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REGULATING RAPE WITHIN THE VIRTUAL WORLD

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I. INTRODUCTION

In May 2022, a nonprofit advocacy group, SumOfUs, published a report called “Metaverse: Another Cesspool of Toxic Content,” in which one of the advocacy group’s researchers discussed her experience studying user behavior in Horizon Worlds. This online virtual reality video game allows users to access the “metaverse.”¹ Unfortunately, her experience in the virtual world ran afoul when her gaming avatar was raped within an hour of putting on her virtual-reality headset.² This horrific experience began after the researcher attended a party hosted by other users within Horizon Worlds.³ During the party, other users guided her into a private room where they asked her to disable her avatar’s personal boundary setting – a setting that prevents others from getting within four feet of a

¹ Weilun Soon, *A researcher’s avatar was sexually assaulted on a metaverse platform owned by Meta, making her the latest victim of sexual abuse on Meta’s platforms, watchdog says*, INSIDER (May 30, 2022, 1:49 AM), <https://www.businessinsider.com/researcher-claims-her-avatar-was-raped-on-metas-metaverse-platform-2022-5>.

² *Id.*

³ METAVERSE: ANOTHER CESSPOOL OF TOXIC CONTENT, SUMOFUS 5-6 (2022), https://www.sumofus.org/images/Metaverse_report_May_2022.pdf.

user's avatar.⁴ While in the private room, "she was raped by a user who kept telling her to turn around so he could do it from behind while users outside the window could see - all while another user in the room watched and passed around a vodka bottle."⁵ According to the report, the SumOfUs researcher claimed the assault left her feeling "disoriented" as a result of the vibrations emanating from her handheld controller, which were caused by the other users touching her virtually.⁶

The SumOfUs report gives insight into the terrifying realities of what can occur as our society evolves to become more based within the virtual world. As virtual reality continues to evolve, questions involving the legality of user interactions have also begun to evolve. Particularly, the most complicated legal inquiries stemming from interactions between users within the virtual realm concern what is known as *virtual rape*. For the purposes of this paper, virtual rape takes place when a virtual reality user exploits his or her avatar to rape the avatar of another. As presented by the SumOfUs report, pressing questions surfaced as a result, such as: (1) what legal ramifications a sexual offender in the metaverse may face; (2) can they be charged criminally?; and (3) can they be sued for damages, and what cause of action would a plaintiff have? Therefore, this paper aims to help resolve these questions and present a solution to the following problem: how can virtual rapes be adjudicated in a real-world court of law?

Part II of this paper will define virtual reality, describe how virtual reality technologies simulate real-world environments, and explore virtual reality's immersive and interactivity functions. In Part III, this paper will shed light on the difficulties in regulating interactions between users within virtual worlds, particularly concerning the preventive measures implemented by virtual reality platform owners and the absence of physical penetration during virtual rapes. Lastly, Part IV of this paper discusses an appropriate proposal for adjudicating rapes occurring within virtual reality applications under the crime of attempted rape and for allowing virtual rape victims to recover damages under the tort of negligent infliction of emotional distress.

⁴ Soon, *supra* note 1.

⁵ SUMOFUS, *supra* note 3, at 5.

⁶ *Id.*

II. UNDERSTANDING VIRTUAL REALITY TECHNOLOGIES

A. WHAT IS VIRTUAL REALITY?

When living in the real world becomes intolerable, virtual reality provides an escape. Virtual reality refers to a three-dimensional, computer-generated environment that simulates real-world experiences.⁷ While in this simulated environment, a user can perform virtual tasks that imitate real-world experiences.⁸ Thus, the primary objective of virtual reality is to substitute the natural world with one that is completely virtual. To achieve this immersion, virtual reality technologies manipulate a user's perception of his or her surrounding environment through the use of illusive sensory cues, which results in the psychological phenomenon of "presence."⁹ In its plain meaning, presence delineates an individual's cognizance of being present within a certain environment while physically positioned in another.¹⁰ Human beings experience this sensation of presence more often than not.¹¹ For example, presence takes place during the rapid eye movement ("REM") cycle of sleep.¹² Throughout the REM cycle, an individual experiences dreams wherein images can be depicted, thoughts can be contemplated, and senses can be stimulated.¹³ Thus, even though an individual is physically present in one environment, his or her conscious presence resides in a fictitious reality facilitated by a dream.¹⁴

⁷ Gregory P. Joesph, *Virtual Reality Evidence*, 2 B. U. J. SCI. & TECH. L. 212, 213 (1996).

⁸ BRUNO ARNALDI ET AL., *VIRTUAL REALITY AND AUGMENTED REALITY: MYTHS AND REALITIES* xxii (2018), <https://ebookcentral-proquest-com.lmunet.idm.oclc.org/lib/lmunet/reader.action?docID=5323668&ppg=25>.

⁹ Gilad Yadin, *Virtual Reality Intrusion*, 53 WILLAMETTE L. REV. 63, 84 (2016).

¹⁰ Marijn Mado & Jeremy Bailenson, *The Psychology of Virtual Reality*, in *THE PSYCHOLOGY OF TECHNOLOGY* 155, 159-60 (Sandra C. Matz ed., 2022), <https://www.jstor.org/stable/j.ctv2n4w5cj.10>.

¹¹ Yadin, *supra* note 9, at 85.

¹² *Id.*

¹³ Eric Suni, *Dreams*, SLEEP FOUND. (Feb. 16, 2023), <https://www.sleepfoundation.org/dreams>.

¹⁴ Yadin, *supra* note 9, at 85.

However, in the context of virtual reality, presence signifies a user's experience of being cognizant of a virtual environment while being physically located in the real world.¹⁵ Notably, a user experiences three variations of presence while within virtual reality, including spatial, personal, and social presence.¹⁶ Further, one experiences presence through immersion and interactivity, the two fundamental functions of virtual reality.¹⁷ Moreover, due to these unique facets, virtual reality "can cause [users] to perceive, understand, feel, judge, and behave just as they would in physical reality."¹⁸

1. IMMERSION AND SPATIAL PRESENCE

The term "immersion" refers to the psychological and sensory distortions created by virtual reality technology, which induce a user into believing that he or she is fully present within the simulated environment.¹⁹ Put differently, immersion is simply the elimination of the physical world as a result of deceptive sensory stimuli generated by virtual reality technology.²⁰ Additionally, virtual reality technology produces this immersive sensation by providing a user with sensory feedback (i.e., audio, visual, haptic, etc.) that mimics the sensory information he or she would perceive in the real world.²¹ Further, this sensory feedback is generated through "a combination of state-of-the-art technologies, such as immersive displays, motion tracking systems, navigation devices, and headphones."²² Through immersion, virtual reality triggers the psychological effect of *spatial presence*.²³ Spatial presence denotes the extent to which a user believes the virtual

¹⁵ MADO & BAIENSON, *supra* note 10, at 158-59.

¹⁶ *Id.* at 160.

¹⁷ ARNALDI ET AL., *supra* note 8, at xxiii.

¹⁸ Yadin, *supra* note 9, at 87.

¹⁹ MADO & BAIENSON, *supra* note 10, at 158-59.

²⁰ Marie-Laure Ryan, *Immersion vs. Interactivity: Virtual Reality and Literary Theory*, 28 *SUBSTANCE* 110, 113 (1999).

²¹ ARNALDI ET AL., *supra* note 8, at xxii & xxiv.

²² IVELINA PIRYANKOVA, *THE INFLUENCE OF A SELF-AVATAR ON SPACE AND BODY PERCEPTION IN IMMERSIVE VIRTUAL REALITY* 3 (2015), <https://ebookcentral-proquest-com.lmunet.idm.oclc.org/lib/lmunet/detail.action?docID=6032818>.

²³ Yadin, *supra* note 9, at 86.

environment he or she is engaging with is a tangible one.²⁴ Hence, when a user wholly realizes the psychological phenomenon of spatial presence, he or she is precluded from perceiving any detections of his or her external environment and becomes entirely immersed within the virtual environment.²⁵

2. INTERACTIVITY, PERSONAL PRESENCE, AND SOCIAL PRESENCE

The second fundamental function of virtual reality is *interactivity*.²⁶ Interactivity refers to the ability of the user to interact with and modify the virtual environment.²⁷ Hence, interactivity distinguishes virtual reality from other technological applications that provide immersion but no real interaction.²⁸ Although most importantly, this interactivity feature takes place in real-time.²⁹ That is, the virtual reality technology is able to detect a user's input (i.e., movement, verbal commands, etc.) and simultaneously adapt the virtual environment in correspondence with the user's actions and/or commands.³⁰ Additionally, this occurs through unique human interface devices – goggles, headsets, gloves, bodysuits, etc.³¹ – that are designed to recognize and enter the user's inputs into the computer application so the virtual environment is able to provide the feedback necessary to simulate interaction with the user.³²

Moreover, through interactivity, virtual reality can evoke the psychological effect of *personal and social presence*. Personal presence signifies the extent to which a user

²⁴ MADO & BAIENSON, *supra* note 10, at 160.

²⁵ *Id.*

²⁶ ARNALDI ET AL., *supra* note 8, at xxiii.

²⁷ Ryan, *supra* note 20, at 121.

²⁸ ARNALDI ET AL., *supra* note 8, at xxiii.

²⁹ GRIGORE C. BURDEA & PHILIPPE COIFFET, VIRTUAL REALITY TECHNOLOGY 45 (2nd ed. 2003), https://books.google.com/books?id=hMQ8DwAAQBAJ&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false.

³⁰ *Id.*

³¹ ERIK MALCOM CHAMPION, RETHINKING VIRTUAL PLACES 11 (2021), <https://www.jstor.org/stable/j.ctv21r3q81.6>.

³² BURDEA & COIFFET, *supra* note 29, at 65-66.

acknowledges his or her virtual self as his or her actual self.³³ Thus, the more personal presence a user has within a virtual environment, the more the user identifies with his or her virtual self.³⁴ On the other hand, social presence is the degree to which a user is aware of other users and of his or her ability to engage with other users while in the virtual environment.³⁵ Accordingly, when a user has a considerable amount of social presence, he or she can adequately evaluate the behavior of other users and subsequently respond to their behavior similar to how they would in the real world.³⁶ Therefore, because of personal and social presence, the interactivity component of virtual reality enables users to have both intrapersonal awareness of their virtual self and interpersonal awareness of other users, just as they would in the physical world.³⁷

B. THE EMERGENCE OF VIRTUAL WORLDS

The existence of virtual reality began to emerge in the 1950s with the invention of Morton Heilig's 1957 Sensorama Simulator.³⁸ The Sensorama was an "arcade-style theatre cabinet" with "stereo speakers, a stereoscopic 3D display, fans, smell generators, and a vibrating chair."³⁹ When using the Sensorama, an individual would watch a short film while the machine's immersive features would simultaneously stimulate their senses in accordance with the scenes depicted in the film.⁴⁰ Although the Sensorama was left in the prototype stage due to a lack of investors, Heilig was an innovator in integrating technology with the concept of immersion, which remains a central feature of virtual reality today. After the invention of the Sensorama, virtual reality technology gradually improved.

³³ MADO & BAIENSON, *supra* note 10, at 161.

³⁴ *Id.*

³⁵ *Id.*

³⁶ Yadin, *supra* note 9, at 86-87.

³⁷ *Id.*

³⁸ ARNALDI ET AL., *supra* note 8.

³⁹ *History of Virtual Reality*, VIRTUAL REALITY SOC'Y, <https://www.vrs.org.uk/virtual-reality/history.html> (last visited Nov. 10, 2022).

⁴⁰ Jon Turi, *The sights and scents of the Sensorama Simulator*, ENGADGET (Feb. 16, 2014, 11:00 AM), <https://www.engadget.com/2014-02-16-morton-heiligs-sensorama-simulator.html>.

However, remarkable advancements in virtual reality technology emerged during the second decade of the twentieth century.⁴¹ Specifically, since 2014, goliaths in the technology industry, such as Facebook, Google, and Sony, have begun to capitalize on and develop their own virtual reality applications.⁴² Soon thereafter, access to virtual reality became attainable for the general public, predominantly in the form of gaming applications.⁴³ From these gaming applications, platforms known as *virtual worlds* have started to flourish.

In essence, virtual worlds are a subcategory of virtual reality environments.⁴⁴ Yet, what differentiates virtual worlds from other virtual reality environments is the degree of interactions between users.⁴⁵ While immersed in a virtual world, users are represented by *avatars*.⁴⁶ An avatar is a virtual representation of the user's body within the virtual world.⁴⁷ Through an avatar, a user is able to communicate and interact with the avatars of other users who are participating in the virtual world, as well as partaking in an infinite number of routine activities.⁴⁸ Additionally, users can customize various characteristics of their avatars, which include: gender, race, age, weight, genitalia, and other physical traits.⁴⁹ However, because users can typically modify their appearance, the avatars used to represent them within the virtual world often extraordinarily differ from their physical appearance in the real world.⁵⁰ Consequently, this physical alteration may also give rise to an

⁴¹ Yadin, *supra* note 9, at 65.

⁴² *See id*; *see also* Jose A. Moncada, *Virtual Reality as Punishment*, 8 IND. J. L. & SOC. EQUAL. 304, 306 (2020).

⁴³ Moncada, *supra* note 42; *see also* *History of Virtual Reality*, *supra* note 39.

⁴⁴ Glenn W. Harrison et al., *Remarks on Virtual World and Virtual Reality Experiments*, 78 S. ECON. J. 87, 87-88 (2011).

⁴⁵ *Id.* at 88.

⁴⁶ *Id.*

⁴⁷ PIRYANKOVA, *supra* note 22, at 13; *see also* Harrison et al., *supra* note 44, at 87 ("Participants in virtual worlds use an in-world representation, an avatar, to engage in any number of activities including social interactions, commerce, and role play . . .").

⁴⁸ Harrison et al., *supra* note 44, at 88.

⁴⁹ *See id*; *see also* Robin Fretwell Wilson, *Sex Play in Virtual Worlds*, 66 WASH & LEE L. REV. 1127, 1130 (2009) ("A player can equip her avatar with genitalia . . .").

⁵⁰ Harrison, *supra* note 44, at 88.

alteration in user behavior in which users may act differently in the virtual world than they would in the real one.⁵¹ Also, another distinct quality of virtual worlds is the “elimination of real geographic distance.”⁵² Thus, even though users may be physically located in varying locations around the world, their avatars are able to interact with each other at the same time and place within the virtual world.⁵³

III. THE REALIZATION OF VIRTUAL RAPE

As virtual reality becomes more rapidly accessible, the occurrence of criminal interactions between users has escalated as well. Globally, the number of individuals participating in virtual worlds is estimated to be in the tens of millions.⁵⁴ With this many users, there is no doubt that the amount of user interactions transpiring within these virtual worlds is astronomical. As a result, this has led to a rise in user behavior that would be considered criminal if it were to occur outside of the virtual environment.⁵⁵ The aforementioned Horizon Worlds rape case is a prime example. Unfortunately, the gang rape experienced by the SumOfUs researcher is not the only incident of rape or sexual harassment in a virtual world.⁵⁶ Thus, as these kinds of virtual interactions become more common, new and complex legal questions have started to surface concerning how and if they can be adjudicated in a real-world court of law.

A. THE DILEMMA OF PLATFORM OWNER PATROL

In general, user interactions within a virtual world are subject to the control of the owner of the virtual reality

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.*

⁵⁴ Kevin W. Saunders, *Virtual Worlds - Real Courts*, 52 VILL. L. REV. 187, 191 (2007).

⁵⁵ *Id.* at 192-93.

⁵⁶ See Nina Jane Patel, *Reality or Fiction*, MEDIUM (Dec. 21, 2021), <https://medium.com/kabuni/fiction-vs-non-fiction-98aa0098f3b0>; see also Sheera Frenkel and Kellen Browning, *The Metaverse's Dark Side: Here Come Harassment and Assaults*, N.Y. TIMES (Dec. 30, 2021), <https://www.nytimes.com/2021/12/30/technology/metaverse-harassment-assaults.html>; see generally SUMOFUS, *supra* note 3.

platform.⁵⁷ Primarily, this control stems from user agreements' contractual terms and conditions.⁵⁸ Through these agreements, platform owners can regulate user interaction by establishing guidelines that concern "proper play, appropriate behavior, and decorum in the virtual space that the platform owner[s] cannot easily impose through code."⁵⁹ Simply put, the platform owners use user agreements to provide law and order within the virtual world. Additionally, when users violate the rules set forth by these agreements, platform owners may reprimand those users through various means of punishment, such as imposing permanent suspensions.⁶⁰ Not to mention, platform owners regularly seek out user feedback on how the virtual world can be improved to provide a better virtual experience.⁶¹

Despite implementing these agreements, owners of virtual reality platforms continue to struggle with maintaining virtual worlds as safe spaces for users. Given the vast amounts of interactions between users, it is often quite tricky for platform owners to police every instance of user misconduct. For example, Meta's Horizon Worlds' user base encompasses roughly 200,000 players monthly.⁶² However, incidents of sexual violence and harassment continue to ensue,⁶³ regardless of the preventive efforts implemented by Meta to stop it from happening.⁶⁴ Also, even though platform owners continue to

⁵⁷ Jack M. Balkin, *Law and Liberty in Virtual Worlds*, 49 N.Y. L. SCH. L. REV. 63, 63-64 (2004).

⁵⁸ *Id.*

⁵⁹ Balkin, *supra* note 57, at 65.

⁶⁰ *Id.*

⁶¹ *See id.* ("[Platform owners] often seek out the opinions of the player community about how to improve the game to make it more fun to play, how different features can be tweaked, how loopholes can be eliminated, and how previously unanticipated forms of player behavior . . . can be prevented . . .").

⁶² Paul Tassi, *Meta's 'Horizon Worlds' Has Somehow Lost 100,000 Players In Eight Months*, FORBES (Oct. 17, 2022, 10:20 AM), <https://www.forbes.com/sites/paultassi/2022/10/17/metahorizon-worlds-has-somehow-lost-100000-players-in-eight-months/?sh=6c698d732a1b>.

⁶³ SUMOFUS, *supra* note 3, at 5.

⁶⁴ *Notice of Monitoring and Recording to Improve Safety in Horizon Worlds*, META, https://www.meta.com/legal/quest/monitoring-recording-safety-horizon/?utm_source=https%3A%2F%2Fwww.google.com%2F&utm_medium=organicsearch (last visited Nov. 10, 2022); *see also Code of*

modify virtual worlds based on user feedback, it is impossible for them to satisfy or comply with each user's requests. To explain, on the one hand, some users may request that certain behavior be banned, while on the other hand, other users may desire that behavior be allowed.⁶⁵ Hence, to find a happy medium, platform owners may permit variations of certain behaviors. For instance, assume that, within the terms of the user agreement, platform owners forbid user conduct that constitutes rape; however, they still allow users' avatars to engage in sexual intercourse or other types of intimate behavior. Thus, even though platform owners have attempted to prevent users from raping each other, they have still allowed the possibility of such incidents to occur as a result of trying to accommodate the wants of each user. Therefore, provided these reasons, it is problematic for owners of virtual reality platforms to regulate a safe virtual environment for users effectively.

B. THE PENETRATION PROBLEM

Undoubtedly, the most convoluted issue arising from the expansion of virtual reality technology is the notion of virtual rape. Given that virtual reality aims to simulate real-world experiences, it is no surprise many of these applications authorize users to partake in *virtual sex*.⁶⁶ Virtual sex refers to when the computer software of a virtual world enables users' avatars to have sexual intercourse with one another.⁶⁷ However, unlike in the real world, when a user engages in virtual sex with other users, no physical penetration of the user's actual body takes place. Rather, the body of the user's avatar is virtually penetrated. Nonetheless, the immersive and interactivity features of the virtual world can still stimulate the remainder of the user's senses to make him or her feel as though the intimate behavior had actually occurred.⁶⁸

Conduct for Virtual Experiences, META,
<https://www.meta.com/help/quest/articles/accounts/privacy-information-and-settings/code-of-conduct-for-virtual-experiences/>
(last visited Nov. 10, 2022).

⁶⁵ Balkin, *supra* note 57, at 65-66.

⁶⁶ Wilson, *supra* note 49.

⁶⁷ *Id.*

⁶⁸ Mark A. Lemley & Eugene Volokh, *Law, Virtual Reality, and Augmented Reality*, 166 U. PA. L. REV. 1051, 1056 (2018).

Additionally, the absence of physical penetration to the user's actual body has made recognizing virtual rape as a real-world crime so complex. As an illustration, consider the case of Nina Patel. Within 60 seconds of joining one of the user lobbies offered by Meta's Horizon Worlds, a group of three to four male avatars approached Ms. Patel and began to harass her verbally and sexually.⁶⁹ Eventually, the group gang-raped Ms. Patel's avatar and took screenshot photos of what was transpiring.⁷⁰ As her avatar tried to escape the group, they began yelling sexually obscene expressions at her, such as "don't pretend you didn't love it" and "go rub yourself off to the photo."⁷¹ Ms. Patel described her experience in Meta's Horizon Venues as a "nightmare"⁷² and suffered from anxiety attacks since the horrifying incident.⁷³ As Ms. Patel's case demonstrates, a user who participates in virtual world applications can still experience psychological ramifications from virtual rape, even though there is no physical penetration of the user's body. Moreover, Ms. Patel's case also exemplifies a looming issue surrounding virtual reality platforms: How can virtual rapes be adjudicated in a real-world court of law when no physical penetration occurs?

IV. REGULATING RAPE WITHIN THE VIRTUAL WORLD

Regulating virtual rape under the laws of the physical world imposes some perplexing complications. Firstly, crimes regulated by real-world laws encompass the following two components: (1) the *actus reus* (the physical act of the crime); and (2) the *mens rea* (the mental state or intent to commit a crime). In order for an individual to be found guilty of a crime, a prosecutor must prove both the *actus reus* and the *mens rea* elements of the crime. To no surprise, this also holds true for the crime of rape. Moreover, although the laws governing rape

⁶⁹ Patel, *supra* note 56.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.*

⁷³ Molly Clayton, *Mother says she was virtually groped by three male characters within seconds of entering Facebook's online world Metaverse*, DAILY MAIL (Jan. 29, 2022, 8:45 PM), <https://www.dailymail.co.uk/news/article-10455417/Mother-43-avatar-groped-three-male-characters-online-Metaverse.html>.

vary amongst jurisdictions, they generally require some form of physical penetration.⁷⁴ Therefore, real-world rape laws do not apply to virtual rape crimes. Secondly, because of the vast amount of virtual reality users, it is difficult for platform owners to regulate improper user misconduct. As a result, this tends to leave virtual assailants unpunished and virtual rape victims without justice. However, convicting virtual user-rapists under the crime of attempted rape and/or allowing them to be sued for negligent infliction of emotional distress may provide a feasible solution to this complex issue.

A. CRIMINALIZING VIRTUAL RAPE UNDER REAL-WORLD ATTEMPT CRIME STATUTES

Criminalizing virtual rape under the real-world crime of attempted rape may provide a viable solution for punishing virtual reality user-rapists. The crime of attempt punishes offenders who intend to commit a particular crime but ultimately fail to do so.⁷⁵ Moreover, to be found guilty under the crime of attempt, a defendant must have: (1) had a specific intent to commit the crime; and (2) committed an overt act in furtherance of that intent.⁷⁶ Additionally, under the rules of the common law, the intent required by the defendant for the crime of attempt includes: (1) the intent to perform the conduct that is the attempt; and (2) the intent to commit the crime that is the goal of the attempt.⁷⁷ Further, although the necessary *mens rea* – the act – varied amongst common law jurisdictions, the majority view required a defendant must have almost neared completion of the intended crime to be found guilty. Also, unlike other crimes, attempt is unique because “most jurisdictions have a single attempt statute phrased in general language that is used to prosecute all attempt crimes.”⁷⁸ In other words, the laws governing the crime of attempt, within a majority of jurisdictions, can easily be applied to almost any crime. Thus, for a defendant to be found guilty of attempted

⁷⁴ SHIMA BARADARAN BAUGHMAN ET AL., EXAMPLES AND EXPLANATIONS FOR CRIMINAL LAW 272 (Erwin Chemerinsky et al. eds., 8th ed. 2021).

⁷⁵ *Id.* at 339.

⁷⁶ *Id.* at 339-40.

⁷⁷ *Id.* at 341.

⁷⁸ *Id.* at 340.

rape, a prosecutor would need to prove the defendant: (1) had the intent to commit the conduct which constituted an attempted rape; (2) had the intent to commit the crime of rape; and (2) committed an overt act in furtherance of his or her intent to rape another.

Firstly, when analyzing virtual rape under the real-world elements of attempted rape, one must establish that a virtual user-rapist had the intent to commit the crime of rape. It is important to remember that users experience the psychological effect of personal presence while participating in a virtual world. Specifically, they experience personal presence through their avatars. Additionally, users have complete control over their avatars within a virtual world and often consider their avatars to be an extension of themselves. Therefore, one could argue that an avatar's intent reflects the user's intent controlling that avatar. Thus, when an avatar intends to rape another avatar, the user controlling that avatar intends to rape the other user. Therefore, the user has the intent to commit the crime of rape. This is illustrated by the aforementioned rape case of the SumOfUs researcher.⁷⁹ In that case, another avatar asked the SumOfUs researcher to disable her personal boundary setting so his avatar could come within four feet of her avatar.⁸⁰ When her avatar complied, the other avatar then raped her avatar.⁸¹ Hence, because an avatar is an extension of a user, the user whose avatar raped the avatar of the SumOfUs researcher had the intent to commit the crime of rape.

Secondly, when analyzing virtual rape under the real-world elements of attempted rape, one must establish that a virtual user-rapist committed an overt act in furtherance of his or her attempt to commit the crime of rape. As a reminder, users participate in virtual worlds through the use of interactive devices, which provide sensory feedback. Additionally, because all users must have interactive devices to partake in a virtual world, every user knows of the sensory feedback these devices generate. Thus, when a user virtually rapes another user, he or she knows that the interactive devices used by the user-victim will provide him or her with the sensation of feeling as though they had actually been raped, even though physical

⁷⁹ SUMOFUS, *supra* note 3.

⁸⁰ *Id.*

⁸¹ *Id.*

penetration does not occur.⁸² Therefore, by simulating a virtual rape, a user-rapist has committed an overt act in furtherance of his attempt to commit the crime of rape. Additionally, if we think back to the rape case of the SumOfUs researcher, the interactive devices she used emitted vibrations to simulate the feeling of her avatar being raped.⁸³ Therefore, by causing the SumOfUs researcher to experience a simulated rape, the user-rapist in this scenario committed an overt act in furtherance of his attempt to commit the crime of rape.

Lastly, however, there may be some challenges with convicting a virtual rapist under the real-world crime of attempted rape. Under the common law, a defendant may raise a defense of legal impossibility to undermine a conviction of an attempted crime.⁸⁴ The common law defense of legal impossibility provides that a defendant cannot be found guilty of an attempted crime if the crime he or she allegedly attempted to commit does not legally exist.⁸⁵ Thus, viewing this defense in light of virtual rape, one could argue that because the crime of virtual rape does not legally exist, a user cannot be convicted of attempting to rape another while in a virtual world. However, a virtual user-rapist would not be charged with the crime of attempted virtual rape. Instead, the user-rapist would be charged with the real-world crime of attempted rape, a crime that does legally exist.

Provided the above analysis, virtual rapes committed by users within a virtual world can be criminalized under the real-world crime of attempted rape. Additionally, if virtual rapes were criminalized under the real-world crime of rape, the absence of physical penetration would cease to become an issue because the crime of attempted rape does not require the successful completion of an actual rape. Moreover, it is important to note that attempted crime statutes were enacted to “enable the criminal justice system to punish individuals who have acted on their criminal intentions and are dangerous.”⁸⁶ Thus, utilizing attempted rape statutes to apply in virtual rape cases prevents user-rapists from acting on their criminal intentions within the virtual world. Further, by imposing

⁸² *See id.*

⁸³ *Id.*

⁸⁴ BAUGHMAN ET AL., *supra* note 74, at 349.

⁸⁵ *Id.* at 349-350.

⁸⁶ *Id.* at 399.

convictions of attempted rape to punish such behavior, user-rapists would no longer be able to avoid the consequences of the real world by virtually acting on their criminal intentions. Lastly, by allowing the conviction of virtual user-rapists in a real-world court of law, law enforcement officials could aid virtual reality platform owners in regulating virtual worlds, providing a safer space for users. Therefore, utilizing the crime of attempted rape may offer a viable solution for disciplining virtual reality user-rapists.

B. THE RECOVERY OF DAMAGES UNDER NEGLIGENT INFLECTION OF EMOTIONAL DISTRESS

Allowing victims of virtual rape to recover damages under negligent infliction of emotional distress may provide them with adequate retribution. Under the tort of negligent infliction of emotional distress, a plaintiff can recover damages for severe emotional distress arising from another's negligent acts.⁸⁷ "The term 'emotional distress' covers a wide range of emotions, including: . . . unhappiness and depression over not being able to lead one's prior life; anxiety about the future; and anger over the vicissitudes of life."⁸⁸ However, to recover damages for negligent infliction of emotional distress, the emotional distress the plaintiff has suffered must be severe.⁸⁹ To establish the severity of the emotional distress, the plaintiff must guarantee the genuineness of his or her claim.⁹⁰ One shows this through "the egregious nature of the defendant's conduct, in the plaintiff's sustaining of bodily injury, or in outwardly visible physical manifestations which suggest what is going on inside the mind."⁹¹

Provided this, for a victim of virtual rape to recover for negligent infliction of emotional distress, he or she must prove that his or her emotional distress was severe. As previously stated, the purpose of virtual reality is to immerse the user within the application to simulate real-world experiences through the use of false sensory cues. Additionally, when

⁸⁷ VINCENT R. JOHNSON, *MASTERING TORTS: A STUDENT'S GUIDE TO THE LAW OF TORTS* 183 (Carolina Acad. Press ed., 6th ed. 2018).

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.* at 184.

⁹¹ *Id.* at 184.

participating in a virtual world, users are represented by a personal avatar, which they acknowledge as an extension of themselves. Thus, the user experiences the immersion function of virtual reality through the false sensory cues generated from the actions and interactions of his or her avatar. In other words, the immersion feature of virtual reality allows a user to have a sensory perception of his or her avatar. Therefore, the user can physically and emotionally feel everything his or her avatar feels.

As follows, when another avatar rapes the personal avatar of a user while within a virtual world, it is likely the user will acknowledge the rape of his or her avatar as a rape of his or her own physical body. Accordingly, the user may experience severe emotional distress caused by the virtual rape of his or her avatar as if the rape had occurred in real life. For example, consider the aforementioned rape case of Nina Patel. In that case, Ms. Patel's avatar was sexually harassed and eventually gang raped by the avatars of three to four male users.⁹² As a result of the rape of her avatar, Ms. Patel has continued to suffer from anxiety attacks.⁹³ Thus, if Ms. Patel were to sue those users for negligent infliction of emotional distress, she would be able to guarantee the genuineness of her claim because she has continuously suffered from anxiety attacks caused by the egregious conduct of the users whose avatars virtually raped hers. Therefore, Ms. Patel's case precisely illustrates how users can emotionally identify with their avatars and can suffer from severe emotional distress due to the rape of their avatars within a virtual world.

Although unfortunately, there may be some difficulties arising out of allowing a virtual victim of rape to sue under the tort of negligent infliction of emotional distress. In some jurisdictions, the plaintiff must establish evidence of a physical impact to guarantee the genuineness of his or her claim.⁹⁴ That is, the plaintiff has to show that, through his or her negligent conduct, the defendant made physical contact with the plaintiff's person.⁹⁵ Hence, in the case of virtual rape, one could argue that a plaintiff is unable to corroborate the genuineness of his or her claim of emotional distress because the defendant's

⁹² Patel, *supra* note 56.

⁹³ *Id.*

⁹⁴ JOHNSON, *supra* note 87, at 184-85.

⁹⁵ *Id.*

conduct only physically impacted the virtual body of the plaintiff's avatar rather than his or her physical body. However, virtual reality users consider their avatars to be an extension of themselves and, thus, an extension of their person. Therefore, when a user physically impacts the virtual body of another user's avatar via virtual rape, the user is also physically impacting the physical body of the user whose avatar was raped. Moreover, even if a virtual victim of rape is unable to establish the defendant's virtual conduct caused a physical impact, some courts allow plaintiffs to prove the genuineness of their claim by establishing that the defendant had the intent to substantially invade a legally protected interest.⁹⁶ Further, this principle has also been applied in cases involving assault.⁹⁷ Since a user reflects his or her intent through his or her avatar, virtual rape victims would be able to prove the genuineness of their emotional distress claims by establishing the defendant's intent to substantially invade a legally protected interest through the intent of the defendant's avatar to rape the plaintiff's avatar. Lastly, a plaintiff may also secure the genuineness of his or her claim in lieu of physical impact if the nature of the defendant's conduct creates a special likelihood of producing emotional distress.⁹⁸ Undisputedly, the nature of rape creates a special likelihood of producing emotional distress. Therefore, a virtual rape victim would be able to secure the genuineness of his or her claim instead of physical impact.

Given the above analysis, victims of virtual rape could recover damages under the tort of negligent infliction of emotional distress. Additionally, although criminalizing virtual rape would punish user-rapists, permitting recovery of damages under negligent infliction of emotional distress would remedy the harm user-victims experience as a result of a virtual rape of their avatars. Moreover, permitting virtual rape victims to sue virtual rapists for negligent infliction of emotional distress may provide a more appropriate remedy for such incidents than through a conviction of attempted rape. Firstly, plaintiffs suing for negligence must only prove their claims by a preponderance of the evidence, which is a much lower burden than the one required in criminal trials. Thus, it is easier for user-victims to establish that they have suffered from emotional

⁹⁶ *Id.* at 185.

⁹⁷ *Id.*

⁹⁸ *Id.*

distress rather than prove an attempted rape took place. Secondly, a user-victim would only need to prove the virtual rapist acted negligently to recover civil damages. Lastly, the problem of penetration would not arise in a negligent infliction of emotional distress lawsuit because the virtual world simulation causes the user-victim to feel the sensation of rape as though it were taking place within the real world. Therefore, allowing victims of virtual rape to sue for emotional distress damages may be a feasible way of remedying incidents of rape within virtual reality platforms.

V. CONCLUSION

The number of rapes occurring within virtual reality applications has continued to happen more often than not. With this increase in sexually explicit user behavior, finding an appropriate solution to remedy this issue has become more urgent. By imposing real-world consequences, the horrific behavior of virtual reality user-rapists will not go unpunished. Additionally, it will allow victims of virtual reality rape to seek the justice they deserve for experiencing these traumatic incidents. Therefore, lawmakers and courts should use convictions of attempted rape and/or damages for negligent infliction of emotional distress to resolve the problem of virtual rape.