

The Five Indicia of Virtual Property

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I. INTRODUCTION

Many Americans use “it” every day. Although it is intangible, it may be worth thousands of dollars. Because we can both control it and prevent other people from controlling it, we assume, without much thought, that we own it. Sometimes we pay someone a monthly fee to hold it for us. Sometimes, simply by using it, we increase its value. When we finish using it, we often sell it.

“It” is virtual property, and it may take the form of an email address, a website, a bidding agent, a video game character, or any number of other intangible, digital commodities. If it were to be damaged or stolen, the immediate questions would be: (1) how should a court identify it; and (2) what degree of legal protection should it receive?

Because no court or legislature in the United States yet has recognized virtual property interests, a combination of contract and custom currently controls the relationship between Internet users and service providers. This legal *status quo* generally provides sufficient framework to structure this relationship to the parties’ benefit. Thanks to services offered by Internet businesses, users have access to valuable tools and resources that they would not otherwise have; users may trust reputable service providers not to sabotage the value of those tools and resources; and, despite ominous language in certain click-wrap agreements, service providers generally do not interfere with the secondary market for virtual property.¹ Therefore, unless a service provider recklessly or intentionally maligns a user’s virtual property interests, the legal *status quo* should not be disturbed, as between a user and a service provider.

The legal *status quo*, however, poses a significant risk to users transacting in virtual property with other users, paradoxically in part due to the efforts of service providers to ensure the quality of their services. Given

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1. Such interference generally only occurs when the activity of a minority of users threatens to undermine core features of the service from which the majority of users (and the service provider) derive value, as in the *Blacksnow Interactive v. Mythic Entertainment* example. See *infra* Part II.A.4 (discussing the *Blacksnow* case). Note that the *Blacksnow* case was dismissed by default, without an opinion on the merits.

the uncertain landscape of virtual property law, typical End User License Agreements (EULAs) (between users and service providers) raise questions of unconscionability, notice, and consent, thereby undermining the enforceability of users' interests.² Those using eBay.com and other services to trade online user accounts face a labyrinth of legal uncertainty. If, as suggested by the typical EULA, users have no property interest in their accounts, then their trades may be void, e.g., for lack of consideration. Despite this uncertainty, the secondary market value of virtual property is undeniable.³ People trade virtual property every day.⁴ Users need legal protection and certainty when dealing with other users in these trades.

Skeptical courts may be slow to accept the concept of virtual property, preferring instead the comfort of preexisting legal doctrines. Several circuitous legal constructs can help litigants temporarily avoid the virtual property question, but such resort will likely fail to serve the parties' long-term interests. Potential alternative constructs include: licensor-licensee,⁵ trespass to electronic chattels,⁶ copyright infringement,⁷ and trade secret

2. See, e.g., Zachary M. Harrison, Comment, *Just Click Here: Article 2B's Failure to Guarantee Adequate Manifestation of Assent in Click-Wrap Contracts*, 8 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 907, 938-42 (1998) (arguing that users accepting terms of common click-wrap agreements rarely manifest a subjective intent to agree, thereby raising questions of effective consent and threatening the ability to withdraw consent). But see *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1451-52 (7th Cir. 1996) (reciting practical advantages of the current market reality and affirming the enforceability of click-wrap licenses). This note posits no opinion as to whether typical EULA terms are unconscionable. Rather, given the potential value of virtual property, the emotionally addictive nature of Massively Multiplayer Online Games (MMOGs), and the circumstances surrounding typical click-wrap agreements, this note simply suggests that users are likely to explore the doctrine of unconscionability as a means to attack EULA terms. See generally Kevin W. Grierson, Annotation, *Enforceability of "Clickwrap" or "Shrinkwrap" Agreements Common in Computer Software, Hardware, and Internet Transactions*, 106 A.L.R. 5TH 309 (2003) (collecting discussion and case law relating to software licenses but not specifically pertaining to virtual property).

3. See generally Edward Castronova, *Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier* (CESifo Working Paper Series, Paper No. 618, 2001), <http://ssrn.com/abstract=294828> (documenting the secondary market for virtual characters and treasures in the MMOG Everquest, developed by Verant Interactive).

4. *Id.*

5. See *infra* Part III.A (discussing how the relationship between a service provider and a user is analogous to a licensor-licensee relationship, in the traditional property context).

6. See Steven Kam, *Intel Corp. v. Hamidi: Trespass to Chattels and a Doctrine of Cyber-Nuisance*, 19 BERKELEY TECH. L.J. 427, 427 (2004) (discussing the revival of trespass to chattels as a "pragmatic answer to the problem of electronic invasions" and predicting the evolution of "cyber-nuisance" as an independent cause of action, though not specifically addressing the type of virtual property discussed herein); Marjorie A. Shields, Annotation, *Applicability of Common-Law Trespass Actions to Electronic Communications*, 107 A.L.R. 5TH 549 (2003) (collecting cases). But see Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1081 (2005) (noting that the doctrine of trespass to chattels will often fail to adequately resolve virtual property disputes "because it is possible to steal virtual property without ever touching a chattel computer owned by the owner of the virtual property, or hacking a server").

7. See Greg S. Weber, *The New Medium of Expression: Introducing Virtual Reality and Anticipating Copyright Issues*, 12 COMPUTER/L.J. 175, 190-91 (1993) ("[Virtual Reality] insiders agree that with this technology, the user becomes a cocreator of his or her experience"); see also Molly Stephens, *Sales*

misappropriation.⁸ Although each of these alternatives may be sufficient to resolve limited cases, recognizing virtual property for what it is—a legitimate property interest inducing reasonable expectations of legal protection—would provide a more predictable and broadly applicable solution.

The question therefore becomes, how should courts identify protectable virtual property interests? Partially due to the dramatic success of Massively Multiplayer Online Games (MMOGs)⁹ and the rise of secondary markets for virtual characters and treasures from those games,¹⁰ a recent frenzy of legal scholarship has struggled to resolve this question.¹¹ This note supports the legal recognition of virtual property interests, as already convincingly justified by the legal analogy to traditional property interests set forth by Professor Joshua Fairfield,¹² buttressed by the practical reality that virtual property has significant economic value.¹³

Building on these rationales, this note proposes five indicia, common to most forms of virtual property, which a court should use to identify legally protectable virtual property interests on the Internet. These indicia are: (1) rivalry; (2) persistence; (3) interconnectivity; (4) secondary markets; and (5) value-added-by-users.¹⁴ This note cautions, however, against applying this newfound definition indiscriminately against the interests of

of In-Game Assets: An Illustration of the Continuing Failure of Intellectual Property Law to Protect Digital-Content Creators, 80 TEX. L. REV. 1513, 1528 (2002) (concluding that service providers generally cannot invoke copyright law to restrict secondary market sales).

8. See generally Alois Valerian Gross, Annotation, *What Is Computer "Trade Secret" Under State Law*, 53 A.L.R. 4TH 1046 (1987) (collecting trade secret case law). For example, Gross' annotation arranges cases according to six factors relevant to determining trade secret status in particular circumstances: 1) extent to which information is known outside employer's business; 2) extent of measures taken by employer to guard secrecy of information; 3) value of information to employer and to his competitors; 4) amount of effort or money expended by employer in developing information; 5) ease or difficulty with which information can be properly acquired or duplicated by others; and 6) extent to which information is known by employees and others involved in employer's business. *Id.* Abstracted beyond the realm of employer-employee relationships, these six factors vaguely relate to the virtual property interests inherent in service provider-user relationships. Under the trade secret analogy, a password required to access a user's account is the "information" at issue. Misappropriation of such "information" could cause financial damage, thereby incurring liability. Fully exploring the potential analogy between trade secrets and virtual property, however, is a topic for another day. Moreover, such a contortion of preexisting law would disserve jurisprudence by dodging the real issue—the property interests at stake.

9. See generally BRUCE WOODCOCK, AN ANALYSIS OF MMOG SUBSCRIPTION GROWTH – VERSION 18.0, <http://www.mmogchart.com/> (last visited Oct. 31, 2006) (tracking active subscriptions to online game worlds).

10. See generally Castronova, *supra* note 3 (documenting the secondary market for virtual characters and treasures in the MMOG Everquest, developed by Verant Interactive).

11. See, e.g., Fairfield, *supra* note 6, at 1053 (advocating for legal recognition of virtual property).

12. See *id.* (analogizing virtual property to "real world" property).

13. See generally Castronova, *supra* note 3 (discussing the monetary value generated by individual Everquest players and by Everquest, as a whole).

14. The first three indicia of virtual property (rivalry, persistence, and interconnectivity) were first articulated by Professor Joshua Fairfield. Fairfield, *supra* note 6, at 1053-54. This note suggests that secondary markets and value-added-by-user are equally significant indicia of virtual property.

the very entities without whom the property would not exist: the businesses hosting the remotely accessed computer resources (i.e., the service providers).

Professor Fairfield and other legal scholars already have illustrated the compelling and well-reasoned legal analogy between virtual property and traditional property.¹⁵ Indeed, most virtual property is deliberately designed to behave like traditional property.¹⁶ Thus, three of the five proposed indicia of virtual property derive directly from the analogy to traditional property.¹⁷ Specifically, virtual property shares with traditional property the characteristics of rivalry, persistence, and interconnectivity.¹⁸ For example, a user's email address is rivalrous because, by using the address, the user prevents other people from using it. The email address is persistent because it continues to exist even when it is not being used. Lastly, the email address is interconnected because it is part of a system where people may interact with it according to certain rules. Real property, such as land, is likewise generally rivalrous, persistent, and interconnected.¹⁹

This analogy, however, is not perfect. Whereas an interest in land or chattels may be entirely acquired and assigned,²⁰ Internet users acquire and access virtual property as a result of service providers' initial and continuing investment in computer hardware, software, and intellectual property. Thus, virtual property law must not only balance the interests of users against the interests of other users; the law must also balance the interests of users against the interests of service providers.²¹

15. *Id.* at 1053; F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CAL. L. REV. 1, 49 (2004) (applying traditional property theories to justify the enforceability of virtual property interests). The term "traditional property" is used herein, for lack of a better term, to encompass both real and personal property, to the exclusion of intellectual property. Professor Fairfield uses the term "real world property." Fairfield, *supra* note 6, at 1053.

16. Fairfield, *supra* note 6, at 1053.

17. See *infra* Part I (discussing the characteristics of rivalry, persistence, and interconnectivity, as well as other indicia of property interests).

18. Fairfield, *supra* note 6, at 1053-54.

19. Note that intellectual property arguably does not meet any of these criteria. The analogy between intellectual property and virtual property may be tempting, given that they are both intangible property interests, but this is where the similarity ends.

20. Disregarding, for the moment, inalienable interests such as *droit moral*. See generally Timothy E. Nielander, *Reflections on a Gossamer Thread in the World Wide Web: Claims for Protection of the Droit Moral Right of Integrity in Digitally Distributed Works of Authorship*, 20 HASTINGS COMM. & ENT. L.J. 59, 71 (1997) (defining the inalienable *droit moral* right of integrity and discussing its implications for copyright law in cyberspace, with examples of representative causes of action in the United States and abroad).

21. Furthermore, while the analogy to traditional property may be instructive, it may underrate the economic value and effect of virtual property. As summarized by Professor Fairfield, in 2005:

The projected U.S. revenue from sales of virtual objects in real-world currency is approximately \$100 million dollars, and over \$1.5 billion worth of transactions occurs yearly through [virtual] trades. The secondary market in virtual items was recently estimated at

Therefore, to supplement Fairfield's indicia, the presence of secondary markets and value-added-by-users may serve as additional indicia of a virtual property interest worthy of legal protection. These two indicia explicitly allow courts to weigh practical economic considerations in determining the amount of protection to be accorded to a user's virtual property interests, specifically in light of the legitimate interests of service providers. Part II of this note describes each of these five indicia individually, with examples.

Part III of this note applies the five indicia to the well-established framework of traditional property to illustrate this balancing process. Throughout the development of the law in this area, courts must retain the freedom and flexibility to craft appropriate equitable remedies on a case-by-case basis, and special attention should be directed to the practical issues commonly faced by Internet service providers. The ultimate purpose of virtual property jurisprudence should be to strike a balance that provides legal redress to users whose legitimate virtual property interests have been violated while simultaneously reducing liability and disincentives to service providers who promote and sustain the growth of the Internet.

II. IDENTIFYING VIRTUAL PROPERTY

Virtual property is persistent computer code stored on a remote source system, where one or more persons are granted certain powers to control the computer code, to the exclusion of all other people.²² Similar to traditional property, virtual property is often rivalrous, persistent, and interconnected.²³ Virtual property often is traded in secondary markets,²⁴ and us-

over \$880 million dollars, and is expanding quickly. [Norrath, one of several virtual worlds in the MMOG Everquest,] had, as of 2002, a greater net worth than Bulgaria and a higher GNP per capita than India or China. Likewise, the individual as well as the aggregate value of the virtual property bought and sold is rising—a piece of virtual real estate within a virtual environment recently sold for approximately \$30,000.

Fairfield, *supra* note 6, at 1062.

22. This is my own formulation of the definition of virtual property. *Cf. id.* at 1049-50 (defining virtual property as computer code designed to act more like land or chattel than ideas). No United States court or legislature has yet provided a controlling definition.

23. *Id.* at 1053. In his article, Professor Fairfield initially sets forth the relevance of rivalry, persistence, and interconnectivity. *Id.* at 1053-54. For the purposes of this note, Professor Fairfield's choice of relevant characteristics is accepted and expanded.

24. *See also* Castronova, *supra* note 3, at 18 (asserting that a virtual world is a real economy, from an economist's point of view, in part because the virtual assets may be exchanged with real world money at a floating exchange rate).

ers of virtual property often add value to the property just by using it.²⁵ Therefore, the five indicia of virtual property are:

- 1) Rivalry;
- 2) Persistence;
- 3) Interconnectivity;
- 4) Secondary Markets; and
- 5) Value-Added-by-Users.

This note borrows the indicia of rivalry, persistence, and interconnectivity from Professor Fairfield's article.²⁶ These three indicia, in particular, illustrate the parallel between traditional property and virtual property.²⁷ However, virtual property is intangible—similar to intellectual property.²⁸ A court wary of unduly contorting intellectual property law to accommodate the frontiers of virtual property may look to Fairfield's analysis to understand that, in fact, virtual property may fall safely within the bounds of traditional property law without adversely affecting intellectual property law.²⁹ To supplement Fairfield's analysis and because of the significant economic interests and potential claims to natural rights likely lurking in a virtual property dispute, this note adds the latter two indicia (secondary markets and value-added-by-users) as additional considerations for the courts.³⁰

25. This characteristic has been loosely equated to co-authorship, in the copyright sense, or natural rights, in the more general, property-theory sense. See Lastowka & Hunter, *supra* note 15, at 46-47 (discussing Lockean theories of property rights through labor as a supplemental justification for the legal recognition of virtual property interests); Weber, *supra* note 7, at 190-91 (“[Virtual Reality] insiders agree that with this technology, the user becomes a cocreator of his or her experience”); Andrew J. Wu, *From Video Games to Artificial Intelligence: Assigning Copyright Ownership to Works Generated by Increasingly Sophisticated Computer Programs*, 25 AIPLA Q.J. 131, 175-76 (1997) (noting that software programmers and users may be co-authors of works created using computer programs).

26. Fairfield, *supra* note 6, at 1053-54.

27. *Id.*

28. See *id.* at 1064 (describing virtual property as “code that is intangible, but that has been coded to act as if it were tangible”).

29. *Id.* at 1096; see generally Dan Hunter, *Cyberspace as Place and the Tragedy of the Digital Anticommons*, 91 CAL. L. REV. 439, 446 (2003) (expressing the potential negative side effects of unduly contorting intellectual property law to create new intangible property interests in cyberspace). Furthermore, this note explicitly distinguishes virtual property from intellectual property. See, e.g., *infra* Part II.A.2 (using the five indicia suggested herein to distinguish virtual property from intellectual property).

30. See generally Castronova, *supra* note 3 (documenting the development of secondary markets surrounding the MMOG Everquest, by Sony Online Entertainment); Julian Dibbell, *The Unreal Estate Boom*, WIRED, Jan. 2003, available at <http://www.wired.com/wired/archive/11.01/gaming.html> (describing the time and money committed by MMOG players to increase the value of their user accounts); Posting of Edward Castronova to Terranova, http://terranova.blogs.com/terra_nova/2006/01/how_a_gold_farm.html (Jan. 19, 2006) [hereinafter Castronova Posting] (describing a virtual treasure

Altogether, the five indicia form a framework for identifying protectable virtual property. In the rapidly changing and unpredictable realm of the Internet, however, no test should be absolute or overly rigid. The indicia should be considered as a totality, with the reasonable expectations of ordinarily prudent consumers underpinning any analysis.

A. *The Five Indicia of Virtual Property*

1. *Rivalry*

Rivalry is the inherent characteristic of traditional property that limits control of the property, at any given time, to one person.³¹ Simply put, a shoe can only be worn by one person at a time; thus, the shoe is rivalrous personal property. Viewed another way, by wearing the shoe, the wearer presently excludes all others from using it. Intangible rivalrous property, such as an email address, is an example of virtual property. By appropriating an email address for personal use, the user excludes others from using it.

Rivalry is the principal difference between virtual property and intellectual property. Intellectual property is not only intangible but also non-rivalrous. For example, by listening to a song stored in MP3 compression format, the listener in no way affects the ability of others to listen to the same song. Likewise, by affixing golden arches to a product as a trademark, the producer in no way affects the ability of others to use exactly the same trademark.³² Limitations on the use of intellectual property arise not from rivalry, but from exclusionary rights enforceable at law.³³ Thus, the simplest and most immediate method for distinguishing virtual property from intellectual property is to determine whether the property in question is actually rivalrous or merely protected by an exclusionary right.

Note, however, that rivalry alone does not give rise to virtual property and that some forms of virtual property may be “semi-rivalrous.” For ex-

“farm” with sixteen employees, in the MMOG Everquest, which generated nearly \$800,000 per year in income).

31. Fairfield, *supra* note 6, at 1053.

32. Trademark exclusivity arises only through action of law in the interest of protecting consumers from confusing or deceptive trade practices. See *Artype, Inc. v. Zappulla*, 228 F.2d 695, 696-97 (2d Cir. 1956) (In the words of Judge Learned Hand, “[a] trade-mark is indeed often spoken of as a monopoly; but in fact it is only part of the protection of the owner’s business from diversion to others by means of deceit.”). This is not rivalry in the physical sense. Rather, trademark exclusivity is a purely legal construct.

33. See, e.g., *Cont’l Paper Bag Co. v. E. Paper Bag Co.*, 210 U.S. 405, 424 (1908) (affirming the right to exclude provided by a patent, regardless of non-use by the patentee); see also Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730, 730 (1998) (arguing that the legal right to exclude others is the defining characteristic of all property).

ample, many people may share simultaneous control of a remote database, seemingly negating the characteristic of rivalry and suggesting that the database is not a form of virtual property. Indeed, as public accessibility to a virtual resource increases, the property protections accorded to individuals using the resource should correspondingly decrease. This rule reflects the reasonable expectations of Internet users. Beyond individual contributions, no reasonable user expects to control the content of a public Internet message board. Conversely, where access to a private chat room is tightly controlled and limited to members of a small group, the group, as a single entity, may begin to reasonably expect some level of virtual property protection. Thus, rivalry is neither dispositive nor absolute; it merely serves as one of the five proposed indicia of protectable virtual property.

2. Persistence

Persistence is the inherent characteristic of traditional property that maintains the property, generally unchanged, even when it is not being used.³⁴ A parked car continues to exist, and, at the end of the day, the owner reasonably expects to find the car where he parked it. Thus, like most forms of tangible property, the car persists. Intangibles, however, often lack persistence. For example, music persists only as long as the sound continues to reach an ear. Music only becomes protectable intellectual property after it is “fixed in any tangible [i.e., persistent] medium of expression,” such as an audio CD.³⁵ Yet the tangible and persistent audio CD is not protectable intellectual property, *per se*.³⁶ The intangible music is intellectual property, while the tangible audio CD remains personal property.³⁷ Thus, intellectual property is correctly characterized as intangible and lacking persistence.

Conversely, virtual property, although intangible, is persistent.³⁸ A greater degree of persistence warrants a greater property interest. For example, a user of remotely hosted email services, such as Yahoo! Mail, may reasonably expect messages saved in an “Inbox” to persist for weeks or months (until intentionally deleted) even though the email account is only

34. Fairfield, *supra* note 6, at 1054.

35. 17 U.S.C. § 102(a) (2000).

36. *See id.* § 101 (distinguishing “Sound recordings” (the music) from “Phonorecords” (the audio CD)).

37. *See id.* (distinguishing “Sound recordings” (the music) from “Phonorecords” (the audio CD)); *see also* Fairfield, *supra* note 6, at 1096 (explicitly citing the difference between an audio CD and the intellectual property contained therein as analogous to the difference between a virtual property interest and the intellectual property which gave rise to that interest).

38. *See* Fairfield, *supra* note 6, at 1054 n.26 (attributing the persistence of most virtual property to distributed computing).

used for a few minutes each day. The persistent nature of an email account induces reasonable reliance and increases the user's property interest in the account, thereby increasing the justification for equitable intervention by courts to remedy third-party interferences with that interest. In contrast, a low or minimal degree of persistence suggests that users' virtual property interests are weak and legally unprotectable. For example, despite the fact that video arcade machines often memorialize the "Top 10 High Scores," no reasonable pizza parlor patron would expect a high score on a *Frogger* machine to persist for any great length of time, given that the list resets whenever the machine is unplugged.³⁹

3. *Interconnectivity*

Interconnectivity is the inherent characteristic of traditional property to affect or to be affected by more than one person and by other property.⁴⁰ Like the other indicia of virtual property, interconnectivity is neither dispositive nor absolute, with varying degrees of interconnectivity suggesting varying degrees of protectable user interests. Note that easier access does not necessarily equate to greater interconnectivity. Rather, the legally protectable value of interconnectivity arises from a person's ability to use property to create or experience an effect.⁴¹

For example, a free website that only allowed users to track stock prices probably would not create viable virtual property interests in the users' accounts. If the accounts were tampered with or were to disappear entirely, users would be upset, but the violation of legitimate property interests would be minimal, given that the accounts lacked any capacity to directly affect other property. In contrast, a website that allowed users to buy and sell stock may create strong virtual property interests in the users' accounts. If these accounts were tampered with, users would feel rightfully furious and violated, and the consequent monetary damage could be extraordinary. Only interconnectivity distinguishes the two examples. Thus, Internet services that allow users to create or experience an effect,

39. The high score list of the *Frogger* machine lacks persistence largely because it is a single machine with a single point of failure. Distributed computing eliminates single points of failure, thereby increasing persistence. *Id.* Thus, remotely accessed distributed computing systems may indicate persistence and secondarily indicate a virtual property interest. Not all data stored on distributed computing systems, however, is virtual property. Such data may lack other indicia of virtual property, as in the case of a public data store with no form of access control, i.e., a lack of rivalry.

40. *See id.* at 1054 (noting that although one person may exclusively control a tangible object, the object may affect other people and other property through the laws of physics).

41. *See id.* ("The value of a URL or an email address is . . . that other people can connect to it, and can experience it.").

particularly services in e-commerce, demonstrate interconnectivity and thereby suggest the presence of virtual property interests.

The above-described inherent characteristics of traditional property thus may guide courts in identifying virtual property interests. Virtual property disputes, however, are likely to involve unpredictable and technologically complex circumstances that will obscure analogies to strictly inherent characteristics such as rivalry, persistence, and interconnectivity. Therefore, extrinsic characteristics, such as the behaviors of markets and users, may legitimately supplement the definition of virtual property.

4. *Secondary Markets*

Courts should be particularly alert for possible virtual property interests when users develop secondary markets to trade access to and control of remotely hosted computer code, regardless of whether a service provider sanctions such trades. For example, businesses have recognized the potential value of certain virtual properties and therefore have developed business models based on trading such properties in secondary markets.⁴² As a matter of policy, where a free market cultivates value, courts should protect that value as long as other substantive rights are not infringed. Courts should also avoid excessive “protection” which could strangle creativity and do more harm than good.⁴³

As a famous example of a business based on a secondary market for virtual property, in 2003 a company calling itself Blacksnow Interactive paid workers in Mexico to play a MMOG (Dark Age of Camelot, by Mythic Entertainment) full-time for the sole purpose of generating virtual treasure to sell on eBay.⁴⁴ Presumably, Blacksnow paid Mexican workers a low enough wage to generate a net profit on the secondary market sales. In the interest of preserving “fair” play, Mythic ended Blacksnow’s practices by prohibiting game property transactions in secondary markets and by banning users who participated in such transactions.⁴⁵ Blacksnow sued, but it quickly developed other legal problems and disappeared.⁴⁶ Had the lawsuit been tried, it would have been the first litigation involving a virtual property dispute and could have triggered much more virtual property liti-

42. See generally IGE – About Us, <http://www.ige.com/about> (last visited Oct. 31, 2006) (describing the industry surrounding secondary market transactions in virtual property and the operations of IGE, Ltd., a profitable business specializing in the purchase and sale of virtual property from MMOGs).

43. See *infra* Part III.B (discussing the balance between the interests of service providers and users).

44. Lastowka & Hunter, *supra* note 15, at 39.

45. *Id.*

46. *Id.* at 40.

gation.⁴⁷ The *Blacksnow* case highlights why service providers generally oppose legal recognition of virtual property interests (e.g., because they fear losing control of their product and lawsuits from disgruntled users).⁴⁸ The case also highlights the recent proliferation of video game sweatshops (so-called “gold farms”) in poor countries as a highly profitable business model, a trend with its own disturbing legal and economic consequences.⁴⁹

Thus, the economic reality is that virtual property is created, traded, bought, and sold just like traditional property. Individuals and businesses have come to rely on this secondary market, and real assets (typically money) are at stake. If the law fails to protect this value or in some way guarantee the market, productivity may be lost and destructive practices (e.g., self-help, hacking, and price-fixing) are likely to emerge.

Furthermore, the secondary market indicium is only one of the five indicia, and thus the absence of this indicium should not preclude the virtual “thing” at issue from being recognized as virtual property. For example, email users typically do not buy email accounts from other email users, but this fact alone should not reduce an email user’s ability to recover a stolen account.⁵⁰ Secondary markets simply serve as supplemental indicia of virtual property interests.

5. Value-Added-by-Users

The fifth and final indicium is akin to co-authorship, in that multiple users may assume an ownership interest in a virtual property by customizing and improving the property to reflect their collective creativity. Users often add value to a remotely hosted computer resource simply by using the resource, over time, in the manner in which it was intended to be

47. See *id.* at 72 (foretelling the inevitability of future lawsuits, similar to the *Blacksnow* case, involving damage occurring to virtual property interests in a secondary market).

48. See *infra* Part III.B.1 (discussing service providers’ interests).

49. See generally Castronova Posting, *supra* note 30 (describing the operation and profitability of a virtual treasure “farm,” with sixteen employees, in the game Everquest, by Sony Online Entertainment). Note, however, that this professional “Gold Farm” eventually went out of business, allegedly due to competition from professional hackers and cheaters. *Id.* Thus, the lucrative secondary market for virtual property has spawned multiple creative (though arguably immoral) businesses that now directly compete with each other. Paradoxically, some gold farmers scorn such hackers and cheaters for spoiling the business of farming. Meanwhile, players scorn the gold farmers for spoiling the game’s virtual economy. Thus, drawing the line between permissible and impermissible conduct may ultimately hinge on a fact-specific moral judgment, supported by lessons of economic experience and legal policy.

50. An email account may be “stolen” by someone who learns the password (through hacking or otherwise) and changes it—a tort akin to conversion. An email account may also be “hijacked” by someone who learns the password and uses the account to send unauthorized mail, usually spam—a tort akin to trespass. See generally *infra* Part III.B.1 (discussing why service providers might not intervene in these circumstances, leaving users with redress only through self-help or legal action).

used.⁵¹ Such value-added-by-user should be distinguished, however, from the Lockean theory of property through labor.⁵² Contributing to the value of an intangible resource should not automatically entitle the contributor to a property interest in the resource—just as spraying graffiti on a building should not automatically entitle the graffiti artist to a property interest in the building. Rather, where the nature of an interest in an intangible resource is such that it should qualify for legal protection, there is a high likelihood that the user has, at some point, added value to the resource. Simply put, a person is likely to improve and customize property that he believes belongs exclusively to himself, and, by recognizing and encouraging this activity, the law of property ultimately benefits all people.⁵³ Thus, value-added-by-user indicates, rather than creates, protectable virtual property interests.

A MMOG user account is the quintessence of value-added-by-user. The MMOG service provider's business model presumes that players will add value to the account, thereby becoming personally invested in, or addicted to, the game.⁵⁴ The initial retail (or "first sale") value of a MMOG user account lies entirely in the value of having a "clean slate" from which to build an online identity.⁵⁵ Players build online identities by interacting with other players, by acquiring virtual treasure, and by advancing through various stages of the game. This process never ends—every hour spent online affects the value of a player's online identity.⁵⁶ The game begins to

51. See Weber, *supra* note 7, at 191 ("[Virtual Reality] insiders agree that with this technology, the user becomes a co-creator of his or her experience"); Wu, *supra* note 25, at 175-76 (noting that software programmers and users may be co-authors of works created using computer programs).

52. See generally Lastowka & Hunter, *supra* note 15, at 46-47 (applying John Locke's theory of property through labor as a supplemental justification for recognizing virtual property interests).

53. Cf. *Mazer v. Stein*, 347 U.S. 201, 219 (1954) ("The economic philosophy behind . . . patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare."). In the context of virtual property, it is easy to imagine how encouraging users to add value to remote resources will promote creativity and growth of the Internet, thereby benefiting society, despite the exclusive nature of property protections. In fact, the appeal of certain services depends entirely on the contributions of the users. See, e.g., What is Second Life?, <http://secondlife.com/whatis/> (last visited Oct. 31, 2006) ("Second Life is a 3-D virtual world entirely built and owned by its residents.").

54. See generally NICHOLAS YEE, *ARIADNE - UNDERSTANDING MMORPG ADDICTION* (2002), <http://www.nickyyee.com/hub/addiction/addiction.pdf> (discussing the design elements of MMOGs which cultivate addictive behavior in players).

55. Being the first purchaser also provides added security by allowing the purchaser to create an anonymous account name (distinct from the publicly visible character name) and to set the first password. The pervasive secondary market for MMOG accounts, however, indicates that the first-purchaser-security premium is relatively small. Moreover, it is assumed that a reasonably prudent secondary purchaser will immediately change the password to the account.

56. Castronova, *supra* note 3, at 14 ("The result of all this effort, which can take hundreds of hours, is 'avatar capital': an enhancement of the avatar's capabilities through training.").

resemble a job, with some players spending more than eighty hours per week improving their virtual characters.⁵⁷

Although some may suggest that this investment of time and effort warrants equitable protection (the Lockean theory of property through labor),⁵⁸ players probably would not invest such time and effort if they did not expect equitable protection from the beginning. The legal justification for protecting the players' property interest arises not from the hundreds of hours that they spend online but from the sense of ownership, security, utility, and value that encourages them to spend those hundreds of hours online.⁵⁹ Moreover, the amount of time and effort that a player dedicates to an online identity is strong *evidence* of protectable virtual property lurking somewhere within the online identity, and courts should use this evidence, if available, when quantifying the property interests at stake. Time and effort alone, however, do not give rise to virtual property. Rather, the inherent nature of a MMOG user account, rather than users' labor, creates a protectable virtual property interest, which may be evidenced by the other four indicia of virtual property—namely rivalry, persistence, interconnectivity, and secondary markets.

B. *Combining the Indicia to Identify Virtual Property*

Because technology—particularly Internet technology—continues to evolve at a rapid pace, it is impossible to identify, prospectively, all possible forms of virtual property. Therefore, for the five indicia to be practical, they must be applied flexibly. Potential property interests should be evaluated for not only the presence or absence of each indicium, but also for the degree to which each indicium is present or absent. For example, as discussed above, different web-based user accounts may exhibit varying degrees of interconnectivity. Likewise, an interactive resource may be semi-rivalrous, in that a limited number of users may be able to use the resource simultaneously. Consequently, each set of circumstances should be considered in light of the aggregate indicia supporting or countering the case for a potential property interest. No single factor should be dispositive.

57. *Id.* at 36; see also Dibbell, *supra* note 30 (describing how carpenter Troy Stolle would come home from work every day to immediately resume his second "job" as a virtual blacksmith in *Ultima Online*).

58. See Lastowka & Hunter, *supra* note 15, at 46-47 (applying John Locke's theory of property through labor to virtual property). Note, however, that Lastowka and Hunter only cite Lockean theories as a "fitting, or perhaps amusing" supplement to other, more contemporary, rationales for recognizing virtual property interests. *Id.*

59. Players' sense of ownership, security, utility, and value may arise from the property's characteristics of rivalry, persistence, interconnectivity, and secondary market value, respectively.

Significantly, a service provider's characterization of its own content should have little or no legal effect. A disclaimer stating "This is not virtual property" should never be determinative; just as a disclaimer stating "This is not a security" cannot magically change the nature of company stock.⁶⁰ Form should be disregarded for substance and the emphasis should be on economic reality.⁶¹

As a result, service providers who perceive a threat in the legal recognition of virtual property and who deliberately seek to usurp users' virtual property interests through EULAs may still fail to secure their own interests, because the economic reality of virtual property may trump empty formalities in an EULA.⁶² Therefore, when balancing the interests of service providers with the interests of users, courts should recognize the fact that service providers may be unable to limit the virtual property interests created by their services. Part III.B further discusses this balancing.

Considering all five indicia, virtual property may take many different forms, but some forms are more prevalent than others. Online accounts, such as email and bank accounts, are a familiar form of virtual property.⁶³ Personalized "web-spaces," such as amateur homepages and professional websites, usually exhibit the indicia of virtual property.⁶⁴ Automated bidding agents, moderated chat rooms, advertising space, and many other common Internet entities might also qualify. Finally, and perhaps most significantly to millions of Internet game players, virtual avatars and the treasures they carry in MMOGs fall naturally within the definition of virtual property.⁶⁵

60. See *Tcherepnin v. Knight*, 389 U.S. 332, 336 (1967) (noting that, in securities law, substance trumps form); cf. *Wood v. Shell Oil Co.*, 495 So. 2d 1034, 1037 (Ala. 1986) (noting that an explicit disclaimer may still fail to negate an agency relationship when independent evidence suggests a retained right of control—i.e., substance trumps form).

61. *Tcherepnin*, 389 U.S. at 336 (referring to securities); see also *infra* Part III.B.2 (discussing problematic language often employed by users to disguise the economic reality behind transactions in virtual property).

62. See *infra* Part III.B (discussing common terms in EULAs). But cf. Ian MacInnes, *The Implications of Property Rights in Virtual Worlds*, PROCEEDINGS OF THE TENTH AMERICAS CONFERENCE ON INFORMATION SYSTEMS 2727, 2730 (2004), available at [http://e-business.fhbb.ch/eb/publications.nsf/bb366c7c939905e1c1256c5600643476/b1013216f68a694ac1256f100027a530/\\$FILE/SIGEBZ05-1668.pdf](http://e-business.fhbb.ch/eb/publications.nsf/bb366c7c939905e1c1256c5600643476/b1013216f68a694ac1256f100027a530/$FILE/SIGEBZ05-1668.pdf) (arguing that "[t]he legal system may be forgiving [to game developers] in cases . . . where the developer acted to shut down trade in game items").

63. *Fairfield*, *supra* note 6, at 1055, 1057.

64. *Id.* at 1056-57.

65. This is largely due to the fact that MMOG providers intentionally design the game code to simulate real world land and chattel. See *Lastowka & Hunter*, *supra* note 15, at 30 ("Central to the operation of most modern virtual worlds is a property system, with . . . familiar real-world features.").

III. BALANCING VIRTUAL PROPERTY INTERESTS

A. *Relationships—The Difference Between User-to-Service Provider and User-to-User*

Once a court identifies a potential virtual property interest, it should analyze the relationships involved, to better understand the implications of that interest. Typically, at least two different relationships are involved, each with its own implications. The user engages in a contractual relationship with the service provider and simultaneously may engage in a social and business relationship with other users. Analogizing these relationships to commonly understood legal structures will help the court balance the interests of the parties for the purpose of evaluating the property rights involved.⁶⁶

The relationship between the user and service provider can be analogized to the legal structure of the licensor-licensee relationship. Usually, online service providers make large initial investments in computer hardware, software, and intellectual property to establish a community or web-space with long-term growth potential.⁶⁷ Service providers then license access to these expensive resources to users. Users manipulate, interact with, and develop these resources according to certain rules set by the service provider, as would a licensee acting within the bounds of a license.

For example, Yahoo! Mail provides email users with one gigabyte of data storage space, a unique email address, a customizable email management and filing system, a spam filter, and a virus scanner—with all the relevant code executing on Yahoo! Inc.'s computers, rather than on the user's computer—for free.⁶⁸ This relationship between Yahoo! and its users could be characterized as "licensed access to resources." Additionally, among other profitable endeavors, Yahoo! recoups its initial investment by selling high-value advertising space targeted to individual user profiles. Such precisely targeted exposure is extremely valuable to advertisers, who may develop legitimate virtual property interests in their assigned advertising space.⁶⁹ Thus, email accounts are not the only re-

66. See *infra* Part III.B (discussing the balance between the interests of service providers and users).

67. See MacInnes, *supra* note 62, at 2729 (noting that in the early stages of development, service providers should focus on technical issues such as security and reliability).

68. See generally Yahoo! Help – Yahoo! Mail, <http://help.yahoo.com/help/us/mail/> (last visited on Oct. 31, 2006) (providing a detailed overview of the features of Yahoo! Mail). Of course, Yahoo! users must agree to a lengthy Terms of Service agreement. See Yahoo! Terms of Service, <http://docs.yahoo.com/info/terms/> (last visited on Oct. 31, 2006) (listing Yahoo! Inc.'s twenty-six terms of service).

69. Consider such advertising space in light of the five proposed indicia: (1) subject to the terms of their agreement with Yahoo!, advertisers generally exclude outsiders from exercising control over the content of their advertisements (rivalry); (2) advertisers reasonably expect the advertisements to endure

sources licensed by Yahoo!, and email users are not Yahoo!'s only licensees.

As another example, MMOGs also use a form of the centralized "licensed access to resources" model. Although a player may purchase and install software on a personal computer to play a game, the player's virtual property is entirely stored on the service provider's computers. Players may access their personal avatars and treasures from any computer capable of running the interface software. By licensing access to remotely hosted resources, players derive many benefits. For example, the service provider can implement better security measures to prevent hackers from tampering with the data and can guarantee superior data integrity through redundant backups.⁷⁰

Note that the retail software CD, the host computers, and the virtual property may all belong to different parties and the system can still function perfectly.⁷¹ This fact further illustrates the distinction between virtual property and traditional property and should comfort service providers who fear that recognizing virtual property interests will somehow deprive them of control over the host computers.⁷² Simply put, by recognizing an interest in virtual property, service providers do not give up ownership and control of any computers storing the virtual property.⁷³

and to appear repeatedly on Yahoo! for the complete term of their contract (persistence); (3) advertisers include "hot-links" in their advertisements, allowing Yahoo! patrons to interact with the advertisements and directing patrons to the advertisers' websites (interconnectivity); (4) advertisers sometimes cooperate to share the cost of a single ad-space (a form of secondary market); and (5) the value of the advertising space usually derives from its prominence, frequency of appearance, and placement on Yahoo!'s web pages (facets generally determined by Yahoo! as the service provider, rather than by the advertisers as users—thereby lacking value-added-by-user). Advertising space on Yahoo! thus exhibits four of the five indicia proposed herein, tipping the balance in favor of an enforceable virtual property interest.

70. As noted by Professor Fairfield, MMOGs achieve the indicia of persistence as a result of this distributed computing model. Fairfield, *supra* note 6, at 1054 n.26. Thus, some of the most desirable features sought by users of remotely hosted computer resources are exactly the features that create a virtual property interest.

71. Although, to promote the primary market for profitable software CDs, providers often require the user to have the CD in order to access the virtual property. In contrast, some game developers deliberately forego such tie-ins. See generally SUNEEL RATAN, PLEASE, MORE STEAM-POWERED GAMES (2004), <http://www.wired.com/news/games/0,2101,65758,00.html> (discussing broadband software distribution, where users download software from the Internet rather than buying CDs in a store).

72. See Fairfield, *supra* note 6, at 1077-78, 1097-99 (explaining the distinction between virtual property and the computers it may be stored on; outlining and rebutting the "control" argument put forth by service providers).

73. See *infra* Part III.B (discussing the balance between the interests of service providers and users). If a court were to hold that the virtual property interests of users restricts the freedom of service providers to control their own computers, this would be an undue and unwise extension of virtual property law, as these interests can coexist without interference, if properly defined and balanced. *But see* Fairfield, *supra* note 6, at 1098-99 (suggesting that the chattel property interests of service providers may be affected by users' virtual property interests, but that such effects may be mitigated by compromise and contractual agreements).

The “licensed access to resources” model common to virtual property relationships thus resembles the relationship between a licensor and a licensee of traditional property. The licensor ostensibly owns the licensed property, but the licensee exercises exclusive control over the property for a limited time, within limits set by a license agreement. In the virtual property context, the user is “borrowing” a relatively small fraction of the service provider’s large initial investment. Given that the provider hosts the service at large initial expense and that many people benefit from the service, according deference to the providers’ interests is in the public interest.

In contrast, relationships between users may take any number of forms, depending on the facts of each case. For example, some virtual worlds allow users to buy, sell, and trade virtual “land” upon which the users may build virtual homes, meeting halls, storefronts, towers, or castles. Unsurprisingly, two users with adjacent plots of “land” could be characterized as neighbors, and legal principles applied in disputes between real-world neighbors (such as trespass, nuisance, or even adverse possession) could, at the very least, add familiar context to a virtual dispute. Assuming courts first find a protectable virtual property interest, real-world precedent could be applied by analogy to help resolve disputes between users. The analogy most appropriate to a given case could help determine, in turn, whether the court should give deference to any party through, e.g., assignment of burdens of proof.

Thus, virtual property disputes between multiple users differ from disputes between a user and a service provider, because the latter dispute implicates inherent equitable and policy concerns that favor the service provider. The licensor-licensee analogy aptly frames the user-to-service provider relationship. The user-to-user relationship, however, may vary in every case. Therefore, resolving a dispute between users may require a more detailed analysis of individual property interests, including the interests of the service provider—likely an affected party.

B. *The Parties’ Interests*

1. *Service Providers’ Interests*

Internet service providers react with understandable negativity toward the recognition of legally enforceable virtual property interests.⁷⁴ Con-

74. See, e.g., Richard A. Bartle, *Virtual Worldliness: What the Imaginary Asks of the Real*, 1 N.Y.L. SCH. L. REV. 19, 37 (2004-2005) (arguing, *inter alia*, that recognizing users’ virtual property interests would undermine service providers’ ability to control the quality of the service). Note that “Dr. Bartle is one of the fathers of modern virtual worlds, having designed the early text-based virtual environ-

versely, users tend to embrace the concept.⁷⁵ Superficially, granting a new property interest to users appears to carve a chunk of rights out of the service providers' intellectual property. Because the development of massively multi-user Internet-based services often involves a large, risky initial investment in equipment, capital, software, and intellectual property, to be recouped gradually over time, service providers are understandably unwilling to abandon any assets of value, intangible or otherwise.⁷⁶ Consequently, service providers may see an interest in capturing the value of virtual property by preserving the legal *status quo*, although lawsuits loom imminently and obviously on the horizon, poised ready to test (and probably unsettle) this area of law.⁷⁷ In addition, some service providers fear that recognizing virtual property will expose them to additional liability, thereby restricting their ability to control the quality of their service and generally dampening the incentive for Internet businesses to innovate and improve.⁷⁸ Given the notoriously fickle nature and rapidly shifting loyalties of Internet consumers,⁷⁹ quality control and continuing improvement are integral components of the business model for the vast majority of online content providers.⁸⁰ Finally, service providers need legal stability and certainty to design effective services and to craft enforceable contracts.

ments." Fairfield, *supra* note 6, at 1097 n.253. See also, e.g., What Exactly is the EUALA? What Does it Say? Dark Age of Camelot (TM) End User Access and License Agreement, <http://support.darkageofcamelot.com/kb/article.php?id=072>, § 2(A) (last visited Oct. 31, 2006) [hereinafter *Dark Age of Camelot EUALA*] (explicitly contracting with users to disclaim or assign virtual property interests in their accounts in exchange for access to the service).

75. See generally Fairfield, *supra* note 6 (advocating for the legal recognition of virtual property interests).

76. See MacInnes, *supra* note 62, at 21-29 (outlining the concerns of a virtual-world service provider during the developmental stages of the business).

77. See Lastowka & Hunter, *supra* note 15, at 72 (suggesting that virtual property lawsuits, similar to the *Blacksnow* case, are imminent and inevitable).

78. Bartle, *supra* note 74, at 37; MacInnes, *supra* note 62, at 2731-32 (describing the "control paradox" faced by MMOG developers); see Fairfield, *supra* note 6, at 1097-99 (raising and refuting these objections to virtual property commonly raised by service providers).

79. A single mistake by a service provider may destroy all public goodwill and ruin an Internet business. As a famous example, shortly after the highly publicized 2003 release of the MMOG *Shadowbane*, by Ubi Soft and Wolfpack Studios, the game was briefly (but very publicly) hacked. Although no permanent damage resulted, many players lost confidence in the game's security and programming integrity. See, e.g., *Shadowbane Hacked, Game Over*, <http://www.gamerifts.com/cgi-bin/newspro/fullnews.cgi?newsid1054080000,36908> (last visited Oct. 31, 2006) ("I was one of the most vocal defenders of all *Shadowbane* stood for But at some point, enough is enough. I've had enough. . . . if you still have an account, you are an idiot."). Relative to the competition, *Shadowbane* became a phenomenal flop and failed to generate a profit. See BRUCE WOODCOCK, AN ANALYSIS OF MMOG SUBSCRIPTION GROWTH, <http://www.mmogchart.com/Analysis.html> (last visited Oct. 31, 2006) (citing MMOG subscription statistics indicating that *Shadowbane* failed to generate a profit).

80. All MMOG providers constantly improve their services by creating "patches" to add new content and to fix design flaws. Users not only accept this frequent "patching," they expect it as part of the service.

Thus, maintaining the legal *status quo* would serve multiple interests of service providers.

Service providers also have an interest in disputes between users being resolved in an agreeable and orderly manner with minimal intervention from the service providers themselves. To begin with, service providers have no legal obligation to mediate disputes between users arising out of the service. Many online content providers have deliberately chosen not to involve themselves in such disputes, even if the dispute concerns a question of account access.⁸¹ Although such a practice eliminates a potential avenue of redress for a user who has been defrauded by a scammer,⁸² thereby potentially producing unhappy customers and inviting fraudulent behavior, the prospect of becoming mired in the unpredictable, uncontrollable details of user interactions, both inside and outside the virtual environment, seems even more onerous. For example, as an international virtual market for substantial volumes of property, eBay.com spends significant resources and struggles continuously to find a profitable balance between a *laissez-faire* “hands-off” approach and strict regulation.⁸³

Moreover, open involvement in dispute resolution by the service provider invites scammers to manipulate the providers’ policies and rules to use the provider as an accessory to fraud. To some service providers, “if you build a better mousetrap, the mouse will just get smarter.” Such policies reflect a business decision to avoid involvement in litigation between users. Acknowledging that disputes between users are inevitable, it is in the service providers’ interest for such disputes to be resolved in an agreeable, fair, and efficient manner, whether by operation of law, contract, or business practice, or by the intervention of some third party. Therefore, service providers would benefit from the legal recognition of virtual property, assuming such recognition gave users an avenue of redress from the actions of other users.

Thus, in the perpetual effort to profit and grow, service providers generally seek the freedom to make the business decisions necessary to maximize user loyalty through a combination of innovation and quality control.

81. See, e.g., *Dark Age of Camelot EUALA*, *supra* note 74, § 1(D) (“You are responsible for . . . any damage, harm, lost or deleted characters, etc. resulting from . . . use by any person of your Passwords to gain access to your Account. IN NO EVENT SHALL MYTHIC ENTERTAINMENT BE HELD RESPONSIBLE FOR ANY DAMAGE THAT OCCURS TO YOUR ACCOUNT, YOUR CHARACTERS OR THEIR POSSESSIONS IN THE EVENT YOUR PASSWORDS ARE DISCLOSED . . .”).

82. Unquestionably, in some situations, the service provider may be the only party in a position to remedy a fraud.

83. See generally, e.g., eBay Security Center: Rules & Policies, http://pages.ebay.com/securitycenter/rules_policies.html (last visited Oct. 31, 2006) (providing access to numerous webpages detailing eBay’s fraud prevention and dispute resolution policies).

Although some providers' policies (such as a "hands-off" dispute resolution policy) may seem to inhibit users' virtual property interests, no service provider (which intends to succeed) is genuinely interested in sabotaging the legal rights of its customers. Therefore, while none of the service providers' interests should entirely negate the legal enforceability of users' virtual property interests, these interests and practical business concerns are certainly legitimate, and they should be acknowledged whenever any court adjudicates a virtual property dispute.

2. Users' Interests

At first blush, the interests of those who routinely use virtual property would seem to be in direct tension with the interests of service providers. Users, however, have several legitimate interests that do not conflict with the interests of service providers. Moreover, the apparent conflict between users' and service providers' interests arises from the misconception that recognizing virtual property would somehow divide and redistribute service providers' valuable traditional property.

The misconception arises when users view overturning the legal *status quo* as akin to the government endorsing a currently underground form of currency, thereby ascribing monetary value to nothingness solely to the users' benefit. For example, if tomorrow the government began accepting virtual platinum coins from Everquest (a popular MMOG) as an alternative means of collecting income taxes, certainly very few players would object, as this would be a substantial windfall.⁸⁴ Thus, given the intangible nature of virtual property, proponents may become hopelessly tangled in the romantic prospect of creating something from nothing. Under this illusion, the Internet becomes a new Wild West, with a seemingly unlimited expanse of frontier property ripe for the taking.⁸⁵ This reasoning then becomes the target of criticism.⁸⁶ The legal reality, however, is not so simple.

Users have legitimate interests beyond the simple desire to amass property in all its forms. The most apparent and commonly cited interest

84. Disregarding, for the moment, the obvious negative long-term side-effects this would have on the national and Everquest economies.

85. See, e.g., Shamoil Shipchandler, Note, *The Wild Wild Web: Nonregulation as the Answer to the Regulatory Question*, 33 CORNELL INTL. L.J. 435, 436 (2000) ("Today's Wild West is the Internet.").

86. See Hunter, *supra* note 29, at 513 (challenging the "cyberspace as place" metaphor as leading to a tragedy of the anticommons, wherein competing exclusionary rights lead to suboptimal overall utilization); Alfred C. Yen, *Western Frontier or Feudal Society?: Metaphors and Perceptions of Cyberspace*, 17 BERKELEY TECH. L.J. 1207, 1232, 1240, 1247-48 (2002) (rejecting the Western Frontier analogy as misleading and overly optimistic and suggesting, instead, that the Internet is more like a feudal society of "cyberlords" and "cyberserfs").

for players of MMOGs is in the value of time.⁸⁷ The addictive nature of MMOGs causes players to spend tremendous amounts of time developing their avatars online.⁸⁸ For the average player seeking to accomplish the game's objectives, each hour spent online usually translates into an incremental increase in the avatar's secondary market value.⁸⁹ For example, in 2001, economist Edward Castronova calculated the average "hourly wage" earned by Everquest players as \$3.42 per hour spent online.⁹⁰ Notably, for a minority of Everquest players (those who spend over eighty hours per week online), this "wage" would place them above the poverty line.⁹¹ However, time commitment alone does not create value *per se*.

Illustratively, when a buyer on a secondary market purchases a MMOG account, he generally does not care how much time was spent developing the account; rather, the buyer cares about the amount of virtual treasure accumulated by the seller and stored on the account. Literally, the buyer pays for a Level 50 Warrior with a full set of Oceanic armor, and it is disingenuous to suggest that the buyer is "employing" the seller, retrospectively, at a rate of \$3.42 per hour, to spend the 100 hours necessary to develop a Warrior to Level 50 and to acquire a full set of Oceanic armor.⁹² The "employment" analogy, however, is gaining popularity as a technical argument developed to circumvent clauses in some MMOG End User License Agreements that restrict the resale of virtual property.⁹³ For example, some listings on eBay.com contain language similar to:

87. See Lastowka & Hunter, *supra* note 15, at 39-40 (presenting the arguments raised by counsel to Blacksnow Interactive, in *Blacksnow Interactive v. Mythic Entertainment* (case later dropped), which, *inter alia*, asserted that players have an equitable interest in the value of their time spent online); see also Castronova, *supra* note 3, at 14 ("developing the avatar's skills takes time . . . all this effort . . . can take hundreds of hours.").

88. See Dibbell, *supra* note 30 (describing how carpenter Troy Stolle would come home from work every day immediately to resume his second "job" as a virtual blacksmith in *Ultima Online*); see generally YEE, *supra* note 54 (discussing the design elements of MMOGs which cultivate addictive behavior in players).

89. See *supra* Part II.A.5 (discussing value-added-by-user as an indicia of virtual property and citing MMOG accounts as the quintessential example); see also Castronova, *supra* note 3 (calculating the average resultant increase in the secondary market value of an Everquest player's account per hour spent online).

90. Castronova, *supra* note 3, at 35. This "wage," however, was not paid as U.S. dollars but was reflected by the account's increased secondary market value.

91. *Id.* at 36.

92. Evidence suggests that the average player spends much more than 100 hours developing a MMOG character. See generally YEE, *supra* note 54 (charting and analyzing addictive behaviors demonstrated by many who play MMOGs).

93. For some companies, the analogy is reality. Players may prospectively hire hourly services, such as those offered by Topgameseller.com, to develop their characters—in contrast to the retrospective "services" offered by players who sell their accounts. See Topgameseller.com Frequently Asked Questions, <http://www.topgameseller.com/faq.htm> (last visited Oct. 31, 2006) (describing the business and services offered by Topgameseller.com—for example: "We assign 2 or 3 expert players to your

Disclaimer: You are bidding on my time leveling for this account. Said account remains the property of Blizzard [Entertainment]. You will not 'OWN' the account, for it belongs to Blizzard. The only thing you are bidding on is the time I have invested into the account. All characters, items, in-game currency, and anything else associated with this auction will remain the property of Blizzard.⁹⁴

Such language raises three unresolved issues: (1) whether the eBay buyer would be able to enforce the contract against the seller;⁹⁵ (2) whether such language successfully evades EULA restrictions;⁹⁶ and most importantly (3) whether the relevant typical MMOG EULA restrictions themselves are legally enforceable.⁹⁷ At first blush, the MMOG secondary market appears to value only the virtual property itself and not the player's underlying time commitment. However, the secondary market value of the virtual treasure, in turn, correlates strongly with the amount of time necessary to acquire the treasure. All parties concerned may be well aware of the 100 hours of playtime typically required to develop the illustrative Level 50 Warrior with Oceanic armor. Thus, the buyer is spending \$342.00 to save himself 100 hours of tedious character development. The enforceability of a contract selling access to the Warrior should not hinge on a tedious distinction between prospective and retrospective labor. If anything, the unresolved issues surrounding secondary market exchanges of virtual property demonstrate one of the users' strongest interests: the interest in legal certainty. This is not the only interest shared by both users and service providers.

character to do the leveling We have extensive knowledge of your game's world and know the best areas & quests to level your character as fast as possible.”)

94. This disclaimer was compiled from a variety of eBay listings containing similar language.

95. Depending on the level of legal abstraction, whether “time leveling for this account” constitutes consideration becomes an interesting question. *See generally* RESTATEMENT (SECOND) OF CONTRACTS §§ 71, 86 (1981) (generally reciting the requirement of consideration in contract law and addressing issues raised by promises made in recognition of past performance). Once again, prudence should dictate a practical approach—looking to the actual effect of the contract rather than its deliberately slippery language. “[F]orm should be disregarded for substance and the emphasis should be on economic reality.” *Tcherepnin v. Knight*, 389 U.S. 332, 336 (1967) (referring to securities). In economic reality, virtual property is changing hands.

96. *See Dark Age of Camelot EULA*, *supra* note 74, § 2(A) (“YOU SPECIFICALLY ACKNOWLEDGE THAT THE TIME YOU SPEND PLAYING DARK AGE OF CAMELOT(TM) IS FOR ENTERTAINMENT PURPOSES ONLY, AND THAT YOU CLAIM NO INTEREST IN THE VALUE OF SUCH TIME.”).

97. *See generally* RESTATEMENT (SECOND) OF CONTRACTS § 186 (1981) (reciting principle that a promise may be unenforceable on grounds of public policy if it constitutes an unreasonable restraint of trade, i.e., limiting competition in any business); Grierson, *supra* note 2 (collecting discussion and case law relating to software licenses but not specifically pertaining to virtual property).

3. *Shared Interests*

In many respects, users and service providers share similar interests that may be reconciled with minimal tension. Users benefit when service providers experiment, innovate, and improve their services. Thus, users directly share the service providers' interest in the orderly resolution of disputes without requiring service providers' involvement. Users also share the service providers' interest in protecting the large, requisite investment in hardware, software, and intellectual property, because, as mentioned above, this promotes development.⁹⁸ The social and macroeconomic value of a dynamic and rapidly growing Internet cannot be overestimated. As the automobile revolutionized the twentieth century, the Internet (and virtual environments in particular) will drive world industry in new directions for generations to come. Therefore, as a policy matter, all people share the service providers' interest in maintaining the freedom to innovate and to control the quality of online services.

On a more immediate and practical level, service providers share users' interest in preserving the value of virtual property through transactions in secondary markets, subject to some qualifications. Logically, the most highly developed user accounts are also the most valuable.⁹⁹ Likewise, users with highly developed accounts are more likely to contribute actively to the service provider's popularity and profitability—whether through a sense of irreversible commitment (i.e., addiction) or earnest goodwill. Thus, when one user decides to conclude his relationship with a service provider, the remaining users and the service provider share a business interest in preserving the value of the departing user's account.

Lastly, both service providers and users share a generalized interest in the reduction or prevention of disputes and in resolving such disputes fairly and efficiently. Here, again, as in many other areas of law, simply deciding the issue one way or another would promote development by eliminating uncertainty.¹⁰⁰ At the very least, lawmaking action (if carefully under-

98. See *supra* Part III.B.1 (discussing service providers' interest in retaining enforceable rights as a means of recouping initial investment).

99. See Dibbell, *supra* note 30 (discussing the disposition of Troy Stolle's account, in the MMOG Ultima Online, which, after fifty-two weeks of development, was worth \$1500 to \$2000).

100. Although the Uniform Computer Information Transactions Act (UCITA), promulgated in 2000 by the National Conference of Commissioners on Uniform State Laws but only adopted (as of March, 2006) in Maryland and Virginia, addresses the enforceability of click-wrap licenses and other Internet transactions, none of its sections deal explicitly with virtual property, and none of UCITA's comments or legislative history address the subject. See, e.g., UNIF. COMPUTER INFO. TRANSACTIONS ACT §§ 112, 114, 210 (amended 2002) (sections affecting the enforceability of click-wrap licenses); see Grier-son, *supra* note 2, at § 2[b] (briefly discussing the effect of UCITA on the enforceability of click-wrap licenses). Note, also, that some states have enacted so-called "bomb shelter" laws that render choice of law clauses in contracts unenforceable against residents of those states to the extent that the contract

taken) could allow online service providers to draft simpler End User License Agreements, which, in turn, would be more likely to be understood by the average licensee of virtual property. This would benefit both service providers and users by establishing, finally, the limits of the users' enforceable property rights.

C. *Striking a Balance*

Users and service providers should squarely confront the merits of virtual property issues as such. Tiptoeing around the concept of virtual property by resorting to semantic technicalities only adds uncertainty, thereby hampering the development of secondary markets and other economically valuable satellite industries.¹⁰¹ All parties involved need to know exactly which contracts involving virtual property are enforceable and which ones are not.

Therefore, courts and legislatures should openly discuss the implications of virtual property and recognize the distinction between the two types of disputes that could potentially arise. Between a user and a service provider, the overall balance must tip in favor of the service provider, in the interest of promoting innovation and quality control (and in recognition of the practical realities of the marketplace). Between the user and another user, however, public policy demands stronger, more clearly defined, and enforceable virtual property interests. Moreover, the provisions of a license agreement governing the relationship between a user and a service provider should not unduly intrude into a legal dispute between two users.¹⁰² Likewise, in adjudicating disputes between users, courts must tread carefully to avoid creating law that would unduly hinder the freedom and legitimate interests of service providers—for example, by affecting the service providers' ability to control their real world chattels.

calls for application of the law of a state that has enacted UCITA. *E.g.*, N.C. GEN. STAT. § 66-329 (2005) (North Carolina “bomb-shelter”); Grierson, *supra* note 2, § 2[b]. Moreover, UCITA has not received a warm welcome. *E.g.*, Jason Krause, *SEE YA, UCITA: Uniform Law on Software Sales Never Got Traction with ABA*, 89 A.B.A. J. 20 (2003) (“[UCITA’s] recent failure to earn ABA approval effectively destroyed its future.”). Thus, the only potentially relevant lawmaking action (in this case by state legislatures) has failed to gain momentum due to perceived inherent flaws. Whether the next step should come from a legislature or a court remains to be determined.

101. *See supra* Part III.B.2 (reciting problematic language typically employed by users who sell virtual property on eBay.com in an effort to disguise a sale of virtual property).

102. In an effort to protect themselves from litigation raising the virtual property premise, service providers often include clauses in EULAs forcing users to disclaim all property interests in their accounts. Such an EULA could be used to moot a dispute between two users, e.g., by voiding a secondary market transaction, thereby undermining any discussion of the merits of the case. This would be one example of the provisions of a license agreement governing the relationship between a user and a service provider unduly intruding into a legal dispute between two users.

IV. CONCLUSION

When faced with a potential virtual property dispute, courts should apply a three-step analysis: (1) using the five indicia of virtual property (rivalry, persistence, interconnectivity, secondary markets, and value-added-by-users), identify and delineate the virtual property at issue; (2) identify the interests of the parties affected, either through analogy to a pre-existing legal relationship (such as the licensor-licensee relationship) or through specific fact-finding relevant to the industry at hand; and (3) balance those interests to reach an equitable solution, with particular attention to preserving the freedom and flexibility of service providers.

The development of multi-million-dollar secondary markets based entirely on the exchange of virtual property reflects the fringes of a nascent international industry, which, if properly cultivated, could yield enormous future economic and social value. The time has come to recognize virtual property in the courtroom, at least in disputes between users, in order to encourage secondary market trades and innovative business models. Furthermore, as the door swings open to reveal this new frontier, we must always remember the legitimate property interests of the creators and innovators—the service providers—without whom this frontier would not exist.