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THE UPSIDE OF DEEP FAKES

JESSICA SILBEY* & WOODROW HARTZOG**

It's bad. We know. The dawn of "deep fakes"—convincing videos and images of people doing things they never did or said—puts us all in jeopardy in several different ways.¹ Professors Bobby Chesney and Danielle Citron have noted that now "false claims—even preposterous ones—can be peddled with unprecedented success today thanks to a combination of social media ubiquity and virality, cognitive biases, filter bubbles, and group polarization."² The scholars identify a host of harms from deep fakes, ranging from people being exploited, extorted, and sabotaged, to societal harms like the erosion of democratic discourse and trust in social institutions, undermining public safety, national security, journalism, and diplomacy, deepening social divisions, and manipulation of elections.³ But it might not be all bad. Even beyond purported beneficial uses of deep-fake technology for education, art, and science, the looming deep-fake disaster might have a silver lining. Hear us out. We think deep fakes have an upside.

Crucial to our argument is the idea that deep fakes don't create new problems so much as make existing problems worse. Cracks in systems, frameworks, strategies, and institutions that have been leaking for years now threaten to spring open. Journalism, education, individual rights, democratic systems, and voting protocols have long been vulnerable. Deep fakes might just be the straw that breaks them. And therein lies opportunity for repair.

People have had good ideas about how to repair democratic institutions and frameworks for years. A leading example is the movement to overturn the Supreme Court decision *Citizens United v. Federal Election Commission*,⁴ which allowed corporations and nonprofits to raise and spend unlimited amounts of money to advocate for and against political candidates, giving rise to super PACs and, many say, the profound distortion of election

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1. See Robert Chesney & Danielle Citron, *Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security*, 107 CALF. L. REV. (forthcoming 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3213954.

2. Robert Chesney & Danielle Citron, *Deep Fakes: A Looming Crisis for National Security, Democracy and Privacy?*, LAWFARE (Feb. 21, 2018, 10:00 AM), <https://www.lawfareblog.com/deep-fakes-looming-crisis-national-security-democracy-and-privacy>.

3. See Chesney & Citron, *supra* note 1.

4. 558 U.S. 310 (2010).

politics.⁵ Another suggestion has been revamping education: making K-12 education less about standardized tests and more about cultivating a love of learning and making higher education more affordable without saddling college graduates with life-long debt.⁶ Often what's been missing is the political will to make them happen. Infrastructure isn't a titillating political goal. Educators are continuously struggling for more funding. Voting reform is often too politically risky or costly to take on. Many of the harms to our basic institutions have been incremental as they seem destined to suffer death by a thousand cuts.

Perhaps these small incursions into our technologies and civic institutions haven't been significant enough to foment a meaningful appetite for reform. Or perhaps lawmakers and the public simply can't get angry about ephemeral and sometimes difficult to describe harms to concepts like due process, data integrity, and collective intelligence that are not felt viscerally. Sometimes we just need a push. And deep fakes make for a memorable bully.

That's because deep fakes are *lies*. And not just lies, but ones that betray sight and sound, two of our most innate and cherished senses. Deep fakes call into question an entire lexicon of deeply held truths and axioms about the trustworthiness of what we see and hear with our own eyes and ears. "I'll believe it when I see it." "Out of sight, out of mind." "A picture is worth a thousand words."

The potential upside of deep fakes is that they might help muster the political will to address the larger, structural problems made worse by the inability to trust what we see and hear. In other words, maybe an effective way to respond to the scourge of deep fakes isn't to target the creation and use of deep fakes themselves, but rather to focus on strengthening the social and political institutions they disrupt. Now would be a good time to focus on institutional inoculation, fortitude, redundancy, and resiliency. Deep fakes are a symptom of deep problems. Wouldn't it be ironic if the symptom is scarier than the sickness and finally compels us to solve the underlying problems?

Below we briefly address some deep problems and how finally addressing them may also neutralize the destructive force of deep fakes. We only describe three cultural institutions—education, journalism, and representative democracy—with deep problems that could be strengthened as a response to deep fakes for greater societal gains. But we encourage readers to think up

5. See, e.g., John Dunbar, *The 'Citizens United' Decision and Why It Matters*, CTR. FOR PUB. INTEGRITY (May 10, 2018), <https://publicintegrity.org/federal-politics/the-citizens-united-decision-and-why-it-matters/>. For active political movements seeking to amend the U.S. Constitution and overturn *Citizens United*, see, for example, MOVE TO AMEND, <https://movetoamend.org/> (last visited June 25, 2019) and Natalie Simpson, *Reform the Right Way: Efforts to Overturn Citizens United*, COMMON CAUSE MASS. (June 29, 2019), <https://www.commoncause.org/massachusetts/democracy-wire/reform-the-right-way-efforts-to-overturn-citizens-united/>.

6. See discussion of education reform *infra*.

more. We have a hunch that once we harness the upside of deep fakes, we may unlock creative solutions to other sticky social and political problems.

Education

Public education needs a reboot. A decade ago, Common Core was supposed to raise the level of skills in English literacy and mathematics to help students succeed in college and beyond.⁷ A decade prior we had No Child Left Behind, a federally led program that initiated standardized testing on which school districts would be evaluated in order to receive federal funds.⁸ The goals of these programs are worthy but their picayune focus on outcome assessments for teachers and school districts and standardized testing for students misses the bigger picture. In a world of rapidly changing technology with increasing access to the world's intellectual resources, with students and younger generations leading the way on what can be done with these technologies, we need to be teaching students where they are at. We need more literacy, yes, but we need cultural and media literacy; we need more arts, civics, drama, and experimental sciences; we need more physical activity that builds collaboration not stressed-out competition.

Students and citizens need to be empowered and taught to talk with and back to the stories told through our new media. In general, readers and cultural consumers developed critical capacities toward propaganda. Over the twentieth century, movie-goers and television watchers have learned to distinguish the made-up from the real, fiction from the news.⁹ To be sure, at first, genres like “reality television” and “docu-drama” had viewers stumped.¹⁰ But eventually, viewers learned to understand that *People's Court*, *The Apprentice*, *Survivor*, and *The Bachelor* were more staged performances (with makeup, props, and a scripted storyline) than improvisations on a live stage or reality unaffected by the need to entertain a television audience. Our education as cultural critics needs to continue. And we do that by playing with the technologies, taking them apart and rebuilding them, telling stories with them and understanding their power. And then, as our children study world cultures, the humanities, and experiment with the natural world and witness its depletion, they will learn to debate and embrace core

7. *Development Process*, COMMON CORE: ST. STANDARDS INITIATIVE, <http://www.corestandards.org/about-the-standards/development-process/> (last visited Mar. 24, 2019).

8. Pub. L. No. 107-110, 115 Stat. 1425 (2002).

9. Jessica M. Silbey, *Filmmaking in the Precinct House and the Genre of Documentary Film*, 29 COLUM. J. L. & ARTS 107, 142–55 (2006) (recalling history of documentary film as a form of illusion-making and advocacy); Jessica Silbey, *Judges as Film Critics: New Approaches to Filmic Evidence*, 37 MICH. J. L. REFORM 493, 531–42 (2004) (describing the history of early film as a history of drawing on film's illusion of witnessing by creating convincing fantasies).

10. Jessica Silbey, *Evidence Verité and the Law of Film*, 31 CARDOZO L. REV. 1257, 1258–59 (2010).

values that our twenty-first century digital age both amplifies and threatens. And they will bring us along.

We should not be training students to take standardized tests and memorize factors and formulae outside of the contexts in which they are meaningful. We should be teaching students (and continue to train ourselves) to evaluate facts, test systems, and challenge accounts by examining alternative perspectives. This isn't about the subjectivity of all stories or the relativity of truth. We are not relativists when it comes to facts and cultural narratives. But we are realists. And what we learn in the study of humanities and law is how stories work to sustain or undermine power. We might as well acknowledge this as one way deep fakes function and work from within that structure to talk back to them. Stories (fake or not) will never go away. We have to learn how to have the narrative upper hand to produce critical thinkers and win the battle for truth.¹¹ To students schooled this way, deep fakes may be annoying—they might even be amusing—but they will not be quite as disruptive to our children's hopeful future if education trains them to be curious, collaborative, skeptical, and productive.

Media

Fake news is nothing new.¹² The virality and scope of influence of fake news is.¹³ And the networked platforms that connect news organizations to readers—Facebook, Twitter, Reddit, Tumblr—are new too. Also new is the contracted time of news cycles and the freemium business model for news. We don't pay for journalism as much (or at all) anymore. And we can curate our own news by selecting from hundreds of television channels, shows, and radio stations, to attend to the one that confirms our own views and comports with our own politics. The rise of extreme right-wing media and the demise of traditional gatekeepers in the media ecosystem is new.¹⁴ This is fodder for polarization and cognitive laziness.¹⁵ Indeed, as much as we may praise the information floodgate that is the internet, platforms like Facebook and "Twitter . . . encourage[] a mind-set antithetical to journalistic inquiry: [They] prize[] image over substance and 'cheap dunks' over reasoned debate, all the

11. Jessica Silbey, *What We Do When We Do Law and Popular Culture*, 27 LAW & SOC. INQUIRY 139 (2002) (describing how an analysis of law through narrative and cultural studies would proceed from within both disciplines of law and the humanities).

12. Robert Darnton, *The True History of Fake News*, N.Y. REV. OF BOOKS (Feb. 13, 2017) <http://www.nybooks.com/daily/2017/02/13/the-true-history-of-fake-news/>.

13. David Lazer et al., *The Science of Fake News*, 359 SCI. 1094 (2018).

14. YOCHAI BENKLER ET AL., NETWORK PROPAGANDA (2018).

15. Gordon Pennycook & David Rand, *Why Do People Fall for Fake News?*, N.Y. TIMES (Jan. 19, 2019), <https://www.nytimes.com/2019/01/19/opinion/sunday/fake-news.html>.

while severely abridging the temporal scope of the press.”¹⁶ In other words, our personalized, networked, firehose news feeds are rich soil for cultivating deep fakes.

We should collectively encourage and invest in trusted journalism and reestablish institutional norms of authentication and verification—for example, fact checking that requires standards of proof. We understand that news organizations seeking to generate shared knowledge with a claim to objectivity are pressured for funds and need as many eyeballs on their sites to ramp up advertising revenue lost to the paper versions of yore. Not every paper can have a benefactor like Jeff Bezos to make sure “democracy [doesn’t] die[] in darkness.”¹⁷ And newspapers should not be driven to depend on bottom-line driven platforms like Facebook or networks like Google for advertising dollars. Eyeballs demand catchy headlines and lots of photographs. But click bait luring readers to a non-story with lots of pop-up advertisements is a videogame, not news. And trolling Instagram for free photos from anyone with a camera phone produces inaccuracies and gossip. We need to commit to investigative journalism and photojournalists whose professionalization as truth seekers and truth tellers are so central to our democracy we protected the press from government interference in the First Amendment to our Constitution.

We could also empower advocacy organizations like Witness, whose goal is to make “possible for anyone, anywhere to use video and technology to protect and defend human rights.”¹⁸ Crucially, Witness aims to bolster the legitimacy and preserve the integrity of these videos by developing trustworthy tools, advocate to tech companies to make systematic changes, and “curate and help draw attention to citizen footage of under-reported stories.”¹⁹ They prioritize archiving video and preserving its integrity for use in court, among other things.²⁰ Perhaps the vivid threat of deep fakes can muster will to salvage journalism from the ravages of an economic system transformed

16. Farhad Manjoo, *Never Tweet*, N.Y. TIMES (Jan. 23, 2019), <https://www.nytimes.com/2019/01/23/opinion/covington-twitter.html>; see Heather Schwedel, “*Dunking*” Is *Delicious Sport*, SLATE (Dec. 4, 2017), <https://slate.com/technology/2017/12/dunking-is-delicious-and-also-probably-making-twitter-terrible.html> (describing basketball “dunking” as a metaphor for Twitter behavior: “In a Twitter dunking, someone has made his point or said her piece, and instead of responding to it with a direct reply, perhaps in the spirit of equal-footed debate, the dunker seizes it like an alley-oop on his or her way to the basket. Maybe another player gets the unwitting assist, but the point is yours to be liked and retweeted not just as a reply but as a worthier tweet in its own right.”).

17. Paul Farhi, *The Washington Post’s New Slogan Turns Out to Be an Old Saying*, WASH. POST (Feb. 24, 2017), https://www.washingtonpost.com/lifestyle/style/the-washington-posts-new-slogan-turns-out-to-be-an-old-saying/2017/02/23/cb199cda-fa02-11e6-be05-1a3817ac21a5_story.html?utm_term=.71203ab5c5ed.

18. *About*, WITNESS, <https://witness.org/about/> (last visited Feb. 22, 2019).

19. *Id.*

20. *Our Work*, WITNESS, <https://witness.org/our-work/> (last visited Mar. 24, 2019).

by technology that appears to value viral lies over truth by subsidizing a free press with public funds and incentivizing the reestablishment of the journalistic profession.²¹

Democratic Institutions

Can deep fakes actually foster meaningful changes for our democratic institutions? One of the nightmare scenarios presented by deep fakes is a video that is released right before election day that wrongly affects the result of an election. But perhaps this scenario would not be so frightening if our electoral framework were sturdier and less besieged. Lawmakers could start by better pursuing electoral integrity, which includes ensuring more people vote and their votes count. Increasing the number of voters might help dilute the negative effect a deep fake would produce and have the additional benefit of better ensuring a representative democracy.

Improving electoral integrity would mean drawing more representative districts, expanding the time to vote (or calling for holidays on election days), demanding accessible voting places, and designing ballots and ballot machines to record votes accurately. We need to rethink the Electoral College and align the popular vote with the presidency, unless we think it's okay that the votes in less populous states count three times as those in more populous states.²² We need to have term limits on senators and congresspeople, like we do the presidency, or else make it easier to run against incumbents so this can truly be a government of the people. We need more parties and rank choice voting to encourage the middle ground and compromise candidates who will bridge polarization that feeds news cycles and exhausts internet users. Some of these solutions are already in the works, in part because the 2016 election took advantage of so many of these deep problems.²³ Deep fakes might still be working its way into the cultural lexicon, but fake news is already there.

21. We could also disincentivize the platforms from spreading fake news or incentivize them to curate their platforms more closely, as others have suggested (for example, narrowing 230 immunity). See, e.g., DANIELLE KEATS CITRON, HATE CRIMES IN CYBERSPACE (2014); OLIVIER SYLVAIN, KNIGHT FIRST AMEND. INST., DISCRIMINATORY DESIGNS ON USER DATA (2018), <https://knightcolumbia.org/content/discriminatory-designs-user-data>; Chesney & Citron, *supra* note 1. But this section is about helping the news organizations, not regulating the platforms.

22. Katy Collin, *The Electoral College Badly Distorts the Vote. And It's Going To Get Worse*, WASH. POST. (Nov. 17, 2016), https://www.washingtonpost.com/news/monkey-cage/wp/2016/11/17/the-electoral-college-badly-distorts-the-vote-and-its-going-to-get-worse/?utm_term=.9631df0945c3; Dale Durran, *Whose Electoral Votes Count Least in the Electoral College?*, CONVERSATION (Mar. 13, 2017), <https://theconversation.com/whose-votes-count-the-least-in-the-electoral-college-74280>.

23. Eric Maskin, *Five Reasons Ranked-Choice Voting Will Improve American Democracy*, BOS. GLOBE (Dec. 4, 2018), <https://www.bostonglobe.com/magazine/2018/12/04/five-reasons-ranked-choice-voting-will-improve-american-democracy/XoMm2o8P5pA-SAwwZYwsVo7M/story.html?event=event12>.

But it goes deeper than that. Political, social, and economic inequality, bred through the alienation of individuals from their communities of support, feeds peoples' receptiveness to disinformation. As Claire Wardle writes, "When humans are angry and fearful, their critical thinking skills diminish."²⁴ With more participation and enthusiasm for self-government, the benefits of which should begin with those who have the least, the governmental institutions that sustain us will work for us all. And the deep fakes that aim to dismantle them will be outvoted by those who believe and know better.

Making Lemonade

The First Amendment to the U.S. Constitution promises: freedom of the spiritual mind, freedom to speak what's on our minds, freedom to publish and distribute our ideas, arguments and discoveries, freedom to organize and assemble around those ideas, and freedom to petition the government to make change.²⁵ The First Amendment is a microcosm of the mechanics of self-government, but it also provides fertile ground for its destruction in the form of mob rule or autocracy. Indeed, the First Amendment demands protection and breathing room for expression that, as a side effect, constructs the breeding ground for deep fakes. But we cannot solve the deep-fakes problem by treating it solely as an issue of speech without jeopardizing the protections for expression critical to our democracy. Resilient infrastructure and institutions that educate all our children, provide media literacy and journalistic autonomy as well as deliver equal access to the political process will help us better protect and foster expression while keeping its excesses from devouring free expression goals of autonomy and democratic self-governance.

We need to find a vaccine to the deep fake, and that will start with understanding that authentication is a social process sustained by resilient and inclusive social institutions. Writing about the conman and the contexts in which he flourishes, MIT anthropologist Graham Jones has said that the "fake is only possible when there are normative, conventionalized, institutionalized standards of conduct and evidentiary practices that the faker can manipulate."²⁶ Today, as deep fakes circulate more widely and rapidly threaten to undermine our critical institutions and civil rights, it should be our choice and mandate to establish standards and institutions that are resilient to the con. Transforming our education, journalism, and elections to focus on building these standards subject to collective norms of accuracy, dignity, and democracy will be a critical first step to understanding the upside of deep fakes.

24. Claire Wardle, *Fake News. It's Complicated.*, FIRST DRAFT (Feb. 16, 2017), <https://first-draftnews.org/fake-news-complicated/>.

25. See U.S. CONST. amend. I.

26. Graham M. Jones, *Deep Fakes*, in *FAKE 15*, 21 (Jacob Copeman & Giovanni de Col eds., 2018).