VOLUME 7 April 2026 ISSUE 1

JOURNAL ON EMERGING TECHNOLOGIES

ARTICLES

CHILDLESS, NOT VICTIMLESS: MORAL AND LEGAL CONSIDERATIONS OF AI-GENERATED CHILD PORNOGRAPHY

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"We are engaged in a race against time to protect the children of our country from the dangers of [artificial intelligence]. Indeed, the proverbial walls of the city have already been breached. Now is the time to act."[2]

"O, brave new world, That has such people in 't!"[3]

Abstract

Pornography has long been considered protected under the First Amendment's right to free speech.[4] Child pornography, meanwhile, maintains no such protections because the harm of child abuse involved outweighs any free speech rights.[5] Child pornography created by artificial intelligence, however, is not necessarily created through child abuse, and so under current precedent is likely protected by the First Amendment.

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[2] W. Clayton Wilder, *Virtual Vice: The Urgent Need to Reassess Ashcroft v. Free Speech Coalition in the Age of AI-Generated Child Pornography*, 48 L. & PSYCH. REV. 169, 169 (2023-2024) (quoting Letter from Nat'l Ass'n of Att'ys Gen. on A.I. and the Exploitation of Child. to Cong. Leaders (Sept. 5, 2023)).

[3] WILLIAM SHAKESPEARE, THE TEMPEST act 5, sc. 1, l. 217–18.

[4] *See generally*, Stanley v. Georgia, 394 U.S. 557 (1969).

[5] *See generally*, New York v. Ferber, 458 U.S. 747 (1982).

This note serves to explore the moral implications of AI-generated child pornography, and to consider potential legal solutions in confronting a currently lawful evil.

INTRODUCTION

With the rise of artificial intelligence, the availability and resulting ease of obtaining pornography in all forms is more prevalent than ever. This accessibility includes child pornography, a heinous subclass in which the primary complaint by the morally-conscious is that the child "actors" are irreversibly harmed by such participation. Child pornography instituted via artificial intelligence, then, raises its own moral dilemma: that is, why does the intuitive moral revulsion remain—as I believe it does for the morally orthodox—when the primary complaint is eliminated? Our moral sensibilities that inform our natural aversion to child pornography, then, must run deeper than mere harm to children (as substantial as that harm may otherwise be). The availability of AI-generated child pornography (AICP) provides potential answers and raises new questions.

AICP demonstrates that whatever disgust the average person finds in the practice must run much deeper than harm to children alone. In some respects, this may be intuitive: child rapists—while not necessarily the same as viewers of child pornography—often receive protection in prisons due to fellow inmates' hatred of their crimes. One may argue that the inmates are not merely avenging the child victims, but are acting out of disgust toward the molesters themselves: they are punishing these rapists not only for what they did, but for who they are. Similar points may be made about sex offender registries. There seems to be, then, an intuitive aversion to child pornography that extends beyond harm to children, which is better elucidated by the existence of AICP.

Despite the moral aversion, AICP is legal in many cases precisely because it does not exhibit real children.[6] After all: where is the harm? If actual children are not being exploited, then why should this be a legal issue at all? Supporters would claim that a man's home is his castle and he can do what he likes from within as long as he does not harm others. This paper serves to explore the deeper psychological, deontological, and societal moral ramifications of allowing such activity, even if no children are directly harmed by its allowance. We should not disregard our natural intuitions, and if these intuitions can be matched by rational analysis, then they are all the stronger for it. To many, the harm, so to speak, is in allowing the illnesses of pederasty, pedophilia, etc. to manifest and accordingly strengthen. Ultimately, AICP is harmful as both means and

[6] Wilder, *supra* note 2, at 172.

end: it serves as a gateway methodology toward actual child pornography and child rape, and can only serve to harm the soul of the viewer. As such, this paper shall argue for the illegality of the practice rooted in moral grounds, and shall find AICP little different from the real thing, even if no children are directly harmed.

I. DEFINITIONS: WHAT EXACTLY ARE WE DISCUSSING?

To discuss child pornography generated by artificial intelligence, it is crucial to first understand what child pornography and artificial intelligence are, as well as relevant subsets thereof. For instance, it would not necessarily be accurate—at least, not without additional information—to attribute the term "pedophile" to someone who watches either real or virtual child pornography in a singular instance. Pedophilia is considered a mental disorder pertaining to one who is sexually interested in prepubescent children for an extended period of time, so the mere act of viewing child pornography is insufficient in itself to render one the label "pedophile."[7] Other terms will similarly be elucidated for the sake of accuracy and precision.

Pornography is notoriously difficult to define. Justice Stewart's adage "I know it when I see it", though well-observed and insightful, is insufficient for our current objective.[8] Child pornography as a subset is, at its base, an image or video of a child being sexually exploited.[9] By statute, and unlike pornography depicting willing adults, these children are incapable of consent.[10] The United States Code dedicates an entire chapter to child exploitation and abuse, wherewithin child pornography is defined as "'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' involving a minor."[11] "A 'visual depiction' can be any kind of image and can be stored in a number of ways."[12]

Though most people have at least a rudimentary conception of child pornography—whether they have actively contemplated the subject or not—artificial intelligence is meanwhile likely the most bandied-about term that is the least understood. The words "artificial intelligence"

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[7] Abigail Olson, *The Double-Side of Deepfakes: Obstacles and Assets in the Fight against Child Pornography*, 56 GA. L. REV. 865, 886 (2022).
[8] Jacobellis v. Ohio, 378 U.S. 184, 197 (1964) (Stewart, J., concurring).
[9] 18 U.S.C. § 2252.
[10] *See* Olson, *supra* note 7, at 870.
[11] *Id.* at 871 (quoting 18 U.S.C. § 2256).
[12] *Id.* at § 2556(8).

themselves insinuate the replication of human intellect and behavior.[13] It is a branch of computer science intended to create a non-human intelligence capable of human intellectual processes including but not limited to "making decisions, finding meaning, applying reasoning, generalizing and recognizing patterns, and learning from experiences."[14] The imitation and simulation of intelligence thereof is propounded by subsets of AI such as machine learning and deep learning.

Machine learning and other subsets assist AI in "learning" to improve its tasks free from human programming, supervision, or intervention.[15] Machine learning involves providing the AI with large data sets by which it may, through a series of algorithms, provide output regarding repeated decisions or outcomes.[16] This data is often received from either humans providing input data or training sets focused on desired outcomes, or otherwise from unorganized data free from labels or human guidance in which the AI must search for related characteristics and patterns that alter the outcome.[17] In either instance, the process is repeated until the AI is able to thoroughly and consistently "recognize" patterns in data and subsequently use these patterns to further refine its outputs.[18]

Deep learning is a type of machine learning in which AI builds upon its own self-created patterns to create new information in turn.[19] I am reluctant to claim AI participates in any form of "learning." That would imply the AI comprehends its actions when in actuality AI is likely little different from a calculator's methods of input-output.[20] However, this output does involve the AI using a level of data to subsequently create a new level based upon the data of the previous data.[21] Accordingly, deep learning allows AI the capacity to autonomously "create."[22]

Now that child pornography and AI have been defined, we can better consider virtual child pornography (VCP) specifically. VCP is defined within 18 U.S.C. § 2256(8) as:

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[13] *See* Claudia Ratner, *When "Sweetie" is Not So Sweet: Artificial Intelligence and its Implications for Child Pornography*, 59 FAMILY COURT REV. 386, 388 (2021).
[14] *Id.*
[15] *See id.* at 387.
[16] *See id.* at 388.
[17] *See id.*
[18] *See id.*
[19] *See id.* at 389.
[20] *See generally*, John Searle, *Minds, Brains, and Programs*, 3 BEHAVIORAL & BRAIN SCIS. 417 (1980).
[21] *See* Ratner, *supra* note 12, at 389.
[22] *See id.* at 387.

> (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.[23]

One method of VCP involves "deepfakes." Definitionally, deepfakes are AI-fabricated videos, images, and other media that appear real.[24] The term was coined in 2017 by a Reddit user with the eponymous username who posted AI-generated pornography involving female celebrities.[25] Because deepfake technology can superimpose a person's face onto another's body in a video, a creator could take images of a child from any online site and put that child's face onto an image or video depicting another child's sexual abuse.[26] Deepfake child pornography falls within customizable AI pornography (CAIP), which is any piece of media:

> (i) whose content is pornographic,
> (ii) that is created wholly or partially via an AI-generative process, and
> (iii) that allows the consumer to participate in that generative process in such a way that the consumer is able to dictate properties of the resulting pornography's depicta (and not just features of its playback).[27]

Under such a definition, CAIP is determined both by the process utilized in creating the pornography, and the control that a consumer has over the end products of that process.[28] There are multitudinous methods of CAIP generation. A producer may provide the AI an image or images of a real person's face and graft this face onto a body in an existing porn scene, dictate that the AI generate non-existent humans to engage

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[23] *Id.* at 393 (quoting 18 U.S.C. § 2256(8) (2018)).
[24] *See id* at 389.
[25] *See id.*
[26] *See* Olson, *supra* note 7, at 876–77.
[27] Jonathan Lang & Aaron Yarmel, *The Ethics of Customizable AI-Generated Pornography*, MIDWEST ETHICS SYMP., at 3 (2024).
[28] *Id.*

in pornographic acts, prompt the AI to deliver the general act desired and allow the system to generate a satisfactory scene. The producer then may provide various descriptors of his preferences for a highly-specific scene, otherwise forego prompts altogether and allow the AI to create a scene based on what has been previously viewed and/or created, or any other method of which an AI system is capable.[29]

CAIP can involve either or both the existent and the nonexistent.[30] Scenes can be culled from actual photographs while displaying figures who have never existed, involve real people performing false enactments in imaginary places, and in any instance be perceptually indistinguishable from actual photographic media.[31] Accordingly, AI systems can easily and readily produce images and videos that both humans and other AI would consider indistinguishable from an actual photographic record.[32] Worse, there are many instances of viewers erroneously judging CAIP to be more "real" than actual photographs, a phenomenon called "AI hyperrealism."[33]

AICP, then, can involve children both real and imagined, with virtual inability in distinguishing one from the other. Anything imaginable that can be done to a child can now be viewed in an instant from the comfort of one's own home. With the extent of the issue's possibilities having been explored, we can now better consider these terms in practice.

II. THE MORAL DILEMMA: WHY AI-GENERATED CHILD PORNOGRAPHY IS WRONG

Some may question why a section such as this is necessary or even warranted: that our collective intuitive, visceral aversion to the subject should be enough to render the point moot. I would not disagree with such a position. However, the United States' current legal framework yields a certain dialogue. Pornography not deemed obscene (obscenity being a fairly high bar) is considered free speech, but child pornography has a concern that overrides this free speech: namely, child abuse. However, AICP need not have a child, and so need not perpetuate child abuse.[34] Yet many feel an innate, intuitive negative reaction to the idea.

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[29] *Id.*
[30] *See* Lang & Yarmel, *supra* note 27, at 3.
[31] *Id.* at 4.
[32] *Id.*
[33] *Id.*
[34] *See* Olson, *supra* note 7, at 889. For simplicity of discussion, only this type of childless AICP shall be referenced and considered throughout.

Further, even this very conversation likely makes many decent people uncomfortable. And it should. The unique nature of AICP thus "*amplifies* pornography's already recognized morally problematic effects, and *generates* new ethical and legal issues pertaining to the production, distribution, and consumption of pornography."[35] Absent abuse, AICP would seem to fall under free speech, and so there are two options: to either capitulate and say that, bad or not, AICP is here to stay, or to articulate why it is bad beyond "it feels wrong" and thereafter, why it should be illegal. I choose the latter.

A supporter of AICP—perhaps not even one who has ever seen it, but merely a libertarian who believes, like with regular pornography, that what one does in one's home is not the government's concern—would likely claim a lack of harm. That is to say, where is the abuse? Whose rights are being violated? Considering that the entire history of legislation banning child pornography is centered around abuse, a ny law regarding AICP seems a marked distinction from traditional, real child pornography (RCP) regulation. To claim moral decadence is all but pointless. If pornography is legal, then AICP may bear the same lawful weightiness: especially since there are non-existent people being presented, there is no question of consent or harm to the individuals shown.[36]

One possibility is that the harm is not to the child, but rather to the viewer. This paternalistic argument would consider the morally degrading and addictive nature of pornography generally—or VCP and AICP specifically—to render it sufficiently harmful to warrant its illegality. Customizable AI pornography's ability to undermine agency due to its increased potential for addiction has been well documented despite its relatively recent emergence. It is similarly notable that corporations may use AI-generated pornography to exploit and manipulate consumers.[37] As with many other marketing measures, pornography sites track user content preferences to streamline that content for them, increase their engagement, and discover viewership trends to better decide what content to further create and market.[38] Considering pornography already has a tendency toward forming addictions, these marketing practices, coupled with AI-generation, can enable users and enhance pornography's addictive quality by quickly

[35] Lang & Yarmel, *supra* note 27, at 6.
[36] *See id.* at 2.
[37] *See id.* at 8.
[38] *See id.* at 7.

generating content that matches a user's deepest desires.[39] This erodes agency in a similar way to continuously presenting an alcoholic with certain beverages custom-tailored to his palate.

The analogy is more fitting than some may realize: the neural processes underlying porn addiction are the same basic mechanisms as substance addiction. Thus, these CAIP algorithms are "like intentionally increasing the addictive properties of a drug (e.g., an opioid) by using individuals' idiosyncratic neurobiological data to optimize its addictive effects for *each individual's particular neurobiology*."[40] When it comes to AICP in particular, this addiction has the potential to modify user desire and behavior.[41] Considering the inevitable invasion of a user's "private and primal" psyche when one is doubtlessly psychologically vulnerable, in conjunction with the marketing of products and general advertisements related to AICP content, there is little question of the pernicious modification of user behavior and lifestyle.[42]

Of course, such an argument would be unpersuasive to libertarians and deviants alike: they would find that ultimately agency rests with the user, and he chooses what he views. The dialectic would continue by explaining how their mentality is not entirely accurate: that since algorithms often determine what one views, agency is severely handicapped. Considering that these AI algorithms often lack adequate safeguards due to developer inactivity and/or apathy, and the inaction of administrators of hosting sites used to share child pornography of all types, the temptation is often not only great, but irresistible to addicts who have this material catered to them.[43]

Regardless, a second argument that some of these naysayers may find convincing would involve a correlation between child pornography and pedophilia. If, for instance, there were irrefutable proof that every person who viewed child pornography—virtual or otherwise—then commits child rape, there would be great incentive to ban AICP. Though there is no such conclusive evidence, there are studies of both the correlation and causation of child porn with pedophilia and child rape. As opposed to other legalized media that depicts lawless action—such as violent video games—VCP is a depiction and encouragement of lawless action that is produced for and sought out by "a very narrow, specific

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[39] *See id.* at 2.
[40] *Id.* at 8.
[41] *See id.*
[42] *See id.*
[43] *See* Marcin Niedbała, *The Problem of Criminal Liability for Generating Pornography Using Artificial Intelligence*, 15 KRYTYKA PRAWA 69, 77–78 (2023).

audience that is likely to be stimulated to react to it."[44] Pedophiles—those drawn to child pornography—may be incited in such a way so as to seduce and harm children. There is evidence that VCP "whets the appetite" of pedophiles, supporting the conclusion that such images "incite imminent lawless action," resulting in harm to real children.[45]

There is almost undeniably a link between deviant sexual fantasies and child sexual assault, though the exact nature of this link is disputed.[46] There is a small leap from viewing child pornography to child molestation, and "each child pornography case should be viewed as a red flag to the possibility of actual child molestation."[47] Some studies show that child pornography is often a precursor to acting out fantasies with real children, as many pedophiles acknowledge that exposure to child abuse fuels their sexual desires and plays an important part in leading them to commit physical sexual offenses against children.[48] For instance, one convicted pedophile stated that not only did viewing child pornography not give a "release" from his desires, but actually increased his appetites.[49] But while some studies suggest that fantasies regarding child sexual assault cause the fantasizer to be more likely to commit said assault, other research suggests such fantasies may inhibit child sexual assault by providing pedophiles with an alternative outlet for their desires.[50]

Other pedophiles have claimed that child abuse materials have a cathartic effect that "prevents them from acting upon their urges," or alternatively that they "have never consumed child abuse material before they molested a child."[51] It is unclear that engagement in sexual fantasies about children is predictive of the commission of acts of child sexual abuse, especially considering the substantial research that fantasies indicative of pedophilia are prevalent among "normal" people who are

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[44] BRIAN GOLDBLATT, VIRTUAL CHILD PORNOGRAPHY: THE CHILDREN AREN'T REAL, BUT THE DANGERS ARE; WHY THE ASHCROFT COURT GOT IT WRONG 37 (2012).
[45] *Id.* at 37-38.
[46] *See* Lang & Yarmel, *supra* note 27, at 17 (quoting HADEEL AL-ALOSI, THE CRIMINALISATION OF FANTASY MATERIAL: LAW AND SEXUALLY EXPLICIT REPRESENTATIONS OF FICTIONAL CHILDREN 96–97 (2020)).
[47] GOLDBLATT, *supra* note 44, at 11 (quoting Candace Kim, *From Fantasy to Reality: The Link Between Viewing Child Pornography and Molesting Children*, 1 Child Sexual Exploitation Update (2004)).
[48] John Carr, *Child Abuse, Child Pornography and the Internet: Executive Summary*, NCH (2003).
[49] GOLDBLATT, *supra* note 44, at 8–9.
[50] *See* Lang & Yarmel, *supra* note 27, at 17 (quoting AL-ALOSI, *supra* note 45, at 96–97).
[51] *Id.* at 18 (quoting AL-ALOSI, *supra* note 46, at 99-100).

not believed to have committed sexual abuse.[52] However, the argument of a cathartic effect seems more likely to be a rationalization of bad behavior. That is, child pornography viewers justify their actions by claiming these actions keep them from committing worse acts.[53] This dialectic seems akin to the ancient Aristotelian versus Platonic *catharsis* debate of whether art heals or hurts the soul, and is unlikely to be resolved within the confines of this paper.

Though the causation seems difficult to pinpoint, the correlation between viewing child pornography and committing molestation is more readily apparent.[54] Studies and case reports typically put the correlation rate between child pornography and molestation between 30 and 80 percent, with most studies concluding the correlation rate is in the 40 percent range.[55] "From January 1997 through March 2004, 620 of the 1,807 child pornographers that were arrested, approximately 34 percent, were confirmed child molesters."[56] The correlation between viewers of child pornography and pedophiles may be greater than the inverse: one study from the Federal Bureau of Prisons reported that "76 percent of offenders convicted of internet-related crimes against children admitted to contact sex crimes with children previously undetected by law enforcement and had an average of 30.5 child sex victims each."[57] Considering the typical skepticism accompanying self-reporting, we can only wonder if these numbers are actually much higher when discussing pedophiles admitting to additional crimes.[58]

Studies, articles, and research ranging from such sources as New Zealand Internal Affairs to psychologists at the Federal Bureau of Prisons have found an association between viewing child pornography—in some instances, even just pictures—and committing child sexual abuse.[59] In a separate Federal Bureau of Prisons study, 155 male inmates serving sentences for possession or distribution of child pornography volunteered for a treatment program, during which 85 percent admitted

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[52] *See id.* at 17; *see also* Wilder, *supra* note 2, at 194.
[53] *See* Lang & Yarmel, *supra* note 27, at 18.
[54] *See id.* at 17; *see also* GOLDBLATT, *supra* note 44, at 8.
[55] GOLDBLATT, *supra* note 44, at 9; *see also* RYAN C.W. HALL & RICHARD C.W. HALL, MAYO CLINIC PROCEEDINGS, A PROFILE OF PEDOPHILIA: DEFINITION, CHARACTERISTICS OF OFFENDERS, RECIDIVISM, TREATMENT OUTCOMES, AND FORENSIC ISSUES, (2007).
[56] *Id.* at 10.
[57] Kim, *supra* note 47 (citing *Internet Child Pornography: Before the House Subcomm. on Crime, Terrorism, and Homeland Security*, Comm. on the Judiciary, 107th Cong. (2002) (statement of Michael J. Heimbach, Crimes Against Children Unit, Criminal Investigative Division, FBI)).
[58] *See* Lang & Yarmel, *supra* note 27, at 18.
[59] *See* GOLDBLATT, *supra* note 44, at 8.

to having abused at least one child.[60] The psychologists who conducted the study concluded that "many Internet child pornography offenders may be undetected child molesters . . . ."[61] At the very least, child pornography is a unique form of pornography in that it serves as a valid potential indicator of pedophilia.[62]

Our habits inform our reality. Repeated exposure to child rape via pornography desensitizes and normalizes the subject to the viewer; behaviors that once would have shocked the viewer are subsequently considered normal through habitual consumption.[63] Once desensitized and normalized, "the images are no longer sufficient to meet the viewers' sexual needs . . . ."[64] Pedophiles accordingly may seek escalatingly extreme forms of pornography until they eventually commit acts of sexual assault against real children.[65]

A priori, AICP will strengthen this correlation, if not create effectual outright causation. Considering how efficiently AICP can be generated, pedophiles may progress through these stages of desensitization and normalization significantly more quickly than with RCP, viewing successively more brutal pornography as the algorithms reinforce and ultimately strengthen their appetites.[66] AICP provides novel forms of objectification, vastly expanding the kinds and degrees of physical harm to children that can be depicted photorealistically, in some cases leading to pedophiles spending more time interacting with virtual depictions of people than with such real-world counterparts.[67] The set of potential depictions available to pedophiles is virtually unbounded: what would otherwise have been financially or logistically infeasible, legally impermissible, or inconsistent with basic norms of biology and physics are now possible to view in seconds.[68] At any moment, pedophiles are

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[60] *Id.* (referencing Julian Sher & Benedict Carey, *Debate on Child Pornography's Link to Molesting,* N.Y. TIMES (July 19, 2007), http://www.nytimes.com/2007/07/19/us/19sex.html?ref=childpornography). Notably, this study has been fairly controversial due to flawed research methods that result in its conclusions being overly broad per Emily Weissler, *Head Versus Heart: Applying Empirical Evidence About the Connection Between Child Pornography and Child Molestation to Probably Cause Analyses*, 3 Fordham Law Review 82, 1487, 1508 (2013).

[61] *Id.*

[62] *See* Lang & Yarmel, *supra* note 27, at 18.

[63] *See id.*

[64] *Id.*

[65] *See id.*

[66] *See id.*

[67] *See id.*

[68] *See See* Lang & Yarmel, *supra* note 27, at 5.

free to generate any image to the satisfaction of their most horrific desires, such as infants and toddlers being raped by themselves.[69]

Considering that deepfake technology has progressed to allow even the most rudimentary computer user to create an advanced deepfake in mere hours at most,[70] pedophiles are primarily limited only by their imagination and, optimistically, restraint. But unlike pornography of times past, the users themselves "can direct the creation of such depictions at blindingly fast speeds and in complete accordance with their whims."[71] Every consumer is now a potential creator with full authorial control over the resulting product: no industry intermediaries, technological parameters, actors, recording equipment, or expertise stand between pedophiles and the creation and consumption of their most craven desires.[72] Pedophiles are thus given great power, freed from responsibility.

Further, the anonymous online child pornography community removes the societal shame that traditionally accompanies such desires, encouraging rather than condemning molestive behavior in an echo chamber of pedophilia.[73] Abusers on these sites have been known to use VCP as a form of advertisement, piquing the interest of more casual pedophiles so they will buy the abusers' RCP.[74] These communities typically provide links to other underground groups, and even if an inexperienced pedophile attempts to limit his exposure by "only" watching VCP, it can quickly devolve into sharing and sending RCP.[75] Alternatively, the availability of both RCP and VCP can lead viewers to falsely believe that the VCP they are watching is RCP, and vice versa.[76] When believed to be real, the unregulated and unmonitored distribution of VCP would encourage viewers to seek out similar content, eventually leading them to discover "actual" RCP.[77] This discovery thus furthers child victimization.[78] With pedophiles' desires growing stronger through each click, the temptation eventually becomes inevitable and potentially irresistible.

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[69] *See* Wilder, *supra* note 2, at 195.
[70] *See* Ratner, *supra* note 13, at 389.
[71] Lang & Yarmel, *supra* note 27, at 2.
[72] *See id.* at 6.
[73] *See* Olson, *supra* note 7, at 874.
[74] *See* Wilder, *supra* note 2, at 191.
[75] *Id.* (referencing Angus Crawford & Tony Smith, *Illegal Trade in AI Child Sex Abuse Images Exposed*, BBC (June 28, 2023), https://www.bbc.com/news/uk-65932372).
[76] *See* Olson, *supra* note 7, at 890.
[77] *Id.*
[78] *See id.*

Relatedly, a third argument considers the effect that VCP has on the market for RCP. The decision in *Ashcroft* predicted in 2002 that VCP would overtake the RCP market, ultimately rendering RCP obsolete, due to the fewer risks and expenses involved.[79] This optimistic economic augury has understandably not proven correct. Importantly, the Court gave a false assumption that child pornographers are pragmatically rational, when in actuality no pragmatically rational person would use or create child pornography to begin with.[80] Further, part of the appeal of RCP to child molesters is in the molestation itself, which VCP does not fill the market gap thereof.[81]

Worse, VCP seems to be assisting the facilitation of the RCP market due to the way in which the child pornography trade operates. Pedophiles trade images and videos with one another like a sickening analogy to baseball cards: by trading VCP for RCP, creators of VCP help the RCP market thrive.[82] To claim mere viewership of VCP is not wrong because it is not harming the child is missing the larger picture: viewership of VCP is market incentivization for RCP just as watching RCP is. One may argue that creating a market for VCP is not the same as creating a market for RCP. Yet VCP distribution stimulates the RCP market all the same.[83]

The common indistinguishability of VCP from RCP serves as a delight to pedophiles and as a bane to law enforcement. "Law enforcement officers cannot reliably distinguish between visual records of actual child abuse and fantasy materials."[84] Throughout September 2023, "the Internet Watch Foundation investigated a forum on the dark web that focuses on child sexual abuse materials."[85] The investigation uncovered 2,978 posts depicting child sexual abuse, many essentially indistinguishable from RCP.[86] This implies both that "fantasy materials are mistaken for actual records of child abuse, and actual records for fantasy materials. In the former case, false leads waste valuable law enforcement resources; in the latter case, real abuse is overlooked."[87] The

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[79] *See generally*, Ashcroft v. Free Speech Coal., 535 U.S. 234 (2002).
[80] *See* GOLDBLATT, *supra* note 44, at 24 (quoting Shepard Liu, *Virtual Child Pornography and First Amendment Jurisprudence*, 11 U.C. DAVIS J. JUV. L. & POL'Y 1, 39 (2007)).
[81] *See* Wilder, *supra* note 2, at 190, 191; GOLDBLATT, *supra* note 44, at 26.
[82] *See* GOLDBLATT, *supra* note 44, at 30.
[83] *See* Wilder, *supra* note 2, at 192.
[84] Lang & Yarmel, *supra* note 27, at 16.
[85] *Id.* at 15.
[86] *Id.* at 15–16.
[87] *Id.* at 16.

result in each instance is a reduction in both victims saved and rapists arrested.[88]

A fourth argument considers not what AICP will do to the viewer—be he casual or pedophile—but to potential victims. The decision in *Ferber* explains the two types of harms caused by child pornography: the direct harm to children in the videos affecting their physical, physiological, mental, psychological, and emotional well-being, and the indirect harm utilized in exploiting and abusing other children.[89] Historically, sexual predators have utilized "child pornography as a means of assisting them in the grooming process . . . ."[90] They show children the child pornography to weaken the child's resistance to sexual behavior, alleviating tensions and subliminally or actively communicating the predator's fantasies to the child.[91] Bruce Taylor, Chief Counsel for the National Law Center for Children and Families, stated in 1995 that "real and apparent [child pornography] . . . are equally dangerous because both have . . . the same seductive effect on a child victim."[92] Real or virtual, the indirect harm of child pornography is unequivocal.

Further, just as the viewer-to-molester pipeline can only be strengthened by AICP, AI expedites the victimization process.[93] Rather than convincing a child that an adult-child sexual relationship is acceptable, a predator can use AI to masquerade as a child online, creating trust and rapport with actual children more quickly, and then sending these children AICP of his own AI persona to convince these children that sexual activity is normal and accepted.[94] Since these children will not be viewing random children, but rather the predator's AI persona that they have established a relationship with, such children are likely to be more easily victimized.[95]

A fifth and final argument is that AICP is still directly harmful to children. The harm principle is commonly utilized for pornography generally, justifying state intervention "to prevent harm to others, but

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[88] *See id.*
[89] *Ferber*, 458 U.S. at 756–58, 759–61.
[90] GOLDBLATT, *supra* note 44, at 10–11 (citing Kim, *supra* note 47).
[91] *Id.*
[92] *Id.* at 29 (quoting *Child Pornography Prevention Act of 1995: Hearings before the Senate Judiciary Committee*, 104th Cong., 2d Sess. at 70 (1996) (statement of Bruce Taylor, Chief Counsel for the National Law Center for Children and Families)).
[93] *See* Wilder, *supra* note 2, at 193.
[94] *See id.*
[95] *See id.*

otherwise freedom takes priority."[96] If the harm is sufficient, then, as with RCP, simple possession could be criminalized even absent "distribution, receipt, solicitation, or intent to distribute, receive, or solicit . . . ."[97] Here, AICP contains a prima facie harm: at some point in the process, a child has been used in its production.

The more obvious harm is when, as the Stanford Internet Observatory reported, abusers use AI to harm children by creating images that match a specific child's likeness (similar to the headlining news regarding deepfakes of female celebrities).[98] The less obvious harm is when AI generates footage of a fictional child. Beyond a creator potentially using existing child abuse material to generate content, it is "'undoubtedly true' that 'somewhere in this chain of computer-generated production there are going to be real children . . . involved.'"[99] The possibility is real enough that less-deviant porn creators themselves are worried that their AI algorithms will accidentally create child porn due to slips in the input data.[100] AI generators typically create AICP either through the conglomeration of hundreds or thousands of videos and images, or by having their AI "study" these videos and images to create original media.[101] Regardless of which process it utilized, both require at least one original image with which to train.[102] While the final result may be an entirely new image, the image still retains elements of each bit of data used to train it.[103] Virtual images are not merely a record of one child's abuse, as with RCP: the final product is a record of abuse for all the children the AI trained on.[104] The dignity and innocence of each child

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[96] Lang & Yarmel, *supra* note 27, at 15.
[97] *Id.* at 12–13.
[98] *See* Sheila Dang, *US Receives Thousands of Reports of AI-Generated Child Abuse Content in Growing Risk*, REUTERS (Jan. 31, 2024, 10:51 AM), https://www.reuters.com/world/us/us-receives-thousands-reports-ai-generated-child-abuse-content-growing-risk-2024-01-31/.
[99] GOLDBLATT, *supra* note 44, at 30 (quoting *Child Pornography Prevention Act of 1995: Hearings Before the Senate Judiciary Committee*, 104th Cong., 2d Sess. at 122 (1996) (testimony of Professor Frederick Schauer, Frank Stanton Professor of the First Amendment, Kennedy School of Government, Harvard University)).
[100] *See* Samantha Cole, *Fake Porn Makers Are Worried About Accidentally Making Child Porn*, Vice (Feb. 27, 2018, 12:39 PM), https://www.vice.com/en/article/ai-fake-porn-deepfakes-child-pornography-emma-watson-elle-fanning/.
[101] *See* Ratner, *supra* note 13, at 393.
[102] *See* Wilder, *supra* note 2, at 188, 189.
[103] *See id.*
[104] *See id.* at 190.

whose image is inserted—clothed or naked—is thus threatened. Unlike RCP, here the harm is not to any singular child, but to every child.[105]

Ultimately these are five moral, not legal, arguments. Many of them almost definitely would not hold up in court for various reasons, especially considering their tenuous proximate causation to abuse. All five need not be conjunctively persuasive. Each has its own merits and issues, with further arguments and counterarguments that are not addressed in their entirety within this paper. But to find even one argument that sufficiently articulates why child pornography is wrong in absence of a particular victim may be persuasive enough to at least have reason to search for legal means of criminalization.

III. HOW SERIOUS IS THIS ISSUE: THE PROLIFERATION AND EXTENT OF AI-GENERATED CHILD PORNOGRAPHY

Of course, as intellectually interesting as the issue may be, absent tangible action on the subject, the dialogue is merely more academic masturbation spewed forth from the ivory tower. AICP, however, has been quite actionable, and at an exponential rate. Since the United States is one of the world's largest producers and consumers of child pornography, as well as being at the forefront of artificial intelligence research and application, the issue of AICP is both inevitable and accelerating.[106] Precise statistics are difficult to ascertain: as discussed, assuredly many AI-generated videos will be missed by officials, or otherwise be mistaken for actual child pornography, and vice versa. However, the raw data concerning both child pornography and AI is startling enough that, even if the correlative overlap were miniscule (which it is not), there remains sufficient evidence of a societal issue that is deserving of policy proposals.

In 2013, a ten-year-old Filipina calling herself "Sweetie" entered an online chatroom with her webcam.[107] In less than three months of speaking with anonymous users, Sweetie had over 20,000 people attempt to chat with her online, including over 1,000 adults from 71 countries who offered her money to perform sexual acts via webcam.[108] Sweetie, however, was not real; she was a computer-generated child run by children's rights organization Terre des Hommes to expose online

[105] This can be expanded beyond the children used for the creation of AICP: every child's inherent dignity, innocence, and safety are threatened by the very existence of VCP.
[106] *See* Ratner, *supra* note 13, at 387.
[107] *See id.* at 386.
[108] *See id.*

sexual predators.[109] These predators, likely experienced in online child seduction, believed that they were soliciting an actual ten-year-old child. Computer-generation technology has only gotten more advanced since then.

Any online image can be used to help create virtual pornography. AI software that does so can be found across the internet, and platforms such as Facebook, Instagram, YouTube, and Google Photos can all be utilized for AI data entry.[110] Each serves as a treasure trove for deviants with the barest technological ability: 24 billion selfies were uploaded in 2015-2016 to these four online databases alone.[111] And have no doubt: they are utilized. In 2019, cybersecurity company DeepTrace conducted a study that found 96% of all online deepfake videos were of non-consensual pornography.[112] This is despite deepfake videos being relatively new, with deepfake technology only becoming widely circulated since 2017.[113]

Unlike traditional pornography, generative AI's automated, accessible, and efficient nature allows for practically anyone with a computer to create images and videos with little effort, expertise, or time.[114] Accordingly, as of 2023, over 15 billion AI-generated images were already created on Adobe Firefly, Dall-E 2, Stable Diffusion, and Midjourney.[115] One AI-image generator that analyzes the patterns of real images, Stable Diffusion, is among the more popular software.[116] Originally, Stable Diffusion's algorithm was devoid of censorship restrictions, and was used to create pornography of real and fictional persons, both adults and children.[117] The issue became serious enough that, in 2022, Stable Diffusion's developers updated the algorithm to prevent child pornography generation.[118] Yet this update was soon bypassed, and children were again depicted engaging in sexual acts, with everyone from high school students wanting nude images of female classmates to pedophiles using the program.[119]

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[109] *See id.*
[110] *See id.* at 389.
[111] *Id.*
[112] *Id.* "Non-consensual" here meaning the pornography was created without the consent of those whose pictures were used for the videos: not necessarily (but also not excluding) rape porn.
[113] *See* Olson, *supra* note 7, at 868.
[114] *See* Lang & Yarmel, *supra* note 27, at 5.
[115] *Id.*
[116] *See* Wilder, *supra* note 2, at 171.
[117] *See* Niedbała, *supra* note 43, at 72.
[118] *See id.*
[119] *See* Lang & Yarmel, *supra* note 27, at 1.

Soon after the "discovery" of many deepfake pornography videos on their sites, Reddit, Twitter, Discord, and Pornhub banned non-consensual deepfake pornography on their platforms.[120] Of course, this did not stop the pornography's creation or circulation, with some apps since launching to help further the average deviant's creation of deepfakes.[121] For instance, $50 app DeepNude allowed purchasers to input photographs of clothed women and have AI output realistic—to the point of being indistinguishable—nude versions of these women in seconds.[122] DeepNude achieved such popularity that it was taken down from sheer backlash.[123] Another tool, Citivia, known as "'Stable Diffusion models for pervs'" that can assist in generating "'uber realistic porn'", had 77,000 downloads in three months in 2023, causing VCP creators to wonder if the market is already oversaturated.[124]

These assets are some of what is currently available to and used by the average graphic designer and child rapist alike. They do not necessarily explain the extent of AICP, but they do help convey the possibility thereof, especially when considering the RCP proliferating the Internet. In 2018, technology companies reported over 45 million depictions of child abuse via image and video.[125] In 2022, the United States National Center for Missing and Exploited Children (NCMEC) received child abuse content reports from generative AI companies, online platforms, and members of the public of some 88.3 million files.[126] Of course, those are only the reports it received, and does not account for the instances not reported. Regardless, in four years, even accounting for possible reporting overlap or underreporting, the amount of online child pornography has seemed to have nearly doubled.[127] I am doubtful that this meteoric rise in online pornography being concurrent with the advent of AI-generation is a coincidence.

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[120] *See* Ratner, *supra* note 13, at 389.
[121] *See id.* at 390.
[122] *See id.*
[123] *See id.*
[124] *See* Wilder, *supra* note 2, at 171–72 (quoting Drew Harwell, *'Claudia' Offers Nude Photos for Pay. Experts Say She's an AI Fake.*, WASH. POST (Apr. 11, 2023, 6:00 AM), https://www.washingtonpost.com/technology/2023/04/11/ai-imaging-porn-fakes/).
[125] Ratner, *supra* note 13, at 387.
[126] Dang, *supra* note 98.
[127] *Compare* Ratner, *supra* note 13, at 387 (finding 45 million reports of sexually explicit images and videos of children in 2018), *with* Dang, *supra* note 98 (finding 83.3 million reports of sexually explicit images and videos of children in 2022).

IV. THE LEGAL DILEMMA: A HISTORY AND FRAMEWORK OF THE LEGAL STATUS OF CHILD PORNOGRAPHY

Many of the legal protections and admonitions for pornography have been in the debates and decisions of the Supreme Court and Congress alike for the last sixty years. The primary constraint on its criminalization has been the First Amendment's free speech clause, which in the field of pornography can be overridden by immediate, direct harms such as violence against children. Absent such pressing concerns, possession of pornography is generally held as a right to free speech, but with child pornography being a glaring exception.

Stanley v. Georgia[128] set the precedent that constitutional obscenity regulations cannot be extended to the private possession of obscene materials in one's private residence.[129] Though pornography may be regarded as obscene in its truest sense, the Court held that the government "cannot constitutionally premise legislation on the desirability of controlling a person's private thoughts."[130] Naturally, however, this right proved to be non-categorical.

In 1973, *Miller v. California*[131] established the still-utilized obscenity test.[132] This three-pronged approach states that for sexual material to be so obscene as to lose free speech protection, it must qualify under all of the following standards:

> (a) whether based on contemporary community standards, an ordinary person would consider the work, viewed in its entirety, to evince an obscene interest;
> (b) whether the work depicts or illustrates, in a patently offensive manner, sexual conduct or excretory functions as defined by state law;
> (c) whether the work as a whole is devoid of serious literary, artistic, political, or scientific merit.[133]

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[128] 394 U.S. 557.
[129] *See* Lang & Yarmel, *supra* note 27, at 17.
[130] *Stanley*, 394 U.S. at 566.
[131] 413 U.S. 15 (1973).
[132] *See id.* at 39.
[133] Bogdan Niculescu, *Some Aspects of Comparative Law Regarding Child Pseudopornography and Virtual Child Pornography*, 2 LEX ET SCIENTIA INT'L J. 160, 163 (2024) (citing *Miller*, 413 U.S. at 39).

Speech or expression that adheres to all three qualifications of the *Miller* test is accordingly not protected by the First Amendment, and can be banned.[134]

In 1977, Congress passed the Protection of Children Against Sexual Exploitation Act as the first federal act to criminalize child pornography.[135] Minors were legally protected from being filmed, photographed, or recorded in sexual acts, and such recordings could not be transported or mailed for "immoral purposes."[136] Importantly, the Act only considered materials that were considered obscene under the *Miller* test.[137]

It was not until 1982, in *New York v. Ferber*,[138] that the Supreme Court first considered the possession of child pornography.[139] *Ferber* observed a New York statute that prohibited a person from "knowingly promoting a sexual performance by a child under the age of 16 by distributing material which depicts such a performance."[140] The Court found this statute "easily passes muster under the First Amendment."[141] The Court ruled that the First Amendment does not protect a right to the production or distribution of child pornography, even when such content does not rise to obscene classification under the *Miller* test.[142] The protection of children from sexual abuse was deemed paramount, and the production and distribution of child pornography was understood as directly contributing to or being closely related to such abuse.[143]

The *Ferber* court offered five reasons for states' entitlement to greater freedom in child pornography regulation.[144] First, states have a "compelling" interest in "safeguarding the physical and psychological well-being of a minor," and so preventing the sexual exploitation and abuse of children "constitute[d] a government objective of surpassing importance."[145] Second, the government has an interest in closing the distribution network and drying up the market for child pornography as this distribution is "intrinsically related" to the sexual abuse of children,

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[134] *See* Ratner, *supra* note 13, at 390.
[135] *See id.*
[136] *Id.* (quoting H.R. 9357, 95th Cong. (1977)).
[137] *See id.*
[138] 458 U.S. 747.
[139] *See* GOLDBLATT, *supra* note 44, at 2.
[140] *Ferber,* 458 U.S. at 747.
[141] *Id.* at 758.
[142] *See* Niculescu, *supra* note 133, at 163.
[143] *See* Ratner, *supra* note 13, at 390; *see also* Niculescu, *supra* note 133, at 163.
[144] *See* GOLDBLATT, *supra* note 44, at 2–7.
[145] *Ferber,* 458 U.S. at 756–57 (internal citation omitted).

and serves as a permanent record of a child's participation that exacerbates his or her harm.[146] The *Miller* standard accordingly "bears no connection to the issue of whether a child has been physically or psychologically harmed in the production of the work" as "[i]t is irrelevant to the child . . . whether or not the material . . . has a literary, artistic, political or social value."[147] Third, "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 . . . ."[148] Fourth, "the value of permitting live performances and photographic reproductions . . . is exceedingly modest, if not *de minimis*," and therefore is unlikely that child pornography "would often constitute an important and necessary part of a literary performance or scientific or educational work."[149] Fifth, and finally, "[r]ecognizing and classifying child pornography as a category of material outside the protection of the First Amendment is not incompatible with our earlier decisions."[150] Child pornography "bears so heavily and pervasively on the welfare of children engaged in its production," that it is "without the protection of the First Amendment."[151] The *Ferber* Court thus considered the production and distribution of child pornography "so repugnant that it significantly outweighs any expressive interests that may come from it . . . ."[152]

Osborne v. Ohio[153] expanded the *Ferber* standard by holding that states can constitutionally proscribe the possession and viewing of child pornography altogether.[154] The Ohio statute in question encouraged possessors of child pornography to destroy said material, thereby erasing any record of the child's abuse; as such, the Court viewed the continued possession of child pornography as an extension of the child's sexual abuse.[155] The Court thus viewed the *Stanley* decision as narrow, with states having a constitutional compelling interest in criminalizing the simple possession of child pornography.[156] By outlawing the possession thereof, states would hopefully decrease demand, which in turn would

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[146] *Id.* at 759.
[147] *Id.* at 761 (quoting Memorandum of Assemblyman Lasher in Support of § 263.15).
[148] *Id.* at 747.
[149] *Id.* at 747, 762-63.
[150] *Id.* at 763.
[151] *Id.* at 764.
[152] GOLDBLATT, *supra* note 44, at 7.
[153] 495 U.S. 103 (1990).
[154] *See* Wilder, *supra* note 2, at 176.
[155] *Id.*
[156] *See* Ratner, *supra* note 13, at 391.

decrease supply, and so production.[157] Indubitably, the primary goal of legislators and justices alike was to curtail abuse.

Congress sought to extend the criminalization of child pornography to include that which was created by emerging technology, as well as "effectively curtail the rapidly expanding child pornography market," and so passed the Child Pornography Prevention Act of 1996 (CPPA).[158] The CPPA would close the "loophole" of child pornography that had been created through an image editing process called "morphing", an early method of VCP in which a distinct image is created by combining multiple other images.[159] The CPPA "broadened the definition of child pornography to include any sexually explicit 'depictions' of minors,"[160] such as when:

> (A) the production of such visual depiction involves the use of a minor engaging in
> sexually explicit conduct;
> (B) such visual depiction is, or appears to be, of a minor engaging in sexually explicit conduct; or
> (C) 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.[161]

In sum, the CPPA aimed to outlaw all versions of VCP, regardless of whether a real child was ever actually involved in its production.[162] Aside from RCP, this included "morphed child pornography, child pornography made by using youthful-looking adults, and wholly computer-generated" VCP.[163] It is thus probable that Congress considered apparent child pornography to be equally or approximately as dangerous as real child pornography well before the advent of twenty-first century technology.[164]

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[157] *See* Niculescu, *supra* note 133, at 163.
[158] Wilder, *supra* note 2, at 173–74.
[159] *Id.*
[160] *See* Ratner, *supra* note 13, at 391.
[161] Child Pornography Prevention Act of 1996, 18 U.S.C. § 2256 (1996); H.R. 4123, 104th Cong. § 3 (2nd Sess. 1996).
[162] *See* Ratner, *supra* note 13, at 391.
[163] GOLDBLATT, *supra* note 44, at 12.
[164] *See id.* at 23.

However, "[c]ompanies and artists challenged the statute's constitutionality out of fear that the statute's application was overbroad since its language criminalized 'any visual depiction' that 'appeared to' include a minor engaged in sexual intercourse."[165] This resulted in *Ashcroft v. Free Speech Coalition*.[166] The *Ashcroft* Court found that the virtual "speech" the CPPA criminalized included a substantial amount of lawful speech that was "neither obscene under *Miller* nor child pornography under *Ferber*."[167] Instead, the CPPA-banned speech extended well past the *Miller* test and *Ferber*.[168] It banned all sexually explicit material in which the subjects appear to be minors, prohibiting speech without regard to its literary, artistic, political, or scientific value to such an extent that innocuous works such as *Romeo and Juliet*, or "a picture in a psychology manual, as well as a movie depicting the horrors of sexual abuse" would be prohibited.[169] Accordingly, the CPPA was deemed "overbroad and unconstitutional."[170]

Further, contrasting with *Ferber*, the Court did not recognize VCP and child abuse as "intrinsically related."[171] The Court in *Ashcroft* instead recognized VCP's causal link of harms as "contingent and indirect" regardless of whether it was indistinguishable from RCP.[172] While Congress can legislate to protect children from abuse, "the prospect of a crime . . . by itself does not justify laws suppressing protected speech."[173] In *Ferber* harm was recognized as following from speech, but the *Ashcroft* Court claimed harm here "depends upon some unquantified potential for subsequent criminal acts."[174] Since the "speech" involved

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[165] Wilder, *supra* note 2, at 174 (internal citations omitted).
[166] *See id.*; 535 U.S. 234.
[167] *Ashcroft*, 535 U.S. at 240.
[168] *See* Niculescu, *supra* note 133, at 163.
[169] GOLDBLATT, *supra* note 44, at 18 (quoting *Ashcroft*, 535 U.S. at 246); *see also* Wilder, *supra* note 1, at 178. Chief Justice William Rehnquist dissented in *Ashcroft*, arguing that the majority improperly expanded the statute's scope by failing to provide Congress due deference. *See Ashcroft,* 535 U.S. at 267-273. Rehnquist reasoned that the majority was defending speech that was not under attack since the CPPA addressed "high-tech kiddie porn," not "a depiction produced using adults engaging i[n] sexually explicit conduct, even where a depicted individual may appear to be a minor." *See id.* at 270 (quoting S. Rep. No. 104-358, pt. I, at 7; pt. IV(C), at 21). Further, Congress explicitly rejected any reading that proscribed speech expressed through works like Shakespearian tragedies. *See id.*
[170] Olson, *supra* note 7, at 888.
[171] *See Ashcroft*, 535 U.S. at 250 (citing *Ferber*, 458 U.S. at 759).
[172] *See id.* (citing *Ferber*, 458 U.S. at 762).
[173] Ratner, *supra* note 13, at 392.
[174] *See Ashcroft*, 535 U.S. at 250.

was neither obscene nor the product of sexual abuse, the Court considered it protected by the First Amendment.[175]

The *Ashcroft* Court thus deemed indirect harm insufficient absent direct harm, discussing *Osborne* and the role that child pornography sometimes has in the solicitation of minors for further abuse.[176] While pedophiles who provide unsuitable materials to children can still be rightly punished, the Government "cannot ban speech fit for adults simply because it may fall into the hands of children."[177] The CPPA thus banned "speech that records no crime and creates no victims by its production,"[178] whereas the illegality of child pornography as described in *Ferber* and *Osborne* stemmed from "the harm its creation, distribution, and consumption inflicts on the children implicated in such issues."[179]

The Court ultimately decided that VCP—unlike the RCP at issue in *Ferber* and *Osborne*—is not intrinsically related to the sexual abuse of children.[180] As such, the Court did not consider the possible benefits of proscribing VCP as outweighing the harm of restricting free speech.[181] This is despite Justice Thomas conceding in his concurrence that "technology 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."[182] The Court instead entertained a public policy argument in which VCP could even assist the Government's fight against child abuse: "[i]f virtual images were identical to illegal child pornography, the illegal images would be driven from the market by the indistinguishable substitutes" and "[f]ew pornographers would risk prosecution by abusing real children if fictional, computerized images would suffice."[183]

But Congress did not capitulate in its crusade against VCP. A year after *Ashcroft*, Congress passed the Procedural Remedies and Other Tools to End Child Exploitation Today (PROTECT) Act of 2003.[184] To adapt to the *Ashcroft* ruling, the PROTECT Act changed the CPPA's wording of "appears to be a minor" to "indistinguishable from that . . . of

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[175] *Id.* (citing *Ferber*, 458 U.S. at 764–65).
[176] *See* GOLDBLATT, *supra* note 44, at 19.
[177] *See Ashcroft*, 535 U.S. at 252.
[178] *Id.* at 250.
[179] Olson, *supra* note 7, at 888; *see also* Wilder, *supra* note 1, at 175.
[180] *See* Wilder, *supra* note 2, at 175.
[181] *Id.*
[182] *Ashcroft*, 535 U.S. at 259 (Thomas, J., concurring).
[183] *See Ashcroft*, 535 U.S. at 254.
[184] *See* Niculescu, *supra* note 133, at 164.

a minor."[185] The Act defined "indistinguishable" as "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."[186] The definition of "child pornography" was similarly amended to include "computer or computer-generated image[s] or picture[s], whether made or produced by electronic, mechanical, or other means, of sexually explicit conduct."[187] The law was thus narrowed to refrain from overly infringing freedom of speech while still criminalizing the offense of possession or distribution of sexually explicit conduct involving computer images, computer-generated images, or digital images virtually indistinguishable from that of an actual minor to an ordinary observer.[188]

To further appease the *Ashcroft* court, the Act narrowed pornography's scope in additional ways. For example, the "definition does not apply to depictions that are drawings, cartoons, sculptures, or paintings depicting minors or adults."[189] For RCP, "sexually explicit conduct" was narrowed to "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 genitals or pubic area of any person."[190] For VCP, "sexually explicit conduct" became defined as

> (i) graphic sexual intercourse, including genital-genital, oral- genital, anal-genital, or oral-anal, whether between persons of the same or opposite sex, *or lascivious simulated sexual intercourse where the genitals, breast, or pubic area of any person is exhibited*;
> (ii) *graphic or lascivious simulated*: bestiality; masturbation; or sadistic or masochistic abuse; or
> (iii) graphic or simulated lascivious exhibition of the genitals or pubic area of any person.[191]

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[185] *Id.* (internal citations omitted).
[186] GOLDBLATT, *supra* note 44, at 39, (quoting 18 U.S.C.A. § 2256(11)).
[187] *See* Olson, *supra* note 7, at 889, (quoting 18 U.S.C. § 2256(8)).
[188] *See* Niculescu, *supra* note 133, at 164.
[189] *See* 18 U.S.C.A. § 2256(11).
[190] *See id.* at § 2256(2)(A).
[191] *See id.* at § 2256(2)(B) (emphasis added).

The Act also removed § 2256(8)(D), a section of the CPPA that the *Ashcroft* court had found unconstitutionally overbroad, which had defined child pornography as "a visual depiction 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 engaged in sexually explicit conduct."[192] Hereafter, someone would be found guilty of pandering if he:

> (3) knowingly…
> (B) advertises, promotes, presents, distributes, or solicits through the mails, or using any means or facility of interstate or foreign commerce or in or 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.[193]

The PROTECT Act was defended in *United States v. Williams*[194] amidst overbreadth, vagueness, and First Amendment concerns regarding the scienter requirement quoted immediately above due to the word "knowingly."[195] The Court ruled that the pandering provision did not outlaw VCP, recognizing that "the child-protection rationale for speech restriction does not apply to materials produced without children" since "the defendant must believe that the picture contains certain material, and that material in fact (and not merely in his estimation) must meet the statutory definition [of child pornography]."[196] Unlike the statutes in *Ferber*, *Osborne*, and *Ashcroft*, the pandering statute of the PROTECT Act does not target the underlying material, but rather "bans the collateral speech that introduces such material into the child-pornography distribution network."[197] Therefore,

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[192] GOLDBLATT, *supra* note 44, at 40 (quoting 18 U.S.C.A. § 2256(8)(D)).
[193] *See* 18 U.S.C.A. § 2252A(a)(3)(B) (emphasis added).
[194] 553 U.S. 285 (2008).
[195] *See* Ratner, *supra* note 13, at 392.
[196] *Id.* (quoting *Williams,* 553 U.S. at 289, 301).
[197] *Williams,* 553 U.S. at 293.

if a person possesses VCP, which is permitted under *Ashcroft*, but advertises it as depicting actual children, he violates the statute. After all, since it is unlawful to possess RCP, it is also unlawful to offer to give or request to receive it; there is no First Amendment protection for VCP marketed as or believed to be RCP.[198]

As such, the PROTECT Act was deemed constitutional.[199] Transactions of actual or apparent-actual (when it is marketed as actual but is not) child pornography were deemed illegal, with "transactions" not merely being commercial, but in many instances including "individual amateurs who seek no financial reward. To run afoul of the statute, the speech need only accompany or seek to induce the transfer of child pornography from one person to another."[200] Due to this lack of limitation, the Court subjected "the content-based restriction of the PROTECT Act pandering provision to strict scrutiny."[201] However, the *Williams* Court reiterated its *Ashcroft* holding that mere possession of VCP is protected free speech under the First Amendment.[202] Further, VCP is considered legal to offer or receive so long as both parties are aware that the pornography does not contain actual children.[203] The Act also did "not prohibit advocacy of child pornography [which would be unconstitutional under the First Amendment], but only offers to provide or requests to obtain it."[204] As a subset of VCP, AICP remains legally protected.

V. POTENTIAL SOLUTIONS: HOW TO AMELIORATE THE MORAL AND LEGAL DILEMMAS

As seen, despite its various immoralities, the primary legal hurdle to the illegalization of VCP is its lack of direct harm in creating or reinforcing child abuse. This is despite the Supreme Court recognizing indirect harm to children due to pornography sufficing as a compelling government interest in both *Ferber* and *Osborne*, and that VCP is virtually indistinguishable from RCP (thus having an indistinguishable indirect harm).[205] *Ferber* further admitted an intrinsic relationship

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[198] *Id.* at 298.
[199] *See* Ratner, *supra* note 13, at 392.
[200] *See Williams,* 553 U.S. at 295.
[201] *Id.* at 292, 298.
[202] *See* GOLDBLATT, *supra* note 44, at 44.
[203] *See* Ratner, *supra* note 13, at 392.
[204] *See Williams*, 553 U.S. at 299.
[205] *See* GOLDBLATT, *supra* note 44, at 27–28.

between the distribution of child pornography and child abuse.[206] *Ferber*, *Osborne*, and *Ashcroft* all stated that RCP's direct harm stems from the record of abuse, something VCP does not preclude.[207] Yet the prevailing precedent is *Ashcroft*, in which the Court disregarded its stance in the previous cases and found indirect harm is not a compelling state interest for banning VCP.[208] Absent SCOTUS ignoring *stare decisis* by overturning *Ashcroft*, then, VCP's illegality must be found in something other than indirect harm to children.

One possibility lies in showing a more direct harm. The *Ashcroft* majority had concluded that the harms resulting from VCP are not intrinsically related to the sexual abuse of children, and so cannot be proscribed under RCP laws.[209] The Court viewed the *Ferber* decision to be based on how RCP was created, not what was communicated.[210] The Court reaffirmed the portion of the *Ferber* decision that found simulated material to provide an "alternative and permissible means of expression . . . ."[211]

The Court in *Ashcroft* denied having held indirect harm to be a compelling interest in *Ferber*, and considered the intrinsic direct and indirect harms stemming from RCP as due to its production *requiring* a nude child, not because it *reveals* a nude child.[212] *Ashcroft* distinguished itself from *Ferber* by reasoning that speech which records no crime and creates no victims by its production is protected under the First Amendment in reference to VCP.[213] Further, *Ashcroft* rejected that its objective in eliminating the RCP market necessitated a prohibition on virtual images.[214] The Court defaulted to *Stanley*, that "[t]he mere tendency of speech to encourage unlawful acts is not a sufficient reason for banning it."[215] *Ashcroft* held that the causal link was "contingent and indirect" since the indirect harm did "not necessarily follow from the speech, but depend[ed] upon some unquantified potential for subsequent criminal acts."[216] For this to be a matter of child abuse in the

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[206] *See Ferber*, 458 U.S. at 759.
[207] *See* Wilder, *supra* note 2, at 185.
[208] *See* GOLDBLATT, *supra* note 44, at 27.
[209] *See* Wilder, *supra* note 2, at 181.
[210] *Ashcroft*, 535 U.S. at 250–51.
[211] *Ashcroft*, 535 U.S. at 251.
[212] *Id.*; *see also* GOLDBLATT, *supra* note 44, at 28.
[213] *See* Wilder, *supra* note 2, at 176.
[214] *Id.* at 180, 181; *see also Ashcroft*, 535 U.S. at 254.
[215] *Ashcroft*, 535 U.S. at 253.
[216] *Id.* at 250.

same manner as RCP, then, real children must be considered as being directly involved.

However, this harm need not be so immediate as in RCP. Justice O'Connor recognized in her *Ashcroft* dissent that the "Court's cases do not require Congress to wait for harm to occur before it can legislate against it."[217] Similarly, the Court stated in *Turner Broadcasting System, Inc. v. FCC* that "[a] fundamental principle of legislation is that Congress is under no obligation to wait until the entire harm occurs but may act to prevent it."[218] In *Brandenburg v. Ohio*, the Court held that speech which merely advocates for illegal conduct is protected, but that "where such advocacy is directed to inciting or producing imminent lawless action and is likely to incite or produce such action," the speech will not be protected by the First Amendment.[219] Hence someone can advocate for the legality of child pornography—or even extol its supposed virtues—yet cannot provide or request said pornography, as *Williams* states.[220] Yet speech need not be restricted only if it records a crime: as the Court in *Chaplinsky v. New Hampshire* held, fighting words can be regulated "not because they 'record' or have 'caused' an independent crime, but because doing so is necessary to prevent a crime."[221]

Ferber and *Osborne* both considered indirect harms to still be sufficiently direct enough for proscription. *Ferber* noted "the distribution network for [RCP] must be closed if the production of material which requires the sexual exploitation of children is to be effectively controlled."[222] As described, VCP is indubitably becoming a vital aspect to this market, incentivizing production that results in the additional sexual abuse of children.[223] Further, the *Osborne* Court considered the indirect harm of child seduction to be sufficient to prove the state's compelling interest; this harm is only increased by VCP through its expediting of victimization.[224]

So if the Supreme Court finds the presence of a direct harm in VCP through either child seduction, child rape, or in facilitating the RCP market, then it could find harms intrinsic to child sexual abuse.[225] If

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[217] *Id.* at 264 (O'Connor, J., concurring in part and dissenting in part) (citing Turner Broad. Sys., Inc. v. FCC, 520 U.S. 180, 212 (1997)).
[218] *Turner Broad. Sys.,* 520 U.S. at 212.
[219] Brandenburg v. Ohio, 395 U.S. 444, 447 (1969).
[220] *See Williams,* 553 U.S. at 299.
[221] *See* GOLDBLATT, *supra* note 44, at 33 (quoting Liu, *supra* note 80, at 37).
[222] *Ferber*, 458 U.S. at 759.
[223] *See* Wilder, *supra* note 2, at 177.
[224] *Id.* at 193.
[225] *Id.* at 195.

studies could more conclusively demonstrate either the intrinsic relationship of RCP and VCP markets, or otherwise reveal not merely a correlation, but a causal relationship between child pornography and molestation, then there is a possibility of the harm being considered direct enough to be a prevailing government interest that overrides free speech considerations. Such an interest may even pertain to such broader categories as adult porn actors pretending to be minors, ultimately upending much of the contemporary pornography establishment.[226] With that said, there was significant related evidence given before Congress for the passage of the CPPA, yet *Ashcroft* was still decided as it was.

One may wonder about the possibility of banning deepfakes generally. The most prominent use of deepfakes is in creating fake, non-consensual pornography, yet there are practically no laws governing deepfake pornography per se.[227] Images can either be regulated based upon the processes utilized in creating them, or based upon their visual features.[228] The former would be too narrow for our purposes, likely not banning AICP at all since the only processes that would be banned are those which already involve the abuse of actual children. The latter would be too broad in its regulation of free forms of expression, amounting to a restriction on the simple possession of a self-created image that depicts the contents of one's own fantasies within the privacy of one's own home, against decades of SCOTUS precedent.[229]

Some states have passed deepfake regulations generally, as well as the federal 2025 TAKE IT DOWN Act, but the existing or proposed regulations either go too far in restricting free speech or otherwise fail to actually ban deepfake CAIP.[230] Overriding interests to free speech include Virginia's criminalization of the sharing and creation of deepfakes altogether, while amending its nonconsensual pornography laws "to include realistic fake videos and photos, including computer-generated 'deepfakes'."[231] One bill that Congress is contemplating is the

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[226] One may wonder of a scenario of an AI-generated adult who, like so many porn actors, pretends to be a child. This is obviously penumbric to the greater schema–a scenario nearly (or perhaps neatly) designed for a "hard case, bad law" outcome–and need not be considered here.

[227] *See* Ratner, *supra* note 13, at 389; *see also* Olson, *supra* note 7, at 878.

[228] *See* Lang & Yarmel, *supra* note 27, at 14.

[229] *Id.*

[230] *Id.* at 13.

[231] *See* Olson, *supra* note 7, at 880, (quoting Adi Robertson, *Virginia's 'Revenge Porn' Laws Now Officially Cover Deepfakes*, THE VERGE (July 1, 2019, 4:46 PM), https://www.theverge.com/2019/7/1/20677800/virginia-revenge-porn-deepfakes-nonconsensual-photos-videos-ban-goes-into-effect).

No Artificial Intelligence Fake Replicas and Unauthorized Duplications (No AI FRAUD) Act, which would "effectively [ban] publishing (construed broadly) all sexual digital depictions of a living person unless this person (or others to whom this right was transferred)" provide consent.[232] Of course, this will do little to combat AICP because the No AI FRAUD Act only deals with real, living persons, which current child pornography laws already cover. Further, since deepfakes typically involve actual, recognizable people, children and their image, dignity, and privacy are already protected from such pornographic deepfakes under the PROTECT Act.[233]

Perhaps an answer lies in how other countries have handled this issue, and how such a handling would be received under U.S. precedent. In 1989, the United Nations General Assembly adopted the Convention on the Rights of the Child, which, among other human rights of children laid down in Article 34, includes the obligation of states to protect children against all forms of sexual exploitation and sexual violence.[234] In 2002, the Optional Protocol on the sale of children, child prostitution and child pornography entered into force, including a legal definition of child pornography as any depiction, by whatever means, of children engaged in real or simulated explicit sexual activity or any other exposure of the sexual organs of children, primarily for sexual purposes.[235] "Any depiction, by whatever means" would seem to encapsulate AICP. The United States remains the sole member of the U.N. to not ratify the Convention.

Australia and the United Kingdom ban the simple possession of fictional child pornography altogether.[236] This means acts such as downloading nude images of child characters from *The Simpsons* are considered illegal.[237] In the United States, however, the possibility of banning all pornography in which an apparent child (actual or otherwise) is shown would certainly be considered too broad for established precedent and, at the very least, it would preclude pornography in which adults are playing minors. Some may consider such a victory but, for better or worse, many would consider it a First Amendment violation.

In Canada, something akin to the harm principle has been used: AICP, even when no violence against actual children occurs, still violates

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[232] Lang & Yarmel, *supra* note 27, at 13.
[233] *See* Niculescu, *supra* note 133, at 164–65.
[234] *See id.* at 161.
[235] *See id.*
[236] *See* Lang & Yarmel, *supra* note 27, at 16.
[237] *See id.*

the "sexual integrity" of all minors whose images were used in the AI generation.[238] Per *Ashcroft*, the United States is likely to find such a harm too indirect. In Spain, a case of VCP contained brutality so horrifying as to cause a national debate on the use of images of real people and fictional characters alike.[239] In other words, the Spanish case was a matter of obscenity. While there is little hope of a state regulating one's mere possession of obscene material in the privacy of one's home, one of our more likely approaches is to condemn a transaction—financial or otherwise—involving AICP as trafficking obscenity under *Miller*.[240] This would be a different tactic altogether from considering the material as child pornography, and would not pertain to material that is created and remains within one's home, but it also would not contradict the last sixty years of precedent.

While many would think VCP meets the obscenity standard by its nature, *Ashcroft* and *Williams* provide some ambiguity, if not outright difficulty.[241] (b) and (c) may be simple enough for the trier of fact to prove in reference to VCP in most situations, though *Ashcroft* acknowledged that VCP can be valuable speech under (c).[242] Meanwhile, (a)'s "community standards" requirement is not so straightforward. Considering VCP is mostly contained within and distributed to segregated online communities, one can readily argue it is the very community which embraces child pornography that is the community's standard to be applied, which of course would not condemn the very thing that makes it a community. The Government's burden would become proving that such a deviant community would find the VCP obscene.[243]

Even then, however, AICP for personal use—not that provided in a transaction—would not apply. Federal law only prohibits obscene material which the producer has an intent to distribute.[244] *Williams*, partially basing its rationale on the obscenity standard, denied the possibility of "simulated sexual intercourse" in the PROTECT Act covering VCP, restricting VCP only so far as it is marketed as RCP.[245] While imperfect, obscenity laws at least provide a possibility for criminalizing AICP that is intended to be transacted.

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[238] Niedbała, *supra* note 43, at 71.
[239] *Id.*
[240] *See Stanley*, 394 U.S. at 568; *see also Miller*, 413 U.S. at 39.
[241] *See* Wilder, *supra* note 2, at 183.
[242] *Id.* at 178.
[243] *See id.* at 183.
[244] *Id.*
[245] *Id.* at 184.

Fourthly, there is a potential argument for statutory interpretation or definitional amendment. One may read 18 U.S.C. § 2256(8)(B) and conclude that the definition of a visual depiction of child pornography as "a digital image, computer image, or computer-generated image that is, or is indistinguishable from, that of a minor engaging in sexually explicit conduct" is inclusive of AI-generation, specifically that "computer generated" pertains to AI.[246] Alternatively, perhaps 18 U.S.C. § 2256(8) could be amended to include AI-generation.[247] Neither, however, will likely broaden the scope of AICP criminalization.

It is unlikely that AI can be construed as "computer-generated" in good faith.[248] "Computer generation" as codified in 2003 as primarily pertained to technology used in creating 3-D images, special effects, graphic models, and computer animation; all of these require direct human input, control, and creativity.[249] AI, meanwhile, can create without human control.[250] Further, as *Williams* clarified, even if the PROTECT Act were broad enough to embrace all mediums of VCP, it still would not consider VCP that is devoid of actual minors.[251] Further, the Act is intended to criminalize pandering and solicitation of RCP, not the actual production of AICP, especially when such is pandered as "AI-generated child pornography" (for then the offeror and offeree would have explicit knowledge of the lack of actual children or abuse).[252] There are, then, two primary legal routes for banning AICP: AICP can be shown to have a more direct harm to children in its facilitation of RCP, or it can fall under obscenity laws.

CONCLUSION

Excepting the Supreme Court overturning decades of precedent, AI-generated child pornography is likely here to stay. There are some caveats to this, however: if instances of real child abuse are used in its production, or perhaps its facilitation, then there are ready claims of child sexual assault. Further, AICP marketed and/or transacted as documentation of actual abuse is not protected per *Williams*. There is the possibility of obscenity laws capturing transactions more widely, or AICP being shown to have a more direct harm to children, but the factual basis

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[246] *See* Ratner, *supra* note 13, at 393; *see also* 18 U.S.C. § 2256(8)(B).
[247] *See* Ratner, *supra* note 13, at 386.
[248] *Id.* at 393.
[249] *Id.* at 394.
[250] *Id.*
[251] *See id.* at 395.
[252] *Id.*

of either will be dependent on the courts and legislatures. But in the end, as heinous the thought, under current legal precedent one's production of AICP for personal consumption is considered legally-protected free speech.