"The Way I Felt": Creating A Model Statute to Address Sexual Offenses Which Utilize Virtual Reality

Ryan Esparza

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"THE WAY I FELT": CREATING A MODEL STATUTE TO ADDRESS
SEXUAL OFFENSES WHICH UTILIZE VIRTUAL REALITY

Ryan Esparza

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INTRODUCTION

The legal system has struggled to keep up with the advancement of the internet. Anonymity can make the internet a toxic place at times: in 2017 Pew Research found that four-in-ten adults have experienced harassment online. Online movements have formed where the sole purpose is to harass women in the online arena and those who are vocal against online harassment. Online interactions can be marred by racism, sexism, threats, and other offensive action on the part of users against other users. However, there is still a layer of separation between the online world and the real world. With the introduction of Virtual Reality (VR) headsets, like the Oculus Rift, PlayStation VR, and HTC Vive, this layer of separation begins to degrade. If this layer of separation starts to become unclear as the VR technology evolves, then the toxic interactions that occur online could become more personal. To the degree that these virtual experiences are distinct from those occurring in the real world, then these experiences become more personal and less distinguishable from a virtual experience.

Comb through the internet and you are bound to come across videos of people falling out of seats or tripping over themselves while utilizing VR headsets. Current VR technology arguably surpasses any technology currently available in terms of the level of interactivity they provide. The likely reason individuals are experiencing the reactions is that this interaction provides an experience that in the moment is hard to distinguish from physical world experiences. Difficulty in the ability to distinguish virtual and physical world experiences could lead the way for a new legal arena to develop. If harassing behavior becomes indistinguishable in both virtual and physical-world spaces, then the law has an obligation to adapt.

This Article argues that a legal standard must be developed in order to address sexual offenses in the emerging technological landscape of VR due to the increasing difficulty in distinguishing virtual and physical-world experiences. This Article proceeds in five parts. Part I details one of the first known recorded instances of a sexual offense occurring in VR and conducts an overview of current sexual offenses laws in New York, California, and Texas. Part II examines whether free speech is a valid defense to a possible criminal prosecution involving sexual offenses in the VR medium. Part III examines whether virtual sexual offenses trigger criminal liability in the physical world. Part IV addresses issues of online anonymity as a barrier to criminal liability and suggest methods of circumventing these issues. Finally, Part V details a model rule upon which states could readily adapt to address sexual offenses occurring in the virtual space.

I. BACKGROUND

a. The First Recorded Instance of a Sexual Offense in VR

Jordan Belamire was visiting her brother-in-law when she decided to utilize his new VR headset, the HTC Vive. Belamire, along with her husband and brother-in-law, each took


4 See id.

turns playing a VR game by the name of QuiVr. Upon entering the virtual world of QuiVr, Belamire admitted she had “never ... experienced virtual reality that felt so real.” Everything was beyond Belamire’s expectations and she was experiencing VR in a manner unprecedented to her before. There were drops equal to about one hundred feet in the game, so convincing that at the moment they even gave Belamire a sense of fear. After Belamire had fully experienced the game’s single-player mode, she decided to try QuiVr’s online multiplayer:

[O]ther players could hear me when I spoke, my voice the only indication of my femaleness. Otherwise, my avatar looked identical to them. In between a wave of zombies and demons to shoot down, I was hanging out next to Big-Bro442, waiting for our next attack. Suddenly, BigBro442’s disembodied helmet faced me dead-on. His floating hand approached my body, and he started to virtually rub my chest.

Belamire immediately shouted for the other player to stop, but this only caused the player to chase her around while continuing to grab at her avatars chest and shoving his hand towards her avatar’s virtual crotch and making rubbing motions. “The virtual groping [felt] just as real. Of course, you’re not physically being touched, just like you’re not actually one hundred feet off the ground, but it’s still scary as hell.” For Belamire, the high she had experienced while playing the game had disappeared, replaced with a sense of powerlessness. “I’ve been groped in real life, once in a Starbucks in broad daylight. I know what it’s like to happen in person. The shock and disgust I felt [in QuiVr] was not too far off from that.”

Belamire’s reactions to the virtual world in QuiVr are not uncommon. People who have experienced VR may have difficulty distinguishing experiences in the virtual and physical world. This could be due to VR being the closest the virtual world and the physical world have intersected with each other, which is why someone looking down at a virtual one-hundred-foot drop can experience apprehension. This blurring intersection might be why someone climbing a virtual mountain in VR might feel the sensation of falling when they miss a step. It might be why Belamire associated the same emotions of previous unconsensual sexual contact with what she experienced while playing QuiVr.

b. Defining Sexual Offenses by States

Categorizing sexual offenses in a uniform manner can be a difficult task because they vary from state-to-state. Some states are more encompassing with their protections while others treat what are categorized as sexual offenses in other states as non-sexual offenses. New York, California, and Texas are suffi-
ciently representative of sexual offense laws across the United States due to their ability to deviate but also converge on the requirement of various elements. The three states selected are also diverse enough from each other, based on a number of factors, and are more likely to provide an overview of how state legislatures have categorized various sexual offenses. Further, it is beneficial to examine how these states treat sexual offenses because, while existing laws in these states may not properly apply to sexual offenses in the virtual world, existing laws may be modified in order to address the type of sexual offense occurring in VR.

i. New York

In New York, the Penal Code defines sex offenses as a sexual act committed without the consent of the victim. The New York Code states that lack of consent may result from (i) forcible compulsion, (ii) incapacity to consent, (iii) where the offense charged is sexual abuse or forcible touching, (iv) “any circumstances, in addition to forcible compulsion or incapacity to consent, in which the victim does not expressly or impliedly acquiesce in the actor’s conduct,” or (v) where the charge is rape in the third degree. The charges of rape and criminal sexual act are the most serious sexual offenses according to the New York Penal Code. However, they would likely be the most difficult to apply to a virtual sexual offense due largely to the requirement of sexual intercourse for rape, and the requirement of oral sexual conduct or anal sexual conduct for Criminal Sexual Act charges.”

The New York Penal Code contains a sexual offense called forcible touching. It is the most applicable offense within the New York Penal Code related to a possible virtual sexual offense. There are two circumstances in which an actor may be guilty of this offense. First, an actor commits forcible touching when such person “intentionally, and for no legitimate purpose” forcibly touches, squeezes, grabs, or pinches the intimate parts of another. The purpose of touching is to degrade, or abuse said victim or in order to satisfy the actor’s own sexual desire.

Second, an actor commits forcible touching when such person subjects another to sexual contact for the purpose of satisfying the actor’s sexual desire and with the intent to “abuse or degrade such other person while such person is a passenger on a bus, train, or subway car operated by any transit agency, authority or company, public or private, whose operation is authorized by New York state or any of its political subdivisions.” In New York, forcible touching is a Class A misdemeanor which may carry a sentence of up to a year in prison.

ii. California

The California Penal Code, unlike the New York Penal Code, separates sexual offenses across its code. For example, rape is categorized under “Crimes Against the Person Involving Sexual Assault, and Crimes Against Public Decency and Good Morals,” while sexual battery is categorized under the chapter on Assault and Battery of “Crimes Against the

18 N.Y. Penal Law § 130.05(1) (McKinney 2018).
19 Id. § 130.05(a-b-d).
20 See § 130.25; see also § 130.30; § 130.35; § 130.40; § 130.45; § 130.50.
21 Id.
22 § 130.52.
23 Id.
24 Id.
25 Id.
26 See § 70.15; see also § 130.52.
Person. They like New York, rape would likely be difficult to apply to virtual sexual offenses due to the requirement of sexual intercourse being a core element to the crime. However, under the California Penal Code sexual battery may be more easily modified to address virtual sexual offenses.

Under the California Penal Code, sexual battery consists of five subdivisions. The first subdivision states that an actor is guilty of sexual battery if the actor touches an intimate part of another unlawfully restrained by the actor or their accomplice, and “if the touching is against the person’s will and is for the purpose of sexual arousal, sexual gratification, or sexual abuse.” The second subdivision maintains the same language but limits it to victims who are “institutionalized for medical treatment and who [are] seriously disabled or medically incapacitated.” The third subdivision maintains the language of the first subdivision, but is limited to victims who are unaware of the nature of the act because the actor committing the offense has fraudulently represented the purpose of the touching to be professional.

The fourth subdivision states that any actor who “for the purpose of sexual arousal, sexual gratification, or sexual abuse,” causes another to masturbate or touch an intimate part of “either of those persons or a third person” against that person’s will, is guilty of sexual battery. The fifth and final subdivision states that any actor who touches an intimate part of another person, against that person’s will, “for the specific purpose of sexual arousal, sexual gratification, or sexual abuse is guilty of . . . sexual battery.” The fifth subdivision of sexual battery is likely the most applicable to virtual sexual offenses but would require some modification to fully satisfy an offense in the virtual arena.

iii. Texas

The Texas Penal Code runs into the same issues listed previously for the other two states. Attempting to utilize the elements of sexual assault or rape for virtual sexual offenses is difficult due to the requirement of penetration. However, where New York and California had laws addressing groping, which could be readily adapted or modified to address virtual sexual offenses, Texas has no such law. Under Texas law, groping is not considered to be a sexual offense. Instead, groping in Texas is punishable as an assault offense, but the statute provides very little repercussions for a violation. Section 22.01(a)(3) is the only language within the penal code that could be interpreted to include groping; it states “a person commits the offense of assault if the person . . . intentionally or knowingly causes physical contact with another when the person knows or should reasonably believe that the other will regard the contact as offensive or provocative.” The maximum punishment a Class C misdemeanor carries in Texas is a $500 fine.

Texas takes a very different approach from other states because it does not address groping as a sexual offense like New York and California do. However, the language the Texas

28 Id.
29 § 261.
30 § 243.4.
31 Id.
32 Id.
33 Id.
34 Id.
37 Tex. Penal Code Ann. § 22.01.
38 Id.
39 See Whitney, supra note 36.
Penal Code uses for assault could be modified to address virtual sexual offenses. The overarching issue among all the states is the requirement of physical contact. Thus, a model standard would need to find a way to incorporate the non-physical in order to find success.

II. DOES FREE SPEECH PROTECT THESE ACTIONS FROM CRIMINAL PROSECUTION?

One possible argument which may be put forth by actors who engage in virtual sexual offenses is that their actions in the virtual world are merely an extension of speech. However, this argument is unlikely to succeed due to the advancement of criminal cyberstalking laws. In United States v. Moreland, the plaintiff brought a First Amendment challenge to a cyberstalking statute, 18 U.S.C. § 2261(A)(2) (B). Moreland argued that the statute’s prohibition of electronic communications caused substantial emotional distress and the statute could be utilized to prohibit protected speech such as heckling or “critical commentary that may be considered distressing to a particularly sensitive comedian, abortion provider, or politician.” The court disagreed with Moreland’s argument, holding that threats of violence can violate the statute without actual intent of carrying out the violence.

The same issue was addressed by the First Circuit Court of Appeals in United States v. Sayer. Sayer was convicted under a cyberstalking statute and brought a challenge against the conviction based on the First Amendment. Sayer argued that the cyberstalking statute was unconstitutional because it violated protected speech. Sayer posted pictures of his former girlfriend, “Jane Doe,” in lingerie in the casual encounter section of Craigslist after she broke up with him. The advertisement on Craigslist listed the ex-girlfriend’s home address and described a number of sexual acts she was willing to perform. This resulted in a number of men arriving at the ex-girlfriend’s home asking for sex.

Sayer then posted, on a number of pornography sites, videos of consensual sexual encounters between the two. Several of the websites included Jane Doe’s name and then-current Louisiana address. One site encouraged viewers to write to Jane Doe and tell her what they thought of the videos. The court rejected Sayer’s First Amendment challenge, holding that all of Sayer’s alleged communication and activity online were “integral to criminal conduct,” and the purpose of such conduct was to injure, harass, or cause substantial emotional distress making it unprotected free speech.

Moreland and Sayer demonstrate the court system’s recognition that forms of harassing speech, such as the speech utilized by the defendants in these two cases, can fall outside of First Amendment protection. This is a concept that the Supreme Court has reiterated. The Supreme Court acknowledges that mere emotionally distressing or outrageous speech

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41 Id. at 1227.
42 Id. at 1229.
43 748 F.3d 425, 427 (1st Cir. 2014).
44 Id.
45 Id.
46 Id. at 428.
47 Id.
48 Id.
49 Id.
50 Id.
51 Id.
is protected by the First Amendment.\textsuperscript{53} However, the Supreme Court has held that speech containing “true threats” is unprotected by the First Amendment.\textsuperscript{54} The Supreme Court has not defined what a “true threat” is and have instead left the interpretation to be defined by lower courts.\textsuperscript{55}

Some lower courts have defined “true threat” to mean a reasonable person would interpret the statement as constituting a serious expression.\textsuperscript{56} Other courts interpret “true threat” as:

1. the reaction of the recipient of the speech;
2. “whether the threat was conditional”; 
3. whether the speaker communicated the speech directly to the recipient;
4. whether the speaker “had made similar statements” in the past; and
5. whether the recipient “had reason to believe” the speaker could engage in violence.\textsuperscript{57}

Whether virtual sexual offenses fall within this “true threat” category may be irrelevant, because virtual sexual offenses may qualify as conduct as opposed to speech.\textsuperscript{58} Federal cyber harassment statutes do not prohibit protected speech; instead, it is conduct which they seek to prohibit; specifically, an intended and continuous course of conduct that causes substantial emotional distress.\textsuperscript{59} Virtual sexual offenses are likely to fall into this category because the offender’s conduct appears deliberate, as was apparent in Belamire’s experience in VR, and it is that conduct that is meant to cause substantial emotional distress.\textsuperscript{60}

The only potential concern is the requirement within cyber harassment laws that the conduct be continuous. Nevertheless, the continuous element could be addressed in a law crafted for virtual sexual offenses. Given the legal precedent the Supreme Court and lower courts have followed, any free speech argument against a potential virtual sexual offense law would be highly unlikely to succeed.

### III. Do Virtual Sexual Offenses Trigger Criminal Liability?

The single most important obstacle in the way of currently pursuing criminal charges against an offender of virtual sexual offenses is assessing whether criminal liability is triggered. Forty states have adopted laws punishing the unlawful distribution of intimate images, also known as revenge porn laws.\textsuperscript{61} Combating revenge porn was, and still is for states like New York that have no revenge porn law codified, a process where victims were required to find their own means of protecting themselves. One of these methods was to use copyright law.\textsuperscript{62}

First, the victim needs to register the copyright but that involves giving the Copyright Office a copy of what you will be registering.\textsuperscript{63} This means that sending the intimate pictures to the office is a requirement.\textsuperscript{64} Second, after the vic-

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\textsuperscript{53} Nancy Leong & Joanne Morando, Communication in Cyberspace, 94 N.C.L. Rev. 105, 131 (2015) (citing Snyder v. Phelps, 562 U.S. 443, 456 (2011)) (holding speech involving a public issue, even when causing emotional distress, was protected by the First Amendment).

\textsuperscript{54} Id. (citing Watts, 349 U.S. at 707-08 (1960)).

\textsuperscript{55} Id. at 131-32.

\textsuperscript{56} Id. at 131.

\textsuperscript{57} Id. at 132 n.129 (quoting Jones v. State, 347 Ark. 400, 420 (2002)).

\textsuperscript{58} Id.

\textsuperscript{59} Id. at 134-35.

\textsuperscript{60} Id. at 135.

\textsuperscript{61} 40 States and DC Have Revenge Porn Laws, Cyber Civil Rights Initiative, https://www.cybercivilrights.org/revenge-porn-laws/.


\textsuperscript{63} Id.

\textsuperscript{64} Id.
tim gains registration over their now-copyright-ed intimate images, they can issue a takedown notice via the Digital Millennium Copyright Act (DMCA).65 This method of addressing the issue of revenge porn was less than desirable, but for those states with no law addressing revenge porn, copyright remains one of the few means of combating revenge porn for victims.66

However, more states are readily adopting laws against revenge porn. Revenge porn laws remain an excellent illustration of how the legislative process has adapted to the evolution of technology and the potential misuse associated with such technological advances. Most notably is the use of the online sphere to commit questionable moral and legal acts. This is further displayed in the adoption of cyber harassment laws within the United States. Both the federal government and most states have currently adopted some form of cyber harassment laws.67 Cyber harassment laws and revenge porn laws are two examples where a gap in the law caused by the advancement of technology, notably the internet, has been addressed by the legislative body. However, when it comes to offenses that take place in the virtual world it may be difficult to apply criminal liability.68

Revenge porn laws link back to the non-consensual distribution of intimate images which have a direct effect on the non-virtual world that is readily traceable to an intent to harass the victim through public degradation, blackmail, social isolation, or professional humiliation.69 This is similar to cyber harassment laws, where there is still a distinct link back to the non-virtual world. This link to the non-virtual world may involve the conduct associated with the offense and its direct correlation to harm that the victim suffers via the virtual or online medium. With revenge porn and cyber harassment laws, the offender uses the internet or virtual medium as a means of causing harm to the victim in a quantifiable way.70

With virtual offenses, notably virtual sexual offenses, it may be harder to quantify the detrimental harm the victims suffer. A clear hypothetical is homicide. In VR, the murder of a virtual avatar is unlikely to result in death other than the avatar.21 “Even if actual death does ensue when an avatar dies, or if a user suffers a fatal coronary in response to the actions of another user, the evaluation of whether the incident is criminal homicide does not change just because it involves virtual acts.”72 If the person who causes the death meets the mens rea requirement to commit murder, then it could be possible to pursue such an act.23 Mens rea is not necessarily a concept that can be limited to the non-virtual world.74

66 Id. at 443.
70 The language utilized by several states for their revenge porn laws maintains core elements that appear to be uniform across several states. This includes the intent of the offender and the distress suffered by the victim. The virtual element of these laws is merely the distribution of the intimate images. See TEX. PENAL CODE ANN. § 21.16; CAL. PENAL CODE § 647(i)(4); see also 40 States and DC Have Revenge Porn Laws, CYBER CIVIL RIGHTS INITIATIVE, https://www.cybercivilrights.org/revenge-porn-laws/.
71 Seealgy, supra note 68, at 421.
72 Id.
73 Id.
74 Id.
For example, user-a is aware that user-b has a weak heart, and user-a subjects user-b to an extreme phobia. With the added realism associated with VR, the result could be death. The actions of user-a “might be considered negligent or reckless” or, under other circumstances, deliberate.\textsuperscript{25} There is an abundance of instances where causing a heart attack has been enough to convict an individual of homicide and, presuming the prosecution proves both cause and effect, a homicide conviction can be justified based on death by a heart attack caused by stress from actions of the defendant.\textsuperscript{26}

Based on this reasoning, there is a possibility of foreseeing a similar type of conviction coming from an incident occurring via VR. The avatar itself is not the concern; there is not a concern if an avatar dies or is hurt. The concern is the human associated with the avatar, especially for VR where the line between virtual and non-virtual becomes less extreme. With that said, for homicide at least, current laws do not necessarily have to be adjusted. There are foreseeable instances where you could argue under current law that a VR homicide is possible. If someone meets the requirements for such a crime utilizing VR then they can be charged, similar to people who are charged with homicide crimes when victims die of a heart attack.

However, with virtual sexual offenses, this becomes more complicated. As was apparent above in the examination of the state penal codes of New York, California, and Texas, fitting virtual sexual offenses under non-virtual sexual offense state laws may be difficult because of the requirement of physical touching and contact.\textsuperscript{27} Currently, the way the laws are written it would be unlikely that virtual sexual offenses would meet the requirements a lot of sexual offense laws have put forth. For instance, where the homicide involved a heart attack, experts are often brought in to testify as to the likely cause, and in some instances detailing the link between the action on the part of the offender and the result of the heart attack.\textsuperscript{28} Perhaps this same method could be utilized by bringing in an expert to detail the experience of the victim, and the effect on the victim. However, the requirement of touch or physical contact would still be an issue, so it is unlikely that, currently, virtual sexual offenses meet the requirements for criminal liability.

\section*{IV. How to Address the Issues of Anonymity?}

If virtual sexual offenses carry the necessary requisite criminal liability, then the most significant issue the legal system will face with these cases is the issue of anonymity. It has long

\textsuperscript{25} See Baraka v. Kentucky, 194 S.W.3d 313, 316-17 (Ky. 2006) (citing People v. Stamp, 82 Cal. Rptr. 598, 602-03 (Cal. Dist. Ct. App. 1969) (affirming conviction of felony murder where pathologist testified that severe stress experienced during robbery by defendant caused victim’s fatal heart attack); Maynard v. State, 660 So. 2d 293, 296 (Fla. Dist. Ct. App. 1995) (upholding conviction of manslaughter where defendant’s physical assault of victim produced no discernible physical injuries but victim died of heart attack, and medical examiner testified that the altercation caused the fatal heart attack); Gromartie v. Georgia, 620 S.E.2d 413, 416 (Ga. 2005) (affirming conviction of vehicular homicide where intoxicated driver struck pedestrian who died of heart attack, and medical examiner testified that collision “directly and materially contributed” to pedestrian’s death); North Carolina v. Atkinson, 250 S.E.2d 858, 864 (N.C. 1979), overruled on other grounds by North Carolina v. Jackson, 273 S.E.2d 666 (N.C. 1981) (upholding conviction of felony murder where medical examiner testified that victim died of heart attack and that injuries and stress caused by defendant’s assault of victim contributed to and accelerated victim’s death).

\textsuperscript{26} Id.

\textsuperscript{27} See N.Y. Penal Code § 130.52; CAL. PENAL CODE § 243.4; TEX. PENAL CODE ANN. § 22.01.

\textsuperscript{28} See Atkinson, 259 S.E.2d at 864.
been established that the First Amendment protects the right to speak anonymously.\textsuperscript{79} Further, anonymity is a concept that the Supreme Court seeks to protect and through several decisions has reiterated the desire to uphold historical anonymous advocacy and dissent.\textsuperscript{80} However, as mentioned above, freedom of speech is not absolute, and the same limitations are associated with the right to remain anonymous.\textsuperscript{81} As the internet increased in popularity, subpoenas to unmask anonymous internet users increased.\textsuperscript{82} Over time, concern arose among courts regarding potential misuse of these subpoenas which could be used to harass or intimidate,\textsuperscript{83} which is ironic because anonymity on the internet has been used as a tool to harass and intimidate. If legislatures and courts want to make strides in the treatment of virtual sexual offenses, then the issues of online anonymity will have to be addressed.

\textbf{a. Anonymous Users Online}

Currently, the process of finding out the identities of anonymous users is fairly extensive.\textsuperscript{84} Investigators first need to seek out a computer forensics specialist to trace a user’s account to their real identity via their Internet Protocol (IP) address.\textsuperscript{85} Identification through an IP address will likely be successful a majority of the time, due to the average users not having the knowledge or ability to readily misrepresent or hide their IP address. Notably, some services which are vital to the use of VR purposely state in their terms of use that it is a violation of their terms to hide or give a false IP address via a proxy.\textsuperscript{86} Further, some services used to hide IP addresses still maintain a user’s IP address, making it possible to still trace user’s real identity with minimal effort.\textsuperscript{87} However, the process of identifying anonymous users increases in difficulty if more advanced steps are taken to hide the IP address.\textsuperscript{88}

There are two methods which may be utilized to hide an IP address, proxies and Virtual Private Networks (VPNs).\textsuperscript{89} A proxy server makes it appear that your internet activities are coming from somewhere else in the world. It is useful for tasks which require hiding an IP address, like circumventing region blocks.\textsuperscript{90} However, proxies do not encrypt the data between a person’s computer and the proxy server.\textsuperscript{91} This means that by examining the stream of data it is possible to determine a user’s identity.\textsuperscript{92} VPNs work similarly to proxies in that they also give the appearance of a remote IP address, but the stream of data runs through an encrypted route.


\textsuperscript{81} \textit{Id.} at 839.

\textsuperscript{82} \textit{Id.} at 844.

\textsuperscript{83} \textit{Id.}

\textsuperscript{84} Seralathan, \textit{supra} note 67, at 429.

\textsuperscript{85} \textit{Id.}

\textsuperscript{86} Steam is the largest digital distribution platform for PC gaming and is estimated to have 75\% of the digital market space. The digital market place is growing in popularity and represents a little less than 20\% of the global market, a number which continues to grow. \textit{See Steam Subscriber Agreement, Valve Corp.}, https://store.steampowered.com/subscriber_agreement/; \textit{see also} Cliff Edwards, \textit{Valve Lines Up Console Partners in Challenge to Microsoft, Sony}, BLOOMBERG (Nov. 4, 2013), https://www.bloomberg.com/news/articles/2013-11-04/valve-lines-up-console-partners-in-challenge-to-microsoft-sony.


\textsuperscript{88} Seralathan, \textit{supra} note 67, at 429-30.

\textsuperscript{89} Fitzpatrick, \textit{supra} note 87.

\textsuperscript{90} \textit{Id.}

\textsuperscript{91} \textit{Id.}

\textsuperscript{92} \textit{Id.}
before reaching the internet.\textsuperscript{93} They can prevent Internet Service Providers (ISPs) from accessing the information between a user’s computer and the VPN server.

However, VPNs are not without their downsides. To utilize VPNs properly, individuals will need good hardware to handle the task.\textsuperscript{94} In addition, users of VPNs are likely going to have to pay to utilize the service. This also means that VPNs do not completely protect identity, as law enforcement agencies can still contact VPN providers to request they provide any records they hold on VPN servers or agencies and could attempt to get a warrant to gain this information.\textsuperscript{95} Nevertheless, users of VPNs are still not a significant concern due to only 17\% of the total internet users in North America and Europe utilizing VPNs, though in territories with more restrictive internet censorship this number is higher.\textsuperscript{96}

While these tasks are often time-consuming and absorb resources, it is possible in most cases to eventually find the identity of an individual online. In fact, law enforcement agencies still maintain the power to obtain warrants to find anonymous identities of users online.\textsuperscript{97} The government needs to confirm there is probable cause in the unveiling of the identity, but once probable cause is shown agencies can serve them on ISPs. The issue with this method is the amount of time and resources law enforcement agencies must allocate.\textsuperscript{98} It can sometimes be unclear which ISP to serve the court order on, and often agencies must go from ISP to ISP before they determine the correct one to begin the legal process.\textsuperscript{99} A relatively recent concept law enforcement agencies are seeking to implement is serving Regional Internet Registries (RIRs) who allocate IP addresses to ISPs.\textsuperscript{100} It is a concept that RIRs are receptive to, and it could lead to cooperation between law enforcement and RIRs more readily.\textsuperscript{101} This would allow for a more streamlined process, saving time and resources.\textsuperscript{102}

Other methods are also available to reveal the identity of an anonymous user on the internet.\textsuperscript{103} The FBI, through a search warrant, can utilize malware developed by the agency to discover the identity of an anonymous user.\textsuperscript{104} Further, the FBI has used the “watering hole method” to find the identity of anonymous users.\textsuperscript{105} This “watering hole method” involves placing malware on a website where mere con-

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\textsuperscript{93} \textit{Id.}
\textsuperscript{94} \textit{Id.}
\textsuperscript{95} \textit{See, e.g.,} Mark Kaufman, \textit{This Cyberstalker’s Takedown Proves No One Stays Anonymous on the Web}, \textit{Mashable} (Oct. 10, 2017), https://mashable.com/2017/10/10/cyber-stalker-arrest-no-more-online-anonymity/#Txq_sF4DFMqq (discussing an example of law enforcement retrieving records from a VPN programming company).
\textsuperscript{97} \textit{See, e.g.,} Michele Meyer McCarthy, Annotation, \textit{Right of Corporation, Absent Specific Statutory Subpoena Power, to Disclosure of Identity of Anonymous or Pseudonymous Internet User}, 120 A.L.R.5th 195 (2004) (outlining how various courts have established a four-part test to determine when a plaintiff in a civil suit is permitted to subpoena internet services providers to disclose the identity of anonymous users).
\textsuperscript{99} \textit{Id.}
\textsuperscript{100} \textit{Id.}
\textsuperscript{101} \textit{Id.}
\textsuperscript{102} \textit{Id.}
\textsuperscript{104} \textit{Id.}
\textsuperscript{105} \textit{Id. at} 740.
nection to the site results in the installation of the malware onto the computer. This demonstrates that there are very little, if any, true anonymous methods to hide from authorities. The only limitation is the amount of time and resources a law enforcement agency wishes to dedicate to cybercrimes of varying severity.

b. Investing in Computer Crime Investigation

As mentioned above, the process of identifying anonymous users can be very time consuming and requires training. Further, cooperation with outside investigative agencies increases costs significantly. This may be why cyber harassment laws are somewhat underenforced; often the punishments associated with the offenses do not justify the resources used. Some jurisdictions have computer crime departments while other jurisdictions do not; however, there seems to be a lack of adequate training in how to deal with cybercrimes across jurisdictions. The key to progressing enforcement of these laws successfully is to dedicate the proper resources and finances to train and provide agencies with the proper resources to investigate cybercrimes. If a cybercrime is a misdemeanor, there is likely less incentive for agencies to dedicate time and money to uncover the identity of an anonymous internet user as opposed to one who has committed a significant felony.

The most significant step to address the issue of anonymity and criminal activity is the need for dedicated resources just for cybercrimes. If cities and states had dedicated departments to investigate these crimes, then it could make strides in how these laws are treated. It is better to start dedicating the resources now because cybercrimes are growing every year, and eventually they could make up an even more significant section of crime. At that point, law enforcement agencies, local, state, and federal, are going to want to have the resources already in place to investigate these crimes with full dedication. Resource allocation among law enforcement agencies will need to be addressed if virtual sexual offenses are to be criminalized, because if not they are likely to be underenforced in the same manner cyber harassment laws currently are.

V. CRAFTING A STANDARD

VR technology has advanced to a degree that causes users to react to stimuli as if they were experiencing the event in everyday life. In fact, technology within the VR industry is quickly advancing with full-body suits making progress to incorporate touch-based sensory feedback along with the normal 360-degree visual and audio experience the technology provides. VR does not appear to be an area of technology that is slowing down with advancement and it is more interactive in the experience it provides to the user than any technology before it. The online gaming arena appears to be a more volatile place for women, though men are also targets. If you take the hostile

106 Id. at 740-41.
107 Seralathan, supra note 67, at 429.
108 Id.
110 Id.
112 In 2012, Anita Sarkeesian announced a kick-start for a series looking at sexism in video games. Sarkeesian was met with anonymous and non-anonymous rape and death threats. This was followed by similar internet mob attacks on women in the video game industry. Zoe Quinn, developer of the game Depression Quest, found herself the target of numerous rape and death threats.
environment in some areas of the internet, in combination with the level of interactivity VR provides, it becomes unlikely that Belamire’s experience with virtual groping will be the last.

Traditionally, criminal law has been utilized to punish crimes that involve tangible property or physical injury to the body. Psychological harm was rarely addressed, but over time nonphysical harm has become more readily criminalized, like harassment or bullying. Some neuroscientists theorize that developments in science “will enable visualization of psychological harms, reducing or eliminating the distinction between bodily harm and psychological damage.” This could mean that the gap between physical and psychological injury might be narrowed, which allows for the overt distinction criminal law has established between the two to diminish.

According to Belamire, her experience of virtual groping did not feel dissimilar to other sexual offenses she was exposed to in her life. This is where a model statute could benefit the criminal law system. Current sexual offense laws require some form of physical contact, thereby not addressing psychological harm induced by virtual sexual offenses. Science acknowledged that the gap between the physical harm and psychological harm can be indistinguishable. As VR technology advances, criminal law will need a model statute which fills in the gaps of current sexual offense laws.

**a. Federal or State**

In determining whether the statute should be applied on the state level or the federal level, it is necessary to examine the advantages and disadvantages of both. At the federal level, there are already existing cyber laws that would be somewhat similar to a potential virtual sexual offense law. The problems with federal enforcement of cyber laws is that federal agencies often lack the resources to address most cyber cases. Unless the matter relates to national security, federal agencies tend to put these crimes on the backburner. Often, federal agencies can only address the most serious crimes but are well-trained in the investigation and handling of cybercrimes.

At the state level, law enforcement agencies often lack the funding and familiarity with technology to properly handle cybercrimes. Law enforcement at the state level also often lack the proper training to investigate such crimes. However, if properly trained, state agencies could potentially address the crimes that the federal government simply leave behind because they wish to dedicate their resources to more serious crimes. It is difficult to say one path would be better than the other because state and federal agencies both have benefits and downsides.

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113 See Supra note 68.
114 Id.
115 Id.
116 Citron, supra note 112, at 5.
117 Id.
118 Id.
119 Id.
120 Id.
If it were possible, the best route may be a statute that could be adopted on both levels, allowing for modification where states and the federal government see fit. However, if proper training can be provided to state and local law enforcement then adopting the statute on the state level would be optimal. Federal law enforcement does seem to be more concerned with far more serious crimes involving national security. It becomes more difficult to foresee federal agencies making this a priority, but states can dedicate resources to ensure that state and local law enforcement receive the proper training to handle cybercrime cases on a smaller scale.

b. Mental Health Expert

For a proposed statute, and for the purposes of investigation, the most difficult task will be determining if psychological harm has occurred. One potential method to address this is having a mental health expert, a psychologist or psychiatrist, examine the victims and make a diagnosis. As mentioned above in Part III, experts have been used in homicide cases where the cause of death was a heart attack.\(^\text{121}\) The experts then comment on whether the defendant was ultimately the cause of said heart attack.\(^\text{122}\) Theoretically, the same could be achieved with virtual sexual offenses.

A mental health expert would be able to provide the proper context to what the victims are experiencing.\(^\text{123}\) Further, a psychologist can already be appointed by a court to make a diagnosis or recommendation at a judge’s request.\(^\text{124}\) Ideally, this could be a potential avenue for gaining probable cause to obtain warrants to get through anonymity issues. It could tie into other aspects of the investigation that law enforcement agencies would need to conduct, and it would allow for an expert to converse with the victim. This would allow for a potential determination as to whether the victims have experienced significant mental harm from the experience. Ultimately, it may allow law enforcement agencies to dedicate resources in other areas of the investigation, leading to a potential streamlining of the process.

c. A Proposed Model Statute

Sec. [insert]. UNCONSENSUAL VIRTUAL SEXUAL TOUCHING. (a) A person commits the offense of unconensual virtual sexual touching if the person via VR interaction:

(a) Intentionally or knowingly, touches the sexual or other intimate parts of an avatar without the consent of the user for the purpose of degrading or abusing the avatar’s user; or,

(b) Intentionally or knowingly, touches the sexual or other intimate parts of an avatar without the consent of the user for the purpose of sexual arousal or sexual gratification.

(c) As used in this section, the following terms have the following meanings:
   a. “Touching” means contact with another person’s avatar;
   b. “Sexual parts” and “intimate parts” mean sexual organs, anus, groin, or buttocks of any person, and the breast of a female.

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\(^{121}\) Baraka v. Kentucky, 194 S.W.3d 313, 313 (Ky. 2006).

\(^{122}\) Id.


\(^{124}\) Id.
c. “VR” means a computer-generated environment which allows for the interaction of users via headsets, directional treadmills or other like products meant to provoke an illusion of reality.

d. “Avatar” means the virtual representation of a user.

(d) A violation of this law is punishable by imprisonment for no more than [insert], and by a fine not exceeding [insert].

**d. Structure of the Model Statute**

The model statute has been crafted utilizing key elements between the laws mentioned in Part I. The model statute itself is a combination of the current groping laws New York, California, and Texas. The reason behind this is that they all have elements that need to be present in a model virtual touching statute. Texas’ law provides a simple mens rea requirement: that the offender must act intentionally or knowingly. This is beneficial because it shows purpose behind the potential offense. Intentionally or knowingly are also the proper requirement because it helps to demonstrate that virtual sexual offenses must be done deliberately by the offender. Recklessly was also included in the Texas law, but in a virtual space, it is more difficult to say someone acted recklessly because they are controlling the actions of their avatar. For this reason, it was left out of the model statute.

New York’s law contains language which focuses on the forcible requirement, meaning the lack of consent. This, of course, needs to be in any model statute for a sexual offense because if there is full consent, that is not revoked at any point, then there is no sexual offense. Further, it addresses the purpose behind the offender’s actions as an element of the crime. It helps to say the offender either must be committing the crime for sexual gratification or to degrade the user through their avatar. Those are two instances where there is more desire to likely protect victims and punish offenders. It ties in well with the intent of the offender. California’s law details the potential punishment an individual could face for the violation of the statute. This is likely an area where states would have a lot of options in terms of how the potential crimes are treated. Based on other sexual touching laws, it is more likely that they will fall into the misdemeanor category. Further, California’s law also provides a helpful list of definitions to convey the proper meaning of the words within the law and attempt to avoid misconceptions. One of the most significant issues with current sexual touching laws is the definition of touching because it limits the application to non-virtual sexual offenses, though the psychological harm from such an event may be present.

**Conclusion**

VR technology is advancing very quickly and if governments do not take steps to address an issue that is on the horizon, they may be caught off guard. Current VR technology surpasses any technology currently available in terms of interactivity. VR is creating an environment where people are not at risk of actual harm, but the stimuli from VR can trigger sensations or emotions because at the moment it can be difficult for the brain to distinguish

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126 Tex. Penal Code Ann. § 22.01.
127 N.Y. Penal Code § 130.52.
128 Id.
130 Id.
between virtual and non-virtual. While this might not be a problem if you are experiencing a temporary inability to distinguish when you are falling off a virtual mountain or riding a virtual rollercoaster with all its twists and turns, virtual sexual offenses seem different. It seems like unlike stimuli which go away after the VR headset comes off, virtual sexual offenses can stick with the user. Perhaps this is because the other experiences remain still somewhat separated from the user. Virtual sexual offenses are very much targeted against a specific person, as opposed to falling off a virtual mountain which is not seeking to cause a reaction besides a potential thrill. The intention is not to hurt the user or degrade them in any way.

Instead, virtual sexual offenses are an experience that could be traumatic, especially for those who have experienced sexual assault or other sexual offenses in the real world. The purpose is to hurt and degrade the user, so it makes it much more harmful than the scenario where someone is falling from a virtual mountain. The internet, especially in the gaming world, can be a hostile place when it comes to gender and race. This is not universal of the entire community, but this hostility is present within gaming. It makes it more likely virtual sexual offenses may occur. If states want to be ahead of a potential issue, then adopting a standard like the one proposed in this Article is a step states can take. VR technology is likely to advance further and blur the line between the virtual and non-virtual world further. It is also unlikely that the internet will become a less hostile place. Having a law in place when a new area of crime is beginning to emerge helps the victims. It makes them feel as if there is recourse. If governments want to be ahead of the issue and give potential victims the knowledge that they are entitled to some form of justice, then the reaction should be to adopt the proper statutes to give them justice.
ABOUT THE AUTHOR

Ryan is a 2018 graduate of the University of Mississippi School of Law. During his time in law school, he developed a particular scholarly interest in Intellectual Property law and International law which has culminated into multiple journal publications focused in these areas. When not writing about law, Ryan spends his time fishing on the Gulf Coast and enjoying the best of Austin, TX where he currently resides.