

THE APPLICATION OF REAL WORLD RULES TO BANKS IN ONLINE GAMES AND VIRTUAL WORLDS

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I.	INTRODUCTION	279
II.	BASIC BACKGROUND OF ONLINE GAMES AND VIRTUAL WORLDS	282
	A. <i>Description and Examples of Online Games</i>	282
	1. EVE Online	282
	2. World of Warcraft	283
	B. <i>Establishment of Banks in Online Games</i>	284
	1. Online Deposits in Online Currency	284
	2. The EVE Intergalactic Bank Scam	284
	C. <i>Examples and Economies of Virtual Worlds</i>	284
III.	LEGAL AND SOCIAL ISSUES RAISED BY ONLINE GAMES AND VIRTUAL WORLDS	287
	A. <i>The Threat of Fraud or Conspiracy to Commit Fraud</i>	287
	B. <i>The Threat of Money Laundering in the Context of Virtual Worlds and Banks in Online Games</i>	290
	C. <i>The Problem of Addiction</i>	293
	D. <i>Other Potential Issues</i>	295
IV.	THE CURRENT STATE OF THE LAW	296
	A. <i>Current Regulation of Financial Institutions in the United States</i>	296
	B. <i>Recent Regulation of Online Games in Asia</i>	298
V.	THE FUTURE OF ONLINE GAMES AND VIRTUAL WORLDS, AND PUBLIC POLICY CONSIDERATIONS	298
VI.	CONCLUSION	303

I. INTRODUCTION

Something astonishing happened in the world of computers and online communications. Online games and virtual worlds were created that allow virtual players to play online characters and interact with one another. This sounds innocuous enough, but the matter is much more complex than it appears on its face. As the number of online games and virtual worlds continues to expand, a number of legal and social issues, from money laundering and securities fraud to addiction, are also likely to arise. Once

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lawmakers and regulators begin to recognize these issues, the regulation of virtual worlds and online games seems inevitable.

EVE Online is one example of an online game “with an outer space theme.”¹ EVE Online is a system of in-world corporations that operate much like real-world corporations do.² Participants can set up commercial ventures, such as trading goods between systems, transporting goods as a courier, or even cleaning up debris for recycling.³ They can also set up capitalist ventures, such as corporations, which are “groups of players joining together for a common goal or purpose, much like guilds or clans,”⁴ and trade virtual items for real-world money.⁵ But this permissive approach to trading resulted in recent scams.⁶ Most recently, an EVE Online player set up the EVE Intergalactic Bank, took in deposits, and then took off with the money.⁷

Within these online games and virtual worlds, expansive online communities developed, where “[g]overnance emerges,”⁸ and “sophisticated econom[ies] bloom.”⁹ In some online games and virtual worlds, such as Norrath, participants are able to trade online currency in exchange markets against the U.S. dollar.¹⁰ A person who operates a successful business online can also trade his or her earnings into U.S. dollars and then use them to pay rent or for other everyday purchases and transactions in the real world.¹¹

The advent of online games and virtual worlds raises a host of issues. Virtual worlds have businesses, they have banks, and people even have jobs, but none of this is regulated.¹² This obviously cannot last. Once the government recognizes what is going on and decides to step in, the question

¹ James Grimmelman, *When Virtual Banks Fail*, THE LABORATORIUM, Aug. 26, 2006, http://www.laboratorium.net/archive/2006/08/26/when_virtual_banks_fail.

² *See id.*

³ EVE Online, Frequently Asked Questions: *EVE Basics*, at 1.10, http://www.eve-online.com/faq/faq_01.asp (last visited Feb. 28, 2008) [hereinafter EVE Online, *Basics*].

⁴ EVE Online, Frequently Asked Questions: *Corporations*, at 6.1, http://www.eve-online.com/faq/faq_06.asp (last visited Feb. 28, 2008) [hereinafter EVE Online, *Corporations*].

⁵ *See* Grimmelman, *supra* note 1.

⁶ *See id.*

⁷ Caroline Bradley, *Banks in Online Games*, INTERNATIONAL FINANCE BLOG, <http://intfin06.umlaw.net/?p=105> (Aug. 31, 2006).

⁸ Posting of Ed Felten to Freedom to Tinker, <http://www.freedom-to-tinker.com/?p=908> (Oct. 11, 2005, 07:24) [hereinafter Felten, *Freedom to Tinker*].

⁹ *Id.*

¹⁰ *Id.*

¹¹ *See id.*

¹² *Id.*

becomes the extent to which real world rules will apply to online games and virtual worlds.¹³

There are numerous potential legal issues that are raised by the expansion of online games and virtual worlds: the threat of fraud or conspiracy to commit fraud, the threat of money laundering, the holding of money by unlicensed banks, stock market trading of virtual worlds, unconstrained labor markets, and tax avoidance. Apart from these legal issues, the development of online games and virtual worlds also generates social issues like the problem of addiction to online gaming. This Article will focus on the threats of money laundering and securities fraud. The Article will discuss online games in general, such as EVE Online, where players participate in online player-to-player conflicts with winners often keeping quite substantial rewards,¹⁴ and the virtual worlds that develop within those online games, such as Norrath, where complex and sophisticated economies have emerged.¹⁵ Specifically, Part II will discuss the background of online games and virtual worlds. The Article will then proceed to discuss the potential legal and social issues that are raised by the growth of online games and virtual worlds in Part III, focusing on the issues of securities fraud and money laundering. Part IV will analyze the current state of the law, including the current regulation of real-world financial institutions in the United States and the recent regulation of online games in Asia, where authorities have already begun to regulate. Finally, Part V will discuss the future of online games and virtual worlds, including policy considerations, and propose ways in which authorities may seek to regulate online games and virtual worlds. The article concludes in Part VI by proposing that the regulation of online games and virtual worlds is inevitable as more regulators become cognizant of the legal and social issues involved. Participants in these virtual communities should be aware of this prospect and begin planning accordingly.

¹³ See *id.*

¹⁴ See *id.* "An 'online multiplayer game' (OMG) is [defined as] a video game that can be played over the Internet against other players." Wikipedia, The Free Encyclopedia, http://en.wikipedia.org/wiki/Virtual_world (last visited Mar. 3, 2007). "Virtual worlds," in turn, are defined as "computer-based simulated environment[s] intended for their users to inhabit and interact . . ." *Id.* The distinction between the two terms is that "virtual worlds" are the fantasy worlds in which online multiplayer games unfold. See, e.g., Julian Dibbell, *The Unreal Estate Boom*, WIRED MAGAZINE, January 2003, available at <http://www.wired.com/wired/archive/11.01/gaming.html>. Nevertheless, the two terms are often used interchangeably and this Article will employ them interchangeably as well.

¹⁵ See Felten, Freedom to Tinker, *supra* note 8.

II. BASIC BACKGROUND OF ONLINE GAMES AND VIRTUAL WORLDS

A. Description and Examples of Online Games

1. EVE ONLINE

Among the many existing online games, EVE Online, which is set in outer space,¹⁶ is one of the more popular games. It “is a massive multiplayer online game (MMOG) set in a science-fiction based, persistent world[,]”¹⁷ where “players take the role of spaceship pilots seeking fame, fortune, and adventure in a huge, complex, exciting, and sometimes hostile galaxy.”¹⁸ The game enables participants to partake in player-to-player conflicts where the winners can accumulate substantial monetary rewards.¹⁹ The game also operates much like a system of real-world corporations by enabling participants to establish commercial and capitalist ventures where they can trade virtual items for real currency.²⁰

In addition, much like the real world, EVE Online provides both a legal and a corporate system.²¹ On the legal side, every character on EVE has a “security status.”²² The game is divided into various security levels depending on whether a certain action is considered a prohibited crime within the context of the game or not.²³ The security status of a player will be affected if he or she commits one of a number of predefined crimes, such as attacking other players or carrying contraband.²⁴ On the corporate side, EVE Online allows groups of players to come together and set up corporations “for a common goal or purpose.”²⁵ These corporations are created and overseen by Chief Executive Officers (CEOs).²⁶ In order to become a CEO, a player must have the “Basic Corporation Management”

¹⁶ Grimmelman, *supra* note 1.

¹⁷ EVE Online, *Basics*, *supra* note 3, at 1.1. A “persistent world” is one where “the game world will keep evolving even when a player has gone offline, much the same way as the real world continues to evolve when you go to sleep.” *Id.* at 1.3.

¹⁸ *Id.* at 1.1.

¹⁹ See Grimmelman, *supra* note 1.

²⁰ See *id.*

²¹ EVE Online, Frequently Asked Questions: *Legal System*, http://www.eve-online.com/faq/faq_05.asp (last visited Feb. 28, 2008) [hereinafter EVE Online, *Legal*]; see also EVE Online, *Corporations*, *supra* note 4.

²² EVE Online, *Legal*, *supra* note 21, at 5.1.

²³ See *id.*

²⁴ *Id.*

²⁵ EVE Online, *Corporations*, *supra* note 4, at 6.1.

²⁶ *Id.*

skill, as well as the “Ethnics Relation” skill, and is required to pay a filing fee.²⁷ “The biggest benefit to belonging to a corporation is mutual protection and shared resources.”²⁸

2. WORLD OF WARCRAFT

Another example of an online game is World of Warcraft.²⁹ World of Warcraft is a massive multiplayer online role-playing game (MMORPG).³⁰ However, unlike EVE Online, a science-fiction based game, World of Warcraft is set in the Middle Ages.³¹ “In World of Warcraft, thousands of players [have the opportunity to] adventure together in an enormous, persistent game world, forming friendships, slaying monsters, and engaging in epic quests that can span days or weeks.”³²

The creators of World of Warcraft claim that the game is unlike other MMORPGs in that it allows players to complete quests at their own pace, whether it be in a few hours or a few days.³³ In addition, the game provides a variety of different quests with story elements, dynamic events, and flexible reward systems. It also features a faster style of play.³⁴ Like most online games, World of Warcraft requires players to become subscribers to the game in order to participate.³⁵ Players receive an initial one-month free trial, after which they must purchase a subscription to the game.³⁶ The subscription may be purchased in one of three different ways: a month-to-month package for \$14.99 per month, a three-month package at \$13.99 per month, or a six-month package for \$12.99 per month.³⁷

²⁷ *Id.* at 6.2.

²⁸ *Id.* at 6.6.

²⁹ World of Warcraft, General FAQ, <http://www.worldofwarcraft.com/info/faq/general.html> (last visited Feb. 28, 2008).

³⁰ *Id.*

³¹ *See id.*

³² *Id.*

³³ *See id.*

³⁴ *Id.*

³⁵ *See id.*

³⁶ *Id.*

³⁷ *Id.*

B. Establishment of Banks in Online Games

1. ONLINE DEPOSITS IN ONLINE CURRENCY

Recently, an EVE Online user set up an “in-world bank,”³⁸ the EVE Intergalactic Bank (EIB), where players can deposit “in-game currency”³⁹ (called ISK) and receive a few percentage points of interest on those deposits each month.⁴⁰ Over the course of several months, hundreds of players deposited currency in the bank. In addition to offering interest, the bank also offered loans and insurance, much like any real-world bank.⁴¹

2. THE EVE INTERGALACTIC BANK SCAM

The EIB was acting just like a real-world bank—taking in deposits, offering loans, and issuing insurance policies.⁴² This all seemed like sound financial activity, “greasing the wheels of capitalism, and in effect, helping depositors and entrepreneurs find each other.”⁴³ But there was one problem: this was all a scam.⁴⁴ At least it became a scam when the game’s principal proprietor decided to take the money that had been deposited, an estimated 790 billion ISK or the equivalent of \$170,000 in real-world money, and run.⁴⁵ This being an unregulated online bank, there was really no way of holding anyone liable for the losses sustained by the depositors and investors. Those players who swore by the game and encouraged others to deposit or invest their money in the bank, or both, now stand to lose credibility when they seek to encourage new investors to invest in future ventures.⁴⁶

C. Examples and Economies of Virtual Worlds

John Dugger, a Wonder Bread deliveryman, recently did something that people today often do: he purchased a house on eBay.⁴⁷ The house was not

³⁸ Grimmelman, *supra* note 1.

³⁹ *Id.*

⁴⁰ *See id.*

⁴¹ *See id.*

⁴² *See id.*

⁴³ *Id.*

⁴⁴ *See id.*

⁴⁵ *See id.*

⁴⁶ *See id.*

⁴⁷ Dibbell, *supra* note 14.

a “shabby”⁴⁸ one either.⁴⁹ It was a nine-bedroom, three-story house with a roof-top patio and solid stonework, far superior to the modest redbrick ranch house in Oklahoma to which he came home everyday from work.⁵⁰ This does not sound like a bad deal, except for one detail: “[t]he house was imaginary.”⁵¹ After the purchase, Dugger was \$750 short in wages, which seemed like an especially astonishing amount for what he purchased—a small piece of real estate in Britannia, the fantasy world in which *Ultima Online*, another online game, unfolds.⁵²

But the purchase of houses is only the beginning. On any day, a participant in *Ultima Online* can purchase anything from swords and suits of armor to tables, chairs, plants, and even sandals.⁵³ Estimates of the transactions carried out each year on *Ultima Online* place the value of those transactions at around \$3 million per year.⁵⁴ *Ultima Online* players are also able to convert Britannia gold pieces into real U.S. dollars at about 40,000 gold pieces to the dollar, a value approximately equivalent to that of the Romanian lei.⁵⁵ Professor Edward Castronova of California State University, Fullerton, conducted an economic study in 2002 in which he estimated the average hourly wage for Norrath (the fantasy world of Sony Online’s 430,000-player game, *EverQuest*) to be \$3.42 and its Gross Domestic Product (GDP) to be \$135 million.⁵⁶ Assuming approximately the same rates for other online games, such as *Ultima Online*, Mythic’s *Dark Age of Camelot*, Microsoft’s *Asheron’s Call*, and Funcom’s *Anarchy Online*, the workforce operating in these virtual worlds generates more than \$300 million in real wealth every year.⁵⁷

Online players witnessed the recent expansion and growth of these virtual worlds or “micronations.” Defined as “virtual spaces,” where participants play as virtual players and interact with countless other players,⁵⁸ virtual worlds have developed into environments where players can talk to each other, where things can be created and shared, and where complex

48 *Id.*

49 *Id.*

50 *Id.*

51 *Id.*

52 *Id.*

53 *Id.*

54 *Id.*

55 *Id.*

56 *Id.*

57 *Id.*

58 Felten, *Freedom to Tinker*, *supra* note 8.

social structures have been created.⁵⁹ Entire economies and governments have developed, all within a virtual space.⁶⁰

Norrath is an example of one such virtual world.⁶¹ It is the virtual world of Sony's EverQuest online service.⁶² An interesting feature about Norrath is that it has currency that can be traded for U.S. dollars.⁶³ Participants who establish businesses online can trade in their profits from such businesses for U.S. dollars and then use them in the real world to make real-world purchases and pay for real-world expenses, including rent.⁶⁴ These trades among participants have contributed to the remarkable growth of the Norrath economy, which in 2003 was reportedly the 79th largest economy in the world in terms of GDP, even larger than Bulgaria.⁶⁵

Virtual worlds offer other features in addition to the option of forming businesses and exchanging currency.⁶⁶ They have stock markets where investors can purchase stock in virtual corporations.⁶⁷ Participants in virtual worlds can also hold jobs in the virtual corporations and make deposits in banks like the EVE Intergalactic Bank.⁶⁸ The Dominion of Melchizedek,⁶⁹ for example, is a virtual world with an "ecclesiastical"⁷⁰ theme based on Christian and Hebrew ideals, which has set up a government and established an online bank through a Banking Act, and even offers to sell banking charters.⁷¹

⁵⁹ See *id.*

⁶⁰ See *id.*

⁶¹ See *id.*

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ See *id.*; see also Dibbell, *supra* note 14 (noting that Norrath's GNP was the equivalent of \$135 million, or about the same per capita as that of Bulgaria).

⁶⁶ See Felten, Freedom to Tinker, *supra* note 8.

⁶⁷ *Id.*

⁶⁸ *Id.*; see also Grimmelman, *supra* note 1 (observing that the EIB operates much like an offline bank).

⁶⁹ The Dominion of Melchizedek, <http://www.melchizedek.com/dom/index.html> (last visited Feb. 25, 2008). The Dominion of Melchizedek has actually turned out to be a scam. "Over 300 investors in various parts of the world have lost money in purported investment, fantasy passport and employment scams run by several 'banks' licensed by Melchizedek . . ." Wikipedia, The Free Encyclopedia, http://en.wikipedia.org/wiki/Dominion_of_Melchizedek (last visited Feb. 25, 2008). In an address to the Fourth International Financial Fraud Convention in London, John Shockey, a former special assistant in the office of the U.S. Comptroller of the Currency, stated that "[t]he Dominion of Melchizedek is a fraud, a major fraud, and not a legitimate sovereign entity," and "[p]ersons associated with the Dominion of Melchizedek have been indicted and convicted of a variety of crimes." *Id.*

⁷⁰ See Wikipedia, The Free Encyclopedia, http://en.wikipedia.org/wiki/Dominion_of_Melchizedek (last visited Feb. 25, 2008).

⁷¹ See *id.*

III. LEGAL AND SOCIAL ISSUES RAISED BY ONLINE GAMES AND VIRTUAL WORLDS

A. *The Threat of Fraud or Conspiracy to Commit Fraud*

The creation of new investment and securities opportunities in virtual worlds raises a host of issues. Under federal law, a security is defined as “any note, stock, treasury stock, security future, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, [or] certificate of deposit for a security....”⁷² The potential issues raised by the purchase of securities in virtual worlds are illustrated by what is known in the realm of virtual worlds as “The Great Scam.”⁷³ A player of EVE Online named Nightfreeze was able to convince several other players to invest in a plan in order to purchase a game item that they would not have been able to purchase individually.⁷⁴ Nightfreeze and an accomplice walked away with the invested funds, which were estimated to have a real-world value of about \$1,000.⁷⁵ If this action occurred in the real-world, it would most likely have been covered under the definition of “security” and regulated as such.⁷⁶

This one scam, however, was nothing when compared to the “EVE Intergalactic Bank” scam (“EIB scam”), which occurred within the same game and in the same year.⁷⁷ The EIB scam seems to have come “dangerously close to actionable real-world fraud.”⁷⁸ The proprietor was able to set up the bank in the virtual world of EVE Online and attract depositors much like a real-world bank would, by offering promising returns and security.⁷⁹ In an action that would have clearly been covered by real-world security regulation and that would have resulted in serious

⁷² 15 U.S.C. § 77b(a)(1) (2000).

⁷³ See generally Nightfreeze, *The Great Scam*, <http://www.wirm.net/nightfreeze/> (last visited Feb. 25, 2008) [hereinafter Nightfreeze, *Great Scam*] (describing the author’s experiences with the accumulation of capital as a player of EVE Online).

⁷⁴ S. Gregory Boyd & Matthew E. Moersfelder, *Global Business in the Metaverse: Money Laundering and Securities Fraud*, *THE SCITECH LAWYER*, Winter 2007, at 4, 6; see also Nightfreeze, *Great Scam*, *supra* note 73.

⁷⁵ Boyd, *supra* note 74, at 6.

⁷⁶ See *id.*

⁷⁷ *Id.*; see also Grimmelman, *supra* note 1 (offering a description of the EVE Intergalactic Bank as a scam).

⁷⁸ Grimmelman, *supra* note 1.

⁷⁹ Boyd, *supra* note 74, at 6.

consequences for the proprietor of the bank, the proprietor of the EVE Intergalactic Bank walked off unscathed with \$170,000 worth of deposits and investments.⁸⁰ One could imagine that similar actions might have real-life consequences by peeved investors who seek damages or other remedies for their losses.⁸¹ While these actions may not have succeeded, the fact is, had this been a real-world bank, the proprietor would undeniably have been prosecuted.⁸²

The problem is largely due to the hands-off attitude of online game developers.⁸³ On the one hand, that hands-off attitude helps create the common perception that online games are just that—*games*.⁸⁴ Game developers have used this as a defense, arguing that these are merely games and that people who invest in them lose nothing of real value.⁸⁵ Likewise, game developers argue that people who invest in online games understand the nature of the games and do so at their own risk.⁸⁶ On the other hand, this same attitude towards the trading of real money and “virtual property”⁸⁷ encourages players to view the game as a place where they can make good money by simply playing their cards right.⁸⁸ Whenever investors trade in real-life currency and they are defrauded, the “thing of value” element of fraud is satisfied by the use of that real-life currency.⁸⁹ The potential for such crimes as securities fraud in the context of online games “[cries] out to be judged by offline rules, rather than in-world ones.”⁹⁰

In *SEC v. SG Ltd.*, the First Circuit dealt with a case that provides some indication as to how courts might deal with the issues of securities and investments in virtual worlds.⁹¹ The defendant, SG Ltd., set up a website that afforded users the opportunity to purchase and sell shares of virtual corporations with real world currency.⁹² The defendant assured buyers that they could purchase and sell any amount of shares at the posted price and that this was a risk-free operation.⁹³ Notwithstanding these assurances, SG

⁸⁰ See *id.*

⁸¹ See Grimmelman, *supra* note 1.

⁸² See *id.*

⁸³ See *id.*

⁸⁴ See *id.*

⁸⁵ Boyd, *supra* note 74, at 6.

⁸⁶ See *id.*

⁸⁷ Grimmelman, *supra* note 1.

⁸⁸ See *id.*

⁸⁹ See *id.*

⁹⁰ *Id.*

⁹¹ Sec. & Exch. Comm'n v. SG Ltd., 265 F.3d 42 (1st Cir. 2001).

⁹² See *id.* at 44.

⁹³ See *id.*

eventually ceased its activities and blocked buyers from withdrawing any funds from the game.⁹⁴ An investigation by the Securities and Exchange Commission ensued and as a result, \$5.5 million worth of SG assets were frozen.⁹⁵

The First Circuit did not reach the merits of the case because the single issue on appeal was whether the complaint alleged sufficient facts for a trial to proceed. However, what is significant about the decision is the court's willingness to look beyond the "virtual" nature of the game, into the actions of the parties, and to imply that those actions may have serious consequences.⁹⁶ As a defense, SG pointed to the several disclaimers on its website.⁹⁷ These disclaimers set out in detail the rules and the nature of the game.⁹⁸ In dicta, the First Circuit suggested that such disclosures were not enough to dismiss the complaint based on the actions of the defendant.⁹⁹ This willingness of the court "to look beyond the disclaimers that it was only a game and at the actual actions of the parties may have serious consequences"¹⁰⁰ for online game developers.

The ultimate inquiry seems to be this: when is it really only a game and when does it become something more? It may be easier to argue that the transactions are no longer merely a game when they involve the exchange of real-world currency for virtual currency in order to purchase goods and services online.¹⁰¹ But the matter is complicated by the fact that serious investors who actually take part in these transactions with the purpose of turning real profits are not the only ones involved.¹⁰² There are also a great number of unsanctioned transactions that take place in an expanding black market.¹⁰³ It may not necessarily seem fair to punish scamming individuals for their actions where online games enable individuals to carry out transactions that they would not be able to carry out legally in the real-

⁹⁴ See *id.* at 45.

⁹⁵ See *id.* at 45-6.

⁹⁶ See Boyd, *supra* note 74, at 7.

⁹⁷ See *id.*

⁹⁸ See *SG Ltd.*, 265 F.3d at 52. Other online games, such as EVE Online, have attempted to escape legal obligations by providing similar disclosures in their user agreements. See, e.g., EVE Online, Rules & Policies: Website Terms of Use, <http://www.eve-online.com/pnp/termsfuse.asp> (last visited Feb. 26, 2008) (disclaiming liability and responsibility related to the use of the website); EVE Online, Rules & Policies: End User License Agreement, <http://www.eve-online.com/pnp/eula.asp> (last visited Feb. 26, 2008) (describing rights and limitations pertaining to end users).

⁹⁹ See *SG Ltd.*, 265 F.3d at 54.

¹⁰⁰ Boyd, *supra* note 74, at 7.

¹⁰¹ *Id.*

¹⁰² See *id.*

¹⁰³ See *id.*

world, and in that sense, the transactions do really seem more like a game.¹⁰⁴ On the other hand, it seems just as fair, if not more, that those whose money has been stolen should be entitled to some form of redress.¹⁰⁵

B. The Threat of Money Laundering in the Context of Virtual Worlds and Banks in Online Games

One of the greatest concerns arising from the continuing expansion of virtual worlds and online games is the threat of money laundering. In almost all virtual worlds people are able to acquire their own virtual property, which comes in the form of land, buildings, items, and currency.¹⁰⁶ This virtual property has real world value and as a result, people want to capitalize on that value.¹⁰⁷

“Real Money Trade” (RMT) is a practice through which individuals use online auctions, online banks, and now virtual worlds as well, to exchange virtual property for real-world currency.¹⁰⁸ “In short, people take property earned while playing a game and trade that property for real world or ‘offline’ currency.”¹⁰⁹ The amount of RMT that goes on in virtual worlds is staggering. Various reports estimate the value of RMT transactions at somewhere between \$200 million and several billion dollars each year.¹¹⁰ Second Life, one of the most popular virtual worlds, handles over \$400,000 in virtual currency every day, supports more than 7,000 businesses, and allows successful entrepreneurs to earn as much as \$200,000 per year.¹¹¹ The magnitude of RMT presents the threat that, just as in the real world, people with illegally obtained money will look for ways to “legitimize the funds to spend safely.”¹¹² With the advent of RMT, “a new avenue of money laundering” is now available.¹¹³ For example, RMT enables foreign criminals attempting to move money into the U.S. to overcome many of the obstacles commonly faced by money launderers in the real world, such as

¹⁰⁴ *Id.*

¹⁰⁵ *See id.*

¹⁰⁶ *Id.* at 4.

¹⁰⁷ See generally Edward Castronova, *Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier*, 2 GRUTER INST. WORKING PAPERS ON LAW, ECON., & EVOLUTIONARY BIOLOGY (2001), available at <http://www.bepress.com/cgi/viewcontent.cgi?article=1008&context=giwp>.

¹⁰⁸ Boyd, *supra* note 74, at 4.

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Virtual Online Worlds: Living a Second Life*, THE ECONOMIST, Sept. 30, 2006, at 77-8.

¹¹² Boyd, *supra* note 74, at 5.

¹¹³ *Id.*

having to physically fly money over borders, taxation, and reporting requirements for certain businesses and financial institutions.¹¹⁴

In their article, *Global Business in the Metaverse: Money Laundering and Securities Fraud*, S. Gregory Boyd and Matthew E. Moersfelder offer the example of a foreign criminal who buys \$500,000 worth of virtual currency from a certain virtual world.¹¹⁵ After obtaining the virtual currency, the foreign criminal acquires access to the virtual world where he can then distribute the online currency to the accounts of two other players, one in New York and one in Los Angeles.¹¹⁶ These players, in turn, can then “cash out” the virtual currency.¹¹⁷ What’s more, all of this can be accomplished in as little as twenty-four hours.¹¹⁸ In the end, the foreign criminal has been able to successfully move \$500,000 into the U.S. without ever traveling, without dealing with any banks or financial institutions, without any tax records of the transaction, and at a low risk.¹¹⁹

There are some intricacies with respect to these transactions. For example, while there are some virtual worlds that actually endorse RMT and even offer to process the transactions directly, not every virtual world authorizes currency trade.¹²⁰ Another obstacle for money launderers is that some virtual worlds, despite endorsing currency trade, place limits on the amount of currency that can be traded per day.¹²¹ In other cases, exchange rates decline as the amount of currency traded increases.¹²² Notwithstanding these concerns, it seems most likely that as virtual worlds continue to expand and the amount of currency traded continues to increase, these transactions will become more frequent.¹²³ As the legitimate transactions become more frequent, it will in turn become easier to disguise the money laundering transactions in the larger currency volumes that will be traded.¹²⁴ Notably, even in the case of virtual games that prohibit currency trade, a number of black markets have already developed where these transactions increasingly take place.¹²⁵

114 *Id.*

115 *Id.*

116 *Id.*

117 *Id.*

118 *Id.*

119 *Id.*

120 *Id.*

121 *Id.*

122 *Id.*

123 *See id.*

124 *See id.* at 5-6.

125 *See id.* at 6.

There are many different online games with very different policies. In an attempt to control potential criminal activity, some online game developers have already started to implement policies geared towards halting potential criminal activity. Second Life, for example, prevents users who have been registered for more than forty-five days from trading more than \$2,000 worth of currency every thirty days.¹²⁶ Because of the growing number and hands-off nature of virtual worlds and RMT transactions, regulation of money laundering may be difficult. Conversely, the compelling threat of money laundering that arises from these transactions suggests that this is one area that needs to continue to be monitored and will most likely be subjected to regulation in the near future.

The threat of money laundering also arises in the context of banks in online games. In an effort to control money laundering, the Secretary of the Treasury implemented a number of rules to regulate the conduct of money services businesses (MSBs).¹²⁷ The question is whether banks in online games might be considered money services businesses within the meaning of the Bank Secrecy Act (BSA), making them subject to the same sort of regulation. According to a final rule issued by the Secretary of the Treasury in 1999, "a business that meets one or more of the definitions of a type of MSB is an MSB,"¹²⁸ and as such, "must comply with BSA requirements applicable to it as an MSB, as a financial institution, and as a specific type of MSB."¹²⁹ Specifically, the types of business transactions that are defined as MSBs include money orders, traveler's checks, money transmission, check cashing, currency exchange, currency dealing, and stored value.¹³⁰ In online games, the banking activities of taking in deposits, making loans, and transferring funds¹³¹ seemingly falls within the definition of "money transmitters."¹³²

"Greed drives the criminal, and the end result is that illegally-gained money must be introduced into the nation's legitimate financial systems."¹³³ Money laundering has many grave consequences, but perhaps the most significant consequence is that it provides the funding that promotes drug

¹²⁶ Second Life, <http://www.secondlife.com> (last visited Mar. 3, 2008).

¹²⁷ MSB.gov: Am I an MSB?, <http://www.msb.gov/msb/index.html> (last visited Mar. 3, 2008) [hereinafter Am I an MSB?].

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ See Grimmelman, *supra* note 1.

¹³² See Am I an MSB?, *supra* note 127.

¹³³ MSB.gov - Background: What is Money Laundering?, <http://www.msb.gov/background/money.html> (last visited Mar. 3, 2008).

trafficking, arms dealing, and, of course, terrorism.¹³⁴ In fact, it was in large part a result of the terrorist attacks of September 11, 2001, that the U.S. government decided to impose new rules and regulations on MSBs.¹³⁵ If online games' banks are in fact characterized as money transmitters within the meaning of the BSA, they would likewise be subject to these new regulations.¹³⁶

Inter-governmental bodies like the Financial Action Task Force (FATF), "whose purpose is the development and promotion of policies, both at national and international levels, to combat money laundering and terrorist financing"¹³⁷ have also expressed a concern for policing money laundering. The FATF is essentially a "policy-making body"¹³⁸ that works on generating the political pressure necessary to bring about legislative and regulatory reforms in the areas of money laundering and terrorist financing.¹³⁹ The fact that inter-governmental bodies are also making strides to regulate money laundering is extremely significant in the context of online games, where transactions very often take place throughout multiple jurisdictions. As the establishment and growth of banks in online games continues to expand, it seems very likely that bodies like the FATF will strive to bring banks in online games within their regulatory schemes.

C. *The Problem of Addiction*

The widespread expansion of online games in Asia is illustrative of one key social issue that also arises with the growth of online gaming—addiction. In Korea, the online gamer, Famous Steed, was a legend.¹⁴⁰ For more than two years he used fire, ice, and lightning to battle dragons and monsters, eventually climbing 162 levels to become one of the top five players among hundreds of thousands of players in the Korean online game A3.¹⁴¹ Famous Steed's alter ego, S. H. Kang, closed his cosmetics store and immersed himself full-time in the game, spending days and even full nights at the "gaming parlor."¹⁴² Kang is one of more than half a million Koreans who

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ See Am I an MSB?, *supra* note 127.

¹³⁷ Financial Action Task Force (FATF), <http://www.fatf-gafi.org> (follow "About the FAFT" hyperlink) (last visited Mar. 3, 2008).

¹³⁸ *Id.*

¹³⁹ See *id.*

¹⁴⁰ Moon Ihlwan, *Online Gaming: Korea's Gotta Have It*, BUS. WEEK, Sept. 11, 2006, at 42.

¹⁴¹ *Id.*

¹⁴² *Id.*

suffer from the “malady”¹⁴³ of an “unhealthy obsession with online games.”¹⁴⁴ According to Kim Hyun Soo, a psychiatrist who heads the Net Addiction Treatment Center in Seoul, which has helped more than 1,000 game addicts since 2002, “online gaming addiction has become a national problem.”¹⁴⁵

This recent problem may be the result of Korea’s widespread efforts to “wire the country.”¹⁴⁶ In fact, more than three-quarters of households in Korea are now connected to the Internet, a fact that has clearly contributed to the tremendous profits from sales of online game developers in Korea—\$1.5 billion in 2005, almost half of the worldwide profits.¹⁴⁷ This trend is also apparent in other Asian countries, including China, where a thirteen-year-old boy recently committed suicide after playing an online game on his computer for thirty-six hours.¹⁴⁸

The problem of addiction to online games, just as in the context of real-world gambling, is a serious concern.¹⁴⁹ “Compulsive gaming,”¹⁵⁰ as it is often called, is one of the most serious forms of addiction,¹⁵¹ however, people in the U.S. are unfortunately frequently unaware of its prevalence.¹⁵² Not much statistical data is available on the incidence of “compulsive gaming,”¹⁵³ but stories like that of Famous Steed are also very common in the U.S. In one dramatic case, a child died because of the neglect of his parents, who were both playing World of Warcraft compulsively.¹⁵⁴ While the U.S. has been slow to recognize this concern, it is difficult to imagine that it will not make attempts to control it at some point in the near future.¹⁵⁵

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *See id.*

¹⁴⁹ Mark Methenitis, *Internet Gambling Regulation Present and Future: Technology Outpaces Legislation as the MMORPG Problem Emerges*, Dec. 2, 2005, <http://webpages.acs.ttu.edu/mmetheni/Internet%20Gambling%20and%20the%20MMORPG.htm>.

¹⁵⁰ *See generally* David Becker, “EverQuest” Spins its Own Economy, CNET NEWS, Jan. 25, 2002, <http://news.com.com/2100-1040-823260.html>.

¹⁵¹ *See id.*

¹⁵² Methenitis, *supra* note 149.

¹⁵³ *See* Deutsche Welle, *Study: Computer Games Can Lead to Addiction*, available at <http://www.dw-world.de/dw/article/0,1773386,00.html>.

¹⁵⁴ Ben Kuchera, *Neglected Child Dies While Parents Play World of Warcraft. This Isn't Gaming News.*, ARS TECHNICA, Jun. 21, 2005, <http://arstechnica.com/journals/thumbs.ars/2005/06/21/547>.

¹⁵⁵ *See* Methenitis, *supra* note 149.

D. Other Potential Issues

The State of Play Conference is a global conference organized by Harvard Law School, Yale Law School, New York Law School, Trinity University, and Nanyang Technological University in Singapore.¹⁵⁶ “[T]his pioneering global conference on virtual worlds invites experts across disciplines to discuss the future of cyberspace and the impact of these new immersive, social online environments on education, law, politics, and society.”¹⁵⁷ In its most recent meeting in early October 2006, the conference discussed some of the significant legal issues likely to arise from the increasing expansion and popularity of virtual worlds.¹⁵⁸ The greater part of the debate centered upon the question of whether terrestrial laws should apply to regulate virtual worlds or whether these virtual worlds are merely “private domains” that should be free to determine their own laws.¹⁵⁹

Regardless of the answer, the fact remains that, in addition to the threats of securities fraud and money laundering and the problem of addiction, there are many other potential issues that will likely surface with the expansion of virtual worlds. This provides further support for the idea that some form of regulation is to be expected in the future. For example, in an environment where participants are free to engage in stock transactions, labor transactions, and banking transactions, one can imagine that stock market regulators will object to the trading of virtual stocks worth real money.¹⁶⁰ Similarly, employment regulators might oppose the unconstrained virtual labor markets, where employees are compensated in real-world currency for tasks they perform online. Banking regulators will object to the holding of money with real value by unconstrained online banks.¹⁶¹ Just like banking and securities regulators, law enforcement will expectedly be concerned with the potential for fraud, as evidenced by the EVE Online scheme, and the potential for money laundering.¹⁶² Finally, tax authorities will express concern that participants in virtual worlds are making purchases, earning income, and accumulating wealth, without ever being subjected to any taxation on these transactions.¹⁶³

¹⁵⁶ New York Law School, About State of Play V, <http://www.nyls.edu/pages/5057.asp> (last visited Mar. 3, 2008) [hereinafter State of Play V].

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

¹⁵⁹ See Felten, Freedom to Tinker, *supra* note 8.

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² See *id.*

¹⁶³ See *id.*

Finally, the truly global scope of online games and virtual worlds in today's world raises even more concerns.¹⁶⁴ As discussed earlier, virtual worlds have seen an extraordinary boom in countries like Korea and China. Similarly, India has become the third largest market for online games in Asia, and the participation in online games of countries like Thailand, Malaysia, Indonesia, and the Philippines supports the view that participation in online games is likely to follow that of other developing countries.¹⁶⁵ But, "the conversation about virtual worlds is dominated by Western voices . . . to the exclusion of meaningful international participation."¹⁶⁶ This lack of cross-cultural dialogue raises issues about the establishment of virtual games and worlds that are deficient of any sensitivity to different cultural, social, and legal norms.¹⁶⁷ The lack of cross-cultural understanding has even revealed itself in tension between players from different nationalities.¹⁶⁸ In the summer of 2005, for example, close to ten thousand Chinese users rioted within *The Fantasy of the Journey West* to protest the presence of what they perceived to be the Japanese flag.¹⁶⁹ Similarly, a couple of years ago, players of the game *Lineage II* teamed up to slaughter game characters that they professed to be "Chinese gold farmers."¹⁷⁰ Ultimately, in determining how best to approach virtual worlds, different countries are likely to take different approaches based on their respective notions of free speech, privacy, intellectual property, and other matters.¹⁷¹

IV. THE CURRENT STATE OF THE LAW

A. *Current Regulation of Financial Institutions in the United States*

Financial enterprises such as banks, securities firms, and insurance companies are subject to different regulation than non-financial institutions.¹⁷² The Banking Secrecy Act (BSA), enacted in 1970, authorizes the Secretary of the Treasury to issue regulations that require financial institutions to file reports and make certain disclosures.¹⁷³ Among the

¹⁶⁴ See *State of Play V*, *supra* note 156.

¹⁶⁵ See *id.*

¹⁶⁶ *Id.*

¹⁶⁷ See *id.*

¹⁶⁸ See *id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ See *id.*

¹⁷² See Bradley, *supra* note 7.

¹⁷³ Financial Crimes Enforcement Network, Regulatory: Overview, http://www.fincen.gov/reg_main.html (last visited Mar. 6, 2008) [hereinafter FCEN Regulatory].

institutions currently subject to regulation under the BSA are depository institutions like banks, credit unions, securities brokers or dealers, money services businesses (MSBs), and even casinos and card clubs.¹⁷⁴

With respect to MSBs, the BSA sets out a number of specific regulations and other requirements, such as registration and disclosure requirements, for the prevention of money laundering.¹⁷⁵ Specifically, “[c]ertain MSBs are required to register and maintain a list of agents, if any.”¹⁷⁶ Further, if an MSB “knows, suspects, or has reason to suspect”¹⁷⁷ that any transaction is suspicious, and involves aggregate funds greater than \$2,000, it must file a Suspicious Activity Report (SAR) with the Secretary of the Treasury.¹⁷⁸ All MSBs are also required to develop and implement an Anti-Money Laundering (AML) compliance system.¹⁷⁹ An MSB that provides money transfers of “\$3,000 or more, to the same customer in a day, regardless of the method of payment,”¹⁸⁰ must keep a record, and an MSB that provides currency exchanges of over \$1,000 to the same customer in one day must also maintain a record.¹⁸¹ Ultimately, all of these requirements are intended to avert money laundering.¹⁸²

Like MSBs, insurance companies, casinos, and card clubs are also required to report any suspicious transactions.¹⁸³ Finally, section 314(b) of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), permits financial institutions, after providing notice to the Department of the Treasury, to share information in order to identify and report suspicious activities that may involve money laundering or terrorism to the federal government.¹⁸⁴

¹⁷⁴ *Id.*

¹⁷⁵ See Department of the Treasury, Financial Crimes Enforcement Network, Money Services Business Registration Fact Sheet, <http://www.msb.gov/pdf/FinCENfactsheet.pdf> (last visited Mar. 6, 2008).

¹⁷⁶ Bank Secrecy Act Requirements: A Quick Reference Guide for Money Services Businesses, http://www.msb.gov/pdf/bsa_quickrefguide.pdf (last visited Mar. 6, 2008).

¹⁷⁷ *Id.*

¹⁷⁸ *See id.*

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *See id.*

¹⁸³ See FCEN Regulatory, *supra* note 173.

¹⁸⁴ Financial Crimes Enforcement Network, USA PATRIOT Act Information, http://www.fincen.gov/pa_main.html (last visited Mar. 6, 2008).

B. *Recent Regulation of Online Games in Asia*

While the issue of regulating online games is a recent and nascent issue in the United States and other countries, the concern for the incredible expansion of the online game industry, and particular instances of fraud, has already raised the eye of Asian authorities and prosecutors.¹⁸⁵ Recently, a Korean cyber-gambling ring was shut down.¹⁸⁶ The cyber-gambling ring was operated through dealers who “required game players to deposit money into their bank accounts and to log on to their online gaming room.”¹⁸⁷ “The dealers would then operate the illegal program to provide cyber money in lump sum to players.”¹⁸⁸ The dealers allegedly received \$81.9 million in cash from online players, and they were also accused of embezzling \$8 million of the illegal earnings.¹⁸⁹ On October 4, 2006, the Seoul Central Prosecutors’ Office charged thirty-nine people with operating fraudulent online game software that allowed users to receive lump sum “cyber money.”¹⁹⁰ According to the prosecutor in the Korean case, “[t]he internet game is not just a simple game any more, but gambling. And the younger generation has been tempted to purchase cyber money, which is cashable.”¹⁹¹ The prosecutor also said that it would expand its investigation into any other illegal deals that may have occurred in the online game industry.¹⁹²

This is just one example of recent prosecution in Asia. But the impact that these prosecutions will ultimately have on the Asian online game industry is significant because it will presumably influence other countries in their decisions as to whether and to what extent, their own online game industries should be regulated.

V. THE FUTURE OF ONLINE GAMES AND VIRTUAL WORLDS, AND PUBLIC POLICY CONSIDERATIONS

The unregulated nature of online games and virtual worlds, combined with their expanding popularity and the increasing complexity of the

¹⁸⁵ See Annie I. Bang, *Korean Cybergambling Ring Busted—Important Implications*, PLAYNOEVIL GAME SECURITY NEWS & ANALYSIS, Oct. 5, 2006, <http://playnoevil.com/serendipity/index.php?archives/836-Korean-Cybergambling-Ring-Busted-IMPORTANT-IMPLICATIONS.html#extended>.

¹⁸⁶ *Id.*

¹⁸⁷ *Id.*

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

¹⁹² *Id.*

transactions involved, does not merely raise the question of whether real-world rules should apply, but instead suggest that this result is inevitable. As governments and other real-world agencies and regulators become cognizant of the potential risks involved, notably fraud and money laundering, they are certain to step in.

One concern is that as the system of virtual property becomes stronger, more and more players will argue that they have enforceable real world legal rights in their virtual property.¹⁹³ This implies that players might attempt to turn to real world legal systems in an attempt to enforce those rights whenever their property has been confiscated or stolen.¹⁹⁴ Similarly, players may want to turn to real world rules whenever their virtual property is taken by fraud.¹⁹⁵ But with legal rights come legal duties, and courts will ultimately be faced with the task of resolving questions as to the extent and application of these rights and duties.¹⁹⁶

Even if developers of online games enjoy a great deal of protection, as is currently the case, one can imagine a significant number of disputes arising between the players themselves.¹⁹⁷ Such "player-to-player disputes over deals gone bad will require courts to sort out the relative rights to virtual wealth as between different players."¹⁹⁸

Courts will also be confronted with many jurisdictional issues.¹⁹⁹ The nature of virtual worlds and online games makes them difficult to police because they are often run by private companies that are not incorporated in the U.S.²⁰⁰ Furthermore, the players who participate in these virtual worlds and online games are often located all around the world.²⁰¹ Thus, the question becomes whether any claims arising out of online game disputes should be handled by international or domestic tribunals. There is no clear answer to this question at this point, but the best solution is probably for these claims to be handled domestically. While these claims will frequently involve parties who are located in multiple jurisdictions, the regulation of businesses, and particularly banking and other financial institutions, has been traditionally dealt with on the domestic plane. Moreover, once authorities decide to regulate online games, the natural inference will be to extend existing domestic regulation, such as the regulation of MSBs, to this context.

¹⁹³ See Grimmelman, *supra* note 1.

¹⁹⁴ *See id.*

¹⁹⁵ *See id.*

¹⁹⁶ *See id.*

¹⁹⁷ *See id.*

¹⁹⁸ *Id.*

¹⁹⁹ *See* Boyd, *supra* note 74.

²⁰⁰ *Id.*

²⁰¹ *Id.*

Resolving these claims domestically will help to create more certainty as to the applicable law. Most importantly, it is not clear that international tribunals would even be willing to espouse these claims.

One effective way of determining how to regulate online games is by analogy to existing regulation in other areas or to the regulation of online games that has already been implemented in other countries, particularly in Asian countries. For example, many commentators have argued that making money through online games is “more akin to striking it rich in Vegas than to the just rewards from applying oneself through hard work and entrepreneurial skill.”²⁰² As is the case with gambling, the common view is that if people want to bet their money in an environment that lacks any sort of transparency, it is their own money to lose.²⁰³ In reality, however, a concern for public policy has led to the implementation of stricter gambling regulation.²⁰⁴ The Nevada Gaming Commission, for example, requires gambling ventures to open up their procedures and machines to the public, or to licensing commissions in the case of slots.²⁰⁵ The Nevada Legislature’s mandate to the Gaming Commission also sets out a number of public policy considerations that promote the regulation of gambling ventures.²⁰⁶ Among these are “public confidence and trust that gaming is conducted honestly and competitively, that the rights of the creditors of licensees are protected and that gaming is free from criminal and corruptive elements.”²⁰⁷ These same policy considerations are likely to arise in the context of online games.

In terms of the regulation of money laundering in online banks, regulatory authorities should look not only at the requirements of the Bank Secrecy Act (assuming that online banks are considered to be MSBs), but also at other existing forms of regulation, such as the recent regulation of informal remittance systems. The attacks of September 11, 2001, brought to light “the ease with which alternative remittance and underground banking systems may be utilized to conceal and transfer illicit funds.”²⁰⁸ Informal remittance transactions provide an easy and cost-effective method for transfer remittances, particularly for people who are outside the

²⁰² See, e.g., Thomas Malaby, *Do We Need a Virtual Gaming Commission?*, TERRA NOVA, May 31, 2006, http://terranova.blogs.com/terra_nova/2006/05/do_we_need_a_vi.html.

²⁰³ See *id.*

²⁰⁴ See *id.*

²⁰⁵ *Id.*

²⁰⁶ See NEV. REV. STAT. ANN. § 463.0129 (2007).

²⁰⁷ See *id.* § 463.0129(1)(b).

²⁰⁸ Hawala & Alternative Remittance Systems, U.S. Treasury—Office of Terrorism and Financial Intelligence, <http://www.treas.gov/offices/enforcement/key-issues/hawala> (last visited Mar. 6, 2008) [hereinafter Hawala].

traditional regulated sector.²⁰⁹ For example, a Somali migrant worker in Italy who wants to send money to Somalia makes his payment in Euros through an intermediary in Rome.²¹⁰ This service provider will then contact a partner service provider in the receiving country, who will in turn arrange to distribute the remittances to the migrant's family or other beneficiary.²¹¹ The advantages of this scheme include "efficiency, anonymity, and lack of a paper trail."²¹² But the problem with these transactions is that, just like transactions in online games, they are difficult to measure and monitor because they largely take place in the form of underground and unregulated markets.²¹³

In an attempt to control these transactions, the FATF released a number of recommendations on October 31, 2001, dealing with informal remittance systems and providing, in essence, that jurisdictions should require registration and licensing of persons and entities providing money or value transmission services, or both, through informal systems or networks. The FATF's recommendations also stated that those persons and entities should be subject to the FATF's Recommendations on Terrorist Financing and money laundering and that those persons and entities should be subject to sanctions for failing to obtain licenses or to comply with the Recommendations.²¹⁴ Because of the similar nature of informal remittance systems and online games (which provide an accessible, risk-free, and economical way to transfer funds in an unregulated manner) regulatory authorities should look to the Recommendations of the FATF with respect to the regulation of informal remittance systems as a guide in developing regulations for online games.

Finally, once the very real and potentially drastic consequences of addiction to online games are recognized, it is likely that some attempt will be made to control this problem of addiction as well. In Asia, where the problem of addiction is more extensive than it so far appears to be in the United States and where the problem has already been recognized by the authorities, countries like China and Korea have not hesitated to act.²¹⁵ The first MMORPG addict recovery center was opened in Beijing, China,²¹⁶ and

²⁰⁹ *Id.*

²¹⁰ Samuel Munzele Maimbo, *The Regulation and Supervision of Informal Remittance Systems: Emerging Oversight Strategies*, INTERNATIONAL MONETARY FUND, Nov. 24, 2004, <http://www.imf.org/external/np/leg/sem/2004/cdmfl/eng/maimbo.pdf>.

²¹¹ *Id.*

²¹² Hawala, *supra* note 208.

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ See Methenitis, *supra* note 149.

²¹⁶ *Id.* See also Ben Kuchera, *Beijing Opens First Online Gaming Addiction Center*, ARS TECHNICA,

several other Asian countries have already followed.²¹⁷ In addition to establishing treatment centers, countries like China have also enacted regulations that limit the number of hours of play that an individual player can play per day.²¹⁸ More studies will need to be conducted before any clear answers and solutions can be developed to resolve the issue of addiction, but the example of China and other Asian countries provides some guidance as to how this issue might also be regulated in the U.S. and other countries at some point.

Notwithstanding the novelty of the issue, there is some indication that certain U.S. and foreign authorities are beginning to take steps toward the regulation of online games. For example, people who cash out of virtual economies by converting their assets into real-world currencies are now required to report those incomes with the Internal Revenue Service or with the relevant tax authority of the place where they reside.²¹⁹ According to Dan Miller, senior economist for the Joint Economic Committee of the U.S. Congress, “[r]ight now we’re at the preliminary stages of looking at the issue and what kind of public policy questions virtual economies raise—taxes, barter exchanges, property[,] and wealth.”²²⁰

Regardless of the manner in which authorities ultimately decide to regulate online games, in order for any regulation to be effective, it will require the tracking of money flows, the monitoring of transactions, and the taxation by the Internal Revenue Service or equivalent taxing authority of any personal incomes and ordinary business incomes generated in virtual worlds. Furthermore, adequate redress must be provided through the courts for victims of fraud or any other illegal activity. As in the real world, the prospect of taxation and regulation are likely to deter at least some criminal activity. The appeal of regulation lies in the fact that, even where “[a]ny business venture requires some risk . . . a stable market would be more desirable for both the buyer and seller.”²²¹

July 5, 2005, <http://arstechnica.com/journals/thumbs.ars/2005/7/5/627>; Ihlwan, *supra* note 140.

²¹⁷ See Ihlwan, *supra* note 140.

²¹⁸ Curt Feldman, *China Govt Steps up Limits on Online Gaming*, GAMESPOT, Aug. 24, 2005, http://www.gamespot.com/news/2005/08/24/news_6131845.html.

²¹⁹ Posting of K. Dawson to Slashdot, *Virtual Economies Attract Real-World Tax Attention*, <http://games.slashdot.org/article.pl?sid=06/10/16/1747235> (Oct. 16, 2006, 12:51 PM).

²²⁰ *Id.*

²²¹ Methenitis, *supra* note 149.

VI. CONCLUSION

Free markets have not been able to rein in activities like gambling. Should online games and virtual worlds remain unregulated on the presumption that the market will eventually rein them in? Perhaps the answer to this question turns on information. Should developers of online games and virtual worlds be required to open up their books and disclose the processes and mechanisms through which their economies operate? Regardless of what the answer to these questions may be, it seems inevitable that once financial, securities, and tax authorities, as well as other regulatory bodies, become aware of the extent of the legal and social implications of online games and virtual worlds, they will decide to step in. The developers and participants in these virtual economies should be very conscious of this potentiality and begin planning accordingly.

