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A New (Virtual) World Order: A Look at Criminal Activity in Online Communities

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A NEW (VIRTUAL) WORLD ORDER:
A LOOK AT CRIMINAL ACTIVITY IN ONLINE COMMUNITIES

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INTRODUCTION

The German author, physician, and Zionist Max Nordau described the role of crime in civilization in the following manner: "[c]ivilization is built on a number of ultimate principles…respect for human life, the punishment of crimes against property and persons, the equality of all good citizens before the law…in a word justice."[1] Criminal activity has been a part of society since the beginning of time. One of the first documented crimes occurred in the Biblical story of Adam and Eve's children, the murder of Abel by his jealous brother Cain.[2] Throughout history, criminals have always embraced new technology and methods. As the founder of Craigslist, Craig Newmark, once said, "[c]rooks are early adopters."[3] Be it weapons, modes of transportation, or methods of passing information, criminals flock to new technology as a way to stay one step ahead of those who pursue them. And each time those who commit crimes have embraced new technologies, society and the law have struggled to come to grips with them and adapt to them. The new technologies of online communities are no different.[4] The rise of these communities have led to new questions related to how criminal activity

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[1] Max Nordau, The Quotations Page, http://www.quotationspage.com/quote/28923.html (last visited Apr. 29, 2010).

[2] Holy Bible, Genesis 4:8, New International Version

[3] Josh Knowles, *SXSW 2006 Panel: Craig Newmark & Jimmy Knowles Keynote*, AUSCILLATE: THE JOSH KNOWLES BLOG, Mar. 13, 2006, http://www.auscillate.com/post/95 (last visited Apr. 29, 2010).

[4] Brent Dean, *Head to Head: Virtual Crimes for Virtual Communities*, 7 QUINLAN, COMPUTER CRIME AND TECHNOLOGY IN LAW ENFORCEMENT 3, 1 (2007) (discussing how criminals have adapted to use of virtual communities).

intersects within these online communities and how society should adapt to it. While there are

hundreds of these online communities in existence, this paper will focus on 3 of the popular and

most used: Facebook, MySpace, and Second Life.

The first section of this paper will briefly examine the history of online communities.

The second portion will explore the several different types of crimes that have occurred in the

real world with the help of online communities, or inside of online communities, as well as why

online communities have proved popular with criminals. The third portion will explore the role

of law enforcement as it struggles to come to grips with how criminal activity and virtual

communities exist together, including challenges such as jurisdictional questions as well as

proving that a crime occurred.

THE RISE OF ONLINE COMMUNITIES

Online communities can trace their origin to the very first public computerized bulletin

board system, Community Memory.[5] While extraordinarily basic compared to today's social

network sites, Community Memory set the model for what a social network site is: a

communications medium where various types of information can be shared with other users via

interconnected computers.[6] Community Memory spawned other bulletin board system based

networks, but were limited by the need to dial into local phone line to access the bulletin board

system, and thus these networks were generally tied to a specific geographical area.[7] However,

with the advent of modern Internet protocols, global access to online communities became a

reality and users were no longer tied to a specific geographic area. This greatly increased the

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[5] *See* "Community Memory", Wikipedia, http://en.wikipedia.org/wiki/Community_Memory (last visited Apr. 29, 2010).
[6] *Id.*
[7] *See* "Bulletin Board System", Wikipedia, http://en.wikipedia.org/wiki/Bulletin_board_system (last visited Apr. 29, 2010).

number of people who could access a particular online community, and led to modern online communities as we know them today. Modern online communities take two major forms: social network sites and massive multiplayer online role-playing games (MMORPG).

A Brief History of Social Network Sites

The first true social network site was The WELL.[8] Developed as a bulletin board system in 1985, it became an Internet online community in the early 1990s when commercial traffic was first allowed on the Internet.[9] However, it was not until the debut of SixDegrees.com that social network sites as we now recognize them became a reality.[10] What made SixDegrees.com unique was its focus on connecting users via a profile-entering system. Users could create a profile, create a friends list, and browse other profiles.[11] This is the platform model that all modern social network sites use today. While the economic viability of SixDegrees.com ultimately proved short-lived, staying online only three years, it was ahead of its time as it forecasted a revolution in the way that people used the Internet to communicate and network with each other.[12] Prior to social network sites, most people only used the Internet to access email and to browse the worldwide web of Internet sites, i.e. for informational purposes only. With the advent of social network sites, people could now use the Internet as a way to connect and share personal information with others.

Social network sites really took off with the launch of Friendster in 2002. It was a follow-on to the social network site Ryze.com, a niche network focused on interconnecting business contacts. Friendster was the first commercially successful social network site to focus

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[8] *See* "Social Network Service", Wikipedia, http://en.wikipedia.org/wiki/Social_network_service (last visited Apr. 29, 2010).

[9] *See* "The WELL", Wikipedia, http://en.wikipedia.org/wiki/The_WELL (last visited Apr. 29, 2010).

[10] danah m. boyd & Nicole B. Ellison, *Social Network Sites: Definition, History, and Scholarship*, JOURNAL OF COMPUTER-MEDIATED COMMUNICATION, 13(1), article 11, *available at* http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html (last visited Apr. 29, 2010).

[11] *Id.*

[12] *Id.*

on connecting "friends of friends".[13] While it was started as a competitor to Match.com, an online dating service, within a year its surge in membership had effectively turned it into a social network site. Its unique ability to create friend-to-friend-to-friend connections allowed users to create an online social network. A person created a profile, and then could connect their profile with other friends' profiles. They could also connect their profile with the friends of their friends, and so forth. In this way, a user could develop an online social network. Friendster's popularity eventually waned in the United States (it is still popular in other countries) due to a variety of problems including inadequate server space, overly restrictive usage policies, and a rumor of a fee-based access model, but its initial popularity helped to drive a new social network site, MySpace.

MySpace was launched in 2003 and uses a platform based upon the popular elements of Friendster.[14] Many of the first people on MySpace were people who had left Friendster, including indie-rock bands.[15] This mass migration actually shows how effective social network sites can be: indie-rock bands who had been using Friendster as an advertising medium posted messages within Friendster to encourage users to move to other newer social network sites such as MySpace. MySpace grew quickly, based upon several unique features. Unlike Friendster, MySpace embraced the indie-rock bands that were using it as a means of advertising and reached out the indie-rock community to see how it could help them. With indie-rock bands, came teenagers. Again, MySpace took a unique position by embracing teenagers and changing its terms of service to allow them. Finally, MySpace allowed users to personalize their profile pages. These features allowed MySpace to experience extremely rapid growth in a short period of time. Drawn by this rapid growth, News Corp bought MySpace and its parent company in

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[13] *Id.*
[14] *See* "MySpace", Wikipedia, http://en.wikipedia.org/wiki/MySpace (last visited Apr. 29, 2010).
[15] *See* boyd & Ellison, *supra* note 10.

2005 for $580 million dollars. At the time, it was the largest social network site in the world.[16]

Today, MySpace is the second largest social network site, surpassed only by Facebook. [17]

Facebook was started February 2004 in a very limited fashion. It was originally started by students at Harvard University as an online social network site to connect Harvard students.[18] To control access, only people with @harvard.edu email addresses were allowed to register. The platform proved immensely popular: within 24 hours of launch, Facebook had 1200 users.[19] After just 1 month, Facebook had expanded to three other campuses by adding networks at Yale, Columbia and Stanford.[20] Over the next year, Facebook rapidly expanded to other colleges and universities. Facebook still controlled access by requiring users to have a valid email address at one of the universities it was associated with. This "controlled access" system kept the system closed and allowed it to foster a close-knit community.[21] What started as a dorm room project had grown into a company with $12.7 million dollars in venture capital and over 1 million users in a shortly more than a year.[22] With this infusion in capital, Facebook expanded to include high school networks, then international school networks, and company networks over the next year. Still, Facebook kept the closed-access network system, requiring a user to have a valid email address at one of the institutions for which Facebook had created a network. Even as the number of users grew exponentially, the closed-access system remained a hallmark of Facebook's popularity, allowing users to a feel both a greater sense of community as well as privacy.

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[16] Press Release, News Corporation, News Corporation to Acquire Intermix Media, Inc., (July 18, 2005) http://www.newscorp.com/news/news_251.html (last visited Apr. 29, 2010).

[17] eBizMBA.com, Top 20 Most Popular Social Networking Websites: Apr. 2010, http://www.ebizmba.com/articles/social-networking-websites (last visited Apr. 29, 2010).

[18] *See* boyd & Ellison, *supra* note 10.

[19] Sarah Phillips, *A brief history of Facebook*, THE GUARDIAN, J 25, 2007, http://www.guardian.co.uk/technology/2007/jul/25/media.newmedia (last visited Apr. 29, 2010).

[20] *See* Facebook Company Timeline, http://www.facebook.com/press/info.php?timeline (last visited Apr. 29, 2010).

[21] *See* boyd & Ellison, *supra* note 10.

[22] *See* Facebook Company Timeline, http://www.facebook.com/press/info.php?timeline (last visited Apr. 29, 2010).

The biggest change to Facebook came in September of 2006, when Facebook created open registration, allowing anyone to sign up for access.[23] However, the new open access did not mean that anyone could join the existing closed networks. To join those, users still had to have a valid email address associated with the network they wished to join. Those new users who were not affiliated with any of the current closed networks could join regional networks based upon geography.[24] By the end of 2006, Facebook had 12.7 million users. Its fast growth continued due in part to its open access and in part because of its online platform, which allowed third parties to develop applications for use within Facebook. These applications proved popular, and allowed Facebook users to personalize their profiles and share various aspects of their daily lives with other users.[25] Today, it is the largest social network site, with over 400 million active users.[26]

A Brief History of Massive Multi-player Online Role-Playing Games

Massive Multi-player Online Role-Playing Games (MMORPG, pronounced "morpegs") do not trace their history back to any single source. Rather, several different branches would come together to form the MMORPG family tree. One of these branches goes back to 1974 and a game called Mazewar. Besides being the first game in the genre of "first person shooters", Mazewar holds the distinction of being the first networked computer game, allowing players at different computers to play each other within the game.[27] Initially, the network was based on connecting through serial cables with other local computers, but the game was enhanced and

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[23] *Id*.

[24] *See* boyd & Ellison, *supra* note 10.

[25] *Id*.

[26] *See* Facebook Company Statistics, http://www.facebook.com/press/info.php?statistics (last visited Apr. 29, 2010).
[27] *See* "History of Massively Multiplayer Online Role-Playing Games", Wikipedia, http://en.wikipedia.org/wiki/History_of_massively_multiplayer_online_role-playing_games (last visited Apr. 29, 2010).

adapted for use on the precursor to the Internet, ARPAnet.[28] Another branch of the tree was a

game called MUD, short for Multi-User Dungeon. Developed in 1978, and based upon earlier

single-player adventure games like Adventure and Zork, MUD's contribution to the genre is

based upon the fact that it was the first multi-user game where players took on roles while

playing the game, adding the "role-playing" element to the genre.[29] At the same time that MUD

was being developed in the United Kingdom, a computer platform system known as PLATO was

being used to develop several key MMORPG traits seen today.[30] PLATO was a mainframe

computer system based at the University of Illinois using graphical terminals. Games such as

Oubliette, Moria, and Avatar introduced the concept of teamwork between players to defeat a

common enemy and one player playing against several other players operating as a group.[31]

The next limb on the MMORPG development tree was the game Island of Kesmai in

1984. Via the CompuServe online service, 100 players could play at a time at a price of about

twelve dollars per hour of use, which equals approximately twenty-five dollars per hour in 2010

dollars.[32] It is noteworthy as being the first commercial multi-player online role-playing game.[33]

Another major development arrived in 1988 with the introduction of the first graphical character-

based interactive online community, Club Caribe.[34] Club Caribe was hosted on QuantumLink,

the service that would eventually be known as America Online, and was developed by

LucasArts.[35] Club Caribe wasn't a game, but could more properly be seen as a precursor to

online worlds like Second Life. Users were represented by an avatar online, and could chat and

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[28] *Id.*

[29] *Id.*

[30] *Id.*

[31] *Id.*

[32] Jessica Mulligan, *History of Online Games*, http://tharsis-gate.org/articles/imaginary/HISTOR~1.HTM (last visited Apr. 29, 2010).

[33] *See* "History of Massively Multiplayer Online Role-Playing Games", *supra* note 27.

[34] Dave Spohn, *Internet Game Timeline: The History of Online Gaming 1969-1990*, ABOUT.COM: INTERNET GAMES, Nov. 5, 2005, http://internetgames.about.com/od/gamingnews/a/timeline.htm (last visited Apr. 29, 2010).

[35] *See* "History of Massively Multiplayer Online Role-Playing Games", *supra* note 27.

exchange items with other users.[36] The first graphical MMORPG was Neverwinter Nights,

developed in 1991 for use on the America Online network. In use until 1997, it was available for

users at a cost of six dollars per hour, which equals approximately nine dollars and fifty cents in

2010 dollars.[37]

In the early part of the 1990's, the Internet began hosting online computer games. Similar

to earlier network games played on ARPANet and via proprietary online services like

CompuServe and QuantumLink/America Online, the Internet allowed game players from around

the world a chance to play against each other in the same game. Because the Internet was

available worldwide, this is where games began to attain the "massive" part of MMORPG. In

fact, the term MMORPG was first used in the mid-1990's.[38] The concept of the MMORPG may

be traced to a 1992 science fiction novel, Snow Crush, where the author described a "metaverse",

or an online "alternative earth."[39] In addition to the availability of games on the Internet,

graphical programming advances increased the appeal of these games to a much wider audience.

During this time period, several successful MMORPGs debuted. Meridian 59, which debuted in

1995 in beta form, is largely credited as being the first of the Internet-generation MMORPGs.[40]

It is notable because it was the first game to charge a flat monthly subscription fee instead of the

previous model of charging per hour of use.[41] It was closely followed by Nexus: The Kingdom

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[36] *Id.*

[37] *See* MUD (Slide 1 of 10), Massively's Visual History of MMORPGs, Part I,
http://www.massively.com/photos/massivelys-visual-history-of-mmorpgs-part-i/ (last visited Apr. 29, 2010).

[38] *See* "History of Massively Multiplayer Online Role-Playing Games", *supra* note 27.

[39] Leonard T. Nuara et al; *No Man Is An Island, Not Even In A Virtual World*, PRACTICING LAW INSTITUTE:
PATENTS, COPYRIGHTS, TRADEMARKS, AND LITERARY PROPERTY COURSE HANDBOOK SERIES, 943 PLI/PAT 523,
535 (2008) (discussing origin of the concept for an online alternative world).

[40] *See* Meridian 59 (Slide 5 of 10), Massively's Visual History of MMORPGs, Part I,
http://www.massively.com/photos/massivelys-visual-history-of-mmorpgs-part-i/ (last visited Apr. 29, 2010).

[41] *See* "History of Massively Multiplayer Online Role-Playing Games", *supra* note 27.

of the Winds, which debuted in 1996, and was especially popular in South Korea.[42] It is notable

because it was the first game to user multiple servers to host the game, which is essential to

having thousands of users online at the same time, and set a record (at the time) for most users

online at one time at slightly over twelve thousand.[43] Nexus: The Kingdom of the Winds

eventually attracted over one million users.[44] The game that really made the genre of MMORPG

take off was Ultima Online.[45] Described as a "smash hit", it attracted far more players than the

other MMORPGs of the era.[46] In another harbinger of online worlds to come, players in Ultima

Online developed their own "in-game" communities, just as players in Second Life today

develop their own communities.[47] The final evolution in this era of the MMORPG was the game

Underlight, released in 1998 by Lyra Studios. While not nearly as popular as other games of its

era, it is notable for the emphasis the game placed on users playing role, and in another harbinger

of the future, character role-playing was governed by Lyra's terms of service agreement.[48]

The modern era of MMORPG started in the early part of the last decade, with the

introduction of both faster computer processor technology and faster broadband Internet

connections. These new technologies have enabled more people to access MMORPGs and

allowed those MMORPGs to have better graphics and more features. There are two types of

modern MMORPG: video role-playing games, and virtual worlds. Some of the most popular

video game titles on the market are the Final Fantasy series, the EverQuest series, and World of

Warcraft. World of Warcraft, developed by game designer Blizzard, is the world's most popular

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[42] *See* Nexus: The Kingdom of the Winds (Slide 4 of 10), Massively's Visual History of MMORPGs, Part I,
http://www.massively.com/photos/massivelys-visual-history-of-mmorpgs-part-i/ (last visited Apr. 29, 2010).
[43] *Id.*
[44] *See* "History of Massively Multiplayer Online Role-Playing Games", *supra* note 27.
[45] *Id.*
[46] *See* Ultima Online (Slide 7 of 10), Massively's Visual History of MMORPGs, Part I,
http://www.massively.com/photos/massivelys-visual-history-of-mmorpgs-part-i/ (last visited Apr. 29, 2010).
[47] *Id.*
[48] *See* Underlight (Slide 8 of 10), Massively's Visual History of MMORPGs, Part I,
http://www.massively.com/photos/massivelys-visual-history-of-mmorpgs-part-i/ (last visited Apr. 29, 2010).

MMORPG in terms of number of subscribers, with over ten million subscribers.[49] Its popularity

is due in part to its advertising, featuring well-known stars such as Ozzy Osborne, Mr. T, and

William Shatner. This advertising has opened up World of Warcraft beyond the normal "gamer"

population and into mainstream audiences. The other types of MMORPGs are virtual worlds.

These MMORPGs are the subject of a debate among those in the industry on how to properly

classify them. While some still claim that they are video games, others claim that because users

have the ability to create items within the game, they are more properly an online civilization.[50]

Also, unlike a video game, there is no ultimate objective in a virtual world – users do not win or

lose in a virtual world. Just as there are hundreds of social network sites; there are hundreds of

virtual worlds. The largest and best-known virtual world MMORPG is Linden Lab's Second

Life.[51]

Started in 2003, the goal of Second Life was to create a true virtual world, where users

could interact with each other, shop for goods and services, visit online versions of famous real

world sights, and even buy and develop online property. While most people trace the concept of

behind MMORPGs to the "metaverse" from Snow Crush described above, the creator of Second

Life, Philip Rosedale, has said that his ideas for a virtual world go back to his days in college.[52]

Linden Labs claims that while similar to other MMORPGs, Second Life is differentiated by

users ability to create in-world (within the game) and the principle of ownership of items in-

[49] Guinness World Records Gamer's Edition, *PC Gaming Records*,
http://gamers.guinnessworldrecords.com/records/pc_gaming.aspx (last visited Apr. 29, 2010).
[50] Robert D. Hof, *My Virtual Life*, BUSINESSWEEK, May 1, 2006, at 72, *available at*
http://www.businessweek.com/magazine/content/06_18/b3982001.htm (last visited Apr. 29, 2010).
[51] Sheldon Burshstein, *Virtual Worlds With Real World Issues*, 13 No. 8 CYBERSPACE LAWYER 1, 1 (Sept. 2008)
(noting the popularity of Second Life).
[52] Stephen J. Dubner, *Philip Rosedale Answers Your Second Life Questions*, N.Y. TIMES FREAKONOMICS BLOG,
Dec. 13, 2007, http://freakonomics.blogs.nytimes.com/2007/12/13/philip-rosedale-answers-your-second-life-
questions/?hp (last visited Apr. 29, 2010).

world.[53] The ownership principle was especially revolutionary as Second Life was the first MMORPG to allow users to retain ownership of items they create in-world.[54] Each player controls an avatar, which they can customize to look exactly as they desire – change facial features, height, weight, body structure or whatever they would like.[55] Once they have customized their avatar, they can outfit it with clothing items of their choice.[56] One of the hallmarks of Second Life is how much control the users have in the creation of the virtual world. Users use the tools built into the Second Life platform to create "prims", which are the 3D polygonal building blocks used to create items in-world.[57] From these prims, users can create whatever they can imagine. It is the creativity, customization, and ownership elements that make Second Life so popular, but these elements also allow a criminal element to exist within Second Life.

THE INTERSECTION OF CRIMINAL ACTIVITY AND ONLINE COMMUNITIES

As in any society, there will always be a criminal element. Online communities are no exception. Many different types of crime are currently being committed through the use of online communities.[58] What makes crime in online communities unique is that there are two different avenues to criminal activity. Real world crimes can be committed through online communities, i.e. using the online community in furtherance of a crime in the real world. Or crimes can be committed within the online communities, i.e. committing a crime in-world. While the former can be accomplished in virtually any online community, the latter tend to only

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[53] *See* Second Life Frequently Asked Questions, http://secondlife.com/whatis/faq.php (last visited Apr. 29, 2010).
[54] Hof, *supra* note 50.
[55] *Id*.
[56] Nuara, *supra* note 39, at 536 (discussing the customization options for avatars within Second Life).
[57] *See* Second Life Wikia: Prim, http://secondlife.wikia.com/wiki/Prim (last visited Apr. 29, 2010).
[58] Alan Sipress, *Does Virtual Reality Need a Sheriff?*, WASH. POST, June 2, 2007, http://www.washingtonpost.com/wp-dyn/content/article/2007/06/01/AR2007060102671.html (last visited Apr. 29, 2010).

appear in MMORPGs and especially in the MMORPG virtual worlds such as Second Life. This is due to the fact the MMORPGs are virtual communities, and anything that can occur in a real community can occur in a virtual one, including crime.[59] What follows are descriptions of various types of criminal activity that has occurred either inside or with the help of online communities.

Types of Crimes Committed in the Real World Via Online Communities

There are a variety of crimes that can occur via online communities. One crime that has gotten a great deal of press recently has been cyberbullying, due to national media attention of two recent suicides of those on the receiving end of the cyberbullying. While cyberbullying has received a great deal of recent media attention, in large part due to the tragic suicides of children that have occurred as a result, other crimes occur on a daily basis through the use of online communities. Online communities have played a role in identity theft, fraud, assault, sexual predatory crimes, and even murder.

Cyberbullying. Cyberbullying is the act of verbally abusing someone with the intent to hurt or embarrass the person, via modern communication devices such as the Internet, text messages, or cell phones.[60] The most well-known cyberbullying case involved the suicide of Megan Meier. Meier committed suicide on October 16, 2006, immediately following the reception of numerous messages on her MySpace account aimed at embarrassing and hurting her.[61] While the death of Meier was tragic, media attention immediately focused on the fact that the majority of the bullying messages had come from a fraudulent MySpace account. The

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[59] Burshstein; *supra* note 51, at 3 (discussing how Second Life has a criminal element just like any other community).

[60] *See* National Crime Prevention Council, http://www.ncpc.org/cyberbullying (last visited Apr. 29, 2010).

[61] Steve Pokin, *'MySpace' Hoax Ends With Suicide of Dardenne Prairie Teen*, SUBURBAN JS., Nov. 11, 2007, http://suburbanjournals.stltoday.com/articles/2007/11/11/news/sj2tn20071110-1111stc_pokin_1.ii1.txt (last visited Apr. 29, 2010).

account was of a "Josh Evans", however no Josh Evans existed. Instead, the account had been

created by Lori Drew, the mother of Meier's neighbor as a hoax because of some problems that

the two young girls had. When the local police investigated the death and turned up the

fraudulent account, they discovered that no charge fit the activity conducted and thus could not

file charges against Drew.[62] The Federal Bureau of Investigation also investigated the crime, but

they were unable to access all of the messages in the MySpace account, including the messages

sent between the fraudulent account and Meier's account on the day she committed suicide.[63]

Later, the United States Attorney for the Central District of California brought four federal

charges against Drew related to her use of MySpace in the death of Meier: one count of

conspiracy and three counts of violating the Computer Fraud and Abuse Act (CFAA). Although

both Meier and Drew resided in Missouri during the time of the cyberbullying, the case was

brought in California because that was where the MySpace servers were located. At trial, the jury

deadlocked on the conspiracy count, and acquitted Drew on the felony CFAA counts, but did

convict her of a misdemeanor lesser-included offense under the CFAA.[64] However, the judge

had reserved decision on a motion for judgment of acquittal until the conclusion of the trial.

Upon renewal of the motion to dismiss, the judge granted the motion on grounds that applying

the CFAA in this case would be unconstitutional based upon vagueness grounds and Drew's

conviction was overturned. [65] The national attention on the case resulted in several new

ordinances and laws involving the use of computers to harass someone. In 2008, the Missouri

state legislature amended its harassment law to include language regarding the use of electronic

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[62] Christopher Maag, *A Hoax Turned Fatal Draws Anger but No Charges*, N.Y. TIMES, Nov. 28, 2007, http://www.nytimes.com/2007/11/28/us/28hoax.html?_r=2&oref=slogin (last visited Apr. 29, 2010).
[63] *Id.*
[64] *United States v. Drew*, 259 F.R.D. 449, 453, 2009.
[65] *Id.* at 468.

communication to specifically address cyberbullying.[66] At the federal level, a bill has been

proposed in the House of Representatives, H.R. 6123, known as the Megan Meier Cyberbullying

Prevention Act.[67] The bill has not yet passed, due to concerns about how it might implicate the

First Amendment right of free speech. In a sign that cyberbullying is still a major problem,

another young girl, Phoebe Price, committed suicide on January 14, 2010 as the end result of

extensive traditional bullying as well as cyberbullying attacks. As a result of the suicide, the

local prosecutor has charged nine of her fellow classmates, six as adults, with a variety of crimes

related to her death.[68] Price's death has renewed the calls for more protection against

cyberbullying in the form of laws and better parental involvement and control.[69] At the time of

submission of this paper, Massachusetts had just passed a new anti-bullying law based in part

upon the death of Phoebe Price.[70] It has also served as a catalyst for young students to learn

more about cyberbullying.[71]

   Identity Theft, Fraud, and Money Laundering. The entire premise of social network

sites is to share personal information with other friends via computers. However, the ease of

sharing personal information over the Internet via social network sites also makes them a prime

target for computer hackers seeking to steal a person's identity information for criminal purposes

such as embezzlement or to sell to advertisers. Sophos, a computer software company focused

on anti-virus and security technology, has done numerous studies showing how easy it can be to

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[66] MO. ANN. STAT. § 565.090 (West 2010).

[67] Megan Meier Cyberbullying Prevention Act, H.R. 6123, 110th Cong. 2nd Sess. (2008), *available at* http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h6123ih.txt.pdf.

[68] Peter Schworm and Brian Ballou, *9 Teens Charged in Girl's Bullying*, BOSTON GLOBE, Mar. 30, 2010, http://www.boston.com/news/local/massachusetts/articles/2010/03/30/da_charges_9_teens_faults_school_officials_in_s_hadley_bullying_case/ (last visited Apr. 29, 2010).

[69] Emily Bazelon, *Suicide in South Hadley*, SLATE, Mar. 30, 2010, http://www.slate.com/id/2249307 (last visited Apr. 29, 2010).

[70] Martin Finucane, *Mass. Legislature Approves Anti-Bullying Law*, BOSTON GLOBE, Apr. 29, 2010, http://www.boston.com/news/local/breaking_news/2010/04/senate_approves_3.html (last visited Apr. 29, 2010).

[71] Jim Moore, *Torrington Middle School Students Sought Talk on Cyber-thugs*, REPUBLICAN-AMERICAN (Waterbury, CT), Apr. 22, 2010, http://www.rep-am.com/news/local/478741.txt (last visited Apr. 29, 2010).

gather personal information via a person's Facebook account profile.[72] Credit reporting agencies

have warned users to limit the amount of personal information they post in their social

networking site profiles.[73] Hackers can also gain access to social network users accounts and use

the access to defraud friends of the account holder. In a well known case, a hacker gained access

to a Seattle man's Facebook account and faked an emergency overseas, begging his friends to

send him money. His friends responded to his "emergency" by wiring money to the impostor.[74]

The problem of identity theft is not confined to social network sites. Identity theft has also been

reported in Second Life as well, and just as in the above Facebook example above, the stolen

identity was used to defraud someone.[75] Second Life has also been used as tool in money

laundering for criminal enterprises.[76] Dirty money can be funneled into Second Life, used for

transactions within the game as Linden dollars, and then exchanged for "cleansed" real-world

money via the Linden money exchange. Another example of online activity causing real world

property loss was the failure of investment banks within Second Life.[77]

    __Terrorism__. When one thinks of terrorism, they immediately think of the tragic attacks of

September 11, 2001, or any of the other major attacks carried out by Al-Qaeda such as the

African embassy bombings or the bombings of the U.S.S. Cole in Yemen. However, in their

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[72] Sophos, *Facebook: The Privacy Challenge*, http://www.sophos.com/security/topic/facebook.html (last visited Apr. 29, 2010).

[73] *Millions of Facebook Users Putting Themselves at Risk for Online Crime*, DAILY MAIL (London), Aug. 22, 2007, http://www.dailymail.co.uk/sciencetech/article-476866/Millions-Facebook-users-putting-risk-online-crime.html (last visited Apr. 29, 2010).

[74] John Sutter and Jason Caroll, *Fear of Impostors Increases on Facebook*, CNN, Feb. 6, 2009, http://www.cnn.com/2009/TECH/02/05/facebook.impostors/index.html (last visited Apr. 29, 2010).

[75] Eric Weslander, *Virtual-reality Crimes Present Literal Challenge for Real-life Police*, LAWRENCE J-WORLD & NEWS, November 12, 2006, http://www2.ljworld.com/news/2006/nov/12/virtualreality_crimes_present_literal_challenge_re/ (last visited Apr. 29, 2010).

[76] Dean, *supra* note 4, at 2 (discussing how criminals have used virtual communities for money laundering).

[77] Bryan Gardiner, *Bank Failure in Second Life Leads to Calls for Regulation*, WIRED, Aug. 15, 2007, http://www.wired.com/gaming/virtualworlds/news/2007/08/virtual_bank (last visited Apr. 29, 2010); Nobody Fugazi, *Merlin's Investment Bank Goes Under*, YOUR 2ND PLACE, http://www.your2ndplace.com/node/661 (last visited Apr. 29, 2010).

efforts to stay one step ahead of the world's law enforcement officials, terrorist groups have taken

to using online communities as a way to hide assets and communicate with each other. In

response, the Central Intelligence Agency has begun to maintain a clandestine presence within

Second Life as a standard operating procedure for its counter-terrorism activities.[78] Other United

States intelligence agencies are participating a project to look for terrorists operating in World of

Warcraft.[79] With recent reports of Chinese hacking efforts perhaps being state-supported,

security experts are urging the United States to consider an even more robust virtual world

monitoring policy.[80]

     Sexual Predatory Crimes. Because a large number of Internet users are under the age of

eighteen, many of the users of online communities are also under the age of eighteen. These

children are at risk of being exploited by sexual predators. Many people have seen the infamous

Dateline NBC specials entitled "To Catch a Predator".[81] In the show, cyber crime experts posed

as young children online and looked for sexual predators to make contact with. Once the contact

was made, the "children" would set up a meeting with the predator. Upon arriving at the

prearranged meeting place, usually a house, the alleged predator would arrive thinking they were

there to engage in sexually predatory activity, only to find a camera crew and interviewer

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[78] Robert O'Harrow, Jr., *Spies' Battleground Turns Virtual*, WASH. POST, Feb. 6, 2008, http://www.washingtonpost.com/wp-dyn/content/article/2008/02/05/AR2008020503144.html (last visited Apr. 29, 2010).

[79] Ryan Singel, *U.S. Spies Want to Find Spies in* World of Warcraft, WIRED, Feb. 22, 2008, http://www.wired.com/threatlevel/2008/02/nations-spies-w/ (last visited Apr. 29, 2010).

[80] Ariana Eunjung Cha and Ellen Nakashima, *Google China Cyberattack Part of Vast Espionage Campaign, Experts Say*, WASH. POST, Jan. 14, 2010, http://www.washingtonpost.com/wp-dyn/content/article/2010/01/13/AR2010011300359.html (last visited Apr. 29, 2010); Dan Frommer, *Did the Chinese Government Hack Google?*, BUS. INSIDER, Jan. 12, 2010, http://www.businessinsider.com/did-the-chinese-government-hack-google-2010-1 (last visited Apr. 29, 2010); Edward M. Roche, Op-Ed, *Virtual Worlds and the Intelligence Community*, GSN: GOV'T. SEC. NEWS, Feb. 14, 2010, http://www.gsnmagazine.com/article/20095/virtual_worlds_and_intelligence_community (last visited Apr. 29, 2010).

[81] Chris Hansen, *Reflections on 'To Catch A Predator'*, DATELINE NBC, Mar. 13, 2007, http://www.msnbc.msn.com/id/10912603 (last visited Apr. 29, 2010).

confront them. The show was criticized for going to far and being a form of entrapment.[82] Still, the show contributed to raising awareness about the risks of sexual predators using online technologies to lure unsuspecting children. There are countless stories of predators using online communities to lure children into compromising situations. In 2006, older men posing as younger men on MySpace lured seven teenage girls into sexual encounters.[83] One man, posing on Facebook an eighteen-year-old girl, was able to get teenage boys to send him nude pictures.[84] In the United Kingdom, Facebook was used a means to distribute child pornography.[85] After obtaining child pornography images via a nursery business, Facebook was used to spread the images to others who wanted access to them.

Murder. It is difficult to think how online communities could play a role in the commission of the most violent of all crimes, murder. The idea of someone typing on a computer and killing someone is very far fetched, and to be sure, the number of murders committed where an online community played a major role is minute. However, in some cases, murders have occurred due to online relationships that were deceitful and went awry. In one case, a love triangle between two men, Thomas Montgomery and Brian Barrett, and a woman that played out completely online resulted in one of the men murdering the other.[86] The two New York men were friends in real life, and friends online in Second Life, where they met the women, who actually lived several states away in West Virginia. Montgomery, who was forty-

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[82] Brian Montopoli, *Does "Dateline" Go Too Far "To Catch A Predator?"*, CBS NEWS BLOG, Feb. 7, 2006, http://www.cbsnews.com/8301-500486_162-1290135-500486.html (last visited Apr. 29, 2010).
[83] *Police Probe Alleged MySpace-linked Sex Crimes*, ASSOC. PRESS, Feb. 3, 2006, http://www.msnbc.msn.com/id/11162121/from/RSS/ (last visited Apr. 29, 2010).
[84] *Facebook Sex-scam US Teenager Convicted*, BBC NEWS, Dec. 23, 2009, http://news.bbc.co.uk/2/hi/americas/8427559.stm (last visited Apr. 29, 2010).
[85] Jerome Taylor, *The Facebook Paedophile Ring*, INDEP. (London), Oct. 2, 2009, http://www.independent.co.uk/news/uk/crime/the-facebook-paedophile-ring-1796373.html (last visited Apr. 29, 2010).
[86] April Amadon, *BARRET CASE: Love Triangle Case Unfolds*, LOCKPORT UNION-SUN & J., Jan. 11, 2007, http://lockportjournal.com/local/x212262939/BARRETT-CASE-Love-triangle-case-unfolds (last visited Apr. 29, 2010).

seven, had initially developed a relationship with the women by representing himself to be a young Marine who was about to be deployed overseas. The woman also lied about her real age, representing herself as eighteen and even posting a picture of her teenage daughter as proof. The woman later discovered Barrett because of Barrett's listing on Montgomery's friend list. Barrett and the women also developed a close relationship. Upon discovering this, Montgomery killed Barrett out of jealousy. In another case in Darlington, United Kingdom, a thirty-three year old man was convicted of kidnapping, raping, and ultimately murdering a seventeen-year-old girl he lured through the use of Facebook.[87] The man's Facebook account listed him as being much younger and featured a photo not of him, but of an anonymous male model much younger than the user's actual age.

Criminal Activity Within Virtual Worlds

Just as criminal activity exists in the real world, criminal activity can exist wholly within virtual worlds. After all, almost any activity that can occur in the real world can occur in-world. Criminal activity is no exception. Starting in 2006, people began to notice the criminal activity that was going on in Second Life.[88] Second Life, being the largest virtual world, attracts a great deal of media attention to the problems that occur within its virtual borders. However, it is far from being the only MMORPG to be affected by virtual criminal activity. Criminal behavior has been documented in a variety of MMORPG, even those whose main focus is being a video game and not a virtual world. Based upon media reports, there seems to be no limit to the types of crime that can be committed in Second Life: assault and battery, prostitution, gambling, property

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[87] Nico Hines, *Serial Sex Offender Peter Chapman Killed Teenager Groomed on Facebook*, TIMES (London), Mar. 8 2010, http://www.timesonline.co.uk/tol/news/uk/crime/article7054001.ece (last visited Apr. 29, 2010).

[88] Steve O'Hear, *Second Life: Gangs, Theft, and Goo*, ZD NET, Nov, 22, 2006, http://blogs.zdnet.com/social/?p=27 (last visited Apr. 29, 2010).

theft, embezzlement, counterfeiting, pedophilia, and even rape have all been reported as occurring within Second Life.[89][90]

Sexual crimes. Sexual crimes within cyberspace are not a new phenomenon. In 1993, the first reported virtual rape occurred when, in the virtual community LambdaMOO, a computer program controlled by other users was used to force a female user to submit their character to act out being raped.[91] Within Second Life, there have numerous reports of sexual harassment, stalking, child pornography/pedophilia, child sex, and even rape. Second Life users have reported online clubs catering to users looking to engage in sex with minors.[92] These clubs offer a place for pedophiles to gather in anonymity, with like-minded people, and offer a modicum of protection not found in traditional pedophilia venues. Second Life users have also been subject to sexual harassment.[93] While the harassment is not directed at the actual user behind the avatar, the emotional feelings are the same as if the harassment took place face to face. In a well-known case, a woman in Belgium claimed that her avatar in Second Life was raped by another avatar.[94] While consensual rape is allowed within certain areas of Second Life as part of role-playing fantasy, no user is allowed to take over another user's avatar without the second user's permission. In this case, the permission was not given and the rape was not consensual. German authorities have investigated instances of both child pornography as well as child sex within

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[89] Elliot Feldman, *Real Crime in Virtual Worlds*, ASSOC. CONTENT, Aug. 1, 2007, http://www.associatedcontent.com/article/329951/real_crime_in_virtual_worlds.html?cat=19 (last visited Apr. 29, 2010).

[90] Burshstein, *supra* note 51, at 3 (discussing types of crimes that can occur in Second Life).

[91] Sipress, *supra* note 58.

[92] *Id.*

[93] *Examples of Sexual Harassment in Second Life*, http://sexsecond.blogspot.com/2009/10/examples-of-sexual-harassment-in-second.html (Oct. 22, 2009, 7:24 EST).

[94] Tracy Clark-Flory, *Is Virtual Rape A Crime?*, SALON, May 7, 2007, http://www.salon.com/life/broadsheet/2007/05/07/virtual_rape/ (last visited Apr. 29, 2010).

Second Life.[95] An adult avatar was seen engaging in sexual acts with an avatar that looked like a child. While adults controlled both avatars, under German law the activity was illegal. Linden Labs eventually banned the two German citizens from Second Life as a result of their involvement.

__Property crimes__. One of the first major criminal activities to receive notice in Second Life was the "CopyBot" scam.[96] By modifying a preexisting Second Life development tool, users were able to clone almost any item available within Second Life.[97] Second Life addressed the CopyBot scam as mainly a copyright issue, given that Second Life users retain all intellectual property rights in items they create in-world, and by copying items, copyrights were violated. However, the CopyBot scam it is also an example of theft.[98] By cloning a user's items for sale without their permission, the criminal is in essence stealing from the user's potential inventory, leading to potential lost sales. In another case that received a great deal of media attention, an online bank within Second Life, Ginko Financial, failed. The failure meant that investors lost over L$200 million, or $750,000 real-world dollars, while efforts to determine the owner of the bank in an attempt to recover the assets went for naught.[99] It was not the only online bank within Second Life to bilk investors out of their Linden dollars.[100] Bank failures have not been limited to only Second Life either: the MMORPG Eve Online also suffered an investment bank scam as well. In that case, over 700 million ISK (the monetary denomination within Eve Online) were lost when the owner of the Eve Intergalactic Bank cleaned out the accounts and vanished, even

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[95] Mitch Wagner, *Real Crimes Against Children Reported in Second Life*, INFORMATIONWEEK, May 10, 2007, http://www.informationweek.com/news/security/cybercrime/showArticle.jhtml?articleID=199500710 (last visited Apr. 29, 2010).

[96] Steve O'Hear, *A Fist Full of Linden Dollars*, ZD NET, Nov. 15, 2006, http://blogs.zdnet.com/social/?p=21&tag=col1;post-27 (last visited Apr. 29, 2010).

[97] Burshstein, *supra* note 51, at 4 (discussing the history and legal problems associated with the CopyBot program within Second Life).

[98] O'Hear, *supra* note 97.

[99] Gardiner, *supra* note 75.

[100] Fugazi, *supra* note 76.

attempting to cover the crime by spreading rumors of his real-world death.[101] Vandalism has

also been reported within Second Life. A computer worm virus called "grey goo" was placed

within Second Life that caused spinning objects to significantly slow down the viewer program

that allows users access to Second Life.[102]

      Crimes of Violence. While the idea of computer images "attacking" each other within a

MMORPG does not meet the average person's definition of violence, violent crime does exists

in Second Life. Just as in the real world, when people gather together there is always the

possibility of violence.[103] In a famous example, phalluses controlled by other users attacked

famous Second Life avatar Anshe Chung while she was giving an interview appearance in-

world.[104] While on its face it seems like a harmless joke, given that Chung is merely an avatar

and she was "assaulted" by computer-depicted images of phalluses, had this same incident

occurred in the real world, it would be considered assault and battery.[105] Virtual assaults occur

in other MMORPGs as well. A Japanese man was arrested for mugging other users within the

game Lineage II, stealing their items, and then selling them online.[106] Another trend within

Second Life and other virtual worlds are mob-like tactics of intimidation, chasing regular users

away from certain locales in-world.[107] Gangs of users will approach a public area within Second

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[101] Tudor Stefanescu, *EVE Online Economy Suffers 700 Billion ISK Scam*, SOFTPEDIA, Aug. 24, 2006, http://news.softpedia.com/news/Eve-Online-Economy-Suffers-700-billion-ISK-Scam-33737.shtml (last visited Apr. 29, 2009).

[102] Catherine Holahan, *The Dark Side of Second Life*, BLOOMBERG BUSINESSWEEK, Nov. 21, 2006, http://www.businessweek.com/technology/content/nov2006/tc20061121_727243.htm (last visited Apr. 29, 2010).

[103] David Assalone, Law In the Virtual World: *Should the Surreal World of Online Communities Be Brought Back to Earth By Real World Laws?*, 16 VILL. SPORTS & ENT. L.J. 163, 179 (2009) (discussing the potential for violence whenever people gather in a group).

[104] Daniel Terdiman, *The Legal Rights to Your Second Life Avatar*, CNET NEWS, Jan. 5, 2007, http://news.cnet.com/The-legal-rights-to-your-Second-Life-avatar/2100-1047_3-6147700.html (last visited Apr. 29, 2010).

[105] Assalone, *supra* note 102, at 180 (discussing how attack would have resulted in criminal liability if it had occurred in the real world).

[106] Sipress, *supra* note 58.

[107] Holahan, *supra* note 103.

Life, and will harass other public members in an effort to get them to leave the area. These gang tactics are not limited to Second Life, as they have been reported in World of Warcraft as well.[108]

ENFORCEMENT CHALLENGES RELATED TO ONLINE CRIMINAL ACTVITY

What can be done to help get the problem of criminal activity in virtual worlds under control? Rosedale, the founder of Second Life, has opined that self-government is ultimately the proper tack to take, because it is the only form of control that will properly scale the problem.[109] Rosedale's vision is for Second Life to create their own self-government system that addresses all the needs of the users within Second Life, in a similar fashion as to how the United States has developed its government to meet the needs of its citizens. However, for the time being, until such self-government can be created and effectively run, Rosedale believes that real-world laws should govern activities within Second Life.[110] There is no criminal justice within Second Life. Further, transposing criminal activities in-world against real-world criminal laws presents unique challenges. Perhaps this is why Second Life, when it was besieged with irate users who had lost items in the CopyBot scam seeking justice, directed users to make claims via the Digital Millennium Copyright Act instead of through a more traditional criminal theft statute. Currently, the only "law" in Second Life are the two sets of rules that users must agree to abide by before they are allowed to create an account: the Second Life Terms of Service (TOS) and the Second Life Community Standards.[111] Thus, when criminal activities do occur in Second Life, the only way to address them is via the rules listed above.

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[108] Sipress, *supra* note 58.
[109] Dubner, *supra* note 52.
[110] Sipress, *supra* note 58.
[111] Susan W. Brenner, *Fantasy Crime: The Role of Criminal Law in Virtual Worlds*, 11 VAND. J. ENT. & TECH. L. 1, 41 (2008) (discussing the rules users must abide by within Second Life).

While self-government within Second Life is a developing system, in the gap traditional real-world law enforcement does offer ways to help control criminal activity within online communities. Traditionally, one of the biggest problems in controlling online criminal activity was law enforcement paid little attention to "crimes" that occurred in online communities.[112] This is because of a stereotype that online communities were nothing more than glorified video games. However, law enforcement agencies have begun to pay more attention to virtual crimes. Last year, through the efforts of the Connecticut and North Carolina Attorneys General, 5,585 registered sex offenders had their accounts purged by Facebook.[113] Over 90,000 MySpace accounts belonging to registered sex offenders were also deleted last year.[114] Some agencies, in an effort to stem the tide of lawlessness in online communities, have created dedicated online crime-prevention divisions. Some examples of this are the special section of the South Korean police force dedicated to online game crime, Scotland Yard's dedicated Second Life division, and Belgian police monitoring Second Life to protect against virtual rape.[115]

However, even if vigilant police activity discovers criminal activity online, there are several potential problems for law enforcement in bringing the alleged criminals to justice. Discovering who is the real person behind the online account involved can be difficult to discover, as well as the evidence necessary to prove a crime was committed by a certain person in a court of law. Law enforcement officials often lack the proper resources to effectively

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[112] Assalone, *supra* note 102, at 182 (discussing how law enforcement traditionally does not consider online crime to be a serious issue).

[113] Caroline McCarthy, *Report: 5,585 Sex Offenders Purged From Facebook*, CNET NEWS, Feb. 20, 2009, http://news.cnet.com/8301-13577_3-10168255-36.html (last visited Apr. 29, 2010).

[114] Caroline McCarthy, *MySpace, Facebook Spar Over Family Safety*, CNET NEWS, Feb. 3, 2009, http://news.cnet.com/8301-13577_3-10155596-36.html?tag=mncol;txt (last visited Apr. 29, 2010).

[115] Feldman, *supra* note 90; *Scotland Yard Hunts For Crime In Second Life*, VIRTUAL WORLDS NEWS, Mar. 25, 2008, http://www.virtualworldsnews.com/2008/03/scotland-yard-h.html (last visited Apr. 29, 2009); Aimee Weber, *Belgian Police Patrols Second Life To Prevent Rape*, SECOND LIFE INSIDER, Apr. 21, 2007, http://www.secondlifeinsider.com/2007/04/21/belgian-police-patrols-second-life-to-prevent-rape/ (last visited Apr. 29, 2010).

investigate cyber crimes. Because cyber crime is relatively new, often law enforcement does not have the proper equipment or staff to conduct computer forensic investigations. Information that could prove vital in discovering the identity of those behind the criminal activity or evidence necessary to prove the activity actually occurred is lost because law enforcement agencies often do not have the capabilities necessary to retrieve it. Recall the investigation into the Megan Meier suicide by the FBI. They were unable to access the crucial messages that were sent in the MySpace account immediately prior to Meier's death.[116] Another issue faced by law enforcement is that the computer criminals are usually more technically proficient than the law enforcement agents investigating them, and thus able to stay one (or more) steps ahead of those investigating them. Often, those who participate in criminal activities online are skilled enough in online systems to hide their true identity or to cover it up in some way. A good example can be found in the online investment bank scams. In each of the online investment bank failures referenced above, the owners of the bank simply disappeared, presumably with all of the assets. One of the bank owners even went so far as to spread rumors of his actual death via various online outlets.[117]

Even if the actual identity of the online criminal can be determined, real-world jurisdictional boundaries can sometimes get in the way. Online criminal activity almost always involves multiple jurisdictions. There is the jurisdiction of the victim, the jurisdiction of the criminal, and the jurisdiction where the "activity" took place – the jurisdiction(s) where the servers are located. However, a civil litigation case related to the CopyBot scam may point towards a solution to jurisdictional issues within the United States. A federal district court in Pennsylvania ruled that despite being a Delaware corporation and headquartered in California

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[116] Pokin, *supra* note 61.
[117] Stefanescu, *supra* note 104.

(also the location of Linden Labs' servers), the fact that Linden Labs conducted national advertising and virtual town hall meetings was enough to satisfy the minimal contacts requirement for personal jurisdiction.[118] One legal scholar has opined that the court's decision could mean that interactions in an online community may be enough to confer personal jurisdiction over those users who interact with each other.[119] While civil procedure is not generally directly applicable to criminal law, the court's decision could point to the judiciary's understanding of the unique jurisdictional challenges faced in online criminal activity. Further, in the United States, states have taken it upon themselves to cooperate in solving online crimes that involve multiple jurisdictions – witness Michigan authorities arresting a Texas resident for criminal sexual conduct involving MySpace and extraditing him back to Michigan.[120]

If jurisdictional issues are not an issue and different jurisdictions readily cooperate, another major issues involves crafting laws that take into account the rapid pace of today's online technological advances. Many people have heard of Moore's Law, which refers to a prediction made by engineer George Moore about the technological development possible in the computer industry. Moore successfully predicted that computer technological advancement essentially doubles every two years.[121] Moore's Law has been proven true for a variety of digital devices.[122] As an example, during the author's time as an undergraduate, email was in its infancy in use on campus. The actual systems behind it were very primitive in comparison to today's email systems, with minimal storage capacity and only basic text formatting. Today, during the author's time in law school, access to email can come from a variety of places,

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[118] *Bragg v. Linden Research Inc*., 487 F. Supp. 2d 593 (E.D. Pa. 2007).
[119] Burshstein, *supra* note 51, at 4 (discussing extension of court's personal jurisdiction rationale in *Bragg* to cover all users of Second Life).
[120] Harry A. Valetk, *Playing With Privacy*, 5 No. 7 INTERNET L. & STRATEGY 1, 1 (July 2007) (discussing Texas man arrested by Michigan authorities for crime perpetrated on MySpace).
[121] *See* "Moore's Law", Wikipedia, http://en.wikipedia.org/wiki/Moore's_law (last visited Apr. 29, 2010).
[122] *Id.*

including a cellular phone, and with rich HTML text features. Those developments occurred in less than a decade. Technological advances occur so rapidly that they outpace the gestation of laws, which take longer to draft and become enacted. By the time a law has been passed, a technological advance will have occurred that could leave the law ineffective. Another problem related to the challenge of the law keeping pace with technological advancement centers on those who draft and enforce the laws. The majority are older and have little familiarity with modern computer technology. A recent article in the Wall Street Journal legal blog highlighted this issue by focusing on questions asked by Supreme Court justices during oral arguments in a case regarding text messaging.[123] If those charged with drafting, enacting, and enforcing the law do not adequately understand the technology involved, effective laws will not be the result.

Besides state cooperation, another aspect of online communities that can lead to effective law enforcement is that nearly all online activity implicates the Commerce Clause, allowing Congress the power to regulate online criminal activity with federal laws. Congress has already addressed some problems with online communities with measures such as the PROTECT Act and the proposed Megan Meier Cyberbullying Prevention Act. Congress has also commissioned more studies into the effect that online communities can have on children. Last year, the Federal Trade Commission issued a report to Congress on the ability of underage children (those children who are not eligible under the TOS to enter into an online community) to access those communities.[124]

What about differences in the laws of different jurisdictions? While each state in the United States has their own distinct criminal code, in general most states criminal codes are

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[123] Ashby Jones, *Our Tech-Savvy Supreme Court*, WALL ST. J. LAW BLOG, Apr. 19, 2010, http://blogs.wsj.com/law/2010/04/19/our-tech-savvy-supreme-court/ (last visited Apr. 29, 2010).
[124] *FTC Reporting to Congress on Virtual Worlds, Kids, and Explicit Content*, VIRTUAL WORLD NEWS, May 8, 2009, http://www.virtualworldsnews.com/2009/05/ftc-reporting-to-congress-on-virtual-worlds-kids-and-explicit-content.html (last visited Apr. 29, 2010).

similar. However, when it comes to laws involving technology, states can have dramatically different views. For example, California, where Silicon Valley is located, may take a more lenient view on the liability of computer companies such as Linden Labs. All states do fall underneath the federal criminal umbrella, so federal cases should in theory be decided uniformly across the country. However, note the decision in *U.S. v. Drew*, where a California based judge ruled in favor of the defendant.[125] If interstate jurisdictional issues arise within the United States, once outside the borders of the United States, criminal codes can vary dramatically. What is illegal in one country may be legal in another. An excellent example is the different international philosophies about virtual child pornography. Images of virtual child pornography (virtual depictions using child avatars engaged in sexual acts) are illegal throughout most of Europe, but have so far been protected in the United States by the First Amendment right of free speech.[126]

The United States Supreme Court has recognized an exception to free speech protection of actual child pornography in *New York v. Ferber*, ruling in that case that depictions of child pornography were not protected by the First Amendment due to the important public interest of preventing sexual exploitation of minors.[127] But it has yet to carve out such an exception for virtual child pornography, going so far as to limit the constitutionality of the Child Pornography Protection Act of 1996 (CPPA) to cover only material that depicted actual children.[128] In *Ashcroft v. Free Speech Coalition*, the Court took up an issue that had divided the Circuit Courts – the constitutionality of the CPPA.[129] Prior to *Ashcroft*, the First, Fourth and Eleventh Circuits

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[125] *Drew*, *supra* note 63.
[126] Dean, *supra* note 4, at 2 (discussing legality of virtual child pornography in different international jurisdictions).
[127] *New York v. Ferber*, 458 U.S. 747 (1982).
[128] *Ashcroft v. Free Speech Coal.*, 535 U.S. 234 (2002).
[129] Sabryne Coleman, *You Only Live Twice: How the First Amendment Impacts Child Pornography in Second Life*, 29 LOY. L.A. ENT. L. REV. 193, 203 (2009) (discussing the Supreme Court's decision in *Ashcroft*)

had all upheld the CPPA, while the Ninth Circuit had ruled that is was not constitutional on the grounds of being overly broad.[130] In drafting the CPPA, Congress was reacting to the technological advancements of the Internet that made determining whether the act depicted portrayed actual children or virtual children (either adult actors portraying children or virtual images).[131] Specifically, the CPPA banned not only traditional child pornography as defined in *Ferber*, but also any pornography involving "such visual depiction is, or appears to be, of a minor engaging in sexually explicit conduct;".[132] The majority in *Ashcroft* found that virtual child pornography was distinguishable from actual child pornography – the Court relied on language in *Ferber* that recognized some works in the category of child pornography, specifically virtual images, had value under the First Amendment.[133] The majority also found that the rationale for prohibiting actual child pornography used in *Ferber* did not translate to virtual child pornography because no actual children were being harmed.[134] After being struck down by the Court, Congress amended the definition at issue to read "a digital image, computer image, or computer-generated image that is, or is indistinguishable from, that of a minor engaging in sexually explicit conduct;".[135] Several years after the decision in *Ashcroft*, the debate continues over whether the United States should consider virtual child pornography a crime.[136]

Another question to confront is whether or not the activity reported is even a crime. An example would be the crime of assault. Looking at the assault statute in New Jersey, a person is guilty of simple assault if they attempt to cause or purposely, knowingly or recklessly causes bodily injury to another; or negligently causes bodily injury to another with a deadly weapon; or

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[130] *Id* at 203 (discussing the circuit split over the constitutionality of the CPPA).
[131] Coleman, *supra* note 134, at 202 (discussing the motivation behind Congress's enaction of the CPPA).
[132] Child Pornography Protection Act, 18 U.S.C. § 2256(8)(B) (2000), amended by § 2256(8)(B) (Supp. 2003).
[133] *Ashcroft* at 251.
[134] *Id* at 250.
[135] See § 2256(8)(B)
[136] Coleman, *supra* note 134.

attempts by physical menace to put another in fear of imminent serious bodily injury.[137]

However, in an assault occurring in a virtual world, there technically is no "body" to injure.

Thus, under a strict interpretation of the New Jersey assault statute, a person could not commit

the crime of assault by engaging in a virtual assault. However, it has been argued by some that a

person's avatar acts as a virtual representation of the user, and thus if the avatar is assaulted

within the virtual world, the owner of the avatar is likewise assaulted due to the connection

between avatar and owner.[138] This question ties back in to the earlier discussions on both the law

keeping pace with technological advances and jurisdictional differences.

There has also been a great deal of discussion relating to the activity of virtual rape in

virtual worlds. Some consider it a crime due to the seemingly traumatic effect it has on the

victim − witness the emotional damage done to the victim of the LambdaMOO rape.[139] Others

have opined that it is not a real crime, since there is no actual physical harm, other than

psychological effects, to the victim.[140] This issue was debated intensely in several Internet

forums, including a well-known blog focused on legal issues that impact virtual worlds.[141] As

yet, there has been no official position taken, but Belgian police are stepping up their patrols in

Second Life as a response. Another example is the debate as to whether virtual sex with a child a

crime. Certainly, if the actual person on the real-world side of the account is a child, then the

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[137] N.J. STAT. ANN. § 2C:12-1 (West 2010).
[138] Assalone, *supra* note 102, at 181-182 (arguing that an attack on an avatar in-world should result in criminal liability in the real world).
[139] Sipress, *supra* note 58.
[140] Regina Lynn, Commentary, *Virtual Rape Is Traumatic, But Is It A Crime?*, WIRED, May 4, 2007, http://www.wired.com/culture/lifestyle/commentary/sexdrive/2007/05/sexdrive_0504 (last visited Apr. 29, 2010).
[141] Eloise Pasteur, *Virtual Rape Shakes the Blogosphere*, SECOND LIFE INSIDER, May 7, 2007, http://www.secondlifeinsider.com/2007/05/07/virtual-rape-shakes-the-blogosphere/ (last visited Apr. 29, 2010); Benjamin Duranske, *Reader Roundtable: "Virtual Rape" Claim Brings Belgian Police to Second Life*, VIRTUALLY BLIND, Apr. 24, 2007, http://virtuallyblind.com/2007/04/24/open-roundtable-allegations-of-virtual-rape-bring-belgian-police-to-second-life/ (last visited Apr. 29, 2010).

activity would fall under numerous child endangerment laws.[142] But what if the virtual child

being portrayed is actually controlled by an adult? Does that constitute a crime? One legal

scholar has opined that the rationale the Supreme Court used to protect virtual child pornography

also extends to virtual sex with a virtual child.[143] Further, the Supreme Court has recently

maintained that for a violation of the anti-child pornography PROTECT Act, an actual child, and

not just a virtual one, must be involved.[144] For now, it seems that in the United States, virtual

child sex is legal, so long as both participants are actually consenting adults. However, in

Germany, virtual child sex is punishable with prison terms up to five years possible.[145] The topic

is still up for discussion in other European prosecutorial jurisdictions as to whether virtual child

sex is an actual crime.[146]

CONCLUSION

While there are many challenges in how to handle online criminal activity, society has

always found a way to create answers to such challenges. Be it additional vigilance from users,

more participation by law enforcement, or additional laws in place to better address online

criminal activity, the world can and will adapt to the rise of criminal activity in online

communities. For online communities to continue to function effectively, these challenges must

be met. The biggest contribution will have to come from those with the most invested in these

online communities: the owners and the users. And if that holds true, then ultimately the

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[142] Robin Fretwell Wilson, *Sex Play in Virtual Worlds*, 66 WASH. & LEE L. REV. 1127, 1145-1162 (2009)
(discussing when, if ever, virtual sex involving a virtual child is a crime).
[143] *Id*. at 1166 (noting the Supreme Court's re-affirmation in *United States v. Williams* that an actual child be
involved for a violation of the PROTECT Act to have occurred).
[144] *United States v. Williams*, 553 U.S. 285, 2008.
[145] Wagner, *supra* note 96.
[146] James Cornelius, *Do a Virtual Sex Crime in Second Life, Do Real Time*, TECH.BLORGE, June 2, 2007,
http://tech.blorge.com/Structure:%20/2007/06/02/do-a-virtual-sex-crime-in-second-life-do-real-time/ (last visited
Apr. 29, 2010).

criminal activity will play only a minor role and law and order will rule within the communities, just as it does in most civilized societies within the real world. Craig Newmark, in addressing this very problem, said:

> "We started seeing this crap on our site years ago. Scams. Disinfo. But the amount of crookedness is not increasing all that much. A big lesson: People are overwhelmingly trustworthy and good. The proportion of bad guys grows lower and lower. I prefer to be cynical, but the motivating value system of most people is do unto others. And they're drowning out the bad guys online. People are OK."[147]

While Newmark was talking specifically about his website, Craigslist, his observation on the human spirit holds true no matter what online community is considered.   Just as in the real world, in online communities, the good of the many outweighs the deviance of the few.

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[147] Knowles, *supra* note 3.