

SEXUAL AGEPLAY IN VIRTUAL REALITY: PRACTICING FREE SPEECH OR PRODUCING CHILD PORNOGRAPHY?

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A man’s thoughts are his own; he may sit in his armchair and think salacious thoughts, murderous thoughts, discriminatory thoughts, whatever thoughts he chooses, free from the “thought police.” It is only when the man gets out of his armchair and acts upon his thoughts that the law may intervene.¹

In my ignorance, I have to accept the possibility that if we had to decide today just what the First Amendment should mean in cyberspace, we would get it fundamentally wrong.²

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¹ *Ex parte* Lo, 424 S.W.3d 10, 26 (Tex. Crim. App. 2013) (internal citations omitted).

² JEREMY HARRIS LIPSCHULTZ, *FREE EXPRESSION IN THE AGE OF THE INTERNET* 1 (2000) (quote attributed to former U.S. Supreme Court Justice David Souter).

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INTRODUCTION

A man enters a bedroom and sees a child sleeping on her bed. He approaches her and begins to rub her back. The child stirs and looks up, excited to see the man. She giggles as he undresses her, and soon they have sex. But the man is not actually with the child, instead he is sitting in his armchair, playing a popular adult virtual reality (VR) game, *Kanolojo*,³ experiencing the scenario through virtual reality hardware. Imagine that the child avatar was indistinguishable from a real-life child, but no child was used to create it. From the adult's point of view, the VR experience makes it both look and feel as if he is having sex with an actual child.⁴ This type of activity is called "virtual ageplay" and is a popular trend in adult VR games.⁵

In 2002, the Supreme Court held that nonobscene virtual child pornography is afforded First Amendment protections.⁶ However, a graphic computer-generated image of a minor engaged in sexually explicit conduct can still fall under the federal criminal definition of child pornography so long as the image is indistinguishable from an

³ See sources cited *infra* notes 159–60 and accompanying text.

⁴ See *infra* Sections I.A, II.A.

⁵ See generally Gabrielle Russell, Comment, *Pedophiles in Wonderland: Censoring the Sinful in Cyberspace*, 98 J. CRIM. L. & CRIMINOLOGY 1467 (2008).

⁶ *Ashcroft v. Free Speech Coal.*, 535 U.S. 234 (2002); see also *infra* Section I.D.

actual, real-life minor.⁷ As VR technology advances to make computer-generated avatars photorealistic—blurring the line between digital and real photography—it is unclear whether those playing adult VR games run afoul of child pornography laws or if they are protected by the First Amendment.⁸

This Note will discuss the constitutionality of graphic, sexually explicit adult VR games. Part I will begin with a background of virtual reality and the future of VR porn. Technology studios are developing software that makes the virtual world not only look realistic, but feel realistic through sensory feedback.⁹ VR software will soon allow avatars to mimic and track the facial expression and body position of its users.¹⁰

⁷ See *infra* Section II.C (discussing 18 U.S.C. § 2256(8)(B)). The constitutionality of this definition of child pornography has not been addressed by the Court, and while a few lower courts have mentioned this provision, none have ruled on its constitutionality because no one (so far) has been charged with possessing child pornography as defined in § 2256(8)(B). See, e.g., *United States v. Blouin*, 74 M.J. 247, 250 (C.A.A.F. 2015) (addressing the definition to contrast it with the other definitions of child pornography); *United States v. Payne*, 519 F. Supp. 2d 466, 480 (D.N.J. 2007) (defendant arguing that § 2256(8)(B) failed to remedy the problems identified in *Free Speech Coalition*, but because defendant was not charged under that provision, the court rejected the argument); *United States v. Knellinger*, 471 F. Supp. 2d 640, 649 n.10 (E.D. Va. 2007) (acknowledging that § 2256(8)(B) still proscribes computer-generated images of child pornography); see also Michael J. Henzey, *Going on the Offensive: A Comprehensive Overview of Internet Child Pornography Distribution and Aggressive Legal Action*, 11 APPALACHIAN J.L. 1, 24 (2011) (“It is an open question whether this new language will pass constitutional scrutiny.”).

⁸ See *infra* Sections I.A–B.

⁹ See *5 Startups Enabling Virtual Reality with All 5 Senses*, NANALYZE (Aug. 10, 2017), <https://www.nanalyze.com/2017/08/virtual-reality-all-5-senses> [<https://perma.cc/K5MX-R5PJ>]; Jesse Emspak, *What Is Virtual Reality?*, LIVE SCI. (Mar. 22, 2016, 1:45 AM), <https://www.livescience.com/54116-virtual-reality.html> [<https://perma.cc/JC23-LRLZ>]; Dieter Holger, *This ‘Sensory Reality Pod’ Will Make You Feel VR*, VRSCOUT (May 23, 2018), <https://vrscout.com/news/sensory-reality-pod-feel-vr> [<https://perma.cc/DWA9-KG3Y>]; Dan Kaplan, *Virtual Reality Porn and the Future of Loneliness*, TECHCRUNCH (July 11, 2015), <https://techcrunch.com/2015/07/11/virtual-reality-porn-and-the-future-of-loneliness> [<https://perma.cc/2UYL-GE66>]; Sonia Schechter, *What Is Virtual Reality? [Definition and Examples]*, MARXENT (June 3, 2015), <https://www.marxentlabs.com/what-is-virtual-reality> [<https://perma.cc/H8R9-WDKW>].

¹⁰ See Devin Coldewey, *Research into Full-Body Tracking at Facebook Hints at Broader AR/VR Ambitions*, TECHCRUNCH (Jan. 25, 2018), <https://techcrunch.com/2018/01/25/research-into-full-body-tracking-at-facebook-hints-at-broader-ar-vr-ambitions> [<https://perma.cc/RBB2-V3MG>]; David Kariuki, *7 Firms with Face Tracking Tech for Better VR Avatars*, HYPERGRID BUS., <http://www.hypergridbusiness.com/2016/11/ai-emotion-and-facial-tracking-to-help-make-vr-avatars-more-realistic> [<https://perma.cc/EZR5-V8AY>] (last updated Nov. 20, 2016); Kirill Kavrev, *Behold the Next Generation VR Technology: Part 1—Facial Tracking*, HACKER

Although photorealistic VR platforms are not yet on the market, the technology exists and is in testing at VR studios.¹¹ One day soon, the difference between interacting in real life and interacting with people virtually will not be so clear-cut. This is especially true with VR porn.¹² Part I ends with a background on obscenity and child pornography jurisprudence.

Part II of this Note will focus on adult VR games (games that are pornographic) and the resurgence of federal obscenity law proscribing obscenity on the internet. The difference between adult VR games and VR porn is that most adult VR games depict avatars that look computer-generated. However, there is certainly a demand for better graphics in adult VR games, and the technology already exists.¹³ Part II concludes with an exploration of how one of the definitions of child pornography

NOON (Jan. 22, 2018), <https://hackernoon.com/ behold-the-next-generation-vr-technology-part-1-facial-tracking-cd839eaa6697> [<https://perma.cc/3MMV-UXEG>]; Gerald Lynch, *Facebook Researching Advanced Mobile AR and VR with Full Body Tracking*, TECHRADAR (Jan. 26, 2018), <http://www.techradar.com/news/facebook-researching-advanced-mobile-ar-and-vr-with-full-body-tracking> [<https://perma.cc/G6T9-6CJE>]; Adi Robertson, *This VR Face Mask Can Read Your Emotions*, VERGE (Apr. 13, 2017, 12:00 PM), <https://www.theverge.com/2017/4/13/15251616/mindmaze-mask-vr-face-expression-reading-sensors> [<https://perma.cc/PM4V-ER4A>].

¹¹ See Andy Boxall, *With 102 Cameras, Metapixel Can Create Photorealistic 3D Models in 30 Minutes*, DIGITAL TRENDS (Oct. 25, 2016, 1:30 PM), <https://www.digitaltrends.com/photography/metapixel-photo-real-avatar-rig> [<https://perma.cc/N3GA-J9WF>] (“Robbie Cooper, co-founder of Metapixel, has a vision. ‘I want fully animated, believable characters in a VR game or environment that react in a totally natural manner. To have that feeling of wanting to reach out and touch them because they’re so real. That’s how a VR world should be.’”).

¹² See Jason Zenor, *Sins of the Flesh? Obscenity Law in the Era of Virtual Reality*, 19 COMM. L. & POL’Y 563, 589 (2014); Andrew Griffin, *Virtual Reality Pornography Is Allowing for More ‘Intimate’ and ‘Personal’ Experiences but Could Bring Horrors, Warn Experts*, INDEPENDENT (Nov. 9, 2017, 12:14 PM), <http://www.independent.co.uk/life-style/gadgets-and-tech/news/pornography-porn-virtual-reality-personal-intimate-vr-headset-criticism-problems-a8046141.html> [<https://perma.cc/UT6T-PGRY>]; Ben Guarino, *Computer-Generated VR Child Pornography Will Be Horrible, Illegal, and Immersive*, INVERSE: CULTURE (Mar. 16, 2016), <https://www.inverse.com/article/12948-computer-generated-vr-child-pornography-will-be-horrible-illegal-and-immersive> [<https://perma.cc/V5RK-XXVY>]; Curtis Silver, *How VR Porn Is Penetrating Our Minds, Erecting the Future of Virtual Reality*, FORBES (May 11, 2017, 12:00 PM), <https://www.forbes.com/sites/curtissilver/2017/05/11/how-vr-porn-is-penetrating-our-minds-erecting-the-future-of-virtual-reality/#33489b7240d1> [<https://perma.cc/7XFU-3QZ5>]; Matt Wood, *Virtual Reality Could Transform Pornography—but There Are Dangers*, CONVERSATION (May 22, 2017, 11:30 AM), <http://theconversation.com/virtual-reality-could-transform-pornography-but-there-are-dangers-78061> [<https://perma.cc/8FND-H5BU>].

¹³ See *infra* Section II.A.

might apply to images produced in adult VR games involving photorealistic childlike avatars.

Part III of this Note will propose that 18 U.S.C. § 2256(8)(B)—one of the definitions of child pornography—should apply to graphic, sexually explicit adult VR games employing childlike avatars that look indistinguishable from actual children. No child is abused when someone has virtual sex with a virtual minor, but the requirement of actual child abuse to prohibit explicit, realistic depictions of child abuse is no longer an adequate standard as advances in technology erase the line between real and virtual depictions. The First Amendment should not protect the right to produce graphic, sexually explicit depictions of children engaged in sexual activity with adults.

I. BACKGROUND

A. *Virtual Reality*

One experiences virtual reality when they put on an interactive hardware to “enter” a realistic three-dimensional virtual environment.¹⁴ VR is different from any other type of gaming experience in that it can convince the brain that it is somewhere it is really not.¹⁵ This experience is called “presence”—your mind accepts the illusion that you are there.¹⁶ Through headsets and hand controllers, the user can look around and “move” things in the virtual world.¹⁷ While doing this, the VR user experiences sensory feedback, making the experience fully immersive.¹⁸

¹⁴ See *The Ultimate Guide to Understanding Virtual Reality (VR) Technology*, REALITY TECHNOLOGIES, <http://www.realitytechnologies.com/virtual-reality> [https://perma.cc/4HHN-HN4M] (last visited Mar. 2, 2019) (VR is a “realistic three-dimensional image or artificial environment that is created with a mixture of interactive hardware and software, and presented to the user in such a way that any doubts are suspended and it is accepted as a real environment in which it is interacted with in a seemingly real or physical way.”).

¹⁵ See Max Chafkin, *Why Facebook’s \$2 Billion Bet on Oculus Rift Might One Day Connect Everyone on Earth*, VANITY FAIR (Oct. 2015), <https://www.vanityfair.com/news/2015/09/oculus-rift-mark-zuckerberg-cover-story-palmer-luckey> [https://perma.cc/G8JA-BZHL]. See generally Adi Robertson & Michael Zelenko, *Voices from a Virtual Past*, VERGE, https://www.theverge.com/a/virtual-reality/oral_history [https://perma.cc/7VVQ-EVSF] (last visited Mar. 2, 2019).

¹⁶ See Kaplan, *supra* note 9.

¹⁷ See Emspak, *supra* note 9.

¹⁸ See Schechter, *supra* note 9.

Although virtual reality has been written about since the 1930s,¹⁹ VR entered the public discourse when Facebook bought Oculus, a VR company, in 2014.²⁰ Since then, other companies like Google, Samsung, and PlayStation have developed their own VR headsets.²¹ It is projected that there will be 2.4 billion VR users worldwide by 2025,²² but VRs current use is predominantly in the gaming market.²³ The question of whether VR will become mainstream across different platforms is uncertain.²⁴ However, this has not stopped other industries from

¹⁹ *History of Virtual Reality*, VIRTUAL REALITY SOC'Y, <https://www.vrs.org.uk/virtual-reality/history.html> [<https://perma.cc/U4L5-8ER9>] (last visited Mar. 3, 2019).

²⁰ See Drew Olanoff, *Let's Have a Chat About Virtual Reality*, TECHCRUNCH (Nov. 13, 2015), <https://techcrunch.com/2015/11/13/lets-have-a-chat-about-virtual-reality> [<https://perma.cc/TJP5-N55L>]; Brian Solomon, *Facebook Buys Oculus, Virtual Reality Gaming Startup, for \$2 Billion*, FORBES (Mar. 25, 2014, 5:43 PM), <https://www.forbes.com/sites/briansolomon/2014/03/25/facebook-buys-oculus-virtual-reality-gaming-startup-for-2-billion/#5887b05e2498> [<https://perma.cc/5UST-9JP2>].

²¹ See Devindra Hardawar, *The Best VR Headsets*, ENGADGET (Dec. 6, 2017), <https://www.engadget.com/2017/12/06/the-best-vr-headsets> [<https://perma.cc/QQ2N-W3AK>].

²² See Gene Munster, *Facebook Is Going to Muscle VR into the Mainstream*, LOUP VENTURES (Oct. 12, 2017), <http://loupventures.com/facebook-is-going-to-muscle-vr-into-the-mainstream> [<https://perma.cc/3DD5-G9MX>].

²³ See Michelle Castillo, *Most Teens Can't Afford a Virtual Reality Headset, So They're Going to VR Arcades Instead*, CNBC (Feb. 10, 2018, 3:12 PM), <https://www.cnbc.com/2018/02/10/vr-arcades-are-gaming-centers-of-the-future.html> [<https://perma.cc/JCW3-BY9U>]; Laura Parker, *Virtual Reality Is a Disappointment? Not in the World of Video Gamers*, N.Y. TIMES (June 22, 2017), <https://www.nytimes.com/2017/06/22/technology/personaltech/virtual-reality-video-games.html> [<https://perma.cc/YVV2-GJRX>] (“[I]n gaming, virtual reality is flourishing. Worldwide revenue for the augmented-reality and virtual-reality market is projected to grow to more than \$162 billion in 2020, from \$5.2 billion in 2016, driven largely by gaming consoles and mobile virtual-reality headsets and experiences.”); Nick Statt, *Virtual Reality Is Taking Over the Video Game Industry*, CNET (Feb. 28, 2015, 4:00 AM), <https://www.cnet.com/news/virtual-reality-is-taking-over-the-video-game-industry/>; *Virtual Reality Has Real Appeal Among U.S. Gamers*, NIELSEN (June 8, 2017), <http://www.nielsen.com/us/en/insights/news/2017/virtual-reality-has-real-appeal-among-us-gamers.html> [<https://perma.cc/TTN8-P5TH>]. *But see* Adi Robertson, *How Virtual Reality Gaming Is Blowing its Big Chance in 2016*, VERGE (June 21, 2016, 2:14 PM), <https://www.theverge.com/2016/6/21/11990386/virtual-reality-future-sony-oculus-htc-e3-2016> [<https://perma.cc/J4B9-WETW>]; Adam Rosenberg, *Virtual Reality's Moment Looks to Be Over in Gaming, at Least for Now*, MASHABLE (Jan. 24, 2018), <https://mashable.com/2018/01/24/virtual-reality-gaming-loser-gdc-2018-survey/#pqfTjifYz5q2> [<https://perma.cc/3V5X-73UV>].

²⁴ See Todd Spangler, *Why Virtual Reality Will Never Be a Mainstream Entertainment Platform*, VARIETY (May 19, 2017, 1:07 PM), <http://variety.com/2017/digital/opinion/vr-virtual-reality-mainstream-entertainment-platform-1202436737> [<https://perma.cc/C2Q2-3USD>]; Daniel Terdiman, *Here's What Needs to Happen for VR to Go Mainstream*, FAST COMPANY (July 13, 2017), <https://www.fastcompany.com/40439481/heres-what-needs-to-happen-for-vr->

incorporating VR into their business practices. Big-box stores like Walmart, IKEA, and Lowe's have developed virtual shopping platforms.²⁵ Amazon is developing a mirror that dresses you in virtual clothes when wearing a VR headset.²⁶ Social media and entertainment apps are also incorporating VR.²⁷ Facebook's VR app, called Facebook Spaces, is the leading example of what social networking can look like in the virtual world.²⁸ In Facebook Spaces, users create their virtual avatar

to-go-mainstream [<https://perma.cc/GR84-K5EJ>]. *But see* Karan Sharma, *Five Reasons Why Virtual Reality Is Becoming Mainstream for Marketers*, FORBES (Nov. 29, 2017, 7:30 AM), <https://www.forbes.com/sites/forbesagencycouncil/2017/11/29/five-reasons-why-virtual-reality-is-becoming-mainstream-for-marketers/#706312356121> [<https://perma.cc/SR8K-28GA>].

²⁵ See Abha Bhattarai, *Walmart Looks to See if Virtual Shopping Is Better than the Real Thing*, WASH. POST (Oct. 19, 2017), https://www.washingtonpost.com/news/business/wp/2017/10/19/walmart-looks-to-see-if-virtual-shopping-is-better-than-the-real-thing/?utm_term=.baec157f1089 [<https://perma.cc/2JA2-M6TW>]; Jamie Condliffe, *Walmart Has Seen the Future, and It's VR Shopping*, MIT TECH. REV. (Oct. 20, 2017, 10:57 AM), <https://www.technologyreview.com/the-download/609183/walmart-has-seen-the-future-and-its-vr-shopping> [<https://perma.cc/APC8-KJ38>]; Press Release, IKEA, *IKEA Launches Pilot Virtual Reality (VR) Kitchen Experience for HTC Vive on Steam* (Apr. 5, 2016), http://www.ikea.com/us/en/about_ikea/newsitem/040516_Virtual-Reality [<https://perma.cc/WW89-TLW6>]. In 2014, Lowe's created "holoroom," where consumers can set up home designs in a virtual environment which "empowers homeowners with an immersive, intuitive experience in the room of their dreams. *See* *Lowe's Holoroom*, LOWE'S INNOVATION LAB, <http://www.lowesinnovationlabs.com/holoroom> [<https://web.archive.org/web/20181129183109/http://www.lowesinnovationlabs.com/holoroom>] (last visited Nov 29, 2018).

²⁶ Thuy Ong, *Amazon Patents a Mirror that Dresses You in Virtual Clothes*, VERGE (Jan. 3, 2018, 5:43 AM), <https://www.theverge.com/circuitbreaker/2018/1/3/16844300/amazon-patent-mirror-virtual-clothes-fashion> [<https://perma.cc/Z2AG-4G5B>].

²⁷ Hulu, Netflix, YouTube, and HBO Go all have VR apps. *See* Press Release, Ben Smith, Head of Experience, Hulu, *Hulu Launches Virtual Reality Application* (Mar. 24, 2016), <https://www.hulu.com/press/hulu-launches-virtual-reality-application> [<https://perma.cc/34GK-HLRU>]; Jacob Siegal, *Netflix and HBO Launch Virtual Reality Apps on Google Play*, BGR (Dec. 12, 2016, 4:24 PM), <http://bgr.com/2016/12/12/netflix-hbo-vr-android-apps> [<https://perma.cc/238B-TW7E>].

²⁸ *See* Dani Deahl, *Facebook's Social VR Spaces Is Now Compatible with HTC Vive*, VERGE (Dec. 19, 2017, 1:05 PM), <https://www.theverge.com/2017/12/19/16796238/facebook-social-vr-spaces-compatible-htc-vive-oculus-rift> [<https://perma.cc/CF5W-UC8C>]; Lisa Eadicicco, *Inside Facebook's Plan to Take Virtual Reality Mainstream*, TIME (Aug. 2, 2017), <http://time.com/4881487/facebook-vr-spaces-preview> [<https://perma.cc/NBZ7-MTYR>] ("Facebook hopes to leverage its massive social leg up to craft the ultimate communal experience in imaginary space. Yes, you can create digital sketches, browse your photos and Timeline, and view 360-degree videos. But the upshot is both subtler and, over time, more powerful: the sense that you're actually hanging out with close friends and family."); Jake Swearingen, *Facebook Spaces: Social Virtual Reality that Weirdly Works*, N.Y. MAG.: INTELLIGENCER (Aug. 1, 2017), <http://nymag.com/selectall/2017/08/facebook-spaces-social-virtual-reality-that-weirdly-works.html>

and interact with their friends in a variety of different places.²⁹ For example, Mark Zuckerberg, when showcasing the capabilities of Facebook Spaces during a Facebook Live video, received criticism when he “toured” Puerto Rico after Hurricane Maria.³⁰ Users who were watching the video found it off-putting seeing a cartoon avatar “hang out” in a place devastated by a natural disaster.³¹ When apologizing, Zuckerberg noted the “presence” experience: “When you’re in VR yourself, the surroundings feel quite real But that sense of empathy doesn’t extend well to people watching you as a virtual character on a 2D screen. That’s something we’ll need to work on over time.”³²

But when avatars start to look real, and not like cartoons, will that sense of empathy extend to people watching avatars in VR? Metapixel,³³ a 3D scanning and VR studio, plans to make that a reality.³⁴ They have developed a software that creates “astonishingly lifelike avatars” based on photographs of actual people.³⁵ The creator of Metapixel believes it will drastically change the VR experience with the rise of artificial intelligence: “[A]s AI improves . . . avatars could understand where

[<https://perma.cc/W8YP-JZYD>]. *But see* Mike Murphy, *Facebook Is the King of Social Media, But That Doesn't Mean We'll Want to Use It in VR*, QUARTZ (Dec. 6, 2017), <https://qz.com/1148810/facebook-is-the-king-of-social-media-but-that-doesnt-mean-we-want-facebook-spaces-in-vr-fb> [<https://perma.cc/5B73-9ZQZ>] (“Right now, Facebook Spaces is more like a teleconferencing service with cartoons, and not much else. Its entire purpose seems to be to forge deeper individual connections with specific friends through having fun . . . rather than ‘build community’ as Zuckerberg has harped upon this year.”).

²⁹ Press Release, Rachel Franklin, Head of Soc. VR, Facebook, Facebook Spaces: A New Way to Connect with Friends in VR, FACEBOOK NEWSROOM (Apr. 18, 2017), <https://newsroom.fb.com/news/2017/04/facebook-spaces> [<https://perma.cc/2ZS3-HXNG>].

³⁰ Jacob Kastrenakes, *A Cartoon Mark Zuckerberg Toured Hurricane-Struck Puerto Rico in Virtual Reality*, VERGE (Oct. 9, 2017, 7:20 PM) <https://www.theverge.com/2017/10/9/16450346/zuckerberg-facebook-spaces-puerto-rico-virtual-reality-hurricane> [<https://perma.cc/QTS2-YL7S>].

³¹ *Id.*

³² *See id.*; Betsy Morris, *Facebook Sets Goal of a Billion Virtual-Reality Users, Unveils New Headset*, WALL STREET J. (Oct. 11, 2017, 7:34 PM), <https://www.wsj.com/articles/facebook-sets-goal-of-a-billion-virtual-reality-users-unveils-new-headset-1507764852> [<https://perma.cc/5W6J-5RWE>].

³³ METAPIXEL.WORLD, <https://www.metapixel.world> (last visited Apr. 7, 2019).

³⁴ Boxall, *supra* note 11 (“Robbie Cooper, co-founder of Metapixel, has a vision. ‘I want fully animated, believable characters in a VR game or environment that react in a totally natural manner. To have that feeling of wanting to reach out and touch them because they’re so real. That’s how a VR world should be.’”).

³⁵ *See id.*

you're 'looking' in a VR game and respond accordingly. The more realistic the avatar looks and acts, the more you're engaged with what's going on."³⁶ In addition to the development of lifelike avatars, VR studios are also developing face-tracking technology.³⁷ This means one's VR avatar mimics the facial expression of the individual controlling the avatar.³⁸

Facebook is also researching to create technology that allows full body-tracking, so that one's avatar can not only mimic the facial expression, but also the person's entire body position.³⁹ As this type of technology becomes incorporated in VR platforms, the distinction between virtual and real is diluted, raising serious ethical and legal concerns.⁴⁰ If avatars in VR not only look exactly like real-life people, but can also respond to facial cues and mimic the facial expression and full body position of the user, interacting with avatars in VR becomes more like interacting with people face-to-face.

1. Virtual Reality Pornography

Because VR is so immersive, the pornography industry has flourished on VR platforms.⁴¹ Pornography will be the third-largest VR

³⁶ See *id.*

³⁷ Kariuki, *supra* note 10; Kavrev, *supra* note 10; Robertson, *supra* note 10.

³⁸ See sources cited *supra* note 37.

³⁹ Coldewey, *supra* note 10; Lynch, *supra* note 10.

⁴⁰ See Marc Jonathan Blitz, *The Freedom of 3D Thought: The First Amendment in Virtual Reality*, 30 CARDOZO L. REV. 1141, 1147 (2008) ("Apart from eroding individuals' sense of morality towards others, it might also disrupt their ability to learn from experience what is dangerous for themselves: if people can emerge unscathed from seemingly real virtual car crashes that would be fatal in real life, will this undermine the process by which our brain biologically registers what kind of behavior is necessary for our safety and survival? It may also make escapism too addictive of our own good."); Roderick O'Dorisio, Note, *Torts in the Virtual World*, 94 DENV. L. REV. ONLINE 1 (2017); Gilad Yadin, *Virtual Reality Intrusion*, 53 WILLAMETTE L. REV. 63, 66 (2016) ("Unlike other information technologies, virtual reality is built to deliver a psychological effect believably simulating the physical world; it possesses three-dimensional spatial characteristics, infuses users with real legal expectations, and mirrors human institutions and values. Many actions within virtual reality, lawful and criminal, are subjectively and conceptually closer to physical acts than to user actions in cyberspace."); Gilad Yadin, *Virtual Reality Surveillance*, 35 CARDOZO ARTS & ENT. L.J. 707 (2017).

⁴¹ See Lucas Matney, *A Whole Lot of People Watched VR Porn in 2016*, TECHCRUNCH (Jan. 6, 2017), <https://techcrunch.com/2017/01/06/a-whole-lot-of-people-watched-vr-porn-in-2016> [<https://perma.cc/FG9D-FH8F>]; Cassie Murdoch, *VR Has Finally Found its Place: Porn*,

sector by 2025,⁴² and some even believe that the porn industry will define the future of VR.⁴³ In 2016, Pornhub, a popular pornography site, introduced its VR section and reported that there were more than 38 million searches for VR in that year alone.⁴⁴ Whereas VR platforms may be just a trend in other industries, VR porn is here to stay,⁴⁵ and with it comes concerns about its regulation and future legality.⁴⁶

Although 2-D porn and VR porn portray the same type of material,⁴⁷ VR porn creates a “dramatically more intense erotic experience” for its users.⁴⁸ It feels as if the viewer is actually engaged in sexual activity with the person.⁴⁹ Holly Richmond, a somatic

MASHABLE (Oct. 6, 2017), <http://mashable.com/2017/10/06/vr-porn-statistics/#pqfTjifYz5q2> [<https://perma.cc/VC4V-TVY8>]; David Ng, *Porn Industry Gets a Boost from VR, but Manufacturers Aren't Thrilled*, L.A. TIMES (Jan. 5, 2018, 10:00 AM), <http://beta.latimes.com/business/hollywood/la-fi-ct-virtual-reality-porn-20180105-story.html> [<https://perma.cc/P52A-V73X>]; Claire Reilly, *A Company is Developing a Virtual-Reality 'Sex Helmet' that Streams Porn Footage Inside the Helmet*, INSIDER (Dec. 20, 2018, 3:19 PM), <https://www.thisisinsider.com/virtual-reality-sex-helmet-streams-porn-2018-12> [<https://perma.cc/8T2H-97UJ>]; Cory Scarola, *VR Porn Is Growing Incredibly Fast*, INVERSE (May 12, 2017), <https://www.inverse.com/article/31532-vr-porn-popularity-growing-fast-millennials> [<https://perma.cc/X5JR-UYBX>]; Phoebe Weston, *Popularity of Virtual Reality Porn Rises by 250% in Just One Year with 500,000 X-Rated Videos Streamed Every Day*, DAILY MAIL, <http://www.dailymail.co.uk/sciencetech/article-4511264/Popularity-VR-porn-rises-250-just-one-year.html> [<https://perma.cc/9Q7T-B2ZW>] (last updated May 16, 2017, 11:59 AM).

⁴² Alyson Krueger, *Virtual Reality Gets Naughty*, N.Y. TIMES (Oct. 28, 2017), <https://www.nytimes.com/2017/10/28/style/virtual-reality-porn.html> [<https://perma.cc/V2DR-TW8E>].

⁴³ Silver, *supra* note 12 (“Whatever comes next for VR might be best foretold by the creators, by the viewers and naturally—by the porn industry.”).

⁴⁴ Matney, *supra* note 41; *see also* Victoria Woollaston, *The UK Can't Get Enough of VR Porn: Viewing Figures Are Up 250% from Last Year*, WIRED (May 15, 2017), <http://www.wired.co.uk/article/vr-porn-pornhub> [<https://perma.cc/Y7SN-HVWC>].

⁴⁵ *But cf.* Monica Chin, *VR Porn Will Never Take Off Until It Solves These 3 Problems*, MASHABLE (May 16, 2018), <https://mashable.com/2018/05/16/vr-porn-problems/#OH4m4sbWbZqh> [<https://perma.cc/KGF8-PLAW>].

⁴⁶ *See* Griffin, *supra* note 12; Wood, *supra* note 12; Guarino, *supra* note 12; Silver, *supra* note 12; Zenor, *supra* note 12, at 589.

⁴⁷ *See* Jen Karner, *VR Porn Is the Best Kind of Porn*, VR HEADS (Jan. 23, 2018), <https://www.vrheads.com/vr-porn-takes-things-whole-new-level> [<https://perma.cc/HL6Q-DLP3>].

⁴⁸ *See* Kaplan, *supra* note 9.

⁴⁹ *See* Raymond Wong, *VR Porn Is Here and It's Scary How Realistic It Is*, MASHABLE (Jan. 8, 2016), <http://mashable.com/2016/01/08/naughty-america-vr-porn-experience/#8lykaIyPePq1> [<https://perma.cc/4HKY-KFEM>] (“Even though I was conscious that the two porn stars weren't actually there and that the guy's body wasn't really mine, I still thought they were real. The more the porn girls . . . rubbed their butts against me, the more I internalized being the VR porn guy.”).

psychologist, calls it neurological: “You aren’t just watching and thinking about it. You are feeling it, and it’s not just your genitals. There is literally a mind-body connection.”⁵⁰ Not only do users feel like they are participating in the action, they also may decide *how* they want to experience the action.⁵¹ In 2-D porn, the producer decides the timing, the action, and the camera angles, but in VR porn, these powers are with the viewer.⁵² The user, then, can experiment with their fantasies, no matter how dark.⁵³ This element raises ethical concerns, especially because the VR porn industry is evolving to incorporate physical elements,⁵⁴ further blurring the line between virtual and real sexual conduct.⁵⁵ There also is the rise of augmented reality (AR) porn, which gives consumers the ability to place animated porn stars in the real world.⁵⁶ With the use of teledildonic technology,⁵⁷ robotic sex dolls,⁵⁸

⁵⁰ Krueger, *supra* note 42.

⁵¹ *Id.*

⁵² Kaplan, *supra* note 9.

⁵³ Griffin, *supra* note 12.

⁵⁴ See Kalee Brown, *Virtual Reality Porn: The Real-Life “Westworld” that Could Transform Sex Culture*, COLLECTIVE EVOLUTION (May 26, 2017), <http://www.collective-evolution.com/2017/05/26/virtual-reality-porn-the-real-life-westworld-that-could-transform-sex-culture> [<https://perma.cc/2XJK-E4TV>] (“VR is allowing porn to truly come to life by implementing greater amounts of interactivity, allowing users to taste, touch, and smell their wildest dreams.”); Krueger, *supra* note 42; James Vincent, *Adult Cam Site CamSoda Will Offer ‘Virtual Intercourse with Real People’ Using Sex Dolls and VR*, VERGE (Jan. 24, 2018, 10:37 AM), <https://www.theverge.com/2018/1/24/16927126/teledildonics-sex-doll-vr-camsoda-virp> [<https://perma.cc/W5V7-22PU>] (describing a new virtual reality option for people who watch CamSoda, an adult webcam site: “Performers on the site will use Wi-Fi-enabled vibrators that connect to ‘male masturbators’ owned by paying viewers. Whatever happens to the vibrator sensation-wise is sent to the masturbator as ‘pressure data’ . . . [T]he [combination] of putting these masturbators inside life-size sex dolls *and* strapping themselves into virtual reality headsets . . . leads to the ‘ultimate sensory experience, one that mimics real-life interaction.’”) (emphasis in original).

⁵⁵ See Griffin, *supra* note 12; Krueger, *supra* note 42; Fiona J. McEvoy, *10 Ethical Concerns that Will Shape the VR Industry*, VENTURE BEAST (Jan. 4, 2018, 11:11 PM), <https://venturebeat.com/2018/01/04/10-ethical-concerns-that-will-shape-the-vr-industry> [<https://perma.cc/A6MZ-JREZ>].

⁵⁶ Dean Takahashi, *Augmented Reality Porn Arrives on Android with Animated Human Bodies*, VENTURE BEAT (Sept. 23, 2018, 8:35 AM), <https://venturebeat.com/2018/09/23/augmented-reality-porn-arrives-with-animated-human-bodies> [<https://perma.cc/7KTJ-R5SM>].

⁵⁷ Teledildonics is an umbrella term that refers to electronic sex toys that “connect” to other toys via Wi-Fi. See Jordan Kushins, *Teledildonics: The Weird, Wonderful World of Social Sex Toys*, GIZMODO (Feb. 7, 2014, 6:01 PM), <https://gizmodo.com/teledildonics-the-weird-wonderful-world-of-social-sex-1516075707> [<https://perma.cc/3CKR-4WUN>] (“Sex toys are great, but they still can’t compare to skin-on-skin contact. That may be about to change—kind

and VR “sex suits,”⁵⁹ not only will users be virtually present in a pornographic scene, but they can partake in the virtual sexual activity through real touch and sensation. Is the law equipped to regulate in this area? The next Section addresses that question.

B. *Obscenity Law*

The First Amendment states that “Congress shall make no law . . . abridging the freedom of speech.”⁶⁰ The right to expression is crucial to a democracy.⁶¹ However, like all other fundamental rights, freedom of speech is subject to regulation.⁶² In *Chaplinsky v. New Hampshire*,⁶³ the Court held that the First Amendment affords no protection to speech that serves “no *essential* part of any exposition of

of—thanks to a new generation of internet-enabled playthings that fall under the awesomely-named umbrella of teledildonics. These toys let long-distance partners ‘feel’ each other in real-time via data-enabled devices.”); Alex Needham, *SXSW Panel Explores Virtual Reality Porn: ‘More Eye Contact and Dirty Talk’*, GUARDIAN (Mar. 18, 2016, 6:40 PM), <https://www.theguardian.com/culture/2016/mar/18/virtual-reality-porn-sex-sxsw-panel> [<https://perma.cc/6P5V-JDQS>]; Silver, *supra* note 12; Chelsea Stark, *Virtual Reality Porn Is Here: Get Ready for the First Coming*, MASHABLE, <http://mashable.com/2016/04/17/virtual-reality-porn-is-here/#kVN8grNuzaqO> [<https://perma.cc/K29T-L7B9>] (last visited Mar. 4, 2019).

⁵⁸ Jack Crosbie, *This Orgasming Sex Robot Might Boost Your Ego, but it Won’t Make You Better in Bed*, MEN’S HEALTH (Sept. 26, 2017), <https://www.menshealth.com/sex-women/orgasming-sex-robot> [<https://perma.cc/D2VY-D3JD>]; Marie-Helen Maras & Lauren R. Shapiro, *Child Sex Dolls and Robots: More than Just an Uncanny Valley*, 21 J. INTERNET L. 3, 4–5 (2017); Sophie Saint Thomas, *8 Mindblowing Sex Trends We’ll See in 2018*, MEN’S HEALTH (Dec. 27, 2017), <https://www.menshealth.com/sex-women/8-sex-trends-we-want-to-see-in-2018> [<https://perma.cc/FB8H-XF66>].

⁵⁹ Kirstie McCrum, *Virtual Reality ‘Sex Suit’ Lets Men Experience Realistic Intercourse All on Their Own*, MIRROR, <http://www.mirror.co.uk/news/world-news/virtual-reality-sex-suit-lets-7698685> [<https://perma.cc/SMN4-7R2N>] (last updated Apr. 6, 2016, 1:55 PM).

⁶⁰ U.S. CONST. amend. I (“Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.”).

⁶¹ Helen J. Knowles & Steven B. Lichtman, *Introduction* to JUDGING FREE SPEECH: FIRST AMENDMENT JURISPRUDENCE OF US SUPREME COURT JUSTICES 1 (Helen J. Knowles & Steven B. Lichtman eds., 2015) (“[C]onsensus about the connection between free speech and democracy may be the single unifying free speech theme throughout American history.”).

⁶² *Ashcroft v. Free Speech Coal.*, 535 U.S. 234, 245–46 (2002); Laura E. Avery, *The Categorical Failure of Child Pornography Law*, 21 WIDENER L. REV. 51, 52 (2015).

⁶³ 315 U.S. 568 (1942).

ideas.”⁶⁴ Speech such as profanity, libel, incitement, fighting words, and obscenity fall within that category.⁶⁵ Classifying obscenity outside the scope of First Amendment protections can be traced back to English common law.⁶⁶ The Supreme Court in *Miller v. California*⁶⁷ established the current test for obscenity: (1) “whether ‘the average person, applying contemporary community standards’ would find that the work, taken as a whole, appeals to the prurient [sexual, salacious] interest”; (2) “whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law”; and (3) “whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value.”⁶⁸ Therefore, under *Miller*, material will be deemed obscene if it appeals to the prurient interest, is patently offensive to the average person in the contemporary community, and lacks serious value.⁶⁹ Sexual materials are not by default considered obscene: they must meet all three requirements under *Miller*.⁷⁰ In general, one has a right to privately possess obscene materials inside their home,⁷¹ but one does not have a right to produce obscene materials for purposes of distribution.⁷² In most cases, child

⁶⁴ *Id.* at 72 (emphasis added); *id.* at 571–72 (“There are certain well-defined and narrowly limited classes of speech, the prevention and punishment of which have never been thought to raise any Constitutional problem. These include the lewd and obscene, the profane, the libelous, and the insulting or ‘fighting’ words—those which by their very utterance inflict injury or tend to incite an immediate breach of the peace.”); see also DAVID M. O’BRIEN, CONGRESS SHALL MAKE NO LAW: THE FIRST AMENDMENT, UNPROTECTED EXPRESSION, AND THE U.S. SUPREME COURT 12 (2010).

⁶⁵ See *Chaplinsky*, 315 U.S. at 571–73.

⁶⁶ Obscenity was first established under the *Hicklin* test: “[w]hether the tendency of the matter charged as obscenity is to deprave and corrupt those whose minds are open to such immoral influences, and into whose hands a publication of this sort might fall.” *Regina v. Hicklin* [1868] 3 QB 360, 371 (Eng.). Under this “extremely restrictive” test, anything that could have a harmful influence on children was proscribable. O’BRIEN, *supra* note 64, at 15–16. The Court abandoned the *Hicklin* test in *Roth v. United States*, where it established a more particularized test for obscenity: “whether to the average person, applying contemporary community standards, the dominant theme of the material taken as a whole appeals to the prurient interest.” *Roth v. United States*, 354 U.S. 476, 489 (1957).

⁶⁷ 413 U.S. 15 (1973).

⁶⁸ *Id.* at 24.

⁶⁹ *Id.* at 32–40.

⁷⁰ *United States v. Various Articles of Obscene Merch.*, 709 F.2d 132 (2d Cir. 1983); *State v. Harrold*, 593 N.W.2d 299, 309 (Neb. 1999).

⁷¹ See *Stanley v. Georgia*, 394 U.S. 557 (1969).

⁷² See 18 U.S.C. § 1465 (2018); 18 U.S.C. § 1466 (2018).

pornography will fall under obscenity,⁷³ however the next Section highlights a previous gap in the law that contributed to a booming child pornography market.⁷⁴

C. *Mending the Gap Between Obscenity and Child Pornography*

By the 1980s, state and federal officials were dealing with a child pornography problem.⁷⁵ Because literary, artistic, political, and scientific material is protected under the *Miller* test, depictions of children engaged in sexual activity could be legally distributed so long as the work as a whole had some value. For example, a documentary on war crimes could feature a scene of child rape. Although the documentary portrays child abuse, the documentary, as a whole, has educational value. Therefore, the material would fail under the *Miller* test and would be protected under the First Amendment. This gap is one that the *New York v. Ferber* Court rectified by classifying child pornography separately from obscenity.⁷⁶

At issue in *New York v. Ferber*⁷⁷ was a New York statute⁷⁸ that prohibited the distribution of child pornography—material depicting children under the age of sixteen engaging in sexual conduct—without requiring that the material be legally obscene.⁷⁹ The statute defined sexual conduct as “actual or simulated sexual intercourse, deviate sexual

⁷³ O'BRIEN, *supra* note 64, at 19.

⁷⁴ *New York v. Ferber*, 458 U.S. 747, 749 (1982); Carissa Byrne Hessick, *Introduction to REFINING CHILD PORNOGRAPHY LAW: CRIME, LANGUAGE, AND SOCIAL CONSEQUENCES* 3–4 (Carissa Byrne Hessick ed., 2016).

⁷⁵ James Weinstein, *The Context and Content of New York v. Ferber*, in *REFINING CHILD PORNOGRAPHY LAW: CRIME, LANGUAGE, AND SOCIAL CONSEQUENCES* 19, 24 (Carissa Byrne Hessick ed., 2016) (“[B]ecause of the existence of [a] highly protective free speech jurisprudence, an industry devoted to the production and distribution of child pornography was flourishing. The legislative response was massive.”).

⁷⁶ Hessick, *supra* note 74, at 3–4.

⁷⁷ *New York v. Ferber*, 458 U.S. 747 (1982).

⁷⁸ N.Y. PENAL LAW § 263.15 (McKinney 2019) (“A person is guilty of promoting a sexual performance by a child when, knowing the character and content thereof, he produces, directs or promotes any performance which includes sexual conduct by a child less than seventeen years of age.”). At issue was how “promote” was defined. *See* N.Y. PENAL LAW § 263.00(5) (McKinney 2019) (“‘Promote’ means to procure, manufacture, issue, sell, give, provide, lend, mail, deliver, transfer, transmute, publish, distribute, circulate, disseminate, present, exhibit or advertise, or to offer or agree to do the same.”).

⁷⁹ *Ferber*, 458 U.S. at 749–50.

intercourse, sexual bestiality, masturbation, sado-masochistic abuse, or lewd exhibition of the genitals.”⁸⁰ The question was not whether the First Amendment protects a right to produce nonobscene child pornography,⁸¹ but rather if it protects the right to *distribute* nonobscene child pornography.⁸²

The case involved Paul Ferber, who owned a bookstore in Manhattan that specialized in sexual material.⁸³ He sold two films portraying young boys masturbating to undercover agents, and was convicted under the statute.⁸⁴ Ferber argued that the State can prohibit the distribution of child pornography so long as it only prohibits distribution of obscene child pornography.⁸⁵ The New York Court of Appeals ruled the statute unconstitutional for not tailoring its language to *Miller*.⁸⁶ Justice White, writing for the U.S. Supreme Court, reversed.⁸⁷

Justice White reasoned that states are afforded more leeway in child pornography regulation than other content-based laws based on five points. First, the state has a compelling interest in safeguarding the physical and psychological well-being of a minor and preventing the sexual exploitation and abuse of children.⁸⁸ Second, the distribution of pornographic materials is “intrinsically related” to child sex abuse.⁸⁹ The harm to the child is exacerbated each time their documented sex abuse

⁸⁰ *Id.* at 751.

⁸¹ Minors cannot legally consent to sexual activity, any type of sexual conduct with a minor is a crime in its own right, so the right to produce child pornography has never been a First Amendment issue. *See id.* at 758; Oral Argument at 3:38, *New York v. Ferber*, 458 U.S. 747 (1982) (No. 81-55), <https://www.oyez.org/cases/1981/81-55>.

⁸² *See Weinstein, supra* note 75, at 25.

⁸³ *Ferber*, 458 U.S. at 751–52.

⁸⁴ *Id.*

⁸⁵ *See* Carissa Byrne Hessick, *The Limits of Child Pornography*, 89 *IND. L.J.* 1437, 144 (2014).

⁸⁶ *Ferber*, 458 U.S. at 752.

⁸⁷ *Id.* at 774.

⁸⁸ *Id.* at 756–57 (“It is evident beyond the need for elaboration that a State’s interest in ‘safeguarding the physical and psychological well-being of a minor’ is ‘compelling.’”).

⁸⁹ *Id.* at 759 (“[T]he materials produced are a permanent record of the children’s participation and the harm to the child is exacerbated by their circulation [and] the distribution network for child pornography must be closed if the production of material which requires the sexual exploitation of children is to be effectively controlled.”); *see also* Audrey Rogers, *The Dignity Harm of Child Pornography—From Producers to Possessors*, in *REFINING CHILD PORNOGRAPHY: CRIME, LANGUAGE, AND SOCIAL CONSEQUENCES* 165, 170–79 (Carissa Byrne Hessick ed., 2016).

comes across a new set of eyes. Also, because the producers of child pornography are extremely difficult to locate, Justice White determined it not only reasonable, but also necessary to prohibit the dissemination of child pornography in eradicating child sexual abuse.⁹⁰ Third, if the State was prevented from prohibiting the distribution of nonobscene child pornography, it would be facilitating an economic motive to promote documentation of illegal conduct.⁹¹ Fourth, there is little value in protecting the right to distribute depictions of children engaged in lewd sexual conduct for artistic, literary, or educational work. If the use of a child was necessary for literary or artistic value, the Court notes that either a simulation or an adult who looks like a minor could stand in.⁹² Fifth, classifying child pornography as a category of expression outside the protection of the First Amendment is not incompatible with precedent.⁹³ These five points highlight the Court's focus: preventing the exploitation and sexual abuse of children.⁹⁴ Justice O'Connor, concurring in the opinion, echoed this distinction by emphasizing how any appreciation of the material was a nonfactor when the material directly harms children's psychological, emotional, or mental health.⁹⁵

Once the Court concluded that the state has leeway in regulating child pornography, it addressed the categorical limits of child pornography and its distinction from obscenity analysis. First, the type

⁹⁰ *Ferber*, 458 U.S. at 760 (“The most expeditious if not the only practical method of law enforcement may be to dry up the market for this material by imposing severe criminal penalties on persons selling, advertising, or otherwise promoting the product.”).

⁹¹ *Id.* at 761 (“The advertising and selling of child pornography provide an economic motive for and are thus an integral part of the production of such materials, an activity illegal throughout the Nation.”).

⁹² *Id.* at 763. Twenty years later, this fourth point played a major role in *Ashcroft v. Free Speech Coalition*, where the Court held nonobscene virtual child pornography as protected speech. 535 U.S. 235, 251 (2002).

⁹³ *Ferber*, 458 U.S. at 763.

⁹⁴ Amy Adler, *The “Dost Test” in Child Pornography Law*, in *REFINING CHILD PORNOGRAPHY LAW: CRIME, LANGUAGE, AND SOCIAL CONSEQUENCES* 81, 83 (Carissa Byrne Hessick ed., 2016) (“[The] key to the Court’s reasoning was that the production of child pornography requires an act of child sexual abuse.”).

⁹⁵ *Ferber*, 458 U.S. at 774–75 (O’Connor, J., concurring) (“For example, a 12-year-old child photographed while masturbating surely suffers the same psychological harm whether the community labels the photograph ‘edifying’ or ‘tasteless.’ The audience’s appreciation of the depiction is simply irrelevant to New York’s asserted interest in protecting children from psychological, emotional, and mental harm.”).

of conduct to be prohibited must be adequately defined by state law.⁹⁶ Second, the type of material must be a visual depiction to fall outside First Amendment protections.⁹⁷ Lastly, sexual conduct must have a clear definition.⁹⁸ As for child pornography analysis, it is irrelevant whether the material appeals to the prurient interest of the average person, or whether the material is portrayed in a patently offensive way.⁹⁹ When material is not obscene, but still portrays minors engaging in sexual conduct, it is child pornography and is not protected under the First Amendment.

Lastly, *Ferber* determined that the statute was not overly broad. For a law to be struck down under the overbreadth doctrine, the overbreadth must be substantial.¹⁰⁰ The purpose of the overbreadth doctrine is to assure that the First Amendment rights of those not before the Court are not unduly restricted.¹⁰¹ The Court struggled to imagine the statute restricting a wide range of protected speech¹⁰² and was skeptical of a situation where a substantial amount of literary, scientific, or artistic material would fall under the statute.¹⁰³

In analyzing the statute, the Court was not focused on the content of the material, but rather on what was required to create the material: the abuse and exploitation of children.¹⁰⁴ Because *Miller* asks for the material to be taken as a whole, a movie containing just five seconds of “the hardest core of child pornography” could be protected if it contained some serious literary value.¹⁰⁵ Although child pornography falls under First Amendment analysis, *Ferber* stands for the proposition that the reason for prohibiting its distribution was never grounded in its

⁹⁶ *Id.* at 764 (majority opinion).

⁹⁷ *Id.*

⁹⁸ *Id.* (“The category of ‘sexual conduct’ proscribed must also be suitably limited and described.”).

⁹⁹ See *supra* note 95.

¹⁰⁰ *Ferber*, 458 U.S. at 769–71.

¹⁰¹ See Weinstein, *supra* note 75, at 29.

¹⁰² *Ferber*, 458 U.S. at 773 (“How often, if ever, it may be necessary to employ children to engage in conduct clearly within the reach of [the statute] in order to produce educational, medical, or artistic works cannot be known with certainty.”).

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 761 (“It is irrelevant to the child [who has been abused] whether or not the material . . . has a literary, artistic, political or social value.”) (alterations in original).

¹⁰⁵ *Id.*

content, but rather in that fact that its distribution had grave impacts on the children depicted.¹⁰⁶

Eight years after *Ferber*, the Court faced an Ohio statute¹⁰⁷ that prohibited mere possession of child pornography in *Osborne v. Ohio*.¹⁰⁸ Clyde Osborne had been convicted under the statute when police discovered four photographs of young boys posing in a sexually explicit manner in his home.¹⁰⁹ The question was whether a state could constitutionally proscribe the possession and viewing of child pornography inside one's home without violating First Amendment principles.¹¹⁰ The Court had previously held in *Stanley v. Georgia*¹¹¹ that a law banning the private possession of obscene material was in violation of the First and Fourteenth Amendments.¹¹² Osborne argued

¹⁰⁶ See Weinstein, *supra* note 75, at 32 (noting how the Court declined to use the harm caused by the audience's reaction to child pornography and instead focused on the harm unrelated to the communicative effect of the material: "[T]he Court focused exclusively on another type of harm, also documented by the state: the physiological and psychological harm arising from the 'the use of children as subjects in pornographic materials.'").

¹⁰⁷ OHIO REV. CODE ANN. § 2907.323(A)(3) (West 2019) makes it a crime to:

[P]ossess or view any material or performance that shows a minor who is not the person's child or ward in a state of nudity, unless one of the following applies: (a) The material or performance is sold, disseminated, displayed, possessed, controlled, brought or caused to be brought into this state, or presented for a bona fide artistic, medical, scientific, educational, religious, governmental, judicial, or other proper purpose, by or to a physician, psychologist, sociologist, scientist, teacher, person pursuing bona fide studies or research, librarian, member of the clergy, prosecutor, judge, or other person having a proper interest in the material or performance[;] (b) The person knows that the parents, guardian, or custodian has consented in writing to the photographing or use of the minor in a state of nudity and to the manner in which the material or performance is used or transferred.

Id.

¹⁰⁸ *Osborne v. Ohio*, 495 U.S. 103, 106–07 (1990).

¹⁰⁹ *Id.* at 107.

¹¹⁰ *Id.* at 108.

¹¹¹ 394 U.S. 557 (1969).

¹¹² *Id.* at 559, 566 ("Whatever the power of the state to control public dissemination of ideas inimical to the public morality, it cannot constitutionally premise legislation on the desirability of controlling a person's private thoughts."); see also Marc Jonathan Blitz, *Stanley in Cyberspace: Why the Privacy Protection of the First Amendment Should be More Like that of the Fourth*, 62 HASTINGS L.J. 357, 359 (2010) ("*Stanley* held that even though obscene movies or books can generally be constitutionally prohibited or punished when in public—because courts view such expression as falling outside the bounds of the First Amendment—such materials are nonetheless protected by the First Amendment when read or viewed by a person in her own home.").

that the ruling in *Stanley* extended to child pornography too.¹¹³ Justice White, writing for the majority, disagreed.¹¹⁴ Prohibiting the distribution and public display of obscene materials is founded on the principle that obscene materials harm society at large—they offend “the public morality.”¹¹⁵ But once the individual is inside his own home, the individual has a First Amendment and privacy right to possess and view whatever he desires: “[W]hatever the power of the state to control public dissemination [of obscenity], it cannot constitutionally premise legislation on the desirability of controlling a person’s private thoughts.”¹¹⁶ This justification is absent when the material in question is child pornography. Applying the same justifications used in *Ferber*, the *Osborne* Court reasoned that the statute worked toward drying up the child pornography market.¹¹⁷ Because the child pornography market had been driven underground since *Ferber*, making it more difficult to “stamp out [the] vice,” the Court believed proscribing possession was necessary, just like the *Ferber* Court concluded prohibiting distribution was necessary to deter production of child pornography.¹¹⁸ Although the possessor is not the abuser of the minor, he is still in possession of recorded child abuse, and the victim suffers each time the material circulates.¹¹⁹ The Court also reasoned that child pornography could be used to seduce children to engage in sexual conduct.¹²⁰ Because of the

¹¹³ *Osborne*, 495 U.S. at 110.

¹¹⁴ *Id.* at 108–09 (“It is evident beyond the need for elaboration that a State’s interest in ‘safeguarding the physical and psychological well-being of a minor’ is ‘compelling’ . . . [and] that the use of children as subjects of pornographic materials is harmful to the physiological, emotional, and mental health of the child.”) (quoting *New York v. Ferber*, 458 U.S. 747, 756–58 (1982)).

¹¹⁵ *Id.* at 109 (quoting *Stanley v. Georgia*, 394 U.S. 557, 566 (1969)).

¹¹⁶ *Id.*; see also *Stanley*, 394 U.S. at 564 (“It is now well established that the Constitution protects the right to receive information and ideas For also fundamental is the right to be free, except in very limited circumstances, from unwanted governmental intrusions into one’s privacy.”). But *Stanley* does read to mean that an individual has a right to *receive* obscenity. See *infra* Section II.C.

¹¹⁷ *Osborne*, 495 U.S. at 110.

¹¹⁸ *Id.* at 110–11.

¹¹⁹ *Id.* at 111 (“[T]he materials produced by child pornographers permanently record the victim’s abuse. The pornography’s continued existence causes the child victims continuing harm by haunting the children in years to come. . . . encouraging the destruction of these materials is also desirable because evidence suggests that pedophiles use child pornography to seduce other children into sexual activity.”).

¹²⁰ *Id.* This point is important to note because it was used to support the prohibition of virtual child pornography in *Free Speech Coalition*, see *supra* Section I.B.

state's overwhelming interest in protecting minors from sexual abuse and exploitation, the majority held that states are allowed to prohibit possession of child pornography, regardless of whether the material is obscene.

D. *Child Pornography Limitations: Virtual Representations*

In 1996, Congress updated child pornography laws to prohibit possession of virtual child pornography—material that does not depict real children.¹²¹ Under the Child Pornography Prevention Act (CPPA), individuals who produce, possess, or distribute sexually explicit, but not obscene, images that simply *appear* to depict persons under eighteen years of age could be imprisoned for fifteen years for a first offense.¹²²

The Supreme Court in *Ashcroft v. Free Speech Coalition*¹²³ involved a facial challenge¹²⁴ to two provisions of the CPPA: Section 2256(8)(B), which prohibited any visual depiction, including a computer-generated image that either is or appears to be a minor engaging in sexually explicit conduct,¹²⁵ and Section 2256(8)(D), which defined child pornography to include any sexually explicit image that was “advertised, promoted, presented, described, or distributed in such a manner that conveys the impression that the material” depicts “a minor engaging in sexually explicit conduct.”¹²⁶ A separate provision of the statute, which was not challenged, proscribed morphing, a method in which an image

¹²¹ Child Pornography Prevention Act (CPPA) of 1996, 18 U.S.C. § 2256 (1996).

¹²² 18 U.S.C. § 2252A(b)(1) (2018).

¹²³ 535 U.S. 234 (2002).

¹²⁴ The Free Speech Coalition, a trade association involved in adult-orientated materials challenged the statute. *Id.*

¹²⁵ 18 U.S.C. § 2256(8)(B) (1996) (“[C]hild pornography’ means any visual depiction, including any photograph, film, video, picture, or computer or computer-generated image or picture, whether made or produced by electronic, mechanical, or other means, of sexually explicit conduct, where . . . (B) such visual depiction is, or appears to be, of a minor engaging in sexually explicit conduct.”).

¹²⁶ *Id.* § 2256(8)(D) (“[C]hild pornography’ means any visual depiction, including any photograph, film, video, picture, or computer or computer-generated image or picture, whether made or produced by electronic, mechanical, or other means, of sexually explicit conduct, where . . . (D) such visual depiction is advertised, promoted, presented, described, or distributed in such a manner that conveys the impression that the material is or contains a visual depiction of a minor engaging in sexually explicit conduct.”).

of an actual minor is modified to portray the minor in sexual conduct.¹²⁷ The Court addressed the provision briefly and hinted that it posed no threat to First Amendment principles because it involved the use of actual children.¹²⁸

Justice Kennedy, writing for the majority, ruled the provisions unconstitutional because they proscribed nonobscene material without requiring the images to depict actual children.¹²⁹ The Court first noted that a literal reading of the statute would classify a broad range of protected speech as child pornography, from Renaissance paintings depicting scenes from classical mythology to mainstream movies employing adult actors who “appear to be” minors engaged in sexual conduct.¹³⁰ The Court stressed that the government cannot restrict speech just because the speech might potentially motivate someone to commit a crime.¹³¹ Even if a class of nonobscene speech could still offend one’s “sensibilities,” that alone cannot constitute a restriction.¹³² The CPPA would not only cover offending material, but also a common literary theme: teenagers engaging in sexual activity, “a theme in art and literature throughout the ages.”¹³³ The Court mentioned that material

¹²⁷ *Id.* § 2256(8)(C) (“such visual depiction has been created, adapted, or modified to appear that an identifiable minor is engaging in sexually explicit conduct”).

¹²⁸ Federal courts have followed this reasoning. *See Shoemaker v. Taylor*, 730 F.3d 778, 786 (9th Cir. 2013) (holding that images of children morphed to look like child pornography are not protected speech because morphed images are like traditional child pornography in that they are records of the harmful sexual exploitation of children); *United States v. Hotaling*, 634 F.3d 725, 730 (2d Cir. 2011), *cert. denied*, 565 U.S. 1092 (2011) (“[E]ven though the bodies in the images belonged to adult females, they had been digitally altered such that the only recognizable persons were the minors These images fit clearly within the bounds of *Ferber*, and the Supreme Court has made it clear that the harm begins when the images are created.”); *United States v. Bach*, 400 F.3d 622 (8th Cir. 2005).

¹²⁹ The issue was that the CPPA proscribed “a significant universe of speech that is neither obscene under *Miller* nor child pornography under *Ferber*.” *Ashcroft v. Free Speech Coal.*, 535 U.S. 234, 240 (2002).

¹³⁰ *Id.* at 241.

¹³¹ *Id.* at 245 (“Congress may pass valid laws to protect children from abuse, and it has. The prospect of crime, however, by itself does not justify laws suppressing protected speech.”) (internal citations omitted).

¹³² *Id.* (“[S]peech may not be prohibited because it concerns subjects offending our sensibilities.”).

¹³³ *Id.* at 247–48 (discussing how possessors of films like *Romeo and Juliet*, *Traffic*, and *American Beauty* could be subject to punishment under the CPPA).

such as *Romeo and Juliet*, *Traffic*, and *American Beauty* could be subject to punishment under the CPPA.¹³⁴

The government defended the CPPA by using the same justifications in *Ferber* and *Osborne*: the indirect harm the images had on children.¹³⁵ First, Congress found that virtual child pornography could help facilitate abuse.¹³⁶ Also, because individuals with pedophilic desires are aroused by child pornography, Congress reasoned that virtual child pornography could have the same effect as actual child pornography, and increase the risk that these individuals would abuse children and create actual child pornography.¹³⁷ It followed that virtual child pornography could be used to seduce children to engage in sexual conduct, and because the material is presumably created to arouse the sexual desire of individuals with pedophilic impulses, Congress believed that virtual child pornography eventually harms real children based on its content.¹³⁸ However, the Court in *Ferber* and *Osborne* did not focus on the harm of the content.¹³⁹ In both cases, the harm flowed from the production and distribution of the material, not the content of the material itself.¹⁴⁰ The *Ferber* Court reasoned that the government has a compelling interest in banning the distribution of child pornography, regardless of whether it is classified as obscene because (1) circulation of documented abuse would cause new injury to the child's reputation and emotional well-being, and (2) the traffic in child pornography serves an economic motive for its production, giving the state an interest in closing the distribution network.¹⁴¹ These two aspects are absent in the

¹³⁴ Justice Kennedy underlined the social value behind the images being prohibited: "Art and literature express the vital interest we all have in the formative years we ourselves once knew, when wounds can be so grievous, disappointment so profound, and mistaken choices so tragic, but when moral acts and self-fulfillment are still in reach." *Id.* at 248.

¹³⁵ *Id.* at 241 ("These images do not involve, let alone harm, any children in the production process; but Congress decided the materials threaten children in other, less direct, ways.")

¹³⁶ *Id.* ("[A] child who is reluctant to engage in sexual activity with an adult, or to pose for sexually explicit photographs, can sometimes be convinced by viewing depictions of other children 'having fun' participating in such activity.") (internal quotation marks omitted).

¹³⁷ *Id.* ("Furthermore, pedophiles might 'whet their own sexual appetites' with the pornographic images, 'thereby increasing the creation and distribution of child pornography and the sexual abuse and exploitation of actual children.'").

¹³⁸ *Id.* at 241.

¹³⁹ See *New York v. Ferber*, 458 U.S. 747 (1982).

¹⁴⁰ *Id.* at 250–52; see also Oral Argument at 18:49, *Ashcroft v. Free Speech Coalition*, 535 U.S. 234 (2002) (No. 00–795), <https://www.oyez.org/cases/2001/00-795>.

¹⁴¹ *Ferber*, 458 U.S. at 249.

production and distribution of virtual child pornography. Therefore, the Court did not find virtual child pornography indirectly harmful to children.

1. Congress's Response to *Free Speech Coalition*

In response to *Free Speech Coalition*, Congress passed the Prosecutorial Remedies and Other Tools to end the Exploitation of Children Today Act (PROTECT Act) in 2003.¹⁴² The Act contains a pandering provision, which makes it a crime to solicit or offer child pornography that is intended to cause another to believe that the material is illegal child pornography, regardless of whether that material depicts real or virtual children.¹⁴³ The defendant, Michael Williams, was convicted under the provision when he told an undercover Secret Service agent in an online chat room that he had photos of his four-year-old daughter being molested by four men.¹⁴⁴ Williams argued that the pandering provision was unconstitutional under the First Amendment.¹⁴⁵ Justice Scalia, writing for the majority, disagreed.¹⁴⁶

In construing the statute, the Court framed the provision to mean that it only banned the collateral speech that introduced child pornography into the child pornography distribution network, rather than ban virtual child pornography itself.¹⁴⁷ The harm that Congress was concerned about was not child abuse, but rather speech that alluded

¹⁴² Linda Greenhouse, *Supreme Court Upholds Child Pornography Law*, N.Y. TIMES (May 20, 2008), <http://www.nytimes.com/2008/05/20/washington/20scotus.html> [<https://perma.cc/L89H-CV4T>].

¹⁴³ Prosecutorial Remedies and Other Tools to end the Exploitation of Children Today Act of 2003, Pub. L. No. 108-21, 117 Stat. 650; 18 U.S.C. § 2252A(a)(3)(B) (2018) (“Any person who . . . knowingly . . . advertises, promotes, presents, distributes, or solicits through the mails, or using any means or facility of interstate or foreign commerce or in affecting interstate or foreign commerce by any means, including by computer, any material or purported material in a manner that reflects the belief, or that is intended to cause another to believe, that the material or purported material is, or contains—(i) an obscene visual depiction of a minor engaging in sexually explicit conduct; or (ii) a visual depiction of an actual minor engaging in sexually explicit conduct.”).

¹⁴⁴ *United States v. Williams*, 553 U.S. 285, 291 (2008).

¹⁴⁵ *Id.* at 288.

¹⁴⁶ *Id.* at 293.

¹⁴⁷ *Id.* at 293–95.

to containing child sex abuse.¹⁴⁸ The focus was not on preventing the harm of child sex abuse, but rather on speech that provides or offers it.¹⁴⁹ No child is harmed when someone alleges that they possess child pornography. No child is harmed when someone asks for child pornography. However, a child *is* harmed when an image depicting their abuse is circulated.¹⁵⁰ The PROTECT Act aims to impede the actions that facilitate the illegal network. If the federal government wants the child pornography network to shrink, the Court reasoned that Congress could prevent people from accessing child pornography by prohibiting the speech that asks for it. But if use of an actual child remains the defining feature of child pornography, Justice Thomas's concurrence in *Free Speech Coalition* deserves reconsideration in light of technological advances in VR and adult VR gaming.¹⁵¹

II. ANALYSIS

A. *Adult VR Games*

“Adult” VR games are an alternative to VR porn, a “NSFW”¹⁵² option for virtual reality gaming.¹⁵³ Although not as mainstream as VR porn, adult VR games are slowly becoming more popular.¹⁵⁴ The games

¹⁴⁸ *Id.*

¹⁴⁹ *Id.* at 297.

¹⁵⁰ See generally Audrey Rodgers, *The Dignity Harm of Child Pornography—From Producers to Possessors*, in *REFINING CHILD PORNOGRAPHY LAW: CRIME, LANGUAGE, AND SOCIAL CONSEQUENCES* (Carissa Byrne Hessick ed., 2016).

¹⁵¹ “[T]echnology may evolve to the point where it becomes impossible to enforce actual child pornography laws because the Government cannot prove that certain pornographic images are of real children. In the event this occurs, the Government should not be foreclosed from enacting a regulation of virtual child pornography that contains an appropriate affirmative defense or some other narrowly drawn restriction.” *Ashcroft v. Free Speech Coal.*, 535 U.S. 234, 259 (2002).

¹⁵² “Not Safe for Work.” This term refers to sexual material.

¹⁵³ A *Comprehensive Guide to Adult VR Sex Games: Top Adult VR Porn Games Guide (NSFW)*, VRROOM (Dec. 20, 2017), <https://www.vrroom.buzz/vr-news/entertainment/comprehensive-guide-adult-vr-sex-games> [<https://perma.cc/Z9KT-TE8S>].

¹⁵⁴ See generally John Gaudiosi, *This Sex Game Could Help Oculus Sell Virtual Reality in Japan*, FORTUNE (Mar. 29, 2016), <http://fortune.com/2016/03/28/sex-game-virtual-reality-in-japan> [<https://perma.cc/4NJM-W6H8>]; Jonathan Leack, *Adult VR Games Are Benefitting Greatly from Oculus Rift's Price Drop*, GAME REVOLUTION (July 12, 2017), <http://www.gamerevolution.com/features/340467-adult-vr-games-benefitting-greatly-oculus-rifts->

all involve sexually explicit content, but the graphics vary. Whereas VR porn shows real-life porn actors, adult VR games typically depict virtual avatars.¹⁵⁵ Some strive to have photorealistic avatars,¹⁵⁶ while others have Japanese anime avatars.¹⁵⁷ The games loosely involve some mission or goal. For example, in *VR Kanojo* (Konjo means “girlfriend” in Japanese), the player is asked to help “tutor” a neighborhood girl named Sakura.¹⁵⁸ She appears to follow the “Japanese style of appearing young and feminine with high pitched voice and passive demeanour.”¹⁵⁹ Over time, the player unlocks new scenes with Sakura. The longer you “play” with Sakura, the more sexually explicit the content becomes.¹⁶⁰ In *Happy Biing VR*, a “Mosquito-inspired indie game,” the player’s mission is to save the world by traveling back in time to steal the blood of twenty-first century women for DNA samples.¹⁶¹ The user plays a mosquito and can get extra points by biting the girls’ “sensitive parts,”

price-drop [https://perma.cc/38ZJ-WLC6]; Kristy Siefkin, *Adult VR Gaining Popularity, but Could Hurt Real Relationships*, FOX 10 NEWS, <http://www.fox10phoenix.com/news/arizona-news/adult-vr> [https://perma.cc/4LY5-5A76] (last updated Apr. 12, 2017, 10:01 PM).

¹⁵⁵ See *A Comprehensive Guide to Adult VR Sex Games: Top Adult VR Porn Games Guide (NSFW)*, *supra* note 153.

¹⁵⁶ See, e.g., EVRSTUDIO, <http://www.evrstudio.com/#vr-gaming> [http://web.archive.org/web/20180412160154/http://www.evrstudio.com/#vr-gaming] (last visited Apr. 12, 2018) (“Project M’ aims to deliver users with a wide spectrum of emotional experience by providing different types of activities, mild to wild, such as a simply going to the beach with a heroine, or being present at an elevated height, or going sky diving with a digital friend within virtual reality. *The most important goal of Project M is to present users with realistic looking digital characters that users can emotionally connect with*, supported by an intriguing storyline, AI that remembers the user’s actions and dialogue to ultimately provide a sense of comfort to the user at the end of the day.”) (emphasis added).

¹⁵⁷ See *A Comprehensive Guide to Adult VR Sex Games: Top Adult VR Porn Games Guide (NSFW)*, *supra* note 153.

¹⁵⁸ Kate Gray, *This VR Girlfriend Simulator Is About More than Cybersex*, KOTAKU (Feb. 27, 2018, 2:00 PM), <https://kotaku.com/vr-kanojos-anime-girlfriend-is-more-than-just-a-sex-dol-1823329702> [https://perma.cc/ZDU4-4M32]. *VR Kanojo* was one of the best-selling VR games on Steam in 2018. See Ben Lang, *Valve Reveals Top Selling VR Games on Steam in 2018*, ROADTOVR (Dec. 28, 2018), <https://www.roadtovr.com/valve-reveals-top-selling-vr-games-on-steam-2018> [https://perma.cc/RG8M-EYLZ].

¹⁵⁹ Sex Bot, *VR Kanojo Sexy Scenes Video NSFW-Updated Bathroom DLC*, CRAM-GAMING (Mar. 1, 2017), <http://cramgaming.com/vr-kanojo-sexy-scenes-video-nsfw-38783> [https://perma.cc/TTC3-HCCP] (although the post notes that she is supposed to represent an eighteen-year-old).

¹⁶⁰ *Id.*

¹⁶¹ *A Comprehensive Guide to Adult VR Games*, *supra* note 153.

which unlocks new poses, outfits, and scenes.¹⁶² However, even if the avatars do not look photorealistic, human sensibilities still transfer over. For example, *Summer Lesson*,¹⁶³ a VR dating sim game,¹⁶⁴ is different from other adult VR games in that there is nothing overtly sexual in its content, but its purpose is to develop a close friendship with the girl avatar.¹⁶⁵ Kim Horcher, the host of Nerd Alert, a popular YouTube channel that reviews video games and VR content, mentioned that players will likely develop empathy for the avatar in VR because it feels like they are actually sitting right next to the girl.¹⁶⁶

The big difference between adult VR games and VR porn is that most adult VR games depict avatars that look computer-generated. However, there is certainly a demand for better graphics in adult VR games,¹⁶⁷ and the technology already exists.¹⁶⁸ For example, EVR Studio, a VR content company based in Korea, is developing *Project M*. Its goal is to present users with realistic looking digital characters.¹⁶⁹ *Project M* markets itself as an “interactive adventure VR game . . . where users

¹⁶² *Id.*

¹⁶³ *Summer Lesson: Allison & Chisato*, PLAYSTATION STORE (Aug. 23, 2018), https://store.playstation.com/en-my/product/HP0700-CUSA11674_00-ASIAPLACEHOLDER0 [<https://perma.cc/L6NH-4U9J>].

¹⁶⁴ *Dating sim*, WIKIPEDIA, https://en.wikipedia.org/wiki/Dating_sim [<https://perma.cc/9MC7-XJMZ>] (last visited Mar. 14, 2019).

¹⁶⁵ The player has an option to choose either an American-looking avatar or a Japanese-looking avatar.

¹⁶⁶ NerdAlert, *How a VR Dating Game is Actually Pretty Scary*, YOUTUBE (Sept. 27, 2015), <https://www.youtube.com/watch?v=Y4frP3WodCE>; see also Allegra Frank, *Summer Lesson Is the Scariest VR Experience I've Ever Had*, POLYGON (Sept. 21, 2017, 3:13 AM), <https://www.polygon.com/2017/9/21/16343274/summer-lesson-tgs-2017-scary-vr-games> [<https://perma.cc/US8E-5CP5>]; Chris Kohler, *Let's Play Summer Lesson, PlayStation VR's Most Unexpectedly Creepy Game*, WIRED: CULTURE (Oct. 18, 2016, 10:00 AM), <https://www.wired.com/2016/10/summer-lesson-playstation-vr> [<https://perma.cc/H66Q-9DPV>].

¹⁶⁷ See generally Future of Sex, *The Most Realistic Sex Games You Can Play*, FUTURE OF SEX, <https://futureofsex.net/immersive-entertainment/the-most-realistic-sex-games-you-can-play> [<https://perma.cc/K7HP-7CFW>] (last updated Apr. 8, 2018).

¹⁶⁸ See *supra* Section II.A.

¹⁶⁹ Game Cooker US Rocks VR, *ProjectM: Dream VR—Female Simulation Tech Demo*, YOUTUBE (Sept. 7, 2017), https://www.youtube.com/watch?v=1_kTc0BVlyQ; Cerberus, *VR Title Project M Shows a Super Realistic Girl You Can Interactive With*, 2P (May 27, 2016), http://2p.com/42711672_1/VR-Title-Project-M-Shows-a-Super-Realistic-Girl-You-Can-Interactive-with-by-cerberus.htm [http://web.archive.org/web/20171219210210/http://2p.com/42711672_1/VR-Title-Project-M-Shows-a-Super-Realistic-Girl-You-Can-Interactive-with-by-cerberus.htm].

establish friendship with digital characters.”¹⁷⁰ Although still in its beta phase, some of the demo videos show photo-realistic looking avatars.¹⁷¹ *VRLove* is another on-the-rise adult VR game that is in development for Oculus Rift. Like other adult VR games, the game is still in its early stages.¹⁷² In *VRLove*, players will soon be able to customize their avatar and the partners they will “play” with. It also supports a teledildonic feature.¹⁷³

B. *Dusting Off Obscenity Law to Proscribe Virtual Representations*

The amount of explicit sexual conduct involving virtual minors will continue to rise on virtual platforms.¹⁷⁴ One response to regulating this material is obscenity law. Obscenity is a unique class of unprotected speech based entirely on its message and how that message “offends” the community as a whole, rather than any specific harm to an individual.¹⁷⁵ Obscenity law is critiqued for being antiquated and outdated.¹⁷⁶ Federal obscenity charges are also rare.¹⁷⁷ In fact, obscenity law seemed to be in

¹⁷⁰ EVRSTUDIO, *supra* note 156.

¹⁷¹ Cerberus, *supra* note 169.

¹⁷² VRLove’s website admits this: “It’s in alpha stage, a seed of what will become. Like a child. Uf, we shouldn’t use ‘porn’ and ‘child’ in the same sentence, that’s gross!” *VRLove—VR Porn Game for Oculus, HTC and PC*, VRLOVE, <https://vrlovethgame.com> [https://perma.cc/W9LV-Z7A4] (last visited Mar. 16, 2019).

¹⁷³ *VRLove Is Creating the Best Adult VR Videogame Ever*, PATREON, <https://www.patreon.com/vrlovethgame> [https://perma.cc/5PMX-8PYE] (last visited Mar. 16, 2019).

¹⁷⁴ See Guarino, *supra* note 12; Nevis, *The Best VR Adult Games in 2017 So Far*, 2P (July 19, 2017), http://2p.com/50115270_1/The-Best-VR-Adult-Games-in-2017-So-Far-by-Nevis.htm [http://web.archive.org/web/20180116162501/http://2p.com/50115270_1/The-Best-VR-Adult-Games-in-2017-So-Far-by-Nevis.htm]; A *Comprehensive Guide to Adult VR Games*, *supra* note 153.

¹⁷⁵ Avery, *supra* note 62, at 54–55 (“[O]bscenity . . . could be enjoined without proof of a direct and immediate link between the speech and a resulting harm.”); Sen. Orrin G. Hatch, *Fighting the Pornification of America by Enforcing Obscenity Laws*, 23 STAN. L. & POL’Y REV. 1 (2012); Zenor, *supra* note 12.

¹⁷⁶ See Zenor, *supra* note 12, at 564–65; Ryen Rasmus, *The Auto-Authentication of the Page: Purely Written Speech and the Doctrine of Obscenity*, 20 WM. & MARY BILL RTS. J. 253 (2011).

¹⁷⁷ See generally Jennifer M. Kinsley, *The Myth of Obsolete Obscenity*, 33 CARDOZO ARTS & ENT. L.J. 607 (2015). During President Obama’s first term, Attorney General Holder dismantled the Obscenity Prosecution Task Force created under the Bush Administration in 2005. During Senator Sessions’s hearing for Attorney General, Senator Hatch asked Senator Sessions if he would consider bringing back the task force, which Senator Sessions seemed open to consider. Jeremy Stahl, *Jeff Sessions Just Said He’d Prosecute Porn. President-Elect Trump Appeared in*

its “death throes” by the 1990s.¹⁷⁸ Because the *Miller* test was created before the internet, how can we determine what constitutes “the local community” for online content?¹⁷⁹ When Congress revised the PROTECT Act to conform to *Free Speech Coalition*’s ruling, they used the *Miller* test to proscribe virtual representations.¹⁸⁰ By doing this, Congress essentially worked around the ruling by still prohibiting virtual child pornography, but redefined the material as obscenity rather than child pornography.¹⁸¹ So if there is reasonable doubt about whether the child portrayed is an actual child, federal prosecutors can still prosecute the material so long as it satisfies the *Miller* test.¹⁸²

The Fourth Circuit upheld the PROTECT Act’s obscenity provision in *United States v. Whorley*.¹⁸³ Dwight Whorley was convicted under three federal statutes: (1) 18 U.S.C. § 1462, which makes it a crime to import obscene materials; (2) 18 U.S.C. § 1466A(a)(1), the

Multiple Porns., SLATE (Jan. 10, 2017, 12:44 PM), http://www.slate.com/blogs/the_slatest/2017/01/10/jeff_sessions_says_he_d_prosecute_porn_trump_appeared_in_multiple_porns.html [<https://perma.cc/FH9A-L76D>].

¹⁷⁸ Bryan Kim-Butler, *Fiction, Culture and Pedophilia: Fantasy and the First Amendment After United States v. Whorley*, 34 COLUM. J.L. & ARTS 545, 553 (2011).

¹⁷⁹ See Clay Calvert, *The End of Forum Shopping in Internet Obscenity Cases? The Ramifications of the Ninth Circuit’s Groundbreaking Understanding of Community Standards in Cyberspace*, 89 NEB. L. REV. 47, 51–52 (2010) (“[A]dult content today typically is received in the privacy of one’s own home via means such as the Internet, cable television, or Video on Demand services, no one else in the outside or surrounding ‘community’ either sees it or is affected by it.”). For a discussion on how the community standards prong of the *Miller* test applies for material on the internet, see James F.X. Petrich, *Constitutionality of Sexually Oriented Speech: Obscenity, Indecency, and Child Pornography*, 16 GEO. J. GENDER & L. 81, 84 (2015).

¹⁸⁰ 18 U.S.C. § 1466A(a) (2018) (“In general.—Any person who, in a circumstance described in subsection (d), knowingly produces, distributes, receives, or possesses with intent to distribute, a visual depiction of any kind, including a drawing, cartoon, sculpture, or painting, that—(1)(A) depicts a minor engaging in sexually explicit conduct; and (B) is obscene; or (2)(A) depicts an image that is, or appears to be, of a minor engaging in graphic bestiality, sadistic or masochistic abuse, or sexual intercourse, including genital-genital, oral-genital, anal-genital, or oral-anal, whether between persons of the same or opposite sex; and (B) lacks serious literary, artistic, political, or scientific value; or attempts or conspires to do so, shall be subject to the penalties provided in section 2252A(b)(1), including the penalties provided for cases involving a prior conviction.”). See also Kim-Butler, *supra* note 178, at 554.

¹⁸¹ See Kim-Butler, *supra* note 178, at 554–55.

¹⁸² See Jacob Sullum, *Study of Virtual Images Suggests Jurors May Not Know Child Porn When They See It*, REASON (Feb. 19, 2016, 6:30 AM), <http://reason.com/blog/2016/02/19/study-of-virtual-images-suggests-jurors> [<https://perma.cc/SH43-UFCE>].

¹⁸³ *United States v. Whorley*, 550 F.3d 326 (4th Cir. 2008).

PROTECT Act's obscenity provision; and (3) 18 U.S.C. § 2252(a)(2), the PROTECT Act's provision banning child pornography. Whorley challenged the constitutionality of § 1462 and § 1466A(a)(1).¹⁸⁴ Whorley was using a computer at the Virginia Employment Commission when a woman saw him viewing what she believed to be child pornography on the computer. She informed an employee, who alerted the manager.¹⁸⁵ When the manager approached Whorley, the manager saw Whorley holding print outs of "Japanese anime-style cartoons of children engaged in explicit sexual conduct with adults."¹⁸⁶ The manager asked Whorley to leave, believing Whorley's behavior was inappropriate. After Whorley left, the manager and other supervisors approached the computer Whorley was using and discovered his YAHOO! email account was still open. They found several more copies of manga cartoons, printed them out, and called the state police.¹⁸⁷

A grand jury returned a seventy-five-count indictment against Whorley.¹⁸⁸ On appeal, Whorley first argued "that 18 U.S.C. § 1462¹⁸⁹

¹⁸⁴ *Id.* at 330.

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

¹⁸⁷ *Id.* at 330–31.

¹⁸⁸

Counts 1–20 charged Whorley with using a computer on March 30, 2004, to knowingly receive obscene cartoons in interstate and foreign commerce, in violation of 18 U.S.C. § 1462. The 20 cartoons forming the basis of those counts showed prepubescent children engaging in graphic sexual acts with adults. They depicted actual intercourse, masturbation, and oral sex, some of it coerced. Based on the same cartoons, the jury also charged Whorley in Counts 21–40 under 18 U.S.C. § 1466A(a)(1) with knowingly receiving, as a person previously convicted of illegally downloading child pornography, obscene visual depictions of minors engaging in sexually explicit conduct. In addition, the grand jury charged Whorley in Counts 41–55 with knowingly receiving, on March 11 and 12, 2004, 15 visual depictions of minors engaging in sexually explicit conduct, in violation of 18 U.S.C. § 2252(a)(2). These counts were based on lascivious photographs of actual, naked children. Finally, the grand jury charged Whorley in Counts 56–75 with sending or receiving in interstate commerce 20 obscene e-mails during the period between February 5, 2004, and April 2, 2004, in violation of 18 U.S.C. § 1462. The e-mails described sexually explicit conduct involving children, including incest and molestation by doctors.

Id. at 331.

¹⁸⁹ 18 U.S.C. § 1462 (2018) ("Whoever brings into the United States, or any place subject to the jurisdiction thereof . . . (a) any obscene, lewd, lascivious, or filthy book, pamphlet, picture, motion-picture film, paper, letter, writing, print, or other matter of indecent character; or (b) any obscene, lewd, lascivious, or filthy phonograph recording, electrical transcription, or other

[was] facially unconstitutional because ‘it makes no exception for the private receipt, possession, or viewing of obscene material.’”¹⁹⁰ As established in *Stanley v. Georgia*, the First Amendment protects the possession of obscene materials in the home.¹⁹¹ However, *Stanley*’s holding is a narrow one.¹⁹² Just because one has a right to possess obscene material does not mean one has a right to receive obscene materials through interstate commerce.¹⁹³ The right to possession only applies when the defendant is inside his home and the material has already been “delivered” to the defendant.¹⁹⁴ If one wants to view obscene pictures in peace, they must print it out (inside their home) and store it inside a physical safe (inside their home).¹⁹⁵ Therefore, the court rejected this argument.

Whorley also argued that the statute was facially overbroad because the distinction between receiving versus possessing is too vague in light of contemporary technology.¹⁹⁶ The court agreed with him, noting how the distinction between viewing and receiving can become diluted;¹⁹⁷ but because Whorley knowingly and intentionally sought out and received the obscene materials when using the computer, that issue was not before the court. Whorley also made an as-applied challenge to § 1462 with respect to Counts 56–75, which charged him with receiving

article or thing capable of producing sound; or (c) any drug, medicine, article, or thing designed, adapted, or intended for producing abortion, or for any indecent or immoral use; or any written or printed card, letter, circular, book, pamphlet, advertisement, or notice of any kind giving information, directly or indirectly, where, how, or of whom, or by what means any of such mentioned articles, matters, or things may be obtained or made.”).

¹⁹⁰ *Whorley*, 550 F.3d at 332.

¹⁹¹ *See supra* Section I.C.

¹⁹² *Whorley*, 550 F.3d. at 332.

¹⁹³ *Id.*

¹⁹⁴ Blitz, *supra* note 112, at 357 (2010) (“While obscene books or films are protected inside of the home, they are not protected en route to it—whether in a package sent by mail, in a suitcase one is carrying to one’s house, or in a stream of data obtained through the Internet.”).

¹⁹⁵ *Id.* at 362 (“*Stanley* is frozen in time as a result of these interpretations: It protects only physical spaces, not virtual homes, digitally-created spaces on the Internet, or the private sensory enclaves we create and use outside the home with laptops, portable DVD players, and other electronic devices. Thus, the only home protected for First Amendment purposes is the physical space.”).

¹⁹⁶ *Whorley*, 550 F.3d at 333.

¹⁹⁷ *Id.* at 334 (“Whorley is probably correct in observing that evolving computer technology will constantly change the ways in which a person’s computer may be used to ‘receive’ obscene material . . . and that those changes might . . . present serious questions as to whether such material can be said to have been ‘received.’”).

obscene emails. He argued that text, standing alone, could not be deemed obscene, but failed to cite any authority to back up the proposition. The court noted that obscenity has never depended on the forum or medium of expression. So long as the text satisfies the *Miller* test, it is outside First Amendment protection.

Whorley then challenged 18 U.S.C. § 1466A(a)(1),¹⁹⁸ arguing it was unconstitutional as applied to his cartoon drawings.¹⁹⁹ Whorley's argument rested on an isolated statutory interpretation, contending that the provision means the obscene material must depict actual children, not virtual children.²⁰⁰ The court disagreed with this construction. It reasoned that the provision criminalizes receipt of a visual depiction of *any kind*, specifically including drawings and cartoons.²⁰¹ The majority's opinion has been critiqued for ignoring the First Amendment issues at stake.²⁰² The fact that someone can be put in jail for downloading cartoons seems to offend one's "right to be let alone."²⁰³

¹⁹⁸ 18 U.S.C. § 1466A(a) (2018) ("Any person who, in a circumstance described in subsection (d), knowingly produces, distributes, receives, or possesses with intent to distribute, a visual depiction of any kind, including a drawing, cartoon, sculpture, or painting, that— (1)(A) depicts a minor engaging in sexually explicit conduct; and (B) is obscene; or (2)(A) depicts an image that is, or appears to be, of a minor engaging in graphic bestiality, sadistic or masochistic abuse, or sexual intercourse, including genital-genital, oral-genital, anal-genital, or oral-anal, whether between persons of the same or opposite sex; and (B) lacks serious literary, artistic, political, or scientific value.").

¹⁹⁹ *Whorley*, 550 F.3d at 335 ("He argues that § 1466A(a)(1) necessarily requires that the visual depictions be of actual minors and that if the depiction of an actual minor is not required, then § 1466A(a)(1) would be unconstitutional on its face under *New York v. Ferber*.").

²⁰⁰ *Id.* at 336 ("To make his argument, Whorley points out that subsection (a)(1) (prohibiting depictions of 'a minor engaging in sexually explicit conduct') is mirrored in subsection (a)(2) (prohibiting 'an image that is, or appears to be, of a minor'). . . . [H]e contends that subsection (a)(1) prohibits material depicting 'sexually explicit conduct,' which is defined in 18 U.S.C. § 2256 as referring to real people.").

²⁰¹ *Id.*

²⁰² See Kim-Butler, *supra* note 178, at 552 ("Although much of the discussion in *Whorley* is about the freedom of expression, this discussion is subsumed under an anxious discussion of the pedophile or 'predator.' *Whorley* is arguably more about handling the 'predator' than it is about the First Amendment or any civil liberties What is perhaps most striking about *Whorley* is not how the majority deals with the first amendment issues at stake, but rather how those issues are evaded."); see also Keisha April, Note, *Cartoons Aren't Real People, Too: Does the Regulation of Virtual Child Pornography Violate the First Amendment and Criminalize Subversive Thought?*, 19 CARDOZO J.L. & GENDER 241, 253–56 (2012); Blitz, *supra* note 112, at 361 (noting that *Stanley* is more of a privacy case than a First Amendment case: "Instead of marking out a sphere of activity as within the realm of protected speech or receipt of

C. *How the PROTECT Act Treats Adult VR Games*

The current federal definition of what constitutes child pornography under the PROTECT Act has not been challenged before the Supreme Court.²⁰⁴ Although the Court ruled in *Free Speech Coalition* that images of computer-generated minors engaging in nonobscene sexual activity were protected under the First Amendment, the language in the PROTECT Act still covers that material. There are three categories of child pornography as defined under federal law: (1) a visual depiction involving the use of actual minors engaging in sexually explicit conduct;²⁰⁵ (2) a visual depiction as a digital image, a computer image, or a computer-generated image that either is *or* is indistinguishable from that of a minor engaging in sexually explicit conduct;²⁰⁶ or (3) a visual depiction of actual children that have been adapted in some form to portray them in sexual conduct.²⁰⁷

The full definition of child pornography under federal law is as follows:

“child pornography” means any visual depiction . . . where—(A) the production of such visual depiction involves the use of a minor engaging in sexually explicit conduct; (B) such visual depiction is a digital image, computer image, or computer-generated image that is, or is indistinguishable from, that of a minor engaging in sexually explicit conduct; or (C) such visual depiction has been created, adapted, or modified to appear that an identifiable minor is engaging in sexually explicit conduct.²⁰⁸

To see how engaging in graphic VR ageplay can produce child pornography under 18 U.S.C. § 2256(8)(B), a close reading of the Section is necessary.

information, it marks out a particular place (namely, the home) that is a realm of individual sovereignty, instead of state control.”).

²⁰³ *Stanley v. Georgia*, 394 U.S. 557, 567 (1969).

²⁰⁴ The Court did not address the new definition in *United States v. Williams*. See also cases cited *supra* note 7.

²⁰⁵ 18 U.S.C. § 2256(8)(A) (2018). This is often referred to as the “classic” definition of child pornography.

²⁰⁶ 18 U.S.C. § 2256(8)(B) (provision dealing with virtual images).

²⁰⁷ 18 U.S.C. § 2256(8)(C) (provision dealing with morphing).

²⁰⁸ 18 U.S.C. § 2256(8).

First, Congress defined “sexually explicit conduct” differently for § 2256(8)(B). For example, “sexually explicit conduct” for § 2256(8)(A)—the “classic” definition—is defined as depictions of: (1) sexual intercourse; (2) bestiality; (3) masturbation; (4) sadistic or masochistic abuse; or (5) lascivious exhibition of the genitals or pubic area.²⁰⁹ However, sexually explicit conduct is defined differently for § 2256(8)(B) by adding the word “graphic” before descriptions of sexually explicit conduct. Under § 2256(2)(B), sexually explicit conduct means:

- (i) graphic sexual intercourse . . . or lascivious simulated sexual intercourse where the genitals, breast, or pubic area of any person is exhibited;
- (ii) graphic or lascivious simulated; (I) bestiality; (II) masturbation; or (III) sadistic or masochistic abuse; or (iii) graphic or simulated lascivious exhibition of the anus, genitals, or pubic area of any person.²¹⁰

Second, “graphic” means that a viewer can observe any part of the genitals or pubic area of any depicted person during any part when the sexually explicit conduct is depicted.²¹¹ The meaning does not require the depiction to be an actual person. Although the provision explicitly uses the word “person” in defining “graphic,” subsection 8(B) proscribes computer-generated images of “indistinguishable” minors. Third, an “indistinguishable” minor means “virtually indistinguishable, in that the depiction is such that an ordinary person viewing the depiction would conclude that the depiction is of an actual minor engaged in sexually explicit conduct.”²¹² Under this definition, the classic examples, *Titanic*, *Romeo and Juliet*, *Lolita*, and even *Game of Thrones* would still be

²⁰⁹ 18 U.S.C. § 2256(2)(A) (“Except as provided in subparagraph (B), ‘sexually explicit conduct’ means actual or simulated—(i) sexual intercourse, including genital-genital, oral-genital, anal-genital, or oral-anal, whether between persons of the same or opposite sex; (ii) bestiality; (iii) masturbation; (iv) sadistic or masochistic abuse; or (v) lascivious exhibition of the anus, genitals, or pubic area of any person.”).

²¹⁰ 18 U.S.C. § 2256(2)(B); see also Major Daniel M. Goldberg, *What Comprises A “Lascivious Exhibition of the Genitals or Pubic Area”? The Answer, My Friend, Is Blouin in the Wind*, 224 MIL. L. REV. 425, 468–69 (2016) (“The §§ 2256(2)(A) and (B) definitions for ‘sexually explicit conduct’ were nearly identical save for one key difference: the word “graphic” was used as a modifier throughout § 2256(2)(B).”).

²¹¹ 18 U.S.C. § 2256(11).

²¹² *Id.* Here, Congress took out the “appears to be” language found to be insufficient by the Court in *Free Speech Coalition* and replaced it with “virtually indistinguishable.”

protected. An ordinary person would know that if a television show or movie has a child actor, the production crew would not have the child-actor perform actual, graphic sexual intercourse or film the child in a “lascivious exhibition” of their genitals.²¹³ It is an unreasonable position to believe that a production crew would film children in graphic, sexual activity; an ordinary person would know that they are using a body double.²¹⁴ Fourth, the definition of an “indistinguishable minor” does not apply to cartoons, drawings, sculptures, or paintings. This language signals that this provision is not to be applied in situations where obscenity would suffice, because a cartoon can be found to be legally obscene if it satisfies the *Miller* test.²¹⁵

III. PROPOSAL

The First Amendment should not protect the right to produce graphic, sexually explicit depictions of child sexual abuse. With the rise of photorealistic avatars, not only will adult VR games be eventually indistinguishable from filmed child abuse, but VR capabilities will also provide the user the physical experience of sexually abusing a child. Producers of adult VR games should not be allowed to employ photorealistic child-like avatars in sexually explicit VR games. These images can easily be saved and distributed across the internet, contributing to the child pornography distribution network. When child-like avatars in adult VR games look indistinguishable from actual children, and appear in graphic, sexually explicit conduct, the images displayed should be treated as child pornography as defined under 18 U.S.C. § 2256(8)(B).

²¹³ This point was brought up in oral arguments during *United States v. Williams*. See Oral Argument at 26:16, *United States v. Williams*, 553 U.S. 285 (2008) (No. 06-694), <https://www.oyez.org/cases/2007/06-694>. The types of advances in technology discussed in this Note signals that the assumption made in *Free Speech Coalition* might need to be revisited: “If virtual images were identical to illegal child pornography, the illegal images would be driven from the market by the indistinguishable substitutes. Few pornographers would risk prosecution by abusing real children if fictional, computerized images would suffice.” *Ashcroft v. Free Speech Coal.*, 535 U.S. 234, 254 (2002).

²¹⁴ See Oral Argument at 26:16, *United States v. Williams*, 553 U.S. 285 (2008) (No. 06-694), <https://www.oyez.org/cases/2007/06-694>.

²¹⁵ See sources cited *supra* notes 183–203 and accompanying text.

VRLove and other adult VR games have graphic, sexually explicit features. Once the games start introducing photorealistic avatars, the users will be able to customize the appearance of their “partners,” allowing them to create avatars that look like minors. Therefore, players will have the opportunity to create a computer-generated depiction of a photorealistic child in graphic, sexually explicit activity. No child is abused when someone has virtual sex with a virtual minor, so no crime is being filmed and no depiction of that crime is being distributed. But to require actual child abuse to prohibit explicit, graphic depictions of realistic-looking child abuse is no longer an adequate standard. Advances in technology blur the line between real and digital photography. The government ought to be able to prevent this material from becoming easily accessible across the internet. Just like the Court found in *New York v. Ferber*, it is difficult to ascertain the value in a photo that shows a child engaged in graphic, sexually explicit conduct with an adult.

Currently, the avatars in adult VR games are distinguishable from real people. Because avatars must be *indistinguishable* from minors to fall within the definition of child pornography under 18 U.S.C. § 2256(8)(B), another approach would be to regulate the material under the PROTECT Act’s obscenity provision.²¹⁶ This approach would certainly not conflict with *Free Speech Coalition*’s holding. It also would not require any change to First Amendment doctrine, as compared to this Note’s proposal. However, there are persuasive challenges to using obscenity as a way to regulate this material. Although *Stanley* has been narrowed to mean that there is no right to receive obscene material, whether through mail or by an “interactive computer service,” there is a compelling argument that *Stanley* should be reconsidered as a privacy case rather than a First Amendment case.²¹⁷ More broadly, obscenity

²¹⁶ 18 U.S.C. § 1466A (“Any person who, in a circumstance described in subsection (d), knowingly produces, distributes, receives, or possesses with intent to distribute, a visual depiction of any kind, including a drawing, cartoon, sculpture, or painting, that—(1)(A) depicts a minor engaging in sexually explicit conduct; and (B) is obscene; or (2)(A) depicts an image that is, or appears to be, of a minor engaging in graphic bestiality, sadistic or masochistic abuse, or sexual intercourse, including genital-genital, oral-genital, anal-genital, or oral-anal, whether between persons of the same or opposite sex; and (B) lacks serious literary, artistic, political, or scientific value; or attempts or conspires to do so, shall be subject to the penalties provided in section 2252A(b)(1).”).

²¹⁷ See Blitz, *supra* note 112.

jurisprudence and the *Miller* test as applied to images on the internet has been widely criticized.²¹⁸ As for images that can be considered legally obscene, what one looks at in the privacy of their home, whether on paper or on the computer screen, should be protected from government intrusion.²¹⁹ If obscenity law is the only way to prevent the spread of graphic, realistic-looking images of child abuse, the justification for regulating the images could become diluted if *Stanley* is revised to protect situations like Whorley's. Therefore, using § 2256(8)(B) is a better approach because there is no right to privately possess and privately produce child pornography.²²⁰

A. *Challenges to Using Section 2256(8)(B) to Proscribe Graphic Sexual Ageplay*

1. *Adult VR Games Are the Same as Video Games*

The Supreme Court in *Brown v. Entertainment Merchants Association* held that violent video games are afforded First Amendment protections.²²¹ California enacted a statute that prohibited the sale or rental of violent video games to minors.²²² It was written to prohibit video games that would fall under the *Miller* test.²²³ Associations

²¹⁸ See sources cited *supra* note 179 and accompanying text.

²¹⁹ *Id.* In fact, the Court already has some precedent to support this proposition: "And whatever the challenges of applying the Constitution to ever-advancing technology, 'the basic principles of freedom of speech and the press, like the First Amendment's command, do not vary' when a new and different medium for communication appears." See *Brown v. Entm't Merchs. Ass'n*, 564 U.S. 786, 790 (2011).

²²⁰ See *Osborne v. Ohio*, 495 U.S. 103, 108–11 (1990). Also, under this approach, the material Whorley was convicted for possessing would also be protected. Graphic cartoons are protected under 18 U.S.C. § 2256(8)(B). Having § 2256(8)(B) apply to depictions of graphic, sexually explicit conduct involving realistic-looking minors would not apply to cartoons, drawings, painting, and sculptures. So, this proposal would protect private receipt of obscene cartoons online, but still prohibit production of child pornography under § 2256(8)(B) when playing graphic adult VR games.

²²¹ *Brown*, 564 U.S. 786.

²²² *Id.* at 789.

²²³ *Id.* ("The Act covers games 'in which the range of options available to a player includes killing, maiming, dismembering, or sexually assaulting an image of a human being' . . . in a manner that '[a] reasonable person, considering the game as a whole, would find appeals to a deviant or morbid interest of minors,' that is 'patently offensive to prevailing standards in the community as to what is suitable for minors,' and that 'causes the game, as a whole, to lack

involved in the video game industry brought a declaratory judgment action against the state, arguing that the statute was unconstitutional under the First and Fourteenth Amendments. Justice Scalia, writing for the majority, agreed.²²⁴ The California statute was not targeting obscene sexual material, but rather obscene violent material that could sometimes include sexual overtones.²²⁵ Justice Scalia reasoned that speech about violence cannot be considered obscene because, in order for something to be considered obscene, it needs to be sexual.²²⁶

California did not deny that video games qualified for First Amendment protections,²²⁷ but rather proposed that it was able to prohibit the sale of obscene materials to minors.²²⁸ Video games are interactive, and this feature gives minors the opportunity to not only participate in the depictions of violent expressions, but also choose and control how violent the material becomes.²²⁹ California argued that this feature presented a compelling social problem for the development of minors. This argument is similar to graphic adult VR porn because it allows the player to pick and choose the outcome of the scene.

The problem with using *Brown v. Entertainment Merchants Association* to challenge a conviction under § 2256(8)(B) for producing child pornography while playing graphic, sexually explicit adult VR games is that the material prohibited is sexually explicit, not violent. Section 2256(8)(B) does not add a new category of unprotected speech; rather, it defines an already proscribed category of unprotected speech: child pornography. Also, a flaw in California's statute is that it only applies to sale of minors, the State agreed that the statute would be unconstitutional as applied to adults. Production of child pornography under § 2256(8)(B) does not depend on the age of the person who produced the material.

serious literary, artistic, political, or scientific value for minors.”) (second alteration in original) (internal citations omitted).

²²⁴ *Id.* at 788–805.

²²⁵ *Id.* at 789.

²²⁶ *Id.* at 792–94.

²²⁷ *Id.* at 790 (“Like the protected books, plays, and movies that preceded them, video games communicate ideas—and even social messages—through many familiar literary devices (such as characters, dialogue, plot, and music) and through features distinctive to the medium (such as the player’s interaction with the virtual world.”).

²²⁸ *Id.* at 794.

²²⁹ *Id.* at 798.

2. Virtual Ageplay As Private Sexual Expression

It is not definite that those who view child pornography also want to engage in sexual activity with a minor.²³⁰ It is also unclear if those who engage in virtual ageplay are the same people who want to abuse children in real life.²³¹ One could argue that acting out one's own private sexual fantasies inside the home is the type of behavior the substantive Due Process Clause protects under *Lawrence v. Texas*.²³²

Those who are open to speaking with reporters about their sexual desires believe that acting out their desires in the virtual world mitigates their desires to pursue their fantasies in real life.²³³ They view it as their only safe place to express their desires: “[f]or many, it feels like the only sexual channel that doesn’t risk incarceration or social alienation.”²³⁴ On the other hand, medical professionals believe lifelong treatment methods and a comprehensive therapy program are the best methods for managing pedophilic desires, “[s]itting alone at home, sinking hours into virtual worlds, could further isolate pedophiles from more reliable professional and social resources: therapy, community bonds, anti-androgen treatment.”²³⁵ However, individuals who have pedophilic impulses are afraid to come forward to health professionals due to

²³⁰ Carissa Byrne Hessick, *Disentangling Child Pornography from Child Sex Abuse*, 88 WASH. U. L. REV. 853 (2011).

²³¹ See *id.*; Jesse Singal, *How Should Society Handle Pedophiles Who Haven't Hurt Anyone?*, N.Y. MAG.: THE CUT (Apr. 13, 2016), <http://nymag.com/scienceofus/2016/04/how-should-society-handle-pedophiles-who-haven-t-hurt-anyone.html> [<https://perma.cc/3YWH-5ABA>].

²³² Russell, *supra* note 5, at 1497–99.

²³³ Caroline Meek-Prieto, *Just Age Playing Around? How Second Life Aids and Abets Child Pornography*, 9 N.C. J.L. & TECH. 88, 106–09 (2008); Cecilia D’Anastasio, *Can Virtual Sex Prevent Pedophiles from Harming Children in Real Life?*, VICE: BROADLY (Jan. 14, 2016, 4:00 PM), https://broadly.vice.com/en_us/article/d7am4w/can-virtual-sex-prevent-pedophiles-from-harming-children-in-real-life [<https://perma.cc/HUL7-FUZH>]; LIFE 2.0 (Andrew Lauren Productions 2010); Luke Malone, *Act Two: Tarred and Feathered*, THIS AM. LIFE (Apr. 11, 2014), <https://www.thisamericanlife.org/radio-archives/episode/522/tarred-and-feathered?act=2#play> [<https://perma.cc/YR2E-FA3D>]; Aviva Rutkin, *Could Sex Robots and Virtual Reality Treat Paedophilia?*, NEW SCIENTIST (Aug. 2, 2016), <https://www.newscientist.com/article/2099607-could-sex-robots-and-virtual-reality-treat-paedophilia> [<https://perma.cc/KUA9-9N3K>]; Urizenus Sklar, *Ageplay in Second Life: Interview with Jailbait Manager Emily Semaphore*, ALPHAVILLE HERALD (Jan. 28, 2007, 1:07 PM), http://alphavilleherald.com/2007/01/ageplay_in_seco.html [<https://perma.cc/5H9E-XHWE>].

²³⁴ D’Anastasio, *supra* note 233.

²³⁵ *Id.*

mandatory reporting laws.²³⁶ Even if they do come forward, the resources are often stigmatized or inaccessible.²³⁷ By prohibiting graphic adult VR games, it could further push pedophiles into isolation, only making prevention measures worse.

However, this proposal is not about criminalizing thought. It is about prohibiting the production of child pornography as defined under § 2256(8)(B). People who have pedophilic impulses will always be part of American society, and figuring out ways to prevent them acting out their desires in the real world is necessary in order to eradicate child abuse. However, allowing individuals to produce a form of child pornography should not be the way in which that is accomplished.

CONCLUSION

The government is already able to prohibit private production of child pornography.²³⁸ This proposal does not call to prohibit new categories of speech. It rather calls for the definition of child pornography under 18 U.S.C. § 2256(8)(B) to be considered adequate in light of adult VR games and advances in VR technology. Someday soon players will be able to produce graphic depictions of realistic-looking images of children engaged in sexual conduct with adults. This material is not worth protecting under the First Amendment.

²³⁶ Elizabeth Letourneau, *Child Sexual Abuse is Preventable, Not Inevitable*, TEDMED (2016), <http://tedmed.com/talks/show?id=620399>; Elizabeth Letourneau, *We Need to Make It Easier for Pedophiles to Seek Help*, TIME (Oct. 10, 2014), <http://time.com/3486493/preventing-child-sex-abuse-stephen-collins> [<https://perma.cc/5BCA-6V7C>].

²³⁷ Malone, *supra* note 233.

²³⁸ See *supra* Section I.B.