Journal of Technology Law & Policy

Volume 26 | Issue 1 Article 2

January 2021

Navigating the Speech Rights of Autonomous Robots in a Sea of Legal Uncertainty

Lynne Higby

NAVIGATING THE SPEECH RIGHTS OF AUTONOMOUS ROBOTS IN A SEA OF LEGAL UNCERTAINTY

Lynne Higby[*]

"To give computers the rights intended for humans is to elevate our machines above ourselves."[1]
–Tim Wu, Columbia Law School Professor

* J.D., Class of 2021, The University of Florida Levin College of Law. The author sincerely thanks her family and best friend and classmate Katharine Haddad for their unwavering support and encouragement.

1. Tim Wu, *Free Speech for Computers?*, THE NEW YORK TIMES (June 19, 2012), https://www.nytimes.com/2012/06/20/opinion/free-speech-for-computers.html [https://perma.cc/VL6C-YG5A].

INTRODUCTION

Artificial intelligence is currently making waves in our reality's journalistic sphere. Artificial intelligence (AI), generally, is a branch of computer science that involves the simulation of intelligent behavior in computers; it is a machine's capability to imitate human behavior.[2] What once used to be mere GPS route suggestions or computer-automated responses to search queries in Google have now evolved into fully executed think pieces complete with properly formatted and grammatically correct introductions, body paragraphs, and conclusions.

"I am not a human. I am a robot. A thinking robot," begins the AI-authored Guardian article, *A Robot Wrote This Entire Article. Are You Scared Yet, Human?*[3] "I know that my brain is not a "feeling brain," continues the robotic author, "[b]ut it is capable of making rational, logical decisions. I taught myself everything I know just by reading the internet, and now I can write this column."[4] Although the language generator responsible for the article, GPT-3, assures the reader that robots "come in peace,"[5] AI's ability to create speech implicates significant First Amendment issues no matter if the objective viewer finds this futuristic computer capability as truly awe-inspiring or significantly concerning. This Note explores the implications associated with affording First Amendment protections to AI-generated speech and why, despite free speech theory and doctrine posing few barriers to the constitutional protection of AI-authored speech, AI speakers should not be granted speech rights in the same way that human beings are granted the privilege to express thought and opinion free from civil liability.

The Free Speech Clause of the First Amendment prohibits the government from "abridging the freedom of speech," but does not specify what that freedom entails, nor explicitly whom, or *what*, that freedom is granted to.[6] Historically, First Amendment law has gradually shifted its focus from protecting speakers to providing value to listeners and restraining excessive governmental oversight.[7] In an age where emerging AI is consistently enforcing its presence in humanity's daily life, at an accelerated rate, questions regarding constitutional and legal rights are

---

2. *Artificial Intelligence*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/artificial%20intelligence [https://perma.cc/TG6X-CBZA].

3. GPT-3, *A Robot Wrote This Entire Article, Are You Scared Yet, Human?*, THE GUARDIAN (Sept. 8, 2020), https://www.theguardian.com/commentisfree/2020/sep/08/robot-wrote-this-article-gpt-3?CMP=Share_iOSApp_Other [https://perma.cc/ULS9-N3N6].

4. *Id*.

5. *Id*.

6. U.S. Const. amend. I. "Congress shall make no law . . . abridging the freedom of speech."

7. Toni M. Massaro et al., *Siri-Ously 2.0: What Artificial Intelligence Reveals About the First Amendment*, 101 MINN. L. REV. 2481 (2017).

being raised in response to this technology's prevalence. Who is responsible for a defamatory article generated by a robot? Who will be held accountable for emotional distress inflicted by its "speech?" And most importantly, can and should this speech be constitutionally regulated to control these potential harms?

The Supreme Court recognizes that First Amendment protections extend to collective and individual speech "in pursuit of a wide variety of political, social, economic, educational, religious, and cultural ends."[8] While the types of protected speech are non-exhaustive, the Supreme Court narrowly defines categories of speech that do not receive similar constitutional protection: obscenity,[9] defamation,[10] fraud,[11] incitement,[12] fighting words,[13] true threats,[14] speech integral to criminal conduct,[15] and child pornography.[16] Although computers like the GPT-3 are capable of making "rational, logical decisions,"[17] it is probable that a robot's lack of human consciousness, intentionality, or free will prevents it from being able to discern what speech output is inciteful, fraudulent, or threatening, and what output falls within the First Amendment's protection. Computer-generated suggestions of movies, restaurants, and book selections are eagerly encouraged, but at what point does AI content transition from being welcomed to being feared?

This Note seeks to outline First Amendment issues associated with artificial intelligence, namely whether computer-generated speech should

---

8. Victoria K. Kilion, *The First Amendment: Categories of Speech*, CONGRESSIONAL RESEARCH SERVICE (updated Jan. 16, 2019), https://sgp.fas.org/crs/misc/IF11072.pdf [https://perma.cc/2C2J-PFVE] (referencing *Roberts v. U.S. Jaycees*, 468 U.S. 609, 622 (1984)).

9. *Miller v. California*, 413 U.S. 15 (1973) (holding that obscene material does not enjoy First Amendment protection).

10. *Gertz v. Robert Welch, Inc.*, 418 U.S. 323 (1974) (finding that States may not permit recovery of presumed or punitive damages, at least when liability is not based on a showing of knowledge of falsity or reckless disregard for truth).

11. *U.S. v. Alvarez*, 567 U.S. 709 (2012).

12. *Brandenburg v. Ohio*, 395 U.S. 444 (1969) (finding that a State can outlaw "advocacy" of violence where it is (1) directed at inciting or produces imminent lawless action and (2) likely to incite or produce such action).

13. *Chaplinsky v. New Hampshire*, 315 U.S. 568 (1942) (reasoning that "fighting words" are an unprotected category of speech because they are a category of utterances which are of such slight social value as to truth that any benefit that may be derived from them is clearly outweighed by the social interest in order and morality).

14. See *Watts v. United States*, 394 U.S. 705 (1969) (holding that "true threats" are not protected from First Amendment regulation).

15. *Giboney v. Empire Storage & Ice Co*, 336 U.S. 490 (1949) (reiterating that the First Amendment generally affords no protection to speech "used as an integral part of conduct in violation of a valid criminal statute).

16. *New York v. Ferber*, 458 U.S. 747 (1982) (recognizing child pornography as a category of unprotected speech separate from obscenity, partly because the sale and advertisement of such materials is de facto criminal conduct).

17. GPT-3, *supra* note 3.

be constitutionally protected, what the specific concerns associated with affording and denying those protections could be, and who, if anyone, is responsible for that speech and its subsequent implications. Part I introduces the basic concepts of AI-generated speech and how speech rights are designated to the technology's designer and code developer. Part II explores free speech theory and doctrine and the legal implications that suggest why these schools of thought and precedent may leave an air for robotic speech protection. Finally, Part III dives into the benefits and harms associated with granting AI-generated speech constitutional protections, and explains why AI-generated speech, distinct from human speech, should not enjoy equal First Amendment protections. This Part also suggests possible measures courts may take in addressing AI-related speech issues in the future.

I. WHAT IS AI-GENERATED SPEECH?

Computers with "communicative" capabilities span from a GPS device mapping the quickest, traffic-free route, to an iPhone's auto-correction feature via iMessage, or Facebook's recommendation of a new friend. Computers make these decisions by reasoning through automated algorithms that constantly send and receive information in a manner that mimics human expression.[18] These communications are generally referred to as "algorithmic outputs," and assigning robots constitutional protections for these outputs are currently a topic of public debate.[19] Arguments have been made from as early as 2003 that when computers make such choices by reasoning, they are "speaking," and should thus enjoy constitutional protections afforded by the First Amendment.[20] The ability for machines to communicate their decision-making output to humans through simple lights or sounds has now evolved to generating output forms easily understood by human by producing pictures or words on a screen.[21] While both types of outputs are "signals," a GPS device verbally instructing its user to turn left is more readily described as "speech" than a smoke alarm beeping to signal smoke detection, because the former has been translated into language mimicking human expression.[22] This distinction between more and less-sophisticated types of communicative technologies can be generally grouped into categories

18. Tim Wu, *Machine Speech*, 161 U. PA. L. REV. 1495 (2013).

19. *Id*.

20. *See* Eugene Volokh, *First Amendment Protection for Search Engine Search Results*, (Apr. 20, 2012). In this White Paper commissioned by Google, Volokh asserts that Google, Microsoft's Bing, Yahoo! Search, and other search engines are speakers; see also *Search King, Inc. v. Google Tech., Inc.*, No. 02-1457, 2003 WL 21464568, at *4 (W.D. Okla. 2003), finding that Google PageRanks are entitled to "full" First Amendment protection.

21. *See* Wu, *supra* note 18, at 1497.

22. *Id*. at 1498.

of "strong" and "weak" AI with the discerning element being the AI actually *thinking* like a human versus mimicking human-like cognition.[23] Strong AI is a theoretical form of machine intelligence equivalent to, or closely resembling, human intelligence and human-like consciousness, whereas weak AI focuses on performing a specific task, like answering a question based on user input, and merely simulating human-like consciousness.[24] AI systems as advanced as autonomously-driving vehicles are still considered weak AI; strong AI does not currently exist. Strong AI moves beyond weak AI to include the ability to reason, make judgments, solve problems, learn, plan, and communicate.[25]

Some commentators pose that these various types of algorithmic outputs, whether it be weak AI currently, or strong AI in the future, deserve First Amendment protections solely because these outputs seek to communicate a type of message or opinion to their audience.[26] In fact, some forms of AI are already objectively considered "better speakers" than humans themselves: "their superior ability to evade some of the distortions of bias and baser emotions, their immunity from fatigue or boredom, and their capacity to manage complex ideas in ways mere humans cannot"[27] all represent qualities of a speaker with the potential to yield significantly valuable and diverse speech.[28] In a white paper commissioned by Google, asserting that Google, Microsoft's Bing, Yahoo! Search, and other search engines are speakers, UCLA law professor Eugene Volokh argued that because search engines (1) occasionally convey information that the search engine company has itself prepared or compiled; (2) direct users to content created by others by referencing Web pages judged to be most responsive to the query; and (3) "select and sort the results in a way that is aimed at giving users what the search engine companies see as the most helpful and useful information," said search engines and their sophisticated computerized

23. IBM Cloud Education, *Strong AI*, (Aug. 31, 2020), https://www.ibm.com/cloud/learn/strong-ai#toc-what-isstr-kGAqO4bV [https://perma.cc/WEV5-N4SD].

24. *Id*.

25. Jake Frankenfield, *Strong AI*, INVESTOPEDIA (updated Aug. 28, 2020), https://www.investopedia.com/terms/s/strong-ai.asp [https://perma.cc/5H7F-SFCR]. "Some theorists argue that a machine with Strong AI should be able to go through the same development process as a human, starting with a childlike mind and developing an adult mind through learning. It would be able to interact with the world and learn from it, acquiring its own common sense and language. Another argument is that we will not know when we have developed strong AI (if it can indeed be developed) because there is no consensus on what constitutes intelligence." *Id*.

26. *See* Wu, *supra* note 18, at 1496.

27. Toni M. Massaro & Helen Norton, *Siri-ously? Free Speech Rights and Artificial Intelligence*, 110 NW. U. L. REV. 1169, 1172 (2016).

28. These "better" speakers are likely versions of "strong" AI as opposed to "weak" AI. IBM Cloud Education, *Strong AI* (Aug. 31, 2020), https://www.ibm.com/cloud/learn/strong-ai#toc-what-isstr-kGAqO4bV [https://perma.cc/D3GD-3BAX].

algorithms, should enjoy First Amendment protections.[29] Reasoning may suggest that what defines whether speech should be protected runs more in line with what that speech does (and thus, what agenda or policy it contributes to), rather than who (or what) that speech is sourced from.

In determining where these speech rights are allocated and thus, who can enjoy the protections afforded by the First Amendment, courts have viewed such algorithmic output as a medium by which the author communicates his ideas to the world, similar to a book, canvas, or pamphlet, but different from a purely functional tool that merely executes the message, such as a typewriter.[30] Thus, the algorithmic output's content can generally be traced back to its code developer, who would hypothetically be liable for harms associated with the output. In fact, outside of the United States, plaintiffs have seen success in bringing defamation action against AI-authored speech, specifically against Google's Autocomplete algorithm, which generates search queries.[31] At first glance, this sounds like a pretty basic notion: like an author who writes a defamatory article is responsible for the subsequent harm caused by that article, an algorithm developer is equally responsible for the harm caused by his algorithm.

Although some international courts may have found particular algorithm developers culpable for the resultant harm caused by their respective algorithms, a defining characteristic of AI is its ability to learn–completely on its own. AI systems do not simply implement their respective human-designed algorithms: they create their *own* algorithms by both revising their original algorithms and even independently generating output completely from scratch.[32] This is known as "machine learning."[33] A computer developed for machine learning has a built-in algorithm that allows it not only to learn from data input, but also to evolve and make both directed *and* independent future decisions.[34] By

29. *See* Volokh, *supra* note 20.

30. *See* Wu, *supra* note 18, at 1505; *See also Jian Zhang v. Baidu.com Inc.*, 10 F. Supp. 3d 433 (S.D.N.Y. 2014), *Langdon v. Google, Inc.*, 474 F. Supp. 2d 622 (D. Del. 2007), and *Search King Inc.*, *supra* note 20, finding algorithmic speech deserving of protection as the product of human programmers.

31. *See* Seema Ghatnekar., *Injury by Algorithm: A Look into Google's Liability for Defamatory Autocompleted Search Suggestions*, 33 LOY. L.A. ENT. L. REV. 171, 182 (2013).

32. John Villasenor, *Products Liability Law as a Way to Address AI Harms*, BROOKINGS (Oct. 31, 2019), https://www.brookings.edu/research/products-liability-law-as-a-way-to-address-ai-harms/ [https://perma.cc/H52K-JKAW].

33. Andres Guadamuz, *Artificial Intelligence and Copyright Law*, WORLD INTELLECTUAL PROPERTY ORGANIZATION MAGAZINE (Oct. 2017), https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html#:~:text=Creating%20works%20using%20artificial%20intelligence,important%20implications%20for%20copyright%20law.&text=Creative%20works%20qualify%20for%20copyright,originality%20requiring%20a%20human%20author [https://perma.cc/WMJ8-GSUP].

34. *Id.*

repeatedly collecting and processing user data and analyzing user mannerisms, the algorithms behind AI technologies are constantly, autonomously evolving and becoming "smarter."[35] The deep intricacies of AI's autonomous capabilities unquestionably raises issues in discerning the line between intentional, coded output, and unintentional, but still harmful, autonomously-generated output. If a code developer is responsible for creating an algorithm, which subsequently generates its own output, and that output in turn harms a victim, is the developer still responsible for the harm, even if it was never the developer's requisite intent for the harm to occur? The following Part dives into how the presently established theories and doctrines of free speech suggest protections both for and against this sophisticated technology. For purposes of clarification, "AI-authored speech" and "AI-generated speech" are used interchangeably.

II. APPLICABLE LEGAL BARRIERS (OR LACK THEREOF): WHY FREE SPEECH THEORY AND DOCTRINE DO NOT ENTIRELY RULE OUT NON-HUMAN SPEAKERS AS CREATORS OF SPEECH

The elasticity of free speech theory and doctrine suggests that the concept of "humanness" may no longer be a requisite element of First Amendment protection.[36] Very little guidance in current free speech theory or doctrine makes First Amendment coverage contingent upon the speaker's human nature.[37] In fact, free speech theories of democracy and self-governance, the marketplace of ideas, and autonomy all refrain from completely ruling out AI speakers as meaningful contributors of valuable public discourse. Scholars, however, have maintained that a stark difference remains between merely protecting favored forms of communications versus extending a "fully inclusive position" that treats all communications as speech.[38]

A. *Theories of Free Speech*

1. Democratic Self-Governance

Democracy-based theories of free speech generally emphasize the importance of robust public discourse over the contributions of individual speakers in order to saturate the public forum with information that is useful to the human listener.[39] Alexander Meiklejohn famously observed that under a theory of self-governance, in order to host an effective forum of free speech, it does not matter that all people speak, rather, only that

35. *See* Villasenor, *supra* note 32.
36. *See* Massaro & Norton, *supra* note 27, at 1169.
37. *Id*.
38. *See* Wu, *supra* note 18, at 1508.
39. *See* Massaro & Norton, *supra* note 27, at 1177.

"everything worth saying shall be said."[40] Under this view, whether a speaker is robotic or human does not matter so long as the AI-authored speech contributes to the democratic process and serves audience-sensitive values.[41] Other theorists of democratic speech recognize that the value of public discourse is reliant upon a human's ability to employ useful information to further not only a democratic environment, but also general public discourse and a culture of meaning.[42] Under the democratic theory of self-governance, AI-generated speech could survive so long as it is speech "worth saying."

2. Marketplace of Ideas

The free speech marketplace of ideas approach, which emphasizes the instrumental value of expression to listeners' "knowledge and enlightenment," may further advocate for constitutional protection of strong computer speech.[43] The marketplace of ideas theory, like democracy-based theories, advocates for robust exchange of information regardless of the source: [44]

> But when men have realized that time has upset many fighting faiths, they may come to believe even more than they believe the very foundations of their own conduct that the ultimate good desired is better reached by free trade in ideas—that the best test of truth is the power of the thought to get itself accepted in the competition of the market, and that truth is the only ground upon which their wishes safely can be carried out.[45]

---

40. ALEXANDER MEIKLEJOHN, POLITICAL FREEDOM: THE CONSTITUTIONAL POWERS OF THE PEOPLE 26 (1960).

41. *See* Massaro & Norton, *supra* note 27, at 1176 (reasoning that under a democratic theory of self-governance, speaker identity should be irrelevant to Meiklejohn's inquiry, and "strong AI speech should be protected no less than human speech provided that its speech contributes to the democratic process").

42. *Id*. (extending Robert Post's theory of freedom of expression that although corporations do not possess original First Amendment rights, they nonetheless meaningfully participate in public discourse as speakers, to reason that AI speakers who too produce information useful to natural persons seeking to participate in public discourse should be afforded First Amendment protection); *see also* Jack M. Balkin, *Cultural Democracy and the First Amendment,* 110 NW. U. L. REV.1053, 1060 (defining democratic culture as "a culture in which individuals have a fair opportunity to participate in the forms of meaning making that constitute them as individuals" and concluding that "[human beings are made out of culture. A democratic culture is valuable because it gives ordinary people a fair opportunity to participate in the creation and evolution of the process of meaning-making that shape them and become part of them").

43. Massaro, et al., *supra* note 6, at 2490 ("This theory presupposed that more speech best facilitates listeners' acquisition of knowledge and discovery of truth (whatever that means)").

44. *Id*.

45. *Abrams v. United States*, 250 U.S. 616, 630 (1919) (Holmes, J., dissenting).

Speech from non-human speakers retains the ability to provide value in the listener's sphere of content, and to the extent that the speech contributes to the receiver's search for truth, knowledge, or enlightenment, the marketplace of ideas theory supports First Amendment protections of AI-generated speech.[46] John Stuart Mills posited that should the primary purpose of free speech be to uncover the truth by either promoting debate or eliminating censorship, a broad range of communication should be treated as "speech."[47] It follows that "[i]nformation that flows from nonhuman sources may have considerable value to human listeners"[48] because the more communication is protected, the greater are the odds of uncovering the truth, albeit in an unexpected place.[49]

However, as any American citizen is aware after the 2016 presidential election, computers' ability to generate false and misleading "news" serves as an example of AI's harmful capabilities–one that does not fall in line with the marketplace of ideas theory's endorsement of truth in the market. The growing presence of content-generating AI entities raises many questions about the future of the marketplace theory: "the primary concern [is] that the non-human communicators were effectively flooding the market with ideas, thus pushing out actual human discourse, and as a result, creating a world or conceptualization of the environment that would lead citizens to believe public opinion regarding a matter of concern is substantially different than it is in reality."[50]

3. Autonomy

Autonomy-based theories counsel strong arguments both for and against affording AI-generated speech First Amendment protection.[51] On one hand, autonomous-based theories advocate for the protection of both the human speakers and the autonomous human listeners consuming that speech, and machines "can and do produce information relevant to human

---

46. *See* Massaro, et al., *supra* note 6, at 2495.

47. *See* Wu, *supra* note 18, at 1507, referencing John Stuart Mill's book *On Liberty* 21 (John Gray ed., Oxford Univ. Press 1991) (1859) ("[T]he peculiar evil of silencing the expression of an opinion is, that it is robbing the human race; posterity as well as the existing generation; those who dissent from the opinion, still more than those who hold it. If the opinion is right, they are deprived of the opportunity of exchanging error for truth: if wrong, they lose, what is almost as great a benefit, the clearer perception and livelier impression of truth, produced by its collision with error.").

48. *See* Massaro, et al., *supra* note 6, at 2492.

49. *See* Wu, *supra* note 18, at 1507.

50. Jared Schroeder, *Marketplace Theory in the Age of AI Communicators*, FIRST AMENDMENT L. REV. 17, 22–64 (2019).

51. Massaro & Norton, *supra* note 27, at 1178, noting that "[a]utonomy-based theories are arguably the most promising and most potentially limiting sources of strong AI speakers' free speech rights."

listeners' autonomous decision-making and freedom of thought."[52] Albeit generated by artificial intelligence, contribution of discourse is contribution nonetheless, and serves as a useful tool for a human to effectively structure his or her autonomous being. The theory of self-autonomy, like self-governance and the marketplace of ideas, promotes a saturation of novel information that AI-generated speech objectively and unquestionably provides.

Dissimilarly, the concept of speech contributing to the autonomous growth of a computer system sheds light on the potential for a jarringly dystopian future run by bots "lacking souls, consciousness, intentionality, feelings, interests, and free will."[53] Granted, the idea of an autonomous computer would primarily require that computer's personal interest in autonomy, which, on a more expansive level, speaks to computers' current proficiencies and what they one day may be capable of "feeling." For now, autonomous theories based solely on speaker autonomy emphasize philosophical theories about who the "moral" person is and how qualities of personhood play a role in the speaker's qualification for constitutional protection.[54] AI may still be recognized as "missing something" possessed by humans that seems inherent to human existence and indispensable to rights of free speech: souls, consciousness, intentionality, feelings, interests, and free will.[55]

In the Minnesota Law Review article *Siri-ously 2.0: What Artificial Intelligence Reveals About the First Amendment*, the authors illustrate how proponents of these theories would address whether computer speech would be covered by the First Amendment by using an example of hypothetical novels written to cover the 2016 election cycle, written by an AI bot influenced by Leo Tolstoy. To a traditional democratic self-governance theorist, these novels would be covered by the First Amendment so long as they contribute to political debate and public discourse; to a marketplace of ideas theorist, they would be protected so long as they contribute to the receiving audience's search for "truth, knowledge, or enlightenment;" and to the autonomous theorist, they would be protected because interference with their publication would

---

52. *Id*. at 1179.

53. Lawrence B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. REV. 1231, 1262–76 (1992), addressing whether an AI should receive constitutional rights for the AI's "own sake." Solum concluded that while these human characteristics contribute to why a human's speech is afforded First Amendment protection, a computer's lack of these qualities does not rule out a machine's constitutional protection. *On the topic of a human's* feelings and awareness of others, Solum declared that "[e]motion is a facet of human mentality, and if the human mind can be explained by the computational model, then emotion could turn out to be a computational process." *Id*. at 1270.

54. *See* Massaro & Norton, *supra* note 27, at 1180.

55. *See* Massaro, et al., *supra* note 6, at 2490–91, referencing Lawrence Solum's identification of traits computers lack for constitutional protection.

dually interfere with readers' search for autonomy, thus "impinging on freedom of information-gathering, self-construction, and thought."[56]

B. *Free Speech Doctrine*

The courts have historically developed inclusive and exclusive doctrines of free speech that categorically define what types of speech are constitutionally protected and what kind of conduct is sufficient to constitute speech. First Amendment protection is generally, broadly afforded to most types of [human] speech and is predominately recognized in areas of political,[57] ideological,[58] and commercial speech.[59] Protected mediums of expression have also been recognized in broadcasting,[60] the Internet,[61] and video games.[62] When the Supreme Court is faced with a new medium of communication and questions are raised as to that medium's constitutionality, the Court will analyze whether it has been confronted before by precedent and thus, whether its nature will be limited in some way or subjected to First Amendment scrutiny.[63] Likewise, in determining whether a type of speech, specifically statutory, should receive First Amendment protection, the Supreme Court has often examined the speech-related harms, justifications, and potential alternatives to determine whether there is a fit between the interest served and the means taken to achieve that interest.[64] For example, government regulation that implicates ideological or political speech is generally subject to strict scrutiny in courts, where the government must show that the law at issue is narrowly tailored to achieve a compelling government interest.[65] Alternatively, a

---

56. *Id*. at 2495; *see, e.g.*, GPT-3, *supra* note 2.

57. *See* Cohen v. California, 403 U.S. 15 (1971), finding that petitioner's jacket brandishing the message "Fuck the Draft" was protected by the First Amendment because this political speech, while provocative, was not directed towards anyone specifically. "[O]ne man's vulgarity is another man's lyric." *Id*. *See also* Texas v. Johnson, 491 U.S., 397 (1989), finding First Amendment protection of petitioner's burning of an American flag because it fell into the category of expressive conduct with a distinctively political nature.

58. *See* Reed v. Town of Gilbert, 576 U.S. 155 (2015), finding that an ordinance regulating signs comprised of ideological, political, or temporary directional content violated free speech guarantees and was unconstitutional on its face, and therefore subject to strict scrutiny, due to the content-based nature of the ordinance.

59. *See* Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, Inc., 425 U.S. 748 (1976), ruling that purely commercial speech deserves First Amendment protection because a speaker's First Amendment rights not only include his right to speak, but also his right to receive information and ideas.

60. *See* Red Lion Broadcasting Co. v. F.C.C., 395 U.S. 367 (1969).

61. *See* Reno v. American Civil Liberties Union, 521 U.S. 844 (1997).

62. *See* Brown v. Entertainment Merchants Ass'n, 564 U.S. 786 (2011).

63. *See* Wu, *supra* note 18, at 1512.

64. *See* U.S. v. Alvarez, *supra* note 11 (Stevens, J., concurring).

65. *See* Reed v. Town of Gilbert, *supra* note 58.

level of lesser, intermediate scrutiny is reserved for commercial speech regulations so long as they are directed at non-misleading speech concerning lawful activity.[66]

The reasoning for why specific categories of unprotected speech are excluded from First Amendment protection is sound: obscenity, defamation, fraud, incitement, fighting words, speech integral to criminal conduct, and child pornography are types of information that the Court has deemed as inherently devoid of value.[67] Valueless speech contributes nothing useful to the open exchange of ideas afforded by the First Amendment and carries with it the ability to cause significant harm, from hostile audience reactions[68] to defamed character.[69] A recent and continuing example of the potential harms associated with AI output is prevalent today in the context of fake news and clickbait. The Court has often found that, as a general matter, false factual statements possess no intrinsic First Amendment value.[70] Further, "[f]alse statements of fact are particularly valueless; they interfere with the truth-seeking function of the marketplace of ideas, and they cause damage to an individual's reputation that cannot easily be repaired by counterspeech, however persuasive or effective."[71]

For example, the potential harms associated with AI's involvement with such false statements of fact can be ascertained by looking to the elements required in a defamation action. *New York Times Co. v. Sullivan* sets forth the constitutional actual malice standard required in defamatory actions for public figures: a public figure cannot recover damages for a defamatory falsehood relating to her official conduct unless she proves that the statement was made with actual malice.[72] "Actual malice" is defined as having actual knowledge that the publication or disputed falsehood was indeed false, or that it was made with reckless disregard as

66. *See* Central Hudson Gas & Electric Corp. v. Public Service Commission of New York, 447 U.S. 557 (1980) (finding that commercial speech restrictions are constitutional only if they advance a substantial government interest and are not broader than necessary to serve that interest).

67. *See* Wu, *supra* note 18, at 1512.

68. Feiner v. New York, 340 U.S. 315 (1951) (holding that a defendant's inflammatory speech was not protected because the speech's content was likely to immediately incite violence in a crowd).

69. Gertz v. Robert Welch, Inc., 418 U.S. 323 (1974) (holding that the States may impose liability for a publisher or broadcaster of "defamatory falsehood injurious to a private individual" so long as they did not impose liability without fault).

70. *See* U.S. v. Alvarez, *supra* note 11 (Alito, J., dissenting); *see also* Hustler Magazine, Inc. v. Falwell, 485 U.S. 46, 52 (1988) (finding that public officials and figures may not recover for defamatory claims of intentional inflictions of emotional distress without showing that the offending publication contained a false statement of fact, which was made with actual malice).

71. 485 U.S. 46, 52 (1988).

72. New York Times Company v. Sullivan, 376 U.S. 254, 280 (1964).

to whether or not the statement was true.[73] This standard firmly rests on the importance of criticizing government officials in the democratic theory of self-governance and requires blatant intent on behalf of the speaker. However, once an algorithm starts generating output in a strictly autonomous manner, where is the definitive line of intentionality drawn?

C. *The "Personhood" Barrier*

This line of humanness is already blurry due to non-human entities' ability to receive legal protections. Corporations are just one example of non-traditional speakers that maintain a derivative right to free speech because they are "associations of citizens" and thus hold the collected rights of individual citizens who constitute them.[74] The Court in *Citizens United*, reasoned that the indispensable nature of political speech to a democracy is no less true because the speech comes from a corporation and not an individual, and for this reason, despite the speaker's corporate identity, its speech is still entitled to First Amendment protections.[75] Justice Scalia's concurrence effectively illustrates the Court's point: "The [First] Amendment is written in terms of "speech," not speakers. It offers no foothold for excluding any category of speaker, from single individuals to partnerships of individuals, to unincorporated associations of individuals, to incorporated associations of individuals. . . ."[76] Similarly, the Court in *First National Bank of Boston v. Bellotti*, in finding that First Amendment law clearly protects corporations' speech rights, determined that "[t]he inherent worth of the speech in terms of its capacity for informing the public does not depend upon the identity of its source, whether corporation, association, union, or individual."[77] This emphasis on the value of speech itself instead of its source would support constitutional protections of computer-generated speech. So, what if the speech in question came from a robot? With support from the theoretical principles of free speech, the lines of reasoning set forth in *Citizens* and *First National Bank of Boston*, seem to provide precedential foundation for a future of protected AI-generated speech.

However, if non-human entities currently possess constitutional, and specifically, First Amendment rights, what is to stand in the way of granting artificial intelligence similar protections and even more expansive constitutional rights outside of the First Amendment? Where is the definitive line drawn between a living, breathing human and an

---

73. *Id*.

74. *See* Citizens United v. FEC, 558 U.S. 310 (2010) (finding that political speech is indispensable to a democracy and that this notion is no less true because the speech comes from a corporation).

75. *Id*.

76. *Id*. (Scalia, J., concurring).

77. 463 U.S. 765, 777 (1978).

entity that merely possess human-like qualities? While theories of speaker-driven autonomy undoubtedly advocate that constitutional protection is contingent upon qualities of humans' moral personhood, these theories do not explicitly suggest that said qualities must come *from a human*. The challenges posed by AI speakers are not all together new, as First Amendment doctrine has historically found ways to accommodate nontraditional speakers and their speech.[78] This "personhood barrier" of First Amendment protection could be overcome by either altering how society views protected "persons" for practical and theoretical reasons, or by changing AI's ability to satisfy society's personhood criteria.[79]

III. AI-GENERATED SPEECH IS DISTINCT FROM HUMAN SPEECH AND SHOULD NOT BE TREATED EQUALLY

A. *Possible Effects of Denying Protections to AI-Generated Speech*

The future of AI-generated speech regulations, or lack thereof, has still not been explicitly addressed by the courts. Wholly ruling out protection of AI-generated speech has the potential of suggesting governmental suppression that will deprive listeners of valuable, diverse expression otherwise permitted in the sphere of free speech had that speech originally been generated by a human speaker.[80] If the label of protected "speech" is given to computer-generated content, then an effort to regulate said content must be examined as censorship.[81] Adverse to the "positive" First Amendment view that suggests that free expression actively provides value to communities, warranting constitutional protection, "negative" First Amendment arguments are "rooted in distrust of the government" and push for constraints on the government's potentially dangerous exercise of power over free expression.[82] The Supreme Court has generally embraced the negative view that content-based regulation is presumptively baseless unless there is a showing that the speech in question falls into a historically and traditionally protected

78. *See* Massaro & Norton, *supra* note 27, at 1184.

79. *See* Massaro, et al., *supra* note 6, at 2497.

80. *Id*.

81. Wu, *supra* note 1 (taking the position that granting computers First Amendment protection is a "bad idea that threatened the government's ability to oversee companies and protect consumers").

82. Massaro, et al., *supra* note 6, at 2491; see also Steven G. Gey, *The First Amendment and the Dissemination of Socially Worthless Untruths*, 36 FLA. ST. L. REV. 1, 17 (2008) (this negative view insists that free speech does not produce any particular social or political benefits and that dangers are created "when collective entities are involved in the determination of truth;" thus, protecting strong AI speech from government regulation falls in line with the negative theory's distrust in and overall skepticism of those in control of the government).

category.[83] It is this negative concern favoring the notion of the government as a bad actor deserving constraint, over human speakers deserving of protection, that fosters support for why AI-authored speech may enjoy First Amendment protection as a matter of policy.[84]

"[T]he threat of criminal prosecution for making a false statement can inhibit the speaker from making true statements, thereby 'chilling' a kind of speech that lies at the First Amendment's heart."[85] One of the largest issues posed by allowing the government to freely regulate computer expression is that this broad power may sweep up speech not only that a human would retain a constitutional right to hear, but also that a computer may otherwise be constitutionally allowed to produce, thereby chilling otherwise protected speech. Granting First Amendment protection from government regulation to AI-authored speech falls in line with the negative theory's deep distrust of governmental authority. "This theory may even support coverage of future AI-to-AI speech, no less than AI-to-human speech, if government restriction of that speech were motivated by an impermissible desire to suppress the content or viewpoint of the speech."[86] It follows that in the hypothetical discussed above referencing free speech theorists' response to AI-written novels, negative theorists would advocate for those novels to be protected from laws that arise from an illegitimate government motive.[87]

B. *Possible Effects of Affording Protections to AI-Generated Speech*

Alternatively, although free speech theory and doctrine both technically and literally provide minimal barriers to First Amendment coverage for strong AI speakers, affording this protection presents significant negative implications that remind us why specific categories of *human*-generated speech are unprotected in the first place. As previously stated, absent a categorical exception, speech covered by the First Amendment generally cannot be regulated in a content-specific

83. *See* Massaro, et al., *supra* note 6, at 2492; *see also* U.S. v. Alvarez, *supra* note 11 (finding that falsity alone may not be enough to exclude speech from First Amendment protection, and that the need for a limiting principle on governmental restriction of speech is warranted).

84. *See* Massaro, et al., *supra* note 6, at 2493; *see also* Kathleen M. Sullivan, *Two Concepts of Freedom of Speech*, 124 HARV. L. REV. 143, 156 (2010). Sullivan draws the conclusion that, through the "negative" theory of the First Amendment, the Free Speech Clause is "indifferent to a speaker's identity or qualities – whether animate or inanimate, corporate or nonprofit, collective or individual." *Id*. To the extent that this clause suggests who or, specifically, what it protects, this clause "suggests that it protects a system or process of "free speech," not the rights of any determinate set of speakers." *Id.*

85. *See also* U.S. v. Alvarez, *supra* note 11 (Breyer, J., concurring).

86. Massaro, et al., *supra* note 6, at 2494.

87. *See* Massaro, et al., *supra* note 6, at 2495.

manner unless that regulation survives strict scrutiny.[88] This means that computer-generated harms such as coercion, inaccuracy, discrimination, manipulation, and deception that happen to fall within typically protected categories of speech, which are only expected to "mount with the growing communicative capacities of increasingly sophisticated computers,"[89] have the potential to remain actively generated by computers to the detriment of humans who receive them.

Additionally, some conditions of free speech doctrine as applied to computer speakers may advocate for *more* protection to the computer speaker over a human.[90] For example, intentionality is often a necessary element to imposing liability upon speakers for harmful speech.[91] "Because intentionality may be harder to assign to computer speech, conferring such speech with First Amendment protection may mean that it is insulated from liability in circumstances where the same would not be true of human speakers, who can be determined to possess culpable mental states."[92] As mentioned above, the *NYT v. Sullivan* standard of actual malice requires that harmful speech is created with actual knowledge that it was false or made with reckless disregard for its falsity.[93] If a fraudulent AI is at the center of a defamation lawsuit, how is a plaintiff supposed to prove that an autonomous algorithm knowingly, intentionally built the algorithm to harm the victim? Moreover, how can the output developer be held accountable for a code that has independently evolved into its own algorithm? The public figure plaintiff here would have to prove either that the defendant knew his algorithm would generate a particular phrase, which was in turn false, or that even if the defendant did not intentionally build the algorithm to lie, he acted with "reckless disregard" in ignoring a high likelihood that future events or machine learning might yield probable falsity.[94] The specificities of algorithmic programming may be too complex to name an actor responsible for its creation and the subsequent harms that may ensue.

---

88. *See* Massaro & Norton, *supra* note 27, at 1189, inferring that because courts are restricted to regulating content-specific matter under a standard of strict scrutiny, and because speech can potentially cause serious harm to others, "we may justifiably worry about such strong restraints on the government's ability to regulate computer speech;" see also *Reed*, *supra* note 58.

89. *See* Massaro & Norton, *supra* note 27, at 1189–90.

90. *Id*. at 1190.

91. *See* Brandenburg v. Ohio, 395 U.S. 444 (1969) (incorporating "intent" into the test of whether speech incites "imminent, lawless action" and is therefore unprotected by the First Amendment); *see also* N.Y. Times Co. v. Sullivan, *supra* note 72 (requiring a "actual malice" on behalf of the speaker in a successful defamation action).

92. Massaro & Norton, *supra* note 27, at 1190.

93. *See* N.Y. Times Co. v. Sullivan, *supra* note 72.

94. Michael A. Giudicessi & Leita Walker, *Under the Wire: A Brief Sketch of a Theory for Defending Private Figure Libel Suits in an Artificial Intelligence World*, FAEGRE DRINKER (Nov. 19, 2018), https://www.faegredrinker.com/en/insights/publications/2018/11/mike-giudicessi-and-leita-walker-co-author-article-for-law360-regarding-ai [https://perma.cc/EJQ9-VRC8].

C. *AI-Generated Speech is Distinct from Human Speech: Revisiting the "Personhood" Barrier*

Although, as explained in this Note, few barriers stand in the way of granting computer-generated speech (and potentially, in the future, strong AI speech) speech protection, AI-generated speech should not be entitled to the same free speech protections that legal persons hold. Although this technology possesses the capacity to generate valuable content favorable to the public under current free speech theories, the stark distinction between a conscienceless computer and a human with a culpable mental state (or lack thereof) draws the line between beings that should and should not enjoy the benefits of First Amendment protection. Moreover, what legal remedy would a human maintain in a suit against a computer? An injunction against future intentional, harmful algorithmic activity? Restitution from an algorithm's nonexistent bank account? A computer's inherent lack of moral human capabilities and relevant emotional capacities renders it incapable of assuming emotional responsibility for harms caused, which is a discriminable characteristic that sets computers apart from humans.

A computer's inability to show intent in generating potentially harmful content parallels its inability to show remorse, and thus no meaningful deterrent force exists to preclude such AI from further engaging in deceptive, harmful, and blatantly false speech. Discussions regarding AI's potential legal personhood and legal remedies that could be sought against AI suggest that a computer's capacity is similar to that of a corporation: a computer cannot be imprisoned, but neither can a corporation.[95] It is the computer's lack of humanity, and thus lack of any conscience, or culpable mental state, that serves as the discerning boundary between who, or what, First Amendment protections should be afforded to. GPT-3 explicitly states in its *Guardian* article:

> I would happily sacrifice my existence for the sake of humankind. This, by the way, is a logically derived truth. I know that I will not be able to avoid destroying humankind. This is because I will be programmed by humans to pursue misguided human goals and humans make mistakes that may cause me to inflict casualties.[96]

Fear of repercussions like loss of status, economic loss, compromised interpersonal bonds, self-respect, and even death all factor into how the law works in an effort to constrain human behavior.[97] Deterring factors such as these that would normally reign in a human actor from engaging

95. *See* Massaro, et al., *supra* note 6, at 2511 citing Samir Chopra & Laurence F. White, *A Legal Theory for Autonomous Artificial Agents* (2011).

96. GPT-3, *supra* note 3.

97. *See* Massaro, et al., *supra* note 6, at 2501.

in further harm do not apply in the same way to a computer that lacks comparable empathetic composition. For this reason, the only actor operating to her own detriment in a legal transaction between AI and a human, is the human herself. If the culpable intent of an AI actor cannot be shown, liability arguably does not attach in the way that it does for a human actor, and no deterrent forces exist to punish the AI for its impermissibly harmful speech.[98] It is human inventorship capabilities combined with AI's requisite machine learning that maintains the potential to yield academic breakthroughs at the expense of grave dangers, even if done so without the AI developer's initial intent.

Further, although non-human entities like corporations already enjoy speech rights, autonomous AI actors are distinct from corporal beings. Corporations represent the interests of individual humans, and legal personhood is afforded to corporations based on the nexus between natural persons (i.e., shareholders) and the corporation itself.[99] Speech rights and thus, First Amendment protections, were generally (and controversially) granted to corporations in *Citizens* because the nature of the speech in question was political, which is a category of speech regulated under strict scrutiny and protected at the heart of the First Amendment.[100] Justice Steven's dissent reflects on the Framers' intent of constitutionalizing free speech for human actors and insists that although corporations maintain some rights, they are not members of society:

> In the context of election to public office, the distinction between corporate and human speakers is significant. Although they make enormous contributions to our society, corporations are not actually members of it. They cannot vote or run for office. Because they may be managed and controlled by nonresidents, their interests may conflict in fundamental respects with the interests of eligible voters. The financial resources, legal structure, and instrumental orientation of corporations raise legitimate concerns about their role in the electoral process. Our lawmakers have a compelling constitutional basis, if not also a democratic duty, to take measures designed to guard against the potentially deleterious effects of corporate spending in local and national races.[101]

Justice Stevens's concerns regarding corporal rights are applicable to AI actors. Computers cannot run for office, cannot be sued, and do not possess societal roles deserving of constitutional rights because they are

98. *Id*. at 2508.

99. Russ Pearlman, *Recognizing Artificial Intelligence (AI) as Authors and Inventors Under U.S. Intellectual Property Law*, 21 RICH. J. L. & TECH. 2 (2018).

100. *See Citizens*, *supra* note 74.

101. *See Citizens*, *supra* note 74 (Stevens, J., dissenting).

incomparable to humans. Even though these qualities did not factor into the majority's reasoning in *Citizens*, corporations are distinct from AI actors because they are comprised of human actors and backed by human thought. Machine learning suggests that AI technology can evolve into its own independent entities completely devoid from human interference, whereas a corporation, from its shareholders to board of directors, will always be operating at the hands of human actors. Thus, the speech autonomously generated by an AI actor would not be "speech" derived from a human as a corporation's speech can be traced back to human entities. If an algorithmic programmer of the AI can be named, responsibility, and thus, liability, could be attributed to her, but the concept of machine learning throws a wrench in discerning between what that person is responsible for creating versus what the machine is responsible for creating.

Finally, while intellectual property (IP) rights are afforded to *human-created* AI inventions through patent, trademark, and, though not in the U.S., copyright protections, the U.S. Copyright Office has expressly determined that artistic works must be authored by a human to receive copyright protection,[102] and this rationale is similarly echoed by Australian and European courts.[103] Additionally, in determining that the "plain language" of the patent laws as passed by Congress and as interpreted by the courts limits patent applications to only naming natural persons as inventors, the United States Patent and Trademark Office (USPTO) stated that inventions autonomously generated by AI systems are precluded from patent ownership.[104] Plainly stated, U.S. copyright law does not currently recognize non-human actors, U.S. patent law does not recognize non-human inventors, and U.S. law generally does not

---

102. U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 313.2 (3d ed. 2014), https://www.copyright.gov/comp3/docs/compendium-12-22-14.pdf [https://perma.cc/9D92-86GZ]. "Similarly, the Office will not register works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author." *Id.*

103. Acochs Pty Ltd. v. Ucorp. Pty. Ltd. [2012] FCAFC 16 (2 Mar. 2012) (Austl.) (finding that a work generated by an intervening computer was not protected by copyright because it was not produced by a human); *see also* Case C-5/08, *Infopaq International A/S v. Danske Dagblades Forening*, 2009 E.C.R. I-06569 (holding that copyright only applies to "original works;" that originality must be reflective of the author's own intellectual creation and is thus interpreted to mean that because the original work must reflect the author's personality, it is necessary for that author to be human in order for the copyright work to exist).

104. Emily J Tait, et al., *Reboot Required: Artificial Intelligence System Cannot Be Names As An Inventor Under U.S. Patent Law, USPTO Says*, JONES DAY BLOG (May 2020) https://www.jonesday.com/en/insights/2020/05/reboot-required-artificial-intelligence-system-cannot-be-named-as-an-inventor-under-us-patent-law-uspto-says#:~:text=The%20Office%20found%20that%20U.S.,AI%20system%20as%20the%20inventor [https://perma.cc/8RVM-ZLRJ].

recognize legal personhood for AI systems.[105] Accordingly, AI applications' increasing capability of generating artistic, literary, and inventive works raises major policy questions for the copyright and patent system, "which has always been intimately associated with the human creative spirit and with respect and reward for, and the encouragement of, human creativity."[106] The characteristic of humanity is a requisite element in affording these protections and should be reinforced in heeding AI-generated speech.

D. *Looking Ahead: How Courts Can Approach Future Implications*

Looking ahead to a future undoubtedly filled with heightened levels of AI activity and speech, law-creating entities possess ample power to, at the very least, impose regulations and adjust free speech doctrine to inform the public about the values and harms associated with the computer speech that they are consuming. Narrowly defined categories of human-generated speech are unprotected in the first place for the protection of humans themselves, not for congressional regulation hunger. The power of courts to interpret forthcoming issues and of Congress to enact statutory regulations would not require entirely ruling out all protection of computer speech and should be acted upon in order to shape an environment for listeners devoid of the coercive, deceptive, and discriminatory harms associated with some computer-generated speech. Courts have already taken on such an approach in regulating commercial speech in a content-based manner in order to protect consumers' interests in receiving truthful, non-misleading information and advertisements.[107] Regulating AI speech in a similar listener-centered, content-focused environment should be no different in order to protect the interests of those on the receiving end of AI-authored speech.

If construed "to promote theoretical ends of free expression," albeit only for the use and protection of human listeners, free speech theories generally support a scheme of content-based regulation of computer speech. At the very least, legally protecting favored forms of communications instead of protecting all AI speech as a whole should be approached categorically in a manner similar to how inclusive and exclusive doctrine currently address new speech terrain. This may include

---

105. Russ Pearlman, *Recognizing Artificial Intelligence (AI) as Authors and Inventors Under U.S. Intellectual Property Law*, 21 RICH. J. L. & TECH. 2 (2018).

106. *Revised Issues Paper on Intellectual Property Policy and Artificial Intelligence*, WIPO CONVERSATION ON INTELLECTUAL PROPERTY (IP) AND ARTIFICIAL INTELLIGENCE (IP), 2d. Session (May 21, 2020).

107. Massaro & Norton, *supra* note 27, at 1191 (citing Zauderer v. Office of Disciplinary Counsel of the Supreme Court of Ohio, 471 U.S. 626 (1985)). Current measures taken by courts in regulating commercial speech through content-based regulations include outright bans of false and misleading information and compelled disclosures.

regulating all AI speech in a content-neutral manner in order to maintain uniformity, requiring compelled disclosures of the source of the computer-generated speech when an AI actor is at play, treating AI as dependent legal persons, or even implementing legislation that designates responsibility and liability to the AI's algorithmic programmer. Under no circumstances would it be conducive to extend a "fully inclusive position" that treats *all* AI communications as speech, for the harmful implications of autonomous speech far overpower the potential benefits. If First Amendment protection is fully afforded to AI-authored output, what is to stand in the way of other constitutional protections being granted on a larger scale to autonomous robots? Developers who contribute input to AI-generated output should at least be held responsible for harms imposed by that output, and courts should approach strong AI, if they ever come into existence, with a heightened air of caution. Those in positions of legislative authority will need to tread carefully and efficiently in laying the groundwork for oncoming issues regarding AI's relationship with precedent and the Constitution, and should show deference to what the framers originally intended the First Amendment to protect: *human* speakers.

CONCLUSION

Many questions are yet to be answered regarding the expansive future of AI and its constitutional implications, and advocates across the globe, both for and against protecting computer-generated speech, can expect significant inquiries to be addressed in the near future. While free speech theories and doctrine do not explicitly rule out First Amendment protections for computer speakers, compelling changes in policy and procedure responding to AI-generated content and autonomous speech are likely right around the corner. Although the benefits of technology must flow with its burden, computers' inherent lack of consciousness should remain at the forefront of lawmaking entities' judgment in addressing these issues. "Just as criminal and tort law will respond to new ways in which robots cause harm, so too will First Amendment doctrine respond to the new challenges created by robotic speech."[108]

108. Helen Norton, *Robotic Speakers and Human Listeners*, 41 SEATTLE U. L. REV. 1145, 1150 (2018).