

Sexual Assault in Immersive Virtual Reality: Criminal Law Must Keep Up with Technology

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Abstract

The rise in popularity of virtual reality (VR), spurred further by the COVID-19 pandemic, has led to a concerning increase in reports of virtual sexual assault. Under the current criminal justice system, however, virtual sexual assault is not considered a crime as there is no “real” physical contact. In this article, I argue that since immersive VR tricks users into thinking that their virtual experience is real, virtual sexual assault still feels like “real” sexual assault and has real negative psychological consequences. As providers of VR platforms are failing to confront virtual sexual assault effectively, it is imperative that legislators establish proper VR criminal law to make the virtual world a safer place for everyone.

Virtual reality (VR) has seen a significant rise in popularity in recent years. Since the introduction of commercial VR headsets in 2016, such as Oculus Rift, PlayStation VR, and HTC Vive, VR technology has continued to develop rapidly, blurring the boundary between the real world and the virtual world.¹ Users strap on a headset that shuts them off from the real world and puts them in a virtual environment. Through the use of personalized avatars, users interact with the virtual environment from a first-person perspective. The goal of this immersive virtual experience is to trick users into thinking that their experience inside the headset is real. Nowadays, VR is utilized not only for gaming and entertainment but also for a wide range of other purposes, such as education, health care, retail, and real estate, providing users with an enhanced remote experience.² The adoption of VR technology has been spurred further during the COVID-19 pandemic to reduce physical interaction and maintain social distancing.³ However, while VR is becoming more common, our legal system has not kept up to prevent and punish misconduct in VR.

Unfortunately, sexual assault in the virtual world is not uncommon. Virtual sexual assault, according to Dr. John Danaher at the National University of Ireland Galway School of Law, is “unwanted, forced, or nonconsensual sexually explicit behavior performed by virtual characters, to one another, acting through representations in a virtual environment.”⁴ Anecdotal reports of virtual sexual assault are abundant. A few months ago, *The New York Times* reported that a woman named Chanelle Siggins had been virtually groped and ejaculated on while playing

¹ Signe Brewster, “[Behind the Numbers of Virtual Reality’s Sluggish Debut](#),” *MIT Technology Review*, December 30, 2016.

² Wendy Gonzalez, “[How Augmented and Virtual Reality Are Shaping a Variety of Industries](#),” *Forbes*, July 2, 2021.

³ Sergei Vardomatski, “[Augmented and Virtual Reality After Covid-19](#),” *Forbes*, September 14, 2021.

⁴ John Danaher, “[The Law and Ethics of Virtual Sexual Assault](#),” in *Research Handbook on the Law of Virtual and Augmented Reality*, edited by Woodrow Barfield and Marc J. Blitz (Cheltenham: Edward Elgar Publishing, 2018), 366.

her favorite shooter game, [Population One](#), using Oculus Quest.⁵ A beta tester of Meta's VR social platform, [Horizon Worlds](#), also posted in the beta testing group on Facebook about how she was sexually harassed.

Sexual harassment is no joke on the regular Internet but being in VR adds another layer that makes the event more intense. Not only was I groped last night, but there were other people there who supported this behavior which made me feel isolated in the Plaza.⁶

The problem of virtual sexual assault has existed as long as virtual communities have existed.⁷ In October 2016, only a few months after commercial VR became widely available, a female gamer of the pseudonym Jordan Belamire described in detail on *Medium* how she had been virtually groped while playing an archery game, [QuiVr](#), using HTC Vive.

In between a wave of zombies and demons to shoot down, I was hanging out next to BigBro442 [the screen name of another player], 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. "Stop!" I cried. [...] even when I turned away from him, he chased me around, making grabbing and pinching motions near my chest. Emboldened, he even shoved his hand toward my virtual crotch and began rubbing.

Belamire recounted, "The virtual groping feels just as real. Of course, you're not physically being touched [...] but it's still scary as hell."⁸ In an interview with CNN, Belamire said, "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."⁹ According to a survey of regular VR users conducted by behavioral researcher Jessica Outlaw in 2018, of 609 respondents, 36 percent of male and 49 percent of female users reported having experienced at

⁵ Sheera Frenkel and Kellen Browning, "[The Metaverse's Dark Side: Here Come Harassment and Assaults](#)," *The New York Times*, December 30, 2021.

⁶ Will Duffield, "[A Grope in Meta's Space](#)," *Techdirt*, December 28, 2021.

⁷ Tanya Basu, "[The Metaverse Has a Groping Problem Already](#)," *MIT Technology Review*, December 16, 2021.

⁸ Jordan Belamire, "[My First Virtual Reality Groping](#)," *Medium: Athena Talks*, October 20, 2016

⁹ Sara Ashley O'Brien, "[She's Been Sexually Assaulted 3 Times—Once in Virtual Reality](#)," *CNN*, October 26, 2016.

least one instance of virtual sexual harassment, such as being groped, stalked, catcalled, shown a lewd picture, or hearing a sexually explicit comment.¹⁰

Under the current legal system, however, virtual sexual assault is not considered a crime as there is no “real” physical touching or contact.¹¹ Since sexual offense laws vary from state to state in the United States, I examined the Penal Code of three states, namely California, Texas, and New York, in search of the criminal law that is most likely to be applicable to virtual sexual assault. According to the California Penal Code, under Assault and Battery, “Any person who touches an intimate part of another person, if the touching is against the will of the person touched, and is for the specific purpose of sexual arousal, sexual gratification, or sexual abuse, is guilty of misdemeanor sexual battery.”¹² The Texas Penal Code contains a sexual offense called Indecent Assault:

A person commits an offense if, without the other person’s consent and with the intent to arouse or gratify the sexual desire of any person, the person:

- (1) touches the anus, breast, or any part of the genitals of another person;
- (2) touches another person with the anus, breast, or any part of the genitals of any person;
- (3) exposes or attempts to expose another person’s genitals, pubic area, anus, buttocks, or female areola; or
- (4) causes another person to contact the blood, seminal fluid, vaginal fluid, saliva, urine, or feces of any person.¹³

The New York Penal Code also contains a sexual offense called Forcible Touching:

A person is guilty of forcible touching when such person intentionally, and for no legitimate purpose:

1. forcibly touches the sexual or other intimate parts of another person for the purpose of degrading or abusing such person, or for the purpose of gratifying the actor’s sexual desire; or

¹⁰ Jessica Outlaw, “[Virtual Harassment: The Social Experience of 600+ Regular Virtual Reality \(VR\) Users](#),” *The Extended Mind*, April 4, 2018.

¹¹ Mark A. Lemley and Eugene Volokh, “[Law, Virtual Reality, and Augmented Reality](#),” *University of Pennsylvania Law Review* 166 (2018): 1083.

¹² CALIFORNIA PENAL CODE § 243.4 (e).

¹³ TEXAS PENAL CODE § 22.012 Indecent Assault.

2. subjects another person to sexual contact for the purpose of gratifying the actor's sexual desire and with intent to degrade or abuse such other person while such other 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.¹⁴

These behaviors that would constitute a crime in the real world, however, do not qualify as a crime in the virtual world under current criminal law in the United States.

Even though there is no “real” physical touching or contact involved, sexual assault experienced in VR can have real negative psychological consequences. At the 2016 Game Developers Conference, game designer Patrick Harris presented video footage of his ethically questionable experiment, in which he sexually harassed a female player while playing a VR game. The female player, who entered the game unsuspectingly, exhibited “palpable discomfort” and expressed that “it was ‘a damaging experience.’” Harris concluded that “harassment is ‘way, way, way worse’ in VR.”¹⁵ This is because VR provides a visceral experience of immersion that other media cannot. Due to this visceral feeling created by VR, virtual sexual assault can be highly traumatic for victims, as seen in Belamire’s experience.¹⁶ Belamire wrote, “The public virtual chasing and groping happened a full week ago and I’m still thinking about it.”¹⁷ The beta tester who was sexually assaulted on Meta’s Horizon Worlds also reported:

Even though my physical body was far removed from the event, my brain is tricked into thinking it’s real, because.....you know.....Virtual REALITY. We can’t tout VR’s realness and then lay claim that it is not a real assault.¹⁸

As technology develops, VR will only feel more visceral, and in turn, virtual sexual assault will only feel more like “real” sexual assault. Furthermore, advancements in haptic technology, that

¹⁴ NEW YORK PENAL CODE § 130.52 Forcible Touching.

¹⁵ Allegra Frank, “[Online Harassment in Virtual Reality Is ‘Way, Way, Way Worse’—But Can Devs Change That?](#),” *Polygon*, March 16, 2016.

¹⁶ Lemley and Volokh, “Law, Virtual Reality, and Augmented Reality,” 1083.

¹⁷ Belamire, “My First Virtual Reality Groping.”

¹⁸ Duffield, “A Grope in Meta’s Space.”

is, technology that creates touch-like sensations in VR, will make virtual sexual assault feel even more real and damaging to victims.¹⁹

In order to avoid virtual sexual assault, it is most commonly recommended that users simply take off their VR headsets. That is, Belamire could have just taken off her headset to escape from the virtual sexual assault. Some further argue that virtual sexual assault should not be taken seriously since it is much easier to get away from sexual assault in VR than it is to get away from sexual assault in the real world.²⁰ However, this solution to virtual sexual assault infringes on users' freedom and autonomy to characterize their own experiences within the virtual world.²¹ As VR is becoming more mainstream, it is unfair to insist that users flee from the virtual environment whenever things start to get uncomfortable, forgoing the opportunities that come with the virtual world.²² Furthermore, even though a victim in the virtual world has the ability to resist or escape, they may fail to do so out of fear or hesitancy, as is the case with some victims in the real world. Even if a victim escapes, psychological harm may still last from the virtual experience. More importantly, a victim's ability to remove themselves from the situation does not change the culpability of the perpetrator.²³ The moral onus should fall on the perpetrator, not the victim.²⁴

Some also argue that misconduct, including sexual assault, in VR should be regulated by the providers of VR platforms rather than the criminal justice system. Professor Orin Kerr at the UC Berkeley School of Law contended that "[c]riminal law generally should take a hands-off

¹⁹ Madelaine Ley and Nathan Rambukkana, "[Touching at a Distance: Digital Intimacies, Haptic Platforms, and the Ethics of Consent](#)," *Science and Engineering Ethics* 27 (2021): 63.

²⁰ Lucy A. Sparrow, Madeleine Antonellos, Martin Gibbs, and Michael Arnold, "[From 'Silly' to 'Scumbag': Reddit Discussion of a Case of Groping in a Virtual Reality Game](#)" (paper presented at The International Digital Games Research Association Conference 2020: Play Everywhere, Tampere, Finland, June 2–6, 2020).

²¹ Mary Anne Franks, "[The Desert of the Unreal: Inequality in Virtual and Augmented Reality](#)," *UC Davis Law Review* 51 (2017): 528.

²² Danaher, "The Law and Ethics of Virtual Sexual Assault," 386.

²³ Joshua Hansen, "[Virtual Indecent Assault: Time for the Criminal Law to Enter the Realm of Virtual Reality](#)," *Victoria University of Wellington Law Review* 50 (2019): 66–67.

²⁴ Danaher, "The Law and Ethics of Virtual Sexual Assault," 386.

approach to virtual misconduct.”²⁵ He asserted, “Virtual worlds at bottom are computer games, and games are artificial structures better regulated by game administrators than federal or state governments.”²⁶ In fact, when virtual sexual assault has arisen on VR game platforms, the providers of these platforms have tried taking measures to thwart it. In response to Belamire’s article, QuiVr developers Henry Jackson and Jonathan Schenker wrote:

[W]e’d already programmed a setting into the game called your, “Personal Bubble,” so other player’s hands disappear if they come close to your face. [...] We hadn’t, though, thought of extending that fading function to the rest of the body [...] he [Schenker] had spent the morning changing the game to extend the Personal Bubble; now, when the setting was turned on, other players faded out when they reached for you, no matter their target, chest included.²⁷

Meta’s Horizon Worlds also added a similar self-protection feature, Personal Boundary, after the beta tester reported her virtual sexual assault.²⁸ However, despite the availability of these self-protection features, virtual sexual assault continues to occur without intervention. The beta tester of Horizon Worlds complained:

I think what made it worse, was even after I reported, and eventually blocked the assaulter, the guide in the plaza did and said nothing. He moved himself far across the map as if to say, you’re on your [own] now.²⁹

Andrew Bosworth, Meta’s Chief Technology Officer, has even “acknowledged that moderating how users speak and behave ‘at any meaningful scale is practically impossible.’”³⁰ When the Center for Countering Digital Hate (CCDH) identified 100 potential violations of platform policies, including sexual harassment and assault, on Meta’s VRChat during a span of 11 hours

²⁵ Orin S. Kerr, “[Criminal Law in Virtual Worlds](#),” *University of Chicago Legal Forum* 415 (2008): 429.

²⁶ Kerr, “Criminal Law in Virtual Worlds,” 417.

²⁷ Henry Jackson and Jonathan Schenker, “[Dealing with Harassment in VR](#),” *UploadVR*, October 25, 2016.

²⁸ Vivek Sharma, “[Introducing a Personal Boundary for Horizon Worlds and Venues](#),” *Oculus Blog*, February 4, 2022.

²⁹ Duffield, “A Grope in Meta’s Space.”

³⁰ Hannah Murphy, “[How Will Facebook Keep Its Metaverse Safe for Users?](#),” *Financial Times*, November 12, 2021.

and 30 minutes, CCDH reported these incidents to Meta using the platform's web reporting tools. Yet, all of the reports went unanswered.³¹ Furthermore, even when a platform does penalize offenders, the penalties are often, at most, suspension or expulsion, which can easily be circumvented by creating a new account.³² As the providers of VR platforms fail to regulate effectively, misconduct, including sexual assault, continues to plague the virtual world, which is rapidly expanding beyond games and entertainment. Thus, legislators should not hesitate to extrapolate the criminal justice system to the virtual world in order to confront virtual sexual assault.

Virtual sexual assault, which is still a relatively recent phenomenon brought by rapid developments in VR technology, slips through gaps in the current criminal justice system. It is imperative that criminal law catch up with technology and respond to sexual misconduct, which already runs rampant in the virtual world. The first step should be to acknowledge that real harm can result from virtual sexual assault, despite the lack of "real" physical touching or contact. On this basis, legislators should begin to think about how criminal law should address virtual sexual assault to protect users and punish assaulters. Currently, the burden is on users to protect themselves from virtual sexual assault by utilizing self-protection features built in VR platforms or by leaving the virtual world altogether. Only once proper VR criminal law is established can the virtual world become a safer place for everyone.

³¹ Center for Countering Digital Hate, "[Facebook's Metaverse Is Unsafe](#)"; Olivia Petter, "[Why Is No One Taking Sexual Assault in the Metaverse Seriously?](#)," *Vogue*, March 20, 2022.

³² Lemley and Volokh, "Law, Virtual Reality, and Augmented Reality," 1076.