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— Note —

Defamatory Political Deepfakes and the First Amendment

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Introduction

After logging onto Facebook, you see that your friend has posted a video on your wall titled: "Donald Trump Pee Tape Released." Surprised, you click on the link and are directed to a YouTube video of several young, scantily clad Russian women bouncing on a bed in what appears to be the infamous Presidential Suite at the Ritz Carlton in Moscow.[1] Donald Trump walks into the room and heads towards the

[1] President Obama reportedly stayed in the Presidential Suite of the Ritz Carlton in Moscow during a diplomatic trip to Russia. Michelle Goldberg, *Lordy, Is There a Tape?*, N.Y. Times (Apr. 16, 2018), https://www.nytimes.com/2018/04/16/opinion/comey-book-steele-dossier.html [https://perma.cc/FB5T-GGWF]. Later, Donald Trump was alleged to have stayed in the same room and hired Russian prostitutes to pee on the same bed where President Obama slept. *Id.*

women. You hear Trump's voice say, "let's have some fun, ladies." The girls laugh and you hear Trump again: "How about we show Obama what we think of him. Why don't you pee on his bed?" The tape cuts off in an instant and you feel shocked. Could this video actually be real?

The video in the hypothetical above could easily be what is described colloquially as a "deepfake." The definition of a deepfake is "still in flux, as technology develops."[2] However, a deepfake is generally understood to be a video made with the use of machine-learning to swap one real person's face onto another real person's face. This ability essentially makes it possible to ascribe the conduct of one individual who has been previously videotaped to a different individual.[3] That is, a deepfake is a digital impersonation of someone. This impersonation occurs without the consent of either the person in the original video or the person whose face is superimposed on the original. Individuals in the public eye have already been a major target for deepfakes.[4] Political figures likely will be the targets of future deepfakes, especially by those with an interest in spreading discord and undermining public trust.[5]

Deepfakes of political figures pose serious challenges for our political system and even national security, but legal remedies for these videos are complicated. Every legal remedy to combat the negative effects of political deepfakes must go through a careful balancing test. On one side you have a special interest in protecting high-value political speech and furthering public discourse under the First Amendment. On the other side you have the potential for severe public harm by undermining elections and eroding trust in public officials. Although some political deepfakes might be satirical and promote public discourse about the

[2] James Vincent, *Why We Need a Better Definition of 'Deepfake'*, The Verge (May 22, 2018, 2:53 PM), https://www.theverge.com/2018/5/22/17380306/deepfake-definition-ai-manipulation-fake-news [https://perma.cc/55JA-SH67].

[3] Robert Chesney & Danielle Keats Citron, *Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security*, 107 Calif. L. Rev. (forthcoming 2019) (manuscript at 4–5).

[4] Samantha Cole, *AI-Assisted Fake Porn Is Here and We're All Fucked*, Vice: Motherboard (Dec. 11, 2017, 2:18 PM), https://motherboard.vice.com/en_us/article/gydydm/gal-gadot-fake-ai-porn [https://perma.cc/4PQW-KCVE].

[5] James Vincent, *US Lawmakers Say AI Deepfakes 'Have the Potential to Disrupt Every Facet of Our Society'*, The Verge (Sept. 14, 2018, 1:17 PM), https://www.theverge.com/2018/9/14/17859188/ai-deepfakes-national-security-threat-lawmakers-letter-intelligence-community [https://perma.cc/WE3U-BCLN]; Ana Romano, *Jordan Peele's Simulated Obama PSA Is a Double-Edged Warning Against Fake News*, Vox (Apr. 18, 2018, 3:00 PM), https://www.vox.com/2018/4/18/17252410/jordan-peele-obama-deepfake-buzzfeed [https://perma.cc/3B9H-SX4X].

merits of an individual candidate or issue,[6] many deepfakes will likely cross over the line into pure defamation.

Given this careful balancing test, what remedies are available for defamatory political deepfakes that survive First Amendment scrutiny? If deepfakes are found to be truly defamatory, such speech would only receive limited First Amendment protection and victims could recoup monetary damages from successful defamation lawsuits.[7] For most political figures, however, damages will be difficult, if not impossible, to determine, and any monetary damages will come too late to truly remedy the reputational harm inflicted during a campaign or their tenure as a public figure. Thus, injunctions are likely a quicker and more effective remedy for defamatory political deepfakes.

Although injunctions against deepfakes may seem like a logical remedy, they will likely face major First Amendment hurdles. The Supreme Court has yet to provide a definitive answer on whether injunctions against defamatory speech are permissible under the First Amendment.[8] Some lower courts have found injunctions to be impermissible because they are not sufficiently tailored, effectively creating a prior restraint on constitutionally protected speech.[9] Other courts have suggested that narrowly crafted injunctions against defamatory speech may be permissible.[10] Even if an injunction against a defamatory political deepfake survives a First Amendment challenge, victims might still be unable to remove that deepfake if its creator is unreachable by United States courts.[11]

This Note argues that narrowly crafted injunctions against defamatory political deepfakes should be permitted under the First

[6] *See* Hustler Magazine, Inc. v. Falwell, 485 U.S. 46, 54 (1988) ("Despite their sometimes caustic nature . . . graphic depictions and satirical cartoons have played a prominent role in public and political debate.").

[7] Ashcroft v. Free Speech Coalition, 535 U.S. 234, 245–46 (2002) ("The freedom of speech has its limits; it does not embrace certain categories of speech, including defamation.").

[8] *See* Tony v. Cochran, 544 U.S. 734 (2005) (discussing but not resolving the permissibility of an injunction against defamatory speech).

[9] *See* Sindi v. El-Moslimany, 896 F.3d 1, 34 (1st Cir. 2018); McCarthy v. Fuller, 810 F.3d 456, 461–62 (7th Cir. 2015); *see also infra* Part V.

[10] *See* San Antonio Cmty. Hosp. v. S. Cal. Dist. Council of Carpenters, 125 F.3d 1230, 1238 (9th Cir. 1997) (upholding an injunction against fraudulent speech); Brown v. Petrolite Corp., 965 F.2d 38, 51 (5th Cir. 1992) (permitting a limited injunction against defamatory speech); Lothschuetz v. Carpenter, 898 F.2d 1200, 1208 (6th Cir. 1990) (Wellford, J., concurring in part and dissenting in part) (permitting a limited injunction against defamatory speech); David S. Ardia, *Freedom of Speech, Defamation, and Injunctions*, 55 Wm. & Mary L. Rev. 1, 41 (2013).

[11] Chesney & Citron, *supra* note 3, at 44–45.

Amendment. First, this Note gives an overview of deepfakes and the technology used to propagate them. Then, it addresses the potential defamatory and non-defamatory uses of political deepfakes and how defamatory political deepfakes would be analyzed under the First Amendment's heightened scrutiny standard that is used to analyze political speech. Third, it gives an overview of injunctions on speech under First Amendment jurisprudence and provides some examples of permissible injunctions on expression. Fourth, borrowing from obscenity and copyright law, this Note discusses injunctions as a remedy for defamatory political deepfakes and whether such injunctions should be considered impermissible prior restraints on speech. Finally, it addresses the issue of unreachable defendants and provides a potential solution by extending to deepfakes the requirements for copyrighted materials under the Digital Millennium Copyright Act.[12]

I. What Are Deepfakes?

The notion of what a deepfake is might seem intuitive at first glance—deepfakes seem to be a simple fake or face-swapping video. But such a simple definition grossly oversimplifies the technology behind deepfakes and lacks the specificity needed to properly address deepfakes from a legal perspective.

A. The Technology Behind Deepfakes

Traditionally, any individual who wanted to edit a photo or video would have to upload the photo or video into a computer program and manually make any desired edits. Computer programs have gradually made the editing process easier, but a complete manual overhaul of a video with realistic final results is still very time- and resource-intensive.[13] For instance, when the creators of *Rogue One: A Star Wars Story* decided to bring back the character of Grand Moff Tarkin through a digital recreation, the *Rogue One* visual-effects supervisor described the digital recreation process as "extremely labor-intensive and expensive."[14]

[12] 17 U.S.C. § 1201 (2012).

[13] Donie O'Sullivan, *Deepfake Videos: Inside the Pentagon's Race Against Disinformation*, CNN (Jan. 28, 2019), https://www.cnn.com/interactive/2019/01/business/pentagons-race-against-deepfakes/ [https://perma.cc/PQ2H-PK59]; Scott Ross, *Why VFX House Lose Money on Big Movies*, The Hollywood Reporter (Mar. 7, 2013, 5:00 AM), https://www.hollywoodreporter.com/news/why-life-pi-titanic-vfx-426182 [https://perma.cc/Z8KF-X2HZ].

[14] Grand Moff Tarkin was originally played by the late Peter Cushing but Cushing died prior to the filming of *Rogue One: A Star Wars Story.* Dave Itzkoff, *How 'Rogue One' Brought Back Familiar Faces*, N.Y. Times

Deepfakes, however, do not require human labor to manually manipulate videos; instead, a computer's processing power does all the work.[15] The technology that makes deepfakes possible stems from "a branch of Machine Learning that focuses on deep neural networks" called "deep learning."[16] Deep learning loosely imitates the way the brain works by processing information through a series of nodes (similar to neurons) in an artificial neural network. For a neural network to replicate an image, it must take in a multitude of information from a particular source (often called an "input layer") and then run that information through various nodes until it produces an "output layer."[17] Neural networks are "trained" by adjusting the weights at each node to try to improve the final "output layer" to be as close as possible to the desired result.[18]

Deepfakes add an extra layer of complexity onto this process because they ultimately have two input sources: (1) the face in the original scenario video ("original face"), and (2) the face swapped into the original scenario video ("swapped face"). To facilitate this process, a computer must generate two separate neural networks for each image, each that has enough in common with the other to be able to swap images on a shared facial structure.[19] A basic way to achieve this result is through an autoencoder.[20] An autoencoder is a "neural network that is trained to attempt to copy its input to its output."[21] In order for the face swapping to be successful, the computer must construct two separate neural networks, one for the original face and another for the swapped face, and both must be trained separately.[22] Once the individual networks have been built with enough accuracy through training, then a portion of the networks called the decoders can be swapped, effectively pasting the swapped face onto the network of the

(Dec. 27, 2016), https://www.nytimes.com/2016/12/27/movies/how-rogue-one-brought-back-grand-moff-tarkin.html [https://perma.cc/F9B7-8K62].

[15] O'Sullivan, *supra* note 13.

[16] Alan Zucconi, *An Introduction to Neural Networks and Autoencoders*, Alan Zucconi Blog (Mar. 14, 2018), https://www.alanzucconi.com/2018/03/14/an-introduction-to-autoencoders/ [https://perma.cc/HJ6F-MJXS].

[17] *Id.* (explaining that image-based applications are often built on convolutional neural networks).

[18] *Id.*

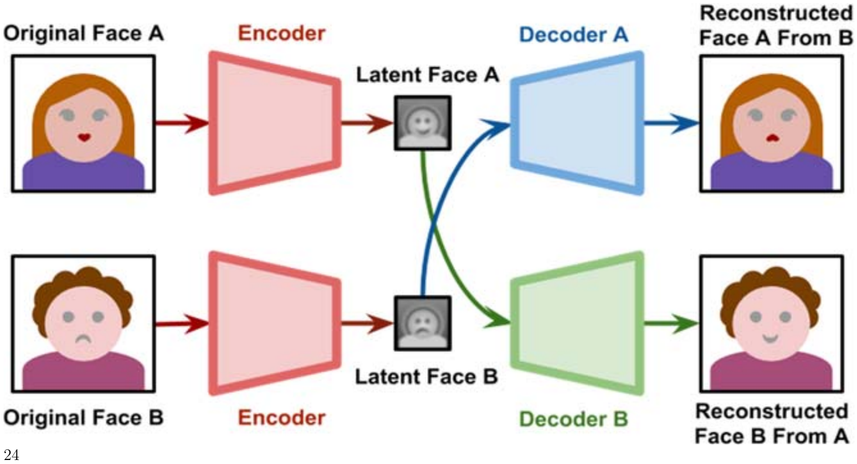
[19] Alan Zucconi, *Understanding the Technology Behind DeepFakes*, Alan Zucconi Blog (Mar. 14, 2018), https://www.alanzucconi.com/2018/03/14/understanding-the-technology-behind-deepfakes/ [https://perma.cc/L7UE-2WWF].

[20] Zucconi, *supra* note 16.

[21] Ian Goodfellow et al., Deep Learning 499 (2016) (ebook).

[22] Zucconi, *supra* note 19.

original face. Using such technology allows the swapped face to mimic any expressions originally made by the original face in the original video.[23]



[24]

Face generation can be made even more realistic through the use of a Generative Adversarial Network ("GAN").[25] Similar to autoencoding, GANs attempt to recreate images using deep-learning techniques.[26] GANs achieve this result by using two components: (1) a generator, which creates natural looking images, and (2) a discriminator, which decides whether the images are real or fake.[27] Essentially the "generator tries to fool the discriminator by generating real images as far as possible."[28] Through this adversarial process between the generator and discriminator, the network is able to produce more consistently realistic images than it could through a traditional autoencoding structure.

Most recently, mathematicians and computer scientists have attempted to combine GANs with a specialized type of autoencoding called "variational autoencoding" (collectively, "VAE-GANs") to

[23] *Id.*

[24] *Id.*

[25] Chesney & Citron, *supra* note 3, at 6; *see also* Ian Goodfellow et al., *Generative Adversarial Nets*, arXiv (June 10, 2014), https://arxiv.org/pdf/1406.2661.pdf [https://perma.cc/K2HH-PL2M].

[26] Chesney & Citron, *supra* note 3, at 7.

[27] Prakash Pandey, *Deep Generative Models*, Medium (Jan. 23, 2018), https://medium.com/@prakashpandey9/deep-generative-models-e0f149995b7c [https://perma.cc/5NXU-MHC8].

[28] *Id.*

produce the most realistic output layers or generated images to date.[29] VAE-GANs work by using the autoencoding process to provide an image to the GAN's generator.[30] The GAN's discriminator then checks the image through an iterative process to make it seem more realistic.[31] In addition to the advancements in deepfake videos, researchers have also made strides in improving fake audio through GANs[32] and other techniques.[33] These advancements are only the beginning of computer-image and audio regeneration. Deepfake creators report that the technology behind deepfakes "is improving rapidly," and the creators "see no limit to whom they can impersonate."[34]

B. How Deepfakes Got Their Name

Although the technology (and mathematics) behind deepfakes is complex, using deepfake technology is relatively simple.[35] This is especially true after an anonymous user on reddit named "deepfake" posted computer code on a subreddit forum in late 2017 that allowed hobbyists to create deepfakes.[36] In early 2018, another reddit user

[29] Enoch Kan, *What The Heck Are VAE-GANs?*, Towards Data Science (Aug. 16, 2018), https://towardsdatascience.com/what-the-heck-are-vae-gans-17b86023588a [https://perma.cc/D9J8-NURV].

[30] Anders Larsen et al., *Autoencoding Beyond Pixels Using a Learned Similarity Metric*, ArXiv (Feb. 10, 2016), https://arxiv.org/pdf/1512.09300.pdf [https://perma.cc/XK4U-AQ3C].

[31] *Id.*; Kan, *supra* note 29.

[32] *See generally* Chris Donahue et al., *Adversarial Audio Synthesis*, ArXiv (Feb. 12, 2018), https://arxiv.org/pdf/1802.04208.pdf [https://perma.cc/UQ3J-892W]; Yang Gao et al., *Voice Impersonation Using Generative Adversarial Networks*, ArXiv (Feb. 19, 2018), http://arxiv.org/abs/1802.06840.pdf [https://perma.cc/FJ6K-9LC8].

[33] Chesney & Citron, *supra* note 3, at 7; O'Sullivan, *supra* note 13.

[34] Drew Harwell, *Fake-Porn Videos Are Being Weaponized to Harass and Humiliate Women: 'Everybody Is a Potential Target'*, Wash. Post (Dec. 30, 2018), https://www.washingtonpost.com/technology/2018/12/30/fake-porn-videos-are-being-weaponized-harass-humiliate-women-everybody-is-potential-target/?utm_term=.8693f1f740f5 [https://perma.cc/7TDN-662W].

[35] Alan Zucconi, *How to Install FakeApp*, Alan Zucconi Blog (Mar. 14, 2018), https://www.alanzucconi.com/2018/03/14/how-to-install-fakeapp/ [https://perma.cc/T3G4-PEMB].

[36] Jeevan Biswas, *What Exactly Is Deepfakes and Why Is This AI-Based Creation a Menace*, Analytics India Mag. (Feb. 8, 2018), https://www.analyticsindiamag.com/deepfakes-ai-celebrity-fake-videos/ [https://perma.cc/K6E6-NJMA]. The actual month that the subreddit was created is contested by various Internet sources. *Compare id.* (claiming the "deepfakes" subreddit was created in November 2017), *with* Aja Romano, *Why Reddit's Face-Swapping Celebrity Porn Craze is a Harbinger of Dystopia*, Vox (Feb. 7, 2018, 5:55 PM), https://www.vox.com/2018/1/31/16932264/reddit-celebrity-porn-face-swapping-dystopia [https://perma.cc/

adapted that code into a user-friendly application called FakeApp.[37] Users of the original code and FakeApp did not need to understand the complex mathematical and computational underpinnings of deepfake technology. Instead, users merely needed above average computer literacy and a sufficiently powerful Graphics Processing Unit ("GPU") in their computer to create deepfakes.[38]

News of the user-friendly application spread quickly, and users began posting their own computer-generated face-swapping videos on the "deepfake" subreddit.[39] User and commentators began to call the videos "deepfakes" after the subreddit where they were born.[40] Many users used the technology to perverse ends, often swapping celebrities' faces (primarily female) onto pornographic videos. [41] Users also generated "revenge porn" deepfakes by swapping their ex-girlfriends' faces onto pornographic videos. [42] Not all users made pornographic deepfakes. Many users enjoyed splicing Nicholas Cage's face onto various movie and television characters.[43] Over 80,000 people partic–ipated in the subreddit before it was eventually shut down due to the

XP3Q-UDN7] (claiming the "deepfakes" subreddit was created in September 2017).

[37] Biswas*,* *supra* note 36.

[38] Zucconi, *supra* note 35.

[39] Damon Beres & Marcus Gilmer, *A Guide to 'Deepfakes,' the Internet's Latest Moral Crisis*, Mashable (Feb. 2, 2018), https://mashable.com/2018/02/02/what-are-deepfakes/#xUHFJsuHqqV [https://perma.cc/NLP6-FBGF].

[40] Julia Pimentel, *Twitter and Reddit Have Banned 'Deepfake' Celebrity Porn Videos*, Complex (Feb. 7, 2018), https://www.complex.com/life/2018/02/twitter-reddit-and-more-ban-deepfake-celebrity-videos [https://perma.cc/K5TL-GHF9].

[41] Cole, *supra* note 4; Alex Hern, *AI Used to Face-Swap Hollywood Stars into Pornography Films*, The Guardian (Jan. 25, 2018), https://www.theguardian.com/technology/2018/jan/25/ai-face-swap-pornography-emma-watson-scarlett-johansson-taylor-swift-daisy-ridley-sophie-turner-maisie-williams [https://perma.cc/3VDX-A5ZB].

[42] Larry N. Zimmerman, *Cheap and Easily Manipulated Video*, 87 J. Kan. B. Ass'n, no. 4, Apr. 2014, at 20, https://cdn.ymaws.com/www.ksbar.org/resource/dynamic/blogs/20180410_111450_30470.pdf [https://perma.cc/9938-ADYD].

[43] Reid McCarter, *Idiots on the Internet Are Getting Really Good at Splicing Nic Cage's Face Onto Every Movie*, AV Club (Sept. 4, 2018, 10:30 AM), https://news.avclub.com/idiots-on-the-internet-are-getting-really-good-at-splic-1828799192 [https://perma.cc/RP9Z-QFFZ]; Sam Haysom, *Nicolas Cage is Being Added to Random Movies Using Face-Swapping Technology*, Mashable (Jan. 31, 2018), https://mashable.com/2018/01/31/nicolas-cage-face-swapping-deepfakes/#WGhEd3yKgiqw [https://perma.cc/SQQ3-D9M8].

largely nonconsensual pornographic nature of the posted content.[44] Other major platforms such as Twitter, PornHub, Gyfcat, and Discord have also banned pornographic deepfakes.[45] As of this writing, however, FakeApp is still available online.[46]

Although many commentators have described the ease of creating deepfakes, it should be noted that downloading and using FakeApp is probably still too cumbersome for the average computer user. First, to "train" a neural network in a reasonable amount of time, a computer needs an adequately sophisticated GPU.[47] As of 2019, a typical laptop does not have the appropriate GPU to perform deep learning and generate deepfakes.[48] In addition, although there are many tutorials on how to download and use FakeApp,[49] the process requires above-

[44] Beres & Gilmer, *supra* note 39. Later the subreddit was removed. Alex Hern, *Reddit Bans 'Deepfakes' Face-Swap Porn Community*, The Guardian (Feb. 8, 2018) https://www.theguardian.com/technology/2018/feb/08/reddit-bans-deepfakes-face-swap-porn-community [https://perma.cc/9T4L-YCDV].

[45] Megan Farokhmanesh, *Deepfakes Are Disappearing from Parts of the Web, But They're Not Going Away*, The Verge (Feb. 9, 2018, 9:00 AM), https://www.theverge.com/2018/2/9/16986602/deepfakes-banned-reddit-ai-faceswap-porn [https://perma.cc/C4E5-D2PH].

[46] *FakeApp Download*, https://www.malavida.com/en/soft/fakeapp/#gref [https://perma.cc/P87C-SEGP] (last visited Nov. 13, 2018).

[47] Zucconi, *supra* note 35; Slav Ivanov, *Picking a GPU for Deep Learning*, Slav Ivanov Blog (Nov. 22, 2017), https://blog.slavv.com/picking-a-gpu-for-deep-learning-3d4795c273b9 [https://perma.cc/UZZ5-SX66].

[48] *See* Nicholas Deleon, *Why Even Non-Gamers May Want a Powerful Graphics Card in Their Next Computer*, Consumer Reports (Aug. 29, 2018), https://www.consumerreports.org/computers/why-even-non-gamers-may-want-a-powerful-graphics-card/ [https://perma.cc/JVS7-7DA3] (indicating that consumers need to elect to upgrade their laptops to include GPUs at the time of purchase); Janakiram MSV, *In the Era of Artificial Intelligence, GPUs Are the New CPUs*, Forbes (Aug. 7, 2017, 10:14AM), https://www.forbes.com/sites/janakirammsv/2017/08/07/in-the-era-of-artificial-intelligence-gpus-are-the-new-cpus/#6e5d76755d16 [https://perma.cc/TU2T-J49H] (noting that for the average consumer GPUs were purely optional); Zucconi, *supra* note 35 (stating the training the neural network without a GPU would take weeks instead of hours).

[49] *See generally* Zucconi, *supra* note 35; tech 4tress, *Deepfakes Guide: Fake App 2 2 Tutorial. Installation (Totally Simplified, Model Folder Included)*, YouTube (Feb. 21, 2018), https://www.youtube.com/watch?v=Lsv38PkLsGU&t=83s [https://perma.cc/FVL3-23WU]; Irrelevant Voice, *Deepfakes Tutorial (FakeApp) (Fake Adult Videos of Celebrities)*, YouTube (Jan. 28, 2018), https://www.youtube.com/watch?v=ghTb2kZSpZE [https://perma.cc/YV6C-5PGQ]; Oliver Lardner, *Tutorial for Mac: Deepfakes—Reddit [MIRROR]*, Medium (Feb. 7, 2018), https://medium.com/@oliverlardner/tutorial-for-mac-deepfakes-reddit-mirror-d75eb8069a16 [https://perma.cc/ER5V-T9PW].

average computer literacy, including understanding torrenting, path configuration, file structures, and application versioning.[50] Although the GPU and technological skills necessary to create deepfakes may be hurdles for the average computer user, they are far less cumbersome for an avid computer-hobbyist or gamer. As of 2018, individuals could buy GPUs sufficient to create deepfakes for as low as $160.[51] Although regular laptops may be inadequate for creating deepfakes, gaming laptops regularly feature sufficiently powerful GPUs.[52] As developers create more user-friendly deepfake applications, average computer users will likely gain greater deepfake-creating capabilities. But even if the process of creating deepfakes becomes easier, it will likely always involve deliberate affirmative actions on behalf of the creator (such as selecting which faces or scenarios to swap).

C. Defining Deepfakes

As noted above, the technology driving deepfakes and computer-generated images is still rapidly evolving. Thus, defining deepfakes is especially tricky and researchers are still struggling with a uniform definition.[53] Legal scholars Robert Chesney and Danielle Citron describe deepfake technology as "leverag[ing] machine-learning algor–ithms to insert faces and voices into video and audio recordings of actual people and enabl[ing] the creation of realistic impersonations out of digital whole cloth."[54] Building on this definition, legal scholar Richard Hasen defined deepfakes as "audio and video clips manipulated using machine learning and artificial intelligence that can make a politician, celebrity, or anyone else appear to say or do anything the manipulator wants."[55] Artificial intelligence researcher Miles Brundage noted that the term "deepfake" generally refers to a "subset of fake video that leverages deep learning . . . to make the faking process easier."[56] Technologist Aviv Ovadya said that deepfakes can be

[50] Zucconi, *supra* note 35.

[51] Ivanov, *supra* note 47.

[52] Gordon Mah Ung & Alaina Yee, *How to Pick the Best Gaming Laptop GPU*, PCWorld (Sept. 5, 2018, 4:53 PM), https://www.pcworld.com/article/3237991/laptop-computers/how-to-pick-the-best-gaming-laptop-gpu.html [https://perma.cc/ES33-UZX2].

[53] Vincent, *supra* note 2.

[54] Chesney & Citron, *supra* note 3, at 4.

[55] Richard L. Hasen, *Deep Fakes, Bots, and Siloed Justices: American Election Law in a Post-Truth World*, St. Louis U. L. J., 9 (forthcoming 2020). This Note quotes and cites this article with Professor Hasen's permission.

[56] Vincent, *supra* note 2; Miles Brundage et. al., *The Malicious Use of Artificial Intelligence: Forecasting, Prevention, and Mitigation*, Future of Human. Inst. (Feb. 2018), https://img1.wsimg.com/blobby/go/

described as "audio or video fabrication or manipulation that would have been extremely difficult and expensive without AI advances."[57]

All of these definitions include the method of creation (by deep learning or artificial intelligence) as a key way to distinguish deepfakes from other faked videos. This distinction is very important because the use of deep learning in a video's creation implies that such a video can be created more easily than a manually manipulated video. In addition, as the technology improves, videos created by deep learning have the potential to look more realistic than manually altered videos. Another important element of deepfake videos is the "faking" of a face or a scenario in a pre-existing video or image. Although to date most deepfakes have primarily focused on face-swapping and voice alterations, the technology could be used to swap out other components in a video, such as background or objects in a video. A final definition must be flexible enough to incorporate any "faking" of an original video possible by deep learning technology. Combining all the key elements above, we can use this simplified definition: Deepfakes are videos, images, and audio created using deep learning to alter the content of an original video, image, and/or audio file by face-swapping or scenario alterations.

II. Deepfakes of Political Figures

As we have seen in Part I, deepfakes have a wide range of uses and raise many legal issues. This Note focuses solely on the impact of deepfakes targeting political figures, or "political deepfakes." Throughout history, individuals have been inclined to use the latest communications technology to mock, comment about, and criticize politicians.[58] Persons in power have been suspicious of such technology, often banning or severely restricting its dissemination, usually at the expense of growth and the exchange of ideas.[59] For instance, upon the invention of the printing press in 1456, French King Charles VII sent a spy to Mainz to investigate how the device might be used to spread political ideas.[60] Charles was concerned that the technology could disseminate information very quickly; he was relieved once he learned that government leaders placed strict controls on what information

3d82daa4-97fe-4096-9c6b-376b92c619de/downloads/1c6q2kc4v_50335.pdf [https://perma.cc/ZRA2-69RE].

[57] Vincent, *supra* note 2.

[58] Craig Smith et al., *The First Amendment—Its Current Condition*, *in* The First Amendment—The Challenge of New Technology 9–12 (Sig Mickelson & Elena Mier Y. Teran eds., 1989).

[59] *Id.*

[60] *Id.* at 9–10.

could be published.[61] History teaches us that if we choose to attempt to mitigate the risks of a new communication technology, such restrictions should be as limited as possible so as not to curtail the benefits of that technology.

From the printing press to the Internet, deepfakes are simply the next in a long line of disruptive communications technology that can be used to further civic discourse, or misused to deceive and undermine public trust. Individuals have already used deepfakes to further public discussion. Jordan Peele created a political deepfake of President Obama to warn the public of the dangers of political deepfakes in April of 2018.[62] Many political deepfakes, such as Jordan Peele's, will likely be viewed by courts as "speech on public issues," which deserves a place on the "'highest rung of the hierarchy of First Amendment values' and is entitled to special protection."[63] Given the possible beneficial uses of deepfakes by satirists, educators, and artists, an outright ban on deepfake technology is not only ill-advised but also likely uncon–stitutional.

However, because deepfakes use deep learning to reduce the effort needed to "fake" a previously made video, bad actors will have a special incentive to use this technology not only to mock, but potentially to frame, undermine, or blackmail political figures. Chesney and Citron outlined eight potential harms to society resulting from the use of deepfakes: (1) distortion of democratic discourse, (2) manipulation of elections, (3) eroding trust in institutions, (4) exacerbating social divisions, (5) undermining public safety, (6) undermining diplomacy, (7) jeopardizing national security, and (8) undermining journalism.[64] Political deepfakes are the most likely candidates to perpetrate almost all of the harms outlined by Chesney and Citron. For instance, if a political deepfake depicting a candidate taking a bribe gets released on the eve of an election, such a tape could simultaneously change the election results, distort discourse about the candidates, and erode trust in public figures and institutions. If the tape agitates activist groups enough that they begin to hold public protests or demonstrations, such demonstrations could turn violent and undermine public safety. If a news outlet runs the story believing it is real and only later finds out it is fake, the deepfake could also undermine the public's faith in

[61] *Id.*

[62] David Mack, *This PSA About Fake News from Barack Obama Is Not What it Appears*, BuzzFeed News (Apr. 17, 2018), https://www.buzzfeednews.com/article/davidmack/obama-fake-news-jordan-peele-psa-video-buzzfeed#.el7Eqkeo7A [https://perma.cc/PDW2-DQSV].

[63] Snyder v. Phelps, 562 U.S. 443, 444 (2011) (quoting Connick v. Myers, 461 U.S. 138, 145 (1983)).

[64] Chesney & Citron, *supra* note 3, at 20–28.

journalism. Although this doomsday scenario may seem extreme, deepfakes that manifest even one of these threats to society could still cause severe harm.

The deepfake threat has not gone unnoticed by Congress. In July 2018, Senator Marco Rubio mused on a potential danger of deepfakes as "the ability to influence the outcome [of an election] by putting out a video of a candidate on the eve before the election doing or saying something strategically placed, strategically altered, in such a way to drive some narrative that could flip enough votes in the right place to cost someone an election."[65] Senator Rubio characterized such a situation as "not a threat to our elections, but a threat to our Repub–lic."[66] Senator Mark Warner also specifically addressed deepfakes in his draft white paper outlining various policy proposals to regulate social media and large technology firms.[67] On September 13, 2018, Representatives Adam Schiff, Stephanie Murphy, and Carlos Curbelo sent a letter to Director of National Intelligence Dan Coates specifically asking the intelligence community to "report to Congress and the public about the implications of new technologies that allow malicious actors to fabricate audio, video, and still images."[68]

Some legislators have even gone so far as to introduce specific legislation to address deepfakes.[69] On December 21, 2018, Senator Sasse introduced a bill attempting to criminalize the "malicious creation and distribution of deepfakes" entitled the "Malicious Deep Fake Prohibition Act of 2018."[70] The bill makes it a crime punishable by up to ten years imprisonment to:

[65] Senator Marco Rubio, Keynote Remarks at The Heritage Foundation's Homeland Security Event on Deep Fakes (July 19, 2018), video available at *Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security*, The Heritage Foundation, at 15:00–15:21, https://www.heritage.org/homeland-security/event/deep-fakes-looming-challenge-privacy-democracy-and-national-security [https://perma.cc/G97A-HK5J].

[66] *Id.*

[67] Senator Mark R. Warner, Potential Policy Proposals for Regulation of Social Media and Technology Firms 2 (Aug. 20, 2018) (White Paper Draft), https://www.ftc.gov/system/files/documents/public_comments/2018/08/ftc-2018-0048-d-0104-155263.pdf [https://perma.cc/8Y5F-DUQP].

[68] Letter from Adam B. Schiff, Stephanie Murphy, and Carlos Curbelo, Representatives, U.S. House of Representatives, to Daniel R. Coats, Dir., Office of Nat'l Intelligence (Sept. 13, 2018), https://schiff.house.gov/imo/media/doc/2018-09%20ODNI%20Deep%20Fakes%20letter.pdf [https://perma.cc/D82S-TPQV].

[69] Kaveh Waddell, *Lawmakers Plunge into "Deepfake" War*, Axios (Jan. 31, 2019), https://www.axios.com/deepfake-laws-fb5de200-1bfe-4aaf-9c93-19c0ba16d744.html [https://perma.cc/JCP3-9HDF].

[70] *Id.*; S. 3805, 115th Cong. § 2 (2018). The bill defines "deep fake" as "an audiovisual record created or altered in a manner that the record would

> (1) create, with the intent to distribute, a deep fake with the intent that the distribution of the deep fake would facilitate criminal or tortious conduct under Federal, State, local, or Tribal law; or
>
> (2) distribute an audiovisual record with –
>
> (A) actual knowledge that the audiovisual record is a deepfake; and
>
> (B) the intent that the distribution of the audiovisual record would facilitate criminal or tortious conduct under Federal, State, local or Tribal law.[71]

The bill includes the limitation that "any activity protected by the First Amendment" is not punishable under the Act.[72] Although the bill expired at the end of 2018, Sasse's office indicated that it intends to reintroduce the bill.[73] Representative Clarke of New York introduced a bill entitled the "DEEP FAKES Accountability Act in June of 2019."[74] This bill requires deepfake creators to include either a watermark or disclosure that the audio or video is altered.[75] Deepfake creators who do not comply with the watermark or disclosure requirements may face civil penalties of up to $150,000 per record in fines, five years in jail, or both.[76] The bill also allows for injunctive relief to comply creators to use watermarks or disclosures.[77] In addition to the legislation proposed by Congress, several states, including New York, Texas, and Maine, introduced legislation to address the harms of deepfakes.[78] In October

falsely appear to a reasonable observer to be an authentic record of the actual speech or conduct of an individual." *Id.* Strikingly, the bill's definition of deepfake does not restrict the manner of creation to videos created through deep learning. *See id.*; *supra* Part I.C.

[71] S. 3805, 115th Cong. § 2 (2018). Law professor and commentator Orin Kerr noted his concern that Senator Sasse's bill reaches too far, creating "federal crimes that prohibit acts undertaken in furtherance of *any* criminal law or tort." Orin Kerr, *Should Congress Pass a "Deep Fakes" Law?*, The Volokh Conspiracy (Jan. 31, 2019), http://reason.com/volokh/2019/01/31/should-congress-pass-a-deep-fakes-law [https://perma.cc/43DG-9WBU].

[72] S. 3805, 115th Cong. § 2 (2018).

[73] Waddell, *supra* note 69.

[74] H.R. 3230, 116th Cong. § 1 (2019).

[75] *Id.* § 2.

[76] *Id.*

[77] *Id.*

[78] Nina Iacono Brown, *Congress Wants to Solve Deepfakes by 2020*, Slate (July 15, 2019, 7:30A.M.), https://slate.com/technology/2019/07/congress-

of 2019, California passed legislation penalizing the distribution of deepfakes of political candidates within 60 days of an election.[79] Although both federal and state level legislatures have attempted to address the harms of deepfakes, whether these measures will comport with the First Amendment has yet to be tested in court.

Given all of these concerns, this Note must return to our original hypothetical. Imagine that you believe that the Donald Trump's Pee Tape video posted by your friend is real. Imagine that you are not the only one. Thousands of people believe that this video is the smoking gun that proves both that the Russians had information that could have compromised Trump and that Russia largely controlled him throughout the 2016 election and into his presidency. The video contains imagery so graphic that even the Republican base turn against Trump. Democratic activist groups are primed to believe such a video and take to the streets, protesting in outrage. The House votes to impeach Trump on newly discovered evidence of corruption. Republican Senators, fearing the repercussions of not acting, ultimately decide to remove Trump from office. Only after all of this has taken place does video forensics reveal that the video was a deepfake. In this scenario, could Trump recover damages from the video's creator? What would those damages be?

III. Defamation Law as a Remedy

For defamatory deepfakes in general, individuals or companies may have legal remedies to protect their property or publicity under copyright law or the tort of right to publicity.[80] However, politicians will likely struggle to recover under either of these legal theories. Regarding copyright law, political figures often do not own much of the video taken of them, barring them from any recovery.[81] Even if a political figure owns the video of themselves, courts will likely not punish an individual who uses the video to comment on the political

deepfake-regulation-230-2020.html [https://perma.cc/HT5S-HBVN]; Scott Thistle, *Maine Joins 'Deepfake' Flight: Might Ban in Political Ads*, Governing (Jan. 30, 2020), https://www.governing.com/next/Maine-Joins-Deepfake-Fight-Might-Ban-in-Political-Ads.html [https://perma.cc/3CFY-WBM4].

[79] Colin Lecher, *California has Banned Political Deepfakes During Election Season*, Verge (Oct. 7, 2019), https://www.theverge.com/2019/10/7/20902884/california-deepfake-political-ban-election-2020 [https://perma.cc/88Y7-4AA2].

[80] Chesney & Citron, *supra* note 3, at 34–35.

[81] Hustler Magazine, Inc. v. Moral Majority, Inc., 796 F.2d 1148, 1151 (9th Cir. 1986) (noting the first element of copyright infringement is "ownership of the copyright by the plaintiff").

figure in a non-commercial way, categorizing such commentary as "fair use." For instance, in *Dhillon v. Doe*,[82] the United States District Court for the Northern District of California held that a non-commercial website's use of a politician's headshot to criticize the politician was "transformative" and "such a use is precisely what the Copyright Act envisions as a paradigmatic fair use."[83] Public figures will likely also struggle to recover under the right of publicity, or "the inherent right of every human being to control the commercial use of his or her identity."[84] First, only about thirty states even recognize such a right.[85] Second, and even more importantly, the right to publicity only protects the use of someone's persona for a *commercial gain*.[86] As in the Trump hypothetical, many political deepfakes do not seek to profit from their creations, so the right of publicity will not provide an appropriate legal remedy.

This brings us to the *pièce de résistance*: the tort of defamation. Defamation law covers both libel (written communications or commun–ications that persist similarly to written works) and slander (spoken communications).[87] Although the actual elements of defamation vary from state to state, the tort generally consists of several elements as outlined in the Second Restatement of Torts:

> To create liability for defamation there must be:
>
> (a) a false and defamatory statement concerning another;
>
> (b) an unprivileged publication to a third party;
>
> (c) fault amounting to at least negligence on the part of the publisher; and
>
> (d) either actionability of the statement irrespective of special harm or the existence of special harm caused by the publication.[88]

[82] No. C 13-01465 SI, 2014 WL 722592 (N.D. Cal. Feb. 25, 2014).

[83] *Id.* at *5.

[84] 1 J. Thomas McCarthy, Rights of Publicity and Privacy § 3:1 (2d ed. 2018).

[85] Amanda Tate, Note, *Miley Cyrus and the Attack of the Drones: The Right of Publicity and Tabloid Use of Unmanned Aircraft Systems*, 17 Tex. Rev. Ent. & Sports L. 73, 84 (2015).

[86] McCarthy, *supra* note 84.

[87] Robert D. Sack, Sack on Defamation: Libel, Slander, and Related Problems §§ 2:4.1–.2 (4th ed. 2010).

[88] Restatement (Second) of Torts § 558 (Am. Law Inst. 1977).

However, in *New York Times Co. v. Sullivan*,[89] the Supreme Court replaced the traditional third element of "fault amounting to at least negligence" with a higher standard, requiring proof that the speech's publisher acted with *actual malice* in publishing speech directed at public officials. [90] Actual malice is found when the statement is made "with knowledge that it was false or with reckless disregard of whether it was false or not."[91] Mere negligence does not suffice to meet an actual-malice standard.[92]

The actual-malice standard creates an exceptionally high burden of proof for public officials in defamation suits, as it is very difficult to prove that a publisher knew the information she published was false or that her actions regarding the information's truthfulness rose to the level of recklessness. The Supreme Court created such a high burden to balance the competing interests of public officials who sought to protect their reputations from defamation against the First Amendment's safeguarding of high-value political speech. The Court reasoned that erroneous statements are "inevitable in free debate," adding that even erroneous statements should be protected to provide the freedom-of-expression principle the adequate "breathing space" it needs to survive.[93] The Court held that when public officials bring a defamation suit, any mental state on behalf of the publisher lower than actual malice is "constitutionally deficient [in its] failure to provide the safeguards for freedom of speech and of the press that are required by the First and Fourteenth Amendments." [94] Such a standard still provides recourse for political figures because if they can prove that individuals acted with actual malice when publishing false and defam–atory statements about them, then the statement is not protected under the First Amendment.[95]

Applying this rigorous standard to political deepfakes is relatively straightforward. Deepfakes are intended to be "fakes" or falsehoods. Unlike an article where an individual might not be sure about one particular fact regarding a political figure, creators of deepfakes know

[89] 376 U.S. 254 (1964).

[90] *Id.* at 283; Restatement (Second) of Torts § 558 (Am. Law Inst. 1977). The Court later extended the holding from *Sullivan* to apply not only to public officials but also to public figures. Curtis Publishing Co. v. Butts, 388 U.S. 130, 150 (1967).

[91] *Sullivan*, 376 U.S. at 280.

[92] *Id.* at 287–88.

[93] *Id.* at 271–72.

[94] *Id.* at 264.

[95] *See* Ashcroft v. Free Speech Coalition, 535 U.S. 234, 245–46 (2002) ("The freedom of speech has its limits; it does not embrace certain categories of speech, including defamation . . . .").

that the content they are creating is false. Creating a deepfake requires a person with above-average computer literacy to download a program and take a series of non-trivial, affirmative steps to swap someone's face onto another video.[96] Even as technology makes it easier to create deepfakes, it will still be hard to prove that an individual "accidentally" created a video of a public figure in a compromising situation. Deep–fakes are designed to look realistic and to make others believe that the face swapped onto the fake video is in fact the person it seems to be. The old adage "seeing is believing" still holds as videos are generally considered highly reliable evidence of past events.[97] A deepfake creator will not only know that what she is creating is false, but since she is creating a *video*, many more persons are likely to believe that what the video depicts is true.

Nevertheless, good-faith deepfake creators will have a rather easy shield against culpability: any indication, either in the video itself or on the location (webpage) where the video was posted, that the video is a fake. If a deepfake creator supplies a watermark or disclaimer, clearly indicating the video is a fake, such information could be used as compelling evidence that the creator reasonably believed that others would not treat the video as an actual representation of the political figure. If a third party could not reasonably believe the video was a depiction of the political figure, then the video is not defamatory.[98] Given the ease of providing such a disclaimer or watermark, this will also work against bad actors who intend to use the video to deceive. If an individual creates a defamatory deepfake without providing any indication that the video is fake, it seems likely that she knew or had reckless disregard for the video's falsity.

In addition to the actual-malice standard, politicians will also have to establish the other elements of defamation: "a false and defamatory statement concerning another," "an unprivileged publication to a third party," and "either actionability of the statement irrespective of special harm or the existence of special harm caused by the publication."[99] The Second Restatement of Torts defines a defamatory statement as one that "tends so to harm the reputation of another as to lower him in the estimation of the community or to deter third persons from associating or dealing with him."[100] Some videos will be completely innocuous (e.g.,

[96] *See supra* Part I.B.

[97] Brundage et. al., *supra* note 56, at 46.

[98] *See* Hustler Magazine, Inc. v. Falwell, 485 U.S. 46, 57 (1988) (holding that the publisher was not liable for defamation because the parody ad "could not be reasonably understood as describing actual facts about [respondent]").

[99] Restatement (Second) of Torts § 558 (Am. Law Inst. 1977).

[100] *Id.* § 559.

a video of a politician watering her garden) and thus, not defamatory. Bad actors, however, are likely to be more interested in using deepfake technology to place political figures in compromising situations, aiming to lower the reputation of those political figures. The trier of fact will have the final word on whether the content is deemed defamatory.

Political figures seeking to recover damages will also have to prove that the deepfake was published and that they were harmed by that publication. A statement is published through "any act by which the defamatory matter is . . . communicated to a third person."[101] Posting a deepfake online would certainly constitute a publication. Finally, the political figure could argue that the publication caused her special harm (or some kind of monetary loss), such as the loss of an election or reduced campaign donations.[102] Even if the political figure did not suffer a particularized harm, she could argue that the publication caused general societal harm (such as the harms outlined in Part II).

IV. Satire or Parody as a Defense

A good-faith deepfake creator's most readily available defense is an acknowledgement in or near the video that the video is false. The more obvious the disclaimer or watermark, the less likely such a video will be misconstrued by a member of the general public that such a video is actually real. Some political satirists, however, might not want to be constrained by the addition of a watermark or disclaimer and instead may claim a privilege by satire or parody. The Supreme Court noted the importance of satire in the political-discourse context in *Hustler Magazine, Inc. v. Falwell*, stating that "[d]espite their sometimes caustic nature . . . graphic depictions and satirical cartoons have played a prominent role in public and political debate."[103]

In that case, Jerry Falwell sued Hustler Magazine for defamation and intentional infliction of emotional distress after Hustler editors drew a cartoon in which Falwell discussed his "first time" as a "drunken incestuous rendezvous with his mother."[104] At trial, the jury rejected Falwell's defamation claim based on its findings that no reasonable person would believe that the cartoon described actual facts; however, it found in favor of Falwell on his intentional infliction of emotion distress claim.[105] On appeal, Hustler Magazine claimed that awarding damages for intentional infliction of emotional distress violated its First

[101] *Id.* § 577 cmt. a.

[102] Ardia, *supra* note 10, at 9.

[103] 485 U.S. 46, 54 (1988).

[104] *Id.* at 48.

[105] *Id.* at 49.

Amendment rights.[106] Falwell contended that the cartoon was so "outrageous" that it was distinguishable from a traditional political cartoon.[107] The Court, inherently suspicious of an "outrageousness" argument, rejected Falwell's position, noting:

> "Outrageousness" in the area of political and social discourse has an inherent subjectiveness about it which would allow a jury to impose liability on the basis of the jurors' tastes or views, or perhaps on the basis of their dislike of a particular expression. An "outrageousness" standard thus runs afoul of our longstanding refusal to allow damages to be awarded because the speech in question may have an adverse emotional impact on the audience.[108]

The Court instead held that "public figures . . . may not recover for the tort of intentional infliction of emotional distress by reason of [satirical] publications . . . without showing in addition that the publication contains a false statement of fact which was made with 'actual malice.'"[109] The Court adopted *New York Times*'s actual-malice standard to the tort of intentional infliction of emotional distress to provide "adequate 'breathing space' to the freedoms protected by the First Amendment."[110]

The Supreme Court's view of outrageousness might seem like a blank check for satirists and parody makers to use deepfakes to mock politicians. The question remains, however, whether deepfakes can be considered satirical works in general. The satire at issue in *Hustler* was a hand-drawn caricature that the jury found could not "reasonably be understood as describing actual facts about [respondent] or actual events in which [he] participated."[111] Deepfakes, unlike caricatures and other parodies, could reasonably be understood to depict facts about an individual. This reasonableness element is crucial for establishing liability against a defendant asserting a parody or satire defense. In *Farah v. Esquire*,[112] the United States Court of Appeals for the District of Columbia Circuit noted that "satire is effective as social commentary precisely because it is often grounded in truth."[113] Thus, "[t]he test [for satire] . . . is not whether some actual readers were misled, but whether

[106] *Id.* at 50.

[107] *Id.* at 55.

[108] *Id.*

[109] *Id.* at 56.

[110] *Id.*

[111] *Id.* at 49.

[112] 736 F.3d 528 (D.C. Cir. 2013).

[113] *Id.* at 537.

the hypothetical reasonable reader could be (after time for reflection)."[114] What it takes to mislead the "hypothetical reasonable reader" will certainly evolve as deepfake technology improves to mirror true human interaction. If the video is extremely realistic, and the actions are outrageous but within the realm of possibility, a court may find that a deepfake intended to be a satire is actually defamatory speech because a reasonable viewer would not be able to distinguish the fake video from reality.

V. Injunctions as a Remedy

If a political figure can prove that a publisher acted with actual malice to create a defamatory deepfake, and that the deepfake could not be considered a satire, then the political figure will be able to recover the traditional tort remedy of monetary damages.[115] Despite the attraction of monetary damages, they do nothing to stop the ongoing reputational loss caused by the deepfake's continued existence on the Internet.[116] Nor do monetary damages remedy the societal damages caused by the video if it is allowed to persist in the public sphere. Moreover, many bad actors posting deepfakes might be judgment-proof, denying the political figure any recovery.

Given the inadequacy of monetary damages, injunctions may be a better avenue to address some of the harms caused by deepfakes. Unlike monetary damages, an injunction is an equity-based remedy designed to "order the defendant to refrain from specified conduct."[117] Political figures are likely to favor injunctions because removing the original video from the Internet will remedy the imminent issue of reputational loss caused by a defamatory political deepfake.[118] Courts can grant permanent injunctions that occur after an adjudication on the merits of the claim, or preliminary injunctions that occur prior to adjudications based on the likelihood of success on the merits.[119] Although preliminary injunctions may be favored because they remove an offending video from the Internet sooner than other remedies, they face a heightened First Amendment hurdle because they risk censoring protected

[114] *Id.*

[115] Ardia, *supra* note 10, at 7.

[116] *Id.* at 16.

[117] *Id.* at 14.

[118] *Id.* at 9, 15–16.

[119] Mark A. Lemley & Eugene Volokh, *Freedom of Speech and Injunctions in Intellectual Property Cases*, 48 Duke L.J. 147, 149–50 (1998).

speech.[120] Thus, this Note focuses primarily on the potential use of permanent injunctions against defamatory political deepfakes.

A. Injunctions and the First Amendment

The First Amendment protects individuals' rights to freedom of religion, speech, the press, and assembly.[121] Since the founding of the United States, courts have been keen to avoid prior restraints on speech, or restraints on expression before occurs.[122] In *Near v. Minnesota*,[123] the Supreme Court established that injunctions against free speech and the press usually amount to a prior restraint on expression.[124] In *Near*, the Court held a state statute that perpetually enjoined individuals or corporations (including the press) who published "a malicious, scandalous and defamatory newspaper or other periodical" was an unconstitutional prior restraint on freedom of the press.[125] The broad nature of the statute led to the "effective censorship" of any publisher who was convicted of publishing an "offending newspaper or periodical," because all future publications regarding the offending matter (defamatory or not) would be subject to court review.[126] The Court held that the threat of enjoining the press' constitutionally protected activity outweighed the potential that publishing scandalous and defamatory information may disturb the public peace.[127]

Similarly, the Supreme Court struck down injunctions against press activities in both *New York Times Co. v. United States* (*Pentagon Papers*)[128] and *Nebraska Press Association v. Stuart*[129] as unconstitutional prior restraints on the freedom of speech and the press. In *Pentagon Papers*, the Second Circuit enjoined the *New York Times* and the *Washington Post* from publishing the "Pentagon Papers," a Defense Department study of American activities in Southeast Asia, after the government argued that the information's publication would endanger

[120] *See id.* at 150.

[121] U.S. Const. amend. I.

[122] *See* Anthony Lewis, Make No Law: The *Sullivan* Case and the First Amendment 51 (1991); Ardia, *supra* note 10, at 32. The perception that injunctions were prior restraints on speech and therefore invalid as an equitable remedy was so pervasive commentators described it as the "no injunction rule." *Id.* at 18.

[123] 283 U.S. 697 (1931).

[124] *Id.* at 722–23.

[125] *Id.* at 702–03, 722–23.

[126] *Id.* at 712.

[127] *Id.* at 721–22.

[128] (*Pentagon Papers*) 403 U.S. 713 (1971) (per curiam).

[129] 427 U.S. 539 (1976).

national security.[130] In *Nebraska Press*, a state court feared that reporting on a sensational criminal trial in a small community would endanger the defendant's right to a fair trial.[131] The court crafted a restrictive order prohibiting the press from reporting on certain aspects of the trial.[132] In both cases, the Supreme Court grappled with a careful balancing test between constitutionally protected speech and important governmental interests (national security) or individual rights (the right to a fair trial).[133] And in both cases, the Supreme Court held that the First Amendment's free-speech guarantee outweighed either competing interest.[134]

In the case of deepfakes, courts must also balance the speech contained in defamatory political deepfakes against important governmental interests, such as safeguarding free elections, promoting trust in public officials, defending national security, and protecting truth itself.[135] It is important to note that in *Near*, *Pentagon Papers*, and *Nebraska Press*, the balancing test involved either a statute or a court-ordered remedy that both targeted an entire industry (the press) and included speech that likely was not libelous.[136] None of the cases addressed an individual or private wrong of one person defaming another. For political deepfakes, it is likely the defamatory threat would not come from the press, but instead from a private individual intentionally attempting to disparage a political figure. In addition, unlike the cases discussed above, the expression in the deepfake would be clearly false.[137] Thus, if an injunction could be carefully crafted to include only the speech in the defamatory deepfake itself, the resulting balancing-test analysis would pit unprotected false and defamatory speech against important governmental interests. To determine whether a court might hold that the important (some might even say "compelling") governmental interests outweigh any free-speech con–cerns, we must take a closer look at several constitutionally permissible prior restraints on expression.

[130] *Pentagon Papers*, 403 U.S. at 714.

[131] *Nebraska Press*, 427 U.S. at 543–45.

[132] *Id.* at 543–44.

[133] *Pentagon Papers*, 403 U.S. at 718; *Nebraska Press*, 427 U.S. at 543.

[134] *Pentagon Papers*, 403 U.S. at 714; *Nebraska Press*, 427 U.S. at 570.

[135] *See supra* Part II.

[136] Near v. Minnesota, 283 U.S. 697, 702–03 (1931); *Pentagon Papers*, 403 U.S. at 714; *Nebraska Press*, 427 U.S. at 570.

[137] *See supra* Part I.

B. Constitutionally Permissible Injunctions on Expression

Although prior restraints on expression bear "a heavy presumption against [their] constitutional validity," not all prior restraints are pro–hibited by the Constitution.[138] In *Near*, the Supreme Court outlined four exceptions to the prior-restraint rule: (1) key issues of national security, such as troop movements or sailing dates; (2) obscene publications; (3) incitement to acts of violence or attempts to overthrow the government; and (4) to "protect private rights" in accordance with the rules of courts of equity."[139] Other than the national-security exception, all the exceptions outlined in *Near* relate to speech that falls outside of the First Amendment's traditional protective scope.[140]

1. Obscenity

Obscenity has no protection under the First Amendment.[141] In *Roth v. United States*, the Court held that "obscenity is not within the area of constitutionally protected speech or press."[142] The Court reasoned that "lewd and obscene . . . utterances are no essential part of any exposition of ideas, and are of such slight social value as a step to truth that any benefit that may be derived from them is clearly outweighed by the social interest in order and morality."[143] Since obscenity provides such low social value, the Court in *Miller v. California*[144] affirmed a broader test to determine what constitutes obscenity. A trier of fact must determine whether (1) "'the average person, applying contemp–orary community standards' would find that the work, taken as a whole, appeals to the prurient interest";[145] (2) the work depicts offensive sexual conduct; and (3) "the work, taken as a whole, lacks serious literary, artistic, political, or scientific value."[146]

Given that obscenity receives no constitutional protection, states have some ability to censor lewd and obscene publications as long as they take precautions to avoid censoring protected speech. In *Times*

[138] *Pentagon Papers*, 403 U.S. at 714; *Near*, 283 U.S. at 716.

[139] *Near*, 283 U.S. at 716.

[140] Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 555, 559 (1985); Brandenburg v. Ohio, 395 U.S. 444, 448–49 (1969); Roth v. United States, 354 U.S. 476, 485 (1957).

[141] *Roth*, 354 U.S. at 485.

[142] *Id.*

[143] *Id.* (quoting Chaplinsky v. New Hampshire, 315 U.S. 568, 571–72 (1942)).

[144] 413 U.S. 15 (1973).

[145] *Id.* at 16 (quoting *Roth*, 354 U.S. at 489).

[146] *Id.*

Film Corp. v. City of Chicago,[147] the Supreme Court upheld a local ordinance requiring filmmakers to submit their films to a review board and obtain approval from the city prior to a public exhibition.[148] The Court clarified this holding in *Freedman v. Maryland*,[149] where it affirmed that states could use noncriminal processes, including prior submission, to censor obscenity in films.[150] However, the prior submission must "take[] place under procedural safeguards designed to obviate the dangers of a censorship system."[151]

2. Copyright

A copyright holder has "the right to exclude others from using his property."[152] Individuals cannot copyright facts or ideas, but they can copyright a particular "expression."[153] Although copyright law creates a restriction on speech, the Supreme Court held in *Harper & Row, Publishers, Inc. v. Nation Enterprises*[154] that the First Amendment does not protect speech that infringes on another's copyright.[155] Under the Copyright Act of 1976, a federal court "may . . . grant temporary and final injunctions on such terms as it may deem reasonable to prevent or restrain infringement of a copyright."[156] Under this statute, modern courts have been willing to grant not only permanent injunctions but also preliminary injunctions to protect a plaintiff's property interests.[157]

The practice of granting injunctions in copyright and patent cases became so pervasive that in 2006 the Supreme Court reminded lower courts that in granting injunctions, they should not abandon "traditional equitable considerations."[158] In *eBay Inc. v. MercExchange, L.L.C.*, the Supreme Court noted that it has "consistently rejected invitations to replace traditional equitable considerations with a rule that an injunction automatically follows a determination that a

[147] 365 U.S. 43 (1961).

[148] *Id.* at 46.

[149] 380 U.S. 51 (1965).

[150] *Id.* at 58.

[151] *Id.*

[152] eBay, Inc. v. MercExchange, L.L.C., 547 U.S. 388, 392 (2006) (quoting Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932)).

[153] Lemley & Volokh, *supra* note 119, at 166.

[154] 471 U.S. 539 (1985).

[155] *Id.* at 555–60; Lemley & Volokh, *supra* note 119, at 150, 166.

[156] 17 U.S.C. § 502(a) (2012).

[157] Lemley & Volokh, *supra* note 119, at 150, 158–59.

[158] eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 392 (2006).

copyright has been infringed."[159] Under *eBay*, a copyright- or patent-holding plaintiff must satisfy a four-factor test before a permanent injunction can be granted to protect her intellectual property interest.[160] The four factors are: (1) the plaintiff "has suffered an irreparable injury"; (2) "remedies available at law . . . are inadequate to compensate for [the] injury"; (3) "considering the balance of hardships between [the parties], a remedy in equity is warranted"; and (4) "the public interest would not be disserved by a permanent injunction."[161] Although *eBay* was a patent case, lower courts have extended its holding to copyright cases involving preliminary- or permanent-injunction requests.[162]

C. Injunctions on Defamatory Speech

Like obscenity and copyrights, defamatory speech has only limited protection under the First Amendment.[163] Unlike obscenity and copyrights, however, courts have been hesitant to allow injunctions on defamatory speech.[164] The Supreme Court did not formally address the issue of injunctions against non-press related defamation until 2005.[165] In *Tory v. Cochran*,[166] the Court accepted a case on post-trial injunctions against defamatory speech, but Cochran's untimely death prevented a final resolution of the issue.[167] The *Tory* case arose out of a dispute between renowned attorney Johnnie Cochran and Ulysses Tory, a disgruntled prior client of Cochran's law firm.[168] Dissatisfied with Cochran's services, Tory picketed outside Cochran's office with

[159] *Id.* at 392–93.

[160] *Id.* at 391.

[161] *Id.*

[162] Salinger v. Colting, 607 F.3d 68, 77 (2nd Cir. 2010) (holding that "*eBay* applies with equal force (a) to preliminary injunctions (b) that are issued for alleged copyright infringement"); Peter Lettersese & Assocs. v. World Inst. of Scientology Enters., 533 F.3d 1287, 1323 (citing *eBay*'s four-factor test as the appropriate criteria to evaluate a permanent injunction in a copyright case); Christopher Phelps & Assocs. v. Galloway, 492 F.3d 532, 543 (4th Cir. 2007) (applying *eBay*'s four-factor test to analyze a permanent injunction in a copyright case); *see also* Anthony DiSarro, *Freeze Frame: The Supreme Court's Reaffirmation of the Substantive Principles of Preliminary Injunctions*, 47 Gonz. L. Rev. 51, 83 (2013).

[163] Ashcroft v. Free Speech Coalition, 535 U.S. 234, 245–46 (2002).

[164] *See* Lemley & Volokh, *supra* note 119, at 149–50.

[165] *See generally* Tory v. Cochran, 544 U.S. 734 (2005).

[166] *Id.*

[167] *Id.* at 737–38; Erwin Chemerinsky, *Injunction in Defamation Cases*, 57 Syracuse L. Rev. 157, 162 (2007). Chemerinsky served as Tory's counsel in *Tory*. 544 U.S. at 735.

[168] Chemerinsky, *supra* note 167, at 158.

other discontented clients.[169] Cochran sued Tory and the picketers for defamation. After Tory indicated that he would "continue to engage in [the defamatory] activity in the absence of a court order," the California Superior Court issued an injunction prohibiting Tory from "orally uttering statements" about Cochran and his law firm in "any public forum."[170] Tory challenged the injunction, alleging that it was an unconstitutional prior restraint on his free-speech rights.[171] The Supreme Court granted certiorari on the specific question of "[w]hether a permanent injunction as a remedy in a defamation action, preventing all future speech about an admitted public figure, violates the First Amendment."[172]

The case took an unexpected turn when Cochran died one week after oral argument.[173] Because the injunction against Tory was still in effect after Cochran's death, the Court held the case was not moot.[174] However, the Court held that the injunction had lost its underlying rationale of preventing Tory from coercing Cochran to "pay a 'tribute'" for Tory to desist in the defamatory activity.[175] The Court adopted a very narrow holding: "the injunction, as written, now amounts to an overly broad prior restraint upon speech, lacking plausible justification."[176] Although the Court defined the current injunction as a prior restraint on speech, it left the door open for injunctions against defamatory speech in the future: "If . . . injunctive relief may still be warranted, any appropriate party remains free to ask for such relief. We express no view on the constitutional validity of any such new relief, tailored to these changed circumstances, should it be entered."[177]

Although the Supreme Court has not resolved the issue of the constitutionally of injunctions against defamatory speech, lower courts have begun to experiment with injunctions in the new age of Internet defamation.[178] According to a survey by David Ardia of more than 242 decisions involving injunctions against defamatory speech, "at least fifty-six decisions . . . granted or affirmed [the] injunctions," with a

[169] *Id.* at 159.

[170] *Tory*, 544 U.S. at 735–36.

[171] Chemerinsky, *supra* note 167, at 161.

[172] *Tory*, 544 U.S. at 735–36; Chemerinsky, *supra* note 167.

[173] *Tory*, 544 U.S. at 736.

[174] *Id.*

[175] *Id.* at 736–38.

[176] *Id.* at 738.

[177] *Id.* at 738–39.

[178] Ardia, *supra* note 10, at 4.

stark increase in the number of courts granting injunctions after 2000.[179] Both federal[180] and state[181] courts have permitted injunctions against defamatory speech, although courts vary widely in defining the appropriate scope of those injunctions.[182] Courts tend to rely on three primary justifications when granting permanent injunctions against defamatory speech: "(1) the speech impugned the plaintiff's property interest; (2) the defendant engaged in a continuing course of conduct that caused the plaintiff harm; or (3) the speech had been adjudged to be defamatory."[183] The most common reason cited for upholding injunctions against speech is that such speech had already been adjudged to be defamatory, therefore an injunction against it would not be a prior restraint on *protected* speech.[184]

Federal courts are split on the issue of injunctions against defam–atory speech. Although some circuits have taken the traditional view that "equity does not enjoin a libel or slander,"[185] the Fifth, Sixth, and Ninth Circuits have permitted at least limited injunctions against defamatory or fraudulent speech.[186] Both the Fifth and Sixth Circuits permitted injunctions against defamatory speech only if the injunctions

[179] *Id.* at 42.

[180] *See infra* text accompanying notes 186–190 (highlighting that, although federal courts are split, some courts such as the Sixth Circuit issue limited injunctions for defamatory speech).

[181] Ohio, Georgia, Minnesota, California, Kentucky, and Montana have adopted rules allowing injunctions on speech that courts deem defamatory. *See* Ardia, *supra* note 10, at 48–50; O'Brien v. Univ. Cmty. Tenants Union, 327 N.E.2d 753, 755 (Ohio 1975); Retail Credit Co. v. Russell, 218 S.E.2d 54, 62 (Ga. 1975); Advanced Training Sys., Inc. v. Caswell Equip. Co., 352 N.W.2d 1, 11 (Minn. 1984); Balboa Island Vill. Inn v. Lemen, 156 P.3d 339, 348–49 (Cal. 2007); Hill v. Petrotech Res. Corp., 325 S.W.3d 302, 309 (Ky. 2010); St. James Healthcare v. Cole, 178 P.3d 696, 703 (Mont. 2008) (adding that not every injunction that amounts to a prior restraint is "impermissible").

[182] Ardia, *supra* note 10, at 52–57 (outlining four types of injunctions utilized by various federal and state courts).

[183] *Id.* at 43–44.

[184] *Id.* at 48.

[185] Cmty. for Creative Non-Violence v. Pierce, 814 F.2d 663, 672 (D.C. Cir. 1987) (quoting Kukatush Mining Corp. v. SEC, 108 F.Supp. 508, 510–11 (D.D.C. 1961)); Metro. Opera Ass'n v. Local 100, Hotel Emps. & Rest. Emps. Int'l Union, 239 F.3d 172, 177 (2d Cir. 2001).

[186] *See* San Antonio Cmty. Hosp. v. S. Cal. Dist. Council of Carpenters, 125 F.3d 1230, 1239 (9th Cir. 1997) (upholding an injunction against fraudulent and defamatory signs held by union members during a labor dispute); Brown v. Petrolite Corp., 965 F.2d 38, 51 (5th Cir. 1992); Lothschuetz v. Carpenter, 898 F.2d 1200, 1208–09 (6th Cir. 1990) (Wellford, J., concurring in part and dissenting in part).

were limited to speech that had been previously adjudged to be defamatory.[187] In *Lothschuetz v. Carpenter*, Carpenter, a company owner who had previously been involved in administrative and judicial proceedings with two attorneys, wrote and sent defamatory letters about the attorneys to the President of the attorneys' workplace.[188] The attorneys sued Carpenter for defamation and sought a permanent injunction preventing Carpenter from publishing further defamatory statements.[189] Through dual concurring opinions, the Sixth Circuit granted a limited injunction emphasizing that because Carpenter's defamatory statements were "frequent and continu[ous]," an injunction was an appropriate remedy to "prevent future injury to [the attorneys'] personal reputation[s]."[190]

Other circuit courts have not directly addressed the issue of whether any injunction against defamatory speech constitutes an unconstitutional prior restraint; but they have rejected proposed injunctions on the basis that they were overbroad.[191] The First Circuit recently took this approach in *Sindi v. El-Moslimany.*[192] There, the First Circuit struck down an injunction prohibiting an individual from "publishing 'orally, in writing, through direct electronic commun–ications, or by directing others to website or blogs reprinting' six statements that the district court concluded were defamatory."[193] The trial court granted a permanent injunction against a woman engaged in an online campaign to smear and defame a scientist whom she believed was engaged in an affair with her husband.[194] The circuit court effectively applied a strict-scrutiny test to the injunction.[195] Since the trial court's injunction was not "as narrowly tailored as possible to

[187] *Petrolite Corp.*, 965 F.2d at 51 (ordering the district court to "narrow its previous language so as to enjoin the dissemination of information relating to . . . the subject of the underlying suit"); *Lothschuetz*, 898 F.2d at 1208–09 (Wellford, J., concurring in part and dissenting in part) (limiting the injunction "to the statements which have been found in this and in prior proceedings to be false and libelous").

[188] *Lothschuetz*, 898 F.2d at 1203.

[189] *Id.* at 1203–04.

[190] *Id.* at 1208–09 (Wellford, J., concurring in part and dissenting in part).

[191] *See* Sindi v. El-Moslimany, 896 F.3d 1, 34 (1st Cir. 2018); McCarthy v. Fuller, 810 F.3d 456, 461–62 (7th Cir. 2015).

[192] *Sindi*, 896 F.3d 1, at 27–36.

[193] *Id.* at 12, 34.

[194] *Id.* at 11–12.

[195] *Id.* at 30, 37 n.16.

avoid censoring protected speech," the circuit court held that it amounted to an unconstitutional prior restraint.[196]

In dissent, Judge Barron argued against the "application of strict scrutiny."[197] Barron relied on *Schenck v. Pro-Choice Network of Western New York*[198] and *Madsen v. Women's Health Center*[199] to assert that the Supreme Court has upheld injunctions against speech as a prophylactic measure when the enjoined parties were likely to continue to engage in the unprotected conduct.[200] Barron argued that the appropriate standard of review for injunctions against defamatory speech should be one that "burden[s] no more speech than necessary to serve a significant government interest,"[201] not that the injunction is "the least restrictive means of achieving a compelling state interest."[202]

Thus, courts have left open two key questions: (1) whether *all* injunctions against defamatory speech constitute unconstitutional prior restraints; and (2) if some injunctions are permissible, what is the appropriate scope of injunctions against defamatory speech so that the injunctions comport with the First Amendment. In an effort to explore whether some injunctions may be permissible under the First Amendment, David Ardia sorted injunctions against defamatory speech into four types based on their restrictiveness.[203] Type I injunctions "prohibit[] a party from making *any statements* about the plaintiff."[204] These injunctions are extremely broad and highly unlikely to pass a First Amendment challenge. Type II injunctions "prohibit a party from publishing any *defamatory* statements about the plaintiff."[205] Type II injunctions are also likely to be overbroad because "they are not precise enough to put the defendant on notice as to what speech will violate the injunction."[206] Although both Type I and Type II injunctions target individuals who have engaged in defamatory conduct in the past, they overreach and effectively deprive the defendants of the "breathing

[196] *Id.* at 35.

[197] *Id.* at 45.

[198] 519 U.S. 357, 381–82 (1997).

[199] 512 U.S. 753, 768–71 (1994).

[200] *Sindi*, 896 F.3d at 45–46.

[201] *Id.* at 45 (quoting *Schenck*, 519 U.S. at 372).

[202] *Id.* (quoting McCullen v. Coakley, 573 U.S. 464, 478).

[203] Ardia, *supra* note 10, at 52.

[204] *Id.*

[205] *Id.* at 53.

[206] *Id.*

space" necessary to engage in public debate.[207] Such restrictions amount to unconstitutional prior restraints on speech.

Type III injunctions "prohibit a party from publishing certain enumerated statements about the plaintiff without limiting the injunction to the specific statements that have been found to be defamatory."[208] Type III injunctions are probably the closest to the injunction granted by the trial court in *Sindi*.[209] Type III injunctions are attractive to plaintiffs who have been defamed by spoken words or written commentaries because the injunctions are flexible enough to capture potential defamatory speech that has not yet been published. But some courts may consider Type III injunctions unconstitutional prior restraints because they cover speech that has not yet been adjudged defamatory. In addition, Type III injunctions are not be the least-restrictive remedy in most cases, so they are not likely to survive a strict-scrutiny analysis. However, some courts have been willing to permit such injunctions if the defendant's defamatory conduct is either ongoing or coercive.[210] In cases where the defendant admits that she plans to continue engaging in defamatory conduct, a court may find that preventing harassment serves as a sufficiently important interest to permit an injunction.[211] If, however, a specific defamatory work could be targeted with precision, Type III injunctions may be overly broad.

Thus, we are left with Type IV injunctions, which "only prohibit[] further publication, or orders the removal of the specific statements a court or jury has found are defamatory."[212] Type IV injunctions are the narrowest possible injunctive remedy; thus, if a plaintiff can articulate a compelling interest for the injunction, it may even clear strict scrutiny's high hurdle. But Type IV injunctions are exceedingly difficult to apply against spoken words or specific passages of written commentary because defamatory comments made in this manner are often very contextual.[213] Type IV injunctions are more easily applied in cases where a video or a complete work is posted on the Internet. The

[207] N. Y. Times Co. v. Sullivan, 376 U.S. 254, 271–72 (1964).

[208] Ardia, *supra* note 10, at 54.

[209] Sindi v. El-Moslimany, 896 F.3d 1, 12 (1st Cir. 2018) (enjoining the publication, through oral and written means, electronic communications, or direction to publications, of six statements it held to be defamatory).

[210] *Id.* at 44–45 (Barron, J., dissenting); Lothschuetz v. Carpenter, 898 F.2d 1200, 1208–09 (6th Cir. 1990) (Wellford, J., concurring in part and dissenting in part).

[211] *Sindi*, 896 F.3d at 44 (Barron, J., dissenting); *Lothschuetz*, 898 F.2d at 1208–09 (Wellford, J., concurring in part and dissenting in part).

[212] Ardia, *supra* note 10, at 56.

[213] *Sindi*, 896 F.3d at 30 (noting the injunction cannot stand "principally because of its failure to account for contextual variation").

injunction can be tailored to that specific work in an almost surgical fashion, removing only the files or words deemed unprotected while leaving intact the remaining protected speech. In many ways, these very limited injunctions against defamatory speech can work in the same way as injunctions against obscenity by targeting a specific expressive work. In dicta, the First Circuit mused on this distinction, noting that the "obscenity doctrine proscribes specific expressive works (such as books or movies) that . . . lack 'serious literary, artistic, political, or scientific value,'" while "injunction[s] that prevent[] in perpetuity the utterance of particular words and phrases after a defamation trial is quite a different matter."[214]

Thus, courts have not developed a consensus on how to address injunctions against defamatory speech. Even so, examples of permissible injunctions in obscenity and copyright cases, as well as Ardia's framework for injunctions against defamatory speech, can serve as a basis for determining whether injunctions against defamatory political deepfakes might survive a First Amendment challenge.

VI. Injunctions on Defamatory Deepfakes

Deepfakes are strikingly different from many other forms of defamatory speech in both the manner they are created and in their form of expression. First, unlike other defamatory speech, *all* of a deepfake's content is inherently false, so there is a higher presumption of a culpable mental state on the part of the deepfake creator. Second, deepfakes have little social value because they are inherently false and they undermine the public's ability to distinguish what is true from what is false. Finally, it is easier to enjoin the expressive form of deepfakes, as opposed to enjoining their underlying ideas, because deepfake creators need the assistance of artificial intelligence to generate deepfakes.

In most defamatory speech cases involving spoken or written words, it is highly unlikely that all of the expression is untrue. This is exactly the case, however, with deepfakes: every frame is a falsehood. As defined above, deepfakes "alter the content of an original video, image, and/or audio file by face swapping or scenario alterations."[215] Unlike with spoken or written words, when a court enjoins a deepfake, it eliminates the possibility that the content could be republished in the same form (video, photo, or audio) in a true manner. Even if the publisher changes a few frames in the deepfake, the remainder would still be false. At best, reproducing a deepfake without some offending frames still creates false, but non-defamatory, content. In *United States*

[214] *Id.* at 33.

[215] *See supra* Part I.C.

v. Alvarez,[216] the Supreme Court upheld some First Amendment protections even for false speech.[217] Still, the value of protecting false speech is not sufficient to outweigh important or compelling governmental interests, such as free and fair elections or national security.

In addition, a deepfake creator intentionally alters every frame of a video to intentionally distort reality. Such a calculated act creates a much stronger presumption that a deepfake creator has a culpable mental state as compared to a publisher of an angry social-media post who slips in an untrue detail about another person. Blog-post creators may credibly deny that they knew a specific detail of their blog was false when it was published; but deepfake creators will have a much more difficult time convincing a fact-finder that they were unaware they were creating and publishing a deepfake. Thus, the way deepfakes are created brings deepfake cases in line with copyright or obscenity cases in that there is more evidence that the infringing material was created by someone with a guilty mental state. In copyright cases, it is exceedingly difficult for a copier to convince a fact-finder that she coincidentally replicated another author's work word for word. Similarly, in obscenity cases, it is unlikely that a jury would find that a pornographic video's publisher was unaware that a group-sex video she published would be considered porn. Indeed, given the current technological skills needed for deepfake creation, it might be harder for plaintiffs to prove a culpable mental state in many copyright and obscenity cases than it would be in a deepfake case.

Second, defamatory deepfakes, similar to obscenity, have little social value. There are some positive uses for non-defamatory deepfakes, such as artistic expression or satire,[218] but the underlying content of a defamatory deepfake will always be (at minimum) a recklessly created falsehood. Combining the deepfake's ability to spread falsehoods with the video medium's generally perceived truthfulness undermines the public's ability to believe its own eyes. Although our society can tolerate some protections for falsehoods, once a deepfake crosses the line into defamation it is stripped of all social value. Defamatory deepfakes do not contribute to public discourse; instead they distort open-forum principles by undermining the concept of truth itself. Similar to

[216] 567 U.S. 709 (2012).

[217] *See id.* at 719–720 (overturning the Stolen Valor Act, which made it a crime to falsely claim receipt of a military decoration, on the ground that "falsity alone" is not enough to bring speech outside the First Amendment).

[218] *See supra* Part IV (explaining how satire or parody can be a good-faith defense against deepfake accusations).

obscenity, any benefit derived from defamatory deepfakes "is clearly outweighed by the social interest in order and morality."[219]

Third, and similar to copyright, it is easier to enjoin a deepfake as a "form of expression" than it would be for most other forms of defamatory speech.[220] Deepfakes, by definition, must be created "with the use of deep learning." [221] Deepfakes create a specific type of electronic file (either video, photo, or audio), and a court has the ability to make the distinction between enjoining the specific form of expression (i.e., content created with the aid of artificial intelligence) and enjoining the underlying ideas or speech in the video. Although it might seem that enjoining only the form of expression does not go far enough to protect political figures from defamatory speech, such an argument is unavailing. The novel threat of deepfakes is that the manner in which they are created—and the manner in which they are viewed—makes them more likely to be perceived as real. For "seeing is believing," and realistic-looking videos are generally more likely to be believed than written commentaries.[222] Thus, enjoining the form of expression, as opposed to the underlying speech, at worst returns political figures to the status quo.

VII. Appropriate Scope for Injunctions Against Political Defamatory Deepfakes

Although defamation may be the appropriate legal *theory* by which political figures should address deepfakes in a court of law, obscenity and copyright law provide the appropriate *remedies*. Similar to the obscenity test defined in *Miller*, the standard to determine whether a deepfake is defamatory should be: if "the average person, applying contemporary community standards would find the work, taken as a whole" to be defamatory and "lack[ing] serious literary, artistic, political, or scientific value,"[223] then the deepfake is defamatory. If the entire work is not considered as a whole, a deepfake creator could change just one frame in the offending video and repost it to the Internet in its entirety. Once the "work as a whole" has been adjudged

[219] Roth v. United States, 354 U.S. 476, 485 (1957) (quoting Chaplinsky v. New Hampshire, 315 U.S. 568, 571–72 (1942)). *But see* Gertz v. Robert Welch Inc., 418 U.S. 323, 341 (1974) (explaining that the "First Amendment requires that we protect some falsehood in order to protect speech that matters").

[220] *See* Lemley & Volokh, *supra* note 119, at 167.

[221] *See supra* Part I.C.

[222] Brundage et al., *supra* note 56, at 46.

[223] Miller v. California, 413 U.S. 15, 24 (1973).

defamatory, then the court can craft a narrow injunction related to the specific deepfake.

Erwin Chemerinsky, who served as counsel for Ulysses Tory at the Supreme Court, argued against injunctions of defamatory speech: "Any effective injunction will be overbroad and any limited injunction will be ineffective."[224] Given the properties of a deepfake, it is possible to craft an injunction that is both narrowly tailored and effective. For instance, in copyright cases, courts have the original work to compare against the potentially infringing content. Courts can specifically identify whether a particular expression sufficiently mimics that of the copyrighted work.[225] Similarly, with deepfakes, courts can use certain technology to see whether republications of a defamatory deepfake are the same as the original video that it already deemed defamatory.[226]

Even if courts choose to follow the current legal framework of injunctions under defamation law, very narrowly tailored injunctions—such as the Type IV injunctions outline in Part V.C.—would likely be effective at removing offending material without disturbing protected speech. A court could craft an injunction such as the one below:

> Defendants are permanently enjoined from publishing the deepfake, (describe deepfake file name here), adjudged defamatory by this court, either in its entirety or in part on any public medium (including, but not limited to, the Internet, television, and/or radio). Publication in part shall include the publication of any frame, series of frames, and/or audio snippet(s) from (describe deepfake file name here).

Such an injunction is broad enough to prevent further harm from the specific deepfake, while still being narrow enough to avoid censoring constitutionally protected speech. Given deepfakes' special characteristics and risks, they serve as a unique example that some injunctions on defamatory speech may comport with the First Amendment.

VIII. Injunctions and Third-Party Providers

Even if an injunction against a deepfake is found to be constitutional, under the current statutory scheme only the creator can be held liable for not removing the offending content from the

[224] Chemerinsky, *supra* note 167, at 171.

[225] Lemley & Volokh, *supra* note 119, at 159–61.

[226] Will Knight, *The Defense Department has Produced the First Tools for Catching Deepfakes*, Tech. Rev. (Aug. 7, 2018), https://www.technologyreview.com/s/611726/the-defense-department-has-produced-the-first-tools-for-catching-deepfakes/ [https://perma.cc/P6GQ-EEDU].

Internet.[227] Under section 230 of the Communications Decency Act of 1996 ("CDA"),[228] Internet service providers ("ISPs") are not subject to civil liability for the content posted to their webpages by a third party.[229] Congress adopted the CDA wake of the *Stratton Oakmont v. Prodigy Services*,[230] where the Supreme Court of New York held that an interactive ISP that monitored its services should be considered a publisher of defamatory content, even though a third party posted the content on the ISP's webpage.[231] Congress feared that exposing ISPs to civil liability would discourage self-censorship. Thus, Congress provided immunity from civil liability to ISPs for content posted by third parties, even if the ISP monitors or modifies the content.[232] Courts have interpreted the CDA broadly, insulating "interactive computer services" from all civil liability (except copyright infringement) for content posted on their websites.[233]

The blanket immunity provided to ISPs by CDA § 230 could pose a major issue for defamatory political deepfakes because many deepfake creators will likely be unreachable by the judicial system. Crafty deepfake creators may post their creations under fake usernames and leave an insufficient digital trail to be identified and brought to court. Also, a multitude of deepfake creators may reside outside the physical jurisdiction of the United States.[234] Many legal commentators have addressed the issues of ISP immunity under the CDA § 230.[235]

[227] 47 U.S.C. § 230(c)(1) (2012).

[228] *Id.* § 230.

[229] *Id.*

[230] No. 31063/94, 1995 WL 323710 (N.Y. Sup. Ct. May 24, 1985).

[231] *Id.* at *4–5.

[232] Kate Klonick, *The New Governors: The People, Rules, and Processes Governing Online Speech*, 131 Harv. L. Rev. 1598, 1602 (2018).

[233] Jonathan Band & Matthew Schruers, *Safe Harbors Against the Liability Hurricane: The Communications Decency Act and The Digital Millennium Copyright Act*, 20 Cardozo Arts & Ent L.J. 295, 295 (2002).

[234] Chesney & Citron, *supra* note 3, at 44. Some individuals may have even been directed by a foreign state to meddle in American politics. *Id.*

[235] *See generally* Danielle Citron, Hate Crimes in Cyberspace (2014) (discussing the effects of cyber harassment and necessary legal reforms, including addressing CDA-created immunity); Danielle Keats Citron & Benjamin Wittes, *The Internet Will Not Break: Denying Bad Samaritans Section 230 Immunity*, 86 Fordham L. Rev. 401 (2017); Joseph G. Marano, Note, *Caught in the Web: Enjoining Defamatory Speech that Appears on the Internet*, 69 Hastings L.J. 1311 (2018) (arguing that "the overbroad immunity courts have read into section 230 of the CDA, necessitate[s] a remedy").

Deepfakes are merely another addition to a growing list of concerns created by blanket immunity to ISPs.[236]

Because deepfakes create unique issues and threats, Congress should create an exception for them, similar to exception created for copyright infringements under the Digital Millennium Copyright Act ("DMCA").[237] The DCMA provides ISPs with a "safe harbor" to limit ISPs' liability for monetary damages for copyrighted materials hosted on their websites.[238] ISPs can, however, be held in contempt for failing to comply with an injunction if they do not comply with several general requirements.[239] ISPs "must adopt, implement, and inform users of a policy providing for the termination of repeat infringers."[240] In addition, ISPs must employ "standard technical measures" to detect copyrighted works.[241] Most importantly for copyright holders, to be eligible for the "safe-harbor" protections, ISPs must, "upon notification of claimed infringement . . . respond[] expeditiously to remove, or disable access to, the material that is claimed to be infringing or to be the subject of infringing activity."[242] This provision is often referred to as "notice and takedown" procedure.[243]

Extending the protections of the DMCA to cover defamatory deepfakes would significantly reduce their potential harm. Even if a political figure was unable to find the deepfake's original creator, she could bring a defamation case against the unnamed creator. If political figure could prove that the video is a deepfake, and the court finds the video to be defamatory, the political figure could obtain a default judgment, including a permanent injunction (like the one described in Part VII). The political figure could then send a takedown notice to the ISP, backed by the full weight of judicial authority.

Although such a process allows the defamatory video to be posted longer than any political figure would like, the process provides a multitude of other protections. First, many ISPs actively self-police, and upon notice that a political figure has filed a high-profile lawsuit alleging a video to be a deepfake, they would likely take down the video prior to any court proceedings either out of a sense of corporate

[236] Chesney & Citron, *supra* note 3, at 38–39.

[237] 17 U.S.C. § 512 (2012); Band & Schruers, *supra* note 233.

[238] 17 U.S.C. § 512(i) (2012); Band & Schruers, *supra* note 233, at 304.

[239] 17 U.S.C. § 512(j) (2012); Band & Schruers, *supra* note 233, at 304.

[240] 17 U.S.C. § 512(i) (2012); Band & Schruers, *supra* note 233, at 304.

[241] 17 U.S.C. § 512(i) (2012); Band & Schruers, *supra* note 233, at 304.

[242] 17 U.S.C. § 512(c)(1)(C) (2012); Band & Schruers, *supra* note 233, at 305.

[243] Jennifer M. Urban, *Takedown in Two Worlds: An Empirical Analysis*, 64 J. Copyright Soc'y 483, 486 (2017).

responsibility or for economic reasons.[244] Even if the ISP does not self-police, and the video is allowed to remain on the Internet throughout the duration of the suit, simply giving political figures the ability to sue allows them to signal that they are contesting the validity of a posted video. The political figures can then publicize their lawsuit, and an attentive press would likely report on that lawsuit. The political figure's lawsuit has the secondary effect of warning the press to proceed with caution on their reporting of the video's contents.

Certainly, the DMCA process is not perfect,[245] but it is the only time-tested process for dealing with individually policing and removing non-protected speech posted on the Internet. Due to ISPs' familiarity with the DMCA, extending it to deepfakes should create only minimal additional costs for ISPs. Although deepfakes will become progressively easier to create, they will likely never be as pervasive as copyright infringement. Also because, at least for the time being, creating a deepfake leaves a digital trace, deepfakes should be easier for ISPs to detect than copyright infringements.[246] Given the minimal additional cost on ISPs, extending the DMCA to defamatory deepfakes would be a cost effective way to deal with the serious threats they pose to society.

Conclusion

It is clear that defamatory political deepfakes could cause serious harms to individuals and society. Such harms, however, must be balanced against protecting freedom of speech under the First Amendment. Courts have rightfully been skeptical of restraints on expression, especially if they have the possibility of restricting protected speech. But in the case of deepfakes, courts have an opportunity to specifically define the form of expression that is defamatory. Courts also bear a far lower risk of misclassifying speech as defamatory because deepfakes are purposefully designed to be false. Thus, courts should draw lessons from both obscenity and copyright law to allow some narrowly crafted permanent injunctions against deepfakes. Such narrowly crafted injunctions will help prevent the spread of misinformation that might undermine elections or trust in public officials while providing the least restrictive means possible of limiting

[244] *See* Klonick, *supra* note 232, at 1625–30.

[245] *See generally* Jacqueline Lipton, *The Law of Unintended Consequences: The Digital Millennium Copyright Act and Interoperability*, 62 Wash. & Lee L. Rev. 487 (2005); Methaya Sirichit, *Catching the Conscience: An Analysis of the Knowledge Theory Under § 512(C)'s Safe Harbor & the Role of Willful Blindness in the Finding of Red Flags*, 23 Alb. L.J. Sci. & Tech. 85 (2013); Thomas A. Mitchell, Note, *Copyright, Congress, and Constitutionality: How the Digital Millennium Copyright Act Goes Too Far*, 79 Notre Dame L. Rev. 2115 (2004); Urban, *supra* note 243, at 486.

[246] Knight, *supra* note 226.

expression. In addition, Congress should consider expanding the DMCA or other similar legislation to include defamatory deepfakes. Only through such action will political figures (and society, in general) have a legitimate judicial solution to the harms created by defamatory political deepfakes.

Returning to this Note's original hypothetical, if Trump had an opportunity to counter the defamatory deepfake through a judicial process that provided him with an equitable remedy to remove the offending content, then some of the video's potential harms would be at least curbed, if not eliminated. Instead of simply denying the video's truth, using the judicial process to counter and remove such content would bring more legitimacy to deepfake target's denial, and consequently, to the political system in general. Such a hypothetical could happen to any political figure at any governmental level. As a society, regardless of our individual political beliefs, we need a more legitimate system for combating this kind of misinformation, especially when it comes in such a virulent form as a deepfake video. The judicial system, drawing on lessons learned regarding other types of limited protected speech, could provide this solution.

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