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Deepfake Videos: When Seeing Isn't Believing

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DEEPFAKE VIDEOS: WHEN SEEING ISN'T BELIEVING

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"Don't believe what your eyes are telling you. All they show is limitation. Look with your understanding…"[1]

The 2016 election evidenced a change in how campaign news and information spreads, especially false or misleading information, and the involvement of a foreign government in its dissemination.[2] This new direction increased apprehension regarding the effect and influence of the new communication dynamic on the democratic process.[3] Advancing technology and increasing popularity of social media networks have led to a rise in video creation and sharing.[4] Innovations in technology are also allowing the public to edit and

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1 Richard Bach, *Jonathan Livingston Seagull* 90 (2014).

2 THOMAS E. PATTERSON, NEWS COVERAGE OF THE 2016 GENERAL ELECTION: HOW THE PRESS FAILED THE VOTERS 3 (Shorenstein Center on Media, Politics and Public Policy, 2016) (explaining most of the coverage on each presidential candidate was mostly negative); Kristen Alexios, *How the 2016 campaign changed political journalism*, POYNTER (Nov. 8, 2016), https://www.poynter.org/news/how-2016-campaign-changed-political-journalism (showing the answers of 20 top journalists when asked three questions about the status of journalism after the election); Danielle Kurtzleben, *Did Fake News On Facebook Help Elect Trump? Here's What We Know*, NPR POL. (Apr. 11, 2018, 7:00 AM), https://www.npr.org/2018/04/11/601323233/6-facts-we-know-about-fake-news-in-the-2016-election (explaining the increase in the sharing of false or misleading information).

3 Philip M. Napoli, *What If More Speech Is No Longer the Solution? First Amendment Theory Meets Fake News and the Filter Bubble*, 70 FED. COMM. L.J. 55, 57 (2018).

4 Matt Bowman, *Video Marketing: The Future Of Content Marketing*, FORBES (Feb. 3, 2017, 9:00 AM), https://www.forbes.com/sites/forbesagencycouncil/2017/02/03/video-marketing-the-future-of-content-marketing/#77e0fe156b53.

tinker with videos, creating falsified or fabricated content that appears very real.[5] In 2018 a new software tool was released to the public, allowing the creation of videos of human faces of one person to be substituted for another.[6] The result is videos of people speaking words they have never articulated and/or performing tasks they never did.[7] There has been a dramatic uptick in the creation of these "deepfake" videos, leading to potential legal implications in the areas of privacy, defamation, and free expression.[8]

The extraordinary success of fake news being accepted in the marketplace creates grave concerns for individuals and democracy.[9] This is exacerbated when a video is added to the equation.[10] Ponder some of the following potential situations: blackmailers using deepfakes to extort money or private information, a deepfake showing a government official accepting a bribe he/she never took, or a deepfake depicting an official announcing an impending attack by a foreign government.[11] The possibilities are alarming.[12] The capacity for harm caused by deepfakes naturally leads to considering new laws and regulations.[13] However, any regulation of speech and expression in the United States implicates the First Amendment.[14] In the past we have relied on the "marketplace of ideas" concept, which encourages more speech as a means to uncover the truth and have the best

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5 Kyle Wiggers, *Carnegie Mellon researchers create the most convincing deepfakes yet*, VENTURE BEAT (Aug. 16, 2018, 8:12 AM), https://venturebeat.com/2018/08/16/carnegie-mellon-researchers-create-the-most-convincing-deepfakes-yet.

6 *Id.*; *Deep Fakes Online*, https://www.deepfake.me (last visited Nov. 04, 2018) (creating free deep fake videos by "swapping actor or model faces.").

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

8 Yuezun Li et al., IN ICTU OCULI: EXPOSING AI GENERATED FAKE FACE VIDEOS BY DETECTING EYE BLINKING, § 1 (2018); Robert Chesney & Danielle Citron, *Deep Fakes: A Looming Crisis for National Security, Democracy and Privacy?*, LAWFARE BLOG (Feb. 21, 2018, 10:00 AM), https://www.lawfareblog.com/deep-fakes-looming-crisis-national-security-democracy-and-privacy (discussing cost and benefits of deep fake technology).

9 Juan Carlos Escudero de Jesus, *Fake News and the Systemic Lie in the Marketplace of Ideas: a Judicial Problem?*, 87 REV. JUR. U.P.R. 1394, 1406, 1415 (2018); Ishaan Tharoor, *'Fake News' and the Trumpian threat to democracy*, WASH. POST (Feb. 7, 2018), https://www.washingtonpost.com/news/worldviews/wp/2018/02/07/fake-news-and-the-trumpian-threat-to-democracy/?utm_term=.33ad321cf92f.

10 Olivia Solon, *The future of fake news: don't believe everything you read, see or hear*, THE GUARDIAN (July 26, 2017, 1:00 PM), https://www.theguardian.com/technology/2017/jul/26/fake-news-obama-video-trump-face2face-doctored-content.

11 Chesney & Citron, *supra* note 8.

12 *Id.*

13 *Id.*

14 U.S. CONST. amend. I, §1.

ideas rise to the fore, rather than censor particular content.[15] Is this argument still valid when the public cannot discern what information is true, misleading, or false?

This article will first discuss the rise of fake news in the United States governmental process. Then this article will explore the practice of deepfake videos, including their potential use as tools of deception in the electoral process, and the complexities of regulations around this form of communication, given First Amendment protections. The paper concludes with recommendations to combat deepfakes and fake news in general.

I. THE ASCENSION OF FAKE NEWS

"Of course there's a war, I'm watching it on television."[16]

The 1997 film, *Wag the Dog*, was released before the explosion of social media and consternation around the issue of fake news. The film dealt with convincing the United States citizens that the nation was at war, in part by developing phony, staged video of the fictionalized war.[17] This deceptive propaganda tactic is not new, however, the technology allowing ordinary citizens the ability to create such a video is.[18]

Fake news is defined as information that is invented by people or governments for their own purposes, or "fictions deliberately fabricated and presented as non-fiction with the intent to mislead recipients into treating fiction as fact or into doubting verifiable fact."[19] Such misinformation has a long history in our political processes. For example, during the election of Thomas Jefferson against incumbent John Adams, some newspapers were used as wreckers of reputation

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15 Abrams v. United States, 250 U.S. 616, 630 (1919) (demonstrating the marketplace of ideas metaphor as Justice Holmes explains why some speech is protected by the Constitution, a dissent which still sets the standard for jurisprudence today).

16 WAG THE DOG (TriBeCa Productions 1997).

17 *See generally* Roger Ebert, *Wag the Dog Review*, ROGEREBERT (Jan. 2, 1998), https://www.rogerebert.com/reviews/wag-the-dog-1998 (providing a synopsis of the film, *Wag the Dog*).

18 *See* Rachel del Guidice, '*Deep Fake' Technology Is a Threat to National Security, Politics, and the Media, Marco Rubio Says*, THE DAILY SIGNAL (July 19, 2018), https://www.dailysignal.com/2018/07/19/deep-fake-technology-is-a-threat-to-national-security-politics-and-the-media-rubio-says (referring to deepfake technology as the "newest threat to America's security"); *see generally* Mallory Locklear, *US Lawmakers are concerned about deepfake technology*, ENGADGET (Sept. 14, 2018), https://www.engadget.com/2018/09/14/lawmakers-concerned-deepfake-technology (exemplifying how concerned lawmakers are with the notoriety of deepfakes and the security threat they may pose).

19 Eric Emanuelson, Jr., *Fake Left, Fake Right: Promoting an Informed Public in the Era of Alternative Facts*, 70 ADMIN. L. REV. 209, 218 (2017).

with little consideration for truth.[20] Jefferson used a questionable journalist, James Callendar, to write defamatory pieces about Adams, including an inaccurate story that Adams wanted to start a war with France.[21]

Fake news has been a challenge for the American public, particularly in the 2016 election.[22] Craig Silverman of *Buzzfeed* compared the top 20 fake news stories from social media with the top 20 stories from well-known news sites like *The New York Times* in the few months leading up to the election.[23] He found the fake news stories garnered noticeably higher interaction with the audience.[24] In addition, *Buzzfeed* found over 100 fake news sites concentrating on the election originated from Macedonia and primarily published pro-Donald Trump content.[25] Fake news was perceived as so problematic and pervasive that Oxford Dictionaries deemed "post truth," "[r]elating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief," the 2016 word of the year.[26]

Social media plays a significant role in the dissemination of fake news.[27] The lack of a gatekeeper function (the process by which information is filtered to the public) typically found with traditional media outlets, the speed with which

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20 *See generally* Jill Lepore, *Party Time*, THE NEW YORKER (Sept. 17, 2017), https://www.newyorker.com/magazine/2007/09/17/party-time (discussing the election between Federalist John Adams and Republican challenger Thomas Jefferson, and how the newspaper affected U.S. voters).

21 *See* Sarah Pruitt, *Jefferson & Adams: Founding Frenemies*, HIST. CHANNEL (Nov. 1, 2016), https://www.history.com/news/jefferson-adams-founding-frenemies; *see generally* Lepore, *supra* note 20 (discussing the role James Callendar played in assisting writing defamatory pieces about Adams, which helped Thomas Jefferson).

22 Richard L. Hasen, *Cheap Speech and What it has Done (To American Democracy*), 16 FIRST AMEND. L. REV. 200, 204-06 (2017) (explaining the effect of false news stories in the 2016 election).

23 *See* Craig Silverman, *This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook*, BUZZFEED NEWS (Nov. 16, 2016, 5:15 PM), https://www.buzzfeednews.com/article/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook.

24 *Id.*

25 Craig Silverman & Lawrence Alexander, *How Teens In The Balkans Are Duping Trump Supporters With Fake News*, BUZZFEED NEWS (Nov. 3, 2016, 7:02 PM), https://www.buzzfeednews.com/article/craigsilverman/how-macedonia-became-a-global-hub-for-pro-trump-misinfo (indicating that in Macedonia's troubled economy, teenagers, who personally "don't care about Donald Trump," use the sites to compete for "fraction-of-a-penny-per-click [U.S. advertising dollars]" by "[publishing] sensationalist and often false content that caters to Trump supporters").

26 Casper Grathwohl, *Oxford Dictionaries Word of the Year 2016*, OXFORD DICTIONARIES, https://www.oxforddictionaries.com/press/news/2016/12/11/WOTY-16 (last visited Nov. 4, 2018).

27 Benedict Carey, *How Fiction Becomes Fact on Social Media*, N.Y. TIMES (Oct. 20, 2017), https://www.nytimes.com/2017/10/20/health/social-media-fake-news.html.

information is distributed, and the inexpensive nature of social media are all factors contributing to a large quantity of unchecked and unverified content circulating the Internet.[28]

The sheer volume of information creates additional responsibility for consumers of news to gauge a story's authenticity.[29] Research indicates the public does not perform that function well. A Pew Research Center study noted 23% of Americans surveyed just after the 2016 election said they had shared fabricated political stories both erroneously and deliberately.[30] A Pew study from 2016 analyzing "376 million Facebook users' interactions with over 900 news outlets found that people tend to seek information that aligns with their views."[31] This mindset makes consumers susceptible to misinformation.[32]

Research also reveals how false news spreads more effectively than the truth.[33] An extensive Twitter study by MIT analyzed around 126,000 cascading news stories tweeted by 3 million users over more than 10 years.[34] The study concluded that a fabricated story reaches 1,500 people six times more rapidly than a true story.[35] False political stories were particularly effective in being spread, more than false stories about business, terrorism or science.[36]

Social media sites are less than transparent in the algorithms used to sort content. Certain stories are promoted over others without public understanding of those systems.[37] There are additional concerns regarding social media policies

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28 Aly Colón, *You are the new gatekeeper of the news*, THE CONVERSATION (Feb. 7, 2017, 10:08 AM), https://theconversation.com/you-are-the-new-gatekeeper-of-the-news-71862.

29 *Id.*

30 Janna Anderson & Lee Rainie, *The Future of Truth and Misinformation Online*, PEW RES. CTR. (Oct. 19, 2017), http://www.pewinternet.org/2017/10/19/the-future-of-truth-and-misinformation-online.

31 *Id.*

32 *See* Giovanni Luca Ciampaglia & Filippo Menczer, *Misinformation and biases infect social media, both intentionally and accidentally*, THE CONVERSATION (June 20, 2018, 6:28 AM), http://theconversation.com/misinformation-and-biases-infect-social-media-both-intentionally-and-accidentally-97148 (finding that there is a "tendency to evaluate information more favorably if it comes from within [ones] own social circles [which] creates 'echo chambers' that are ripe for manipulation").

33 *See* Peter Dizikes, *Study: On Twitter, False News Travels Faster Than True Stories*, MIT NEWS (Mar. 8, 2018), http://news.mit.edu/2018/study-twitter-false-news-travels-faster-true-stories-0308 (finding that, on Twitter, "falsehood diffuses significantly farther, faster, deeper, and more broadly than the truth, in all categories of information, and in many cases by an order of magnitude").

34 *Id.*

35 *Id.*

36 Robinson Meyer, *The Grim Conclusions of the Largest-Ever Study of Fake News*, THE ATLANTIC (Mar. 8, 2018), https://www.theatlantic.com/technology/archive/2018/03/largest-study-ever-fake-news-mit-twitter/555104.

37 Emily Bell, *The End of News as We Know It: How Facebook Swallowed Journalism*,

and vulnerabilities of the public in relation to targeting and data harvesting.[38] Cambridge Analytica, the political data firm with links to Donald J. Trump's 2016 presidential campaign, collected demographic and psychographic information from millions of Facebook users through surveys Facebook users took, who did not know the data would then be sold and used by the Trump campaign.[39] Russian-operated Facebook accounts targeted political messages and false stories to those who might be most amenable to them.[40]

Society's lack of skill in detecting false text-based stories is notably weak.[41] What happens when fake visuals such as videos are presented as compelling fact? Researchers are estimating that advancements in artificial intelligence or AI[42] could significantly amplify hacking and election meddling by 2020.[43] Artificial intelligence will "set off a cat and mouse game between attackers and defenders, with the attackers seeming more human-like," notes Miles Brundage, a research fellow at Oxford University's Future of Humanity Institute.[44]

II. THE POTENTIAL MISUSE OF DEEPFAKES

"We have wound up with the utterly mad and often fatal delusion that if we can't see something, it doesn't exist. Virtually all of civilization's failures can be traced back to that one ominous sentence: 'I'll believe it when I see it.'"[45]

MEDIUM (Mar. 7, 2016), https://medium.com/tow-center/the-end-of-the-news-as-we-know-it-how-facebook-swallowed-journalism-60344fa50962.

38 Matthew George, *How Viable is the Prospect of Enforcement of Privacy Rights in the Age of Big Data? An Overview of Trends and Developments in Consumer Privacy Class Actions*, J. ANTI. & UNFAIR COMP. L. SEC. ST. B. CAL. 195, 203 (2015).

39 *Transcript of Mark Zuckerberg's Senate Hearing*, WASH. POST (Apr. 10, 2018), https://www.washingtonpost.com/news/the-switch/wp/2018/04/10/transcript-of-mark-zuckerbergs-senate-hearing/?utm_term=.9dde1fbd727a.

40 Matthew Rosenberg & Gabriel J.X. Dance, *'You Are the Product': Targeted by Cambridge Analytica on Facebook*, N.Y. TIMES, Apr. 4, 2018, at A11.

41 Maria Temming, *People are bad at spotting fake news. Can computer programs do better?*, SCI. NEWS (July 26, 2018), https://www.sciencenews.org/article/can-computer-programs-flag-fake-news.

42 *Artificial Intelligence*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/artificial%20intelligence (last visited Nov. 04, 2018) (defining Artificial intelligence as "the capability of a machine to imitate intelligent human behavior.").

43 Cathy Burke, *AI, Fake Audio-Video Technology Are Game Changers for Election Meddling*, NEWSMAX (Feb. 21, 2018), https://www.newsmax.com/politics/ai-deepfakes-audio-video/2018/02/21/id/844744.

44 Alyssa Newcomb, *Artificial Intelligence could supercharge hacking and election meddling, study warns*, NBC NEWS (Feb. 21, 2018, 12:57 PM), https://www.nbcnews.com/tech/innovation/artificial-intelligence-could-supercharge-hacking-election-meddling-study-warns-n849601.

45 DAVID WONG, THIS BOOK IS FULL OF SPIDERS: SERIOUSLY, DUDE, DON'T TOUCH IT

As is the case with fake news, fake images are not new. Hollywood has long used visual effects when it comes to employing stunt doubles for actors, and Stalin airbrushed enemies out of photographs.[46] Most recently, AI technology is being used to create deceptive videos cheaply and easily which are called "deepfakes."[47]

Deepfakes are created by inserting photographs into a machine-learning algorithm that puts one face on another.[48] For example, FakeApp is a program that requires fairly simple and available equipment that can create videos within 8 to 12 hours.[49] The term "deepfake" came from a Reddit user who first employed the technology to create pornographic videos.[50] Deepfakes' most popular use to date has been the creation of pornographic works containing celebrity faces on different people's bodies.[51] While most deepfakes are pornographic in nature, the technology provides the opportunity for anyone's image to be used in a variety of ways.[52] Nicholas Fearn, editor of Welsh technology site TechDragons stated, "These videos are extremely alarming because they look so convincing."[53] Franklin Foer of *The Atlantic* termed deepfakes, "one of the cruelest, most invasive forms of identity theft invented in the internet era."[54] As Foer explains, "[a]t the core of the cruelty is the acuity of the technology: A casual observer cannot easily detect the hoax."[55] Websites like Twitter and Pornhub banned deepfake pornographic videos after such videos

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261 (2012).

46 *A Faked Video of Donald Trump Points to a Worrying Future*, THE ECONOMIST, May 24, 2018, at 18; Karen Travers, *Stuntmen at Risk from Digital Doubles*, NBC NEWS (Jul. 19. 2018), https://abcnews.go.com/Technology/story?id=98395&page=1.

47 Will Knight, *Fake America Great Again*, MIT TECH. REV. (Aug. 17, 2018), https://www.technologyreview.com/s/611810/fake-america-great-again (defining deepfake is a term for using AI technology to alter video content to depict something that did not happen).

48 Kristen Dold, *Face-Swapping Porn: How a Creepy Internet Trend Could Threaten Democracy*, ROLLING STONE (Apr. 17, 2018, 8:47 PM), https://www.rollingstone.com/culture/culture-features/face-swapping-porn-how-a-creepy-internet-trend-could-threaten-democracy-629275; 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/#FPVRcf.91qqM.

49 Dold, *supra* note 48.

50 *Id.*; *see also* Beres & Gilmer, *supra* note 48 (explaining that deepfakes are created by using still-frame images from video footage, which are then pieced together).

51 Dold, *supra* note 48; *see also* Beres & Gilmer, *supra* note 48 (stating that celebrities such as Gal Gadot and Kim Kardashian have been victims of this technology).

52 *See* Roose, *supra* note 7 (explaining that deepfakes have the potential to frame people for crimes or smear politicians).

53 James McCarthy, *The face-swap pornographic videos being used to bully and abuse*, WALESONLINE (Feb. 17, 2018, 9:38 AM), https://www.walesonline.co.uk/news/wales-news/face-swapped-pornographic-videos-being-14270863.

54 Franklin Foer, *The Era of Fake Video Begins*, THE ATLANTIC, May 2018, at 15, 16.

55 *Id.*

flooded their sites shortly following the January, 2018 public release of the technology.[56]

These manufactured videos have the potential to create doubts about every recently released film.[57] The manipulative possibilities for governments, religious groups, or for commercial purposes are cause for concern. For instance, researchers in Germany developed a code of ethics for virtual reality in order to address this problem.[58]

Nothing seems to have the quite the power as a story captured on film. The video of Ray Rice punching his then-fiancé in an elevator finally elicited action from the NFL regarding the long-existing issue of domestic violence among some players.[59] In 2017, cell phone video footage of Dr. David Dao being dragged off an overbooked United Airlines flight went viral.[60] In the months that followed, there was a significant decrease in the number of passengers bumped from their flights and airlines have since reduced overbooking.[61] Citizen video has transformed the discussion of race and policing in the United States.[62] The same accountability video that brings action can now be abused in a number of ways. The most startling abuse is when these videos tamper with the United States governmental process in an era when social media has enabled "individuated encounters with the news that confirm biases and sieve out

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56 Alex Hern, *'Deepfake' face-swap porn videos banned by Pornhub and Twitter*, THE GUARDIAN (Feb. 7, 2018, 1:47 PM), https://www.theguardian.com/technology/2018/feb/07/twitter-pornhub-ban-deepfake-ai-face-swap-porn-videos-celebrities-gfycat-reddit?CMP=twt_gu.

57 *E.g.* Foer, *supra* note 54, at 15, 16 (explaining that internet users will become suspicious of all videos due to these 'deepfake' videos).

58 *Id.* at 15, 16 (stating that politicians and publicists will capitalize on the public's suspicions); *see also* Michael Madary & Thomas K. Metzinger, *Real Virtuality: A Code of Ethical Conduct. Recommendations for Good Scientific Practice and the Consumers of VR-Technology*, FRONTIERS IN ROBOTICS AND AI, Feb. 19, 2016, at 1 (providing guidelines for "the limits of experimental environments, informed consent, clinical risks, dual-use, online research, and a general point about the limitations of a code of conduct for research").

59 David Zurawik, *Ray Rice TMZ video shows the enduring power of the image*, BALTMORE SUN (Sept. 8, 2014, 3:59 PM), http://www.baltimoresun.com/entertainment/tv/z-on-tv-blog/bal-ray-rice-video-tmz-enduring-power-image-20140908-story.html.

60 Michael Goldstein, *Biggest Travel Story of 2017: The Bumping and Beating of Dr. David Dao*, FORBES (Dec. 20, 2017, 9:13 PM), https://www.forbes.com/sites/sap/2018/08/20/how-to-get-closer-to-increasingly-complex-yet-highly-predictable-customers/#539a43d326d8.

61 Lauren Zumbach, *A year after a passenger was dragged off a United flight, everyday indignities remain*, CHI. TRIB. (Apr. 9, 2018, 8:15 AM), http://www.chicagotribune.com/business/ct-biz-united-passenger-dragging-anniversary-20180405-story.html.

62 Scott Calvert & Valerie Bauerlein, *Viral Videos Shape Views of Police Conduct*, WALL ST. J. (Dec. 30, 2015), https://www.wsj.com/articles/viral-videos-shape-views-of-police-conduct-1451512011.

contravening facts. [President] Donald Trump . . . has further hastened the arrival of a world beyond truth, providing the imprimatur of the highest office to falsehood and conspiracy."[63]

Deceptive propaganda that simply confirms biases will make the truth difficult to find and will further poison democracy.[64] "Well-informed voting decisions have been defined by many political analysts in terms of the extent that citizens vote in ways that reflect their best interests."[65] Napoli posits that indicators from the 2016 election of voters failing to vote in their best interests is likely because of inadequate or false information, reflecting a failure of the marketplace of ideas metaphor, concluding "reliance on counterspeech is increasingly ineffectual and potentially damaging to democracy."[66]

In terms of the involvement of deepfake technology and politics, analysts agree that by the 2020 election, deepfake videos will be more prevalent and problematic.[67] The pervasiveness and ease of the technology could mean substantial numbers of deceptive videos in the marketplace that the government is ill-prepared to deal with.[68] In anticipation, a media forensics project to detect deepfake videos has been funded by the United States Defense Advanced Research Projects Agency, but lawmakers have been slow to address the concerns and discuss solutions to the deepfake problem.[69]

Republican Senator for Florida, Marco Rubio is one of several members of the Senate Intelligence Committee who articulated anxiety around deepfakes in the political process, providing examples such as a foreign intelligence agency producing a deepfake about an American politician using a racial epithet, a politician taking a bribe, a deepfake of a United States soldier massacring civilians overseas, or a deepfake of a United States official supposedly admitting to a conspiracy.[70] Rubio noted deepfakes were a conceivable political weapon, "timed appropriately and placed appropriately — in the same way fake news is used, except in a video form, which could create real chaos and instability on the eve of an election or a major decision of any sort."[71]

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63 Foer, *supra* note 54, at 15, 16.

64 *A faked video of Donald Trump points to a worrying future*, *supra* note 46, at 18.

65 Napoli, *supra* note 3, at 93-94.

66 *Id.* at 97.

67 Jeremy Hsu, *Experts Bet on First Deepfakes Political Scandal*, THE SPECTRUM (June 22, 2018, 6:00 PM), https://spectrum.ieee.org/tech-talk/robotics/artificial-intelligence/experts-bet-on-first-deepfakes-political-scandal.

68 Rashmee Roshan Lall, *Deepfake technology could create huge potential for social unrest and even trigger wars*, THE NAT'L (July 31, 2018, 8:35 PM), https://www.thenational.ae/opinion/comment/deepfake-technology-could-create-huge-potential-for-social-unrest-and-even-trigger-wars-1.755842.

69 Hsu, *supra* note 67.

70 del Guidice, *supra* note 18.

71 *I never said that! High-tech deception of 'deepfake' videos*, CBS NEWS (July 2, 2018,

Crude deepfakes have already been attempted and used by a foreign power to disrupt our democracy.[72] Senator Rubio recalled a situation in 2009, in which the United States Embassy in Moscow complained to the Russian Foreign Ministry about a fake sex video supposedly created to harm the reputation of a United States diplomat.[73] The former United States ambassador in Moscow, John Beyrle, held the Russian government responsible for the video, which he said was obviously fictitious.[74]

American ambassador in Russia from 2012-2014, Michael McFaul, said Russia has used disinformation videos against politicians for years, including himself.[75] He maintained Russian state propaganda inserted his face into photographs and "spliced my speeches to make me say things I never uttered and even accused me of pedophilia."[76]

Oscar-winning filmmaker Jordan Peele, in conjunction with *Buzzfeed News*, created a Deepfake video of President Obama as a warning about deepfake technology and its potential misuses.[77] The video shows Obama saying, "Simply, President Trump is a total and complete [expletive deleted]."[78]

A Belgian political party created and ran a Deepfake ad in May 2018 featuring what appeared to be President Trump criticizing the Paris Climate Accord.[79] The purpose of the video was to encourage people to sign a climate-change petition.[80] Makers of the video argue it was created in an intentionally messy way to let viewers know the image was phony.[81] Despite this, many commenters on social media believed it was authentic.[82]

Kevin Roose of the *New York Times* contacted the anonymous creator of

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9:05 AM), https://www.cbsnews.com/news/i-never-said-that-high-tech-deception-of-deepfake-videos/.

72 *See id.* (explaining how deep fakes have become "the latest weapon in disinformation wars against the United States and other Western democracies")*; see also* Chesney & Citron, *supra* note 11(giving examples of how deep fakes can be used to harm U.S. democracy).

73 *I never said that! High-tech deception of 'deepfake' videos*, *supra* note 71.

74 *Id.*

75 *Id.*

76 *Id.*

77 Elizabeth Renzetti, *On the frontier of fake news, seeing isn't believing*, THE GLOBE AND MAIL (June 15, 2018), https://www.theglobeandmail.com/opinion/article-on-the-frontier-of-fake-news-seeing-isnt-believing/.

78 *Id.*

79 *Id.*

80 *Id.*

81 *Id.*

82 *Id.; see* Hans Von der Burchard, *Belgian socialist party circulates 'deepfake' Donald Trump video,* POLITICO (May 21, 2018, 3:52 PM), https://www.politico.eu/article/spa-donald-trump-belgium-paris-climate-agreement-belgian-socialist-party-circulates-deep-fake-trump-video.

FakeApp who referred to himself as "N" and who created the software to simply be creative; not so it could be used for nonconsensual pornography or other nefarious material.[83] He highlighted the positive potential contributions of deepfakes with the caveat that "[i]t's precisely the things that make them so powerful and useful that make them so scary."[84]

Videos are typically our conclusive source of proof.[85] What happens when we can no longer rely on their veracity? Taking the time and having the resources to ferret out the truth amongst the media noise today is a daunting task for everyday citizens.[86] We make decisions based on information that is readily at our fingertips, and many times from social media accounts like Facebook.[87] Although Facebook introduced extensive changes in 2018 by de-prioritizing content from publishers and brands, the shift in the news and information process challenges the marketplace of ideas metaphor that has thus far dominated First Amendment policy.[88]

III. THE "MARKETPLACE OF IDEAS" IN REPOSE

"*The Internet allows the small guy a global marketplace. But technology is*

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83 Roose, *supra* note 7.

84 *Id.*

85 *See* Meryl Ayres, *Why Videos Featuring Humans are Easier to Trust*, WISTIA (Sept. 14, 2017), https://wistia.com/learn/marketing/make-trustworthy-videos-with-humans (explaining that when a human is in a video people are more likely to understand and trust what the video is saying).

86 *See* Michael Barthel et al., *Many Americans Believe Fake News Is Sowing Confusion*, PEW RES. CTR. (Dec. 15, 2016), http://www.journalism.org/2016/12/15/many-americans-believe-fake-news-is-sowing-confusion (giving examples of how prevalent fake news is in today's society).

87 *See* Elisa Shearer & Jeffrey Gottfried, *News Use Across Social Media Platforms 2017*, PEW RES. CTR. (Sept. 7, 2017), http://www.journalism.org/2017/09/07/news-use-across-social-media-platforms-2017 (stating "As of August 2017, two-thirds (67%) of Americans report that they get at least some of their news on social media"); Dick Dahl, *Experts explore how social networks can influence behavior and decision-making*, HARV. L. TODAY (Feb. 15, 2013), https://today.law.harvard.edu/experts-explore-how-social-networks-can-influence-behavior-and-decision-making-video (giving examples of how social media affects decision-making and the outcomes it produces).

88 *See* Davenport v. Wash. Educ. Ass'n, 551 U.S. 177, 188-89 (2007) ("speech that is obscene or defamatory can be constitutionally proscribed because the social interest in order and morality outweighs the negligible contribution of those categories of speech to the marketplace of ideas."); United States v. Alvarez, 567 U.S. 709, 718 (2012) (explaining that the Supreme Court has stated "[f]alse statements of fact are particularly valueless [because] they interfere with the truth-seeking function of the marketplace of ideas"); Daniel E. Ho & Frederick Schauer, *Testing the Marketplace of Ideas*, 90 N.Y.U L. REV. 1160, 1161-62 (2015) ("In its most common invocation, the marketplace of ideas purportedly distinguishes truth from falsity or is, at minimum, more reliable than official or expert selection of ideas though to be true and suppression of ideas thought to be false.").

harmful in the sense that we get too much information from it. Because of the web we get 10 times the amount of noise we ever got, which makes harmful fallacies far more likely."[89]

Many deepfake videos would be protected by the First Amendment as free expression under the defense of parody or satire, especially if they are not claiming to be "real."[90] The *Hustler v. Falwell* case is one of the most famous examples of a satirical advertisement that was declared protected First Amendment expression by the Supreme Court.[91] The ad implied the fundamentalist minister Falwell had a drunken, incestuous relationship with his mother in an outhouse.[92] The Court noted that the interest of protecting free speech exceeded the state's interest in protecting public figures from patently offensive speech, so long as such speech could not reasonably be interpreted to state facts about its subject.[93] This case is just one in a line of opinions demonstrating the court's long record of protecting expressive speech.[94]

Any law that seeks to regulate speech faces First Amendment challenges.[95] If the regulation focuses on the content itself, it faces the highest level of judicial review, strict scrutiny, in which the regulation has to be justified by demonstrating a compelling government interest, the regulation is narrowly tailored, and the regulation must be the least restrictive way to achieve that interest.[96] The courts will allow content-based restrictions in libel cases[97] and a

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89 Tim Adams, *Nassim Taleb: 'Big Corporations will always fail',* THE GUARDIAN (July 19, 2010, 7:04 PM), https://www.theguardian.com/technology/2010/jun/20/nassim-taleb-bright-idea-finance.

90 Dold, *supra* note 48 (explaining how deepfakes are protected by the First Amendment and the freedom of expression).

91 Hustler Magazine, Inc. v. Falwell, 485 U.S. 46, 52-53 (1988).

92 *Id.* at 48.

93 *Id.* at 50.

94 *See generally* Ashcroft v. ACLU, 535 U.S. 564, 573 (2002) ("[A]s a general matter, the First Amendments means that government has no power to restrict expression because of it message, its ideas, its subject matter, or its content."); United States v. Stevens, 59 U.S. 460, 468 (2010) ('''From 1791 to the present,' however, the First Amendment has 'permitted restrictions upon the content of speech in a few limited areas,' and has never 'include[d] a freedom to disregard these traditional limitations.'").

95 *See generally* U.S. CONST. amend. I; Ward v. Rock Against Racism, 491 U.S. 781, 796-97 (1989) (holding that despite challenges, the regulation was "valid under the First Amendment as a reasonable regulation of the place and manner of expression").

96 *See generally* Republican Party of Minn. v. White, 536 U.S. 765, 774-75 (2002) (explaining the requirements of strict scrutiny); Reed v. Town of Gilbert, 135 S. Ct. 2218, 2231 (2015) (discussing what strict scrutiny requires); Roy G. Spece, Jr. & David Yokum, *Scrutinizing Strict Scrutiny*, 40 VT. L. REV. 285, 295 (2015) (describing what the state must show to meet strict scrutiny).

97 *See* New York Times, Co. v. Sullivan, 376 U.S. 254, 283-84 (1964); *see also* Pete Kennedy, *Internet Libel - the Anonymous Writer and the Online Publisher*, 52 THE ADVOC.

few other narrow areas including obscenity, fraud, incitement, fighting words, and speech integral to criminal conduct.[98]

Even if a regulation could be created to tackle fake news and deepfake videos, these works are typically created anonymously, spread and shared over social media, making enforcement an enormous challenge.[99] A regulation covering speech in a public forum would have to be content neutral and provide other options for communicating the message.[100] Developing such a law would be difficult given the likelihood of targeting a particular viewpoint and providing another venue for communicating the message.[101]

These hurdles, plus the doctrine of counterspeech or the marketplace of ideas, can explain the lack of a strong legislative response to the issues fake news presents.[102] Justice Louis Brandeis established the counterspeech principle in his concurring opinion in *Whitney v. California*, wherein he proclaimed:

> Those who won our independence . . . believed that freedom to think as you will and to speak as you think are means indispensable to the discovery and spread of political truth; that, without free speech and assembly, discussion would be futile; that, with them, discussion affords ordinarily adequate protection against the dissemination of noxious doctrine; that the greatest menace to freedom is an inert people; that public discussion is a political duty, and that this should be a fundamental principle of the American government . . . If there be time to expose through discussion the falsehood and fallacies, to avert the evil by the processes of education, the remedy to be applied is more

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(TEX.) 59, 59 (2010) (discussing how the courts shifted to protect defamatory writing over time).

98 *See Stevens*, 559 U.S. at 468-69 (discussing which categories of speech are unprotected); Cohen v. California, 403 U.S. 15, 26 (1971) (holding defendant wearing obscene language on jacket in courthouse was protected by the First and Fourteenth Amendments); Alexander Tsesis, *Categorizing Student Speech*, 102 MINN. L. REV. 1147, 1167 (2018) (discussing the Court's allowance of traditionally recognized forms of low-level speech).

99 Emanuelson, Jr., *supra* note 19, at 217-19 (discussing how fake news content tends to spread purposefully, anonymously, and quickly online).

100 *See Ward*, 491 U.S. at 804 (quoting "A time, place, and manner regulation of expression must be content neutral, serve a significant government interest, narrowly tailored, and leave open ample alternative channels of communication."); City of Cincinnati v. Discovery Network, Inc., 507 U.S. 410, 430 (1993) (explaining that a city ordinance prohibiting news racks containing commercial handbills is inconsistent with the First Amendment because "the policy selectively bans them, and is therefore not content neutral or justified as a legitimate time, place, or manner restriction on protected speech.").

101 Emanuelson, Jr., *supra* note 19, at 218; *see* Ari Ezra Waldman, *The Marketplace of Fake News*, 20 U. PA. J. CONST. L. 845, 858-59 (2018) (discussing previous failed attempts at moderating fake news, including algorithmic processing by artificial intelligence designed to lack human biases, but which ultimately manifested biased views).

102 *See* Honest Ads Act, S. 1989, 115th Cong. (2017) (bill introduced to require purchasers and publishers of online political ads to disclose information about the ads to the public).

> speech, not enforced silence.[103]

If this doctrine is applied to today's fake news and potential deepfake video-infested media diet, pro-marketplace theorists would assert that more speech combats the false speech, and that vigorous discussion allows the truth to be recognized and accepted, especially when it comes to speech around self-government.[104] This also suggests that false narratives should be allowed to circulate freely, and that people will be able to discern which stories are actually true.[105] The counterspeech doctrine has become unconvincing in light of the speed and efficiency with which false news travels, and with the inability of citizens to discern the truth in today's media landscape.[106]

Given that the doctrine of counterspeech does not resolve the issues arising out of the spread of fake news, the issue is whether strict scrutiny should still be the standard for something like deepfake political videos. Tulane Law Review article author, Annie C. Hundley posits that the arguments applying strict scrutiny to political speech are unsuitable for *false* political speech – "that is, if the false political speech is more *false* than it is *political* – then intermediate scrutiny should apply under *Alvarez*."[107] In the *Alvarez* case, the Court overturned the Stolen Valor Act, a federal criminal law punishing those who lie about having received military honors.[108] The decision countered the government's argument that lies are a form of speech outside First Amendment protection.[109] There were two opinions in the majority: Justice Kennedy applied strict scrutiny and Justice Breyer applied intermediate scrutiny.[110] Justice Breyer believed the Stolen Valor Act worked First Amendment harm, and that the government could achieve its legitimate objectives in less restrictive ways.[111] Using this harm-benefit analysis, Justice Breyer attempted to strike a middle ground approach:

> Regardless of the label, some such approach is necessary if the First Amendment is to offer proper protection in the many instances in which a statute adversely affects constitutionally protected interests but warrants neither near-automatic condemnation (as "strict scrutiny"

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103 Whitney v. California, 274 U.S. 357, 375-77 (1927) (Brandeis, J., concurring).

104 Robert D. Richards & Clay Calvert, *Counterspeech 2000: A New Look at the Old Remedy for "Bad" Speech*, 2000 B.Y.U. L. REV. 553, 585 (2000) (explaining that the best response to today's objectionable speech is counterspeech).

105 *Id.*

106 Napoli, *supra* note 3, at 67–68.

107 Annie C. Hundley, *Fake News and the First Amendment: How False Political Speech Kills the Marketplace of Ideas*, 92 TUL. L. REV. 497, 516 (2017).

108 *See generally* United States v. Alvarez, 567 U.S. 709, 729-30 (2012).

109 *Id.* at 719 ("the Court has been careful to instruct that falsity alone may not suffice to bring speech outside the First Amendment.").

110 *Id.* at 724, 731 (Breyer, J., concurring).

111 *Id.* at 732 (Breyer, J., concurring).

> implies) nor near-automatic approval (as is implicit in "rational basis" review) . . . The dangers of suppressing valuable ideas are lower where, as here, the regulations concern false statements about easily verifiable facts that do not concern such subject matter. Such false factual statements are less likely than are true factual statements to make a valuable contribution to the marketplace of ideas. And the government often has good reasons to prohibit such false speech.[112]

Law professors, Alan K. Chen and Justin Marceau, suggest this harm-benefit analysis is not useful as "every lie causes some benefit to the speaker or some harm to the listener, and quite often both."[113] Instead, they argue there is a spectrum of harms; therefore, First Amendment protection should vary accordingly.[114] At one end, are lies such as perjury and fraud, which should not receive First Amendment protection due to the palpable harm or gain resulting from them.[115] On the other end are lies used strategically for the greater good such as deception by an undercover journalist to get a story.[116] In the middle of the spectrum would be lies that are "socially routine" or ego-boosting lies that still merit protection because the risk of harm is small while the risk of chilled speech if they are not protected is great.[117]

Politics and campaigns are peppered with lies and distortions.[118] Two recent cases dealing with campaign lies are *281 Care Committee* v. *Arneson*, and *Susan B. Anthony List v. Driehaus*.[119] In the *281 Care Committee* case, Minnesota had a statute criminalizing knowingly false statements in ballot measure campaigns.[120] The court found that the law was not narrowly tailored to the interest in preventing fraud on the voters and that the appropriate test was strict scrutiny.[121] The court refuted the government's claim that they should follow Breyer's opinion in *Alvarez*, which called for intermediate scrutiny of at least some restrictions on lies.[122] The court also held that counterspeech was the preferred solution for the problem.[123]

The *Susan B. Anthony List* case involved former Representative Steve Driehaus of Ohio, who sued Susan B. Anthony List (SBA), a nonprofit, pro-life

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112 *Id*. at 731-32.

113 Alan K. Chen & Justin Marceau, *Developing a Taxonomy of Lies Under the First Amendment*, 89 U. COLO. L. REV. 655, 657 (2018).

114 *Id*. at 658.

115 *Id*.

116 *Id*.

117 *Id*.

118 Daniel Bush, *The history of lies on the campaign trail*, PBS (Dec. 4, 2015), https://www.pbs.org/newshour/politics/the-history-of-lies-on-the-campaign-trail.

119 Susan B. Anthony List v. Driehaus, 134 S. Ct. 2334 (2014); 281 Care Committee v. Arneson, 766 F.3d 774, 777 (8th Cir. 2014).

120 *Id*. at 777-78.

121 *Id*. at 784-88.

122 *Id*. at 784.

123 *Id*. at 793-94.

organization, for defamation after they accused him, during his 2010 campaign, of supporting taxpayer-funded abortions because he voted for the Affordable Care Act (ACA).[124] Specifically, SBA issued a press release announcing its plan to "educat[e] voters that their representative voted for a health care bill that includes taxpayer-funded abortion," listing Driehaus as one who voted for the ACA.[125] SBA also sought to display a billboard in Driehaus' district regarding his vote reading: "Shame on Steve Driehaus! Driehaus voted FOR taxpayer-funded abortion."[126] Driehaus' counsel threatened legal action, and the billboard company refused to display the ad.[127] Driehaus filed a complaint with the Ohio Elections Commission alleging that SBA had violated Ohio statutes that prohibited people from circulating knowingly false information about a political candidate by incorrectly stating that he had voted for "taxpayer-funded abortion."[128] Driehaus' case raised questions about attempts to regulate lies in political advertising.[129] The Supreme Court remanded the case to the lower courts so that SBA could argue its constitutional rights in accord with Ohio state law.[130]

SBA took their challenge to federal court in the United States District Court for the Southern District of Ohio in *Susan B. Anthony List v. Ohio Elections Commission*.[131] On September 11, 2014, Judge Timothy Black struck down the law as unconstitutional.[132] Judge Black said in his ruling, "[w]e do not want the government (i.e., the Ohio Elections Commission) deciding what is political truth—for fear that the government might persecute those who criticize it. Instead, in a democracy, the voters should decide."[133]

Protecting political speech, even if false, and pointing to counterspeech as the remedy is, therefore, the preferred position of the courts.[134] However, is this an

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124 *Susan B. Anthony List*, 134 S. Ct. at 2339.
125 *Id.* at 2339.
126 *Id.*
127 *Id.*
128 *Id.*
129 *Id.* at 2344.
130 *Id.* at 2347.
131 Susan B. Anthony List v. Ohio Elections Comm'n, 45 F.Supp.3d 765 (S.D. Ohio 2014).
132 *Id.* at 780-81.
133 *Id.* at 769.
134 *See, e.g.*, Citizens United v. Fed. Election Comm'n, 558 U.S. 310, 340 (2010) (holding that in addition to the First Amendment forbidding the government from "distinguishing among different speakers allowing speech by some but not others," such as between corporate and non-corporate entities, the First Amendment stands against attempts to disfavor certain subjects or viewpoints."); Snyder v. Phelps, 562 U.S. 443, 451-52 (2011) (controversial church group allowed to express their moral, religious and political views while demonstrating at funeral because "speech on 'matters of public concern' is at the heart

unconditional remedy? In a 2012 television interview with Justice Scalia, he remarked when speaking of the much-debated *Citizens United v. Federal Election Commission* case, "I think Thomas Jefferson would have said, 'The more speech, the better.' That's what the First Amendment is all about, so long as the people know where the speech is coming from"[135] The last part of that sentence is pivotal. Today, people do not always know where the speech is coming from.[136]

Advances in technology and the current news or information dynamic weaken the effectiveness of counterspeech.[137] Research indicates that as more people consume news from the Internet, "exposure to ideological news websites promotes misperceptions by altering both what users know about relevant evidence *and* whether their personal beliefs are consistent with that knowledge."[138] When the public cannot tell if a report is true, misleading or false, then counterspeech will not assist in the process of informed decision-making regarding elections and policy matters.[139]

Supreme Court opinions over the years are replete with statements regarding the value and interest in a well-informed citizenry.[140] Does the Constitution in

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of the First Amendment's protection."); *New York Times*, 376 U.S. at 270, 279-80 (reaffirming the "profound national commitment to the principle that debate on public issues should be uninhibited, robust, and wide-open" in holding that a public official would be barred from recovering damages for defamatory falsehood from newspapers relating to his official conduct unless he proved the statement was made with actual malice).

135 *Citizens United*, 558 U.S. at 40; Matt Vasilogambros & Sarah Mimms, *Scalia Defends Citizens United Decision, Reflects on Term in Rare TV Appearance*, THE ATLANTIC (July 18, 2012), https://www.theatlantic.com/politics/archive/2012/07/scalia-defends-citizens-united-decision-reflects-on-term-in-rare-tv-appearance/437268; Interview by Piers Morgan with Antonin Scalia, Justice of U.S. Supreme Court (1986-2016) (July 18, 2012).

136 John Villasenor, *Views among college students regarding the First Amendment: Results from a new survey*, BROOKINGS (Sep. 18, 2018), https://www.brookings.edu/blog/fixgov/2017/09/18/views-among-college-students-regarding-the-first-amendment-results-from-a-new-survey (showing college students do not fully understanding what forms of speech the First Amendment protects, including hate speech); *Americans Are Poorly Informed About Basic Constitutional Provisions*, ANNENBERG PUB. POLICY CENT. (Sept. 12, 2017), https://www.annenbergpublicpolicycenter.org/americans-are-poorly-informed-about-basic-constitutional-provisions ("More than a third of those surveyed (37 percent) cannot name any of the rights guaranteed under the First Amendment.").

137 Napoli, *supra* note 3, at 68, 74.

138 R. Kelly Garrett et al., *Driving a Wedge Between Evidence and Beliefs: How Online Ideological News Exposure Promotes Political Misperceptions*, 21 J. COMPUTER-MEDIATED COMM. 331, 332 (2016).

139 Napoli, supra note 3, at 71-4; *Fake News, the First Amendment and Failure in the Marketplace of Ideas*, SANFORD SCH. OF PUB. POL'Y, DUKE U., (Apr. 20, 2018), https://sanford.duke.edu/articles/fake-news-first-amendment-and-failure-marketplace-ideas.

140 *See* New York Times Co. v. United States, 403 U.S. 713, 728 (1971) (Brennan, J., concurring) ("In the absence of the governmental checks and balances present in other areas of our national life, the only effective restraint upon executive policy and power in the areas

principle guarantee the public a "right to know"? This was a question posed in an article about press access rights.[141] The author of that article concludes, "[i]f the inference of a constitutionally guaranteed right to know is not theoretically justified, there is scant constitutional foundation upon which to anchor either the value of an informed public or the function of the press in providing information."[142]

Philosopher and free-speech advocate, Alexander Meiklejohn, wrote, "Just so far as, at any point, the citizens who decide an issue are denied acquaintance with information or opinion or doubt or disbelief or criticism which is relevant to that issue, just so far the result must be ill-considered, ill-balanced planning for the general good."[143]

In a letter to statesman, W. T. Barry, Founding Father James Madison penned this famous quote: "A popular Government, without popular information, or the means of acquiring it, is but a Prologue to a Farce or a Tragedy; or, perhaps both. Knowledge will forever govern ignorance: And a people who mean to be their own Governors, must arm themselves with the power which knowledge gives."[144]

Philosopher Hannah Arendt, stated in an interview the importance of a *truthfully* informed society is fighting authoritarianism:

> What makes it possible for a totalitarian or any other dictatorship to rule is that people are not informed; how can you have an opinion if you are not informed? If everybody always lies to you, the consequence is not that you believe the lies, but rather that nobody believes anything any longer. This is because lies, by their very nature, have to be changed, and a lying government has constantly to rewrite its own history. On the receiving end you get not only one lie—a lie which you could go on for the rest of your days—but you get a great number of lines, depending on how the political wind blows. And a people that no longer can believe anything cannot make up its mind. It is deprived not only of its capacity to act but also of its capacity to think and to judge. And with

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of national defense and international affairs may lie in an enlightened citizenry—in an informed and critical public opinion which alone can here protect the values of democratic government."); Virginia State Bd. of Pharmacy v. Virginia Citizens Consumer Council, 425 U.S. 748 (1976) (noting that "this Court has referred to a First Amendment right to 'receive information and ideas'"); Linmark Assocs., Inc. v. Twp. Willingboro, 431 U.S. 85, 97 (1977) (extending First Amendment protection for dissemination of truthful commercial speech allows citizens the opportunity to make informed purchasing decisions).

141 Lillian R. BeVier, *An Informed Public, an Informing Press: The Search for a Constitutional Principle*, 68 CAL. L. REV. 482, 497 (1980).

142 *Id.* at 497.

143 ALEXANDER MEIKLEJOHN, FREE SPEECH AND ITS RELATION TO SELF-GOVERNMENT 26 (1948).

144 Letter from James Madison to W. T. Barry (Aug. 4, 1822), https://www.loc.gov/resource/mjm.20_0155_0159/?sp=1&st=text.

such a people you can then do what you please.[145]

The current news and information environment allow the suppliers of misinformation and fake news too much power and influence into our democracy.[146] As professor of public policy, Philip Napoli terms it, the "algorithmic marketplace of ideas" realm is one where "reliance on counterspeech is increasingly ineffectual and potentially damaging to democracy."[147]

In an article in *US News & World Report*, the authors highlight the pervasiveness of and America's lackluster response to battling harmful propaganda, acknowledging, "It is not enough to try to counter a firehose of falsehood with a squirt gun of truth."[148] The need for action is clear. The weaknesses of the "marketplace of ideas" concept is evident.[149]

IV. POTENTIAL SOLUTIONS/RECOMMENDATIONS

"The party told you to reject the evidence of your eyes and ears. It was their final, most essential command."[150]

There are situations where a fake video might fall within the realm of regulations regarding defamation, intentional infliction of emotional distress, copyright infringement, or be deemed false advertising.[151] One of the obstacles for some of these legal actions would be the potential anonymity element.[152]

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145 Hannah Arendt, *Hannah Arendt: From an Interview*, N.Y. REV. BOOKS (Oct. 26, 1978), https://www.nybooks.com/articles/1978/10/26/hannah-arendt-from-an-interview.

146 Anthony J. Gaughan, *Illiberal Democracy: The Toxic Mix of Fake News, Hyperpolarization, and Partisan Election Administration*, 12 DUKE J. CONST. L. & PUB. POL'Y 57, 58, 64, 74 (2017) (arguing that fake news and misinformation undermines the election system and democracy).

147 Napoli, *supra* note 3, at 97.

148 William Courtney & Christopher Paul, *Firehose of Falsehoods: Russian propaganda is pervasive, and America is behind the power curve in countering It*, U.S. NEWS & WORLD REP. (Sept. 9, 2016, 5:30 PM), https://www.usnews.com/opinion/articles/2016-09-09/putins-propaganda-network-is-vast-and-us-needs-new-tools-to-counter-it.

149 Waldman, *supra* note 101, at 863 (suggesting a marketplace of ideas based on lies may not collapse).

150 GEORGE ORWELL, 1984 81 (1961).

151 *See generally* Erwin Chemerinsky, *Fake News and Weaponized Defamation and the First Amendment*, 47 SW. L. REV. 291, 293 (2018) (discussing Supreme Court rulings on false speech and the various possible remedies); Lee K. Royster, *Fake News: Political Solutions to the Online Epidemic*, 96 N.C. L. REV. 270, 311 (2017) (discussing liability in defamation law in the context of fake news).

152 Ashley Messenger, *The Epistemic and Moral Dimensions of Fake News and the First Amendment*, 16 FIRST AMEND. L. REV. 328, 337 (2017) (noting that news organizations vouch for anonymous sources; however, fake news arises when people believe unreliable news sources that use anonymous or misrepresented sources); Anna Gonzalez & David Schulz, *Helping Truth with Its Boots: Accreditation as an Antidote to Fake News*, 127 YALE

Many deepfake creators hide their identity.[153] In addition, person(s) claiming to be harmed by the deepfake will bear the responsibility to take the time, energy and money to sue the deepfake creator, if that creator can actually be identified.[154] If the creator is in another country, additional complications are generated.[155] Compounding the difficulty would be if the creation were the responsibility of a nation-state.[156] Defamation suits and similar legal actions would also be a slow and potentially ineffective pathway to repairing any reputational damage caused by the video, due to the speed with which the stories can spread.[157] There are no legal remedies that could feasibly reduce or fix the harm deepfakes can cause, especially given the time-sensitive nature of an election campaign.[158]

New York is one state attempting to cope with the deepfake problem through state law.[159] In June 2018, a bill passed in the state assembly declaring it is fraud to create a digital replica of someone without their consent, subject to damages and/or an injunction.[160] Though entertainment companies such as Disney and NBCUniversal oppose the bill, asserting it would hamper creativity and

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L.J. F. 315, 331 (2017) (discussing the use of accreditation to combat anonymous fake news sources).

153 Roose, *supra* note 7 (discussing the program, FakeApp, being used to create Deepfake and how it was created by an anonymous creator).

154 Megan Farokhmanesh, *Is it legal to swap someone's face into porn without consent?*, THE VERGE (Jan. 30, 2018, 2:39 PM), https://www.theverge.com/2018/1/30/16945494/deepfakes-porn-face-swap-legal (stating that the best way to get the deepfake video taken down is for the victim to claim either defamation or copyright but neither guarantee success).

155 Jenna Lifhits, *Deepfakes Are Coming. And They're Dangerous,* WKLY. STANDARD (July 20, 2018, 6:19 AM), https://www.weeklystandard.com/jenna-lifhits/deepfake-videos-are-a-national-security-threat (discussing the threats to national security that could result from foreign states use of deepfake videos); *see also I never said that! High-tech deception of 'deepfake' videos*, *supra* note 71 (citing a statement from Mark Rubio that deepfake is "a weapon that could be used — timed appropriately and placed appropriately — in the same way fake news is used, except in a video form, which could create real chaos and instability on the eve of an election or a major decision of any sort.").

156 *See generally I never said that! High-tech deception of 'deepfake' videos*, *supra* note 71.

157 Emma Grey Ellis, *People Can Put Your Face on Porn – and the Law Can't Help You,* WIRED (Jan. 26, 2018, 7:00 AM), https://www.wired.com/story/face-swap-porn-legal-limbo (discussing the various legal remedies that can be pursued as a result of deepfake videos).

158 Dave Lee, *Deepfakes porn has serious consequences*, BBC NEWS (Feb. 3, 2018), https://www.bbc.com/news/technology-42912529 (highlighting potential political consequences related to deepfake videos).

159 Katyanna Quach, *New York State is trying to ban 'deepfakes' and Hollywood isn't happy*, THE REG. (June 12, 2018, 10:22 PM), https://www.theregister.co.uk/2018/06/12/new_york_state_is_trying_to_ban_deepfakes_and_hollywood_isnt_happy.

160 N.Y. STATE ASSEMB., A08155B (N.Y. 2018), http://nyassembly.gov/leg.

storytelling.[161] If the bill becomes law, it will almost certainly face First Amendment challenges.[162]

There are five approaches to combat the harms caused by fake news and deepfake videos that could be explored without infringing on the First Amendment. These combative approaches include (1) using existing laws,[163] (2) urging additional action from social media companies,[164] (3) developing the technology to detect deepfakes,[165] (4) fostering the use of private foundations and other organizations to respond to false information,[166] and (5) deploying digital literacy curriculum in schools.[167]

Some Internet and social media sites are recognizing the role they could play in combating fake news.[168] Twitter organized a Trust and Security Council, including a cadre of safety advocates, academics, anti-abuse and anti-bullying representatives, and others as part of a "multi-layered approach" to "ensure people can continue to express themselves freely and safely."[169]

Google announced a $300 million initiative in 2018 to fight misinformation.[170] The company began working with fact-checking networks,

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161 Quach, *supra* note 159.

162 Brette Trost, *Review: New York Right of Publicity Law: Reimagining Privacy and the First Amendment in the Digital Age*, N.Y.U. J. INTELL. PROP. & ENT. L. BLOG (Apr. 18, 2018), https://blog.jipel.law.nyu.edu/2018/04/review-new-york-right-of-publicity-law-reimagining-privacy-and-the-first-amendment-in-the-digital-age (highlighting several of the key concerns regarding the bill's enactment).

163 Ryan J. Black & Pablo Tseng, *What Can The Law Do About 'Deepfake'?*, MCMILLAN LLP (2018), https://mcmillan.ca/What-Can-The-Law-Do-About-Deepfake.

164 Danielle Keats Citron, *Four Principles for Digital Expression*, 95 WASH. U. L. REV. 1353, 1357 (2018).

165 Kelly Truesdale, *Can You Believe Your Eyes? Deepfakes and the Rise of AI-Generated Media*, GEO. L. TECH. REV. (Mar. 2018), https://www.georgetownlawtechreview.org/can-you-believe-your-eyes-deepfakes-and-the-rise-of-ai-generated-media/GLTR-03-2018 (explaining how new technology is being used to detect fraudulent material).

166 Gonzalez & Schulz, supra note 152, at 317.

167 David Goldberg, *Responding to "Fake News": Is there an Alternative to Law and Regulation?*, 47 SW. L. REV. 417, 428 (2018).

168 Nick Wingfield et al., *Google and Facebook Take Aim at Fake News Sites*, N.Y. TIMES (Nov. 14, 2016), https://www.nytimes.com/2016/11/15/technology/google-will-ban-websites-that-host-fake-news-from-using-its-ad-service.html (showing that technology companies have begun to implement new policies to combat the amount of fake news on their sites); John Cook, *Technology helped fake news. Now Technology needs to stop it*, BULL. ATOMIC SCIENTISTS (Nov. 17, 2017), https://thebulletin.org/2017/11/technology-helped-fake-news-now-technology-needs-to-stop-it (discussing how Google, Facebook and Twitter have acknowledged the spreading of fake news and have taken action to counter misinformation).

169 Patricia Cartes, *Announcing the Twitter Trust & Safety Council*, TWITTER BLOG (Feb. 9, 2016), https://blog.twitter.com/official/en_us/a/2016/announcing-the-twitter-trust-safety-council.html.

170 Philipp Schindler, *The Google News Initiative: Building a stronger future for news*,

providing detailed publication information, utilizing trust icons (items that appear next to news articles and provide information about the source of the story), and introduced the Google News Initiative (GNI).[171] Part of the GNI is Disinfo Lab, which is an effort to combat misinformation and disinformation during breaking news moments and elections.[172] Google reports that they are changing their algorithms to allow more credible content to rise to the surface during breaking news events, when platforms are particularly vulnerable to misinformation.[173]

It would seem to be an "easy" solution to require Internet companies to craft terms of service agreements with users that ban fake news and to have them enforce such agreements.[174] While some sites have policies and action steps regarding how they treat fake news, they are less than transparent about their standards and sometimes the decisions regarding keeping or deleting content appear to be arbitrary.[175] As Emily Bell, Humanitas Visiting Professor in Media at the University of Cambridge, noted in a 2016 speech, "[We] need to know that all public speech and expression will be treated transparently, even if they cannot be treated equally. This is a basic requirement for a functioning democracy."[176]

Facebook has also taken steps to fight misinformation and fake news.[177] Their struggle to honor free expression and preserve truth is also a challenge faced by other Internet and social media sites, which could learn from their miscues.[178] At an event to promote their efforts in combating fake news, Facebook bore more critique than commendation particularly when questioned about its treatment of the notorious, conspiracy theory-laden media organization,

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GOOGLE (Mar. 20, 2018), https://www.blog.google/outreach-initiatives/google-news-initiative/announcing-google-news-initiative.

171 Erica Anderson, *Building trust online by partnering with the International Fact Checking Network*, GOOGLE (Oct. 26, 2017), https://www.blog.google/outreach-initiatives/google-news-initiative/building-trust-online-partnering-international-fact-checking-network.

172 Schindler, *supra* note 170.

173 Daisuke Wakabayashi, *As Google Fights Fake News, Voices on the Margins Raise Alarms*, N.Y. TIMES (Sept. 26, 2017), https://www.nytimes.com/2017/09/26/technology/google-search-bias-claims.html.

174 Mathew Ingram, *Here's Why We Need a First Amendment for Social Platforms*, FORTUNE (June 3, 2016), http://fortune.com/2016/06/03/social-platforms-free-speech.

175 *Id.*

176 Emily Bell, *Facebook Is Eating the World*, COLUM. J. REV. (Mar. 2016), https://www.cjr.org/analysis/facebook_and_media.php.

177 Oliver Darcy, *Facebook Touts Fight on Fake News, But Struggles to Explain Why InfoWars Isn't Banned*, CNN (July 11, 2018, 11:59 PM), https://money.cnn.com/2018/07/11/media/facebook-infowars/index.html.

178 Emanuelson, Jr., *supra* note 19, at 229.

InfoWars (known for suggesting the Sandy Hook massacre was a hoax).[179] Facebook was asked why InfoWars had not been kicked off the network.[180] Representatives for the company stated they do not "take down" false news, but they have policies to deal with habitual fake news sharers who make money from their "news."[181] If content from such a domain gets a string of "false" ratings from Facebook's third-party fact checkers, their monetization and advertising privileges are removed and the ability of their page(s) to be distributed is greatly reduced.[182] Facebook spokesperson, Lauren Svensson, noted, "We work hard to find the right balance between encouraging free expression and promoting a safe and authentic community, and we believe that down-ranking inauthentic content strikes that balance."[183]

Striking that balance means technology companies are now the gatekeepers, having to determine between fake and authentic news.[184] As Larsen suggests, the Internet's "hyper-targeted, ad-driven business model" means the more shocking the content, the more likes, shares, and comments it gets, and the more money it makes.[185] When money is the driving force, the antidote is creating technology that "values truth over outrage" and "teaching students how the Internet really works."[186]

As an additional step to underpin the varied, and sometimes vague policies of the social media networks and Internet companies, private institutions and foundations could play an important role.[187] Instead of government agencies interjecting to establish facts, they could fund fact-finding operations.[188]

Concerned about the involvement of fake news in the Brexit referendum, The Department for Digital, Culture, Media and Sport (DCMS), a government

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179 Darcy, *supra* note 177.

180 *Id.*

181 *Id.*

182 Emanuelson, Jr., *supra* note 19, at 230; Darcy, *supra* note 177.

183 Darcy, *supra* note 177.

184 Solana Larsen, *Where is the internet headed?*, LONDON SCH. ECONS. BLOG (May 8, 2018) http://blogs.lse.ac.uk/businessreview/2018/05/08/where-is-the-internet-headed; *see generally* Assaf Hamdani, *Gatekeeper Liability*, 77 S. CAL. L. REV. 53, 58 (2003) (discussing gatekeeper liability).

185 Larsen, *supra* note 184.

186 *Id.*

187 Emanuelson, Jr., *supra* note 19, at 231 (proposing the creation of an independent trade association similar to the Motion Picture Association of America whose role would be "flagging misinformation, promoting verified content, and holding traditional and new media outlets accountable for the information they share with the public."); *see generally* Jessica Stone-Erdman, *Just the (Alternative) Facts, Ma'am: The Status of Fake News Under the First Amendment*, 16 FIRST AMEND. L. REV. 410, 415 (2017) (explaining private sector actors "are better suited to undertake speech-controlling measures without offending the First Amendment than if the government were to take similar measures.").

188 Judy Dempsey, *Judy Asks: Can Europe Defeat Russian Disinformation?*, CARNEGIE EUR. (Jan. 11, 2017), http://carnegieeurope.eu/strategiceurope/67646.

department in the United Kingdom, released an interim report in July 2018 based on 18 months of studying fake news and the use of data and "dark ads" in elections.[189] The DCMS select committee is responsible for the investigation and found that Facebook in particular, did little to seek, or prevent, illegal election campaign activity on their site and were less than forthcoming when asked for testimony or evidence in the course of the inquiry.[190] The recommendations of the report include (1) legal liability for tech companies for content that is "harmful and illegal,"[191] (2) full security and algorithm auditing,[192] a ban on micro-targeted political advertising[193] (matching the right type of message to voters, such as the work Cambridge Analytica performed during the Trump presidential campaign, using data harvested from Facebook),[194] and (3) a code of ethics that all technology companies must uphold.[195]

While technology, social media networks, and Internet organizations play catch-up to detecting deepfakes, media literacy initiatives should be paramount.[196] Eric Goldman, Professor and Director of Santa Clara University's High Tech Law Institute, argues the solution to the deepfake problem needs to reach beyond the law, educating citizens regarding their approach to interpreting content, stating,

> It absolutely bears repeating that so much of our brains' cognitive capacities are predicated on believing what we see . . . The proliferation of tools to make fake photos and fake videos that are indistinguishable from real photos and videos is going to test that basic, human capacity.[197]

This concept requires a dedication to digital literacy education for children.[198] It

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189 DIGITAL, CULTURE, MEDIA AND SPORT COMMITTEE, DISINFORMATION AND 'FAKE NEWS': INTERIM REP., 2018, HC 363, at 4 (UK), https://publications.parliament.uk/pa/cm201719/cmselect/cmcumeds/363/363.pdf.

190 *Id.* at 18.

191 *Id.*

192 *Id.* at 21.

193 *Id.* at 38.

194 *Id.* at 27-28.

195 *Id.* at 25.

196 *See* Lili Levi, *Real "Fake News" and Fake "Fake News"* 16 FIRST AMEND. L. REV. 232, 309-311 (2017); Tessa Jolls & Michelle Johnson, *Media Literacy: A Foundational Skill for Democracy in the 21st Century*, 69 HASTINGS L.J. 1379, 1402 (2018) ("Developing an empowered population that can identify and avoid misinformation (as well as unjust attempts to invalidate legitimate sources) on its own terms is not only the most effective solution available, it is also the most democratic way to restore trust in media, fellow citizens, and other institutions."); S.I. Strong, *Alternative Facts and The Post-Truth Society: Meeting the Challenge*, 165 U. OF PA. L. REV. ONLINE, 137, 145 (2017) (explaining "the better option may be to approach the issue from a communication perspective—that is, by focusing on how information is delivered").

197 Farokhmanesh, *supra* note 154.

198 Dawn Brown, *Teach Digital Literacy, Not Just Technology Use*, CHILD CARE AWARE

is not sufficient to simply send out more speech in the hopes of the truth rising to the fore.[199] We must be advocates for information literacy.[200]

V. CONCLUSION

"And if all others accepted the lie which the Party imposed—if all records told the same tale—then the lie passed into history and became truth. 'Who controls the past' ran the Party slogan, 'controls the future: who controls the present controls the past.'"[201]

Deepfake videos will only become more of a problem.[202] Tom Rosenstiel, an author and director of the American Press Institute, and senior fellow at the Brookings Institution, commented,

> Whatever changes platform companies make, and whatever innovations fact checkers and other journalists put in place, those who want to deceive will adapt to them. Misinformation is not like a plumbing problem you fix. It is a social condition, like crime, that you must constantly monitor and adjust to. Since as far back as the era of radio and before, as Winston Churchill said, 'A lie can go around the world before the truth gets its pants on.'[203]

In order to maintain our democratic system, where the public gets the news they need in order to make informed decisions, a multilayered approach to fighting deepfakes is needed. The response should include the government, private foundations, social media networks and Internet companies, educators, and journalism representatives. A distinct law shutting down disinformation is not the solution. However, neither can we blindly depend on the marketplace of ideas philosophy, crossing our fingers in hopes of counterspeech leading us to

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AM. (Jan. 10, 2017), http://usa.childcareaware.org/2017/01/teach-digital-literacy-not-just-technology-use (explaining how with the recent proliferation of fake news, educators need to "give children the skills to understand when and how to use [technological] tools to achieve their goals in a safe and responsible manner"); Gianfranco Polizzi, *Fake news and critical literacy: new findings, new questions*, LONDON SCH. ECONS. POL. SCI. (Aug. 8, 2018), http://blogs.lse.ac.uk/parenting4digitalfuture/2018/08/08/fake-news-and-critical-literacy (discussing how in the United Kingdom "only 2% of children can spot fake news" and thus "a more comprehensive approach to critical literacy is needed when both researching and teaching it. In the digital age, critical literacy needs to entail awareness of the broader digital environment").

199 Napoli, *supra* note 3, at 82 (discussing how "if news consumers are increasingly unable to accurately gauge whether a news source's reporting is likely to be true or false, then more speech (i.e.., counterspeech) does nothing to ensure that truth prevails").

200 DIGITAL, CULTURE, MEDIA AND SPORT COMMITTEE, DISINFORMATION AND 'FAKE NEWS': INTERIM REP., *supra* note, at 60.

201 ORWELL, *supra* 150, at 30.

202 Hsu, *supra* note 67 (explaining how "it's a question of when, not if, Deepfake videos become more widespread and potentially problematic").

203 Anderson & Rainie, *supra* note 30.

the truth. Instead, the approaches should include: promotion of media literacy, recognition of the important role of legitimate journalism, robust fact-checking organizations, advanced technology to detect deepfakes, Internet companies who create clear and transparent policies and reporting procedures to prevent fake news, and algorithms that lessen financial incentives for spreading misinformation and disinformation. Furthermore, a knowledgeable public who gets news from a variety of sources and looks upon the material with a questioning, curious mind in pursuit of becoming responsible consumers and disseminators of information. Those days are gone when we should believe it when we see it.