property law limits the types of property interests that can be created and transferred. When parties attempt to customize property interests in a way that lies outside this closed set, the court will determine which of the recognized types of property forms best fits the

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<sup>&</sup>lt;sup>128</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373, S382-383 (2002).

<sup>&</sup>lt;sup>129</sup> See JOSEPH WILLIAM SINGER, INTRODUCTION TO PROPERTY, 2<sup>ND</sup> ED. § 6.2 (2005) (describing the formalities that must be satisfied in order for a servitude to run with the land).

<sup>&</sup>lt;sup>130</sup> Richard A. Epstein, *Notice and Freedom of Contract in the Law of Servitudes*, 55 S. CAL. L. REV. 1353, 1358 (1982). Epstein, discussing servitudes, argued that, because interests in land are recorded, freedom of contract should prevail in the area of servitudes. *Id*.

<sup>&</sup>lt;sup>131</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 776-777 (2001).

<sup>&</sup>lt;sup>132</sup> Steven R. Munzer, *The Commons and the Anticommons in the Law and Theory of Property*, in THE BLACKWELL GUIDE TO THE PHILOSOPHY OF LAW AND LEGAL THEORY 148, 156-157 (Martin P. Golding & William A. Edmondson eds. 2005); Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The* Numerus Clausus *Principle*, 110 YALE L. J. 1, 4 (2000).

<sup>&</sup>lt;sup>133</sup> THOMAS W. MERRILL & HENRY E. SMITH, PROPERTY: PRINCIPLES AND POLICIES 579 (2007).

interest that the parties created.<sup>134</sup> Civil law countries apply the *numerus clausus* explicitly; in common law countries, its application is more implicit, and it is reflected in American law without explicit mention.<sup>135</sup>

The *numerus clausus* is an important interpretation tool. To give two textbook examples, a landlord might try to convey property to a tenant "for the duration of the war" only to see a court transform the tenancy into one for a term of years. Likewise, a will that granted a house to a beneficiary "to live in and not to be sold" was construed to convey a fee simple without a restraint on alienation. In the former case, the grant resembles a known partial interest, a leasehold, while the latter grant is closer to a fee simple than to any recognized partial interest.

In the past decade, a handful of scholars have written extensively on the *numerus* clausus.<sup>138</sup> While these scholars formulate their justifications for a closed set of property rights differently, one conclusion in *numerus* clausus scholarship is that this closed set provides a necessary shorthand so that people other than the parties to the contract conveying the right will know both the extent of the right and the identity of the persons entitled to convey the right.<sup>139</sup> The *numerus* clausus principle functions as a notice

<sup>&</sup>lt;sup>134</sup> Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L. J. 1,11 (2000).

<sup>&</sup>lt;sup>135</sup> THOMAS W. MERRILL & HENRY E. SMITH, PROPERTY: PRINCIPLES AND POLICIES 579 (2007); see also Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The* Numerus Clausus *Principle*, 110 YALE L. J. 1, 4, 10-11 (2000) (explaining that the *numerus clausus* principle is explicitly recognized in civil law jurisdictions and is applied, without specific mention, by American courts). American statutory law also reflects the *numerus clausus*. See Uniform Commercial Code § 1-203 (providing rules for distinguishing leases from secured sales).

Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L. J. 1, 11 (2000).

<sup>&</sup>lt;sup>137</sup> White v. Brown, 559 S.W. 938, 940-941 (Tenn. 1977).

<sup>&</sup>lt;sup>138</sup> Francesco Parisi, Entropy in Property, 50 Am. J. COMP. L. 595 (2002); Thomas W. Merrill & Henry E. Smith, The Property/Contract Interface, 101 COLUM. L. REV. 773, 794 (2001); Henry Hansmann & Reiner Kraakman, Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights, 31 J. LEGAL STUD. S373 (2002); Nestor M. Davidson, Standardization and Pluralism in Property Law, 61 VAND. L. REV. 1597 (2008); Thomas W. Merrill & Henry E. Smith, Optimal Standardization in the Law of Property: The Numerus Clausus Principle, 110 YALE L. J. 1 (2000).

<sup>&</sup>lt;sup>139</sup> See, e.g. Francesco Parisi, Entropy in Property, 50 Am. J. COMP. L. 595, 625 (2002) (explaining that "[i]f we could organize a public record sufficiently dependable to keep track of property rights, there would be no reason to limit their number"); Henry Hansmann & Reiner Kraakman, Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights, 31 J. LEGAL STUD. S373, S384 (2002) (explaining the numerus clausus as a solution to the problem of verification when two or more

mechanism in that it tells people transacting in or interacting with property that the property interest can take one of a limited number of defined forms. Below, I summarize some of the work by two sets of authors, Thomas Merrill and Henry Smith and Henry Hansmann and Reiner Kraakman and discuss why their explanations of the *numerus* clausus illustrate why it should be more rigorously applied to emerging intangible rights.

In Optimal Standardization in the Law of Property: The Numerus Clausus Principle, <sup>140</sup> Merrill and Smith posit that information costs are the driving force behind the distinction between property and contract and thus the *numerus clausus* principle. They argue that permitting an unlimited number of property forms would cause third parties interested in acquiring property rights to incur significant measurement costs.<sup>141</sup> Such costs arise often, because in order to avoid violating another's property rights, the person faced with those rights must know what they are. These measurement costs do not affect the original parties to the transaction creating the novel property right, and the law does not intervene to protect these parties. The costs to other market participants, however, can be quite high. 142 If I see a house that I want to buy, I know that the house can be held in only a limited number of ways. The owners might be tenants in common, joint tenants, or tenants by the entirety; they could own the house in fee simple, as life tenants, or in a defeasible fee. Because the permissible forms of ownership are in a closed set, the potential buyer need ask only a finite number of questions. On the other hand, if a landowner were permitted to fashion any estate she wished, potential buyers of all houses

holders of rights in the same asset are not in privity of contract); Nestor M. Davidson, Standardization and Pluralism in Property Law, 61 VAND. L. REV. 1597, 1653 (2008) (viewing the fixed categories of property as regulatory platforms which "are primarily tools to assist legal actors - courts, legislatures, and other formal sources of legal recognition – in their regulatory role"); Thomas W. Merrill & Henry E. Smith, Optimal Standardization in the Law of Property: The Numerus Clausus Principle, 110 YALE L. J. 1, 27 (2000) (justifying the numerus clausus as a means of reducing the external costs on other market participants).

<sup>&</sup>lt;sup>140</sup> 110 YALE L. J. 1 (2000).

<sup>&</sup>lt;sup>141</sup> Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus* Clausus *Principle*, 110 YALE L. J. 1, 69 (2000).

<sup>&</sup>lt;sup>142</sup> Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus* Clausus *Principle*, 110 YALE L. J. 1, 29-31 (2000).

would be forced to ask an infinite number of questions about ownership. <sup>143</sup> Therefore, they argue, if property interests are standardized, measurement costs are minimized.

Prospective buyers, however, are not the only third parties affected by novel and perhaps indecipherable property rights. Henry Hansmann and Reiner Kraakman, in their article *Property, Contract and Verification: The* Numerus Clausus *Problem and the Divisibility of Rights*, <sup>144</sup> focus not on the potential transferee of assets, but on co-owners and those charged with enforcement of property rights in assets. They see the main problem to be solved by the *numerus clausus* as one of verification and identify two contexts in which verification problems arise: coordination and enforcement. Verification arises in coordination because two co-owners of an item of property might not be in privity of contract. When parties are in privity of contract, the contract itself, agreed to by the parties, provides the verification mechanism. An enforcing court also needs to know the extent of property rights. <sup>145</sup>

As a simple example of a verification rule, Hansmann and Kraakman use the rule of possession. Possession is an easy verification rule in that only the person in possession of an asset would have the right to transfer that asset. In a modern economy, however, possession is not a sufficient verification rule for several reasons. First, a possession rule would not allow partial transfers, such as non-possessory security interests. In addition, possession as we know it is not possible for intangible assets.

While Merrill and Smith and Hansmann and Kraakman formulate their justifications for a *numerus clausus* differently, both sets of authors agree that

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<sup>&</sup>lt;sup>143</sup> Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The* Numerus Clausus *Principle*, 110 YALE L. J. 1, 27-32 (2000). As an example of an idiosyncratic property right, Merrill and Smith use as an example a right to use a watch on Mondays only.

<sup>&</sup>lt;sup>144</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373 (2002).

<sup>&</sup>lt;sup>145</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373, S383-384 (2002).

<sup>&</sup>lt;sup>146</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373, S383 (2002).

<sup>&</sup>lt;sup>147</sup> Control substitutes for possession for certain types of intangibles under the Uniform Commercial Code. *See* U.C.C. §§ 8-106 (c) (defining control of uncertificated securities); 9-104 (defining control of deposit accounts); 9-105 (defining control of electronic chattel paper).

standardization is valuable in identifying the intangible, or invisible, boundaries of property rights. Merrill and Smith thus describe the *numerus clausus* as being valuable in identifying the "dimensions of property that are least visible, and hence the most difficult for ordinary observers to measure." Hansmann and Kraakman refine this description, as they believe that "the law is concerned with the physical dimensions of assets that are difficult for all parties to verify." According to Hansmann and Kraakman, verification rules help us identify the conveyable, or verifiable, boundaries of property. Merrill and Smith make a similar point, explaining that the *in rem*, or property, strategy both identifies the resource and specifies the person, or owner, who can regulate the resource. <sup>151</sup>

When the asset is tangible, the physical boundaries of the asset are visible, and we take identification of the resource for granted. Therefore, a fence is a verification mechanism that can define the physical boundaries of real estate. <sup>152</sup> A person interested in a house can easily identify that house's physical boundaries and characteristics. Little effort is required in verifying the square footage, number of bedrooms and condition of the kitchen in a house. The less visible dimensions of real estate, such as life estates, leaseholds, and time shares, must be verified in other ways. <sup>153</sup>

The foregoing justifications for the *numerus clausus* can help us distinguish rights that should be protected as property rights and rights that, as contract rights, can be infinitely customized. In another article, Merrill and Smith apply their work on the *numerus clausus* to make those distinctions. In *The Property/Contract Interface*, they explore legal institutions that do not fall clearly into the *in rem* and *in personam* 

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<sup>&</sup>lt;sup>148</sup> Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L. J. 1, 34 (2000).

<sup>&</sup>lt;sup>149</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373, S416, fn. 81 (2002)

<sup>&</sup>lt;sup>150</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373, S415 (2002).

<sup>&</sup>lt;sup>151</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 790 (2001).

Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The Numerus Clausus Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373, S416 (2002).

<sup>&</sup>lt;sup>153</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The* Numerus Clausus *Problem and the Divisibility of Rights*, 31 J. LEGAL STUD. S373, S416 (2002).

categories, or institutions that "lie along [the] property/contract interface"<sup>154</sup> in order to test their theory that information costs are crucial to the distinction between property and contract. To do so, they examine whether the law in various areas resembles contract law in situations in which two parties bear the bulk of the information costs and property law when a large number of parties must bear information costs. The four institutions they chose to study, bailments, landlord-tenant law, security interests and trusts, bear an important similarity to many intangible rights, as, according to Merrill and Smith, they "historically have been subject to disputes about whether they are 'truly' based on contract or on property."<sup>157</sup>

One example that Merrill and Smith give of such an institution is landlord-tenant law. American law recognizes only four types of leases: the terms of years, the periodic tenancy (such as the month-to-month tenancy), the tenancy at will, and the tenancy at sufferance, and two types of tenant transfers: assignment and sublease. Is If a lease were viewed as a pure contract, there would be no need for such standardization; the *in personam* strategy specifies use rights between specified individuals. Leases affect other parties, however, including future lessees who want to know when the property will become available and creditors of both the lessor and lessee who need to know the extent of the interest that is available to them if they must enforce their remedies.

Merrill and Smith conclude, with respect to each of their examples, that as the group of people affected by the right grows in number or the identity of the persons

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<sup>&</sup>lt;sup>154</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 777 (2001).

<sup>&</sup>lt;sup>155</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 779 (2001).

<sup>&</sup>lt;sup>156</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 822 (2001).

<sup>&</sup>lt;sup>157</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 809 (2001).

<sup>&</sup>lt;sup>158</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 832 (2001).

<sup>&</sup>lt;sup>159</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 830 (2001).

<sup>&</sup>lt;sup>160</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 790 (2001).

<sup>&</sup>lt;sup>161</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 833 (2001).

affected by the right becomes less-known, the law provides a mechanism to inform these persons of the extent of the right in question. For leases, these mechanisms take the form of immutable rules, like the implied warranty of habitability, and standard property forms, such as the permissible tenancies. <sup>162</sup> As I will explain in the next subsection, emerging intangible assets also lie along the property/contract interface and virtual property can help us understand why emerging intangible assets fall into this category.

#### C. Why Standardization is Necessary for Rights in Intangible Assets

The foregoing justifications for the *numerus clausus* are particularly relevant as new forms of intangible assets emerge. As explained above, the *numerus clausus* helps us to define the boundaries of property when those boundaries are invisible. <sup>163</sup> In the tangible world, we know that there is a difference between the tangible asset and the intangible right in the asset because we can see the physical boundaries of the asset. Before the advent of virtual property, however, the boundaries of intangible assets were invisible to human eyes. We can see a book, and even though we cannot see the copyright in the book, we recognize that the ownership right in the book is different from the ownership of the copyright. The law has long recognized this as well. The Copyright Act provides that ownership of the material embodiment of a copyrighted work does not convey ownership of the copyright, <sup>164</sup> and because of the first sale doctrine in copyright law, the purchaser of a book is permitted to sell it without infringing the copyright holder's intellectual property rights. <sup>165</sup> If I own a book and another person steals it, that person has interfered with my ownership interest in the book and could be held liable for conversion. If the thief makes 100 copies of the book and sells the copies, the thief has

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<sup>&</sup>lt;sup>162</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 833 (2001).

<sup>&</sup>lt;sup>163</sup> See notes - and accompanying text.

<sup>&</sup>lt;sup>164</sup> 17 U.S.C. § 202.

<sup>&</sup>lt;sup>165</sup> Bobbs-Merrill v. Straus, 210 U.S. 339 (1908). *See also* UMG Recordings, Inc. v. Augusto, 558 F. Supp. 2d 1055 (C.D. Cal. 2008) (rejecting a record company's attempt to restrict, by license, the sale of promotional CDs after the CDs were given to industry insiders).

violated distinct property rights held by another person, the rights of reproduction and distribution granted by copyright law to the copyright holder.<sup>166</sup>

On the other hand, while we can see a domain name, its physical manifestation looks like a more familiar intangible, a trademark. In fact, it is impossible, by simply looking at a domain name, to appreciate that the name might incorporate both trademark and other property rights. 167 Therefore, whether the domain name incorporates a trademark or not, a court might be tempted to apply trademark law to resolve a conflict over rights in the name. This is exactly what the court did in *Dorer v. Arel*. <sup>168</sup> The court, analyzing the question of whether a domain name could be garnished by a creditor, concluded that a domain name that is eligible for trademark protection is a form of "property," while one that is not so eligible, such as a generic name, "arguably entails only contract, not property, rights." <sup>169</sup> Unfortunately, the analogy led the court to reach an illogical result. Generic names command large amounts of money on the market, and are freely transferable. Names incorporating trademarks, however, are generally useless to anyone but the trademark holder, because they cannot be transferred without the goodwill of the business. 170 Because, under the applicable law, only property subject to a judgment lien could be garnished, <sup>171</sup> the creditor was deprived of an asset that had great monetary value to its debtor.

Domain names, like tangible personal property, can also embody several property interests. One is in the use of the word, such as "wine" or "coca-cola," which may or not

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<sup>&</sup>lt;sup>166</sup> 17 U.S.C. § 106. *See also* Vernor v. Autodesk, 555 F. Supp. 2d 1164,1168 (W.D. Wash. 2008) ("first sale does not, however, exhaust other rights, such as the copyright holder's right to prohibit copying of the copy he sells").

<sup>&</sup>lt;sup>167</sup> Joshua Fairfield identified domain names as a type of "virtual property" that mimics tangible world property because it is "rivalrous, persistent and interconnected." Joshua A.T. Fairfield, *Virtual Property*, 85 B. U. L. REV. 1047, 1055 (2005). Only one person can have any word in a top-level domain. Therefore, while one party can own united.com and another can own united.net, there cannot be two uniteds in the .com top-level domain.

<sup>&</sup>lt;sup>168</sup> 60 F. Supp. 2d 558 (E.D. Va. 1999).

<sup>&</sup>lt;sup>169</sup> 60 F. Supp. 2d at 560-561.

<sup>&</sup>lt;sup>170</sup> United Drug Co. v. Theodore Rectanus Co., 248 U.S. 90, 97 (1918) ("There is no such thing as property in a trade-mark except as a right appurtenant to an established business or trade in connection with which the mark is employed").

<sup>&</sup>lt;sup>171</sup> 60 F. Supp. 2d at 559.

be protected by trademark law. 172 The other is in the string of letters, such as www.wine.com, that directs people to the domain name owner's web site. The string is a unique identifier that is rivalrous and can therefore be controlled by one person. As a result, a person who causes the unauthorized transfer of a domain name should be subject to an action for conversion. While some courts have recognized such an action, they have done so by applying convoluted reasoning that misses the basic point that a *numerus* clausus analysis would catch: a domain name can be owned in the same way that a book or a bicycle can be owned. <sup>173</sup> Instead, the Ninth Circuit, in probably the most prominent domain name conversion case, Kremen v. Cohen, held that a domain name could be the subject of a conversion action because it was "merged in a document." Under the applicable state law, only intangible assets that were merged in a document, such as promissory notes, could be converted, so the court found that the domain name system, which is both intangible itself and distributed among several locations, sufficed as the "document." 174

Domain names are not the only intangible assets that might be the subjects of a conversion action. In Thyroff v. Nationwide Mut. Ins. Co., 175 the court held that electronic business records could be converted. The court recognized that a person can exercise dominion over such a record by pressing the "delete" button, but ultimately based its conclusion on the fact that there is no difference between the monetary value of paper records and the monetary value of electronic records. 176

The numerus clausus principle could have helped the courts in both Thyroff and Kremen come to more useful conclusions, conclusions that could guide courts in

<sup>&</sup>lt;sup>172</sup> In this example, the word "wine," if used to describe wine, is not eligible for trademark protection, while the word "coca-cola" is. See 15 U.S.C. § 1052 (e) (a mark is not eligible for trademark registration if, when "used in connection with the goods of the applicant, is merely descriptive . . . of them").

<sup>173</sup> See, e.g. Kremen v. Cohen, 337 F. 3d 1024 (9<sup>th</sup> Cir. 2005) (finding that a domain name can be the subject of a conversion action because it is merged in a "document," the domain name system); *Thyroff v*. Nationwide Mut. Ins. Co., 864 N.E. 2d 1272 (N.Y. 2007), following Kremen, held that electronic business records could be converted. The court recognized that a person can exercise dominion over such a record by pressing the "delete" button, but ultimately based its conclusion on the fact that there is no difference between the monetary value of paper records and the monetary value of electronic records.

<sup>&</sup>lt;sup>174</sup> 337 F. 3d 1024, 1033-1035 (9<sup>th</sup> Cir. 2005). <sup>175</sup> 864 N.E. 2d 1272 (N.Y. 2007).

<sup>&</sup>lt;sup>176</sup> 864 N.E. 2d 1272, 1278 (N.Y. 2007).

analyzing rights in all sorts of emerging intangible assets. Conversion is defined in the Restatement of Torts 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." 177 Many of the standard property forms are defined in terms of the holder's right to possess the asset involved. For example, a defining characteristic of a present estate in land is the "present right to exclusive possession."178 If we recognize standard property rights in intangible assets, we can appreciate that in at least one important respect, domain names and electronic business records are identical – both can be exclusively possessed.

Because we cannot see the boundaries of domain names and electronic business records, we have difficulty appreciating this similarity. Using the property involved in the Bragg and Eros disputes to illustrate the nature of intangible assets can help us appreciate why the *numerus clausus* should apply to intangible assets in the same way that it applies to real estate and tangible assets. Because virtual worlds simulate the tangible world in many ways, we can see and experience the differences between virtual world land and virtual world trademarks. That experience helps us recognize that some intangible assets have boundaries in the same way that tangible assets have boundaries. The *numerus* clausus, with its standard forms, helps us identify the legal significance of those boundaries. In other words, if I can exclude a person from my virtual bicycle in the same way that I can exclude a person from my domain name, then perhaps my rights in the virtual bicycle and the virtual domain name are legally identical, regardless of the terms of the contracts conveying rights in those assets.

Standardized property forms serve a notice function, and might be particularly useful in an environment in which the predominant method of contracting is by online terms of use. Notice of rights in intangible assets is notoriously difficult to process not only because the assets themselves are invisible, but because the rights are often granted in standard form electronically presented contracts. Courts usually find that agreements

 $<sup>^{177}</sup>$  Restatement of the Law (Second) Torts  $\$  222A (1) (1965) (emphasis added).  $^{178}$  William B. Stoebuck & Dale A. Whitman, The Law of Property  $\$  2.1 (3^rd ed. 2000).

like the Second Life Terms of Service meet the requirements for contract formation; they routinely find acceptance when the offeree is required to click "I agree" and they are increasingly doing so when a click is not required. Despite the fact that courts often find assent to these terms, a major criticism of electronically presented agreements is that they often do not provide offerees with sufficient notice of their terms. Hallowing unfettered freedom of contract in the transfer of these rights is also a problem because of the ease and frequency with which online contracts are changed. In the Second Life Terms of Service, Linden reserves the right to amend the terms "at any time, in its sole discretion," and Linden claims that such amendments will be effective when the amended Terms of Service are posted on the Second Life web site. Assuming that such an agreement were enforceable, its operation would require the numerous Second Life members to devote time and effort re-learning the extent of their rights. Terms of service such as these, which affect numerous definite persons, create the very types of institutions that Merrill and Smith define as "between" property and contract. 183

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<sup>&</sup>lt;sup>179</sup> See, e.g., Treiber & Straub, Inc. v. United Parcel Service, 474 F. 3d 379, 385 (7<sup>th</sup> Cir. 2007) (holding plaintiff to contract terms because he was required to click his agreement to them); Nancy S. Kim, *Clicking and Cringing*, 86 Or. L. Rev. 797, 843 (2007) (["c]ourts have refused to uphold clickwrap agreements if users do not have sufficient notice of their terms, or do not have to affirmatively accept the terms of use"); Juliet M. Moringiello, *Signals, Assent and Internet Contracting*, 57 RUTGERS L. Rev. 1307, 1320-1323 (2005) (explaining opinions holding that a click manifests assent to contract terms).

<sup>&</sup>lt;sup>180</sup> See, e.g., Hotels.com, L.P. v. Canales, 195 S.W. 3d 147, 155 (Tx. Ct. App. 2006) (noting that the agreement before it could not be "neatly characterized as either a 'click-wrap' or 'browse-wrap' agreement" and focusing instead on whether the users of the website had adequate notice of the challenged terms); Hubbert v. Dell Corp., 835 N.E. 2d 113, 121 (Ill. Ct. App. 2005), appeal denied 844 N.E. 2d 965 (Ill. 2006) (recognizing that a prominently displayed hyperlink can give adequate notice of the terms found behind the link).

<sup>&</sup>lt;sup>181</sup> See Stephen E. Friedman, Protecting Consumers From Arbitration in Cyberspace, The Federal Arbitration Act and E-Sign Notwithstanding, 57 CATH. L. REV. 377, 399 (2008) (the concept of assent, already more theoretical than real in the world of mass-market written contracts, is strained even further in the world of online contracting . . .); Francis J. Mootz, III, After the Battle of the Forms: Commercial Contracting in the Electronic Age, 4 ISJLP 271, 289 (2008) ("there is every reason to believe that a formalist endorsement of click-wrap agreements will not capture the parties" "bargain in fact" in some cases); Mark A. Lemley, Terms of Use, 91 MINN. L. REV. 459, 482 (2006) (concluding that "the problems terms of use pose stem from a combination of factors: judicial willingness to weaken or even eliminate the notion of assent when presented with a form that purports to be a contract, and the ease with which technology allows companies . . . to present forms that purport to be contracts").

<sup>&</sup>lt;sup>182</sup> Second Life Terms of Service, first paragraph, available at <a href="http://secondlife.com/corporate/tos.php">http://secondlife.com/corporate/tos.php</a>. Not all courts agree that a web posting will result in an effective contract modification. *See* Douglas v. U.S. District Court, 495 F. 3d 1062, 1066-1067 (9<sup>th</sup> Cir. 2007) (holding that a consumer was not bound by a modification posted to a web site because web posting did not give him adequate notice of the amendments).

<sup>&</sup>lt;sup>183</sup> Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 786 (2001).

By arguing for a *numerus clausus* approach, I am not necessarily arguing that only property forms that exist today should be applied to intangible assets. It is possible that the nature of some intangible assets is such that new forms need to be recognized and brought into the standard framework. Some have made this argument with respect to software because of the ease of copying software, <sup>184</sup> and James Grimmelman has observed that virtual worlds such as Second Life should be viewed as feudal societies. <sup>185</sup> In the United States, new forms of interests in real estate, such as condominiums and time shares, have been recognized by legislatures. <sup>186</sup>

Virtual worlds raise myriad property issues, as illustrated by the *Bragg* and *Eros* disputes. The virtual world context allows us to truly visualize the rights at issue; we can see virtual land on a computer. When we experience intangible assets in this way, it becomes clear that contracts such as the Second Life Terms of Service attempt to create novel property forms. Virtual world assets thus illustrate how property rights in intangible assets should be analyzed within a structure of standard forms. Courts honoring the *numerus clausus* principle should not allow the creation of novel property forms, and indeed do not do so when the asset transferred is tangible. Therefore, the *numerus clausus* principle can help us understand the extent of the property rights granted in virtual world and other intangible assets regardless of the language used in the contracts conveying those assets.

## V. WHAT VIRTUAL PROPERTY CAN DO FOR PROPERTY

<sup>184</sup> For instance, arguments have been made that the first sale right, an important component of the package of rights belonging to an owner of a copy of a work protected by copyright, should not apply to digitally-transmitted software because the transferor, in transmitting the software, both makes a copy and sends it. Such an action affects not only the copyright holder's distribution right, which is limited by the first sale rule, but also the reproduction right, which is not. *See, e.g. A Report of the Register of Copyrights Pursuant to § 104 of the Digital Millennium Copyright Act 78 - 92 (2001) available at* <a href="http://www.copyright.gov/reports/studies/dmca/sec-104-report-vol-1.pdf">http://www.copyright.gov/reports/studies/dmca/sec-104-report-vol-1.pdf</a>.

<sup>&</sup>lt;sup>185</sup> James Grimmelman, *Virtual World Feudalism*, 118 YALE L.J. POCKET PART 126 (2009) ('[t]he similarity between ownership in land in feudal England and in Second Life suggests that online courts should protect user interests in virtual items, gradually, without treating them as full-blown modern 'property.'").

<sup>&</sup>lt;sup>186</sup> Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L. J. 1, 55. (2000).

## A. Why a License?

The contracts conveying intangible assets carry different names, such as "Terms of Service," Service Agreement," and "Terms of Use," and "End User License Agreement," but share a common characteristic: many of them attempt to create and convey novel and confusing property rights. For instance, the Second Life Terms of Use discussed above appear to both grant and deny property rights. The same problem exists with some mass-market software licenses. In its license for Microsoft Office, Microsoft appears to give the software transferee many of the important rights of an owner of the material embodiment of the software, set still calls its agreement a license.

This pervasive use of licenses begs the question of "why?" In all areas of law, a license is understood to be a grant of permission that does not convey a right of possession to the licensee. In the intellectual property arena, a license is permission to do something that would otherwise constitute infringement. Licenses today, however, are increasingly used to transfer rights in other types of intangible assets, such as the virtual assets developed in online environments such as Second Life. The word "license."

<sup>&</sup>lt;sup>187</sup> Second Life Terms of Service, *available at* <a href="http://secondlife.com/corporate/tos.php">http://secondlife.com/corporate/tos.php</a> (last visited March 20, 2000)

<sup>&</sup>lt;sup>188</sup> Network Solutions Service Agreement, *available at* http://www.networksolutions.com/legal/static-service-agreement.jsp (last visited March 20, 2009).

World of Warcraft Terms of Use, *available at* <a href="http://www.worldofwarcraft.com/legal/termsofuse.html">http://www.worldofwarcraft.com/legal/termsofuse.html</a> Last visited March 20, 2009).

World of Warcraft End-User License Agreement, *available at* http://www.worldofwarcraft.com/legal/eula.html (last visited March 20, 2009).

<sup>&</sup>lt;sup>191</sup> See notes - supra and accompanying text.

<sup>&</sup>lt;sup>192</sup> Microsoft Software License Terms, Microsoft Office 2008 for Mac Home & Student Edition, *available at* 

http://download.microsoft.com/documents/useterms/Office%20for%20Mac%20Home%20and%20Student 2008 English 8e9a97ac-8ca6-47bc-8039-fc6048a94cdc.pdf (last visited March 20, 2009) ("Microsoft License").

<sup>&</sup>lt;sup>193</sup> For instance, the "license" recognizes the licensee's right to transfer the software to another person, so long as the licensee deletes his own copy of the software, thus recognizing the right of an owner of a copy to transfer that copy. Microsoft License, *supra* note at ¶ 12. The licensee is also grated the right to make a backup copy of the software, a right given by the Copyright Act to "owners" of software copies. 17 U.S.C.  $\S$  117, Microsoft License, *supra* note at  $\P$  6.

<sup>&</sup>lt;sup>194</sup> RAYMOND T. NIMMER, INFORMATION LAW ¶11.02 (1996).

<sup>&</sup>lt;sup>195</sup> See Michael J. Madison, *Reconstructing the Software License*, 35 LOY. U. CHI. L.J. 275, 291 (2003) ("[w]ith the coming of the Internet, the licensing norm developed for computer programs has been

however, does not communicate any defined property right and courts respect freedom of contract when faced with license agreements. 196

A close look at virtual world assets should illustrate why an intangible right should not be immediately conflated with the contract conveying it. It is understandable that one might make this mistake with a domain name; to buy a domain name, one enters into a contract on a web site and pays a yearly fee. The product that the buyer receives looks, to the untrained eye, like just a string of words, and the string of words performs the magic of ushering humans around the World Wide Web. It is not common to buy words, though, so it is natural for us to assume that what the domain name purchaser is buying might be a right to services. On the other hand, virtual currency functions like a known asset, "real" currency.

This is not an article about software, but the story of the evolution of licensing as the predominant method of transferring rights in software <sup>198</sup> provides a good backdrop against which to evaluate the emerging practice of licensing other intangible assets in the electronic world.

Courts tend to accept, without much analysis, the classification of software transfers as licenses. <sup>199</sup> Proponents of the practice of software licensing justify licensing by arguing that the nature of software mandates different treatment of transactions in goods and transactions in software. <sup>200</sup> Certainly, it is easy to copy software, <sup>201</sup> and many

gradually but seamlessly extended to all forms of copyrighted works in digital form, including both "creative" websites and collections of digitized data").

<sup>&</sup>lt;sup>196</sup> See, e.g. ProCD v. Zeidenberg, 86 F.3d 1447, 1448 (7<sup>th</sup> Cir. 1996) ("shrinkwrap licenses are enforceable unless their terms are objectionable on grounds applicable to contracts in general.").

 <sup>197</sup> See, e.g. Network Solutions Service Agreement Version Number 7.8.7, available at
 http://www.networksolutions.com/legal/static-service-agreement.jsp#general (last visited August 13, 2008).
 198 For two excellent discussions of the evolution of licensing in the software industry, see Molly Shaffer

Van Houweling, *The New Servitudes*, 96 GEO. L.J. 885 (2008); Michael J. Madison, *Reconstructing the Software License*, 35 LOY. U. CHI. L.J. 275, 310-316 (2003).

<sup>&</sup>lt;sup>199</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 26-28 (2004). *See, e.g.* MAI Sys. Corp. v. Peak Computer, Inc., 991 F. 2d 511, 519 (9<sup>th</sup> Cir. 1993) (noting, without analysis, that defendants were not protected as "owners" under § 117 of the Copyright Act because they had entered into license agreements).

<sup>&</sup>lt;sup>200</sup> Christian H. Nadan, Software Licensing in the 21<sup>st</sup> Century: Are Software "Licenses" Really Sales, and How Will the Software Industry Respond?, 32 AIPLA Q. J. 555, 613 (2004); Raymond T. Nimmer,

software vendors place restrictions aimed at controlling distribution in their license agreements. <sup>202</sup> A detailed discussion of software licensing is beyond the scope of this paper, but assuming that software *is* different, then licensing, or something like a license, such as a sale with restrictions, may be justified. <sup>203</sup> In order to determine whether a license is justified, however, it is necessary to consider the nature of the interest being transferred. Because virtual worlds afford us the opportunity to study intangible assets with different fundamental characteristics, they can help lawmaking institutions to look beyond the "intangible" label and focus on the important characteristics of the assets transferred. While software vendors may have a justifiable interest in controlling the distribution of their product, it is hard so see how Linden would have an interest in controlling the further use of its currency, the Linden, any more than the Bank of America would have an interest in controlling the use of funds in a depositor's account.

There are several reasons that software transferors want to characterize their transfer agreements as licenses. One is that a transfer of rights by license might escape application of the first-sale doctrine, which limits the exclusive right of a copyright holder to distribute copies of her work.<sup>204</sup> The Copyright Act gives the benefit of the first sale doctrine to a person in possession of a copy of a work if that person is the "owner" of the copy. "Owner," however, is not defined in the act.<sup>205</sup> Once a copyright owner sells a copy her she can no longer control distribution of that copy.<sup>206</sup> The copyright holder retains all of her other exclusive rights, such as the right to reproduce her work, even after

Through the Looking Glass: What Courts and UCITA Say About the Scope of Contract Law in the Information Age, 38 Duq. L. Rev. 255 (2000); Raymond T. Nimmer, An Essay on Article 2's Irrelevance to Licensing Agreements, 40 Loy. L. A. L. Rev. 235 (2006).

<sup>&</sup>lt;sup>201</sup> See Maureen A. O'Rourke, Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software Licensing Terms, 45 DUKE L. J. 479, 489-490 (1995).

<sup>&</sup>lt;sup>202</sup> ProCD v. Zeidenberg, 86 F.3d 1447, 1448 (7<sup>th</sup> Cir. 1996); Adobe Systems, Inc. v. Stargate Software, Inc., 216 F. Supp. 2d 1051, 1055 (N.D. Cal. 2002).

<sup>&</sup>lt;sup>203</sup> Molly Van Houweling suggests that the rights conveyed by mass-market software licenses are, in fact, servitudes. Molly Shaffer Van Houweling, *The New Servitudes*, 96 GEO. L.J. 885, 889 (2008)

<sup>&</sup>lt;sup>204</sup> Under the Copyright Act, a license does not trigger first sale. 17 U.S.C. § 109 (d). *See also* Michael J. Madison, *Reconstructing the Software License*, 35 LOY. U. CHI. L.J. 275, 281 (2003) ("the software license is designed to defeat copyright law's doctrine of first sale, which would otherwise permit the 'licensee' to re-distribute that copy of the program").

<sup>&</sup>lt;sup>205</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 17 (2004).

<sup>&</sup>lt;sup>206</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 12 (2004).

sale. A lesser justification for using a license may be to avoid the application of Article 2 of the Uniform Commercial Code, as Article 2 governs sales.<sup>207</sup>

Software licensing has many critics. Many deem the practice to be controversial because of its impact on the balance struck by copyright laws.<sup>208</sup> These commentators and others also recognize that licenses transfer novel, and perhaps impermissible, property rights. John Rothchild has suggested that the software companies may be using the license label to describe a "new species of property relation"<sup>209</sup> and Michael Madison has suggested that the typical license of a software copy might not be a license at all, but a lease, a bailment, or a conditional gift.<sup>210</sup>

While it is common to transfer software by license, a license of tangible personal property is almost unheard of.<sup>211</sup> Using a license for the transfer of a car as an example, Jean Braucher, in her article *Contracting Out of Article 2 Using a "License" Label: A Strategy That Should Not Work for Software Products*, demonstrates that the license label does not "describe some necessary objective reality."<sup>212</sup> Rothchild made a similar point when he observed that "to say that one 'licenses' a material object . . . is a nonstandard

<sup>&</sup>lt;sup>207</sup> See generally, Jean Braucher, Contracting Out of Article 2 Using a "License" Label: A Strategy that Should Not Work for Software Products, 40 LOYOLA L.A. L. REV. 261, 275 (2006). Elizabeth Winston gives several other justifications for transferring by license rather than sale, including the ability to withhold warranties and "frustrate fair use" in a license. Elizabeth Winston, Why Sell What You Can License? Contracting Around Statutory Protection of Intellectual Property, 14 GEO. MASON L. REV. 93, 102 (2006). Licenses also enable software developers to engage in price discrimination in order to price software according to its value to the user. Christian H. Nadan, Software Licensing in the 21<sup>st</sup> Century: Are Software "Licenses" Really Sales, and How Will the Software Industry Respond?, 32 AIPLA Q. J. 555, 557-559 (2004).

<sup>&</sup>lt;sup>208</sup> See, e.g. Elizabeth Winston, Why Sell What You Can License? Contracting Around Statutory Protection of Intellectual Property, 14 GEO. MASON L. REV. 93 (2006); John A. Rothchild, The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?, 57 RUTGERS L. REV. 1, 32-35 (2004); Michael J. Madison, Reconstructing the Software License, 35 Loy. U. Chi. L.J. 275, 279-280 (2003); Mark A. Lemley, Intellectual Property and Shrinkwrap Licenses, 68 S. CAL. L. REV. 1239 (1995).

<sup>&</sup>lt;sup>209</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 35 (2004).

<sup>&</sup>lt;sup>210</sup> Michael J. Madison, *Reconstructing the Software License*, 35 LOY. U. CHI. L.J. 275, 306-308 (2003). <sup>211</sup> The practice is not completely unheard of. In *UMG Recordings, Inc. v. Augusto*, 558 F. Supp. 2d 1055, 1058 (C. D. Cal. 2008), the court had to decide whether the transferee of a music CD under a license was entitled to first sale rights. *See* notes - *infra* and accompanying text.

<sup>&</sup>lt;sup>212</sup> Jean Braucher, Contracting Out of Article 2 Using a "License" Label: A Strategy That Should Not Work for Software Products, 40 LOYOLA L.A. L. REV. 261, 267 (2006).

usage of the term 'license.'"<sup>213</sup> Put another way, the license label does not necessarily signal an identifiable property interest. Most people would be offended by the use of a license to transfer an automobile; few are offended by the use of a license to transfer software. Elizabeth Winston identifies one reason for this, noting that

Consumers bring with them a preconceived notion of a set of rights when they purchase books, one that does not limit the consumer's use of the book. No such notion, however, existed for software. Software was new, difficult to protect, expensive to develop, and easy to replicate.<sup>214</sup>

Winston's point is an important one: licensing has grown as an important method of transferring software in part because consumers had no preconceived notions about software. One could make the same observation today with respect to other emerging intangible assets. Today, a prospective member of Second Life is not surprised to see license language in the clickwrap Terms of Service because that individual has likely seen license terms in many other clickwrap agreements (if he bothered to read them), most of which were likely related to software delivered to him electronically. Likewise, it might not surprise a purchaser of a domain name to be presented with a "Service Agreement."

It might seem that the intangibility of software is the distinguishing characteristic that makes licenses acceptable for software and unacceptable for tangible personal property such as books. This assumption, however, ignores the fact that software vendors license not only the software that they transfer, but also the tangible disk on which the software resides. In accepting this practice, courts tend to confuse the "computer program and the material object on which it is distributed." As Rothchild has explained, the distinction between the physical embodiment and the copyrighted content has become

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<sup>&</sup>lt;sup>213</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 33 (2004)

<sup>&</sup>lt;sup>214</sup> Elizabeth Winston, Why Sell What You Can License? Contracting Around Statutory Protection of Intellectual Property, 14 GEO. MASON L. REV. 93, 100 (2006). See also Maureen A. O'Rourke, Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software Licensing Terms, 45 DUKE L. J. 479, 488-490 (1995); John A. Rothchild, The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?, 57 RUTGERS L. REV. 1, 26-28 (2004).

<sup>&</sup>lt;sup>215</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 28 (2004).

blurred in the software context.<sup>216</sup> Using the sale of a book as an illustration, he explains that the sale of the physical object (the book) conveys title only to the physical object, not to the copyright to that book. Conversely, transfer of the copyright to a book has no effect on the ownership of a physical embodiment of that book.<sup>217</sup>

The problem that Rothchild identified is exacerbated when the software is not embodied in anything that we consider tangible. This is where virtual property can contribute to our understanding of property law; just as the assets involved in *Bragg* and *Eros* were intangible assets in which the parties claimed different types of property interests, so are the software program and the copyright in the software program. But as software is delivered electronically rather than by disc, it is more difficult to appreciate the difference between the program and the copyright in the program and it becomes harder to separate the intellectual property from the material embodiment of the intellectual property. Because of this blurred distinction between the tangible copy and the intangible copy, courts may find it even more difficult to reject software licenses.

This again, is where virtual worlds provide us with the opportunity to identify the significant aspects of property. Joshua Fairfield proposed a theory of virtual property when he identified the characteristics that separate some intangible assets from others. <sup>220</sup> *Bragg* and *Eros* illustrate these characteristics more sharply. In virtual worlds the distinction between the possessory ownership right and the intellectual property right should be clear. A bicycle in a virtual world can be used and transferred. The intangible item that is used and transferred is distinct from the copyright in that item. The ability to experience these intangible assets in ways that mimic the tangible experience is what

<sup>&</sup>lt;sup>216</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 29-30 (2004).

<sup>&</sup>lt;sup>217</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 28-29 (2004).

<sup>&</sup>lt;sup>218</sup> Michael J. Madison, *Reconstructing the Software License*, 35 Loy. U. Chi. L.J. 275, 279-280 (2003). Madison describes the program as the "electronic instantiation of the instructions that comprise the computer program."

Michael J. Madison, *Reconstructing the Software License*, 35 LOY. U. CHI. L.J. 275, 291-292 (2003).
 Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1063-1064 (2005).

makes virtual property valuable as a vehicle for understanding property rights and interpreting license agreements with an understanding of property forms in mind.

## B. Interpreting Licenses Using Property Forms

A numerus clausus approach to rights in intangible assets might eliminate some of the confusion about the rights granted by license agreements, and might enable courts to recognize that the rights granted in some licenses are not license rights at all. Applying the numerus clausus to the license of a software copy, it is clear that the license does create something else. That practice is an excellent reason to apply the numerus clausus to intangible assets. Again, virtual worlds, by giving us intangible assets with visible physical boundaries, can help us to understand the rationale for this. Without describing the numerus clausus principle by name, Rothchild has suggested an application of it, arguing that if the "licensee" of the physical embodiment of software (he was referring to CD-ROMs and floppy disks) is not required to return the item during its useful life, then the license should be classified as a sale. <sup>221</sup> Courts do reclassify licenses as sales, but they do so in a non-uniform manner. An appreciation of the different property forms embodied in intangible assets can help courts better interpret licenses for all types of emerging intangible assets.

American law implicitly applies the *numerus clausus* not only to estates in land, but also to personal property transactions.<sup>222</sup> The rules by which courts will reclassify leases as sales are well-established and codified to a limited extent. The most common methods of transferring rights to tangible personal property are sale, lease and security interest. Courts commonly reclassify transfers that are described as one type (lease, for instance) as another (a sale) if the transfer carries the identifying characteristics of

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<sup>&</sup>lt;sup>221</sup> John A. Rothchild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1, 35 (2004).

<sup>&</sup>lt;sup>222</sup> U.C.C. § 1-203.

another type of transfer.<sup>223</sup> This is a recognition that there are limits on the ability of contracting parties to customize property interests.

Under the Uniform Commercial Code, if a "lease" looks too much like a security interest, it is a security interest. The UCC contains a bright line test that incorporates the economic realities of lease and sale transactions.<sup>224</sup> Under this test, if the structure of the transfer transaction indicates that the transferor does not intend to receive anything of value at the end of the lease term, that lease is really a sale. Therefore, a lease with no termination option is in fact a secured sale if one of four elements is met. These elements reflect the economic differences between sales and leases. For instance, a lease is in fact a secured sale if there is no termination option and the lease term is equal to or greater than the remaining economic life of the goods.<sup>225</sup> The lack of a termination right is essential to the application of the bright line test; when a transferor transfers an asset to someone else for an unlimited term, the transfer looks like the transfer of a fee simple.

The rules reclassifying leases as secured sales apply only to goods. When the transaction is reclassified, the property interest that the parties intended to convey by their contract is transformed. Rather than transferring a leasehold interest with a reversionary interest in the transferor, the agreement transfers a fee simple, and the transferor retains a security interest.

The bright line test tells a court only when a transfer definitely creates a security interest. It does not exclude other purported lease transfers from reclassification, however. Courts reclassifying transfers falling outside of the bright line test also apply a *numerus clausus* analysis. Courts reclassify leases by applying traditional property concepts, and the language of property is clear in the opinions: a transferor must intend to

<sup>225</sup> U.C.C. § 1-203. For an excellent discussion of the lease-sale distinction under the Uniform Commercial Code, *see generally* Corinne Cooper, *Identifying a Personal Property Lease Under the UCC*, 49 OHIO ST. L.J. 195 (1988).

 $<sup>^{223}</sup>$  This type of reclassification has been codified in the Uniform Commercial Code. § 1-203  $^{224}$  U.C.C. § 1-203.

retain a "meaningful reversionary interest" in order to have its lease form respected.<sup>226</sup> Therefore, where a "lessee" had no practical ability to return the transferred goods because of the cost and difficulty of removal, the court reclassified the license as a sale.<sup>227</sup>

Another reclassification rule is found in § 2-401 of the U.C.C. If a party transfers goods and attempts to retain title to those goods after the transfer, the reservation of title is limited to a security interest. Some describe this as an example of the U.C.C.'s functional approach, defining this approach as one that classifies "with an eye to whether it produces good results." Alternatively, this reclassification could be described as another application of the *numerus clausus*: a person who gives up possession of goods permanently, and for a price, has sold those goods.

Licenses are also subject to reclassification by courts. As noted above, the term "license" in itself does not communicate any property interest, as a license is a contract. Earlier in this article, I described scripted and non-scripted virtual worlds. <sup>230</sup> In both types of these worlds, the virtual world operators describe the rights they convey as license rights. <sup>231</sup> A comparison of the Second Life and World of Warcraft licenses, however, show that the rights that licensors attempt to convey are very different. To some, the rights conveyed by Blizzard and Linden might appear to be similar. After all, they both convey some kind of intangible asset in a virtual world. Blizzard, however intends that World of Warcraft members use in-world items for one purpose, the

<sup>&</sup>lt;sup>226</sup> WorldCom, Inc. v. GE Global Asset Mgmt. Servs. (*In re* WorldCom, Inc.), 339 B.R. 56 (Bankr. S.D.N.Y. 2006); *In re* QDS Components. Inc. 292 B.R. 313 (Bankr. S.D. Ohio 2002)

S.D.N.Y. 2006); *In re* QDS Components, Inc., 292 B.R. 313 (Bankr. S.D. Ohio 2002). <sup>227</sup> WorldCom, Inc. v. GE Global Asset Mgmt. Servs. (*In re* WorldCom, Inc.), 339 B.R. 56 (Bankr. S.D.N.Y. 2006)

<sup>&</sup>lt;sup>228</sup> U.C.C. § 2-401.

<sup>&</sup>lt;sup>229</sup> Jean Braucher, Contracting Out of Article 2 Using a "License" Label: A Strategy That Should Not Work for Software Products, 40 LOYOLA L.A. L. REV. 261, 275 (2006).

<sup>&</sup>lt;sup>230</sup> See notes - supra and accompanying text.

<sup>&</sup>lt;sup>231</sup> See Second Life Terms of Service ¶ 1.4, at <a href="http://secondlife.com/corporate/tos.php">http://secondlife.com/corporate/tos.php</a> (describing the users' right to their virtual currency as a "limited license right"); World of Warcraft Terms of Use ¶¶ 7, 11 (stating that the user has "no ownership or other property interest in the account" and forbidding transfers of game items).

progression of a scripted game. Linden intends that its members will develop a vibrant world in which business should thrive.<sup>232</sup>

Some courts analyzing licenses, like courts analyzing leases, hold that the label given to a transfer is not determinative. Like the Second Life Terms of Service described earlier in this paper, software licenses may also ambiguously describe the rights transferred. The Microsoft End User License Agreements provide an example of this ambiguity. While the license states clearly that "the software is licensed, not sold," the agreement appears to give the transferee rights that he would have under the first sale doctrine, as it permits the transferee to transfer the software, and the agreement, to a third party. The first transferee is permitted to transfer the software so long as the first transferee removes the software from his computer. 234

The rules for reclassifying licenses as sales are not as established as those for reclassifying leases as sales. Some courts accept the license label without question when the license is for software.<sup>235</sup> Other courts, however, have applied the same sort of economic realities test as that applied to leases. Unlike the economic realities test used to distinguish leases from secured transactions, however, these tests have differed depending on the context in which they were applied.

For example, in *Microsoft v. DAK Industries, Inc.*, (In re *DAK Industries, Inc.*), <sup>236</sup> the court had to distinguish between a lease and a license in order to determine whether

<sup>&</sup>lt;sup>232</sup> The Second Life website tells the world that "one of the most exciting aspects of Second Life is its vibrant marketplace for virtual goods and services." <a href="http://secondlife.com/whatis/marketplace.php">http://secondlife.com/whatis/marketplace.php</a> (last visited March 21, 2009).

visited March 21, 2009).

233 Microsoft Software License Terms, Microsoft Office 2008 for Mac Home & Student Edition, ¶ 5, available at

http://download.microsoft.com/documents/useterms/Office%20for%20Mac%20Home%20and%20Student 2008 English 8e9a97ac-8ca6-47bc-8039-fc6048a94cdc.pdf (last visited July 24, 2008)

<sup>&</sup>lt;sup>234</sup> Microsoft Software License Terms, Microsoft Office 2008 for Mac Home & Student Edition, ¶12, available at

http://download.microsoft.com/documents/useterms/Office%20for%20Mac%20Home%20and%20Student 2008 English 8e9a97ac-8ca6-47bc-8039-fc6048a94cdc.pdf (last visited July 24, 2008)

<sup>&</sup>lt;sup>235</sup> See, e.g. MAI Sys. Corp. v. Peak Computer, Inc., 991 F. 2d 511, 519 (9<sup>th</sup> Cir. 1993) (noting, without analysis, that defendants were not protected as "owners" under § 117 of the Copyright Act because they had entered into license agreements)

<sup>&</sup>lt;sup>236</sup> 66 F. 3d 1091 (9<sup>th</sup> Cir. 1995).

payments due under the agreement were entitled to administrative expense priority in the licensee's bankruptcy. The economic distinction that the court had to consider in that case was the distinction between a pre-petition creditor whose claim arose before the bankruptcy petition and the obligee under an executory contract whose claim would continue to accrue after the petition.<sup>237</sup> Because it was determining the moment at which the payments were due rather than the property rights transferred, the court focused primarily on the payment schedule in ruling that the license was analogous to a sale transaction and therefore, the licensor was a pre-petition creditor.<sup>238</sup> Property forms played a subsidiary role in the court's opinion, as the court recognized that the debtor, as a software distributor, obtained a "right to sell" in its license, rather than the "permission to use" that a traditional license grants.<sup>239</sup>

Other courts have focused more clearly on the duration of the possessory interest transferred. In *UMG Recordings, Inc. v. Augusto*, <sup>240</sup> the court likewise applied an "economic realities" test to distinguish a license from a sale. At issue in that case was not software, but promotional recordings of music. Every CD at issue had a label with license language that stated that the CDs were the property of the plaintiff and that recipients were not permitted to transfer the recordings. <sup>241</sup> The court, while classifying its analysis as an economic realities analysis, in fact inquired into the property rights granted by the "license." Because the recipient was granted perpetual possession of the CDs and were not required to return them, the court found that the CDs were sold, not licensed. <sup>242</sup> The court also found it relevant that the asset at issue was a CD, not software, and observed that "music CDs are not normally subject to licensing." <sup>243</sup> The court also touched upon the lack of a continuing payment obligation, but found the transferees "ability of indefinitely possess the [CDs] to be determinative of the property right transferred. <sup>244</sup>

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Under the Bankruptcy Code, a "creditor" is any person with a prepetition claim against the debtor. 11 U.S.C. § 101 (10). A trustee can assume or reject any executory contract of the debtor. 11 U.S.C. § 365.

<sup>&</sup>lt;sup>238</sup> DAK Industries, Inc. v Microsoft (*In re* DAK Industries, Inc.), 66 F. 3d 1091, 1094-1095 (9<sup>th</sup> Cir. 1995).

<sup>&</sup>lt;sup>239</sup> DAK Industries, Inc. v Microsoft (*In re* DAK Industries, Inc.), 66 F. 3d 1091, 1095 (9<sup>th</sup> Cir. 1995).

<sup>&</sup>lt;sup>240</sup> 558 F. Supp. 2d 1055 (C. D. Cal. 2008).

<sup>&</sup>lt;sup>241</sup> UMG Recordings, Inc. v. Augusto, 558 F. Supp. 2d 1055, 1058 (C. D. Cal. 2008).

<sup>&</sup>lt;sup>242</sup> UMG Recordings, Inc. v. Augusto, 558 F. Supp. 2d 1055, 1060-1061 (C. D. Cal. 2008).

<sup>&</sup>lt;sup>243</sup> UMG Recordings, Inc. v. Augusto, 558 F. Supp. 2d 1055, 1062 (C. D. Cal. 2008).

<sup>&</sup>lt;sup>244</sup> UMG Recordings, Inc. v. Augusto, 558 F. Supp. 2d 1055, 1061 (C. D. Cal. 2008).

Perpetual possession was also important to the court in *Vernor v. Autodesk*, *Inc.*, <sup>245</sup> another case in which the court reclassified a software license as a sale. Recognizing that there is no bright-line test for distinguishing a license from a sale, the court held that if the transferee received perpetual possession of the software in exchange for a one-time payment, then the software is sold, not licensed. <sup>246</sup>

Closest to recognizing that a software transaction involves several distinct property interests in the software asset was the court in *Softman Products Co., LLC. v. Adobe Systems, Inc.*, <sup>247</sup> a case in which a software distributor sold copies unbundled Adobe software, in contravention of the Adobe license. Adobe framed the question as one about the ownership of intellectual property. The court rejected that characterization, instead describing the dispute as one "about the ownership of individual pieces of Adobe software." The court further recognized that the Copyright Act distinguishes between the "tangible property rights in copies of the work and intangible property rights in the creation itself." The software at issue in *Softman*, like the software at issue in the other reclassification cases, was delivered on a tangible disk, which made it easy for the court to emphasize the importance of possession.

In another case involving Adobe, however, the court also recognized that there is a difference between ownership of the intellectual property and ownership of the copy of the software but held nevertheless that the license agreement granted license rights rather than ownership rights.<sup>250</sup> In that case, the court placed an unfortunate amount of emphasis on the distinction between tangible and intangible assets, stressing that the value of the CDs at issue was attributable to the intangible code inscribed on it. Because the court recognized, correctly, that the CD would be worthless without the intellectual property, it

<sup>&</sup>lt;sup>245</sup> 555 F. Supp. 1164 (W.D. Wash. 2008)

<sup>&</sup>lt;sup>246</sup> Vernor v. Autodesk, Inc., 555 F. Supp. 1164, 1170 (W.D. Wash. 2008)

<sup>&</sup>lt;sup>247</sup> 171 F. Supp. 2d 1075 (C. D. Cal. 2001).

<sup>&</sup>lt;sup>248</sup> Softman Products Co., LLC v. Adobe Systems, Inc., 171 F. Supp. 2d 1075, 1084 (C. D. Cal. 2001).

<sup>&</sup>lt;sup>249</sup> Softman Products Co., LLC v. Adobe Systems, Inc., 171 F. Supp. 2d 1075, 1084, 1085 (C. D. Cal. 2001)

<sup>&</sup>lt;sup>250</sup> Adobe Systems, Inc. v. Stargate Software, Inc., 216 F. Supp. 2d 1051, 1058 (N.D. Cal. 2002).

upheld the license as a license. <sup>251</sup> The court in *Stargate* emphasized the difference between software and other assets, focusing on the ease of inexpensive copying.<sup>252</sup>

All of the software reclassification cases illustrate why an understanding of virtual world assets can help us apply a *numerus clausus* analysis to agreements that transfer intangible assets. Most of these cases focus on possession, which is an important property attribute. Estates are defined in terms of the possessory rights that they convey, so determination of the existence and duration of possession is crucial to identification of the property rights granted in a conveyance. To most people today, the word possession means manual possession or occupation of tangible assets; understanding virtual world property helps us appreciate that rights similar to possessory rights can exist with respect to intangible assets.

## VI. CONCLUSION

One of the justifications for a closed set of property rights is that such a set gives notice to rights holders of the extent of their rights. Without such notice, people might not use their rights efficiently. <sup>253</sup> On the one hand, many might not care whether sex beds, virtual money, or virtual land are used "efficiently;" these are still viewed by many as the playthings of people with too much time on their hands. But when we use these virtual playthings as a vehicle through which to explore rights in intangible assets generally, we can appreciate why concepts like the *numerus clausus* should be more strictly applied to rights in emerging electronic assets.

If rights in tangible assets are not infinitely customizable, then there is no reason that rights in intangible assets should exist in an unlimited number of forms. Given the notice function of standardized forms, there are probably more reasons to standardize

Adobe Systems, Inc. v. Stargate Software, Inc., 216 F. Supp. 2d 1051, 1058-1059 (N.D. Cal. 2002).
 Adobe Systems, Inc. v. Stargate Software, Inc., 216 F. Supp. 2d 1051, 1059 (N.D. Cal. 2002).

<sup>&</sup>lt;sup>253</sup> Henry Hansmann & Reiner Kraakman, *Property, Contract and Verification: The Numerus Clausus* Problem and the Divisibility of Rights, 31 J. LEGAL STUD. S373, S382 (2002) ("If two persons are both to have rights in a single asset, they need some means of assuring that they share a common understanding of those rights. Absent such understanding, the parties may mistakenly make inconsistent uses of the asset or underuse the asset").

rights in intangible assets than in tangible ones. Many contracts convey rights in intangible assets that are equivalent to the rights that exist in tangible assets. A holder of an intangible asset can often exclude others from the use of that asset. It is not always easy to appreciate this when the asset is invisible, but when the asset is visibly represented in a virtual world and can function like tangible property, we can understand that possession is not limited to tangible things.