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VIRTUAL WORLD TAXATION: THEORIES OF INCOME TAXATION APPLIED TO THE SECOND LIFE VIRTUAL ECONOMY

By Timothy J. Miano

INTRODUCTION

A virtual world is a computer simulated environment in which users interact with each other via graphical representations of themselves. Second Life is one such virtual world released by Linden Lab in 2003.[1] Other examples of virtual worlds include massively multiplayer online games such as World of Warcraft, which boasts more than 8 million users, and EverQuest, which as early as 2002 was estimated to have the 77th largest GDP in the world (between Bulgaria and Russia).[2] Typically, virtual worlds appear similar to the real world, with constraints such as gravity and topography.[3]

One of the most important and interesting aspects of virtual worlds is the depth and sophistication of the economies that develop among the users. In fact, some virtual worlds, including Second Life, have currency exchanges where users can trade real-world currencies for virtual-world currency and vice versa.[4] This means that the currency, goods, and services within the virtual-world marketplace have a corresponding real-world monetary value. The implication of this real-world valuation of virtual-world goods is that users can participate in the virtual-world activities for the purpose of creating real-world wealth. As such, there are implicit incentives within this system for users to participate in the activities that are wealth maximizing.

The overarching purpose of this article is explore the federal income tax consequences of the creation and expansion of Second Life—a virtual world where real people can engage in

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[1] Linden Lab, http://lindenlab.com/ (2007).
[2] Ania Lichtarowicz, *Virtual kingdom richer than Bulgaria*, BBC News (Mar. 29, 2002), http://news.bbc.co.uk/2/hi/science/nature/1899420.stm.
[3] Virtual World, Wikipedia, http://en.wikipedia.org/wiki/Virtual_world (2007).
[4] LindeX Market Data, http://secondlife.com/whatis/economy-market.php (2007).

behavior constrained only by the time and efforts of those who wish to create the medium for a particular activity. Second Life is the focus of this article because it has developed the most mature systems of property rights, trade, and fungibility of wealth, and because it has been designed intentionally to be a more-or-less unregulated three-dimensional free market. Note, however, that much of the discussion herein also applies to the many other virtual worlds on the Internet, some of which currently boast millions more users and much larger internal economies than Second Life.[5]

This article will proceed in three parts. Part I will introduce the basic terminology and boundaries of Second Life and virtual worlds in general. It argues that the goods and services in Second Life possesses all of the same economic characteristic as real-world goods and services, and that it is improper to dismiss Second Life as no different than the video games that have, in part, given rise to the underlying technology. Part II will introduce some basic concepts for income taxation and briefly examine the Haig-Simons definition of income. It will explore both Haig and Simons's original works, and then develop the framework underlying the modern definition of income. The purpose of this inquiry is to establish that as a purely theoretical matter, the wealth generated from the activities in Second Life is indistinguishable from real world wealth. Finally, having established that Second Life produces taxable income under the theoretical premises for § 61 of the Federal Income Tax Code, Part III will analyze the activities in Second Life under the current tax law. First it will examine whether the three primary operational limitations that currently exists in the tax code would exempt Second Life from taxation. Second, using partnership tax law as a model, it will explore whether the efficiencies and substantial reduction in transaction costs that are unique to Second Life too easily create

[5] *See* Andrew Jankowich, *EULAw: The Complex Web of Corporate Rule-Making in Virtual Worlds*, 8 TUL. J. TECH. & INTELL. PROP. 1, 4 (2006) ("by January 2005, the number of 'active subscriptions' to the virtual worlds totaled more than 5,000,000").

accidental tax liability such that the current tax law fails to incorporate operational limitations special to Second Life. Finally, this article concludes that under the current law the users of Second Life would properly be subject to some form of taxation for their in-world activities. It also briefly speculates at some policy reasons for why the government should delay taxing those activities despite the applicability of the tax law and lists some important tax questions left unanswered by this article.

PART I: INTRODUCTION TO VIRTUAL WORLDS & SECOND LIFE

In order to study the novel legal ramifications of Second Life, it is necessary to have a basic understanding of its parameters and nomenclature. Second Life is an Internet-based virtual world first released by Linden Lab in 2003.[6] Users within Second Life, known as residents, interact within the computer simulated environment via avatars.[7] Avatars are customizable three-dimensional graphical representations of humanoids. More clearly then, the Second Life software acts as a gateway and provides a three-dimensional forum that enables users to interact with each other through motional avatars.[8] This platform creates a sophisticated level of a social network interactivity combined with general aspects of the Metaverse, or the meta-universe, that exists through the instantiation of an Internet-based virtual reality. The goal of Linden Lab, according to its creator Philip Rosedale, is to create a world like the Metaverse, or "a user-defined world of general use in which people can interact, play, do business, and otherwise communicate."[9]

A. An Overview of the Development and Content Within Second Life

[6] What is Second Life?, http://secondlife.com/whatis/ (2007).
[7] *See generally* R. Gregory Lasttowka & Dan Hunter, *The Laws of the Virtual World*, 92 CALIF. L. REV. 1 (2004) (discussing the origins of virtual world terminology).
[8] *See generally* Second Life, Wikipedia, http://en.wikipedia.org/wiki/Second_life (2007).
[9] Second Life, Wikipedia, http://en.wikipedia.org/wiki/Second_Life (2007) (summarizing an interview with Second Life creator Philip Rosedale with Kevin Maney from *The king of alter egos is surprisingly humble guy*, U.S.A TODAY, *available at* http://www.usatoday.com/printedition/money/20070205/secondlife_cover.art.htm).

Within the news media and academic literature, Second Life is frequently clustered with massively multiplayer online games, such as World of Warcraft or EverQuest, because the software provides a graphical interface and permits user interactivity that appears quite similar to these games.[10] However, Second Life is not a game as it lacks winners/losers, scores, levels, a defined objective, or other traditional parameters that qualify an activity as a game. Instead, at its inception, the world within Second Life was analogous to an undeveloped tract of land offering little more than open space, which has since been developed with whatever residents want for themselves or for which there is a market.[11] Second Life residents visit this virtual world almost as if it were a real place, exploring what others have created, meeting other residents, socializing, participating in individual and group activities, and buying items (virtual property) and services from one another.[12] Thus, while Second Life is not exclusively a social networking site like MySpace, a user driven commercial forum like eBay, a currency exchange like Citibank, a game like EverQuest, or a encyclopedia like Wikipedia, Second Life contains aspects of all of these things. Given the success with which these services satisfy certain human needs and the ability of residents to create real-world wealth by satisfying the needs of residents, it is not surprising that modified facets of these services become available in Second Life.

This point draws out one of defining characteristics of Second Life. Namely, besides the open land and the basic parameters/limitations/rules of the environment, all of the content is user generated.[13] Using open access software, Second Life computer protocol, and three-dimensional

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[10] *See generally* Edward Castronova, *Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier*, CESifo Working Paper No. 618 (2001) (discussing that the nominal hourly wage [in EverQuest] is about U.S.D 3.42 per hour, and the labors of the people produce a GNP per capita somewhere between that of Russia and Bulgaria.").

[11] Dustin Stamper, *Taxing Ones and Zeros: Can the IRS Ignore Virtual Economies?,* 114 TAX NOTES 149, 149 ("An online universe such as Second Life is unstructed. Its maker, Linden Labs, does not consider it a game at all.").

[12] *See* What is Second Life, Second Life, http://secondlife.com/whatis/ (2007).

[13] Cory Ondrejka, *Escaping the Gilded Cage: User Created Content and Building the Metaverse*, 49 N.Y.L. SCH. L. REV. 81, 87 (2004) ("Well over 99% of the objects in Second Life are user created").

modeling tools, any resident can build virtual buildings, landscapes, vehicles, furniture, machines, games, clothing, and generally anything (referred to here as "items") to use or to sell. Residents can incorporate various graphics, animation, and sound effects to create elaborate, farcical, or realistic content. It is this method of generating content that has given rise to the elaborate system of internal (as opposed to legally enforceable) property rights found in Second Life—one of the necessary conditions for a viable system of exchange. The legal status of the real-world property rights are unclear and will be examined in the context of taxation in greater detail in Part III below.

As an introductory matter, under Linden Lab's Terms of Service agreement ("TOS"), any resident who creates an item retains copyrights in that item.[14] From the perspective of the virtual-world resident the item is like personal property, but from the perspective of the real-world user the item is like duplicable software and more analogous to intellectual property.[15] For a particular item then, users have some flexibility in how they may exercise their property rights.[16] For example, the user who creates an item can limit it to behave like personal property by labeling it as a "no copy." This means that a subsequent owner cannot reproduce, but may use, the underlying computer code, raising issues of "use rights" verses "ownership rights." "No mod," on the other hand, means that the owner may not modify the item's characteristics much like closed source software which is supposed to prevent hacking and customization. Finally, adding to the complex hierarchy of rights, an owner of an item may label an item "no trans," which disallows transfer of ownership to another resident. Most importantly, all of these limitations can spring upon transfer. That is, creators or current owners can set these rights to

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[14] Second Life, Terms of Services Agreement § 3.2, available at http://secondlife.com/corporate /tos.php [hereinafter TOS]. The TOS grants Linden Lab a "perpetual, irrevocable, non-exclusive right and license" in those creations. *Id.*
[15] Theodore J. Westbrook, Comment, *Owned: Finding a Place for Virtual World Property Rights*, 2006 MICH. ST. L. REV. 779, 792 (2006).
[16] Permissions Explained, Second Life Wiki, http://wiki.secondlife.com/wiki/Permissions_Explained (2007).

bind future owners, much like land use covenants or servitudes. From a legal perspective then, any piece of property within Second Life can possess a wide array of property rights borrowing from real, personal, and intellectual property that remains, more or less, user-defined.[17]

B. Virtual Worlds and Virtual Worlds Economies

One of the most important and interesting aspects of virtual worlds such as Second Life is the depth and sophistication of the economies that develop among the users. Perhaps surprisingly, the economies of these virtual worlds frequently satisfy all the fundamental characteristics that neoclassical economic theory demands in the real world. First, the virtual items possessed by users—essentially the actualization of computer software—behave no differently than any other real-world goods.[18] Users are humans with real-world and virtual-world needs, and the properties of some of these items satisfy some of those needs. As in the real world, users are aware of the causal relationship between attaining the virtual good and satisfying a need, and users have ways of accessing these goods and retaining control over them. Most importantly, virtual goods are scarce, making them "economic goods" functionally indistinguishable from real-world economic goods. This last point is especially true in Second Life, where, unlike other virtual worlds, all the virtual goods are created by the users themselves.[19]

But these virtual items are not merely economic goods. They are economic goods within an interactive environment that satisfies principles of exchange.[20] Different users own different virtual goods and have unique subjective needs, which allow each to reverse value the other's

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[17] *See supra* Part III.A,
[18] Westbrook, *supra* note 15 ("Virtual property can be defined as computer code that, when processed, mimics some characteristics of real world property, including exclusivity, persistence and transferability. . . . It is the exclusive, or 'rivalrous,' nature of virtual property that gives it its unique similarity to real world personal property.").
[19] Ondrejka, *supra* note 13 ("Well over 99% of the objects in Second Life are user created").
[20] *See* Carl Menger, PRINCIPLES OF ECONOMICS, ch. 4 (1871).

goods. Moreover, users recognize that others have these disparate needs and perceive that if they could trade they would receive a net benefit. As a matter of economic theory, the only additional element necessary for exchange is a mechanism for excluding others from using the good without permission. Like the real world, virtual worlds solve this problem by maintaining a system of property rights over virtual goods.[21] Whether users create new goods, receive free goods, or trade others for goods, users hold virtual-world property rights in each of these virtual possessions—a right defined by the ability to exclude and to transfer that ability to another user. Thus, all of the necessary conditions for bargained-for positive-sum exchange of economic goods exist within Second Life.

These two characteristics, virtual economic goods and virtual environments that foster exchange, are not surprising. Indeed, the economic properties of these virtual goods are equally present in a computerized version of the board game Monopoly. Most people would agree that Monopoly money, helpful as it may to buy Park Place or to pay the Luxury Tax, has no monetary value outside of the well defined parameters of its game environment. However, several unique features—now norms within virtual worlds like Second Life—have distorted traditional demarcations of value, wealth, and trade. First, users have the ability to barter with each other for virtual items and trade these items.[22] Users can sell items to each other using this currency in place of bartering. Unlike Monopoly, however, real-world systems of trade such as eBay and PayPal allow virtual-world users to auction/sell the rights to virtual goods or the right to an account that holds virtual goods for real-world currency.[23] Second, just like Monopoly, most virtual worlds like Second Life have their own form of currency. But perhaps most surprisingly,

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[21] F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CALIF. L. REV. 1, 72 (2004) ("Property interests will be the initial arena for the development of virtual-world law.").
[22] *See supra* Part III.B.
[23] Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1062 (2005) ("The secondary market in virtual items was recently estimated at over $880 million dollars").

either through the host company or through sophisticated virtual-world entrepreneurs, some virtual worlds including Second Life have currency exchanges where users can trade real-world currencies for virtual-world currency and vice versa.[24] This means that all currency, goods, and services within the virtual marketplace have a corresponding real-world monetary value.

The implication of this real-world valuation of virtual-world goods is that users can participate in the virtual world for the purpose of creating real-world wealth. As such, there are implicit incentives within this system for users to participate in the activities that are wealth maximizing. Therefore, unlike Monopoly or other virtual-world games that may nevertheless have internal economies, virtual worlds such as Second Life take on the unique and dynamic ability to satisfy a whole range of virtual-world and real-world needs in very novel ways where those needs that are measured in U.S. Dollars.

C. **The Role of Linden Lab Within Second Life**

With this groundwork on the intricacies of the Second Life economy in mind, it is important to establish the part that Linden Lab plays inside Second Life. First, Linden makes no effort to regulate the activities or content in-world.[25] As noted above, the goods in Second Life are economic goods, in part, due to the embedded scarcity of user-generated content with enforceable in-world private property rights. More than that, residents can buy and sell virtual goods and services in something approximating a laissez-faire free market. Like the standard usage of the word, "goods" here include buildings, vehicles, clothing, devices of all kinds, and works of art. Similarly, "services" include help with designing/building, managing businesses,

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[24] TOS at § 1.5, *supra* note 14 ("Second Life offers an exchange, called LindeX, for the trading of Linden Dollars, which uses the terms 'buy' and 'sell' to indicate the transfer of license rights to use Linden Dollars. Use and regulation of LindeX is at Linden Lab's sole discretion.").

[25] *Id*. at § 1.2, ("Linden Lab generally does not regulate the content of communications between users or users' interactions with the Service. As a result, Linden Lab has very limited control, if any, over the quality, safety, morality, legality, truthfulness or accuracy of various aspects of the Service.").

entertainment, and other personal services. In fact, there are really only two major ways Linden Lab interacts with Second Life users. These are (1) the method Linden uses to extract rents from users and (2) the assisting in the convertibility of virtual-world currency to real-world currency. As a preview to the tax policy examined in Part III and the conclusion, this hands off approach influences considerations for the administration of taxing in-world activities.

Residents refer to the Second Life virtual world as "the Grid." In its simplest form, the Grid is a flat, Earth-like world which is simulated on a large array of servers. Anyone can join Second Life, enter the Grid, and create items for free. But, in order to own land—which Linden hosts on their servers—one must pay a monthly fee.[26] Thus, Linden Lab's revenue stream flows from rents extracted from users by "selling" them virtual real estate, which it then hosts.[27] Note that because of the existence of virtual land, the scarcity of land in a particular place, and the privacy rights that allow one to develop land, this system also creates a secondary real estate market. Just like the real world, ownership of virtual real estate provides a place for users to store objects they have created or acquired.

Yet beyond extracting rent, Linden Lab remains uninvolved with the land—a point that draws out the non-obvious differences between the virtual real estate market and real-world real estate market. With minor exceptions, Linden Lab has not placed any zoning/content restrictions on what land owners can place on their virtual real estate.[28] This has resulted in a wide variety of architectural and building use variations being fitted into nearby spaces. In extreme cases, residents place deliberately obstructive and/or offensive content near to others with the intent of defacing the local view. Such activities have been used as a form of bad-faith market leverage, destroying the quality of the local view in an attempt to force neighbors to buy the offending

[26] *See* Membership, Land, & Pricing, Second Life, http://secondlife.com/whatis/pricing.php (2007).
[27] Land Pricing & Use Fees, Second Life, http://secondlife.com/whatis/landpricing.php (2007).
[28] Real Estate (Second Life), Wikipedia, http://en.wikipedia.org/wiki/Real_estate_(Second_Life) (2007).

parcel of land at greatly overpriced value.[29]

The second aspect in which Linden Lab plays an active role is that it hosts a virtual currency exchange that allows users to swap U.S. Dollars for virtual currency, and vice versa, at floating market rates.[30] As noted, Second Life has its own currency, referred to as the Linden Dollar ("L$"). Though the exchange rate has fluctuated between ~L$240/U.S.D – ~L$350/U.S.D, as of through out early 2007 it has been stable at ~L$270/U.S.D.[31] Residents may convert between Linden Dollars and U.S. Dollars through Linden Lab's currency brokerage, the LindeX Currency Exchange, or through other third-party currency exchanges. These exchanges are part of the Second Life free market, except that Linden Lab occasionally buys or sells Linden Dollars in an attempt to keep the exchange rate relatively stable. Residents spending more than $1.5 million (U.S.D) with more than $200,000 converted through the LindeX Currency Exchange is typical within a 24 hour period.[32]

PART II: THE RELATIONSHIP BETWEEN HAIG-SIMONS TAXABLE INCOME AND UTILITY

This introduction to what Second Life is and the extent to which the content and activities in Second Life are commodified raises some remarkably unique issues. One such issue, which the remainder of this article will focus on, is whether, to what extent, and how the wealth generated in Second Life should be taxed. In order to understand the extent to which such activities warrant taxation, one must have a complete idea of what constitutes taxable income. Thus, Part II takes a highly theoretical look at what "income" is under U.S. tax law. By establishing what income means irrespective of Second Life, Part II will show why the income

[29] *See* Real Estate (Second Life), Wikipedia, http://en.wikipedia.org/wiki/Real_estate_(Second_Life) (2007).
[30] TOS at § 1.5, *supra* note 14 ("The Service currently includes a component called "Currency Exchange" or "LindeX," which refers to an aspect of the Service through which Linden Lab administers transactions among users for the purchase and sale of the licensed right to use Currency").
[31] LindeX Market Data, Second Life, http://secondlife.com/whatis/economy-market.php (2007).
[32] Economic Statistics, Second Life, http://secondlife.com/whatis/economy_stats.php (May 5, 2007).

acquired in Second Life is indistinguishable from typical real-world income.

A. Introduction to the Definitions of Income

First, the Internal Revenue Code ("the Code") states that "gross income means all income from whatever sources derived" and that taxable income means "gross income minus the deductions allowed."[33] In short, the Code does not define income. Instead, it includes a non-exclusive list of items that contribute to income, including compensation for services, rents, dividends, etc. Next, the treasury regulations emphasize that "taxpayers have gross income when receiving anything of economic value, whether in the form of cash, property, or services."[34] Last, the Supreme Court has interpreted "income" to mean "any undeniable accessions to wealth, clearly realized, and over which the taxpayer [has complete domination]."[35] Given the novelty of Second Life, these generalities are insufficient and a more theoretical framework for understanding income is necessary. Thus, one must look to the Haig-Simons definition of income, the most prominent articulation for what "income" means.

In 1921, Robert Haig formulated a definition of income noting that "taxable income is identified with money received in a given period."[36] Haig began with the proposition that "income is a flow of satisfactions, of intangible psychological experiences [i.e. utility],"[37] but further wrote that "it is necessary as a practical proposition to disregard the intangible psychological factors."[38] Instead, "[one must] have regard either for the money-worth of the goods and services utilized during a given period [i.e. a pure consumption tax] or for the money

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[33] IRC, § 61.
[34] Bryan T. Camp, Working Paper, *The Play's the Thing: A Theory of Taxing Virtual Worlds* (2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=980693. Treas. Reg. 1.16-1 (Gross income includes income realized in any form, whether in money, property, or services. Income may be realized, therefore, in the form of services, meals, accommodations, stock, or other property, was well as in cash.")
[35] Comm'r v. Glenshaw Glass, 384 U.S. 426 (1955).
[36] Robert M. Haig, *The Concept of Income—Economic and Legal Aspects*, THE FEDERAL INCOME TAX (1921), reprinted in Richard A. Musgrave and Carl S. Shoup, READINGS IN THE ECONOMICS OF TAXATION 57 (1959).
[37] *Id*. at 54.
[38] *Id*. at 58.

itself received during the period supplemented by the money-worth of such goods and services as are received directly without a money transaction [i.e. the modern income tax]."[39] This latter formulation was adopted by Henry Simons.

1. *Understanding Haig's Definition Verses Simons Definition*

Simons wrote that "personal income may be defined as the algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in value of the store of property rights between the beginning and end of the period in question [which Simons defines as change in wealth]."[40] This has been formulated as $Y = C + \Delta W$ where Y = income, C = consumption, and W = wealth. Simons explained that "personal income connotes, broadly, the exercise of control over the use of society's scarce resources. It has to do . . . with rights which command prices (or to which prices may be imputed)." Because Haig expressed income in terms of goods received or utilized and Simons expressed income in terms of rights, these two definitions require some reconciliation.

To begin, one must parse the premises in Simons's formulation. First, he discussed "the market value of rights," which he properly qualified as connoting the "exercise of control over the use of society's scarce resources." Simons definition of income exclusively pertained to economic resources (i.e. resources where needs exceeds quantity available) because non-economic resources do not carry a price. But Simons only considered resources for which the law recognizes an attached personal property right. Recognizing personal property rights implies the ability to exclude others from utilizing the resource in question. Simons similarly qualified consumption, writing that "consumption as a quality denotes the value of rights exercised in a

[39] *Id*.
[40] Henry C. Simons, Personal Income Taxation 50 (1938).

certain way (in the destruction of economic goods)."[41] Thus, under Simons's definition, a change in wealth is the difference in fair market value of all resources with personal property rights controlled by an individual between two points in time, and consumption is the aggregate of the fair market value of all economic resources destroyed through the exercise of personal property rights between that same period.

Compare this to Haig's formulation: "the money itself received during the period supplemented by the money-worth of such goods and services as are received directly without a money transaction." "Under this conception, income becomes the increase or accretion in one's power to satisfy his wants in a given period in so far as that power consist of (a) money itself, or, (b) anything susceptible of valuation in terms of money."[42] In the nomenclature of Simons this might read, 'the aggregate of the fair market value of all currency received subject to an individual's personal property rights in a given period, plus the aggregate of the fair market value of all economic resources received subject to an individual's personal property rights in a given period.' Notice that this formulation does not necessarily differentiate between wealth and consumption. That is, the aggregate of the fair market value of any economic resource received in a given period—whether or not the personal property right has been destructively exercised—can be mathematically identical to Simons's formulation, which divides the rights into those still controlled at the end of the period and those no longer controlled.

2. *The Failure of Haig & Simons to Develop Their Premises*

Both of these definitions of income leave much to be desired. To begin, Haig stressed that—as a theoretical matter—"all income consists in the utilities or satisfactions created.

[41] *Id*. at 49.
[42] Haig at 59, *supra* note 36.

Economic goods are not ends in themselves but means to the end of satisfying wants."[43] Having established that the consensus in the economic literature is that utility is the manner by which one measures income (i.e. that income is the aggregate of all utility over some time), Haig adopted the position that utility lacks the ability to be measured and that one must simply substitute money for utility as the measurable unit of income: "Taxable income is identified with money received in a given period."[44] He further recognized the fundamental problem with this shift. The cost of a good might be the same for two individuals, but the utility derived from the good may not be equal. When income tax laws operate on the money received for the purchase of that good, the two individuals' utilities are not equally taxed. "If 'usances' and satisfactions are really the proper theoretical basis from apportioning the tax burden there is here an inequality."[45] Yet, Haig failed to explore the theoretical underpinnings of utility in order to explain (1) the actual relationship between utility and money and (2) the extent of or the boundaries to the disparity between taxing utility and taxing money.

Similarly, Simons's analysis failed to adequately explore consumption and wealth, as he defined them. First, Simons—who rejected Haig's analysis—wrote that "Haig's definition, literally construed, would exclude consumption—which he clearly does not himself intend."[46] However, Simons only reached this conclusion by selectively filtering the language in Haig's writing. Simons divided Haig's conclusion into two parts, which in his formulation turn on presently possessed property rights. Second, Simons's analysis takes for granted the existence of a monetary market value attaching to personal property rights without explaining what it means. Because a property right is a legal concept that exists by operation of the laws of the government,

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[43] *Id*. at 134.
[44] *Id*. at 57.
[45] *Id*.
[46] Henry C. Simons, Personal Income Taxation 62 (1938).

Simons's definition of income cannot be abstracted outside the confines of a particular legal system. This creates ambiguity in the extent to which one should include as income novel resources with characteristics that makes their economic and legal status questionable—such as goods and services in Second Life. In short, Simons's definition of income is not self-defining and necessarily relies on the rest of the legal system to supply its inputs.

B. Examining the Theory Behind Haig-Simons

Because Simons was writing when the vested rights theory of property and legal positivism dominated the academy, earlier readers of his work most likely accepted the undeveloped property rights premises of his definition. Instead of summarizing and defending that intellectual movement, the remainder of this section will attempt to fill in the theoretical holes in the Haig-Simons definition of income by connecting the gap that Haig acknowledged remains in his definition. Namely: What is the relationship between utility and income? Because the Haig-Simons definition is written in terms of wealth and consumption, as a theoretical matter, one would expect to be able to rewrite both in terms of utility. The formulation that results from this derivation is not meant to replace Haig-Simons, merely explain it from first principles. By taking such a rigorous approach, it will become clear that the activities that take place in Second Life are no different than those that take place in the real world, and that the wealth acquired within the virtual world is merely a novel class of income.

While this section attempts to avoid any normative analysis, there are some interesting normative implications. While it is widely accepted that utility comparisons between individuals are not possible, this analysis indicates that there are subsets within monetizable utility where one can compare not absolute utility, but relative utility. Whether couched in terms of gains from trade or as corollary to the Coase Theorem, the implication is that one can maximize utility in a

narrow set of systems with certain side constraints. In addition, to the extent that certain utility is monetizable and maximizable, it is also taxable in such a manner that the percentage of the monetary tax imposed will always be less than or equal to the same percentage of utility harvested. The implication of this being that if one completely ignores non-monetized utility, then under these conditions (such as zero transaction costs) no one is ever taxed more than intended.

C. A Theory of Utility and Income

Perhaps obviously, the way to connect wealth and consumption in the Haig-Simons definition to utility is to recognize that one can divide utility into monetizable and non-monetizable utility, and note that wealth and consumption are special sets of monetizable utility over time. Implicit then is that wealth and consumption are composed of the same fundamental variables and can be rewritten in common terms. Perhaps less obvious is how to accomplish this task. For purposes of clarity, this analysis will begin with the conclusion for how to write income in terms of utility, then derive the components giving rise to this conclusion.

Recall that the standard Haig-Simons definition of income can be written: $Income(Y) = Consumption(C) + \Delta Wealth(W)$. But because certain relative utility can be written in terms of money, income that may be subject to taxation can be written in terms of monetizable utility—as opposed to purely monetized utility. Thus, Income (Y) = [(the amount of monetized wealth at time two – the amount of monetized wealth at time one) + (fair market value of non-monetized wealth at time two – the fair market value of monetized wealth at time one)] + [(the integral of the fair market value of economic wealth from time one to time two) – (the aggregate of the decrease in the fair market value of economic wealth while it was controlled)]. Or to put it slightly differently, Income (Y) = (the fair market value of the amount of economic wealth at

time two – the fair market value of the amount of economic wealth at time one) + (the aggregate of the fair market value of all economic wealth substituted for non-economic wealth). When written in this latter form, consumption under the Haig-Simons definition is equal to the fair market value of economic utility that is converted into non-economic utility. Hopefully, with this final definition in mind, the proceeding derivation from pure utility to the Haig-Simons definition of income will be a little more comprehensible.

1. *Premises for a Theory of Utility*

Initially, one can define utility as the benefit derived from the realization of a preference set, where a preference set is an ordinally ranked set of qualified needs— recognizing that some preference sets contain only a single need with a single qualification. Next, realize that there can be a relationship between some preferences within one's preference set. That is, one might prefer apples > oranges > bananas. However, one might prefer three apples = five oranges = seven bananas. Because this commensurability could hold for any number of preferences within one's preference set, one can cluster a set of commensurable preferences. One's preference set can then be rewritten as a series of clusters, recognizing that some clusters may only contain a single preference. Thus, there is a subjectively equivalent amount of utility harvested from the satisfaction of any one preference within a preference cluster. With this definition, consider the relationship between the utility harvested by one person and the utility harvested by another person.

Suppose person A prefers one apple and three bananas equally, (1, 3), and person B prefers one apple and four bananas equally (1, 4). Unfortunately, if there is one apple and one banana available, there is no way to know the best way to distribute them in order to maximize utility because there is no information concerning where apples and bananas lay in A and B's

larger preference clusters (i.e. there is no comparable unit between A and B). Although B's dispreference for bananas is greater than A's, there is no way to tell what the absolute utility for either would be when given a banana. However, when A and B have opposing rankings within their respective preference clusters, a narrow set of *relative* inter-utility comparisons is possible.

If A prefers apples to bananas (1, 3) and B prefers apples to bananas (4, 1), then no matter where these preference subsets lay in A and B's larger preference set, if you must give one to each person, then it will always be utility maximizing to give A the apple and B the banana. Thus, for any subset of preferences common to any two individuals, anytime there exists a deviation in the ordinal ranking of those preferences, it must be the case that the differently ranked independent needs can be satisfied in a manner that maximizes utility for both individuals.[47] This relationship between the oppositely preferred needs of any two people and maximization utility is the basis for exchange gives rise to markets, wealth, money, and income in society at large.

Notice however, that if A controls one banana and B controls nothing, then once again, there is no way to tell if a transfer would be utility maximizing—even on a relative scale. Similarly, if A controls three bananas and B controls one apple, while both A and B would harvest utility when exchanging one-for-one, two-for-one, or three-for-one as compared to not exchanging at all, there is no way to tell which outcome maximizes total utility because there is no common unit to measure A and B's respective utility. Nevertheless, when A controls three bananas and B controls one apple, receiving one or two bananas for one apple increases utility for B, giving one banana for one apple increases utility for A, and giving two bananas for one apple decreases utility for A as compared to one trade. So, if A and B cannot divide the apple or

[47] This presumes that any endogenization between fulfilling the need of one individual and the preference set of another individual is reflected in both preference sets at the time the need is fulfilled. Notice that ex post dissatisfaction does not alter the utility harvested at the time the preferences were fulfilled.

bananas into pieces, then one and only one exchange will take place. However, there is a point between A giving one banana and A giving two bananas where A continues to harvest more utility than she loses when receiving an apple (i.e. she maintains positive diminishing returns). If A and B were able to divide their fruit into pieces, then given A and B's preference sets, B could successfully insistent he receive up to 1.2 bananas in exchange for his apple, leaving A with one apple and 1.8 bananas. This outcome allows both A and B to realize the greatest amount of utility given each other's preference sets, and is referred to as a Nash Equilibrium.

2. *The Creation of Price and Money*

These principals give rise to a theory of price. In this case, A has bananas but prefers apples, making her a banana seller and an apple buyer. Because A prefers apples to bananas at a ratio of 1/3, the price of one of A's bananas is anything greater than 1/3 of an apple. Thus, for any individual, the minimum offering price is the ratio of any two weighted preferences within a preference cluster where the numerator is the need that the individual wants satisfied through another's control and the denominator is the controlled need the individual is offering to satisfy another's need. Conversely, the price of B's apple is anything greater than 1/4 of a banana, or to leave things in terms of A, B is a banana buyer and an apple seller, which means that B is willing to pay anything less than an apple for a 1/4 of a banana. Therefore, there is a price range in the banana market of 1/4 – 1 apples, and both A and B will harvest utility from any sale in this price range. As noted, given A and B's preferences, a sale of 1 apple for 1.2 bananas maximizes utility for both A and B, so the final market price of banana will be 5/6 apples, which properly falls within the price range.

In this example above, banana prices are written in terms of apples. If there are other options available, those too can be written in terms of apples. For example, if oranges, gold

bullion, and currier services are also for sale, where A and B prefer apples, bananas, oranges, gold, and currier services (4, 1, 1, 1, 1) and (1, 3, 1, 1, 1) respectively, then the equilibrium price for each of these new items is also 5/6 apples. In this market, prices are represented in apples, so the market uses an apple currency because apples are the unit of exchange. However, all needs within a preference cluster can be written in terms of any other need. So for any two people with overlapping preference clusters of controlled needs, the currency for exchange can be written in terms of any one need. An exchange rate, therefore, is simply the equilibrium price for switching between any two needs that are to be used as currency.

Next, recognize that a promise to satisfy some need can act as the functional equivalent of satisfaction itself. Whether it takes the form of government issued coinage, bilateral contracts, bills of credit, or an electronic account, money is a class of currency where the medium of exchange is not the satisfaction of a need, but the representation of a promise to satisfy of some need. Just as everyone in a market place can act in concert to use apples or gold bullion as currency, everyone can agree to honor promises of apples or gold bullion using money. Although a detailed discussion of specie and fiat monetary theory are outside the scope of this article, it is sufficient to recognize that U.S. Dollars are a form of monetary currency and prices can be represented in terms of dollars no different than apples. This framework allows one to see the relationship money and utility. That is, an equilibrium price, which can be written in terms of U.S. Dollars, is the utility maximizing rate of exchange for individuals with disparately ranked preference clusters operating in a marketplace.

3. *Economic Wealth as a Subset of Utility Wealth*

The next issue is wealth—specifically, utility wealth. Utility wealth is the aggregate of all economic and non-economic utility that an individual realizes at a particular time. One can then

divide utility wealth into economic and non-economic wealth, where economic wealth is the aggregate of all utility derived by a particular individual from the realization preferences where the individual controls the means to satisfy those preferences and others recognize the control such that those means have a fair market value (i.e. can be written in terms of a currency). This implicates the realization of utility by controlling monetary currency where money is the representation of a promise to satisfy some future need.

Suppose once again that that A and B have preference sets for apples to bananas (4, 1) and (1, 3), that A controls a banana tree, and that B controls an apple tree. A and B will maximize utility by trading. In this case however, suppose A's bananas are ripe and must be eaten on the first day or they will rot, and B's apples are not ripe and cannot be picked until the second day. If A waits until the second day to try to trade, B will not trade because B cannot eat rotten bananas. All things being equal over time, in order to maximize utility through trade, A must give B a banana on the first day, and B must give A an apple on the second day. In essence, B must give A money on the first day, where the money represents a promise that A can later exchange her money for an apple.

Notice that this example implicitly assumes several things. First, A can prefer to have a need satisfied at different times. If trade is possible here then A's preference set might actually be receiving an apple on the first day > receiving an apple on the second day > receiving banana on the first day. A is willing to accept B's monetary promise because she expects that she will realize more utility than she otherwise would. So even more specifically, A has a preference set of receipt of an apple on the second day multiplied by the percentage chance that A expects that she will receive the apple > receipt of a banana on the first day. Notice however, if A accepts B's monetary promise to receive an apple on the second day, that between the first and second day A

does not realize the utility of receiving either an apple or a banana. Furthermore, A might prefer expecting an apple on the second day through monetary exchange > not expecting an apple through monetary exchange. Thus, A realizes some utility by accruing the money to be used towards the satisfaction of another preference, and then realizes different utility once she is actually able to exchange her money for the means to satisfy that preference.

Nevertheless, money is still a means to satisfy preferences recognized by both A and B and as long as A controls money where the promise implicit in that money is still valid, then the money acts just like control of a need. Certain money, like U.S. Dollars, has the unique property of fungibility. That is, if B gives A U.S. Dollars for her banana, then A can use her money to buy an apple later or can use her money to satisfy any other preference that can be priced in U.S. Dollars. Because people behave rationally (in the economic sense), anytime an individual makes a choice, it must be the case that the arrangement of that person's preference set at the time the choice is made is such that it satisfies the highest ranked preference possible given the choices available. Ceteris paribus, as long as A maintains control of the U.S dollars she receives for her banana, A prefers the satisfaction of some preference later in time multiplied by the percentage chance that she expects that her U.S. Dollars will be exchangeable for the means to satisfy that preference > the satisfaction of some preference at the present time multiplied by the percentage chance that she expects that her U.S. Dollars are exchangeable for the means to satisfy that preference currently.

This leads to a critically important feature. Because A's economic wealth is composed of means that she currently controls and all of those controls have a fair market value such that she could exchange them for fungible money such as U.S. Dollars—where the possession of U.S. Dollars behaves no differently than control of any other utility harvesting means—then all of one

individual's economic wealth can be written in terms of U.S. Dollars from the perspective of others. Specifically, one can actually divide economic wealth into monetized and non-monetized components where monetized wealth is the aggregate of all utility derived at a particular time by a particular individual from the realization of preferences where that individual controls the means to satisfy those preferences, others recognize that control such that those means have a fair market value, and those means currently take the form of money. Whether or not A is willing to accept the fair market value for control of other currently held means, non-monetized economic wealth is the aggregate of all money that A could accept for exchanging the non-monetized means that she currently controls.

However, for a particular individual, the utility derived from non-monetized economic wealth is not equal to the utility derived from the forced monetization of that same wealth. In fact, ceteris paribus, the utility from non-monetized wealth is always greater than the utility that person would derive from the fair market value of their control because if control of the money allowed that individual to realized greater utility, then it must be the case that the individual would exchange their non-monetary control for monetary control (presuming no transaction costs). In essence, this is an application of the Coase Theorem which holds: "regardless of the initial allocation of property rights and choice of remedial protection, the market will determine ultimate allocations of legal entitlements, based on their relative value to different parties."[48] This is important because U.S. income taxation in its current form is concerned only with the fair market value of monetized and non-monetized wealth. Therefore, taxation at the fair market value does not reach all of the utility realized from one's economic wealth because, under perfect conditions, the utility realized from non-monetized wealth is always greater than the utility that

[48] Francesco Parisi, *Coase Theorem*, NEW PALGRAVE DICTIONARY OF ECONOMICS, 2nd ed., L. Blume and S. Durlaufe, eds. (2007), *available at* http://ssrn.com/abstract=981282.

would be realized by monetary conversion of that wealth.

5. *Arriving at the Haig-Simons Definition of Income*

Finally, this leads to a version of the Haig-Simons definition of income, except that it is written using fully derived and abstracted components. Again recall that the standard Haig-Simons definition of income can be written: $Income(Y) = Consumption(C) + \Delta Wealth(W)$. From the analysis above, one can recognize that money is not merely a measuring substitute in place of utility, but that utility and money are related. In essence, because certain relative utility can be written in terms of money, all taxable income can be written in terms of monetized utility.

Wealth may be defined, not as the "change in value of the store of property rights between the beginning and end of the period in question,"[49] but more precisely as 'the amount of monetized wealth at time two minus the amount of monetized wealth at time one plus the fair market value of non-monetized wealth at time two minus the fair market value of monetized wealth at time one.' Similarly, consumption may be defined not as "market value of rights exercised"[50] but as 'the integral of the fair market value of economic wealth from time one to time two minus the aggregate of the decreases in the fair market value of economic wealth while it was controlled.' This formulation provides the firm theoretical groundwork that Haig ignored while avoiding the dated property rights foundation of Simons's work.

PART III: THE TAXATION OF SECOND LIFE ACTIVITIES

Having established a theoretical framework for understanding wealth and income, one can begin to examine whether and to what extent the activities in Second Life should be subject to taxation under a theoretical model and whether there are any practical limitations. Luckily, the answer to the former question is readily established in the rigorous analysis above, developing

[49] Henry C. Simons, Personal Income Taxation 50 (1938).
[50] *Id*.

the relationship between utility and monetized wealth. The model does not distinguish between wealth that takes the form of tangible goods, paper money, electronic bank accounts, or virtual-world currency—and fails to do so for good reason. As long as that wealth presently satisfies a preference or could be purposefully converted to satisfy a preference, it is wealth. Any such wealth that has a discernable fair market value is income and should be included in taxable income. Thus, an application of this theoretical model of the Haig-Simons definition of wealth dictates that Second Life income—whether in the form of Linden Dollars, in-world goods, or in-world services—should be subject to federal income taxation.

However, not all forms of Haig-Simons income are subject to taxation, irrespective of the virtual-world context. When analyzing the taxation of Second Life, one must consider certain practical limitations. Practical limitations could come in two forms, those which are already recognized and built into the Code and those which are special to Second Life. Not surprisingly, these limitations are closely related to and begin to inform each other, narrowing into increasing fundamental taxation issues.

Reintroducing the property rights issues that can have an enormous impact on taxation analysis, Part III will introduce a cash-out method and an in-world method for taxing Second Life wealth. Using barter clubs, frequent flyer miles, and casino chips as comparables, the subsequent sections will first analyze the three existing operational limitations to taxation—realization, valuation, and imputation—to determine whether the law indicates that the taxation is proper. The final section will address whether the efficiencies and immense reduction in transaction costs created by Second Life give rise to unintended violations of the tax law such that the existing operational limitations are inadequate. Using the law on the formation of a tax partnership as a model, this section will argue that Second Life taxpayers do not accidentally

stumble into partnership tax liability, and that the reduced transaction costs do not implicate the need for novel operational limitations.

A. Two Theories of Taxation: Cash-out Taxation and In-world Taxation

The first question to be answered is whether the activities in Second Life fit into the current tax system. Begin with the Code and interpretations of § 61. Recall that in *Comm'r v. Glenshaw Glass*, the Supreme Court interpreted gross income to mean "any undeniable accessions to wealth, clearly realized, and over which the taxpayer [has] complete domination."[51] This properly implicates notions of basis. For the exchange of some piece of property, § 1001 provides that taxpayers should subtract their basis from the amount realized, where "amount realized" is the sum of the cash received plus the fair market value of any property received.[52] That is, when there is a realization event, a taxpayer must pay tax only on the total value that exceeds the original input value. How one measures basis in Second Life is a fundamental question, which necessitates a solution in order to arrive at the taxable amount of income resulting from Second Life wealth. To reach basis, one must establish the proper measure of virtual income. But there is no measurement for net income in Second Life until gross income is measured, and since such measurements partially turn on how one defines the property rights, one must first examine the property rights in Second Life that give rise to the income.

It is through this property rights issue that one can divide the taxation of Second Life into two sweeping extremes: (1) taxation upon cashing out (i.e., no in-world taxation) or (2) dynamic taxation as accessions to wealth occur (i.e., some in-world taxation). One end of the spectrum dismisses the in-world benefits and would not tax any of the economic activity that takes place *in* Second Life. That is, the only taxable events that would relate to Second Life are those that, ex

[51] Comm'r v. Glenshaw Glass, 384 U.S. 426 (1955).
[52] I.R.C. § 1001 (2006).

post, involve accessions to wealth that are already taxed, such as receiving U.S. Dollars or receiving out-world services with a fair market value. The other end of the spectrum looks through the novelty at the underlying economic reality and tracks the Haig-Simons theoretical framework developed above such that one's taxes accrue in real-time on all gains that have a fair market value.

Although a detailed analysis of property rights is outside the scope of this article,[53] recognize that in the context of a cash-out method the legal property rights assigned to anything in Second Life makes no difference, but that in the context of in-world taxation, property rights can make an enormous difference. One can analyze these two methods in turn. First, notice that irrespective of how one defines the property rights or the property exchanged in Second Life, anytime that someone receives U.S. Dollars, either by cashing out their Linden Dollars or by making a trade of in-world goods for out-world benefits, a taxable event has occurred. If a resident has property rights to the goods in question, then upon trading, the individual has realized an economic gain possessing a clear fair market value with a floor equal to the selling price. If the individual lacks property rights to the "good" in question, then payment received is simply payment for the service of transferring access to use the underlying computer software in question.[54] "If the non-tax law concludes that a virtual item is 'property,' then its sale is subject to the formula in § 1001."[55] If the non-tax law concludes that a virtual item is not property, then the transfers of the computer code are still "services paid for in exchange for other services."[56] Under either formulation, "the transaction produces gross income within the meaning of § 61."[57]

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[53] *See* Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1062 (2005).
[54] Gregg D. Polsky, *A Correct Analysis of the Tax Treatment of Contingent Attorney's Fee Arrangements: Enough with the Fruits and the Trees*, 37 GA. L. REV. 57, 110 n.246 (2002) (noting the "well-established principle that a transfer of property in exchange for services constitutes a realization event.").
[55] Camp at 45, *supra* note 34.
[56] Treas. Reg. § 1-61-2(d).
[57] Camp at 45, *supra* note 34.

Thus, even without wading through theories of property rights for virtual goods, one can still bound some part of Second Life activity as subject to gross income valuation.

If users of Second Life were to be taxed on in-world aspects of Second Life before they cashed-out, there would need to be some defined property rights. By analogy, if an individual takes ownership of 100 Euros in payment for some service, that person is taxed on the fair market value of the money at the exchange rate for U.S. Dollars. This holds true even if the money remains in a European bank account and is never actually converted into U.S. or European paper money because there is a recognized property interest and U.S. tax payers are taxed on world wide income. If Linden Dollars operate like Euros, then having 100 Linden Dollars in one's Second Life account should properly be subject to taxation because there is a floating exchange rate and discernable value in terms of U.S. Dollars. However, in Second Life, Linden places contractual restrictions on Linden Dollars. The Second Life Terms Of Services ("TOS") agreement provides that users have permission to use the "'textures' and/or 'environment content' that are both (a) created or owned by Linden Lab and (b) displayed by Linden Lab in-world,"[58] yet "Second Life does not grant participants intellectual property rights to the items it provides in the virtual environment, such as land and Linden Dollars."[59] With respect to creations, Second Life's TOS "expressly states that participants have intellectual property rights in their creations, to the extent provided by law."[60] "The TOS thus appears implicitly to grant land holders only a limited license to use land in Second Life" creating "multiple tiers of property, one tier in which participants have substantial ownership rights, and

[58] TOS at § 3.4, supra note 14.
[59] Leandra Lederman, Working Paper, *Stranger Than Fiction: Taxing Virtual Worlds* 27 (2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=969984.
[60] *Id*. at 11.

additional tiers in which participants are mere licensees of property created by Linden Lab."[61]

Having established that property rights can divide the taxation of Second Life activities into a cash-out method and in-world method, examining the operational limitations that exist in the current tax law can further bound the methods of taxation. Again, recall that in *Comm'r v. Glenshaw Glass*, the Supreme Court interpreted "income" to mean "any undeniable accessions to wealth, clearly realized, and over which the taxpayer [has] complete domination."[62] Notice that while this appears to unify the economic and statutory formulations of income, this definition explicitly imports realization as an operational limitation. In fact, the current tax doctrine actually creates three notable exceptions to gross income which significantly impact the analysis of virtual wealth. These operational restrictions are realization, valuation, and imputation. If either the cashing out method or some in-world taxation method is applicable to Second Life based on property rights alone, then one must examine these additional limitations in turn to determine whether Second Life activities are otherwise precluded from taxation.[63] As a secondary matter, one can use these operational limitations to explore more deeply the novel property rights issues that Second Life creates.

B. **Operational Limitation**s: **Realization**

Realization is "an event or transaction, such as the sale or exchange of property, that substantially changes a taxpayer's economic position so that income tax may be imposed or a tax allowance granted."[64] The requirement of realization "mediates between the economic idea of income and the practical needs of a system dependant on periodic reporting of transactions that may or may not have closed. It has less to do with economic theory and more to do with finding

[61] *Id*. at 27.
[62] Comm'r v. Glenshaw Glass, 384 U.S. 426 (1955).
[63] For parallel analysis on these operational limitations as they apply virtual worlds, see Camp, *supra* note 34.
[64] Realization, Blacks Legal Dictionary.

an administratable legal concept of gross income."[65] This concept applies when determining the income from goods and services, categories which can be blurred in the context of Second Life.

1. *The Real-World Rationale for Realization*

When property is exchanged for services rendered, the fair market value of the property taken as payment "must be included in income as compensation."[66] Similarly, if services are provided for other services, then the fair market value of the services received is included as income. A subset of these two types of exchanges is barter transactions.[67] "Taxpayers who engage in barter transactions are in the same economic position they would have been had they received cash for their goods or services in an amount equal to the value of the goods or services actually received and used that cash to purchase goods or services from the other party to the exchange."[68] Much like frequent flyer miles—discussed in detail with respect to valuation in the next section—the absence of money in barter transactions does not shield accessions to wealth from the economic definitions of income, yet such exchanges still pose practical difficulties for both valuation and enforcement. Whereas the IRS stated in Announcement 2002-18 that it would no longer "assert that any taxpayer has understated his federal tax liability by reason of the receipt or personal use of frequent flyer miles or other in-kind promotional benefits attributable to the taxpayer's business or official ravel,"[69] the IRS and Congress "have moved to increase the uniformity of reporting barter transactions as gross income" because such transactions do not pose the same problems of administration. Thus, one may attempt to draw certain parallels either to frequent flyer miles or barter transaction to inform the analysis of Second Life.

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[65] Camp at 28, *supra* note 34.
[66] Treas. Reg. § 1.61-2(d)(1).
[67] Edward A. Zelinsky, *For Realization: Income Taxation, Sectoral Accretionism, and the Virtue of Attainable Virtues*, 19 CARDOZO L. REV. 861, 873 (1997). ("[R]ealization must be defined to include property exchanges in order to deprive barter of any tax advantage and thus channel taxpayers back into cash transactions.").
[68] Robert I. Keller, *The Taxation of Barter Transactions,* 67 MINN. L. REV. 441, 444 (1982).
[69] I.R.S. Announcement 2002-18, 2002-10 I.R.B. 621.

A realization event occurs in barter transactions because property is exchanged for other property that is "differing materially either in kind or in extent."[70] To put it differently, for there to be a realization event "some transaction, usually a market transaction, must occur which changes the taxpayer's relationship to the asset."[71] However, because of the problems that can arise due to premature realization and "to align taxpayers who use different legal means to achieve the same economics ends,"[72] Congress has created exceptions to this principle. For example, certain non-recognition rules like § 1031 allow for an exchange of like-kind property without requiring taxpayer to realize gains.[73] The policy rationale here is that postponing the realization event actually maintains consistence, or more specifically, that certain taxpayers might reasonably reorganize their holdings while remaining in the same economic position.

2. *Realization in Second Life*

Not controversially, cashing out of Second Life is a realization event. At the point where a user provides in-world benefits and receives discrete out-world goods or services with a discernable fair market value, a realization event under Treas. Reg. § 1.61-2 occurs. Exchanges that take place exclusively in-world are much less clear. Linden Lab retains absolute rights to take away one's Linden Dollars, as it specifies that users "agree that Linden Lab has the absolute right to manage, regulate, control, modify and/or eliminate such Currency as it sees fit in its sole discretion."[74] So, the receipt of Linden Dollars may not be a realization event despite its fair market value. One rule for realization helps address this uncertainty. Under the constructive receipt realization test, "[i]ncome although not actually reduced to a taxpayer's possession is

[70] Treas. Reg. § 1.1001-1(a).
[71] Marjorie E. Kornhauser, *The Story of Macomber*, TAX STORIES 55 (Foundation Press 2003).
[72] Camp at 28, *supra* note 34.
[73] Treas. Reg. § 1.1031(a)-2(c) ("An exchange of intangible personal property of nondepreciable personal property qualifies for nonrecognition of gain or loss under section 1031 only if the exchanged properties are of a like kind.")
[74] TOS at § 1.4, *supra* note 14.

constructively received by him in the taxable year during which it is credited to his account, set apart for him, or otherwise made available so they may draw upon it at any time."[75] At least initially then, having Linden Dollars credited to one's account appears to be within the meaning of constructive receipt and would represent income under § 61.

"However, income is not constructively received if the taxpayer's control of its receipt is subject to substantial limitations or restrictions."[76] So long as the TOS places substantial legal restrictions (as opposed to practical limitations), the receipt of Linden Dollars alone may be insufficient to trigger a realization event.[77] Yet the applicable case law indicates that "the basis of constructive receipt is essentially unfettered control by the recipient over the date of actual receipt."[78] Reducing the property rights issue to its extremes, even if Linden Lab retains all relevant property rights in Linden Dollars, the fact that users can—at any point prior to revocation of use—still convert Linden Dollars into U.S. Dollars, acquiring Linden Dollars is therefore still constructive receipt of income.

The realization of in-world exchange of goods and services as opposed to Linden Dollars is much more complicated. Second Life's TOS "expressly states that participants have intellectual property rights in their creations, to the extent provided by law."[79] "Participants are thus entitled not only to transfer [an] original creation, but also to make and sell copies of it, much like the publisher of a novel or a software programmer can do. Second Life thus empowers [and encourages] the reaping of profits."[80] It is plausible that if any receipt of Linden Dollars is a

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[75] Treas. Reg. 1.451-2(a).
[76] *Id*.
[77] *C.f.* Robinson v. Commissioner, 44 T.C. 20 (1965) (upholding the use of deferred payment contacts), *with* Loose v. United States, 74 F.2d 147 (8th Cir. 1934) (upholding constructive receipt of matured interest coupons despite physical impairment to travel from CA to NY to receive them).
[78] Hornung v. Commissioner, 47 T.C. 428 (1967).
[79] Lederman at 11, *supra* note 59; TOS at § 3.2, *supra* note 14.The TOS grants Linden Lab a "perpetual, irrevocable, non-exclusive right and license" in those creations. *Id*.
[80] Lederman at 51, *supra* note 59.

realization event, and a significant portion of Second Life's goods and services are commodified, then the receipt of goods or services in place of Linden Dollars should be just as much of a realization event.

While "Second Life does not grant participants intellectual property rights to the items it provides in the virtual environment, such as land and Linden Dollars,"[81] Second Life's TOS does state that "you retain copyright and other intellectual property rights with respect to content you create in Second Life, to the extent that you have such rights under applicable law."[82] Implicit in such property rights to virtual goods is the ability to transfer that right to someone else. If (1) one has less property rights in Linden Dollars than virtual items, (2) receiving Linden Dollars is a realization event, (3) both Linden Dollars and virtual goods have discernable fair market values, and (4) one acquires greater property rights when giving up Linden Dollars for virtual goods, then the receipt of virtual goods should also be a realization event.[83] Or, as Leandra Lederman puts it in her article, *Stranger Than Fiction: Taxing Virtual Worlds:* "Even if a use right in Linden [Dollars] does not constitute property for federal income tax purposes, the exchange [of] Linden [Dollars] [for rights in a virtual good] that does constitute property should constitute a realization event."[84]

This, however, makes a critical assumption. Namely, that when a user transfers a virtual good, she *is actually* transferring her intellectual property. Recall that users may transfer copies of items based on the intellectual property they have developed and maintain the copyright to that property (just like any retail software company) with limited re-transferability and/or limited modifiability. "Second Life's TOS provides that, notwithstanding a participant's intellectual

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[81] Id. at 27.
[82] TOS at § 3.2, *supra* note 14. The TOS grants Linden Lab a "perpetual, irrevocable, non-exclusive right and license" in those creations. *Id*.
[83] *See* Cottage Sav. Ass'n v. Comm'r, 499 U.S. 554, 566 (1991).
[84] Lederman at 52 n. 231, *supra* note 59.

property rights in his or her own creation, participants do not 'own any data Linden Lab stores on Linden Lab servers (including without limitation any data representing or embodying any or all of your Content)'"[85] and "placing any creation into Second Life automatically results in the 'grant . . . to Linden Lab and to all other users of the Service a non-exclusive, worldwide, fully paid-up, transferable, irrevocable, royalty-free and perpetual License . . . to use your Content for all purposes within the Service."[86] This language indicates that users who receive virtual property in an exchange where they do not receive property rights to the underlying code merely receive a use license from its creator. For there to be a taxable realization event under § 1001, one must convey "property" as opposed to a license which is merely a use right. "The feature that makes nonpossessory property rights property is the right to exclude others, and the right to exclude cannot be derived from the right to use."[87] Notice though, that this reason would apply equally, if not more, to Linden Dollars—property to which Linden Lab explicitly retains rights.

This appears to lead to a curious result: presuming all other conditions are satisfied, irrespective of the underlying economic substance of the transactions, exchanges of Linden Dollars and virtual property satisfy the realization requirement if and only if players have sufficient property rights as opposed to merely use rights. Whether there is an exception to this rule is unclear. In *Cottage Sav. Ass'm v. Comm'r*, the Court wrote that under "§ 1001(a), an exchange of property gives rise to a realization event so long as the exchanged properties are 'materially different' -- that is, so long as they embody *legally distinct entitlements*."[88] While in that case the underlying property rights were not in question, the premise of this analysis insists that taxation is triggered by a realization event, and that realization events parallel the economic

[85] *Id*. at 52 (citing TOS at § 3.3, *supra* note 14.)
[86] *Id*. (citing TOS at § 3.2, *supra* note 14.).
[87] Thomas W. Merill, *Property and the Right to Exclude*, 77 NED. L. REV. 730, 744 (1998).
[88] Cottage Sav. Ass'n v. Comm'r, 499 U.S. 554, 566 (1991) (emphasis added).

realities that flow from distinct entitlements. When a Second Life user takes possession of Linden Dollars or virtual property that they (and no one else) can convert into U.S. Dollars at the time of the transaction, they receive a distinct entitlement to that Linden Dollar or virtual property—making taxation of such a transaction proper. The uncertainty of preserving one's accession to wealth is no different than the uncertainty that comes with income in the form of Euros, art work, or any other property that gives rise to a realization event.

C. **Operational Limitations**: **Valuation**

Implicit in the realization discussion above was that the economic goods in question had readily obtainable fair market values. Treas. Reg. 1.61-2(d) requires "the fair market value of the property taken in payment must be included in income as compensation."[89] In practice, determining the fair market value may pose such difficulties that the wealth in question cannot reasonably be taxed. "The legal requirement for 'fair market value' presupposes some objective method of valuation, some way that the tax system can verify what the taxpayer reports. If there is no objective market value, the value of an item cannot be reduced to a value in United State currency, there is no reportable income."[90]

The extent to which this limitation applies to the activities in Second Life is somewhat unclear. Although goods in Second Life are commodified, users of Second Life (not the parent company Linden) create those goods. This means that any particular good may be highly unique (if not one of a kind) and that there may be no other residents producing comparable goods. One could argue that the highest price that any one resident is willing to pay for the good is its fair market value. However, as of November 2006, the population of Second Life (1.4 million) was

[89] Treas. Reg. § 1.61-2(d)(1).
[90] Camp at 28, *supra* note 34.

growing by nearly 30% per month,[91] and innovations in Second Life programming protocol allow for increasing complex goods. Thus, while the exchange rate between Linden and U.S. currency may remain stable, the fair market value for any one good may vary wildly. It is here that one can draw parallels between Second Life wealth and the accrual of frequent flyer miles, which similarly may have a fair market value, but which the Service has partially exempt because of the practical limitations of valuation.

Taxpayers whose travel is paid for by their employer frequently accrue personal frequent flyer miles, which they can use as they like.[92] Nevertheless, there are significant problems (1) "establishing standards for determining the value of the credits to be taxed," (2) monitoring "who has the ultimate responsibility for keeping track of these credits," and (3) timing the recognition (" i.e., the determination of the point at which these credits constitute taxable income").[93] Unless travelers cash out, "there is no feasible approach to enforcing the taxation of these credits that will result in a fair treatment to all taxpayers."[94] Notice then that as long as one confines the analysis to situations where users have cashed out, even without exploring the property rights issues, the valuation issues seen in frequent flyer miles go away.[95] Once again, using a cash-out method is the minimum method by which Second Life could be properly taxed under the current law.

Yet, such a narrow approach may ignore important differences between frequent flyer

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[91] *1.4 Million Get a Virtual Life*, CHICAGO TRIBUNE, Nov. 13, 2006.
[92] See Kathy Krawczyk & Lorrain Wright, *How Should Frequent Flyer Miles Be Taxed?*, 79 TAX NOTES 1029, 1030 (1998).
[93] Darrell L. Oliveira, *The Taxability of Frequent Flyer Credits Earned by Employees: Why the IRS Has Remained Silent on the Issue*, 4 U. Pa. J. Lab. & Emp. L. 643, 650 (2002).
[94] *Id*. at 667.
[95] *See* Ann. 2002-18; 2002-1 C.B. 621 ("Consistent with prior practice, the IRS will not assert that any taxpayer has understated his federal tax liability by reason of the receipt or personal use of frequent flyer miles . . . . This relief does not apply to travel or other promotional benefits that are converted to cash, to compensation that is paid in the form of travel or other promotional benefits, or in other circumstances where these benefits are used for tax avoidance purposes.").

miles and Second Life commerce, where more expansive taxation would be proper. That is, the extent to which Second Life's economy is commodified is what makes it unique. First, a Second Life resident can quickly and easily convert between Linden Dollars and U.S. Dollars either though the LindeX Currency Exchange or through one of several third party brokers. Second, the rarity or uniqueness of a good does not foreclose the possibility of taxation. Valuation is possible even in the context of one-of-a-kind art, which uses a "willing buyer/seller standard of market value,"[96] and the ease with which transfers are possible in Second Life arguably makes valuation that much more precise.

Nevertheless, one might contend that the sheer number and low value of the transactions in Second Life makes taxation unadministrable. Ignoring that all of these transactions are taking place electronically and that Linden already monitors the total value of transaction that take place on a daily basis, this argument begs the question as to whether the transactions should be taxed under current standards. What truly matters here is that many goods and exchanges in Second Life do, in fact, have a clearly defined fair market value and that most, if not all goods, have a minimum fair market value which could be valued as the income that would be gained upon cashing out all of ones possessions. Whether the scope and novelty obliges the creation of new exceptions is a secondary question. Thus while there are superficial similarities between frequent flyer miles and Second Life wealth, the rationale behind exempting frequent flyer miles from taxation does not apply to Second Life.

D. **Operational Limitations**: **Imputed Income**

The last category of operational limitations that informs an analysis of Second Life taxation is imputed income. This exception to gross income comes in two varieties: self-

[96] Stephen C. Gara and Craig J. Langstraat, *Property Valuation for Transfer Taxes, Art, Science, or Arbitrary Decision?*, 12 AKRON TAX J. 125, 144 (1996).

benefiting activities (i.e. self-service) and the use of self-owned property. Thus, "the principal meanings" of the phrase 'imputed income' appear to be: "(1) the flow of satisfactions obtained by a taxpayer (which would include not only the value of satisfactions derived from owning and spending but also the value of leisure, sleep, a happy marriage, etc.)" and "(2) the market-price equivalents of non-market economic activity (such as the value of self-grown crops and the rental value of self-owned assets, and possibly the value of self-performed services)."[97] Not surprising, imputed income provides the clearest example of where taxation of virtual wealth (or even real wealth) deviates from the theoretical model of income developed above. A method of taxation based solely on the fair market value of the benefits derived from the satisfaction of preferences fails to discriminate against the "flow of satisfactions from . . . goods and services arising out of the personal exertions of the taxpayer on his own behalf."[98]

1. *Imputed Income Applied to Second Life*

"The special feature of imputed income is that it arises outside the normal process of the market."[99] Even when self-services have clearly defined fair market values and realization events, they are excluded from the legal definition of gross income because (1) it would create unpalatable incentive problems, (2) it is highly difficult to determine which market defines the value, and (3) tracking the innumerable small dollar transactions is not feasible. As explained by the Joint Committee on Taxation: "The individual income tax does not include in gross income . . . imputed income [because] . . . [t]he measurement of imputed income for tax purposes presents administrative problems and its exclusion from taxable income may be regarded as an

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[97] Joseph M. Dodge, *Accessions to Wealth, Realization of Gross Income, and Dominion and Control: Applying the "Claim of Right Doctrine" to Found Objects, Including Record-Setting Baseballs*, 5 *Fla. Tax Rev*. 685, 691-92 (2000).
[98] Donald B. Marsh, *The Taxation of Imputed Income*, 58 Pol. Sci. Q. 514 (1943).
[99] Mark A. Haskell and Joel Kauffman, *Taxation of Imputed Income: The Bargain-Purchase Problem*, 17 Nat'l Tax J. 232 (1964) (citing to Donald V. Marsh, The Taxation of Imputed Income, 58 Pol. Sci. Q. 514 (1943) (quote marks omitted)).

administrative necessity."[100]

Once again, this operational limitation has no impact on a cash-out method of taxing Second Life activities because by definition when users cash-out they have converted self-created property or self-benefited services into U.S. Dollars, eliminating the "imputed" nature of the limitation. Whether the imputation acts as an operational exception for in-world activities is much more complex. One argument against the taxation of in-world activities proffers that until one cashes-out, all of the benefits derived from Second Life are in-kind benefits that represent self-provided services or enjoyment of self-owned property.[101] The premise of the argument is that Second Life is sufficiently bounded and that the users of Second Life sufficiently perceive all of the activities within Second Life as "play" that until someone takes the affirmative step of converting their in-kind goods, services, or Linden Dollars into commodified out-world benefits (such as U.S. Dollars), that such benefits are merely self-created economic wealth. That is, until a user cashes-out, Second Life wealth represents in-kind benefits "acquired through play-market transactions, not through true market transactions."[102]

This argument parallels the treatment of casino chips as units of play. In *Zarin v. Comm'r*, the Tax Court found that casino chips "were a medium of exchange within the Resorts casino."[103] Nevertheless, "as a matter of substance, chips in isolation are not what petitioner purchased."[104] Instead, the possession of chips gave the petitioner the "opportunity to gamble" which is different than "'property' transferred from a seller to a purchaser."[105] Thus, the court found that "chips were merely 'a medium of exchange'" and not that "chips were equivalent to

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[100] *Estimates of Federal Tax Expenditures for Fiscal Years 2006-2010*, Joint Committee Print JCS-2-06 (April 25, 2006) at 5 (discussing imputed income from owner-occupied homes and durable goods).
[101] Camp at 57, *supra* note 34.
[102] *Id*.
[103] 92 T.C. 1084, 1100 (1989).
[104] *Id*.
[105] *Id*.

cash" because the value of the chips was "merely representative of whatever had been given to acquire them."[106]

Appling this to Second Life, to the extent that a user or a casino player accrues Linden Dollars, property, or chips, such in-context wealth "represent[s] the stored value of the taxpayer's play, a self-provided service. Even though the self-provided service involved interaction with other [people], that does not make it a true market transaction."[107] This would hold true irrespective of how one defines the property rights of in-world content. Thus, if all accession to wealth in Second Life are merely imputed income and not taxed until a realization event, i.e. cashing out, then trading goods, services, and Linden Dollars in Second Life is merely trading in "mediums of exchange" that allow one to use the Second Life virtual world. Like casino chips, the ease and flexibility of exchanging Linden Dollars for U.S. Dollars would not alter this result.

2. *Arguments For and Against a Theory of Imputed Income in Second Life*

In his article, *The Play's the Thing*, Prof. Bryan Camp argues that this imputation analysis is the proper way to understand the taxation of Second Life and that a cash-out method is appropriate because like casino chips, "Linden Dollars represent units of play."[108] He acknowledges that "[Linden Dollars] might morph into real currency," but argues that will only happen "when account owners gain the ability to trade Lindens for real goods and services that are useful outside of Second Life" or when "for-profit businesses start accepting Lindens in payment" for out-world goods and services.[109] While this line of reasoning does find support in the applicable case law, it is problematic.

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[106] Theodore P. Seto, *Inside Zarin,* 59 SMU L. REV. 1761, 1783-84 (2006).
[107] Camp at 60, *supra* note 34.
[108] *Id*. at 64.
[109] *Id*. at 64-65.

First, unlike poker chips, which are heavily regulated by the casinos that use them as units of exchange, Second Life—and the Internet in general—is more or less a free-form marketplace. "Although Zarin acquired tangible property, the chips were not property in the relevant tax sense because they were only a 'local' medium of exchange, like currency or banknotes. The chips had no independent existence or value other than to facilitate gambling at [the casino]."[110] While in a casino, "chips are merely symbols denominating the amount of the bets at stake," the fungibility of currency and goods in Second Life pushes the limitations that chips in a confined setting cannot.[111]

Not surprisingly, the users of other virtual worlds and other virtual currencies are already testing their supposed boundaries with great success. These parallel innovations inform the potential boundaries of Second Life. Despite clear rules and multiple attempts to eliminate real-money trading of goods from various virtual worlds,[112] third-party grey markets are still used and easily accessible by users.[113] Whereas, Blizzard, the owner World of Warcraft, has tried with minimal success to restrain the continued commodification of its virtual goods by banning real money transactions associated with the game,[114] Sony, the owner of EverQuest, has taken the opposite approach by "creating its own auction site where it can control and profit from the player demand for sales of virtual items."[115]

To further emphasize this point note that removing these issues from the virtual-world

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[110] Joseph M. Dodge, *Zarin v. Commissioner: Musings About Debt Cancellations and "Consumption" in an Income Tax Base*, 45 Tax L. Rev. 677, 678 (1990)
[111] *Id*.
[112] Ondrejka, *supra* note 13 ("PlayerAcutions, a site that grew as a result of eBay's ban on Everquest items, boasts over 100,000 members.").
[113] *eBay to exempt 'Second Life' listings from virtual items ban*, CNet News Blog (Jan. 29, 2007), http://news.com/8301-10784_3-6154277-7.html.
[114] *Blizzard Goes to War*, Terra Nova Blog (Dec. 12, 2004), http://terranova.blogs.com/terra_nova/2004/12/blizzard_goes_t.html
[115] Andrew E. Jankowich, *Property and Democracy in the Virtual World*, 11 B.U. J. SCI. & TECH. L. 173, 208 (2005).

context does not solve the problem, as seen in markets of related technology. Chinese regulators have ordered websites to limit the use of "QQ coins," a form of virtual money, stemming from "concerns that the online credits might be used for money laundering or illicit trade" after news reports that customers were using credits to "gamble, pay for phone-sex services and to shop online."[116] In keeping with its mission to create a user-defined world of general use in which people can interact, play, do business, and otherwise communicate, Linden takes an even more hands-off approach then Blizzard, Sony, or the Chinese government, and unlike the Resorts casino in *Zarin*, plays little to no part in defining how Linden's are used—in or out of Second Life. Shielding Second Life income from taxation under an imputation theory is proper only to the extent that the Second Life economy can be enforceably bounded—a requirement that is at best tenuous.

The next issue is where the imputation boundary would have to be drawn. Prof. Camp writes that "when online exchanges outside of Second Life—such as Amazon.com or Statples.com—start accepting Lindens . . . Second Life will become a barter club and Linden Dollars will cease to be a unit of play."[117] But this static view of the activities in Second Life improperly defines all things in Second Life as "play" and all things outside of Second Life as "not play." First, it assumes that users are involved in Second Life primarily for "play." A brief (entirely plausible) fact pattern will help examine this assumption.

Suppose a user enters Second Life, exchanges U.S. Dollars for Linden Dollars and goes to the World Stock Exchange (one of Second Life's in-world security exchanges). This user buys

[116] China cracks down on 'virtual money,' The Age (Mar. 8, 2007), http://www.theage.com.au/news/games/china-cracks-down-on-virtual-money/2007/03/08/1173166819859.html.
[117] Camp at 65, *supra* note 34.

stock in one of the exclusively in-world traded companies, Games Limited.[118] Games Limited is a "company" that makes casino games purchased and hosted by Second Life casino owners.[119] The same stockholder user then enters the Four Deuces Casino, one of Second Life's many casinos,[120] and plays the same games that are currently available in real-world casinos, in online casinos, or on commercial websites like Yahoo Games. At the casino, this user also plays a game created by Games Limited, the in-world company he just bought stock in. He wins thousands of Linden Dollars equal to hundreds of U.S. Dollars. Other users see his success and they start playing the game, which allows the Four Deuces Casino, who takes a rake of all winnings, to prosper. As a result the casino will buy more games from Games Limited who created the casino game that is now massively popular and exclusively available within Second Life. Games Limited stock goes through the roof, and the stockholder user who won all the Linden Dollars playing the game can sell his stock for ten times what he paid for it.

Notice several things about this fact pattern. To begin, users in Second Life can "play" with units of exchange in a casino just like in *Zarin v. Comm'r*. However, if—as it would apply under an imputation theory—nothing exclusively within Second Life can, itself, constitute a realization event, then this sale of virtual stock using the same units of exchange would not constitute a realization event. Thus, unlike the real world, where investing in a company that makes computer games is a "real" transaction, such passive creation of wealth in Second Life is just "play." This is problematic on several levels. First, the purchased goods/services causing the stock price to go up are no different than those commercially available on any number of

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[118] *Rival Second Life Stock Exchanges Merge*, Reuters Second Life News Center (Feb. 13, 2007), http://secondlife.reuters.com/stories/2007/02/13/rival-second-life-stock-exchanges-merge/.
[119] *Virtual Stock Exchange Opens in Second Life*, Wall Street & Technology: Blog (March 16, 2007), http://www.wallstreetandtech.com/blog/archives/2007/03/virtual_stock_e.html.
[120] *In legal limbo, Second Life poker rakes in profits*, Reuter Second Life New Center (Apr. 3, 2007), http://secondlife.reuters.com/stories/2007/04/03/in-legal-limbo-second-life-poker-rakes-in-profits/.

websites or other arenas. Second, irrespective of the implications of gambling or securities law, the passive creation of wealth in Second Life is no more play than it is in the real world. More importantly, a policy that shields the investing of Linden Dollars in Second Life products, but taxes the income earned by "betting" U.S. Dollars on the value of the Euro, the supply of corn, or the success of companies that create products not exclusively used in Second Life will merely encourage evermore complex Second Life secondary markets designed to allow taxpayers to accumulate wealth and defer taxation.

Thus, it appears that even a cursory examination of shielding Second Life wealth from taxation under an imputation theory fails to distinguish the "play' that take place in Second Life and activities that the tax law does not consider play when taking place outside the virtual context. Nevertheless, one might speculate that the overwhelming majority of activities in Second Life do fall within the play analysis, and that those that do not are merely de minimis realization events that will be caught in the cash-out safety net. But this simply leads back to the incentive to arbitrage problems and ignores the intentional, massive commodification of this virtual world.

E. Using Partnership Tax Law to Examine Possible Limitations Unique to Second Life

Although it appears that the three major operational limitations that exist under the current income tax law would not shield in-world activities from taxation, the novelty of Second Life may give rise to problems not seen in the obstacles stemming from barter clubs, frequent flyer miles, or casino chips. One such concern arises from the fact that Second Life users are so heavily interconnected and that they often work together to create the in-world content—landscapes, buildings, islands, etc.—that differentiates Second Life from other virtual worlds. If the millions of small-value transactions that take place in Second Life are realization events

whereby people are earning taxable wealth, and if Second Life activity is to be treated no differently than out-world activity, then the lines between games, hobbies, and businesses will begin to heavily blur. Not surprisingly, the lines between users working independently and users working towards a common goal will also blur.

Thus, the advent of a system with greatly diminished transaction costs, could lead to problems that the current law does not consider. Namely: Will Second Life users too easily violate certain areas of the tax law because those areas were designed for a world where transaction costs implicitly restrict individuals from accidentally implicating special tax regimes? The remainder of this section will use the law on formation of a tax partnership a model for examining this question because prior to the creation of Second Life, the law concerning the formation of a partnership was already vague. Second Life multiplies this imprecision by dropping the transaction costs in formation of a profitable joint venture to almost zero, raising the possibility that users could easily and accidentally form partnerships subjecting them to a whole area of additional tax reporting requirements.

1. *Defining Partnerships and the Criteria for Partnership Formation*

In § 761(a) the Code provides that the term "partnership" includes a "syndicate, group, pool, joint venture, or other unincorporated organization through or by means of which any business, financial operation, or venture is carried on and which is not, within the meaning of [the Code], a corporation or trust or estate."[121] "The basic principle is that a partnership is an organization for the production of income to which each partner contributes one or both of the ingredients of income—capital or services."[122] Whether or not certain business ventures in Second Life are classified as partnerships is important because such a classification can affect the

[121] IRC § 761(a).
[122] Bruce A. Furst & Daniel E. Feld, PARTNERSHIP TAX DIGEST, para. 1.01[1][a] (2nd ed. 1991).

timing/accounting rules for those involved, the transactional rules, and the procedural rules underlying the business arrangement. If these arrangements satisfy the definition of tax partnership, then the rules of subchapter K apply. "Subchapter K can affect whether gross income and deductions are reported by members or whether they individually report shares of taxable income from an arrangement."[123]

This classification would also determine the proper tax year for recognizing gain or loss, how to allocate income or loss, and whether to use cash or accrual method of accounting. Moreover, "if an arrangement is a tax partnership, complicated rules determine the partners' shares of partnership liabilities, which in turn determine the bases partners take in their respective partnership interests."[124] Perhaps, most importantly, "failure to properly classify an arrangement for tax purposes may create problems regarding satisfaction of return filing requirement. Thus, if no partnership return is filed for an economic arrangement that is properly classified as a partnership, the § 6698 failure-to-file penalty may apply unless the participants can establish that the failure was due to reasonable cause."[125]

Unfortunately, this provides little guidance for determining the extent to which two people must be joined or how involved this venture must be to rise to the level of a partnership. To that end, the Supreme Court has said that formation largely turns not on an objective standard, but whether under all the facts, "the parties in good faith and acting with a business purpose intended to join together in the present conduct of the enterprise."[126] Yet at the same time, the IRS and tax literature maintain that the parties intention to have a joint enterprise that

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[123] Bradley T. Borden, *The Federal Definition of Tax Partnership*, 43 HOUS. L. REV. 925, 958 (2006).
[124] *Id*. at 961.
[125] Mckee, Nelson, and Whitmire, FEDERAL TAXATION OF PARTNERSHIPS AND PARTNERS, Vol. I, para. 3.01[4]. See Edward Torres, 88 TC 702 (1987); Weldon T. Peters, 89 TC 423 (1987) (citing Tech. Adv. Mem. 8351006 (Aug. 30, 1983) (§ 6698 failure-to-file penalty applicable unless "reasonable cause" shown)).
[126] Commissioner v. Culbertson, 337 U.S. 733, 741 (1949)

constitutes a partnership under state law does not dictate whether that same arrangement is a partnership for tax purposes. In fact, "courts have looked to both subjective and objective intent to determine whether a substantive-law partnership exists."[127]

Thus, users of Second Life who believe they are engaging in a partnership may actually be engaged in some other type of arrangement, and those who are simply working together for a common goal may actually be partners for the purposes of Subchapter K. The following investigation is meant to provide a brief overview of the formation of a tax partnership and to analyze the extent to which the users in Second Life are at risk for opening themselves up to Subchapter K requirements. The first question to begin a partnership tax inquiry is whether the users have a relationship through which a "business, financial operation, or venture is carried on" by two or more persons.[128] Upon establishing this broad criterion, Courts who are considering whether an arrangement rises to the level of partnership focus on three elements: (1) profit-sharing, (2) control, and (3) intent. Examining each briefly will inform the analysis for Second Life.

2. *Exploring Partnership Formation Through Profit-Sharing, Control, and Intent*

Profit-sharing is generally thought to be "a necessary condition for the existence of [a] partnership."[129] The Treasury Regulations indicate that "a joint venture or other contractual arrangement may create a separate entity for federal tax purposes if the participants carry on a trade, business, financial operation, or venture and *divide the profits therefrom*."[130] This is particularly important in the context of Second Life where, despite the promise of virtual wealth, the majority of users participate for the enjoyment. Some have commented that "a venture

[127] Bradley T. Borden, *The Federal Definition of Tax Partnership*, 43 HOUS. L. REV. 925, 972 (2006).
[128] IRC § 761(a).
[129] Alan R. Bromberg & Larry E. Ribstein, BROMBERG AND RIBSTEIN ON PARTNERSHIP, § 2.07(b)(2) (2005).
[130] Treas. Reg. § 301.7701-1 (emphasis added).

formed to pursue a hobby or artistic interest, instead of economic profits, has been held not to constitute a partnership for income tax purposes."[131] In fact, thinking about Second Life in terms of a hobby can be quite helpful. Under § 183, a Second Life user could deduct the expenses of an income-producing hobby like making goods for use in Second Life, so a user who spends more than he gains would not owe any income. Thus, there is an argument that so long as two Second Life users are both using the virtual world as a hobby, the fact that they have de minimis profits from this venture should not be enough to create a partnership.

However, the case law strongly opposes this type of thinking. The Tax Court has found that the existence of a joint profit motive "fatal" to the existence of a partnership.[132] Especially applicable to Second Life is that other cases have not even demanded monetary profits and held that in-kind benefits may be sufficient—a result which puts an especially interesting spin on the argument that wealth in Second Life is in-kind self-created income.[133] In *Madison Gas & Electric Co*., the Tax Court rejected the taxpayer's argument that no partnership existed because the entire of production of electricity was distributed among the three plant's owners in-kind. The court wrote that "the statute does not require a profit motive," but went on to find that profit motive existed as a consequence of the in-kind distribution to the partners.[134] In affirming, the Seventh Circuit narrowed the Tax Court's holding, but still found that the division of in-kind profits satisfied the joint profit motive requirement. Essentially, "the profit motive necessary to establish the existence of a partnership is present whenever co-owners of property engage in substantial business activities with respect to the property and distribute the fruits of their activity

[131] Mckee, Nelson, and Whitmire, FEDERAL TAXATION OF PARTNERSHIPS AND PARTNERS, Vol. I, para. 3.02[3][a] (referencing Lucia Chase Ewing, 20 TC 216 (1953) (no joint venture where taxpayer's motives in advancing funds to artistic venture was to support arts and not to earn profit)).
[132] Ian T. Allison, 35 TCM 1069 (1976).
[133] See infra discussion on shielding Second Life income under an imputation theory.
[134] 72 TC 521 (1979), aff'd, 633 F.2d 512 (7th Cir. 1980).

to themselves in kind, rather than selling it directly to third parties."[135]

Conversely, Treasury Regulations § 301.7701-1 provide that "a joint undertaking merely to share expenses does not create a separate entity for federal tax purposes" even when the taxpayers sharing the expenses "have separate profit motives for incurring the expenses, because the arrangement itself does not anticipate the joint earning and sharing of a single profit."[136] This raises the most applicable factor to determining whether a partnership exists in Second Life. Unlike the real-world where people involved in a hobby or expected-loss venture can easily cloud the partnership issue by jointly collecting and easily sharing cash flowing through the enterprise, all transfers of wealth in Second Life use person-specific electronic accounts. Any time the activity of a set of would-be partners begins to mimic a partnership, those users would have to take affirmative steps to either share the proceeds or share rights to distribute goods, which are by default locked to a single player's account.

This bright line technological constraint plays an especially prominent role in the second and third factors for establishing the existence of a partnership: control and intent. "A partnership generally comes into existence upon the commencement of the enterprise contemplated by the partnership."[137] But even once two or more people begin a venture with a profit motive, the degree of control can dictate whether two individuals have, for example, an employer/employee relationship or a partnership. Joint control is a significant indicator of partnership because "the presence of a right to participate in *overall* management and control of the business or venture is of particular importance in distinguishing partners from employees or servants."[138] For example,

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[135] Mckee, Nelson, and Whitmire, Federal Taxation of Partnerships and Partners, Vol. I, para. 3.02[3][a].
[136] Treas. Regs. § 301.7701-1; Mckee, Nelson, and Whitmire, FEDERAL TAXATION OF PARTNERSHIPS AND PARTNERS, Vol. I, para. 3.02[4].
[137] Mckee, Nelson, and Whitmire, FEDERAL TAXATION OF PARTNERSHIPS AND PARTNERS, Vol. I, para. 3.01[3]. See Edward Torres, 88 TC 702 (1987); Weldon T. Peters, 89 TC 423 (1987).
[138] Mckee, Nelson, and Whitmire, FEDERAL TAXATION OF PARTNERSHIPS AND PARTNERS, ¶ 3.05, 1997 WL 396043.

in *Ian T. Allison*, the absence of shared control was a dominant factor negating joint venture status.[139] The Tax Court listed "agreement for joint proprietorship and control" as one of the few prominent factors for determining the existence of a partnership agreement.[140] In finding that Investment, a financial service corporation, had received lots as payment for services and not as a distribution from joint venture, the court noted that there was "no indication that Investment would have any control over the ultimate disposition of these lots or that Acceptance, [the alleged partner], would have any control over the property retained by Investment."[141]

Although "joint-control is not prima facie evidence of partnership," it is valuable when analyzing whether activities in Second Life are partnerships because, once again, the way Second Life content—goods and Linden Dollars—is bound to users requires affirmative steps to provide others with control. In this context, therefore, the joint control factor flows directly into the intent factor. In determining whether a particular arrangement is a partnership, the ultimate question is whether "the parties acting in good faith and with a business purpose intend to join together in the present conduct of the enterprise."[142] In cases where the taxpayers "did not have the requisite intent to join together for the purpose of carrying on a partnership" the Tax Court has written that no partnership exists.[143]

Unfortunately, the intent factor is somewhat vague and there is minimal case law on point that speaks directly to unique context of Second Life. The Service has provided somewhat related analysis in Technical Advice Memorandum 199922014.[144] There, the Service ruled that the agreements between *P*—a corporation that provided turnkey a office operation—and the

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[139] Ian T. Allison, 35 TCM 1069 (1976).
[140] *Id*.
[141] *Id*.
[142] Comm'r v. Culbertson, 337 U.S. 733, 742 (1949).
[143] ASA Investerings Partnership v. C.I.R., T.C. Memo. 1998-305 (1998).
[144] Tech. Adv. Mem. 199922014 (Feb. 12, 1999).

professional service groups who used P's offices were not partnerships because each of the parties operated a separate business activity.[145] Even though *P* managed each office, collection, and earned a fee based on a percentage the net income, *P* remained an independent contractor because *P* provided services to numerous service groups who in turn provided business services to the public. "Critical to the Service's analysis that *P* remained an independent contractor was that the parties never intended to join together in a joint venture. Rather, each of the parties operated a separate business activity."[146]

This type of thinking truly begins to synthesize the three partnership factors and is highly informative within the Second Life context. To the extent that users participate in Second Life with a profit motive, they may be a business entity and subject to a markedly different set of tax regulations than the hobby user. It would not be surprising to see those users with a profit motive working together, either to allow special division of labor or in developing a commercial center to attract customers, for example. But parallel interests and positive-sum business relationships, do not alone give rise to partnerships. Nor do pure cost sharing arrangements. Thus, without looking through an arrangement, until such time as Second Life users begin distributing profits without a fair market exchange of services/assets or designing payment schemes whereby users are intentionally redirecting who should receive payments, they are not a risk for accidentally falling into tax partnerships. Whether users are engaged in businesses that mimic partnerships and are intentionally creating arrangements to avoid classification as such is a tangential issue outside the scope of this article. What is important here is that the novelty of the Second Life business environment does not give rise to unique operational limitations whereby users are easily inadvertently violating partnership tax laws.

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[145] *Id*.
[146] Mckee, Nelson, and Whitmire, FEDERAL TAXATION OF PARTNERSHIPS AND PARTNERS, ¶ 3.05, 1997 WL 396043.

CONCLUSION

Despite its prolific number of small dollar transactions, its technological origins in the video game industry, and the initial perception that the utility derived from the activities in Second Life is somehow distinguishable from the real world, the above analysis indicates that taxation of the wealth generated inside Second Life is proper under current U.S. tax law. Nevertheless, this article concludes with a few comments about some of the policy reasons not to tax Second Life for the time being. It also raises the most pressing issues that this article failed to explore.

First, note that "Second Life's grant of property rights to participants seems to have encouraged far greater experimentation and innovation than other virtual worlds. For example, one participant created a video game within the Second Life virtual world and then sold it to a real-world media company, a transaction that would be impossible in most virtual worlds."[147] Additional interesting and bizarre issues concerning Second Life come to light everyday. Just to list a few: John Edwards's Second Life presidential campaign headquarters was vandalized with feces and a picture of him in blackface;[148] a virtual riot broke out between members of the French extremist party National Front and Second Life Left Unity, a socialist and anti-capitalist user-group;[149] reports have arisen that certain users have designed a way to override the mobility of other users and virtually rape unconsenting avatars;[150] hundreds of companies from H&R Block and Colwell Banker to Coco-Cola and Mercedes Benz have an active business presence in

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[147] Andrew E. Jankowich, Property and Democracy in Virtual Worlds, 11 B. U. J. Sci. & Tech. L. 173, 209 (2005).
[148] *John Edwards Second Life Campaign HQ Vandalized*, GamePolitics.com, http://gamepolitics.com/2007/03/01/edwards-sl-hq-trashed/ (2007).
[149] Fight the Front, New World Notes, http://nwn.blogs.com/nwn/2007/01/stronger_than_h.html (2007).
[150] Virtual Rape Is Traumatic, but Is It a Crime?, WIRED Commentary Blog, http://www.wired.com/culture/lifestyle/commentary/sexdrive/2007/05/sexdrive_0504 (2007).

Second Life;[151] Reuters has a dedicated Second Life News center;[152] and finally, gambling activities have become so wide-spread that the FBI is investigating the criminal activities by U.S. citizens.[153] In essence, Second Life is allowing the public to explore the practical boundaries of a three-dimensional version on the Internet.

Perhaps most importantly is that this innovation is developing something as yet unseen in the real world or on the Internet: a viable system for micro-transfers of wealth with transaction costs approaching zero. The importance of this point cannot be overstated. The Linden Dollar has remained steadily around L$270 per $1, so real people are actively engaging in millions of transactions that are valued as low as $0.0037. Thus far, these transactions have been secure and easy to administer through electronic accounts where people can, in essence, deposit U.S. Dollars. From YouTube, which has announced that users will receive revenue according to the popularity and links to the videos they post,[154] to Google AdSense, which derives revenue on a per-click basis, the micro-commodification of the Internet is progressing to the point where society can efficiently and profitably trade in fractions of pennies. As a policy matter, the tax law should both recognize the economic reality of these micro-transactions while avoiding spoiling the efficiencies created through plummeting transaction costs.

Prof. Leanda Lederman, the author of the article *Stranger Then Fiction: Taxing Virtual Worlds* that is discussed above, has suggested elsewhere that rather than including Second Life activity in the income tax, "the better result is to tax sales within Second Life (for Lindens)."[155] While this may eventually be the best solution, it also implicates complicated issues as to

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[151] Businesses and Organization in Second Life, Wikipedia, http://en.wikipedia.org/wiki/Businesses_and_Organizations_in_Second_Life (2007); Brands with a Second Life Presence List, Second Life Business Communications Wiki, http://slbusinesscommunicators.pbwiki.com/Companies+in+Second+Life (2007).
[152] Reuters' Second Life New Center, http://secondlife.reuters.com/ (2007).
[153] FBI probes Second Life gambling, Reuters Second Life News Center, http://secondlife.reuters.com/stories/2007/04/03/fbi-probes-second-life-gambling/ (2007).
[154] YouTube plans revenue sharing with users, MSNBC, http://www.msnbc.msn.com/id/16842857/ (2007).
[155] *Virtual Tax Part II*, The Conglomerate, http://www.theconglomerate.org/2007/04/virtual_tax_par_1.html (2007).

whether requiring Linden Lab—a company that makes a point to take a hands-off approach—to withhold taxes from or to issue transaction records to millions of users will stunt the growth that Second Life is currently witnessing. This is an important question that merits further analysis.

Finally, and most unfortunately, this article failed to provide a detailed analysis of a method for measuring basis in Second Life. Beyond the key operational limitations analyzed above, this is the next most important issue that could drastically affect how to think about the taxation of Second Life. Whether in the context of everyday users claiming hobby losses, active businesses claiming expense deduction, division of profits among in-world partnerships, or taxation of foreign businesses effectively connected to the U.S., the ability to account for basis will dictate what methods of taxation are plausible. Fortunately, keeping track of costs and profitability is the type of problem to which an efficient (virtual) free market will find solutions.

Regardless of these uncertainties and despite the assertions by Congress's Joint Economic Committee that "taxing transactions that occur within virtual economies . . . would be a mistake,"[156] it clear that it is only a matter of time before the wealth generated in Second Life (or its technological progeny) will be sufficiently great that Congress is passing virtual-world tax legislation and tax lawyers are specializing in the virtual-world sections of the Internal Revenue Code. The implications this could have on currently untaxed income like frequent flyer miles and casino chips must be left for a future article.

[156] *Virtual Economies Need Clarification, Not More Taxes*, Press Release, Joint Economic Committee, http://www.house.gov/jec/news/news2006/pr109-98.pdf (2006).