

DEEPAKES: FALSE PORNOGRAPHY IS HERE AND THE LAW CANNOT PROTECT YOU

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ABSTRACT

It is now possible for anyone with rudimentary computer skills to create a pornographic deepfake portraying an individual engaging in a sex act that never actually occurred. These realistic videos, called “deepfakes,” use artificial intelligence software to impose a person’s face onto another person’s body. While pornographic deepfakes were first created to produce videos of celebrities, they are now being generated to feature other nonconsenting individuals—like a friend or a classmate. This Article argues that several tort doctrines and recent non-consensual pornography laws are unable to handle published deepfakes of non-celebrities. Instead, a federal criminal statute prohibiting these publications is necessary to deter this activity.

INTRODUCTION

There is a video of you having sex on the internet. You do not remember being with this person because it never happened. Others are watching the video online, too.

The video is unfamiliar because it is a “deepfake”—an “ultrarealistic fake video” where your face is superimposed onto another person’s body through the use of artificial intelligence software.¹ And someone has published it online for the world to see. This is not science fiction.

In 2015, Google released TensorFlow, its “internal tool for developing artificial intelligence algorithms,” to the public.² Google CEO, Sundar Pichai, believes that artificial intelligence will change humanity

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¹ Kevin Roose, *Here Come the Fake Videos, Too*, N.Y. TIMES (Mar. 4, 2018), <https://www.nytimes.com/2018/03/04/technology/fake-videos-deepfakes.html>.

² Dave Gershgorn, *Google Gave the World Powerful AI Tools, and the World Made Porn with Them*, QUARTZ (Feb. 7, 2018), <https://qz.com/1199850/google-gave-the-world-powerful-open-source-ai-tools-and-the-world-made-porn-with-them/>.

more profoundly than fire.³ While Pichai recognizes fire's benefits, he also acknowledges that "it kills people" and that "we have to overcome its downsides, too."⁴ Similarly, although Google machine learning tools can be used in beneficial ways, like discovering new planets,⁵ they can also be used for deviant purposes. This was illustrated when the anonymous Redditor⁶ under the moniker "deepfakes" used TensorFlow to transpose Gal Gadot's face, along with the faces of other celebrities, onto porn stars' bodies in porn videos.⁷ Photos of these celebrity faces were compiled from Google image searches, stock photos, and YouTube videos.⁸ This transposition is completed through a process of "deep learning." "[D]eep learning consists of networks of interconnected nodes that autonomously run computations on input data" and deepfakes trains this algorithm on both the celebrity's faces and the porn videos.⁹ "[T]he nodes arrange themselves to complete a particular task, like convincingly manipulating video on the fly"¹⁰ so the celebrity's face and its various angles and positions follow the body in the video.

A Hollywood production budget is not necessary to create deepfakes from home.¹¹ All one needs is a computer, a decent graphics card,¹² the FakeApp program (which uses the open-source software Google released),¹³ hundreds of pictures of the desired person (known as

³ Theodore Schleifer, *Google CEO Sundar Pichai Says AI Is More Profound Than Electricity and Fire*, RECODE (Jan. 19, 2018), <https://www.recode.net/2018/1/19/16911180/sundar-pichai-google-fire-electricity-ai>.

⁴ *Id.*

⁵ *NASA's Kepler Telescope Discovered a New Exoplanet with Google's Help*, NBC NEWS (Dec. 21, 2017), <https://www.nbcnews.com/mach/video/nasa-s-kepler-telescope-discovered-a-new-exoplanet-with-google-s-help-1121785923978?v=raila&>.

⁶ Redditors are users of the website Reddit. *Redditor*, ENGLISH BY OXFORD DICTIONARIES, <https://en.oxforddictionaries.com/definition/redditor> (last visited Nov. 7, 2018). Reddit acts as a message board where users can post internet links, share content, and interact with each other. *See Homepage*, REDDIT, <https://www.redditinc.com> (last visited Nov. 7, 2018).

⁷ *See* Samantha Cole, *AI-Assisted Fake Porn Is Here and We're All Fucked*, MOTHERBOARD (Dec. 11, 2017), https://motherboard.vice.com/en_us/article/gdydm/gal-gadot-fake-ai-porn.

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ *See* Roose, *supra* note 1 ("Until recently, realistic computer-generated video was a laborious pursuit available only to big-budget Hollywood productions or cutting-edge researchers.").

¹² Cole, *supra* note 7.

¹³ Roose, *supra* note 1.

a “faceset”), and a few hours of time.¹⁴ A tutorial is easily accessible online.¹⁵ While the deepfake movement began with adding celebrity faces to porn stars, it quickly evolved into using images of friends and classmates. The now-banned Deepfakes subreddit¹⁶ and a now-closed Discord chatroom¹⁷ were hotbeds for users to exchange tips on producing deepfake porn videos of each other’s crushes and ex-significant others.¹⁸ Other open-source tools like the DownAlbum¹⁹ and Instagram Scraper²⁰ easily allow individuals to download all images on a person’s social media account to create a faceset.²¹ Still, to make a seamless deepfake, the producer needs to find a body that matches the unwary victim’s face. Finding the ideal body has also become quasi-automated. Browser-based applications employing facial recognition software enable users to upload a photo of the person they want in the fake video, and the website outputs the most comparable adult performer.²²

Some websites have taken marginal steps to ensure that deepfakes are not being created with the photos of non-consenting individuals. Reddit has banned the deepfakes subreddit that had a hundred thousand members.²³ Discord has shut down two servers where the chats centered

¹⁴ See *Tutorial for Mac : Deepfakes—Reddit [MIRROR]*, MEDIUM (Feb. 8, 2018), <https://medium.com/@oliverlardner/tutorial-for-mac-deepfakes-reddit-mirror-d75eb8069a16> (instructing an interested user to let the downloaded computer processes run for a few hours).

¹⁵ *Id.*

¹⁶ Subreddits are individual message boards within the Reddit website that focus on a specific topic. See *Subreddit*, ENGLISH BY OXFORD DICTIONARIES, <https://en.oxforddictionaries.com/definition/subreddit> (last visited Nov. 7, 2018).

¹⁷ Discord is a text and video chatroom website for the video gaming community. See *generally About*, DISCORD, <https://discordapp.com/company> (last visited Nov. 6, 2018).

¹⁸ See Samantha Cole, *People Are Using AI to Create Fake Porn of Their Friends and Classmates*, MOTHERBOARD (Jan. 26, 2018), https://motherboard.vice.com/en_us/article/ev5eba/ai-fake-porn-of-friends-deepfakes.

¹⁹ DownAlbum is a Google Chrome extension and can be accessed on the Chrome Web Store. *DownAlbum*, CHROME WEB STORE, <https://chrome.google.com/webstore/detail/downloadalbum/cgjnhhjpfcdhbhlcmjppicjmgfkppok?hl=en> (last visited Nov. 6, 2018).

²⁰ Instagram Scraper is an application that can scrape and download an Instagram user’s photos and videos. *Instagram-scraper 1.5.40*, PYTHON SOFTWARE FOUNDATION, <https://pypi.org/project/instagram-scraper/> (last visited Nov. 6, 2018).

²¹ Cole, *supra* note 18.

²² *Id.*

²³ Roose, *supra* note 1.

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on deepfakes, and has banned several users.²⁴ Pornhub and Twitter have also banned deepfake videos.²⁵ However, the websites hosting these videos are shielded by a 1996 statute, the Communications Decency Act,²⁶ which immunizes them from being legally responsible for user-generated content.²⁷ The webpages are not incentivized to take swift action to fight these uploads, and many videos are still online.²⁸

Deepfakes are not only going to be used for self-gratification, but also have the potential to be used to extort, humiliate, harass, and blackmail victims. The creation of deepfakes is in its early stage, but this type of production carries immense potential to be indistinguishable from real-life videos. In our present age of misinformation, society will soon have to deal with deepfakes that can threaten national security. Consider a deepfake of President Trump announcing impending nuclear missile attack on North Korea.

Unfortunately, as with many new technologies, the law is unequipped to handle these impending issues. Courts must answer questions like: should state tort doctrines or involuntary porn statutes be interpreted to encompass fictitious fabricated videos? Does Congress need to pass a law to handle these types of cases? Or, does the First Amendment completely immunize the publication and creation of deepfakes as a form of protected speech?

This Article will focus on the legality of pornographic deepfakes featuring a non-celebrity, such as an acquaintance, and their circulation on

²⁴ Samantha Cole, *Targets of Fake Porn Are at the Mercy of Big Platforms*, MOTHERBOARD (Feb. 5, 2018), https://motherboard.vice.com/en_us/article/59kzx3/targets-of-fake-porn-deepfakes-are-at-the-mercy-of-big-platforms.

²⁵ Angela Moscaritolo, *Pornhub, Twitter Ban 'Deepfake' AI-Modified Porn*, PC MAG (Feb. 7, 2018), <https://www.pcmag.com/news/359067/pornhub-twitter-ban-deepfake-ai-modified-porn>.

²⁶ 47 U.S.C. § 230 (2012).

²⁷ *See id.* § 230(c)(1) (“No provider or user of an interactive computer service shall be held liable on account of— (A) any action voluntarily taken in good faith to restrict access to or availability of material that the provider or user considers to be obscene, lewd, lascivious, filthy, excessively violent, harassing, or otherwise objectionable, whether or not such material is constitutionally protected; or (B) any action taken to enable or make available to information content providers or others the technical means to restrict access to material described in paragraph (1).”)

²⁸ Damon Beres, *Pornhub Continued to Host 'Deepfake' Porn with Millions of Views, Despite Promise to Ban*, MASHABLE (Feb. 12, 2018), <https://mashable.com/2018/02/12/pornhub-deepfakes-ban-not-working/#cO19rvp..PqM>.

websites and amongst friends.²⁹ It will show that sufficient legal mechanisms are not in place to effectively prevent such deepfakes.³⁰ In this Article, these videos will be referred to as “personal deepfakes.”

Part I briefly explores First Amendment jurisprudence and argues that the free speech clause does not protect false and obscene deepfakes. Part II argues that most victims of published personal deepfakes are currently left without sufficient legal remedies in the civil context: (1) the producers of personal deepfakes are likely making fair use of the collated copyrighted photos used in the videos because deepfakes are largely transformative and often not for commercial profit; (2) only victims that can show the producer aimed to cause severe emotional distress can succeed on an intentional infliction of emotional distress claim; (3) virtually no victim can bring a negligent infliction of emotional distress claim since the victim was never in actual harm’s way; and (4) false light invasion of privacy causes of action are most apt to handle these type of videos, but the public at large must be aware of the deepfake—which is unlikely. Part III examines how recent criminal statutes—“revenge porn” laws—also fail to prohibit this conduct because producers likely do not intend to harm the featured person. However, a substantial number of the statutes have the potential to apply to personal deepfakes because they include the word “depict,” which allows for an interpretation that encompasses realistic portrayals of individuals. This Article then discusses the need for a federal criminal statute prohibiting any online publication of a deepfake and describes which elements should be included. Part IV argues that solely creating the personal deepfakes in the confines of one’s home should remain legally protected because mere production does not carry the same harms as publishing the videos.

²⁹ A legal analysis focused on celebrities being used in deepfakes would be substantially different. Celebrities have developed and earned a reputation associated with their likeness. Deepfakes featuring celebrities also have the potential to be used for a more commercial purpose, opening the door for a tort-like misappropriation of likeness claim. *See generally* Kathryn Riley, *Misappropriation of Name or Likeness Versus Invasion of Right of Publicity*, 12 J. CONTEMP. LEGAL ISSUES 587 (2001).

³⁰ Some authors think sufficient legal mechanisms are already in place. *See generally* David Greene, *We Don’t Need New Laws for Faked Videos, We Already Have Them*, ELECTRIC FRONTIER FOUND. (Feb. 13, 2018), <https://www EFF.org/deeplinks/2018/02/we-dont-need-new-laws-faked-videos-we-already-have-them>; Cory Doctorow, *Deepfakes That Hurt People are Already Illegal, So Let’s Stop Trying to Rush Out Ill-Considered Legislation*, BOINGBOING (Feb. 13, 2018), <https://boingboing.net/2018/02/13/there-ive-done-something.html>.

I. THE FIRST AMENDMENT: FALSE SPEECH & OBSCENITY

Deepfakes, at their core, are false and crude videos. The legality of publishing these videos thus implicates the First Amendment in two contexts: false speech and obscenity. In regard to false speech, the free marketplace of ideas, not the judicial system, is intended to correct pernicious opinions.³¹ Yet, lies do not advance the robust debate on public issues and do not carry any constitutional value.³² Obscene speech is also not afforded First Amendment protection.³³ So, the judicial system can correct some pernicious speech—possibly deepfakes.

Courts are still hesitant when dealing with false speech to avoid chilling otherwise protected or worthy speech.³⁴ There is a heavy presumption against the constitutional validity of any system of prior restraint of expression.³⁵ Although not considering an injunction in *New York Times v. Sullivan*,³⁶ the Supreme Court held that recovering damages for defamation of a public official required showing that the false statement was made with malice.³⁷ Malice was defined as “knowledge that it was false or [made] with reckless disregard of whether it was false or not.”³⁸ The Court laid out an even broader rule when dealing with defamation of private individuals. In *Gertz v. Robert Welch*,³⁹ the Court held that states can define their own standard of liability for a publisher of “defamatory falsehood[s] injurious to a private individual” so long as it is not strict liability.⁴⁰ A standard of negligence or higher is required.

Therefore, in order for a defamation claim to be actionable, there needs to be a form of distribution that brings speech into the public realm where it can unjustly disrupt the free marketplace of ideas. Published deepfakes—to the extent that they are a form of false speech—are not constitutionally protected when used to intentionally defame a public or private individual. Deepfakes can similarly be vulnerable to legal

³¹ See *Gertz v. Robert Welch, Inc.*, 418 U.S. 323, 339–40 (1974) (“However pernicious an opinion may seem, we depend for its correction not on the conscience of judges and juries but on the competition of other ideas.”).

³² *Id.*

³³ *Miller v. California*, 413 U.S. 15, 23 (1973).

³⁴ Julia K. Wood, *Truth, Lies, and Stolen Valor: A Case for Protecting False Statements of Fact Under the First Amendment*, 61 DUKE L.J. 469, 481–82 (2011).

³⁵ *N.Y. Times Co. v. United States*, 403 U.S. 713, 714 (1971).

³⁶ 376 U.S. 254 (1964).

³⁷ *Id.* at 279–80.

³⁸ *Id.* at 280.

³⁹ *Gertz v. Robert Welch, Inc.*, 418 U.S. 323 (1974).

⁴⁰ *Id.* at 347–48.

restrictions when viewed under the lens of another form of constitutionally unprotected speech: obscenity.

Under the First Amendment, obscenity is not protected speech.⁴¹ Still, the Court has expressed skepticism about eroding the First Amendment, stating:

The door barring federal and state intrusion into this area cannot be left ajar; it must be kept tightly closed and opened only the slightest crack necessary to prevent encroachment upon more important interests. It is therefore vital that the standards for judging obscenity safeguard the protection of freedom of speech and press for material which does not treat sex in a manner appealing to prurient interest.⁴²

The test for judging whether this door is opened for federal and state intrusion has become the *Miller* standard. While First Amendment limitations “must always remain sensitive to any infringement on genuinely serious literary, artistic, political, or scientific expression,”⁴³ material deemed obscene remains unprotected.⁴⁴ When analyzing a state law, the *Miller* test asks:

(a) whether ‘the average person, applying contemporary community standards’ would find that the work, taken as a whole, appeals to the prurient interest[]; (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law; and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value.⁴⁵

The publication of all pornographic personal deepfakes cannot be deemed obscene under the *Miller* test. If the deepfake does not violate community standards (e.g., a non-graphic pornographic deepfake) or has some artistic value (e.g., a deepfake featuring a unique blend of colors) then a state or federal law prohibiting deepfakes would be unconstitutional. It is important that the Court’s seminal obscenity cases centered around some type of dissemination of obscene materials.⁴⁶ Mere personal speech has

⁴¹ *Miller v. California*, 413 U.S. 15, 23 (1973).

⁴² *Roth v. United States*, 354 U.S. 476, 488 (1957).

⁴³ *Miller*, 413 U.S. at 23.

⁴⁴ *Id.*

⁴⁵ *Id.* at 24.

⁴⁶ For example, in *A Book Named “John Cleland’s Memoirs of a Woman of Pleasure” v. Att’y Gen. of Mass.*, 383 U.S. 413 (1966), the Court explored whether a published book was obscene. In *Roth v. United States*, 354 U.S. 476 (1957) and *Miller v. California*, 413 U.S. 15 (1973), the Court dealt with the mailing of obscene material.

not been construed as obscene; obscenity is attached to “materials.”⁴⁷ The legality of banning the creation and viewing of personal deepfakes in the privacy of one’s home (thus not actually distributing the deepfake) is discussed in Part IV.⁴⁸

Nonetheless, the pure falsity or fakery of personal deepfakes raises the question of whether obscenity lies in the reality of the thing deemed obscene or in the depiction of what registers as real. The Court has reasoned through a similar issue, the visual depiction of minors engaging in sex. In *Ashcroft v. Free Speech Coalition*,⁴⁹ the Court analyzed a federal statute prohibiting “any visual depiction, including any photograph, film, video, picture, or computer or computer-generated image or picture’ that ‘is, or appears to be, of a minor engaging in sexually explicit conduct.’”⁵⁰ Under the *Miller* standard,⁵¹ the Court acknowledged that pedophiles could use these virtual videos to help encourage children to engage in sexual activity⁵² but that not all teenage sexual activity “appeal[s] to the prurient interest.”⁵³ It further acknowledged that “teenage sexual activity and the sexual abuse of children . . . have inspired countless literary works” along with Academy Award winning films like *American Beauty*.⁵⁴ Therefore, the overbroad provision violated the First Amendment.⁵⁵ The Court’s treatment of fake or virtual videos appears to be grounded in real harm, but the Court has not disclosed the possibility that a more narrow prohibition on virtual pornography can be constitutional.⁵⁶ Obscenity thus seems to exist in the depiction of what registers as real, with a special importance to it causing actual harm. Personal deepfakes, although fictitious, can still cause actual harm to the real person that is being depicted: the individual’s well-being, reputation, and sense of security. Since no court has ruled on the constitutionality of

⁴⁷ *Miller*, 413 U.S. at 23 (“This much has been categorically settled by the Court, that obscene material is unprotected by the First Amendment.”) (citing *Kois v. Wisconsin*, 408 U.S. 229 (1972); *United States v. Reidel*, 402 U.S. 351, 354 (1971); *Roth v. United States*, 354 U.S. 476, 485 (1957)).

⁴⁸ See *infra* Part IV.

⁴⁹ 535 U.S. 234 (2002).

⁵⁰ *Id.* at 241.

⁵¹ *Id.* at 240.

⁵² *Id.* at 241.

⁵³ *Id.* at 246.

⁵⁴ *Id.* at 247–48.

⁵⁵ *Id.* at 258.

⁵⁶ See *id.* at 259–60 (Thomas, J., concurring) (“The Court does leave open the possibility that a more complete affirmative defense could save a statute’s constitutionality . . . implicitly accepting that some regulation of virtual child pornography might be constitutional.”).

banning personal deepfakes, we now turn to the current legal recourse for victims.

II. CURRENT PRIVATE LEGAL RECOURSES FOR PUBLISHED DEEPFAKES

This section focuses on the legal ramifications of when an individual (“Producer”) collects images of a person (“Victim”), uses them in creating a personal deepfake, and then publishes the product online by uploading it to a website. The Producer would likely use a social media site, like Facebook, to collect and collate photographs of the Victim to create the deepfake faceset, taking advantage of potentially hundreds of photos of the Victim at various angles. Victims might consider various forms of recourse which will be analyzed below. None of these remedies, however, are sufficient to handle personal deepfakes’ harms to the Victim.

A. *Copyright Infringement & Fair Use*

A Victim’s potential copyright infringement claims are likely to fail despite retaining copyright protection in all of her photographs uploaded online⁵⁷ because the Producer is making fair use of the images. Downloading a Facebook photo is essentially making a copy and is a violation of 17 U.S.C. § 106, because the Victim is a copyright owner and has a bundle of “exclusive rights.”⁵⁸ The Victim has the exclusive right to reproduce, copy, display, perform publicly, and prepare derivative works based on the copyrighted work—in this case, the uploaded photos.⁵⁹ Any violation of one of these rights may result in a copyright infringement cause of action.

Parodies are afforded protection through the fair use doctrine, but a justification of labeling personal deepfakes as a parody in order to avoid civil liability will likely fail. The owner’s exclusive rights of her copyrighted work are limited when an individual makes “fair use” of the work, allowing that person to reproduce the image. Fair use is permitted “for purposes such as criticism, comment, news reporting, teaching . . .

⁵⁷ See 17 U.S.C. § 102 (2012) (“Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. Works of authorship include . . . pictorial . . . works.”). But bear in mind that Facebook, too, is granted “a non-exclusive, transferable, sub-licensable, royalty-free, and worldwide license” to use any IP content that Victim posts on or in connection with Facebook (IP License). *Terms of Service*, FACEBOOK, <https://www.facebook.com/legal/terms> (last updated Apr. 19, 2018).

⁵⁸ See 17 U.S.C. § 106 (2012).

⁵⁹ See *id.*

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scholarship, or research.”⁶⁰ To determine whether the use of a work is a fair use, the statute lays out four factors:

1. the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
2. the nature of the copyrighted work;
3. the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
4. the effect of the use upon the potential market for or value of the copyrighted work.⁶¹

These factors are not to be treated in isolation, but instead are to be explored together, “in light of the purposes of copyright[.]”⁶² promoting the arts and science.⁶³ The Supreme Court has focused on the purpose and character of the use as protecting parodies since its analysis is guided by whether the new work is “transformative” or “adds something new, with a further purpose or different character.”⁶⁴

Parodies are transformative by humorously criticizing the former work and providing some social benefit.⁶⁵ A subjective perception of parodic character by the Producer of the new work is not enough. Instead, the parodic character must be reasonably perceived; whether the parody is done in good or bad taste is inconsequential for purposes of fair use.⁶⁶ A vulgar parody was the subject of *Campbell v. Acuff-Rose Music, Inc.*⁶⁷ when the Court held that the 2 Live Crew song satirizing the Roy Orbison song “Pretty Woman” could reasonably be perceived as commenting on “the naiveté of the original of an earlier day, as a rejection of its sentiment that ignores the ugliness of street life and the debasement that it signifies.”⁶⁸ In a footnote, the Court further moderated its holding by stating that parodies that more loosely target an original work than the 2

⁶⁰17 U.S.C. § 107 (2012).

⁶¹ *Id.*

⁶² *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994).

⁶³ *Id.*; see U.S. CONST. art. I., § 8, cl. 8. (“The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries[.]”).

⁶⁴ *Id.* at 579.

⁶⁵ See *id.* at 580.

⁶⁶ *Id.* at 582.

⁶⁷ *Id.* at 569.

⁶⁸ *Id.* at 583.

Live Crew song may still be a parody.⁶⁹ In addition to songs, parodic pornographies have been protected by the fair use affirmative defense. The Ninth Circuit held that the animated pornography “Starballz” made fair use of “Star Wars” as it both broadly mimicked and ridiculed the original.⁷⁰

Personal deepfakes likely are not protected by parody law because parodies presuppose an underlying work that the new work is commenting on in some way. While the Producer is substantially transforming the photos of the Victim into a completely new video, there is no commentary on a past work and thus no possible objective perception as parody. There is even less space for the potential to be a parody in most personal deepfakes since they aspire to blur the line between fantasy and reality. The Producer and subsequent viewers likely create and watch personal deepfakes for the sole purpose of deriving pleasure through the suspension of disbelief—they want to believe that they are *actually* perceiving Gal Gadot in a sexual act. In the case of an unsuspecting friend, the Producer wants to believe that the visual depiction is *actually* the Victim.⁷¹

While not a parody, publishing personal deepfakes makes fair use of another’s copyrighted images because it is transformative. Courts place a strong emphasis on whether the new work is transformative, such that it must “supersede[] the objects” of the original copyrighted work.⁷² Transforming the work into something new with a different purpose or character likely satisfies the goal of promoting the arts and sciences.⁷³ “The more transformative the new work, the less will be the significance of other factors, like commerciality, that may weigh against a finding of fair use.”⁷⁴ Commercial use of copyrighted material presumptively creates an unfair exploitation of the copyright owner’s monopoly privilege.⁷⁵ This

⁶⁹ *Id.* at 580 n.14.

⁷⁰ *See* *Lucasfilm Ltd. v. Media Mkt. Grp., Ltd.*, 182 F. Supp. 2d 897, 901 (N.D. Cal. 2002) (“A preliminary analysis of the fair use factors indicates that Lucasfilm is not likely to succeed in its copyright claim because the parodic nature of Starballz may constitute fair use.”).

⁷¹ Deepfakes outside the context of pornography can exist with parodic character. For example, a deepfake featuring professional basketball players’ faces on Game of Thrones characters can be a parody about how the playoff race is likened to the war over who will rule the Iron Throne.

⁷² *Campbell*, 510 U.S. at 579 (quoting *Folsom v. Marsh*, 9 F.Cas. 342, 348 (C.C.D. Mass. 1841)).

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539, 562 (1985) (citing *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 451 (1984)).

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is further elucidated by the fourth factor, the effect on the copyrighted work's potential market or value, which is “undoubtedly the single most important element of fair use.”⁷⁶ This factor's analysis focuses on the causal connection between the infringement, the loss of revenue,⁷⁷ and the potential market for the copyrighted work.⁷⁸ The Victim still has the opportunity to use her specific Facebook photos for any commercial purpose, and its potential market value remains intact. Due to the nature of personal deepfakes, the Victim will be unable to distinguish which specific photograph is being used at a specific moment, complicating the issue of whether the Victim can succeed on a copyright infringement cause of action.

Despite deepfakes' transformative nature, courts have never dealt with this type of medium, and there remains a chance that a judge can conclude that these publications sidestep the true intent of fair use—promoting the arts. While § 107's list of purposes is not exhaustive (criticism, comment, news reporting, teaching, scholarship, or research), they give a general idea of activities regarded as fair use.⁷⁹ Exploitation of another individual for lewd and sexual purposes may not fall into any of these categories. Regardless, the available remedies for victims of copyright infringement remain inadequate and insufficient. There is monetary relief: actual damages, disgorgement of the infringer's profits, statutory damages,⁸⁰ and attorney's fees.⁸¹ But actual damages and statutory damages (up to \$150,000 per work infringed)⁸² may not be plentiful since the Producer likely did not profit off the publication of the personal deepfake. Copyright infringement can lead to criminal punishment, too, but this is only when “the infringement was committed . . . for purposes of commercial advantage or private financial gain.”⁸³ Lastly, courts can grant an injunction,⁸⁴ but an injunction will likely fail to

⁷⁶ *Id.* at 566.

⁷⁷ *See id.* at 567 (“Similarly, once a copyright holder establishes with reasonable probability the existence of a causal connection between the infringement and a loss of revenue, the burden properly shifts to the infringer to show that this damage would have occurred had there been no taking of copyrighted expression.”).

⁷⁸ *Id.* at 568.

⁷⁹ *Id.* at 560.

⁸⁰ 17 U.S.C. § 504 (2012).

⁸¹ *Id.* § 505.

⁸² *Id.* § 504.

⁸³ *Id.* § 506.

⁸⁴ 17 U.S.C. § 502.

erase personal deepfakes that have been broadly distributed around the internet.

B. Intentional Infliction of Emotional Distress

In addition to any inadequate copyright infringement claims, the Victim may attempt to bring a bevy of tort claims. They too are subject to their own flaws and limitations.

The Victim may pursue legal action by bringing a state tort claim of Intentional Infliction of Emotional Distress (“IIED”). State doctrines vary, but most require a showing that (1) the Producer intended to (2) cause the Victim severe emotional distress (3) by extreme and outrageous conduct and (4) the Victim suffered severe emotional distress as a result of the extreme and outrageous conduct.⁸⁵ IIED cases require a deep factual analysis, and the Victim may only succeed in narrow circumstances where the Producer had the requisite intent and the Victim had suffered extremely.

Almost all Victims of published personal deepfakes should be able to show the third element, that the publication of the deepfakes constitute extreme and outrageous conduct. Extreme and outrageous conduct does not extend to insults, threats, or annoyances.⁸⁶ Instead, the conduct must be beyond the bounds of human decency, such that it would be regarded as intolerable in a civilized community.⁸⁷ Here, the Victim could likely show that she, and reasonable members of the public will view the personal deepfake as outrageous. Assuming one even recognizes the fakery, the sheer realness of the video is likely to send a shiver down one’s spine and deliver a punch to one’s moral gut. It seems perfectly reasonable to imagine that a jury would find that personal deepfakes rise to the level of extreme and outrageous conduct when the Victim realizes that there is a published video of herself engaging in graphic, and even heinous, acts.

The Victim must show that her distress is not only caused by the deepfake, but that the distress is severe enough to cause “mental suffering, mental anguish, mental or nervous shock, or the like.”⁸⁸ Under the fourth element, reactions of humiliation, embarrassment, anger, and/or horror must be extreme or “so severe that no reasonable man could be expected to endure it.”⁸⁹ The Victim can feel distress from either watching it herself, or simply knowing it exists online or is being viewed by others. The

⁸⁵ See RESTATEMENT (SECOND) OF TORTS § 46 (AM. LAW INST. 1965).

⁸⁶ See *id.* cmt. d.

⁸⁷ *Id.*

⁸⁸ *Id.* at cmt. j.

⁸⁹ *Id.*

personal deepfake's vileness and the number of viewers will likely affect the severity of the emotional distress and the strength of the IIED claim. Only a limited subset of Victims will succeed because of an inability to show that their mere embarrassment or even mortification rises to the level of emotional distress necessary to satisfy the second element. This group includes Victims of deepfakes that are not so graphic and Victims that are simply displeased but not extremely suffering.

Victims will also have trouble showing the first element, the *mens rea* requirement. The Producer must "know[] that such distress is certain, or substantially certain, to result from his conduct" or that the reckless conduct was "in deliberate disregard of a high degree of probability that the emotional distress will follow."⁹⁰ The majority of the Producers who share a video online with friends or the general public will likely not know that any emotional distress is imminent because they do not expect that the Victim will watch the video or that the Victim will even learn of its existence. This high standard will prevent many Victims from succeeding on this cause of action when they stumble upon the video online or are made aware of the video by a third party. IIED claims, thus, appear to be limited to instances where the Producer intentionally sends the deepfake to the Victim or informs her of its circulation on the internet. The threat of IIED claims will not effectively diminish publications of deepfakes.

The Victims of deepfakes will also have to deal with the Producer using the First Amendment's Free Speech Clause as a defense. Freedom of speech can act as a defense in state tort suits like IIED in the same way it can to defamation claims.⁹¹ The Court set aside a jury verdict imposing IIED tort liability on Westboro Baptist Church in *Snyder v. Phelps*,⁹² where a deceased soldier's father brought action against Westboro for picketing his son's funeral.⁹³ Whether the First Amendment protects this type of conduct depends on whether the speech is of public concern—in other words, whether it is deserving of substantially more protection than matters of private concern.⁹⁴ The Court reiterated language from *New York Times Co. v. Sullivan* about the Constitution's commitment to maintaining debates on public issues to be "uninhibited, robust, and wide-open."⁹⁵

⁹⁰ *Id.* at cmt. i.

⁹¹ *Snyder v. Phelps*, 562 U.S. 443, 450–51 (2011) (citing *Hustler Magazine, Inc. v. Falwell*, 485 U.S. 46, 50–51 (1988)).

⁹² *Id.* at 459.

⁹³ *Id.* at 447.

⁹⁴ *See id.* at 458 ("Given that Westboro's speech was at a public place on a matter of public concern, that speech is entitled to 'special protection' under the First Amendment.").

⁹⁵ *Id.* at 452 (citing *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 270 (1964)).

Matters of public concern relate to “any matter of political, social, or other concern to the community[.]”⁹⁶ The Court opined that the circulation of videos of an employee engaging in sexual acts would be a private concern, since they “did nothing to inform the public about any aspect of the [employing agency’s] functioning or operation.”⁹⁷ Similarly, personal deepfake Producers are not informing the community of anything of public concern—they are just fabricating a video of an individual doing a private act. The First Amendment recognizes the quintessential importance of the freedom to speak one’s mind as it relates to “the common quest for truth and the vitality of society as a whole[.]”⁹⁸ but deepfakes are not a part of this journey. Finally, this affirmative defense can be weakened to the extent courts find deepfakes to be obscene, which lacks First Amendment protection.⁹⁹

C. Negligent Infliction of Emotional Distress

Recovery for a Negligent Infliction of Emotional Distress (“NIED”) claim will largely rely on the state where the action is brought, that state’s applicable tort doctrine, and the factual context of the disseminated deepfake. Generally, these types of cases fall into two categories: (1) individuals who just escaped physical harm and consequently suffer emotional distress; and (2) bystanders who suffer emotional distress while witnessing another individual being harmed.¹⁰⁰ The first category of non-bystanders most closely resembles the context of published deepfakes, and the NIED doctrine within this category widely varies by state. Six states require a plaintiff to show that there was a physical impact as an effect of the negligent act,¹⁰¹ and over a dozen states require the plaintiff show that she was in the zone of danger during the negligent conduct.¹⁰²

However, a substantial amount of states allow recovery when the negligently inflicted emotional distress produced “some physical sign of

⁹⁶ *Id.* at 453 (citing *Connick v. Myers*, 461 U.S. 138, 146 (1983)).

⁹⁷ *Id.* (citing *San Diego v. Roe*, 542 U.S. 77, 84 (2004)).

⁹⁸ *Hustler Magazine, Inc. v. Falwell*, 485 U.S. 46, 51 (1988) (quoting *Bose Corp. v. Consumers Union of U.S., Inc.*, 466 U.S. 485, 503–04 (1984)).

⁹⁹ *See Miller v. California*, 413 U.S. 15, 23 (1973).

¹⁰⁰ John J. Kircher, *The Four Faces of Tort Law: Liability for Emotional Harm*, 90 MARQ. L. REV. 789, 809–10 (2007).

¹⁰¹ *Id.* at 810. The states are Florida, Georgia, Indiana, Kansas, Kentucky and Nevada. *Id.* at 920 n.113.

¹⁰² *Id.* at 815. The states are Alabama, California, Colorado, Connecticut, District of Columbia, Illinois, Iowa, Maine, Minnesota, Montana, Nebraska, Nevada, New York, North Dakota, Rhode Island, and Vermont. *Id.* at 812 n.141.

its existence.”¹⁰³ For example, Missouri allows a plaintiff to recover for NIED when “(1) the defendant should have realized that his conduct involved an unreasonable risk of causing the distress; and (2) the emotional distress or mental injury must be medically diagnosable and must be of sufficient severity so as to be medically significant.”¹⁰⁴ Missouri replaced the impact rule with this rule in *Bass v. Nooney Co.*,¹⁰⁵ when a woman suffered from anxiety after being trapped in an elevator twenty stories above ground-level.¹⁰⁶ The issue with personal deepfake Victims is that they were never in a situation where actual physical harm from some tangible thing existed, like being trapped in an elevator.

Eight states have even fewer limitations on recovery of damages for NIED for non-bystanders.¹⁰⁷ For example, Tennessee approaches these cases under the general negligence doctrine—requiring a plaintiff to show that a defendant had a duty, breached that duty, and caused an injury or loss.¹⁰⁸ And the emotional injury has to be so serious or severe that “a reasonable person, normally constituted, would be unable to adequately cope with the mental stress engendered by the circumstances of the case.”¹⁰⁹ The Tennessee Supreme Court instituted this rule after a plaintiff viewed a dead body caused by a car accident.¹¹⁰

These NIED cases highlight how many states require some physical incident that caused some real emotional harm—with or without accompanying physical symptoms. With personal deepfakes, the Victim never came close to being physically touched by something harmful or perceiving a traumatizing event that actually happened. Under current statutes and precedent, it is unlikely that courts will begin to construe the NIED doctrine in a way that encapsulates fake videos that merely appear real. Even when personal deepfakes become so indistinguishable from videos of real events, Victims will generally know that they are not actually appearing in the videos and the portrayed act never occurred.

¹⁰³ *Id.* at 812. The states are Alaska, Arizona, Delaware, Idaho, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nevada, New Hampshire, North Dakota, Oregon, Pennsylvania, South Carolina, South Dakota, and Utah. *Id.* at 920 n.123.

¹⁰⁴ *Id.* at 814 (citing *Bass v. Nooney Co.*, 646 S.W.2d 765, 772–73 (Mo. 1983) (en banc)).

¹⁰⁵ 646 S.W.2d 765 (Mo. 1983) (en banc).

¹⁰⁶ *Id.* at 813.

¹⁰⁷ *Id.* at 816 n.146. The states are Hawaii, New Jersey, North Carolina, Ohio, Oklahoma, Tennessee, Washington, and Wisconsin.

¹⁰⁸ *Id.* at 817 (citing *Camper v. Minor* 915 S.W.2d 437, 446 (Tenn. 1996)).

¹⁰⁹ *Camper*, 915 S.W.2d at 446.

¹¹⁰ *Id.* at 439.

A rare individual may succeed with an NIED claim if the Producer owed a duty of care to the Victim. In *Catsouras v. Department of California Highway Patrol*,¹¹¹ a California court found that a decedent's family had a "cause of action for negligence, supporting emotional distress damages" when officers disseminated gruesome pictures of the decedent's body via the Internet.¹¹² The California Highway Patrol owed a duty of care to the family to not put these "images on the Internet for the lurid titillation of persons unrelated to official CHP business."¹¹³ The court focused on three factors: foreseeability, moral blame, and the prevention of future harm.¹¹⁴ Therefore, in the context of personal deepfakes, it is possible for a Victim in California to have a cause of action against someone who uses photographs accessed by virtue of some relationship with the Victim that included a duty of care. While this fact pattern, too, can aim to satisfy one's "lurid titillation," the court may still hesitate to liken a personal deepfake to the repugnant photos in *Catsouras*. Personal deepfakes are still *fake*, and the respondents in *Catouras* had to relive *real* images of the teenage girl's decapitated corpse. Most Victims of personal deepfakes will not have a claim of this rare caliber.¹¹⁵

D. False Light

False Light tort claims, one of four distinct forms of invasion of the right of privacy,¹¹⁶ are the most applicable to deepfakes. Thirty-three

¹¹¹ 104 Cal. Rptr. 3d 352 (Cal Ct. App. 2010).

¹¹² *Id.* at 358.

¹¹³ *Id.* at 376.

¹¹⁴ *Id.* at 358. The court also considers other factors:

the degree of certainty that the plaintiff suffered injury, the closeness of the connection between the defendant's conduct and the injury suffered, . . . the policy of preventing future harm, the extent of the burden to the defendant and consequences to the community of imposing a duty to exercise care with resulting liability for breach, and the availability, cost, and prevalence of insurance for the risk involved.

See id. at 372.

¹¹⁵ This type of victim would not be able to recover in Arkansas and New Mexico as these two states continue to prohibit recovery for negligent infliction of emotional distress. *See Kircher, supra* note 100 at 809 n.110 (citing *Mechs. Lumber Co. v. Smith*, 752 S.W.2d 763, 765 (Ark. 1988); *Jaynes v. Strong-Thorne Mortuary, Inc.*, 954 P.2d 45, 50 (N.M. 1997)).

¹¹⁶ The three other forms are "Intrusion Upon Seclusion," "Appropriation of Name or Likeness," and "Publicity Given to Private Life." RESTATEMENT (SECOND) OF TORTS §§ 652B–D (AM. LAW INST. 1977). In the context of deepfakes, possible claims would involve the following examples: hacking one's photos to create faceset (intrusion upon seclusion); using a deepfake in an advertisement

states' common law doctrines allow for false light claims that generally have some common elements.¹¹⁷ An individual may be liable when "giv[ing] publicity to a matter concerning another that places the other before the public in a false light." The portrayal must be highly offensive to a reasonable person, and the actor must have had knowledge or acted in reckless disregard in publicizing this person in a false light.¹¹⁸ Any revelation of matters that are of "legitimate concern to the public" are not invasions of privacy,¹¹⁹ and "publicity" refers to a communication made "to the public at large, or to so many persons that the matter must be regarded as substantially certain to become one of public knowledge."¹²⁰

For example, the Ninth Circuit found a false light claim viable when a *Playgirl* magazine cover featured a shirtless *Baywatch* actor, Jose Salano, Jr., next to the headline, "TV Guys. PRIMETIME'S SEXY YOUNG STARS EXPOSED."¹²¹ The court agreed that Salano had a triable issue of fact for the false light tort. The placement of the photograph and the text, the nude pictures of men inside the magazine, and the large bold letters screaming "12 Sizzling Centerfolds -- Ready to Score With You" insinuated that Solano was one of those individuals.¹²² Such analysis is applicable to personal deepfakes as they portray the Victim as being the person partaking in the sexual act.

With personal deepfakes, the success of a false light claim also depends on the specific context of the deepfake and its publication as well as the state where the claim was brought. For instance, in California, "the information [must be] understood by one or more persons to whom it was disclosed as stating or implying something highly offensive that would have a tendency to injure Solano's reputation."¹²³ California's standard of only requiring one individual to view the publication is much more victim-friendly than the Restatement's requirement of being viewed by the public

(appropriation of name or likeness); and taking peeping tom photos to be used in a deepfake (publicity given to private life).

¹¹⁷ See 33 RICHARD E. KAYE, *CAUSES OF ACTION* 1 (2d ed. 2007).

The states are: Alabama, Arizona, Arkansas, California, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Mississippi, Montana, Nebraska, Nevada, New Jersey, New Mexico, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Washington, and West Virginia. *Id.*

¹¹⁸ RESTATEMENT (SECOND) OF TORTS § 652E (AM. LAW INST. 1977).

¹¹⁹ *Cox Broad. Corp. v. Cohn*, 420 U.S. 469, 492 (1975).

¹²⁰ RESTATEMENT (SECOND) OF TORTS § 652D cmt. a (AM. LAW INST. 1977).

¹²¹ *Solano v. Playgirl, Inc.*, 292 F.3d 1078, 1080 (9th Cir. 2002).

¹²² See *id.* at 1082–83.

¹²³ *Id.* at 1082.

at large. Twenty states have followed the Restatement.¹²⁴ Personal deepfake Victims in these states will likely have to wait until a substantial population of people watch the video to bring a false light cause of action.

False light claims become murkier when the Producer has a warning or title that prefaces the video as fake or fictitious. Courts are likely to carefully balance the Producer's First Amendment right to create fictitious works with the Victim's privacy rights.¹²⁵ The right of publicity¹²⁶ does not exist when "a fictionalized account of an event in the life of a public figure is depicted in a novel or a movie."¹²⁷ The same limitation is likely applicable to private individuals. Victims of personal deepfakes will not be able to recover when that video discloses its fabrication to viewers. Today, many deepfakes found on pornographic websites have a few-second introductory title stating the username of the Producer that manufactured that video. This title is likely intended to give credit to the Producer rather than signify to the viewer that this is, indeed, fake pornography, but its consequence is as if the disclaimer stated it was fake. Disclaimers will likely diminish the strength of false light claims, but courts should still recognize the possibility that the viewer skipped the disclaimer or that the next distributor edited it out entirely. Victims may be left without any false light recourse if the disclaimer remains permanently on the video in a clear fashion.

Similarly, the Victim of a low-quality personal deepfake—one that a reasonable person cannot believe to be true—will have difficulty recovering in this situation because its fakeness will be evident to viewers. In these personal deepfakes, the face may glitch by not following the head properly, be fixed into only one position, or not be properly rendered to look three-dimensional. However, it is likely this will become less of an issue as deepfake technology improves.

¹²⁴ The states are Alabama, Arizona, Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Minnesota, Mississippi, Nebraska, New Hampshire, Oklahoma, Oregon, Pennsylvania, Utah, Vermont, and Washington. 33 CAUSES OF ACTION 2d 1, *Cause of Action for False Light Invasion of Privacy* (2007) (citing RESTATEMENT (SECOND) OF TORTS § 652D cmt. a (AM. LAW INST. 1977)).

¹²⁵ See *Hicks v. Casablanca Records, Inc.*, 464 F. Supp. 426, 432 (S.D.N.Y. 1978) ("Thus, the Court of Appeals in Spahn balanced the plaintiff's privacy rights against the first amendment protection of fictionalization Qua falsification and, after finding there to be no such protection, held for the plaintiff.").

¹²⁶ "The 'right of publicity' gives famous people an assignable and descendible right in the commercial value of their names, likenesses, and other identifying characteristics." Michael Madow, *Private Ownership of Public Image: Popular Culture and Publicity Rights*, 81 CAL. L. REV. 127, 127 (1993).

¹²⁷ *Hicks*, 464 F. Supp. at 433.

Remedies for false light invasion of privacy are similar to copyright infringement in that actual and punitive damages can help make the Victim whole but will not keep the video universally off the internet where it can continuously be distributed to others.¹²⁸ If courts view deepfakes as protected speech under the First Amendment, there will likely be little room for compensatory damages. Moreover, intent and reputational harm plays a role in determining whether a false light claim overcomes constitutional protections of freedom of press. For example, the Second Circuit overturned a jury verdict for a false light claim because the plaintiff failed to show the requisite intent¹²⁹ when the defendant misidentified the plaintiff as being the person in topless photos in a magazine.¹³⁰ The Second Circuit was additionally concerned that “such an enormous verdict chills media First Amendment rights” and downplayed whether nude pictures “are even capable of producing genuine reputational harm.”¹³¹ Whether a personal deepfake causes great emotional distress or reputational harm will depend greatly on its quality (and perhaps whether there was a disclaimer) as well as its impact on the viewers.

Under the current legal framework, the majority of current and future Victims of personal deepfakes will fall through the legal cracks and be left without recourse. Victims who do not suffer from debilitating emotional distress cannot bring an IIED claim. Additionally, Victims who cannot show that the Producer intended to cause the emotional distress cannot bring an IIED claim. Mere distributors or further circulators of an already-produced personal deepfake will also not have the requisite intent. The success of an NIED cause of action will depend on the parties’ jurisdiction, but these claims will generally not be fruitful. Courts are hesitant to allow recovery for victims of incidents where the victims were not in jeopardy of that harm or did not watch someone be physically harmed. Moreover, false light invasion of privacy claims will not cover most Victims, unless the public at large becomes aware of the personal deepfake’s presence. Lastly, plaintiffs of false light claims may not be able to recover if there is a disclaimer that the deepfake is fake. A discussion of First Amendment rights will remain in the background for these claims,

¹²⁸ Damages for this type of action include special damages, punitive damages, and actual damages from the harm to the Victim’s privacy interests and her mental and emotional distress. *See* 92 AM. JUR. 3D *Proof of Facts* § 17 (updated 2018).

¹²⁹ *Lerman v. Flynt Distrib. Co.*, 745 F.2d 123, 141 (2d Cir. 1984).

¹³⁰ *Id.* at 127.

¹³¹ *Id.* at 141. The court presumed that because many celebrities have been portrayed nude, that these pictures are not as capable of causing a harm to one’s reputation. *See id.*

and the courts must decide how to balance free speech rights and the harm that personal deepfakes can cause.

Recovery for these torts will not make the Victim whole. Even if they are handsomely compensated, the video will remain on the internet perhaps indefinitely. Others can redistribute and republish the video online, making it nearly impossible for the Victim to continuously get webhosts to delete this content. The only way to deter this activity is to attach criminal liability to these publications.

III. FUTURE LEGAL RECOURSE FOR PUBLISHED PERSONAL DEEPFAKES: NONCONSENSUAL PORNOGRAPHY LAWS

Fairly recent nonconsensual pornography statutes may be the most effective legal recourse against uploaders of personal deepfakes featuring nonconsenting individuals. Thirty-eight states and the District of Columbia have nonconsensual pornography laws.¹³² Under these statutes,

¹³² Alabama (Distributing a private image with intent to harass, threaten, coerce, or intimidate the person depicted, ALA. CODE § 13A-6-240) (LexisNexis Supp. 2017)); Alaska (Harassment in the second degree, ALASKA STAT. § 11.61.120(a)(6) (2016)); Arizona (Unlawful disclosure of images depicting states of nudity or specific sexual activities, ARIZ. REV. STAT. ANN. §13-1425) (Supp. 2017)); Arkansas (Unlawful distribution of sexual images or recordings, ARK. CODE ANN. § 5-26-314) (Supp. 2017)); California (Disorderly conduct, CAL. PENAL CODE § 647) (West Supp. 2018)); Colorado (Posting a private image for harassment, COLO. REV. STAT. § 18-7-107) (2018)); Connecticut (Unlawful dissemination of an intimate image, CONN. GEN. STAT. § 53a-189c) (West Supp. 2018)); Delaware (Violation of privacy, DEL. CODE ANN. tit. 11, § 1335) (2017)); District of Columbia (Second degree unlawful publication, D.C. CODE § 22-3054) (2015)); Florida (Sexual cyber harassment, FLA. STAT. § 784.049) (West 2017)); Georgia (Prohibition on nude or sexually explicit electronic transmissions, GA. CODE ANN. § 16-11-90) (2018); Hawaii (Violation of privacy in the first degree, HAW. REV. STAT. ANN. § 711-1110.9) (LexisNexis 2018)); Idaho (Crime of video voyeurism, IDAHO CODE § 18-6609) (Supp. 2018)); Illinois (Non-consensual dissemination of private sexual images, 720 ILL. COMP. STAT. ANN. 5/11-23) (West 2017)); Iowa (Harassment, IOWA CODE § 708.7) (West Supp. 2018)); Kansas (Breach of privacy, KAN. STAT. ANN. § 21-6101) (Supp. 2017)); Louisiana (Nonconsensual disclosure of a private image, LA. STAT. ANN. § 14:283) (West 2018)); Maine (Unauthorized dissemination of certain private images, ME. REV. STAT. ANN. tit. 17-A, § 511-A) (Supp. 2017)); Maryland (Revenge porn, MD. CODE, ANN., CRIM. LAW § 3-809) (LexisNexis Supp. 2017)); Michigan (Dissemination of sexually explicit visual material, MICH. COMP. LAWS SERV. § 750.145e) (West Supp. 2018); Minnesota (Nonconsensual dissemination of private sexual images, MINN. STAT. § 604.31) (West Supp. 2018)); Nevada (Unlawful dissemination of intimate image, NEV. REV. STAT. ANN. § 200.780) (2015)); New Hampshire (Nonconsensual dissemination of private sexual images,

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a Producer may be punished criminally, not solely civilly.¹³³ Statutory language varies widely by jurisdiction with many states targeting “revenge porn”—cases where former sexual partners post sexually explicit photos or videos of a person online to cause distress or embarrassment.¹³⁴ These laws feature certain phrases that are both applicable and inapplicable to personal deepfakes.

North Carolina’s statute contains typical language that this section will analyze in the context of personal deepfakes.¹³⁵

(1) The person knowingly discloses an image of another person with the intent to do either of the following: a. Coerce, harass, intimidate, demean, humiliate, or cause financial loss to the depicted person. b. Cause others to coerce, harass, intimidate, demean, humiliate, or cause financial loss to the depicted person. (2) The depicted person is identifiable from the disclosed image itself or information offered in connection with the image. (3) The depicted person’s intimate parts

N.H. REV. STAT. ANN. § 644:9-a) (Supp. 2018)); New Jersey (Disclosure of images of sexual contact or undergarment-clad intimate parts of another person, N.J. STAT. ANN. § 2C:14-9) (West Supp. 2018)); New Mexico (Unauthorized distribution of sensitive images; N.M. STAT. ANN. § 30-37A-1) (Supp. 2018)); North Carolina (Disclosure of private images, N.C. GEN. STAT. § 14-190.5A) (2017)); North Dakota (Distribution of intimate images without or against consent, N.D. CENT. CODE § 12.1-17-07.2) (Supp. 2017)); Oklahoma (Nonconsensual dissemination of private sexual images, OKLA. STAT. tit. 21, § 1040.13b) (West Supp. 2018)); Oregon (Unlawful dissemination of an intimate image, OR. REV. STAT. § 163.472) (2017)); Pennsylvania (Unlawful dissemination of an intimate image, 18 PA. CONS. STAT. § 3131) (West 2015)); South Dakota (Use or dissemination of visual recording or photographic device without consent and with intent to self-gratify, harass, or embarrass, S.D. CODIFIED LAWS § 22-21-4) (West 2017)); Tennessee (Unlawful exposure; image, TENN. CODE ANN. § 39-17-318) (2018)); Texas (Unlawful disclosure or promotion of intimate visual material, TEX. PENAL CODE ANN. § 21.16) (West Supp. 2017); Utah (Distribution of an intimate image, UTAH CODE ANN. § 76-5b-203) (LexisNexis 2017)); Vermont (Disclosure of sexually explicit images without consent, VT. STAT. ANN. tit. 13, § 2606) (Supp. 2017)); Virginia (Unlawful dissemination or sale of images of another VA. CODE ANN. § 18.2-386.2) (2014)); Washington (Disclosing intimate images, WASH. REV. CODE § 9A.86.010) (West Supp. 2018)); West Virginia (Nonconsensual disclosure of private intimate images, W. VA. CODE § 61-8-28a) (LexisNexis Supp. 2018)); Wisconsin (Representations depicting nudity, WIS. STAT. § 942.09) (2018)).

¹³³ *See id.*

¹³⁴ *See Revenge Porn*, ENGLISH OXFORD LIVING DICTIONARY, https://en.oxforddictionaries.com/definition/revenge_porn. (last visited Oct. 20, 2018).

¹³⁵ N.C. GEN. STAT. § 14-190.5A.

are exposed or the depicted person is engaged in sexual conduct in the disclosed image. (4) The person discloses the image without the affirmative consent of the depicted person. (5) The person discloses the image under circumstances such that the person knew or should have known that the depicted person had a reasonable expectation of privacy.¹³⁶

A. *Intent to Harm*

Twenty-four jurisdictions contain a culpability requirement that the individual must intend to cause harm to the other individual by disseminating the sexually explicit photograph or video.¹³⁷ Including North Carolina, sixteen of the twenty-four states specifically include an intent to “harass”¹³⁸ while others use similar language, such as intent to “intimidate,”¹³⁹ cause “emotional distress,”¹⁴⁰ and harm the person’s “health, safety, business, calling, career, financial condition, reputation, or personal relationships[.]”¹⁴¹ Much like the IIED claims, these statutes will fail to protect the same majority of potential Victims of personal deepfakes. The Producers that share deepfakes amongst friends or post online without any harmful intent are not criminally liable.

B. *Expectation of Privacy*

Statutes containing language about disseminating images under circumstances where the individuals have a reasonable expectation of privacy create another roadblock for Producers to be criminally culpable. Thirteen states include such language.¹⁴² The Producer will argue that the plaintiff did not have any reasonable expectation of privacy to a fake video. The Victim or her sexual partner did not take the video of herself engaging in the sexual act because that act never occurred. Moreover, the images used in the faceset are widely accessible through social media sites,

¹³⁶ *Id.*

¹³⁷ *See supra* note 132, for details into the scope of these states’ statutes. The states are Alabama; Alaska; Colorado; District of Columbia; Florida; Hawaii; Iowa; Kansas; Louisiana; Maine; Maryland; Michigan; Nevada; New Mexico; North Carolina; Oklahoma; Oregon; Pennsylvania; South Dakota; Tennessee; Utah; Vermont; Virginia; and West Virginia.

¹³⁸ *Id.* The states are Alabama; Alaska; Colorado; Kansas; Louisiana; Maine; Nevada; New Mexico; North Carolina; Oklahoma; Oregon; Pennsylvania; South Dakota; Vermont; Virginia; and West Virginia.

¹³⁹ *Id.*, Iowa.

¹⁴⁰ *Id.*, Maryland; Tennessee; Utah.

¹⁴¹ *Id.*, Hawaii.

¹⁴² *Id.*, Alabama; Arizona; Connecticut; Delaware; Idaho; Kansas; Minnesota; North Carolina; North Dakota; South Dakota; Utah; Vermont; Washington; and Wisconsin.

and the nude private parts are taken from already published porn clips, likely featuring porn stars who willingly revealed their body. A strong argument for Victims would be likening the privacy interests in these fake videos to the privacy interests in false light tort claims—the Victims’ right to not be publicized in a false light.¹⁴³ The Victim can also argue the deepfake is so life-like that it is as if the video represented a real, private event. Courts’ interpretation of “privacy” as to whether the video had to be fully real is similar to the task of interpreting whether “intimate” body parts have to actually be the Victim’s.

C. Intimate Areas and Sexual Acts

Sixteen states use the phrase “intimate parts” or “intimate areas”¹⁴⁴ which are typically defined in statutes as the unclothed genital areas.¹⁴⁵ Some states also use “engaged in a sexual act,”¹⁴⁶ and “state of nudity.”¹⁴⁷ Given that personal deepfakes often superimpose a Victim’s head on the body of another, the central question is: can these terms apply to a Victim whose actual body parts are not visible? Or, can “intimate body parts” refer to areas that are not the Victim’s?

The answer to this question may lie in the usage of “depiction.” Like North Carolina, thirty-one states¹⁴⁸ use the term “depicted person’s intimate parts.”¹⁴⁹ However, depiction is not usually defined in these statutes. In Pennsylvania, “visual depiction” is defined as “[a] representation by picture, including, but not limited to, a photograph,

¹⁴³ See discussion *supra* Part II.D.

¹⁴⁴ *Id.*, California; Colorado; Idaho; Louisiana; Maryland; Minnesota; Nevada; New Jersey; North Carolina; Oklahoma; Oregon; Tennessee; Texas; Washington; and West Virginia.

¹⁴⁵ See, e.g., Cal. Penal Code § 647 (“[I]ntimate body part’ means any portion of the genitals, the anus and in the case of a female, also includes any portion of the breasts below the top of the areola, that is either uncovered or clearly visible through clothing.”); 720 Ill. Comp. Stat. 5/11-23.5 (“Intimate parts’ means the fully unclothed, partially unclothed or transparently clothed genitals, pubic area, anus, or if the person is female, a partially or fully exposed nipple, including exposure through transparent clothing.”).

¹⁴⁶ See, e.g., Alaska Stat. § 11.61.120(a)(6); 720 Ill. Comp. Stat. 5/11-23.5.

¹⁴⁷ See *supra* note 132. These states are Arkansas; Arizona; Maine; and Pennsylvania.

¹⁴⁸ *Id.* These states are Alabama; Arizona; Arkansas; California; Colorado; Delaware; District of Columbia; Florida; Georgia; Hawaii; Illinois; Louisiana; Maine; Minnesota; Nevada; New Mexico; North Carolina; North Dakota; Oklahoma; Oregon; Pennsylvania; South Dakota; Tennessee; Texas; Utah; Vermont; Virginia; West Virginia; Wisconsin; and Washington.

¹⁴⁹ N.C. Gen. Stat. § 14-190.5A.

videotape, film or computer image.”¹⁵⁰ This follows the ordinary meaning of “depiction.” Oxford English Dictionary’s definition includes “graphic representation”¹⁵¹ and Webster’s Third New International Dictionary defines “depiction” as “representation” and “portrayal.”¹⁵² “Representation” is further defined as “a likeness, picture, model, or other reproduction.”¹⁵³ These definitions clarify that “depiction” can apply to more than a real-life, true to form representation of a given thing (in this case a person). The term can apply to instances where a person is portrayed in video-form through a combined representation of that individual’s face and another person’s body. Since faces are generally used to differentiate between people, there can be a depiction of the Victim when their face is clearly shown and the body is represented to be that person’s. North Carolina’s involuntary porn statute also allows this reasoning by defining “image” as “any visual depiction . . . or computer-generated image.”¹⁵⁴ North Dakota and Utah have similar language.¹⁵⁵ Victims’ hope for a victory in criminal court thus depends on the Producers’ intent and judges’ interpretations of key phrases like “privacy,” “intimate areas,” and “depiction.”

D. The Need for a Federal Criminal Statute

Deepfakes will become so life-like that they will be indistinguishable from actual videos. This is an inevitable consequence of artificial intelligence and machine learning technologies. The law should be equipped to handle this impending problem. Currently, courts may be hesitant to agree that the Victim *becomes* the nude person in the deepfake for purposes of non-consensual pornography statutes. State legislatures likely did not intend to criminalize personal deepfakes as they did not exist when the laws were introduced. The requisite intent to harm illustrates that they were trying to deter harassing and retaliatory conduct, more so than a sharing of a video for pure self-gratification.¹⁵⁶ As shown in the previous section,¹⁵⁷ tort law is unlikely to deter future Producers of this type of content since only limited groups of Victims will be able to seek and recover damages. Shifting this litigation from a plaintiff in a civil context, who has to incur the accompanying legal costs, to the criminal context

¹⁵⁰ 18 PA. CONS. STAT. § 3131.

¹⁵¹ *Depiction*, OXFORD ENGLISH DICTIONARY (2d ed. 1989).

¹⁵² *Depiction*, WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY (1993).

¹⁵³ *Representation*, WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY (1993).

¹⁵⁴ § 14-190.5A.

¹⁵⁵ See N.D. CENT. CODE § 12.1-17-07.2 (Supp. 2017); UTAH CODE ANN. § 76-5b-203 (LexisNexis 2017).

¹⁵⁶ Of course, personal deepfakes can be used in a retaliatory manner as well.

¹⁵⁷ See *supra* Part II.

where a prosecutor takes the reins in representing the state or government, is the best avenue for recourse. Additionally, a federally-administered legal scheme would remove any ambiguities in the statutory language and ensure uniformity, which is important as internet content can surely cross state lines.¹⁵⁸

An ideal federal statute would prohibit the online publication of deepfakes and would not require an intent to harm. Publishing personal deepfakes online is akin to an online publication of a sex tape without the involved person's consent. The inability to permanently delete content from the internet creates enough mental, emotional, and physical harm to warrant prohibition. Sending a personal deepfake via email to a friend should be considered an online publication because of the likelihood that the video will linger on the internet forever. Current laws against distributing private images online, too, should not require an "intentional" level of *mens rea* since these victims suffer from similar issues as personal deepfake victims. Therefore, this statute should also punish online circulators of these personal deepfakes, including those who did not even produce the video. The statute should use the word "depiction" and include computer-generated images within its definition. This federal non-consensual pornography statute, thus, would encapsulate both real private videos and deepfakes. Lastly, the statute should also permit a civil action to be brought against a Producer who violates that statute. Florida approaches revenge porn statutes this way by allowing an individual to bring a separate civil cause of action to incur injunctive relief and actual damages.¹⁵⁹

Even in the criminal context, this statute would be limited by First Amendment protections, such as when the image is "related to a matter of public interest, public concern, or related to a public figure who is intimately involved in the resolution of important public questions, or by reasons of his fame shapes events in areas of concern to society."¹⁶⁰ These limitations are unlikely to apply to most personal deepfakes, but they may be implicated if this statute covers public figures whose images are published online without their consent. The legality of mere production of personal deepfakes is a separate issue.

¹⁵⁸ Congress has constitutional power to pass laws dealing with internet content under the Commerce Clause. *See e.g.*, *United States v. Giboney*, 863 F.3d 1022, 1026 (8th Cir. 2017) *cert. denied*, 138 S. Ct. 527 (2017) ("The [i]nternet is an instrumentality and channel of interstate commerce.") (internal quotation marks omitted).

¹⁵⁹ FLA. STAT. § 784.049 (West 2017).

¹⁶⁰ La. Stat. ANN. § 14:283 (West 2018).

IV. LEGALITY OF PRODUCING BUT NOT PUBLISHING PERSONAL DEEPAKES

The creation of personal deepfakes at home does not carry the same harms that accompany published ones. The Victim does not have the chance to be traumatized by the otherworldly, out-of-body experience of watching herself perform something that never happened or knowing that others are also watching. Friends, family, and colleagues do not get to wrestle with watching a video that they may believe is real. Personal deepfakes are lewd and even despicable, but is this enough? Moral disapproval does not necessitate illegality.

Courts are most likely to analyze the legality of producing deepfakes at home under obscenity doctrine and the *Miller* test. The Supreme Court found that child pornography is not afforded First Amendment protection even when not obscene under *Miller*.¹⁶¹ In *New York v. Ferber*,¹⁶² the Court found a compelling state interest in “safeguarding the physical and psychological well-being of a minor”¹⁶³ when upholding the New York statute prohibiting the promotion of child pornography.¹⁶⁴ It is inconsequential whether there is any literary, artistic, political, scientific, or social value when there is the sexual exploitation of the child.¹⁶⁵

Congress has attempted to prohibit further forms of child pornography by passing the Child Pornography Prevention Act (CPPA),¹⁶⁶ which included a prohibition on “any visual depiction, including any photograph, film, video, picture, or computer or computer-generated image or picture” that “is, or appears to be, of a minor engaging in sexually explicit conduct.”¹⁶⁷ This prohibition included “virtual child pornography,” which can be created by either using adults looking like minors or with the assistance of computer generated images.¹⁶⁸ The Supreme Court in *Ashcroft v. Free Speech Coalition* found the federal statute went beyond *Ferber* since no actual children were being

¹⁶¹ *New York v. Ferber*, 458 U.S. 747, 761 (1982).

¹⁶² 458 U.S. 747 (1982).

¹⁶³ *Id.* at 756 (quoting *Globe Newspaper Co. v. Superior Court*, 457 U.S. 596, 607 (1982)).

¹⁶⁴ *Id.* at 774.

¹⁶⁵ *Id.* at 761.

¹⁶⁶ Child Pornography Prevention Act of 1996, Pub. L. No. 104-209, § 2251, 110 Stat 3009 (codified as amended at 18 U.S.C. § 2251).

¹⁶⁷ *Id.* § 2256.

¹⁶⁸ *Ashcroft v. Free Speech Coalition*, 535 U.S. 234, 241 (2002).

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exploited.¹⁶⁹ Thus, the federal statute had to be analyzed under *Miller*,¹⁷⁰ and it was still overbroad and in violation of the First Amendment.¹⁷¹ As mentioned earlier, the Court acknowledged that pedophiles could use these virtual videos to help encourage children to engage in sexual activity¹⁷² but that not all teenage sexual activity “appeal[s] to the prurient interest.”¹⁷³ Moreover, both “teenage sexual activity and the sexual abuse of children . . . have inspired countless literary works.”¹⁷⁴ Courts cannot ban a product only because of its potential to be used for immoral purposes.¹⁷⁵

After *Free Speech Coalition*, Congress changed § 2256(8)’s definition to “digital image, computer image, or computer-generated image that is, or is indistinguishable from, that of a minor engaging in sexually explicit conduct.”¹⁷⁶ This updated statute has not been legally challenged yet, and the issue becomes increasingly complex as virtual images become more lifelike,¹⁷⁷ especially with the emergence of personal deepfakes. In 2003, Congress also passed the PROTECT Act, which prohibits the “making [of] a visual depiction that is a digital image, computer image, or computer-generated image of, or that is indistinguishable from an image of, a minor engaging in specified sexually explicit conduct.”¹⁷⁸ Under this Act a man was convicted in 2008 for receiving online anime cartoons depicting minors engaged in sexually explicit conduct.¹⁷⁹ The Fourth Circuit found that this material was obscene under *Miller* and upheld the conviction.¹⁸⁰ The Supreme Court declined to hear the case.¹⁸¹

¹⁶⁹ *Id.* at 240.

¹⁷⁰ *Id.*

¹⁷¹ *Id.* at 256.

¹⁷² *Id.* at 241.

¹⁷³ *Id.* at 246.

¹⁷⁴ *Id.* at 247–48.

¹⁷⁵ *See id.* at 251 (“There are many things innocent in themselves, however, such as cartoons, video games, and candy, that might be used for immoral purposes, yet we would not expect those to be prohibited because they can be misused.”).

¹⁷⁶ *See* 18 U.S.C. § 2251 (2016).

¹⁷⁷ Lori J. Parker, Annotation, *Validity, Construction, and Application of Federal Enactments Proscribing Obscenity and Child Pornography or Access Thereto on the Internet*, 7 A.L.R. Fed. 2d 1 (2005).

¹⁷⁸ PROTECT Act, Pub. L. No. 108-21, 117 Stat. 650 (2003) (codified as amended at 18 U.S.C. § 2252).

¹⁷⁹ *See* United States v. Whorley, 550 F.3d 326, 330 (4th Cir. 2008), *cert. denied*, 558 U.S. 1117 (2010).

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

These cases help elucidate how to approach personal deepfakes and the *Miller* test. A statute banning all deepfakes depicting pornography will likely be unconstitutionally overbroad, and prohibitions on deepfakes involving children are constitutional when they are obscene. Courts will likely find that some deepfake pornographies have some societal value. Pornographic deepfakes can be artistic and not entirely graphic or lewd. Additionally, the court's analysis in *Free Speech Coalition* highlights the legal importance of an individual being physically harmed, something not present in personal deepfakes.¹⁸²

While the publication of personal deepfakes may and should be illegal, their creation could remain legal. Killing with the use of a hammer is illegal, but hammers themselves are not illegal. In the same manner, we are not obligated to ban the device (the computer and the software used) that helps create personal deepfakes. The Court believes that "education and punishment for violations of the law" are to be deterrents.¹⁸³ Prohibitions on creating personal deepfakes are unnecessary when criminal prohibitions on the publications are believed to be deterrents.

Furthermore, in *Stanley v. Georgia*,¹⁸⁴ the Supreme Court ruled that "the mere private possession of obscene matter cannot constitutionally be made a crime."¹⁸⁵ While there is a right to receive ideas and information of any social value, we have a "right to be free . . . from unwanted governmental intrusions into one's privacy" and "the right to be let alone."¹⁸⁶ The Court reasoned that the government is not in the business of telling its citizens what books they can read or movies they can watch.¹⁸⁷ The Constitution prevents the government from controlling one's mind.¹⁸⁸

¹⁸² See generally *Ashcroft v. Free Speech Coalition*, 535 U.S. 234, 262 (2002).

¹⁸³ See *Stanley v. Georgia*, 394 U.S. 557, 566–67 (1969) ("But more important, if the State is only concerned about printed or filmed materials inducing antisocial conduct, we believe that in the context of private consumption of ideas and information we should adhere to the view that 'among free men, the deterrents ordinarily to be applied to prevent crime are education and punishment for violations of the law[.] . . . Given the present state of knowledge, the State may no more prohibit mere possession of obscene matter on the ground that it may lead to antisocial conduct than it may prohibit possession of chemistry books on the ground that they may lead to the manufacture of homemade spirits.'").

¹⁸⁴ 394 U.S. 557 (1969).

¹⁸⁵ *Id.* at 559.

¹⁸⁶ *Id.* at 564.

¹⁸⁷ *Id.* at 565.

¹⁸⁸ *Id.*

The Court, too, doubted its ability to draw the line between mere entertainment and the transmission of ideas.¹⁸⁹ A pornography is a unique production that is arguably entertainment but likely does not add to the marketplace of ideas or help parse out false information.¹⁹⁰ Personal deepfakes are both entertainment *and* false information. Nonetheless, the Court's emphasis on the sacrosanctity of what happens in the privacy of one's home will likely protect the creation of deepfakes. This is the correct application of the law. A person has a right to not be portrayed online in a false light. However, individuals do not have a right to prevent others from tampering with images in the privacy of their own homes and for personal use. While not everyone consents to their photograph being used in Photoshop or being cut out and placed on top of another body in a collage, these very acts are nevertheless legal. Illegal harms are embedded in the deepfakes that society will see.

CONCLUSION

Life-like personal deepfakes are here, and the law does not currently protect individuals who have not consented or participated in the production and publication of false pornography. Tort doctrines and revenge porn statutes were not intended to tackle the consequences of a technology that transforms a person's sexual fantasy into reality. There will soon be pressure on courts bend statutes to protect victims of personal deepfakes and on legislatures to take the necessary steps to prohibit future publications. There ought to be a federal prohibition on the online publication or dissemination of any personal deepfake. While we wait for these legal mechanisms to potentially fall into place, the technology is only going to improve. It takes hours to make a deepfake. Soon, it will take seconds, and the product will be indistinguishable from real videos. We need to discuss the harms of personal deepfakes now.

¹⁸⁹ *Id.* at 566.

¹⁹⁰ *See* discussion *supra* Part I.