

**SPRING 2010 HONORABLE MENTION**

*David Wu*

**INSTRUCTOR'S FOREWORD**

In his argument against the very idea of “virtual property,” David Wu employs a rhetorical technique common to pragmatists. Reading the essay again, I was reminded of Wittgenstein’s deflationary rhetoric, epitomized perhaps most famously in his wonderful remark that “Philosophy arises when language goes on holiday.” Like the pragmatist in his impatience with the idleness of philosophical talk, Wu interrupts a meandering theoretical discussion about virtual property that has held us captive for too long, giving us a new perspective with words that allow us to get back to work. Attempting to settle the dispute over ownership that has arisen between the developers and users of virtual worlds, scholars have typically appealed to three different models of property, the Lockean, the Hegelian, and the utilitarian. As Wu patiently shows how each of these perspectives is flawed, the more general implication that the legal framework of property is itself fundamentally misleading prepares us for the central reorientation that Wu effects. The language of service and contract dislodges, for Wu, the inappropriate because ineffective talk of virtual property; and it does so not because it is theoretically more elegant but because it promises to work better in the practical matter of settling actual legal conflict. In the spirit of great practical conviction, Wu has written an essay of great clarity.

—*Mike Reid*

# Virtual Property or Virtual Service?

*David Wu*

## Property in the Virtual Landscape

In the last decade we have seen the rapid rise and development of virtual worlds, epitomized by the hugely successful Second Life and World of Warcraft. Gamers of all ages flock to these virtual lands, some realistic, some fantastical, perhaps to immerse themselves in a whole new world, perhaps to explore the inner depths of their own identities, or perhaps a combination of both. As we project ourselves into our virtual avatars, we have started to bridge the gap between the real and the virtual. And to further complicate matters, the development of these expansive virtual worlds has also triggered the establishment of bustling, virtual economies; already, there is a bidirectional flow of real money and virtual commodities. Thus, as we move forward into the twenty first century, we are entering an era where the division between the real and the virtual is all but apparent. This will require a dramatic reevaluation of our current and historic notions of personal property and private ownership.

Before we begin evaluating the growing significance of these virtual worlds, we must define what we mean when we speak of a virtual world. Political scientist and video game analyst Edward Castronova describes the *synthetic world* as a world “that [is] created completely by design and lives only within computers,” while the *real world* is “the world of earth, air, fire, water, and blood that we’ve inherited from our forebears” (7). The virtual world, then, is just a world built out of bits and bytes, a world that simulates reality; when viewed from the outside world, all we see is the string of ones and zeroes. The computer or another digital interpreter must give these bits meaning and significance; thus, the virtual world is

intangible in all normal senses of the word. We can naïvely divide the different types of virtual worlds into two major categories. First, there are the virtual worlds that simulate reality; these are essentially social worlds where players can interact with one another in a more or less realistic setting. One such example of this type of virtual world is *Second Life*. The other type of virtual world is the fantasy world, where players take on the roles of fictional characters, generally termed *avatars*, in a distant and fantastical world governed by a different set of rules. MMORPGs (massively multiplayer online role-playing games), such as *Blizzard Entertainment's* best-selling *World of Warcraft*, generally belong to this category.

In recent years, the number of users of virtual worlds has grown exponentially. For instance, *Second Life* developed from a population of several hundred thousand in early 2006 to a booming population of over five million by mid-2007 (Castronova 6). Similarly, *World of Warcraft*, first released at the end of 2004, garnered an impressive subscriber base of 11.5 million by the end of 2008 (“World of Warcraft”). This rapid growth of virtual worlds leads Castronova to postulate the development of a so-called “exodus” to the virtual world. As more and more time elapses, the allure of virtual worlds will only strengthen; “improvements in technology will make virtual worlds into veritable dreamlands” (Castronova 7).

Initially, virtual worlds may have just been separate worlds weakly connected to reality, but now, as more and more people begin an exodus into the virtual realm, the two worlds are no longer separate spheres of influence. One might argue that the primary connection between these two worlds is an economic one. Virtual economies and exchanges have developed in lands such as *Second Life* and *World of Warcraft* as well as a plethora of other virtual realms. In each of these realms, there is always some type of virtual currency, such as the Linden dollar in the case of *Second Life* or the generic gold coin in *World of Warcraft*. Initially, the purpose of these virtual currencies was to let users purchase virtual goods in much the same way currency is used in modern, real-world transactions; after all, part of the immersive nature of these virtual worlds is their ability to mimic fundamental aspects of the real world. Virtual currency, however, also serves as a bridge between the real and the virtual worlds; as time goes on, people begin to exchange virtual currency and virtual products for real currency and vice versa. Market-driven exchange rates between virtual currency and real currency have developed. For instance, at the time of writing, one US dollar may be traded for approximately 259 *Second Life* Linden dollars (LindeX Market Data). In the case of *Second Life*, these exchanges are legal and even encouraged by the company; in other cases, these exchanges are prohibited by the game developer’s End User License Agreement (EULA).

Regardless of real world legal policies or the EULA, an undeniable flow of goods and money occurs between the virtual world and the real world.

The development of the virtual economy and its link to the real world implies that the virtual world ceases to be just a source of entertainment. Castronova presents the hypothetical example of Carla, who plays the role of an entrepreneur and manufacturer in *Second Life*; the only reason she can do so is because she is able to convert her virtual profits into actual profits (8). Additionally, research conducted in 2002 showed that Norrath, the virtual kingdom of *Everquest*, had developed a per capita of GDP of \$2,266, a number greater than that of both China and India at the time (Lichtarowicz). These cases serve to illustrate the gradual fusion of the real and the virtual worlds; it would thus be naïve to continue to treat the two worlds as wholly disjointed and unrelated.

As people begin to profit from these virtual ventures, a question of the ownership of property, particularly the notion of virtual property, arises. Legal analyst Westbrook presents three criteria an object must have in order to be classified as virtual property: persistence (the object must remain in the virtual world between gaming sessions), transferability (the owner must be able to transfer the object to another person meaningfully), and exclusivity (only one person or a small group of people should be able to use the object at any given time). Virtual property, then, is just a piece of computer code that manifests these three primary properties (Westbrook). Fairfield expands this characterization by also incorporating the role of the developer and his or her claim to ownership in this notion of virtual property. Fundamentally, a virtual world is just a manifestation of computer code, an interpretation of the strings of ones and zeros. Since there is very little separating computer code and pure ideas, computer code is generally protected under intellectual property law. Fairfield goes further, however, by claiming that there is a duality to this classification, that not all computer code is the same. He claims that some types of code “are designed to act more like land or chattel [transferable personal property] than ideas,” and in this category resides entities such as a website, an email account, or a virtual world (Fairfield). This kind of code fits into the framework that Westbrook prescribes: exclusive, persistent, and interconnected. Fairfield argues then that virtual property resides in this region between tangible property and intellectual property. Already in these basic definitions, we see the emergence of a conflict of interests over the ownership of virtual property; both the user of the virtual world and the developers of the virtual world appear to have some stake in claiming rights to a piece of virtual property.

## **Conflicting Interests and the Duality of Property**

The core conflict in the issue of virtual property is that between the users of the virtual worlds and the developers and companies responsible for creating and maintaining the virtual world. On the one hand, one can claim that without the players, the virtual world would be nothing more than a lifeless computer simulation. The players and their avatars bring life to the world; from their interactions with each other reputations are built, friendships are forged, and fortunes are made in the virtual world. They are the ones who transform the code from a deterministic simulation into a unique and vibrant social community. In a sense, the developers of the virtual world only provide the framework, the raw materials, on which the players may construct the world they envision. Thus, the players are the true architects of the virtual world, and therefore, should have some claim to ownership to the world they helped create.

At the same time, the developers who created the world should also have some stake in the virtual world. After all, when examined from the outside world, the virtual world becomes just a sequence of ones and zeros, a peculiar pattern of bits and bytes. Naturally then, the virtual world is just the intellectual brainchild of its authors. Just as the contents of a book belong to their author and the design of a machine to its inventor, so too should the bits of the virtual world belong to their creator. Furthermore, by virtue of the fact that the developers wrote the source code for the virtual world, they have the ability to modify it at will; in essence then, the developers already have absolute control over the virtual world, and thus, by extension, effectively own it.

Thus, since both the clients and the creators of the virtual have a reasonable claim to ownership, no simple solution to this problem of virtual property exists. Recently, scholars have proposed three principal theories to address this conflict of interests: Lockean labor theory, utilitarian ideals, and Hegelian personality theory. The Lockean scheme primarily revolves around Locke's claim that "every man has a property in his own person" and that "the labor of his body, and the work of his hands... are properly his" (Locke). This definition consists of two components: the ownership of one's identity and personhood and the connection between labor and ownership. Applied to virtual worlds, one can thus claim that the time and energy that a player invests in developing his or her virtual avatar may be correlated with labor in the Lockean sense. Therefore, the player should have some claim of ownership to the product of his or her labor: his or her avatar and accompanying virtual possessions.

At the same time, one may consider the Lockean notion of property from the developer's standpoint. Since the developer creates the

world, and thus invests tangible labor into the creation of the world, he or she should have legal ownership of both the world and everything that resides within it (Westbrook). After all, every item and every avatar created in the virtual world is just a sequence of ones and zeros arranged in a particular order; these ones and zeros are written by a programmer and reside on someone's or some company's server. Therefore, both the developer and the company have a legitimate claim to ownership under the Lockean scheme of labor and intellectual property. Westbrook thus dismisses the Lockean notion of property on the grounds that it neither defines a concrete notion of labor nor does it answer the question of "*why* do we want to reward labor in the first place, and *when* we should do so."

The idea that the act of creation implies ownership of the creation tends to be more applicable to tangible objects than to intangible entities such as ideas. Horowitz draws on this distinction when he asserts that the developer of the virtual world only provides the framework or environment in which the clients may develop their avatars.<sup>1</sup> The users enter the virtual world and use the resources to create virtual objects and avatars. In this sense, they have simply taken the available virtual resources and invested their own labor and creativity towards shaping a unique product that should be protected by Lockean property rights. At the same time, Horowitz outlines a potential counterargument in that in most cases, users earn many of these virtual items through "battles with virtual beasts or purchase them through trade with virtual shopkeepers." In that regard, the virtual objects are created through the labor of the developers and only transferred to the users.<sup>2</sup>

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1 Horowitz presents the following analogy to illustrate his point. Consider two people, A and B, where A develops an idea of a song and shares it with B in hopes of collaborating with B. B declines to collaborate, and instead proceeds to write a song based upon A's idea. In this case, B holds the exclusive copyright to the song despite the fact that A developed the idea. In other words, "A's idea is drawn from the natural common of ideas" which just happened to provide "the particular framework for creation" (Horowitz).

2 Horowitz highlights a potential counter argument in that one may claim that there is a distinction between an object that is guarded by a virtual beast and that same object owned by an avatar. The difference is that the item possessed by the avatar is different from the one possessed by the virtual beast; the item in the latter case is in its "natural state" while that which is owned by the avatar is in a non-natural or altered state. To convert the item from one state to the other requires an input of labor on the part of the avatar. In other words, while the developer provided the original resource (the item guarded by a virtual beast), the player modified it by taking it from its original state. Consequently, the player has a legitimate claim to owning the object (Horowitz).

Just as the Lockean labor theory of property may be extended to the case of virtual possessions and other virtual goods, the Lockean theory of consciousness may also be applied to the trickier case of the player's virtual avatar. While it is undeniable that the developers are the ones who create the virtual avatar, the player still animates the avatar. When the player manipulates the avatar, he or she effectively communicates a certain degree of his or her own identity and persona into the avatar. And even when that player leaves the virtual world, the identity and persona embodied by that avatar continues to influence and live on in the memories and experiences of all the other avatars with which it interacted. From a Lockean scheme, one can argue that one's virtual avatar functions as an extension of his or her identity in the virtual world. In a virtual environment, a player essentially projects his or her mind and imagination into his or her virtual persona; without the player, the avatar is a lifeless entity, a sequence of unchanging bits. Now, from Locke's notions of personhood and identity, one's virtual avatar simply becomes another vessel for his or her consciousness. By corollary, this allows the gamer a viable claim to ownership of his or her virtual embodiment.

Lastowca and Hunter expand upon this idea by combining the controller and his or her virtual representation into a single "cyborg entity." In this theory, a player's avatar provides a "vehicle for its controller's desires for experimentation, self-expression, and social wish-fulfillment." (Lastowca and Hunter). Events that happen in the virtual realm can have emotional and psychological impacts on the controller in the real world. Therefore, Lastowca and Hunter postulate a strong, effectively inextricable relation between the controller and the avatar. Thus, the claim of ownership over another's virtual avatar becomes absurd, for that would be analogous to someone trying to claim ownership over another's real world identity.

Carrying this cyborg idea further, we arrive at another potential means of addressing the issue of virtual property rights: personality theory. Personality theory stems from Hegel's view of property as being an extension of the self. Radin extends this idea by saying that the importance of an object may be measured by the degree of pain that would be caused to the owner if he or she lost the object (Radin). Under personality theory, property and the degree to which it should be protected is intimately linked with the value the owner attributes to the object. Radin makes two noteworthy distinctions: personal property, or property that is connected to a person's sense of identity (i.e., the wedding ring of a loving wearer), and fungible property, or property that has no definite connection (i.e., the same wedding ring in the hands of jeweler who crafted it and aims to solely

sell it for profit). Carrying this analogy into the virtual realm, we can conclude that a virtual avatar is certainly personal to the controller but fungible to the developer, in much the same way the wedding ring is personal to the wearer but fungible to the crafter. The virtual avatar serves as a vessel for the player's real identity, but to the creator, it is just a few lines of code that can be copied and sold to gamers.

Boone defends Radin's personality-based approach to virtual property by presenting the example of rent control statutes; this is a case where although both the tenant and the landlord have a stake in the property of interest, the law chooses to protect the property rights of the tenant over those of the landlord. This inequality is due to the fact that for the tenant, the property is his or her home, and thus of a much more personal nature, whereas to the landlord, the property is of a more fungible nature (Boone). However, Boone is careful in stating that just because the players have a personal stake in virtual property and the operators of the virtual have a fungible stake, this does not mean the player can override the operator on issues where the virtual world is reset to a previous state or if the properties of an object are changed without warning in order to balance some aspects of the game. Rather, he argues that virtual world operators cannot *arbitrarily* raise the subscription fee or close down a virtual world in order to set up a new, more profitable one; in these cases in which the operator is making changes for the sole purpose of profit, the rights of the players should supersede that of the operator (Boone). Thus, certain scenarios exist in which the interests of the players should be protected and even override the interests of the operator.

In addition to the Lockean and Hegelian notions of property, the third prominent theory scholars often consider in relation to virtual property is Bentham's theory of utilitarianism. Here, the emphasis is placed upon "providing the greatest good for the greatest number of people" (Steinberg). From the utilitarian perspective, we see that in the case of a large virtual world, the collective interests of the users can potentially outweigh the developer's interests in modifying or even removing the virtual world. As Lastowca and Hunter point out, though one additional avatar or one additional virtual creation does little to benefit the entirety of society, the value the individual creator places on that virtual creation is high; thus, when considering the aggregated benefits of all such individuals, the net utility is nontrivial. They go further by comparing virtual property rights to patents: on the whole, neither confers a substantial benefit to society, but at the individual level, their importance is much greater and indisputable (Lastowca and Hunter).

While personality theory and utilitarianism are reasonable approaches to addressing the problem of virtual property, neither



presents a well-defined framework. In the case of personality theory, we lack definite means to assess the personal value of an object, either real or virtual. True, there is a definite qualitative distinction between a wedding ring in the hands of a lover and that in the hands of the jeweler, but it is difficult, if not impossible, to quantify the differences in the emotional and symbolic values of the wedding ring to the two parties. Similarly, we have no reasonable means to calculate the compensation a player should receive should his or her avatar be stolen or lost, or in the case the developer decides to shut down the virtual world. There may be a way of valuing the time the player spends in building up his or her avatar, but finding a way to compensate for the more intangible investments, such as the player's emotional and psychological investment in defining his or her persona, is all but impossible. Much like the case of the wedding ring, the only possible replacement for a lost avatar to a devoted player is that very same avatar; anything else would lack that same degree of unique and strongly personal investment.

Furthermore, as Radin notes, a fine line exists between strong emotional attachment and fetishistic addiction to an object.<sup>3</sup> Once again, we face an element of uncertainty in our definitions. True, one may claim that if a person spends more than a certain number of hours a day immersed in a virtual world, then that should be considered unhealthy. However, such an attempt to quantify immersion and addiction cannot possibly be sufficient. For instance, one may present the case of the virtual entrepreneur who makes a real world living by working and interacting in a world like *Second Life*.<sup>4</sup> Similarly, in fantasy realms like *World of Warcraft* and *Everquest*, there are people whose aim is solely to acquire items or build up avatars and sell them

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3 Radin makes a distinction between healthy and unhealthy relationships between the self and an object. Unhealthy object relationships are ones that hinder, rather than support, healthy self-constitution; she describes these cases as fetishism, or essentially an unhealthy obsession with some object (Radin). This distinction is necessary to address the issue where obsession or addiction to some product causes one to behave irrationally or violently; such actions should certainly not be condoned or protected in a theory of property.

4 In 2006, Anshe Chung, a virtual entrepreneur in *Second Life*, became the first virtual avatar with a net worth of more than one million U.S. dollars ("Anshe Chung"). Furthermore, Chung's virtual world profits are now being channeled to real world businesses and corporations, most notably Anshe Chung Studios ("Anshe Chung"). Thus, it is evident that virtual worlds can also be a source of revenue and employment in the real world as well as a source of entertainment.

for real world currency.<sup>5</sup> Naturally, since their job revolves around the virtual world, the fact that they spend a large number of hours laboring away in the virtual realm is not sufficient to claim that they are addicted to the virtual world. An alternate definition could be to consider how people respond to the virtual world. Then, one may say that if a gamer inflicts real world injury on another for virtual world actions, then that would constitute crossing the boundary between immersion and addiction. The problem again is that such a definition merely asserts that a line exists between healthy and unhealthy relations with the virtual world; we might easily determine the side of the line to which one belongs, but be unable to identify where along the spectrum one resides. In other words, the Hegelian personality system defines a grand, overarching framework to approach the issue of virtual property, but offers little specific details that are essential in defining a strict legal framework.

The vagueness that plagues the personality approach to virtual property is also characteristic of the utilitarian approach. Now, instead of assessing the personal attachment and importance of a virtual object to its owner, we try and measure the net social benefit that results from a particular course of action. Once again, this is a philosophically reasonable idea, but one that lacks a pragmatic implementation. Certainly, there is nothing wrong with attempting to maximize utility in society; this, however, is just another lofty goal to strive towards. True, there are certainly clear cases such as when a developer decides to arbitrarily manipulate a virtual economy for his or her own gain and to the detriment of the gamers. The problem, however, is that very rarely are the actions of developers so clear-cut; in the general case, whenever a developer imposes some sort of change, a group of people will actively oppose the change. For instance, if the developer decides to weaken an overpowered item in order to better balance the virtual world, the people who possess that item will certainly protest the change. At this point, there are multiple conflicts of interests: the developers who strive to create a balanced world, the gamers who possess the item who now feel cheated by the change, and the group of gamers who benefit from the transition towards a more balanced world. One can make the claim that as long as the number of people who benefit from a particular change exceeds the number of people who would be hurt by the change, the

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<sup>5</sup> Currently, entire industries have developed in countries such as China where people (termed “gold-farmers”) play video games in so-termed “virtual sweatshops” for a living (Dibbell). In exchange for real-world money, generally less than a dollar an hour, these young employees work to acquire gold and rare items in the virtual world or to train up a virtual avatar for their clients (Dibbell).

net social benefit should allow for the change. Even with this modification, however, such a characterization is still insufficient. For instance, consider the case when the developer decides to sell limited copies of an exclusive, rare item to players as part of a promotion event. Later on, they decide that the item they sold severely unbalanced the game world and proceed to modify the item. Suddenly, the losses incurred by those who knowingly paid for the item, thinking that it had a special set of attributes, are much higher. In other words, the losses incurred by one player cannot simply be matched by the benefit another player would derive from a more balanced game world. The economic price one paid to obtain the item and the implicit value of the developer's promise to the users must now be factored into the equation.

Another problem with a strictly utilitarian system is that it opens up the potential for the majority to begin dictating the terms of the virtual world to the detriment of both the developer and any minority groups. With the overarching goal of trying to maximize the net benefit, a very real possibility exists where one group benefits significantly more than another for the sole reason that they happen to be the majority. Ultimately then, because of the fact that this notion of "benefit" extends well beyond just the quantitative and economic realms into the more subjective and ambiguous territories, this theory becomes a very challenging one to implement in a pragmatic manner. That being said, however, we may still consider the larger, overarching principles of utilitarianism when developing a more functional legal framework.

### **From Virtual Property to Virtual Services**

These three prominent theories of virtual property all focus on extending notions of real world property to the virtual realm; fundamentally, they all hinge upon Westbrook's characterization of virtual property as something that appears persistent, exclusive, and transferrable. Interestingly, however, the very dispute over virtual property is precisely over the second of these three attributes: exclusivity. The fundamental issue in the protection of virtual property is the conflict of interests between the developers who created the virtual world and the players who inhabit it. In this situation, goods in the virtual world do not belong exclusively to the player nor do they belong exclusively to the developers. When one party believes that they have exclusive rights to the virtual world, a conflict arises. Now, when we consider the matter from the exterior perspective of the outside world, we see that the notion of exclusive ownership is just an illusion of the virtual world. While it is certainly true that virtual property must appear to be exclusive in order to present an il-

lusion of reality, in order to resolve virtual disputes in the real world, we must examine the issue with a notion of property that is not so keenly focused on individual or selective ownership of a good.

Former video game developer Dr. Richard Bartle presents an example that keenly illustrates the distinction between the in-game illusion of ownership and the external reality of the issue. Consider a *Monopoly* game, a game where players have the illusion of owning property; certainly, *Monopoly* is not as immersive or psychologically stimulating as *World of Warcraft*, but it is a game that has an implicit notion of property. A player can land on a “property” such as Boardwalk and “purchase” it with *Monopoly* “money.” Though the player has “purchased” the property, this does not mean the player can now walk away from the game and still possess his or her property. In other words, the notion of property exists solely in the context of the game and the owner of the *Monopoly* set retains full real-world ownership of his or her game when the game has concluded. Bartle now takes this one step further and presents the case in which one player pays another player real money for an in-game property in order to establish an in-game “monopoly” and thus gain an advantage over others. In this unlikely scenario, the object that has changed hands is an in-game object, a virtual good in a sense; what has not changed is the fact that the original owner of the *Monopoly* set still owns the individual components of his or her game. Just because real money is involved does not imply the original owner of the board game now must surrender any part of his legal claim to his property. Otherwise, two players could simply work together to deprive the original owner of his game. Clearly, this would destroy the very notion of ownership and entitlement to our property. In other words, virtual property is more of an illusion present in only the virtual world; it is the toy property in the *Monopoly* world. Thus, when evaluating virtual property, we must not limit our worldview to within the game of *Monopoly* or the virtual land of *Second Life*, but rather, take on an exterior viewpoint.

Virtual property manifests itself differently when viewed from the perspective of a user and that of a developer. Thus, a more reasonable notion of property would acknowledge that fundamentally, no one individual or group owns a virtual product; rather, virtual goods are owned jointly, although not necessarily equally, by the developer and the user. Such a classification would not completely destroy the illusion of exclusivity players perceive in virtual worlds, but at the same time, would offer a different way of approaching the problem. Boone’s analogy of the landlord–tenant relationship now serves as an effective model from which to evaluate the problem. In the case of virtual property, the developer takes the role of the landlord, leasing and loaning parcels of virtual property to users and

subscribers, the tenants in the analogy. Taking this analogy further, the relationship between the client and the developer is not just one of shared ownership and interest in the virtual world, but a relationship bound by a definite contract, namely the *Terms of Service* and the *End User License Agreement*. Our analysis thus far has, for all intensive purposes, neglected the existence of these legal documents and instead, focused more on the user side of the issue. Now, integrating these existing license agreements into a framework of co-ownership, a new picture of the relationship between the developer and the client emerges. Instead of defining a notion of virtual property based upon a conventional, material economy, we may instead view the development of virtual worlds as that of a new service-based economy. In this sense, then, virtual worlds can be considered to be just another rendition of the emerging software as a service trend.

In the software as a service scheme, a software provider licenses a set of computer applications to clients; this is subject to the particular set of terms that the provider defines, perhaps in collaboration with the client. Rather than buy a complete copy of the software as in the traditional model of software distribution, the client simply pays for the software as long as he or she needs the software. In particular, the client does not pay the developer with the intent to own a full copy of the software, as would be the case had the client purchased a CD or another physical copy of the software. As Turner, et al. note, the basic focus of software as a service is “separating possession and ownership of software from its use” (38). This approach is often a much more effective solution for clients who do not need a full copy of the software, for clients who have a unique set of needs that are not easily fulfilled by general-purpose tools, or for clients who only need the software for a limited period of time. In that sense, software as a service functions very much like a service in a traditional sense. It is bound by a contract on which both the client and the developer mutually agree. More importantly, however, though “the process may be tied to a physical product, the performance is nearly intangible and does not normally result in ownership of any of the factors of production” (Turner et al., 39).

Under these premises, virtual environments can be seen as a new, albeit subtle, version of software as a service. Although, in the general case, the type of software that is generally offered as a service tends to be business-oriented tools, the framework may be applied to the case of virtual worlds. Now, instead of offering consumers a business solution, the developer or company offers clients a form of entertainment, a means of exploring and interacting with others in a virtual framework. Just as software transitioned from something one paid for and owned to something one subscribed to as a service, virtual worlds may be perceived as the transformation of entertainment

from the simple board games that one could buy at a store to more complicated and immersive environments to which one subscribes. In other words, the motto of this new form of entertainment is not so much “pay to own” as it is “pay to enjoy.” There is not so much a notion of private ownership and personal property, but rather, a system of agreements, contracts, and services.

In a way, by treating the virtual world as a service governed by a definite contract between the developer and the user, we have discarded many of the more profound philosophical issues of identity and duality in the dispute over virtual property. At the same time, by shifting the central focus to something much more tangible and defined in the form of a physical, written contract, we have achieved a much more pragmatic approach towards addressing the problem. Framing the issue in this manner, the developers are the ones who gain the upper hand in that they have the ability to define the terms of the service to clients. However, this is not as problematic as it might appear, for initially the developer is solely responsible for the creation of the virtual world. Before the virtual world goes “live,” it only exists as lines of code in the minds of those that are creating it. True, there may be cases where the developer is collaborating with designers and other groups of people, but initially, there is very little direct interaction between the developer and the average end user. For instance, during the development of *World of Warcraft*, one can safely infer that the game developers at *Blizzard* certainly did not consult with and fully consider the opinions of the 11.5 million plus eventual players. A more real-world example would be the case of an author writing a book. When the author is writing, he or she should consider his or her target audience and write accordingly; however, the potential readers cannot dictate exactly what the argument is or what the plot will be. In other words, in its earliest stages, a virtual world is nothing more than the intellectual creation and ideas of its developers. Naturally then, they, the developers, own the initial rights to their creation, just as an inventor would own the initial rights to his or her patent and an author to his or her book.

A potential counterargument to the above construction would be to assert that the developer’s ideas are inextricably linked to the demands and desires of the target audience. While the initial development of a virtual realm may be unique, once the game or world has been released and has accumulated a sufficiently large user base, the developer must start listening to the demands of the users or potentially incur economic losses. Taken to the extreme, the roles between the developer and the player effectively switch; the players are now the puppet masters guiding the developer with their wants and needs. The developer now takes on the peripheral role of translating those desires into the code for the virtual world. Under this assumption,

the developer's creation is no longer truly his or her own; the very act of creation becomes a joint process, with the users developing the ideas and the developers implementing them. On the one hand, this is an interesting philosophical concept that suggests that the best way to examine the issue may well be to transcend our modern separate conventions of developer and user and merge them as a single, unified creative body. However, this would necessitate a complete redefining of our modern legal structure that draws distinctions between the creator, author, or inventor and the end user. In that regard, this theory presents an interesting philosophical point; however, it is also one that is difficult to adapt to the existing legal framework.

Rather than dismissing this theory solely on the grounds of impracticality, we may also examine whether the demands of users indeed effectively dictate the developer's design. Consider the example of Facebook, a social networking company currently in the center of a controversial privacy debate. As reporter Dan Fletcher notes, Facebook has had a history of making user information more and more public, even despite vocal criticism from users, and more recently, legal institutions. As Fletcher notes, there are certainly the disaster cases, such as Facebook Beacon, a service that automatically notifies a user's friends whenever a user makes a purchase at various online sites. In this particular case, user criticism quickly forced the company to roll back the system and make it optional (Fletcher). However, despite some of the historic fiascos and even in the midst of the current debate over online privacy, Facebook has not drastically changed its service to fully agree with the users' wants. They continue to move towards publicizing more and more of the user's data. On a similar note, Fletcher brings up the case of the now almost foundational Facebook News Feed. When the News Feed feature was first unveiled, Facebook CEO Mark Zuckerberg claimed that out of the 10 million Facebook users at the time, "1 million were complaining" (Fletcher). Nevertheless, the feature has prevailed and now serves as a fundamental component of Facebook. In other words, people will often oppose unexpected changes; however, to drive innovation forward, the developer must sometimes push a plan forward despite vocal opposition. There are many other examples in the software development arena of users initially rejecting new software or the direction a company is headed, and yet, these are the technologies that eventually become integral to the modern information revolution.<sup>6</sup> In

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<sup>6</sup> In a recent interview, Apple founder and CEO Steve Jobs defended Apple's decision not to include Flash on its iPad, even though users may claim that the "iPad is crippled without Flash" (D8: Apple CEO). Jobs also cites many examples in the past where they decided to make design changes that users generally perceived as inconveniencing, such as cutting out support for floppy disks on the iMac entirely (D8: Apple CEO). In other words, Jobs

effect, the visionaries and individuals must drive change and technology forward. While users may protest and influence the direction of software development and the nature of these virtual worlds, the developer still makes the final decision over the design and the foundation irrespective of whether the users approve at that moment or not. Thus, there is limited evidence that the developer is wholly influenced by the users in creating the virtual world; the users may protest, as they often do, but the developer still retains the ability to develop his intellectual creation independent of the wants of the audience.

### **A Service-Based Model**

Having developed the virtual world and made it publicly available, the developer is now entitled to freely define the terms of the service he or she will be providing to prospective users. At this initial stage, the as-yet-uninhabited virtual world remains his or her intellectual creation; thus, he or she may now set forth the terms on which people can choose to enter this virtual world. The developer is effectively marketing his or her virtual world, his or her form of entertainment to prospective users. While the developer can make these initial terms arbitrary, he or she must present a set of terms that appeal to the average user in order to gain customers. For instance, charging hundreds of dollars on a monthly basis will certainly not be conducive to acquiring a definite user base. At this point in the process, the developer has essentially absolute freedom to dictate the terms of the contract. The only necessary protection would be to prevent deviously or ambiguously worded contracts intended to trick or defraud the client. In other words, the only restriction on the terms of the service is that it must be clear and easily understood; that aside, the client can determine whether he or she will subscribe to the service or not. Should a client later complain of the system being unjust or unbalanced, and the terms of service have not changed since the client last agreed to them, then the client is at fault. By participating in the virtual world, the client has had to accept the terms of the service provided by the developer, and as long as the developer has operated clearly within the bounds of the contract, then there is no legal issue.

At this point, there is already a simple solution to various types of disputes that may arise between the developer and the player or between one player and another player. For instance, consider the concept of ownership in a virtual world where the developer has explicitly prohibited the trade of virtual goods for real currency.

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claims that the developer should not always cater to the current tastes of the users; rather, the developer should look forward into the future and work towards the next big innovation.



Note that this is a common trend amongst many video game worlds, most notably *World of Warcraft*. Now if a player enters the fantastical world of Azeroth in *World of Warcraft*, and decides to purchase an item from another player using real currency, but ends up being cheated, the developer has no obligation to help the user, because the user's actions violated the terms of the contract. While the client may take other legal action against the offending player for theft or deception, the basis of that ruling need not be hindered by ambiguities involving ownership of virtual goods. The agreement between the user and the developer has already addressed that problem. Similarly, in the case where one inflicts real world harm for virtual world "theft," if that "theft" occurred within the bounds of the license agreement, that person cannot defend his or her actions on the grounds of acting in defense of his or her private property. Essentially, if the developer chooses to downplay or eliminate notions of virtual property or real money transfers, then there is effectively minimal confusion over the legitimacy of claims to virtual property.

This service-based approach also resolves the issue of the developer making potentially unannounced changes to the virtual world. For instance, consider the previous example of a player who, after hours of arduous work, acquires a powerful item. To his or her dismay, the developer alters the properties of that item the next day in order to better balance the world. Under the Lockean labor theory scheme, the player can make the legitimate argument that since he or she invested time, and by extension, labor, into acquiring that item, he or she effectively owns it and so the developer cannot change the item without his or her consent. On the contrary, the developer can counter with the argument that since he or she originally created the item, he or she has superior property rights. These two conflicting scenarios are easily resolved if we turn to this service-based model of the virtual world: either the developers' actions are permissible in the contract between him or her and the client, or it is not. Now, one could point out the trickier case in which the license agreement does not explicitly state the legality of the action. In that case, the most reasonable course of action would be to defer the benefit of the doubt onto the client; if the license agreement did not explicitly prohibit an action or a belief, then certainly the developer cannot claim otherwise. The developer is in the position of power and is dictating the terms; therefore, the developer is responsible for closing the potential loopholes in his or her contract. Now, there are still more pathological scenarios where the developer, in defense of his or her actions, may allude to some rule being expressed in the spirit of the contract or implicitly implied. Either way, this falls under the category of ambiguity in the terms; once again, the client's interest overrides that of the developer.

This definition effectively allows the developer to dictate the very existence of virtual property. In many ways, this framework has the potential to nullify the client's claim to his or her intellectual creations and avatars in the virtual environment. This, too, however, is not as outrageous or unfair as it may sound. Under the Lockean scheme, the players can claim that since they have invested time and energy in the development of their avatar or the accumulation of virtual wealth, these products of their labor should be protected under the law. They may substantiate their claims by saying further that their artistic and personal input to the virtual world has transformed it in some way, and therefore, they now have a stake in the virtual land. On the surface, this sounds reasonable; surely, one has a claim to their intellectual and artistic creations. However, owning the idea does not necessitate, or even imply, owning the good. As Bartle notes, in many family-friendly establishments, there is often a table of Duplo blocks for children to enjoy. Now, a child can invest his or her time and energy into creating something from the disjointed blocks, but just because he or she creates something truly unique and interesting, he or she cannot claim to own the Duplo blocks (Bartle). In other words, there is a definite difference between providing the framework to create (providing the Duplo blocks) and providing the physical object itself. In the case of the Duplo blocks, there is an implicit contract between the owner of the blocks and the children who play with them; the children can build whatever they want, but the blocks ultimately belong to the owner. In the case of the virtual world, this relation is explicitly spelled out in either the ToS or the EULA. Effectively, the service the developer or software company is providing is the right to use the framework in accordance with the terms of the contract. The clients, in accepting the contract, already acknowledge that they may only act and create within the bounds of the framework. If the clients do not agree with the terms of the contract and desire terms that do provide them some degree of ownership, then the client may either negotiate with the developer or simply choose not to use the service. In other words, on entering the virtual world where there is no notion of virtual possessions, the client has already agreed to the fact that the virtual world is just a framework for them to enjoy. Just as the children who play with Legos in a public facility should not expect to own the Legos even if they invest sufficient time and energy in creating something unique, so should the client not expect to own property in a virtual world where he or she has already agreed to a contract that does not allow for the existence of such property.

In the case of games like *World of Warcraft* where players cannot trade real currency for virtual goods and possessions, there is, nonetheless, a large, consistent flow of goods and currency between the

two worlds. In this sense, regardless of the stance developers take in their ToS and EULA, there are inevitable connections between the real and virtual worlds, which if left unregulated, can still pose significant legal challenges. On the one hand, the clients who violate the terms of their contract with the developer can be appropriately punished by the developer—for instance, by having his or her account banned or privileges revoked. In the general case, there are either just too many violations, or the violations are sufficiently difficult to monitor that it is not cost effective to do so. However, while an illegal market has developed consisting of traffic between the real and virtual worlds, the actual legal cases are not particularly tricky. For instance, when one player sells a virtual item or an avatar to another, neither player should expect any guarantees. Both players, in entering the virtual world, must have accepted the terms of the virtual world, and thus have knowingly performed the transaction illegally. Just as one should not expect legal recourse if he or she is cheated when trying to sell stolen property, neither should players who knowingly buy and sell virtual goods illegally expect just compensation or protection under the law. Furthermore, in the case of the virtual world, it is difficult to construct a case in which one player can claim to be ignorant of the illegality of a transaction, for by virtue of entering the virtual world, that player has already accepted the contract the developer has provided. Since virtual goods exist only in the context of the virtual world and are effectively nonexistent outside, there is very little risk of an ambiguous case of one purchasing a virtual good and realizing that he or she has been cheated without having first entered the virtual world.

By viewing the virtual world provider as effectively offering a service to the users, a service in which both parties may act freely within the bounds of the contract, we have a system that no longer relies on subjective evaluations of utility or attachment. It is also a system on which there is a defined foundation from which to evaluate and resolve conflicts of interests. Additionally, by focusing solely on the contract between the user and the developer and treating the software as a service, no rewriting or redefining of existing laws is required. The precise legal mechanisms for handling cases of disputes involving the virtual world may now simply be deferred onto the existing legal institutions that handle such disputes. Thus, virtual realms are, first and foremost, a service and framework provided by the developer to his or her clients. The concept of virtual property, then, is ultimately subsidiary to the functioning of a virtual world; its definition may thus be delineated by the developer through the terms of the virtual world without introducing additional legal quandaries and ambiguities.

## Concluding Remarks

The information revolution that began in the latter half of the twenty first century has drastically transformed our lives. One of the primary results of this technological revolution has been the proliferation of virtual worlds, some not so unlikely our own, and others that are more dream-like and fantastical. As more and more people begin their exodus to these new frontiers, a new set of legal challenges has arisen, particularly concerning ownership of property in these fictitious realms. At first glance, this problem appears simple and straightforward, but hidden beneath that cloak of innocence and simplicity is a complicated set of conflicting interests. The developers claim that he or she who designed and wrote the code for the world should own the world. The client counter argues that since he or she invested time, energy, and real money into the virtual world, he or she should receive some type of lasting entitlement to the virtual landscape. To resolve these conflicts, scholars have applied many conventional theories of property, particularly Lockean labor theory, Bentham's utilitarian theory, and Hegel's personality theory. However, none of these three theories presents a complete, pragmatic method of addressing the issues at hand. Each of the three either relies on subjective evaluations or introduces their own set of ambiguities and nuances when trying to resolve others.

The alternative, then, is to depart altogether from the above philosophical approaches and return to what some would argue is a simpler and perhaps more primitive system: treating virtual worlds as a service and framework provided by the developer to his or her audience. Such a service is bound by a contract that explicitly delineates and acknowledges the joint interests of the client and the developer. Ambiguities and loopholes in the contract are the fault of the developers, for they author the majority, if not all, of the terms contained within the contract. In this sense, the existing legal framework used to resolve disputes over terms, contracts, and services may be used to resolve legal disputes concerning virtual worlds and virtual property. While it may be a lackluster theory in terms of philosophical elegance, it does present an alternative to the otherwise ambiguous and ill-defined theories and notions of virtual property. And though it may not be the optimum or even least ambiguous solution, it is one that serves as a stepping-stone towards a more permanent and rigorous legal framework. Virtual property, then, is but an illusion that exists only in the virtual realm; the real-world contract serves as the bridge between these two separate worlds.

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