The Incompatibility of Artificial Intelligence and *Citizens United*

MICHAEL R. SIEBECKER*

In Citizens United v. FEC, *the Supreme Court granted corporations essentially the same political speech rights as human beings. But does the growing prevalence of artificial intelligence ("AI") in directing the content and dissemination of political communications call into question the jurisprudential soundness of such a commitment? Would continuing to construe the corporation as a constitutional rights bearer make much sense if AI entities could wholly own and operate business entities without any human oversight? Those questions seem particularly important, because in the new era of AI, the nature and practices of the modern corporation are quickly evolving. The magnitude of that evolution will undoubtedly affect some of the most important aspects of our shared social, economic, and political lives. To the extent our conception of the corporation changes fundamentally in the AI era, it seems essential to assess the enduring soundness of prior jurisprudential commitments regarding corporate rights that might no longer seem compatible with sustaining our democratic values.*

The dramatic and swift evolution of corporate practices in the age of AI provides a clarion call for revisiting the jurisprudential sensibility of imbuing corporations with full constitutional personhood in general and robust political speech rights in particular. For if corporations can use AI data mining and predictive analytics to manipulate political preferences and election outcomes for greater profits, the basic viability and legitimacy of our democratic processes hang in the balance. Moreover, if AI technology itself plays an increasingly important, if not controlling, role in determining the content of corporate political communication, granting corporations the same political speech rights as humans effectively surrenders the political realm to algorithmic entities. In the end, although AI could help corporations act more humanely, the very notion of a corporation heavily influenced or controlled by non-human entities creates the need to cabin at least somewhat the commitment to corporations as full constitutional rights bearers. In particular, with respect to corporate political activity, the growing prevalence of AI in managerial (and possibly ownership)

* Maxine Kurtz Faculty Research Scholar and Professor of Law, University of Denver, Sturm College of Law. B.A., Yale; J.D., LL.M., Ph.D., Columbia. For helpful critical insights, I express special thanks to Alan Chen, Rebecca Aviel, John Bliss, Zahra Takhshid, and Tim Thein. For careful research support, I remain indebted to Pierce Daley.

positions makes granting corporations the same political speech rights as humans incompatible with maintaining human sovereignty.

TABLE OF CONTENTS

I. INTRODUCTION 1212
II. THE ARTIFICIALLY INTELLIGENT CORPORATION 1220
A. *Artificial Intelligence Defined*..1222
B. *AI Within the Evolving Corporation* 1227
1. *Customer and Investor Communications* 1228
2. *Risk Management and Compliance*..................................1233
3. *Automation and Systems Organization* 1235
4. *Mergers & Acquisitions* 1237
C. *Artificially Intelligent Managers and Owners* 1241
III. CORPORATE POLITICAL DISCOURSE AND ARTIFICIAL INTELLIGENCE...1246
A. *The Political Corporation*..1246
B. *AI in Politics* 1255
IV. THE FIRST AMENDMENT AND ROBOTIC POLITICAL SPEECH..........1257
A. *Evading Liability Through the First Amendment* 1258
B. *Prevailing Standards for Corporate Speech*..........................1260
C. *Potential Protections for Robotic Political Speech* 1263
V. IMPLICATIONS 1265
A. *Democracy Debased* 1265
B. *Revisiting* Citizens United...1268
C. *Corporate Discourse Reconceived*...1270
VI. CONCLUSION..1273

I. INTRODUCTION

In *Citizens United v. FEC*, the Supreme Court granted corporations essentially the same political speech rights as human beings.[1] But does the growing prevalence of artificial intelligence ("AI") in directing the content and dissemination of political communications call into question the jurisprudential soundness of such a commitment? Would continuing to construe the corporation

[1] Citizens United v. FEC, 558 U.S. 310, 343 (2010) ("The Court has thus rejected the argument that political speech of corporations or other associations should be treated differently under the First Amendment simply because such associations are not 'natural persons.'"); *see also* Michael R. Siebecker, *A New Discourse Theory of the Firm After* Citizens United, 79 GEO. WASH. L. REV. 161, 189–90 (2010).

as a constitutional rights bearer make much sense if AI entities could wholly own and operate business entities without any human oversight? Those questions seem particularly important, because, in the new era of AI, the nature and practices of the modern corporation are quickly evolving.[2] The magnitude of that evolution will undoubtedly affect some of the most important aspects of our shared social, economic, and political lives.[3] To the extent our conception of the corporation changes fundamentally in the AI era, it seems essential to assess the enduring soundness of prior jurisprudential commitments regarding corporate rights that might no longer seem compatible with sustaining our democratic values.

A hypothetical scenario might help frame the problem. Imagine a business, Fun Guns Corporation, manufactures and sells firearms. Given the significant legal limitations on marketing guns to the general public via social media and other internet outlets,[4] Fun Guns' sales have declined. To stem that slump, Fun Guns engages a consulting firm that uses a proprietary AI technology named "Ethel" to find new ways to enhance sales. Deploying its vast data collection and predictive analytic capabilities, Ethel identifies a rather simple indirect marketing strategy that aims to promote certain political preferences and social conditions that strongly correlate with increased gun sales. In particular, Ethel predicts gun sales will increase with widespread promulgation of racism, nationalism, distrust in media, and fear of government institutions.[5] To accomplish this goal, Ethel builds detailed individual consumer profiles using

---

[2] *See* Adam Uzialko, *How Artificial Intelligence Will Transform Businesses*, BUS. NEWS DAILY, https://www.businessnewsdaily.com/9402-artificial-intelligence-business-trends.html [https://perma.cc/6P7W-5HD7] (Aug. 5, 2022).

[3] *See* Eleanore Hickman & Martin Petrin, *Trustworthy AI and Corporate Governance: The EU's Ethics Guidelines for Trustworthy Artificial Intelligence from a Company Law Perspective*, 22 EUR. BUS. ORG. L. REV. 593, 614–16 (2021); Darrell M. West & John R. Allen, *How Artificial Intelligence Is Transforming the World*, BROOKINGS (Apr. 24, 2018), https://www.brookings.edu/research/how-artificial-intelligence-is-transforming-the-world/#_edn2 [https://perma.cc/8NYB-UBEF] (cataloging the uses of AI in society ranging from finance, healthcare, national security, criminal justice, and more).

[4] *See, e.g.*, *Firearms Industry Advertising and Marketing*, FIREARMS ADVERT., https://firearmsadvertising.com/ [https://perma.cc/YSY5-ZLZP].

[5] *See* Tim McLaughlin & Melissa Fares, *U.S. Gun Sales Soar Amid Pandemic, Social Unrest, Election Fears*, REUTERS (Oct. 15, 2020), https://www.reuters.com/article/usa-guns-insight/u-s-gun-sales-soar-amid-pandemic-social-unrest-election-fears-idUSKBN2701HP [https://perma.cc/K7XV-7PRC]; Melissa Chan, *Racial Tensions in the U.S. Are Helping to Fuel a Rise in Black Gun Ownership*, TIME (Nov. 17, 2020), https://time.com/5912612/black-gun-owners/ [https://perma.cc/5UBE-QNXP]; John Hayes, *Gun, Ammo Sales Surged in 2020—and Turmoil Around the Election Starts 2021 Off the Same Way*, PITT. POST-GAZETTE (Jan. 25, 2021), https://www.post-gazette.com/local/region/2021/01/25/gun-sales-control-Biden-semiautomatic-rifles-handguns-fear-uncertainty/stories/202101250010 [https://perma.cc/T28R-KUKJ].

every historical online interaction and other observable record.[6] That information excavation enables granular profiling[7] of an individual's race, religion, age, gender, sexual orientation, wealth, relationship status, social preferences, political leanings, purchasing history, and myriad other demographic, behavioral, and attitudinal factors.[8] Ethel then uses those psychological profiles to deliver personally targeted political messaging aimed at fomenting the political and social conditions predicted to enhance guns sales.[9]

For instance, Ethel creates fake personas[10] on social media that engage in political discourse with consumers to stoke racial hatred, fear of police, distrust in media, and sympathy for political extremism. Each fake persona attempts to influence the views and behaviors of a targeted consumer by adopting a digital physical form, speech pattern, set of preferences, and a host of other "human" characteristics designed to engender trust.[11] Through postings, interactive chat, and even personalized videos,[12] Ethel's fake personas engage and cajole the

---

[6] For a description of consumer profiling based on AI data mining and processing, see *What Is Automated Individual Decision-Making and Profiling?*, INFO. COMM'R'S OFF., https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/automated-decision-making-and-profiling/what-is-automated-individual-decision-making-and-profiling/ [https://perma.cc/5A7P-ZG3G].

[7] Tomaso Falchetta, *Profiling and Automated Decision Making: Is Artificial Intelligence Violating Your Right to Privacy?*, U.N. RSCH. INST. FOR SOC. DEV. (Dec. 5, 2018), https://www.unrisd.org/TechAndHumanRights-Falchetta [https://perma.cc/F7KJ-XUCW] ("As the UN High Commissioner for Human Rights noted in August 2018 'big data analytics and artificial intelligence increasingly enable States and business enterprises to obtain fine-grained information about people's lives, make inferences about their physical and mental characteristics and create detailed personality profiles.'").

[8] For a description of the types of information businesses use AI to collect, see Max Freedman, *How Businesses Are Collecting Data (and What They're Doing with It)*, BUS. NEWS DAILY, https://www.businessnewsdaily.com/10625-businesses-collecting-data.html [https://perma.cc/5GTH-JRMN] (Aug. 25, 2022).

[9] For a general description of AI marketing based on individualized consumer profiles, see *How to Leverage AI in Marketing: Three Ways to Improve Consumer Experience*, DELOITTE, https://www2.deloitte.com/si/en/pages/strategy-operations/articles/AI-in-marketing.html [https://perma.cc/9TZW-G4LK]. *See also* Michael Chui, Nicolaus Henke & Mehdi Miremadi, *Most of AI's Business Uses Will Be in Two Areas*, HARV. BUS. REV. (July 20, 2018), https://hbr.org/2018/07/most-of-ais-business-uses-will-be-in-two-areas [https://perma.cc/XV8Y-8VVD].

[10] *See, e.g.*, Drew Harwell, *Dating Apps Need Women. Advertisers Need Diversity. AI Companies Offer a Solution: Fake People*, WASH. POST (Jan. 7, 2020), https://www.washingtonpost.com/technology/2020/01/07/dating-apps-need-women-advertisers-need-diversity-ai-companies-offer-solution-fake-people/ [https://perma.cc/5V7V-2U9Z].

[11] *See* Siwei Lyu, *Deepfakes and the New AI-Generated Fake Media Creation-Detection Arms Race*, SCI. AM. (July 20, 2020), https://www.scientificamerican.com/article/detecting-deepfakes1/ [https://perma.cc/BW8A-AJS6].

[12] For a description of how deep fake photographs and videos can be personalized, see Kashmir Hill & Jeremy White, *Designed to Deceive: Do These People Look Real to You?*, N.Y. TIMES (Nov. 21, 2020), https://www.nytimes.com/interactive/2020/11/21/science/

targeted consumers about politics, social attitudes, and moral decay. All the while, Ethel's fake personas remain to the consumer totally indistinguishable from a real human.[13] Without specifically marketing the sale of Fun Gun weapons, Ethel uses political communication to manipulate consumers' proclivity to purchase Fun Guns' products.

Although at first blush this hypothetical scenario may seem wholly alien to our current reality, a confluence of historical factors suggests the scenario remains far from science fiction. First, following the decision in *Citizens United*, corporations continue with unencumbered zeal their hostile takeover of the political realm.[14] The plain reason for such political manipulation remains the promotion of corporate profits.[15] The ambit of the effort to dominate politics gets increasingly larger as corporations recognize that altering individuals' political views not only can provide a more favorable overall business environment but can also motivate purchasing decisions.[16] For example, just as Fun Guns scenario suggests, several recent reports describe an ominous connection between enhanced gun sales and the promotion of social unrest.[17] Regardless of the particular product or service any corporation might market, however, the enormous sums that corporate executives spend on political campaigns and lobbying make clear that corporations seek some monetary gain

---

artificial-intelligence-fake-people-faces.html [https://perma.cc/FTL4-2Y8P]; *see also* Daniel Victor, *Your Loved Ones, and Eerie Tom Cruise Videos, Reanimate Unease With Deepfakes*, N.Y. TIMES (Mar. 10, 2021), https://www.nytimes.com/2021/03/10/technology/ ancestor-deepfake-tom-cruise.html [https://perma.cc/C28D-J6EZ].

13 *See* Hill & White, *supra* note 12.

14 *See* Michael R. Siebecker, *Political Insider Trading*, 85 FORDHAM L. REV. 2717, 2720–28 (2017).

15 *See* Michael R. Siebecker, *Bridging Troubled Waters: Linking Corporate Efficiency and Political Legitimacy Through a Discourse Theory of the Firm*, 75 OHIO ST. L.J. 103, 116–19 (2014). *See generally* Jonathan Macey & Leo E. Strine, Jr., Citizens United *as Bad Corporate Law*, 2019 WIS. L. REV. 451.

16 *See* James R. Bailey & Hillary Phillips, *How Do Consumers Feel When Companies Get Political?*, HARV. BUS. REV. (Feb. 17, 2020), https://hbr.org/2020/02/how-do-consumers-feel-when-companies-get-political [https://perma.cc/JF4C-CECX] (observing that whether "[corporate advocacy] drives consumer[] behavior in a serious way is yet to be seen," but its impact on the minds of consumers is "here to stay").

17 *See* Marc Fisher, Miranda Green, Kelly Glass & Andrea Eger, *'Fear on Top of Fear': Why Anti-Gun Americans Joined the Wave of New Gun Owners*, WASH. POST (July 10, 2021), https://www.washingtonpost.com/nation/interactive/2021/anti-gun-gun-owners/ [https://perma.cc/AGL4-R33Q]; RUKMANI BHATIA, CTR. FOR AM. PROGRESS, GUNS, LIES, AND FEAR: EXPOSING THE NRA'S MESSAGING PLAYBOOK 1, 11, 27 (Apr. 2019), https://www.american progress.org/wp-content/uploads/2019/04/NRA-report.pdf [https://perma.cc/P6AW-2FGU]; Ben Winck, *Gun Manufacturer Stocks Rise After Weekend Mass Shootings and Renewed Calls for Tougher Firearm Laws*, BUS. INSIDER (Aug. 5, 2019), https:// markets.businessinsider.com/news/stocks/gun-stocks-rise-after-dual-weekend-shootings-calls-for-laws-2019-8-1028418220 [https://perma.cc/DSG7-5ART].

through political activity.[18] And through the protections afforded corporate political speech under the First Amendment, corporations can use political speech both as a weapon for enhanced marketing and as a shield from liability.[19]

Second, corporations increasingly rely on AI technologies to influence human behavior—whether as consumers, investors, or political actors. Corporate access to "big data"[20] enables the creation of incredibly detailed consumer and investor profiles that can be used for individualized corporate communication aimed at producing a particular attitude or behavior.[21] Already used in the political realm, AI technologies are being harnessed to collect and analyze vast amounts of data and produce strategic messaging designed to influence election outcomes.[22] Recall the Cambridge Analytica scandal in which the private data of millions of Facebook users were culled to create incredibly detailed psychological profiles[23] aimed at influencing the 2016 presidential election via targeted social media.[24] At the same time, a Russian

---

[18] *See* Siebecker, *supra* note 14, at 2723, 2732–36.

[19] *See* Michael R. Siebecker, *Corporate Speech, Securities Regulation, and an Institutional Approach to the First Amendment*, 48 WM. & MARY L. REV. 613, 616–21 (2006).

[20] *See* DAVID COURT, JESKO PERREY, TIM MCGUIRE, JONATHAN GORDON & DENNIS SPILLECKE, MCKINSEY & CO, BIG DATA, ANALYTICS, AND THE FUTURE OF MARKETING & SALES 4 (Mar. 2015), https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Marketing%20and%20Sales/Our%20Insights/EBook%20Big%20data%20analytics%20and%20the%20future%20of%20marketing%20sales/Big-Data-eBook.ashx [https://perma.cc/AZ8G-E9DZ].

[21] *Id.* at 52.

[22] *See* Jeff Berkowitz, *The Evolving Role of Artificial Intelligence and Machine Learning in US Politics*, CTR. FOR STRATEGIC & INT'L STUD.: STRATEGIC TECHS. BLOG (Dec. 21, 2020), https://www.csis.org/blogs/technology-policy-blog/evolving-role-artificial-intelligence-and-machine-learning-us-politics [https://perma.cc/27BU-2WS7] ("Gone are the days of political buttons, guessing about voter preferences, and the mass distribution of pamphlets about the positions of candidates for the highest offices in the country. The emergence of artificial intelligence (AI), machine learning (ML), and big data have fundamentally changed how politicians engage the American electorate and will continue to challenge centuries of political and intrapersonal norms surrounding voter enfranchisement.").

[23] *See* Nicholas Confessore, *Cambridge Analytica and Facebook: The Scandal and the Fallout So Far*, N.Y. TIMES (Apr. 4, 2018), https://www.nytimes.com/2018/04/04/us/politics/cambridge-analytica-scandal-fallout.html [https://perma.cc/BX7N-RVBE]; John Gapper, *Cambridge Analytica Exploited Facebook Data with Style*, FIN. TIMES (Mar. 21, 2018), https://www.ft.com/content/bb24f946-2918-11e8-b27e-cc62a39d57a0 [https://perma.cc/EPU3- KAFQ].

[24] Paul Lewis & Paul Hilder, *Leaked: Cambridge Analytica's Blueprint for Trump Victory*, GUARDIAN (Mar. 23, 2018), https://www.theguardian.com/uk-news/2018/mar/23/leaked-cambridge-analyticas-blueprint-for-trump-victory [https://perma.cc/BP8C-V8VJ]; Matthew Rosenberg, Nicholas Confessore & Carole Cadwalladr, *How Trump Consultants Exploited the Facebook Data of Millions*, N.Y. TIMES (Mar. 17, 2018), https://www.nytimes.com/ 2018/03/17/us/politics/cambridge-analytica-trump-campaign.html [https://perma.cc/YK44-BTQ6]; Harry Davies, *Ted Cruz Using Firm That Harvested Data on Millions of Unwitting Facebook Users*, GUARDIAN (Dec. 11, 2015), https://

company, the Internet Research Agency, was similarly attempting to manipulate the 2016 election using fake personas across various social media outlets that targeted specific types of individuals and groups.[25] Moreover, the ability of AI to create "deep fake" videos—digitally altered video of humans doing or saying something that did not in reality occur—has already become widespread.[26] Of course, much of current AI communication technology benignly focuses on creating more effective modes of marketing goods and services. Nonetheless, a significant fear remains that AI-driven deep fake communication practices will consistently combine consumer marketing[27] with just enough political messaging[28] to create an amalgam of politically tinged corporate speech immune from liability under the First Amendment.[29]

---

www.theguardian.com/us-news/2015/dec/11/senator-ted-cruz-president-campaign-facebook-user-data [https://perma.cc/GAB8-YHMS] (regarding the use of psychological profiling based on mined data to influence presidential primary elections).

[25] *See* Adrian Chen, *The Agen*cy, N.Y. TIMES MAG. (June 2, 2015), https://www.nytimes.com/2015/06/07/magazine/the-agency.html [https://perma.cc/8SFJ-E5BJ]; Elizabeth Dwoskin, Craig Timberg & Adam Entous, *Russians Took a Page from Corporate America by Using Facebook Tool to ID and Influence Voters*, WASH. POST (Oct. 2, 2017), https://www.washingtonpost.com/business/economy/russians-took-a-page-from-corporate-america-by-using-facebook-tool-to-id-and-influence-voters/2017/10/02/681e40d8-a7c5-11e7-850e-2bdd1236be5d_story.html [https://perma.cc/U72G-8QMP]; SPECIAL COUNSEL ROBERT S. MUELLER, III, U.S. DEP'T OF JUST., REPORT ON THE INVESTIGATION INTO RUSSIAN INTERFERENCE IN THE 2016 PRESIDENTIAL ELECTION 14–35 (Mar. 2019), https://www.justice.gov/archives/sco/file/1373816/download [https://perma.cc/3BLY-2JRN].

[26] *See* Geoffrey A. Fowler, *Anyone with an iPhone Can Now Make Deepfakes. We Aren't Ready for What Happens Next*, WASH. POST (Mar. 25, 2021), https://www.washingtonpost.com/technology/2021/03/25/deepfake-video-apps/ [https://perma.cc/X9K5-K3TV]; Ian Sample, *What Are Deepfakes – and How Can You Spot Them?*, GUARDIAN (Jan. 13, 2020), https://www.theguardian.com/technology/2020/jan/13/what-are-deepfakes-and-how-can-you-spot-them [https://perma.cc/6Y2J-VWUQ].

[27] *See* Tiffany Hsu*, An ESPN Commercial Hints at Advertising's Deepfake Future*, N.Y. TIMES (Apr. 22, 2020), https://www.nytimes.com/2020/04/22/business/media/espn-kenny-mayne-state-farm-commercial.html [https://perma.cc/TC89-794C] ("On Monday, President Trump promoted a digitally altered commercial promoting his candidacy on his Twitter account. The video relied on doctored footage taken from an Allstate Insurance commercial featuring the company's pitchman, the actor Dennis Haysbert."); Patrick Kulp, *Brands Are Finding Deepfakes Increasingly Appealing for Ad Campaigns*, ADWEEK (Oct. 5, 2020), https://www.adweek.com/performance-marketing/brands-deepfakes-appealing-ads-campaigns/ [https://perma.cc/8E8N-ND4E].

[28] *See* William A. Galston, *Is Seeing Still Believing? The Deepfake Challenge to Truth in Politics*, BROOKINGS (Jan. 8, 2020), https://www.brookings.edu/research/is-seeing-still-believing-the-deepfake-challenge-to-truth-in-politics/ [https://perma.cc/W7N5-DE3G].

[29] *See The Emerging Threat of Deepfakes to Brands and Executives*, CONSTELLA INTEL. (Mar. 2, 2021), https://constellaintelligence.com/the-emerging-threat-of-deepfakes-to-brands-and-executives-2/ [https://perma.cc/U629-2G5d] ("[D]eepfakes have already been used in a wide array of contexts, including in the production of 'fake news' and manipulated content or malicious impersonations with the objective of obtaining sensitive data for financial gain

Third, in order to secure greater profits, dominion over corporate decision-making gets increasingly surrendered to AI technologies and entities that can out-perform human actors in virtually every setting. Previously thought a simple tool to enhance human performance, AI seems to encroach upon human volition in a growing number of corporate settings.[30] With increasing frequency, some of the most important decisions regarding business planning, strategy, and goal setting are heavily influenced if not effectively controlled by AI technologies and entities.[31] Beyond simply assisting humans to make better informed decisions, AI entities and technologies often carry out managerial functions once relegated solely to human actors.[32] Some corporations even permit AI entities to serve as functional members of the board of directors.[33] Perhaps most

(also known as 'social engineering' within this context) or influencing public opinion for corporate or political reputational damage."); HANNAH SMITH & KATHERINE MANSTED, ASPI INT'L CYBER POL'Y CTR., WEAPONISED DEEP FAKES: NATIONAL SECURITY AND DEMOCRACY 4 (Apr. 2020), https://ad-aspi.s3.ap-southeast-2.amazonaws.com/2020-04Weaponised%20deep%20fakes.pdf?VersionId=lgwT9eN66cRbWTovhN74WI2z4zO4zJ5H [https://perma.cc/N83L-RXMB] ("Deep fakes will pose the most risk when combined with other technologies and social trends: they'll enhance cyberattacks, accelerate the spread of propaganda and disinformation online and exacerbate declining trust in democratic institutions."); JAMES MANYIKA, JACQUES BUGHIN, MICHAEL CHUI & PETER GUMBEL, MCKINSEY & CO., THE PROMISE AND CHALLENGE OF THE AGE OF ARTIFICIAL INTELLIGENCE 6 (Oct. 2018), https://www.mckinsey.com/~/media/mckinsey/featured%20insights/artificial%20intelligence/the%20promise%20and%20challenge%20of%20the%20age%20of%20artificial%20intelligence/mgi-the-promise-and-challenge-of-the-age-of-artificial-intelligence-in-brief-oct-2018.pdf [https://perma.cc/B3AT-ZMDF] ("Cybersecurity and 'deep fakes' that could manipulate election results or perpetrate large-scale fraud are also a concern.").

[30] *See* Michael R. Siebecker, *Making Corporations More Humane Through Artificial Intelligence*, 45 J. CORP. L. 95, 104–13 (2019).

[31] *See* Tim Fountaine, Brian McCarthy & Tamim Saleh, *Building the AI-Powered Organization*, HARV. BUS. REV., July–Aug. 2019, at 62, 64; DENIS MCCAULEY, MIT TECH. REV. INSIGHTS, THE GLOBAL AI AGENDA: PROMISE, REALITY, AND A FUTURE OF DATA SHARING 9 (2020), https://mittrinsights.s3.amazonaws.com/AIagenda2020/GlobalAIagenda.pdf [https://perma.cc/8S6V-UZ7V].

[32] *See* Kalev Leetaru, *As AI Comes for Management Perhaps We Should Look Forward to Machines Taking Our Jobs*, FORBES (June 24, 2019), https://www.forbes.com/sites/kalevleetaru/2019/06/24/as-ai-comes-for-management-perhaps-we-should-look-forward-to-machines-taking-our-jobs/?sh=7920d72624da [https://perma.A3YZ-WW37]; Dan Schawbel, *How Artificial Intelligence Is Redefining the Role of Manager*, WORLD ECON. F. (Nov. 15, 2019), https://www.weforum.org/agenda/2019/11/how-artificial-intelligence-is-redefining-the-role-of-manager/ [https://perma.cc/Q35B-UJ7G]; Vegard Kolbjørnsrud, Richard Amico & Robert J. Thomas, *How Artificial Intelligence Will Redefine Management*, HARV. BUS. REV. (Nov. 2, 2016), https://hbr.org/2016/11/how-artificial-intelligence-will-redefine-management [https://perma.cc/G4FH-QPL8].

[33] *See* Florian Möslein, *Robots in the Boardroom: Artificial Intelligence and Corporate Law*, *in* RESEARCH HANDBOOK ON THE LAW OF ARTIFICIAL INTELLIGENCE 649, 657–66 (Woodrow Barfield & Ugo Pagallo eds., 2018) ("Deep Knowledge Ventures . . . had appointed an algorithm named Vital . . . to its board of directors.").

alarming, AI entities can now arguably own and operate their own business ventures without effective human oversight.[34]

The dramatic and swift evolution of corporate practices in the age of AI provides a clarion call for revisiting the jurisprudential sensibility of imbuing corporations with full constitutional personhood in general and robust political speech rights in particular.[35] If corporations can use AI data mining and predictive analytics to manipulate political preferences and election outcomes for greater profits, the basic viability and legitimacy of our democratic processes hang in the balance.[36] Moreover, if AI technology itself plays an increasingly important, if not controlling, role in determining the content of corporate political communication, granting corporations the same political speech rights as humans effectively surrenders the political realm to algorithmic entities.[37] In the end, although AI could help corporations act more humanely, the very notion of a corporation heavily influenced or controlled by non-human entities creates the need to cabin at least somewhat the commitment to corporations as full constitutional rights bearers.[38] In particular, with respect to corporate political activity, the growing prevalence of AI in managerial (and possibly ownership) positions makes granting corporations the same political speech rights as humans incompatible with maintaining human sovereignty.[39]

To make the case for revisiting *Citizens United* in the age of AI, Part II of this Article describes the growing use of AI technologies by corporations, including AI in managerial and potentially ownership positions. Part III explores the unyielding involvement of corporations in the political process and examines some strategies for using AI to direct corporate political activity. Putting those AI assisted political practices within some jurisprudential context, Part IV articulates the current standards governing corporate political speech and corporate strategies for using the First Amendment to evade regulation and liability. Tying together the existing jurisprudence and evolving nature of the

---

34 *See infra* Part II.C.

35 For a general discussion of debates regarding corporate personhood, see generally KENT GREENFIELD, CORPORATIONS ARE PEOPLE TOO (AND THEY SHOULD ACT LIKE IT) (2018).

36 *See* Berkowitz, *supra* note 22, at 1; Elaine Kamarck, *Malevolent Soft Power, AI, and the Threat to Democracy*, BROOKINGS (Nov. 19, 2018), https://www.brookings.edu/research/malevolent-soft-power-ai-and-the-threat-to-democracy/ [https://perma.cc/ 77XW-VXD7].

37 *See* Kamarck, *supra* note 36.

38 *See generally* Siebecker, *supra* note 30; Jacques Bughin & Eric Hazan, *Can Artificial Intelligence Help Society as Much as It Helps Business?*, MCKINSEY Q., Aug. 2019, at 1, 2, https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20analytics/our%20insights/can%20artificial%20intelligence%20help%20society%20as%20much%20as%20it%20helps%20business/can-artificial-intelligence-help-society-as-much-as-it-helps-business.pdf [https://perma.cc/3HGM-CC8Z]. For an early warning about granting constitutional rights to artificially intelligent entities, including corporations, see Lawrence B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. REV. 1231, 1258–76 (1992).

39 *See* Solum, *supra* note 38, at 1261 (discussing how granting rights to AI could lead to their "tak[ing] over").

corporation, Part V of the Article examines some extremely troubling potential repercussions to affording corporations robust political speech rights in the AI era. The Article concludes that the growing prevalence of AI in managerial and potentially ownership positions require revisiting the jurisprudential soundness of granting corporations the same political speech rights as humans. Although not proposing a precise standard going forward, the Article warns that in age of AI, the ruling in *Citizens United* remains incompatible with human sovereignty.

II. THE ARTIFICIALLY INTELLIGENT CORPORATION

To grasp the urgency in revisiting *Citizens United* requires some basic understanding of how predominant AI has become in the corporate realm.[40] According to a 2020 global survey of over one thousand business executives conducted by the MIT TECHNOLOGY REVIEW,[41] 97% of large companies surveyed deployed AI strategies[42] and 96% of executives reported that returns on AI investment met or exceeded expectations.[43] Moreover, the pace of AI implementation and the depth of its utilization in virtually all business sectors has increased exponentially.[44] Harnessing AI within the corporate setting, however, represents much more than simply adding a new managerial tool to the executive kit. According to McKinsey, companies that utilize AI realize a fundamental shift in the corporate mindset about the very structure and nature of the corporate enterprise.[45] A PricewaterhouseCoopers ("PwC") study predicted that an extraordinary worldwide proliferation of AI technologies over

---

[40] This Part provides some basic background regarding the breadth and depth of AI in the evolving corporation in order to frame more clearly the need to revisit the prevailing conception of the corporation as a constitutional rights bearer. In recent work, I provided a similar descriptive background to facilitate exploration of how AI could make corporate decision-making more humane. *See generally* Siebecker, *supra* note 30.

[41] MCCAULEY, *supra* note 31, at 2.

[42] *Id.* at 5.

[43] *See id.* at 8; Thomas H. Davenport & Randy Bean, *Companies Are Making Serious Money with AI*, MIT SLOAN MGMT. REV. (Feb. 17, 2022), https://sloanreview.mit.edu/article/companies-are-making-serious-money-with-ai/ [https://perma.cc/QJX7-4W4Z] ("92% of large companies reported that they are achieving returns on their data and AI investments.").

[44] MIT Technology Review Insights, *Embracing the Rapid Pace of AI*, MIT TECH. REV. (May 19, 2021), https://www.technologyreview.com/2021/05/19/1025016/embracing-the-rapid-pace-of-ai/ [https://perma.cc/B3US-6R3J]; *see also* Jeremy Kahn, *A.I. Is Getting More Powerful, Faster, and Cheaper—and That's Starting to Freak Executives Out*, FORTUNE (Mar. 9, 2021), https://fortune.com/2021/03/09/a-i-is-getting-more-powerful-faster-and-cheaper-and-thats-starting-to-freak-executives-out/ [https://perma.cc/R49Q-H9VU].

[45] *See* THOMAS MEAKIN, JEREMY PALMER, VALENTINA SARTORI & JAMIE VICKERS, MCKINSEY ANALYTICS, WINNING WITH AI IS A STATE OF MIND 2 (Apr. 2021), https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20analytics/our%20insights/winning%20with%20ai%20is%20a%20state%20of%20mind/winning-with-ai-is-a-state-of-mind.pdf?shouldIndex=false [https://perma.cc/5CQ7-LD49].

the next decade "could contribute up to $15.7 trillion to the global economy in 2030, more than the current output of China and India combined."[46]

In almost every business sector of the economy, AI plays an essential role in a host of key organizational, marketing, production, and investigative functions.[47] Not only do business managers increasingly rely on AI tools to enhance the quality of executive decision-making,[48] but AI entities now occupy formal management positions and can even own business entities without any human oversight.[49] Companies as diverse as Visa, Otis Elevator, Stryker, Merck Pharmaceuticals, Goldman Sachs, and Salesforce[50] rely on AI software to streamline production, cultivate new business opportunities, enhance workplace safety, mitigate market risks, perform due diligence for acquisitions, and a plethora of other functions.[51] Although the full potential of AI remains unknown, "as a compliment to the C-suite, AI holds an infinite amount of possibilities."[52] The simple awareness of AI's undiscovered reach and

---

[46] ANAND S. RAO & GERARD VERWEIJ, PWC, SIZING THE PRIZE: WHAT'S THE REAL VALUE OF AI FOR YOUR BUSINESS AND HOW CAN YOU CAPITALISE? 3 (2017), https://www.pwc.com/gx/en/issues/analytics/assets/pwc-ai-analysis-sizing-the-prize-report.pdf [https://perma.cc/E656-UQFB]; *see also* Carmen Bommireddipalli, *Managing Financial Services Model Risk in an Age of Big Data and AI*, IBM: JOURNEY TO AI BLOG (Jan. 28, 2020), https://www.ibm.com/blogs/journey-to-ai/2020/01/managing-financial-services-model-risk-in-an-age-of-big-data-and-ai/ [https://perma.cc/6QN4-P6JU] (citing a McKinsey study that estimates AI will add $13 trillion to the global economy over ten years).

[47] *See* BEENA AMMANATH, NITIN MITTAL, IRFAN SAIF & SIRI ANDERSON, DELOITTE, BECOMING AN AI-FUELED ORGANIZATION 3, 9 (2021), https://www.deloitte.com/content/dam/insights/articles/US144384_CIR-State-of-AI-4th- edition/DI_CIR-State-of-AI-4th-edition.pdf [https://perma.cc/PYP2-Y2HJ]; Martin Petrin, *Corporate Management in the Age of AI*, 2019 COLUM. BUS. L. REV. 965, 971–72.

[48] Uzialko, *supra* note 2; *see* Sheryl Estrada, *Companies Are Turning to A.I., but C-Suite Collaboration Is Crucial for Success*, FORTUNE (Mar. 24, 2022), https://fortune.com/2022/03/24/companies-ai-c-suite-collaboration-crucial-success/ [https://perma.cc/V3BD-E8VZ]; Siebecker, *supra* note 30, at 97.

[49] *See supra* notes 32–34 and accompanying text.

[50] Dan Reilly, *How A.I. Is Being Used as a Tool for Innovation, Not Just Efficiency*, FORTUNE (June 8, 2022), https://fortune.com/2022/06/08/artificial-intelligence-innovation-efficiency/ [https://perma.cc/6394-TX3Q]; Sophie Camp, *Why Everyone in the Boardroom Needs AI*, OUTSIDE INSIGHT, https://outsideinsight.com/insights/why-everyone-in-the-boardroom-needs-ai/ [https://perma.cc/5VEH-MCJQ]; Jacques Bughin, Brian McCarthy & Michael Chui, *A Survey of 3,000 Executives Reveals How Businesses Succeed with AI*, HARV. BUS. REV. (Aug. 28, 2017), https://hbr.org/2017/08/a-survey-of-3000-executives-reveals-how-businesses-succeed-with-ai [https://perma.cc/4CHQ-PALG].

[51] *See* DUANE S. BONING ET AL., MCKINSEY & CO. TOWARD SMART PRODUCTION: MACHINE INTELLIGENCE IN BUSINESS OPERATIONS 8–10 (Feb. 2022), https://www.mckinsey.com/~/media/mckinsey/business%20functions/operations/our%20insights/toward%20smart%20production%20machine%20intelligence%20in%20business%20operations/toward-smart-production-machine-intelligence-in-business-operations-vf.pdf?shouldIndex=false [https://perma.cc/AMX5-9AYU].

[52] Camp, *supra* note 5050.

disruptive impact drives home the importance of ensuring appropriate corporate governance principles exist to guide and corral the utilization of AI by corporate managers.[53]

Although this Part does not intend to provide a comprehensive catalogue of the various potential applications of AI technology, exploring just a few prevalent uses of AI in the corporate realm makes readily apparent that AI has already begun to revolutionize business practices, corporate decision-making, and the very nature of the corporation itself.

A. *Artificial Intelligence Defined*

Defining what artificial intelligence entails is an essential first step in understanding how AI might transform corporate organizations. Frustrating the ability to achieve precise descriptive clarity, "artificial intelligence" remains a somewhat elusive and protean concept.[54] Why? Because AI envelops a diverse set of evolving technologies[55] and disciplines (including computer science,

---

[53] Françios Candelon, Rodolphe Charme di Carlo, Midas De Bondt & Theodoros Evgeniou, *AI Regulation Is Coming*, HARV. BUS. REV., Sept.–Oct. 2021, https://hbr.org/2021/09/ai-regulation-is-coming [https://perma.cc/KN4Z-9EP7]; *see also* Fernanda Torre, Robin Teigland & Liselotte Engstam, *AI Leadership and the Future of Corporate Governance: Changing Demands for Board Competence*, *in* THE DIGITAL TRANSFORMATION OF LABOR: AUTOMATION, THE GIG ECONOMY AND WELFARE 116, 117 (Anthony Larsson & Robin Teigland eds., 2020) ("To date, the majority of activities by researchers and practitioners alike have focused on the implementation of AI at the operational level of firms. Few are investigating what impact AI will have on the governance of organizations and how corporate boards may need to develop their competence to successfully lead their organization in this new evolving AI-based era. This seems surprising as the governance of AI, and the 'big data' on which AI is based, is predicted to become one of the greatest board issues in the next ten years." (citations omitted)). For a description of the need to effectively manage AI tools, see Michael Ross & James Taylor, *Managing AI Decision-Making Tools*, HARV. BUS. REV. (Nov. 10, 2021), https://hbr.org/2021/11/managing-ai-decision-making-tools [https://perma.cc/7TZC-4D2S].

[54] *See e.g.*, Iria Giuffrida, Fredric Lederer & Nicolas Vermeys, *A Legal Perspective on the Trials and Tribulations of AI: How Artificial Intelligence, the Internet of Things, Smart Contracts, and Other Technologies Will Affect the Law*, 68 CASE W. RES. L. REV. 747, 751–56 (2018) ("[A]lthough AI is talked about in the media almost every day, there is still no generally accepted definition of the term. Individual definitions run the gamut from a super-intelligent, humanoid, sapient, world-conquering robot to an app that suggests that the weather justifies wearing a coat."); Matthew U. Scherer, *Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies*, 29 HARV. J.L. & TECH. 353, 359–62 (2016).

[55] *See* JACQUES BUGHIN ET AL., MCKINSEY & CO., ARTIFICIAL INTELLIGENCE: THE NEXT DIGITAL FRONTIER? 8 (June 2017), https://www.mckinsey.com/~/media/McKinsey/Industries/Advanced%20Electronics/Our%20Insights/How%20artificial%20intelligence%20can%20deliver%20real%20value%20to%20companies/MGI-Artificial-Intelligence-Discussion-paper.ashx [https://perma.cc/3DKY-LV6L] ("Trying to pin down the term more precisely is

psychology, mathematics, philosophy, and linguistics, to name just a few),[56] articulating an immutable definition of AI becomes all but impossible.[57] To facilitate essential discussions regarding the appropriate development and application of AI technologies, many suggest the search for definitional uniformity remains misguided.[58] Along those lines, the meaning of AI should remain essentially contextual and tethered to discrete AI applications or component technologies, such as predictive modeling, customer communication, image and voice recognition, autonomous weaponry, and a host of other AI silos.[59] Within each silo, the ethical and practical considerations of AI get independently assessed, without the need for some overarching ideational construct.[60] Of course, such a compartmentalized approach to addressing the propriety of AI's development and utilization becomes rather stilted when the celerity of technological innovation causes AI applications to overlap.[61] The simple example at the outset of the Article regarding the combined deployment of various AI technologies to manipulate political elections drives home the point.

In light of the rapidity of technological advancements that seemingly keeps definitional precision perpetually out of reach,[62] some scholars and commentators adopt a rather broad working definition of AI as "machines that

fraught for several reasons: AI covers a broad range of technologies and applications, some of which are merely extensions of earlier techniques and others that are wholly new. Also, there is no generally accepted theory of 'intelligence,' and the definition of machine 'intelligence' changes as people become accustomed to previous advances.").

56 STEFAN VAN DUIN & NASER BAKHSHI, DELOITTE, ARTIFICIAL INTELLIGENCE 5 (2018), https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/deloitte-analytics/deloitte-nl-data-analytics-artificial-intelligence-whitepaper-eng.pdf [https://perma.cc/NF9M-E64F] ("AI refers to a broad field of science encompassing not only computer science but also psychology, philosophy, linguistics and other areas."); *see also* Andrea M. Matwyshyn, *The Internet of Bodies*, 61 WM. & MARY L. REV. 77, 82 (2019).

57 *See* Jack Krupansky, *Untangling the Definitions of Artificial Intelligence, Machine Intelligence, and Machine Learning*, MEDIUM (June 13, 2017), https://medium.com/@jackkrupansky/untangling-the-definitions-of-artificial-intelligence-machine-intelligence-and-machine-learning-7244882f04c7 [https://perma.cc/XVS5-ABDK].

58 *See* Kevin Scott, *I Do Not Think It Means What You Think It Means: Artificial Intelligence, Cognitive Work & Scale*, DAEDALUS, Spring 2022, at 75, 77; Pei Wang, *On Defining Artificial Intelligence*, 10 J. ARTIFICIAL GEN. INTEL. 1, 1 (2019), https://sciendo.com/article/10.2478/jagi-2019-0002 [https://perma.cc/5Y84-XRG4]; VAN DUIN & BAKHSHI, *supra* note 56, at 5–10.

59 *See* Darrell M. West, *The Role of Corporations in Addressing AI's Ethical Dilemmas*, BROOKINGS (Sept. 13, 2018), https://www.brookings.edu/research/how-to-address-ai-ethical-dilemmas/ [https://perma.cc/N83R-FLKS].

60 *See id.*

61 *See* Scherer, *supra* note 54, at 359–62 (defining "artificial intelligence" in light of evolving technology); *see also* Sara Castellanos, *What Exactly Is Artificial Intelligence?*, WALL ST. J. PRO: A.I. (Dec. 2, 2018), https://www.wsj.com/articles/what-exactly-is-artificial-intelligence-1544120887 [https://perma.cc/223Y-A4P2].

62 *See* Scherer, *supra* note 54, at 360–61.

are capable of performing tasks that, if performed by a human, would be said to require intelligence."[63] Although such a capacious conception provides an accessible starting point for understanding what AI might capture, exploring the special challenges that AI presents within the corporate governance context requires a slightly more nuanced definition.

In order to understand how the development and deployment of artificial intelligence by corporations might require revisiting our jurisprudential dedication to corporations as constitutional rights bearers, the definition articulated by PwC might provide a more useful springboard:

> Artificial intelligence (AI) is an umbrella term for "smart" technologies that are aware of and can learn from their environments, enabling them to subsequently take autonomous action. Robotic process automation, machine learning, natural language processing, and neural networks all incorporate AI into their operations. What separates AI from general-purpose software is that it enable[s] machines to respond autonomously to signals from the external world—signals that programmers do not directly control and therefore cannot always anticipate.[64]

[63] *Id.* at 362; *see also* Shlomit Yanisky Ravid & Xiaoqiong Liu, *When Artificial Intelligence Systems Produce Inventions: An Alternative Model for Patent Law at the 3A Era*, 39 CARDOZO L. REV. 2215, 2224 (2018).

[64] Chris Curran & Anand Rao, *Briefing: Artificial Intelligence*, PWC (Jan. 22, 2018), http://usblogs.pwc.com/emerging-technology/briefing-ai [https://web.archive.org/web/20180303022326/http://usblogs.pwc.com/emerging-technology/briefing-ai].

Fully explicating the details of robotic process automation,[65] machine learning,[66] natural language processing,[67] artificial neural networks,[68] deep learning,[69] and general AI[70] remains far outside the necessary ken of this Article. Perhaps the most important takeaway from this brief examination of the challenges associated with defining AI, however, remains the basic awareness that AI itself evolves in unexpected ways as new ancillary technologies arise.[71]

---

65 Anand Kannan, *RPA In Manufacturing—Automate Monotonous Tasks for Better Productivity & Outcomes*, ELEVIANT (Feb. 19, 2018), https://www.eleviant.com/insights/blog/rpa-in-manufacturing/ [https://perma.cc/SL7C-NSJY] ("[Robotic Process Automation] is a set of concepts and technologies designed to intelligently automate repetitive business, industrial, and other tasks. RPA has little to do with what we commonly understand as 'robots' in the conventional sense of the word. Rather, RPA is defined by algorithms that are built to enhance return on investment (ROI), boost execution speed, and improve the quality of business results."); *see also Briefing: Robotic Process Automation*, PWC: NEXT IN TECH (Nov. 3, 2017), https://web.archive.org/web/20180202003429/http://usblogs.pwc.com/emerging-technology/briefing-rpa (on file with the *Ohio State Law Journal*).

66 MICHAEL CHUI, VISHNU KAMALNATH & BRIAN MCCARTHY, MCKINSEY & CO., AN EXECUTIVE'S GUIDE TO AI 1 (2020), https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/McKinsey%20Analytics/Our%20Insights/An%20executives%20guide%20to%20AI/An-executives-guide-to-AI.ashx [https://perma.cc/465X-8ANM] ("Machine-learning algorithms detect patterns and learn how to make predictions and recommendations by processing data and experiences, rather than by receiving explicit programming instruction. The algorithms also adapt in response to new data and experiences to improve efficacy over time.").

67 VAN DUIN & BAKHSHI, *supra* note 56, at 14 ("Natural Language Processing, or NLP in short, is a term for everything from speech recognition to language generation, each requiring different techniques . . . [including] Part-of-Speech tagging, Named Entity Recognition, and Parsing.").

68 *Id.* at 13 ("Animals are able to process (visual or other) information from their environment and react adaptively to a changing situation. They use their nervous system to perform such behavior. Their nervous system can be modeled and simulated and it should be possible to (re)produce similar behavior in artificial systems. Artificial Neural Networks (ANN) can be described as processing devices that are loosely modeled after the neural structure of a brain.").

69 CHUI, KAMALNATH & MCCARTHY, *supra* note 66, at 6 ("Deep learning is a type of machine learning that can process a wider range of data resources, requires less data preprocessing by humans, and can often produce more accurate results than traditional machine-learning approaches. In deep learning, interconnected layers of software-based calculators known as 'neurons' form a neural network. The network can ingest vast amounts of input data and process them through multiple layers that learn increasingly complex features of the data at each layer. The network can then make a determination about the data, learn if its determination is correct, and use what it has learned to make determinations about new data.").

70 VAN DUIN & BAKHSHI, *supra* note 56, at 6 ("The holy grail of AI is a General AI, a single system that can learn about any problem and then solve it. This is exactly what humans do: we can specialize in a specific topic, from abstract maths to psychology and from sports to art, we can become experts at all of them.").

71 *See* CHUI, KAMALNATH & MCCARTHY, *supra* note 66, at 1.

For example, with the impending development of a workable quantum computer with processing power predicted to exceed all of the world's computers combined,[72] AI could enter an entirely new stage of its evolution.[73] The whipsaw speed with which such organic technological evolution already occurs causes some to predict that the power of AI's autonomous decision-making capacities will grow exponentially in the near future.[74] From a corporate governance perspective, the cascading influence exerted by AI entities in managerial roles[75] not only calls into question the potential obsolescence of human participation in a variety of corporate decisions[76] but also the potential inability of human actors to properly constrain and guide AI technologies.[77] As suggested at the outset of this Article—and as addressed more fully in my forthcoming article, *Democracy, Discourse, and the Artificially Intelligent*

---

[72] Mark Smith, *Quantum Computing: Definition, Facts & Uses*, LIVESCIENCE, https://www.livescience.com/quantum-computing [https://perma.cc/5JE9-54SN] (Mar. 18, 2022); *see also* Robert Hackett, *IBM Plans a Huge Leap in Superfast Quantum Computing by 2023*, FORTUNE (Sept. 15, 2020), https://fortune.com/2020/09/15/ibm-quantum-computer-1-million-qubits-by-2030/ [https://perma.cc/UJ65-KJ4H].

[73] *See* John Russell, *PsiQuantum's Path to 1 Million Qubits*, HPCWIRE (Apr. 21, 2022), https://www.hpcwire.com/2022/04/21/psiquantums-path-to-1-million-qubits-by-the-middle-of-the-decade/ [https://perma.cc/82NL-ZE8A]; MATTEO BIONDI ET AL., MCKINSEY & CO., QUANTUM COMPUTING: AN EMERGING ECOSYSTEM AND INDUSTRY USE CASES 17, 23, 32 (Dec. 2021), https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/quantum%20computing%20use%20cases%20are%20getting%20real%20what%20you%20need%20to%20know/quantum-computing-an-emerging-ecosystem.pdf [https://perma.cc/2GWJ-P8YB]; Max G. Levy, *Machine Learning Gets a Quantum Speedup*, QUANTA MAG. (Feb. 4, 2022), https://www.quantamagazine.org/ai-gets-a-quantum-computing-speedup-20220204/ [https://perma.cc/6U5N-JC76].

[74] *See* BYRON REESE, THE FOURTH AGE: SMART ROBOTS, CONSCIOUS COMPUTERS, AND THE FUTURE OF HUMANITY 87–89 (2018); NICK BOSTROM, SUPERINTELLIGENCE: PATHS, DANGERS, STRATEGIES 1–5 (2017).

[75] *See* Dorian Pyle & Cristina San José, *An Executive's Guide to Machine Learning*, MCKINSEY Q., June 2015, at 1, 8–9, https://www.mckinsey.com/~/media/mckinsey/industries/technology%20media%20and%20telecommunications/high%20tech/our%20insights/an%20executives%20guide%20to%20machine%20learning/an_executives_guide_to_machine_learning.pdf?shouldIndex=false [https://perma.cc/RY5B-4PS5] ("If distributed autonomous corporations act intelligently, perform intelligently, and respond intelligently, we will cease to debate whether high-level intelligence other than the human variety exists. In the meantime, we must all think about what we want these entities to do, the way we want them to behave, and how we are going to work with them.").

[76] *Id.* at 8 ("It's true that change is coming (and data are generated) so quickly that human-in-the-loop involvement in all decision making is rapidly becoming impractical.").

[77] *See* Bughin, McCarthy & Chui, *supra* note 50 ("And as AI continues to converge with advanced visualization, collaboration, and design thinking, businesses will need to shift from a primary focus on process efficiency to a focus on decision management effectiveness, which will further require leaders to create a culture of continuous improvement and learning.").

Corporation[78]—the growing dominance of AI in the corporate realm inevitably affects the political realm.[79] As a result, without putting in place appropriate jurisprudential guardrails to cabin AI in the corporate setting, we risk inadvertently surrendering providence over our political lives as well.

B. *AI Within the Evolving Corporation*

In light of the protean definition of artificial intelligence, a short survey of some especially prominent AI applications helps underscore how quickly and fundamentally the corporation continues to evolve. Without doubt, AI technologies play an increasingly pivotal role in business planning, operations, and profit generation.[80] International Data Corporation, a global market intelligence firm, predicts that worldwide revenues from AI technologies will skyrocket in the near term and "[b]y 2024, the market is expected to break the $500 billion mark with a five-year compound annual growth rate (CAGR) of 17.5% and total revenues reaching an impressive $554.3 billion."[81] As adopters continue to mount, global consulting giant PwC predicts that AI will result in an overall increase in global business revenues of $15.7 trillion by the close of 2030.[82] Even if the prediction falls somewhat short, the business case for AI seems to guarantee a sustained role in shaping the evolving world economy.

Although the following discussion does not intend to address comprehensively the variety of ways in which AI affects business practices or society generally,[83] even a limited anecdotal account convincingly establishes that AI has already fundamentally transformed how corporations engage consumers, investors, corporate stakeholders, and the communities that corporations inhabit.

[78] *See generally* Michael R. Siebecker, *Democracy, Discourse, and the Artificially Intelligent Corporation*, 84 OHIO ST. L.J. (forthcoming 2023).

[79] *See* West, *supra* note 59.

[80] *See* Davenport & Bean, *supra* note 43.

[81] *See IDC Forecasts Improved Growth for Global AI Market in 2021*, INT'L DATA CORP. (Feb. 23, 2021), https://www.idc.com/getdoc.jsp?containerId=prUS47482321 [https://perma.cc/AV3C-B437].

[82] RAO & VERWEIJ, *supra* note 46, at 3–4.

[83] For detailed insights into the myriad ways AI might permanently change society, for better or worse, see generally PAUL R. DAUGHERTY & H. JAMES WILSON, HUMAN + MACHINE: REIMAGINING WORK IN THE AGE OF AI (2018); MAX TEGMARK, LIFE 3.0: BEING HUMAN IN THE AGE OF ARTIFICIAL INTELLIGENCE (2017); JOHN C. HAVENS, HEARTIFICIAL INTELLIGENCE: EMBRACING OUR HUMANITY TO MAXIMIZE MACHINES (2016); and BOSTROM, *supra* note 74.

1. *Customer and Investor Communications*

One of the most important and disruptive applications of AI targets corporate communications with consumers[84] and investors.[85] With respect to consumers, a prominent digital consulting firm predicted that 95% of customer interactions will be managed by AI by 2025.[86] PwC suggests that AI-enhanced corporate communication strategies will provide increasingly personalized messages to individual consumers and engage in tailored conversational telemarketing using artificial personas completely indistinguishable from human beings.[87] Coupled with the expanded capability to collect, analyze, and marshal personalized consumer data more effectively, companies employ AI technology to "understand, shape, customize, and optimize the customer journey."[88] Paul Daugherty, the Chief Technology & Innovation Officer at Accenture and author of *Human + Machine*,[89] maintains that AI-driven communication will continually shape and sustain a company's brand.[90] Along those lines, *The New York Times* recently reported that companies are pouring billions into developing incredibly sophisticated AI-driven virtual assistants

---

[84] *See* H. James Wilson & Paul R. Daugherty, *Collaborative Intelligence: Humans and AI Are Joining Forces*, HARV. BUS. REV., July–Aug. 2018, at 114, 118 ("Human-machine collaboration enables companies to interact with employees and customers in novel, more effective ways.").

[85] Michael Pollack, *How Technology Is Changing Investor Relations*, FIN. & CORP. RELS. (Mar. 1, 2018), http://www.fcr.com.au/technology-changing-investor-relations/ [https://perma.cc/Z5W2-NTVB] ("Innovation is paramount to the survival and relevance of investor relations. It is for this reason that many believe big data and artificial intelligence will be the main drivers influencing investor relations in the near future."); *see also* Oliver Schutzmann, *Industry View: AI Can Change Everything in IR*, IR MAG. (Feb. 27, 2018), https://www.irmagazine.com/technology-social-media/industry-view-ai-can-change-everything-ir [https://perma.cc/P8A9-34VU].

[86] Ed Lauder, *AI Will Power 95% of Customer Interactions by 2025*, AI BUS. (Mar. 10, 2017), https://aibusiness.com/document.asp?doc_id=760184 [https://perma.cc/5GP4-4K4S]; *see also* Nupur Verma, *95% Consumer Interactions to Be Monitored by AI by 2025–Voice of Customer and Technology*, SG ANALYTICS (May 11, 2021), https://us.sganalytics.com/blog/95-consumer-interactions-to-be-monitored-by-ai-by-2025-voice-of-customer-and-technology/ [https://perma.cc/3ST3-8DRJ].

[87] RAO & VERWEIJ, *supra* note 46, at 16.

[88] David C. Edelman & Mark Abraham, *Customer Experience in the Age of AI*, HARV. BUS. REV., Mar.–Apr. 2022, at 116, 120.

[89] Wilson & Daugherty, *supra* note 84, at 118, 123 ("Human-machine collaboration enables companies to interact with employees and customers in novel, more effective ways."). *See generally* DAUGHERTY & WILSON, *supra* note 83.

[90] Wilson & Daugherty, *supra* note 84, at 117; Nick Johnson, *3 Reasons Why AI Will Boost US Productivity by 35% by 2035*, SALESFORCE: BLOG (Nov. 14, 2017), https://www.salesforce.com/blog/2017/11/why-ai-will-boost-productivity-by-35-percent.html [https://web.archive.org/web/20171116103353/https://www.salesforce.com/blog/2017/11/why-ai-will-boost-productivity-by-35-percent.html].

whose communication abilities "improve the customer experience and nurture brand loyalty."[91] In contrast to traditional human-to-human customer service interactions that can often cause frustration,[92] "[a]s AI takes over more of the user experience, it grows beyond just an intelligent interface. With each customer interaction becoming more personalized, powerful, and natural, AI moves into an even more prominent position: your digital spokesperson. And by taking on this role, AI will eventually become your digital brand."[93] Whether by addressing consumer complaints,[94] personalizing product and service experiences,[95] anticipating and recommending consumer purchases,[96] facilitating consumer transactions through individually tailored purchase

---

[91] Steve Lohr, *Ending the Chatbot's 'Spiral of Misery,'* N.Y. TIMES (Mar. 3, 2022), https://www.nytimes.com/2022/03/03/technology/ai-chatbot.html [https://perma.cc/3NW6-4D8J].

[92] MCKINSEY & CO., CUSTOMER FIRST: PERSONALIZING THE CUSTOMER-CARE JOURNEY 2, 21 (Jan. 2019), https://www.mckinsey.com/~/media/mckinsey/business%20functions/operations/our%20insights/how%20to%20capture%20what%20the%20customer%20wants/customer-first-personalizing-the-customer-care-journey.pdf [https://perma.cc/NB7B-JMNX].

[93] ACCENTURE, AI IS THE NEW UI 8 (2017), https://www.accenture.com/t20171005T065832Z__w__/us-en/_acnmedia/Accenture/next-gen-4/tech-vision-2017/pdf/Accenture-TV17-Trend-1.pdf [https://web.archive.org/web/20220817014126/https://www.accenture.com/t20171005T065832Z__w__/us-en/_acnmedia/Accenture/next-gen-4/tech-vision-2017/pdf/Accenture-TV17-Trend-1.pdf].

[94] Rahul Sharma, *How Artificial Intelligence Is Changing Customer Service Forever*, TECHGENIX (Sept. 18, 2018), http://techgenix.com/ai-customer-service [https://perma.cc/BZ8Z-UL7F].

[95] Wilson & Daugherty, *supra* note 84, at 123 ("Providing customers with individually tailored brand experiences is the holy grail of marketing. With AI, such personalization can now be achieved with previously unimaginable precision and at vast scale."); *see also* BARB RENNER, CURT FEDDER & JAGADISH UPADHYAYA, DELOITTE, THE ADOPTION OF DISRUPTIVE TECHNOLOGIES IN THE CONSUMER PRODUCTS INDUSTRY 2 (Jan. 2019), https://www2.deloitte.com/content/dam/insights/us/articles/4792_disruptive-technologies-AI/DI_Disruptive-digital-technologies_AI.pdf [https://perma.cc/4E5L-GYFR] ("In the apparel, fashion, and athleisure space, products can be designed to suit a buyer's individual features and needs. Food and beverage companies can customize packaging by using digital printing technology.").

[96] Kathleen Holm, *Artificial Intelligence and Marketing: The Next Best Beachhead*, TATA CONSULTANCY SERVS. (Mar. 24, 2017), https://www.tcs.com/blogs/artificial-intelligence-and-marketing-next-best-beachhead [https://perma.cc/CC2W-8QBZ].

methods,[97] or a host of other applications, AI technology has already fundamentally altered the way businesses communicate with consumers.[98]

Turning to communications with investors, AI technologies help companies ferret out shareholder preferences regarding the content and timing of corporate communications, as well as to detect potential shareholder discontent.[99] Investor relations firms utilize AI technology to sift through vast amounts of corporate communications to target new investment opportunities and surveil existing shareholders.[100] Beyond simply looking at the content of existing corporate discourse between investors and corporate representatives, AI technologies attempt to "identify the underlying feelings behind the words" in order to predict more accurately investor behavior.[101] By analyzing thousands of communicative interactions with investors, AI software can detect changes in investor tone and the potential for stock volatility.[102] According to a prominent investor relations firm, "[t]his capability will open up the way in which investor relations teams shape their message and provide information to investors, including perhaps what kinds of data they share with investors at key points throughout the year."[103] Similar to AI-assisted corporate discourse with consumers, AI technologies very likely to be employed in the near future in the investor realm utilize many of the same personalization and targeting strategies,

---

[97] *See, e.g.*, Pamela N. Danziger, *6 Global Consumer Trends for 2019, and the Brands That Are out in Front of Them*, FORBES (Jan. 13, 2019), https://www.forbes.com/sites/pamdanziger/2019/01/13/6-global-consumer-trends-and-brands-that-are-out-in-front-of-them-in-2019/?sh=aed1b6a4fe4c [https://perma.cc/4FH2-58VP] ("Technology will not only enable more ways for people to shop along their preferred paths, but retailers will begin using AI to provide personnel on the shop floor with instant information to better serve and advise customers.").

[98] TONY SCHOFIELD ET AL., DELOITTE, THE FOURTH REVOLUTION IS NOW: ARE YOU READY? FUTURE OF OPERATIONS 2, 8 (Nov. 2017), https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Strategy/gx-strategy-ops-the-fourth-revolution-now.pdf [https://perma.cc/ZZA5-VDQU] ("[Amid] [t]he Fourth Industrial Revolution, [which is] the convergence of computing, data, artificial intelligence, and universal connectivity . . . companies cannot any longer afford to concentrate on one or two channels of information and influence. They cannot rely on the brand to do all the heavy lifting for them. They have to know their customers at a level of detail and insight that was unimaginable only a decade ago.").

[99] *See* Tim Human, *IROs Urged to Monitor AI Adoption by Investors*, IR MAG. (May 19, 2020), https://www.irmagazine.com/technology-social-media/iros-urged-monitor-ai-adoption-investors [https://perma.cc/LA6E-Q8NF]; Pollack, *supra* note 85; Anthony Petrucci, *How Artificial Intelligence Will Impact Corporate Communications*, FORBES (Apr. 20, 2018), https://www.forbes.com/sites/forbescommunicationscouncil/2018/04/20/how-artificial-intelligence-will-impact-corporate-communications/#678194da1dc6 [https://perma.cc/879H-B3LV].

[100] Human, *supra* note 99.

[101] *Id.*

[102] *See* Pollack, *supra* note 85.

[103] *Id.*

such as individualized "investor relations virtual assistants" provided through mobile technology and social media.[104] By harnessing these AI technologies, corporate communications can more effectively quell investor discontent and bolster shareholder confidence at the individual level.[105]

From the countervailing perspective of investors, AI also enables existing and potential shareholders to communicate more strategically with the companies in which they invest. Institutional investors regularly use AI algorithms to cull through market-based communications in order to find otherwise imperceptible patterns in corporate behavior and planning.[106] According to the spokesperson for BlackRock, one of the largest asset managers in the world, the technology "include[s] identifying and trying to exploit nonintuitive relationships between securities or market indicators, perusing social media 'to gain insights on employee attitudes, sentiment and preferences,' and monitoring search engines for words being entered on particular topics."[107] From both the company and investor perspectives, enhanced reliance on AI in the corporate discourse loop creates a potentially much more tailored and arguably efficient dialogue between corporations and their shareholders.[108]

One final noteworthy aspect of AI communication technology is its use to enhance human capabilities. For example, one recent AI technology, Ambit, teaches individuals how to engage more effectively in interpersonal communication, whether for debate, negotiation, collaboration, or for some other purpose.[109] After recording speech samples from participants:

> Ambit's machine learning then performs the analysis by combining acoustic language processing and natural language processing techniques. It measures patterns such as pitch frequency and pauses; the tone of the meeting, such as whether the discussion was negative or positive; the conversation flow, including how often participants took turns speaking; as well as the emotions expressed during the session, such as anger or joy. Ambit then makes links between various patterns and shows participants how they performed, such as

[104] *See id.*

[105] *See* Petrucci, *supra* note 99 ("AI will be the method through which a new concept called identity-based corporate communications will emerge. The precision will be impressive, with communications customized to each individual.").

[106] *See* Conrad De Aenlle, *A.I. Has Arrived in Investing. Humans Are Still Dominating.*, N.Y. TIMES (Jan. 12, 2018), https://www.nytimes.com/2018/01/12/business/ai-investing-humans-dominating.html [https://perma.cc/EB84-FAE9].

[107] *Id.* (quoting BlackRock spokeswoman, Jessica Greaney).

[108] *See* Petrucci, *supra* note 99 (listing advantages AI brings to corporate communications).

[109] *See* John McCormick, *AI Tool Aims to Improve Communication Skills*, WALL ST. J. PRO: A.I., https://www.wsj.com/articles/ai-tool-aims-to-improve-communication-skills-11553245212 [https://perma.cc/SW59-SPZ6] (Mar. 22, 2019).

> whether one individual dominated a discussion or if another pulled back from a possible conflict.[110]

Another AI-driven corporate communications company, Quantified Communications, promises that "[w]e train our machine (analytics platform) on the factors that make someone best-in-class, what makes someone a great leadership communicator, what makes someone trustworthy, etc., and then we help people 'optimize' their communication on those factors."[111]

Instead of simply providing a complementary tool to make better sense of the outside world, these AI technologies target the human condition itself. The utilization of AI to enhance human endowments represents one embodiment of one of the biggest moral concerns regarding the proliferation of AI.[112] Considering that corporations remain largely motivated to make profits even when moral boundaries remain somewhat blurry, many remain quite doubtful that existing corporate governance principles would encourage corporate managers to engage with the weighty ethical questions surrounding the use of AI for human enhancement.[113] Despite global public trepidation regarding the growing influence of AI,[114] a recent Pew Research Center survey reveals some significant support for using AI to enhance human physical and cognitive capabilities through AI-assisted exoskeletons, brain implants, and gene editing in babies.[115] As John Havens, the executive director of the IEEE Global

---

110 *Id.*

111 *The Future of Human Communication: How Artificial Intelligence Will Transform the Way We Communicate*, QUANTIFIED (June 14, 2016), https://www.quantifiedcommunications.com/blog/artificial-intelligence-in-communication [https://perma.cc/7GD4-2WF6].

112 *See* Joshua P. Davis, *Artificial Wisdom? A Potential Limit on AI in Law (and Elsewhere)*, 72 OKLA. L. REV. 51, 65–66 (2019) (discussing the moral hazard involved in humans programming and moderating an AI presence's ability to engage in moral reasoning via human perceptions of morality rather than its own).

113 For a comprehensive review of discussion of ethical issues surrounding human enhancement involving AI, see SEAN R. JENSEN ET AL., SIENNA, ETHICAL ANALYSIS OF HUMAN ENHANCEMENT TECHNOLOGIES 62–64 (Aug. 2019), https://zenodo.org/record/4068071/files/SIENNA%20D3.4.pdf?download=1 [https://perma.cc/JPC6-DKZ2].

114 *See* Courtney Johnson & Alec Tyson, *People Globally Offer Mixed Views of the Impact of Artificial Intelligence, Job Automation on Society*, PEW RSCH. CTR. (Dec. 15, 2020), https://www.pewresearch.org/fact-tank/2020/12/15/people-globally-offer-mixed-views-of-the-impact-of-artificial-intelligence-job-automation-on-society/ [https://perma.cc/TH63-734Z].

115 *See generally* LEE RAINIE, CARY FUNK, MONICA ANDERSON & ALEC TYSON, PEW RSCH. CTR., AI AND HUMAN ENHANCEMENT: AMERICANS' OPENNESS IS TEMPERED BY A RANGE OF CONCERNS (Mar. 2022), https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2022/03/PS_2022.03.17_AI-HE_REPORT.pdf [https://perma.cc/PE4P-DJUU]; *see also* Cary Funk & Lee Rainie, *5 Key Themes in Americans' Views About AI and Human Enhancement*, PEW RSCH. CTR. (Mar. 17, 2022), https://www.pewresearch.org/fact-tank/2022/03/17/5-key-themes-in-americans-views-about-ai-and-human-enhancement/ [https://perma.cc/G9TU-UN3L].

Initiative on Ethics and Intelligent Systems stated, "'human-AI augmentation' discussions ignore the critical context of who actually controls people's information and identity. Soon it will be extremely difficult to identify any autonomous or intelligent systems whose algorithms don't interact with human data in one form or another."[116] Losing human agency through increased reliance on AI represents perhaps the worst-case outcome associated with the proliferation of AI.[117] But corporations largely control the future of AI.[118] Without paying close attention to the corporate governance principles that ultimately shape the role AI plays in our collective lives, we may blithely march ahead toward realizing one of our greatest fears.

2. *Risk Management and Compliance*

Identifying and mitigating risk represents an essential aspect of sound corporate management[119] and AI plays an increasingly important role in helping executives navigate uncertain waters.[120] The task of predicting future corporate crises and operational vulnerabilities becomes much more difficult as corporate organizations get more complex and touch more facets of our social, economic, and political lives.[121] Moreover, problems of data overload can hamstring

[116] JANNA ANDERSON, LEE RAINIE & ALEX LUCHSINGER, PEW RSCH. CTR., ARTIFICIAL INTELLIGENCE AND THE FUTURE OF HUMANS 7–8 (Dec. 2018), https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2018/12/PI_2018.12.10_future-of-ai_FINAL1.pdf [https://perma.cc/7N4H-TJH5].

[117] *Id.* at 2 ("Experts say the rise of artificial intelligence will make most people better off over the next decade, but many have concerns about how advances in AI will affect what it means to be human, to be productive and to exercise free will . . . . The experts predicted networked artificial intelligence will amplify human effectiveness but also threaten human autonomy, agency and capabilities.").

[118] *See* John Thornhill, *Artificial Intelligence: Can We Control It?*¸ FIN. TIMES MAG. (July 14, 2016), https://www.ft.com/content/46d12e7c-4948-11e6-b387-64ab0a67014c/ [https://perma.cc/X5YM-MJXQ].

[119] *See generally* ALFONSO NATALE, THOMAS POPPENSIEKER & MICHAEL THUN, MCKINSEY & CO., FROM RISK MANAGEMENT TO STRATEGIC RESILIENCE (Mar. 2022), https://www.mckinsey.com/~/media/mckinsey/business%20functions/risk/our%20insights/from%20risk%20management%20to%20strategic%20resilience/from-risk-management-to-strategic-resilience.pdf?shouldIndex=false [https://perma.cc/2QHP-BTPG].

[120] FRANK FARRALL ET AL., DELOITTE, TECH TRENDS 2022, at 74 (2022), https://www2.deloitte.com/content/dam/insights/articles/US164706_Tech-trends-2022/DI_Tech-trends-2022.pdf [https://perma.cc/29HR-X8YH] ("As organizations automate, they can build in their risk management principles at the outset, using AI to respond more proactively to emergent threats."). *See generally* DELOITTE, WHY ARTIFICIAL INTELLIGENCE IS A GAME CHANGER FOR RISK MANAGEMENT (2016), https://www2.deloitte.com/content/dam/Deloitte/us/Documents/audit/us-ai-risk-powers-performance.pdf [https://perma.cc/ HY8B-M5YK].

[121] *See* Anand Rao & Bret Greenstein, *PwC 2022 AI Business Survey*, PwC (2022), https://www.pwc.com/us/en/tech-effect/ai-analytics/ai-business-survey.html?WT.mc_id=

corporate managers who struggle to find relevant meaning in the cacophony of information streams.[122] Groundbreaking new AI software, however, can help corporate managers wade through the increasingly dense thicket of information to identify and assess potential hurdles to corporate success.[123] In contrast to traditional regression models, AI-enabled risk management technologies can easily handle vast amounts of unstructured qualitative data that cannot be processed and analyzed using conventional data analytics.[124] Because AI software markedly enhances the ability of managers to predict and navigate around potential risks, current predictions estimate investment in artificial cognitive risk management technologies will exceed $60 billion by 2025.[125] Whether with respect to human resources, data security, production vulnerabilities, financial irregularities, or any area of corporate performance,[126] AI software can reduce risk exposure that might otherwise significantly hinder profitability.[127]

CT3-PL300-DM1-TR1-LS4-ND30-PRG7-CN_DataAndAnalyticsBuilds-AISurveyGoogle &gclid=CjwKCAjw_ISWBhBkEiwAdqxb9kgbcGtr3GpdXpxu3oFo1UoZMHo5JjW0JyW kkHFJl8f9vkPmcPahjxoCrr8QAvD_BwE&gclsrc=aw.ds/ [https://perma.cc/7EQE-CCWR]; DELOITTE, *supra* note 120.

[122] *See* WORLD ECON. F., EMPOWERING AI LEADERSHIP: AI C-SUITE TOOLKIT 15 (Jan. 2022), https://www3.weforum.org/docs/WEF_Empowering_AI_Leadership_2022.pdf [https://perma.cc/79V8-RVG2]; JUAN TELLO & LAKSHMI SUBRAMANIAN, DELOITTE, THE MAGIC BEHIND TURNING DATA INTO PROFIT 2 (2022), https://www2.deloitte.com/content/dam/Deloitte/us/Documents/deloitte-analytics/us-ai-institute-challenges-of-using-artificial-intelligence-final.pdf [https://perma.cc/5ZAN-85SG]; Simon Blackburn, Jeff Galvin, Laura LeBerge & Evan Williams, *Strategy for a Digital World*, *in* MCKINSEY GLOBAL SURVEYS, 2021: A YEAR IN REVIEW 48, 51 (Dec. 2021), https://www.mckinsey.com/~/media/mckinsey/featured%20insights/mckinsey%20global%20surveys/mckinsey-global-surveys-2021-a-year-in-review.pdf [https://perma.cc/TUJ4-CK43].

[123] *See* Ipsita Pradhan, *Artificial Intelligence: The New Normal*, INST. RISK MGMT., https://www.theirm.org/news/artificial-intelligence-the-new-normal/ [https://perma.cc/WYJ7-6DGG]; *see also* Petrucci, *supra* note 99 ("AI will enable faster responses to crises, following preset parameters as part of human-centric contingency plans. AI bots will be programmed to assist crisis communication leaders—and they won't be swayed by emotions in heated crisis situations.").

[124] IBM Cloud Education, *Structured vs. Unstructured Data: What's the Difference?*, IBM (June 29, 2021), https://www.ibm.com/cloud/blog/structured-vs-unstructured-data [https://perma.cc/WK38-KMBE].

[125] DELOITTE, *supra* note 120.

[126] Alex Hurrell, *A Call To Arms—How Machine Intelligence Can Help Banks Beat Financial Crime*, RISK.NET (Sept. 6, 2018), https://www.risk.net/technology/5915361/a-call-to-arms-how-machine-intelligence-can-help-banks-beat-financial-crime [https://perma.cc/H9P9-287T].

[127] *See* Jeanne Boillet, *Why AI Is Both a Risk and a Way to Manage Risk*, EY (Apr. 1, 2018), https://www.ey.com/en_gl/assurance/why-ai-is-both-a-risk-and-a-way-to-manage-risk [https://perma.cc/G4QL-CJ35].

3. *Automation and Systems Organization*

Improving automation and systems management have been some of the most prominent applications of AI.[128] According to a 2022 survey by PwC of one thousand corporate and technology executives across of variety of business sectors, 64% of companies report using AI to improve automated production.[129] Another recent study from SAS reports that 60% of manufacturing companies believed AI technology represented the most important production tool.[130] As companies around the world continue to face complex supply chain problems that create persistent logistical hurdles for timely product delivery, AI technologies remain integral to ensuring efficient production despite the tumultuous landscape.[131] Confirming market confidence in the growth of AI to ensure optimal production capabilities, a prominent AI research firm recently reported that companies developing AI robotic automation technologies remain some of the most highly coveted targets among venture capitalists and institutional investors.[132]

Of course, the usefulness of AI automation technology extends well beyond physical automation and manufacturing. In almost all aspects of business

---

[128] *See* DIMPLE AGARWAL, JOSH BERSIN, GAURAV LAHIRI, JEFF SCHWARTZ & ERICA VOLINI, DELOITTE, *AI, Robotics, and Automation: Put Humans in the Loop*, *in* THE RISE OF THE SOCIAL ENTERPRISE: 2018 DELOITTE GLOBAL HUMAN CAPITAL TRENDS 73, 73 (Junko Kaji et al. eds., 2018), https://www2.deloitte.com/content/dam/insights/us/articles/HCTrends2018/2018-HCtrends_Rise-of-the-social-enterprise.pdf [https://perma.cc/7Y8B-LYBW].

[129] *See* Rao & Greenstein, *supra* note 121.

[130] SAS, SOLVING THE DIGITAL TRANSFORMATION PUZZLE 8 (Dec. 2021), https://www.sas.com/content/dam/SAS/documents/marketing-whitepapers-ebooks/third-party-whitepapers/en/solving-digital-transformation-puzzle-112434.pdf [https://perma.cc/B5M9-CFC7].

[131] *See* ENNO DE BOER ET AL., MCKINSEY & CO., TRANSFORMING ADVANCED MANUFACTURING THROUGH INDUSTRY 4.0, at 2 (June 2022), https://www.mckinsey.com/~/media/mckinsey/business%20functions/operations/our%20insights/transforming%20advanced%20manufacturing%20through%20industry%204%200/transforming-advanced-manufacturing-through-industry-4-point-0.pdf?shouldIndex=false [https:// perma.cc/X7DF-6UD2].

[132] *See, e.g.*, Michael Schallehn & Chris Johnson, *Why Venture Capitalists Are Doubling Down on Technology*, *in* TECHNOLOGY REPORT 2021, at 24, 25–27 (2021), https://www.bain.com/globalassets/noindex/2021/bain_report_technology-report-2021.pdf [https://perma.cc/S8HS-U9L7]; Adam Janofsky, *Facial Recognition, Robotic Process Automation Companies Among Most-Funded AI Startups*, WALL ST. J. PRO: A.I. (Feb. 14, 2019), https://www.wsj.com/articles/facial-recognition-robotic-process-automation-companies-among- most-funded-ai-startups-11550138401 [https://perma.cc/TWS9-BGGC]; Marc Suidan & Anand Rao, *Artificial Intelligence and M&A: Are You Getting the Value You Paid For?*, PwC (June 10, 2021), https://www.pwc.com/us/en/tech-effect/ai-analytics/ai-deals.html [https://web.archive.org/web/20210614004141/https://www.pwc.com/us/en/tech-effect/ai-analytics/ai-deals.html] ("AI companies raised a record $33 billion in equity funding in 2020.").

operations, no matter how nuanced, AI plays a progressively prominent role.[133] For instance, AI technologies have significantly altered how companies manage human resources, including recruiting, hiring, and retention.[134] As a recent management analyst from Deloitte observed:

> Software can now recognize faces and identify gender, listen to voices and identify mood, and decode video interviews to identify education level, lying, and cognitive ability. Analytics tools are intelligently selecting candidates, identifying employees' career options, and coaching managers on improving their leadership skills. And the potential doesn't end there: AI is even being used to create chatbots that can interact with job candidates, identify and score video interviews, and understand the sentiment of engagement surveys. Every major human capital management cloud provider is now implementing algorithms, making it important for organizations to maintain accurate data and carefully review these tools for accuracy and potential bias.[135]

Thus, companies harness AI technologies not only to enhance production efficiency, but to solve operational problems in a variety of areas previously thought within the exclusive domain of sentient human beings.[136] As AI expands its reach into so many facets of business operations and production, the very nature of how humans participate in the business structure will necessarily change.[137]

Regardless of the particular application of AI to production and operational challenges, AI will continue to proliferate to the extent the technology produces a clear return on investment.[138] And according to market professionals at

---

[133] *See* notes 80–83 and accompanying text.

[134] Sameer Maskey, *How AI Is Primed to Disrupt HR and Recruiting*, FORBES (Mar. 23, 2022), https://www.forbes.com/sites/forbestechcouncil/2022/03/23/how-ai-is-primed-to-disrupt-hr-and-recruiting/?sh=6d530cf51078 [https://perma.cc/3JF8-8ASU]; *see also* Sara Castellanos, *HR Departments Turn to AI-Enabled Recruiting in Race for Talent*, WALL ST. J. (Mar. 14, 2019), https://www.wsj.com/articles/hr-departments-turn-to-ai-enabled-recruiting-in-race-for-talent-11552600459 [https://perma.cc/S7GQ-B2K6].

[135] AGARWAL, BERSIN, LAHIRI, SCHWARTZ & VOLINI, *supra* note 128, at 74 (citations omitted).

[136] For a description of efforts to expand AI robotics to nontraditional areas, see Greg Nichols, *DARPA Seeks "Non-Traditional" Robotics Innovators*, ZDNET (Nov. 18, 2015), https://www.zdnet.com/article/darpa-seeks-non-traditional-robotics-innovators/ [https://perma.cc/2LP8-FYUM].

[137] *See* Uzialko, *supra* note 2.

[138] *See* Gaines Kesari, *You've Invested in AI, but Are You Getting ROI From It?*, FORBES (Mar. 29, 2021), https://www.forbes.com/sites/ganeskesari/2021/03/29/youve-invested-in-ai-but-are-you-getting-roi-from-it/ [https://perma.cc/ZR74-LWL6]; SANJEEV VOHRA, AJAY VASAL, PHILIPPE ROUSSIERE & LAN GUAN, ACCENTURE, THE ART OF AI MATURITY: ADVANCING FROM PRACTICE TO PERFORMANCE 30 (2022), https://www.accenture.com/_acnmedia/Thought-Leadership-Assets/PDF-5/Accenture-Art-of-AI-Maturity-Report.pdf [https://perma.cc/AB4F-ZWHP].

McKinsey & Company who study the effect of AI-assisted automation and operations on profitability, the financial gains from AI adoption seem all but inevitable, if not potentially exponential.[139] Although small businesses might experience some difficulties with the initial technological investment,[140] the rewards from sustained engagement with AI technology remain readily demonstrable.[141] As a result, increasing reliance on AI to manage and operate businesses will likely continue unabated.

4. *Mergers & Acquisitions*

Within the context of mergers and acquisitions, AI plays a pivotal role in securing profitability and deal satisfaction. Companies seek business combinations for a host of disparate reasons, including increased market share, technology development, vertical integration, asset acquisition, economies of scope and scale, and diversification.[142] Determining whether a potential acquisition might provide a proper fit, however, requires a time-consuming and incredibly expensive due diligence process.[143] In order to ascertain the appropriate price for the transaction and to determine the best terms of the deal, parties review vast amounts of financial and company data, conduct onsite visits of assets, assess operational systems, interview key executives and managers, evaluate pending and potential legal claims, and ferret out potential risks to successful post-deal integration, among a host of other necessary yet incredibly painstaking transaction tasks.[144] Despite the huge amount of due diligence work required in any deal, a very limited time frame makes fully comprehensive assessment all but impossible. Moreover, accomplishing those tasks requires coordinating a team of disparate professionals including accountants, lawyers, investment bankers, company personnel, and any other experts whose opinions might inform deal value and structure.[145]

---

139 *See* YUVAL ATSMON ET AL., MCKINSEY & CO., TIPPING THE SCALES IN AI: HOW LEADERS CAPTURE EXPONENTIAL RETURNS 2, 4–8 (Apr. 2021), https://www.mckinsey.com/~/media/McKinsey/Industries/Technology%20Media%20and%20Telecommunications/High%20Tech/Our%20Insights/Tipping%20the%20scales%20in%20AI/Tipping-the-scales-in-AI-How-leaders-capture-exponential-returns.pdf [https://perma.cc/A3L5-8KYX]; *see also* MCCAULEY, *supra* note 31, at 8; Davenport & Bean, *supra* note 43.

140 MCCAULEY, *supra* note 31, at 4; *see* Oliver Rist, *Small Businesses Are Using AI—Sometimes*, PCMAG (Dec. 7, 2021), https://www.pcmag.com/news/small-businesses-are-using-ai-sometimes [https://perma.cc/32PZ-HJRU].

141 *See* ATSMON ET AL., *supra* note 139, at 4.

142 *Merger*, CORP. FIN. INST., https://corporatefinanceinstitute.com/resources/valuation/merger/ [https://perma.cc/DYL4-DNCF] (Nov. 27, 2022); *see also* STEPHEN M. BAINBRIDGE, MERGERS AND ACQUISITIONS 1 (3d ed. 2012).

143 COMM. ON NEGOTIATED ACQUISITIONS, AM. BAR ASS'N, THE M&A PROCESS: A PRACTICAL GUIDE FOR THE BUSINESS LAWYER 178–202 (2005).

144 *See id.*

145 *See id.* at 192–93.

In light of the complexity and importance of conducting robust due diligence within a limited timeframe, consulting firms developed sophisticated AI-assisted due diligence software to accomplish important due diligence tasks more quickly, inexpensively, and ultimately much more accurately than if conducted by humans.[146] Scouring through incredible volumes of data at ferocious speed, these AI tools not only summarize and categorize relevant data in an accessible manner but identify potentially unforeseen risks that require attention in negotiating an appropriately tailored deal structure.[147] As a consultant from Deloitte commented about how AI improves dealmaking processes,

> Due to time constraints, the prior approach to reviewing contracts relied on sampling some contracts and extrapolating companywide results. New AI technology, however, shifts the prior balance between limited time and the desire to plan and understand (and then mitigate) risk. The new technology enables a more comprehensive view in the same—if not a shorter—time period, enabling analysis to go beyond just review and into helping plan next steps.
>
> This enables companies involved in a deal to better realize synergies and address obstacles immediately upon close.[148]

Although not wholly supplanting the role of human professionals, the AI software greatly enhances the likelihood that the various human actors utilizing

---

[146] *See* William Choe, Arlene Arin Hahn & Jason Rabbitt-Tomita, *Powering Opportunity: How Dealmakers Are Harnessing AI*, WHITE & CASE (Aug. 7, 2018), https://mergers.whitecase.com/highlights/powering-opportunity-how-dealmakers-are-harnessing-ai [https://perma.cc/2TXE-FW77] ("The due diligence process has proven particularly suitable for the application of AI. Rather than hiring huge teams of people to sift through all a target company's employment, supplier and customer contracts, AI platforms such as Kira, RAVN, eBrevia and Luminance search thousands of uploaded contracts across hundreds of data points. This enables them to present any issues to legal advisers and due diligence providers in a fraction of the time with at least the same level of accuracy. Due-diligence start-up Neotas uses AI to run background checks on management teams by searching the entire internet, including public records and social media, for any issues or red flags.").

[147] *See* Press Release, Hampleton Partners, Big IT Players in the Race to Acquire Artificial Intelligence (AI) Assets (June 7, 2018), https://hampletonpartners.com/mediaarticle/hampleton-partners-artificial-intelligence-ai-market-report/ [https://perma.cc/5GMH-MALP] (explaining that AI acquisitions are increasing); *Practical Considerations of Using AI in Due Diligence*, DENTONS (Sept. 2, 2022), https://www.dentons.com/en/insights/articles/2022/august/31/practical-considerations-of-using-ai-in-due-diligence [https://perma.cc/4M7G-RJPS] (discussing the ability of AI to conduct its own analysis of due diligence documents to supplement lawyers and their own reasoning).

[148] JONI YOUNG, JANE ROTH & MICHAEL JOSEPH, DELOITTE, M&A HOT TAKES: TURBOCHARGE YOUR NEXT TRANSACTION 5 (2018), https://www2.deloitte.com/content/dam/Deloitte/us/Documents/mergers-acqisitions/us-m-and-a-hot-takes-turbocharge-your-next-transaction.pdf [https://perma.cc/5LVZ-6CHD].

the technology (lawyers, accountants, investment bankers, and company personnel) will negotiate a more accurate price and appropriately nuanced deal terms.[149]

Although some traditional elements of due diligence practice remain, the utilization of M&A technologies to facilitate transactions grows at a remarkable rate.[150] A recent global study of M&A lawyers found that 91% used AI technology to gain a competitive advantage in negotiating transactions.[151] Another market study suggests that over 60% of large cap companies are employing (either on their own or through intermediaries) AI tools at various stages in the acquisition process.[152] In almost every aspect of the transaction cycle, from the inception of the deal to post-closing integration,[153] AI technology works to enhance the efficiency, accuracy, and profitability of the deal.[154] By reducing costs while increasing the qualitative success of any transaction, AI now represents an essential tool in the M&A arsenal.

Beyond making due diligence more accurate and cost-effective, companies use AI to identify acquisition targets,[155] shape important deal terms, and manage the integration of combined companies post-closing.[156] According to one recent study of global M&A practices, "Technology solutions support M&A teams in

---

[149] *See* Sam Zadeh, *Better, Faster, Stronger: Revamping the M&A Due Diligence Process with Artificial Intelligence Platforms*, NORTON ROSE FULBRIGHT: DEAL L. WIRE (Mar. 27, 2018), https://www.deallawwire.com/2018/03/27/better-faster-stronger-revamping-the-ma-due-diligence-process-with-artificial-intelligence-platforms/ [https://perma.cc/3RR6-PKL5].

[150] *See* J. Neely, *How to Extract More Value from M&A by Using Artificial Intelligence and Analytics*, MERGERS & ACQUISITIONS (Feb. 20, 2018), https://www.themiddlemarket.com/opinion/artificial-intelligence-and-analytics-are-transforming-m-a [https://perma.cc/P4GH-HLVQ].

[151] LITERA, LITERA TECHNOLOGY IN M&A REPORT 15 (2022), https://info.litera.com/rs/046-QLX-552/images/Litera-Technology-in-MnA-Report-April-2022.pdf [https://perma.cc/9M5K-7TGJ].

[152] *See* Leon Saunders Calvert, *Using AI to Predict Opportunity in M&A*, REFINITIV (June 20, 2018), https://blogs.thomsonreuters.com/financial-risk/ai-digitalization/using-ai-to-predict-opportunity-in-m-and-a/ [https://perma.cc/HYJ2-24XQ].

[153] Rishi Malkani, *Not Using Analytics in M&A? You May Be Falling Behind*, DELOITTE, https://www2.deloitte.com/ca/en/pages/finance/articles/analytics-m-and-a-ia.html [https://perma.cc/XXQ2-EQVS].

[154] *See* Choe, Hahn & Rabbitt-Tomita, *supra* note 146 ("For deal professionals, AI is not just an exciting source of new transaction flow. It can now be applied to every part of the deal process, from tracking and sourcing deals through to due diligence, execution and post-deal integration.").

[155] *See id.*; *see also* Langkun Guo, Ranjini Rangamani, Ruoyu Chen, Songzhou Jiang & Zoe Wang, *How AI Is Used in M&A? Forecasting M&A Targets Leveraging on Machine Learning*, REBELLION RSCH. (Aug. 22, 2022), https://www.rebellionresearch.com/how-ai-is-used-in-ma-forecasting-ma-targets-leveraging-on-machine-learning [https://perma.cc/4YBF-4Y3S].

[156] *See* Malkani, s*upra* note 153.

all aspects of work: organization and workflow, negotiation, due diligence, drafting and closing. Adoption levels are strong across all those areas, with technology having an impact across the entire deal workflow."[157] Indeed, much of the financial and organizational analysis once conducted by humans now gets relegated to AI software.[158] Although human analysis often gets sidetracked by implicit biases or false projections, AI tools work dispassionately to find target companies or opportunities for investment.[159]

In the end, maintaining a competitive edge all but requires using AI technologies in any major acquisition or divestment decision.[160] Moreover, the rapid adoption of AI technologies by companies and their advisers in the acquisition space continues to fuel the development of additional innovative software. As that innovation continues, the role of humans in the M&A process will continue to change. Where that change might lead remains uncertain. But the gnawing concern remains whether humans can properly cabin that technological proliferation in a manner that sustains our ethical and moral values.[161]

---

[157] LITERA, *supra* note 151, at 2.

[158] For examples of new AI investment banking tools that identify acquisition targets and strategies, see Leon Saunders Calvert, *M&A and the Digitalization of Investment Banking*, REFINITIV (June 8, 2018), https://www.refinitiv.com/perspectives/ai-digitalization/ma-and-the-digitalization-of-investment-banking/ [https://perma.cc/N63D-MYDS] ("By co-mingling proprietary content, concerning a bank's clients for instance, with alternative sources of data from third parties, and then stitching these together using AI tools to create connections, investment banks can help drive deal origination ideas."); *Investment Banking 2.0–Predicting M&A Opportunities Through AI*, KOGNETICS (Apr. 6, 2020), https://www.kognetics.com/blogs/investment-banking-2-0-predicting-ma-opportunities-through-ai/ [https://perma.cc/CZ3H-BR5S].

[159] *See Artificial Intelligence to Enhance M&A*, ONE TO ONE CORP. FIN., https://www.onetoonecf.com/embracing-artificial-intelligence-to-enhance-mna/ [https://perma.cc/VEW9-HMLL] ("To begin with, the preliminary application of AI will likely be to assist companies and financial analysts with gathering and processing information that can be used to make different types of M&A-related decisions. While humans can, of course, execute these tasks, AI-supported machines will be able to carry out these activities continuously, much faster and have far better recollections of search results . . . . AI could gather information about multiple markets and sectors and compare them to identify acquisition opportunities that likely offer the best ROI.").

[160] *See* Leon Saunders Calvert, *AI & Investment Banking Competitive Advantage*, REFINITIV (Nov. 19, 2018), https://www.refinitiv.com/perspectives/ai-digitalization/ai-competitive-advantage-investment-banking/ [https://perma.cc/SJZ2-QU85]; Malkani, *supra* note 153 ("Deloitte is currently developing an M&A market sensing platform that will transform how we monitor market trends and deal insights. The sensing tool will expedite proactive and strategic identification of emerging risks and value creation opportunities to enable our clients to identify transaction opportunities quicker and ahead of the competition.").

[161] *See* Davis, *supra* note 112, at 65–66 (discussing the role of humans in guiding AI entities).

* * * * *

This short survey does not intend to describe the full panoply of ways in which corporations utilize AI. Instead, this limited account of some important trends in AI advancement sheds light on how corporations increasingly rely on AI at various important stages of business operations, planning, and strategic development. Even such a spare background understanding makes abundantly clear the paramount importance of ensuring that robust corporate governance principles exist to guide corporate managers in shaping the development and adoption of AI.[162] Without those principles in place, we risk surrendering our sovereignty to algorithmic entities and the corporations that harness AI's power.

C. *Artificially Intelligent Managers and Owners*

Although AI plays an integral role in myriad corporate settings and functions,[163] could AI entities manage or own a business? This incredibly striking question signals one of the most important developments in the evolution of the corporation. Far from a futuristic fantasy, AI entities have already taken leadership roles in big business.[164] To take just one example, Hong Kong based venture capital firm, Deep Knowledge Ventures, appointed an AI software entity, Vital, to its board of directors in 2014.[165] Although extant law in that particular jurisdiction prohibited Vital from enjoying the formal legal status of a board member, the other human directors afforded Vital "observer" status at each board meeting and allowed Vital to vote on all financial investment decisions.[166] During its tenure, Vital was credited with guiding the firm away from potential bankruptcy when the human directors previously invested too heavily in risky biotech ventures.[167] Moreover, at least one

---

162 *See infra* Part V.

163 BEENA AMMANATH, SUSANNE HUPFER & DAVID JARVIS, DELOITTE, THRIVING IN THE ERA OF PERVASIVE AI 3 (2020), https://www2.deloitte.com/content/dam/insights/us/articles/6462_state-of-ai-in-the-enterprise/DI_State-of-AI.pdf [https://perma.cc/3RPJ-WFJY].

164 Florian Möslein, *Robots in the Boardroom: Artificial Intelligence and Corporate Law*, OXFORD BUS. L. BLOG (Nov. 16, 2017), https://www.law.ox.ac.uk/business-law-blog/blog/2017/11/robots-boardroom-artificial-intelligence-and-corporate-law [https://perma.cc/ED24-UV6Q].

165 *Id.*

166 *Id.*

167 Sophie Camp, *Why Everyone in the Boardroom Needs AI*, OUTSIDE INSIGHT: BLOG, https://outsideinsight.com/insights/why-everyone-in-the-boardroom-needs-ai/ [https://perma.cc/HWZ6-X69R] ("Vital at Deep Knowledge Ventures is credited with rescuing the company when it was on the brink of bankruptcy. The venture capital fund was investing in too many 'overhyped' projects in the biotech industry, a notoriously difficult one for investors with its very high failure rate. With Vital, they were able to analyse big data that revealed patterns of risk for their investments.").

European company, Tieto, recently appointed a similar autonomous AI entity, Alicia T, as a fully voting member of its management team.[168]

In a variety of domestic and international jurisdictions, AI entities may already legally serve as corporate officers and full voting members on corporate boards.[169] Although many U.S. states (including Delaware)[170] require corporate directors to be "natural persons," many jurisdictions simply permit any "person" or "legal entity" (e.g., another company) to serve.[171] In general, corporate law standards in the United States remain intentionally malleable to adapt to evolving corporate practices.[172] In light of the celerity of innovation regarding the decision-making capabilities of AI and the competition among jurisdictions for providing regulatory structures that suit market preferences, some experts suggest an inevitable shift towards legal regimes that permit AI entities to serve as corporate officers and directors.[173] Perhaps the pressing question is not whether AI entities will manage corporations in the future, but how corporate law must adapt to the fundamental changes AI will bring to the corporate form itself.[174]

---

168 Press Release, Tieto, Tieto the First Nordic Company to Appoint Artificial Intelligence to the Leadership Team of the New Data-Driven Businesses Unit (Oct. 17, 2016), https://www.bloomberg.com/press-releases/2016-10-17/tieto-the-first-nordic-company-to-appoint-artificial-intelligence-to-the-leadership-team-of-the-new-data-driven-businesses-unit [https://perma.cc/LRB5-ZNWZSN29-BPTY] ("Tieto . . . has appointed Artificial Intelligence as a member of the leadership team of its new data-driven businesses unit. The AI, called Alicia T, is the first AI to be nominated to a leadership team in an OMX-listed company. AI will help the management team to become truly data-driven and will assist the team in seeking innovative ways to pursue the significant opportunities of the data-driven world.").

169 *See* Möslein, *supra* note 33, at 657–66.

170 DEL. CODE ANN. tit. 8, § 141(b) (2016).

171 Möslein, *supra* note 33, at 664–65, n.81. *See generally* Shawn Bayern, *Are Autonomous Entities Possible?*, 114 NW. U. L. REV. ONLINE 23 (2019) (discussing the various approaches to "personhood" under different state corporate laws).

172 *See* Jens C. Dammann, *Indeterminacy in Corporate Law: A Theoretical and Comparative Analysis*, 49 STAN. J. INT'L L. 54, 57 (2013) (discussing how regulatory competition has made Delaware law intentionally vague and indeterminate).

173 *See* Möslein, *supra* note 33, at 665–66; John Armour & Horst Eidenmüller, *Self-Driving Corporations?*, 10 HARV. BUS. L. REV. 87, 106 (2020) ("At some point, we may see humans on boards of corporations being replaced by algorithms.").

174 *See* Petrin, *supra* note 47, at 1029–30 ("With software and machines in charge, the need for a collective board will vanish, which will be replaced with a single 'fused' corporate management function. The shift from human to AI-based management will equally necessitate changes to the system of managerial liability . . . . [I]t seems clear that there will be a need for legal reform to accommodate changes brought about by new technologies. These reforms should be both enabling—facilitating the efficiencies and other beneficial effects of AI management—but also restrictive, protecting society from potential negative impacts, loss of employment, and other harmful actions by rogue AI entities.").

Along those lines, a quickly growing cadre of legal scholars, technologists, and business experts maintain that corporations and other business entities could be wholly owned and operated by AI entities.[175] One of the early proponents of this possibility, Professor Shawn Bayern, explains in a series of articles the logistics of this evolutionary development.[176] One technique requires the creation of dual limited liability companies ("LLCs") that take ownership interests in each other. As Bayern explains:

> (1) An individual member (the "Founder") creates two member-managed LLCs, *A* and *B*, filing the appropriate paperwork with the state. The LLCs each start with a single member, the Founder.
> (2) The Founder causes each entity to adopt a desired operating agreement that sets the parameters under which each entity operates (e.g., deferring control to an algorithm).
> (3) The Founder causes *A* to admit *B* as a member and *B* to admit *A* as a member.
> (4) The Founder dissociates from both *A* and *B*.[177]

When the Founder dissociates, the remaining member of each LLC will be the other LLC, with both LLCs controlled by an AI entity.[178] Not only do the AI-owned LLCs operate without human oversight, but the LLCs can take ownership interests in any property, including stock of other corporations.[179]

Of course, the law governing LLCs is different than the law governing corporations. But as Bayern makes clear, neither the uniform LLC statute nor the actual state LLC statutes in any jurisdiction in the United States prohibit nonhuman membership or management by an artificial entity.[180] Although

---

[175] *See* Bayern, *supra* note 171, at 47; Lynn M. Lopucki, *Algorithmic Entities*, 95 WASH. U. L. REV. 887, 903 (2018); Pyle & San José, *supra* note 75, at 8 ("Looking three to five years out, we expect to see far higher levels of artificial intelligence, as well as the development of distributed autonomous corporations. These self-motivating, self-contained agents, formed as corporations, will be able to carry out set objectives autonomously, without any direct human supervision. Some DACs will certainly become self-programming."); Thomas Burri, *Free Movement of Algorithms: Artificially Intelligent Persons Conquer the European Union's Internal Market*, *in* RESEARCH HANDBOOK ON THE LAW OF ARTIFICIAL INTELLIGENCE, *supra* note 33, at 537–40.

[176] *See generally* Shawn Bayern, *Of Bitcoins, Independently Wealthy Software, and the Zero-Member LLC*, 108 NW. U. L. REV. ONLINE 257 (2014) [hereinafter Bayern, *Of Bitcoins*]; Shawn Bayern, *The Implications of Modern Business-Entity Law for the Regulation of Autonomous Systems*, 19 STAN. TECH. L. REV. 93 (2015) [hereinafter Bayern, *Implications*]; Shawn Bayern et al., *Company Law and Autonomous Systems: A Blueprint for Lawyers, Entrepreneurs, and Regulators*, 9 HASTINGS SCI. & TECH. L.J. 135 (2017) [hereinafter Bayern, *Company Law*].

[177] Bayern, *supra* note 171, at 29.

[178] *Id.* at 27.

[179] *See id.* at 26–28.

[180] *See id.* at 36–40.

under Delaware corporate law, which serves as an effective model for many other jurisdictions, directors of corporations must be "natural person(s),"[181] that requirement may be waived in the corporate charter.[182] Moreover, many jurisdictions in the United States and abroad have no such "natural person" requirement for directors.[183] Although some doubt the legal feasibility of an AI entity owning and operating a business with no human involvement,[184] absent some clear legal prohibition going forward, the evolutionary step seems all but inevitable.[185]

Demonstrating a growing acceptance of businesses run without much—or any—human oversight, a growing number of jurisdictions have adopted special business statutes giving legal status to decentralized autonomous organizations ("DAOs") and crypto companies.[186] In particular, the Wyoming DAO statute (based on the state's LLC statute) allows entities to operate with a sole algorithmic manager.[187] So far, dozens of DAOs have been formed under the Wyoming statute since its inception about a year ago.[188] Although many questions remain about whether those entities could function effectively under the authorizing statutes,[189] the move to legitimate businesses intended to be run by artificial entities marks an important evolutionary development.

Whether AI entities autonomously own and operate a business organized as an LLC or as a corporation, the main concern centers on the jurisprudential soundness of affording constitutional rights to a business entity with no human

---

181 DEL. CODE ANN. tit. 8, § 141(b) (2016).

182 *See* Armour & Eidenmüller, *supra* note 173, at 106.

183 *See id.*; *see also* Bayern, *Company Law*, *supra* note 176, at 149.

184 *See generally, e.g.*, Matthew U. Scherer, *Of Wild Beasts and Digital Analogues: The Legal Status of Autonomous Systems*, 19 NEV. L.J. 259 (2018).

185 *See* Armour & Eidenmüller, *supra* note 173, at 116.

186 *See* Jordan Teague, *Starting a DAO in the USA? Steer Clear of DAO Legislation*, DEFIANT (June 7, 2022), https://thedefiant.io/starting-a-dao-in-the-usa-steer-clear-of-dao-legislation/ [https://perma.cc/JD2H-8XKU].

187 WYO. STAT. ANN. § 17-31-104(e) (2021); WYO. SEC'Y STATE, DECENTRALIZED AUTONOMOUS ORGANIZATION (DAO): FREQUENTLY ASKED QUESTIONS 1 (2022), https://sos.wyo.gov/Business/Docs/DAOs_FAQs.pdf [https://perma.ccQBZ9-CLW6].

188 Jonathan Make, *Decentralized Autonomous Organization Law Changes May Draw More Such Digital Asset Groups to Wyoming*, WYO. TRIB. EAGLE (Mar. 12, 2022), https://www.wyomingnews.com/news/local_news/decentralized-autonomous-organization-law-changes-may-draw-more-such-digital-asset-groups-to-wyoming/article_936d2aec-b88f-5a55-bdb9-329afd333f8b.html [https://perma.cc/6GS8-2Q9F].

189 *See, e.g.*, MARK CIANCI, EVAN GOURVITZ, KELLEY CHANDLER & RAFFI TEPERDJIAN, BLOOMBERG LAW, LEGAL IMPLICATIONS OF DECENTRALIZED AUTONOMOUS ORGANIZATIONS 2–3 (2022), https://www.ropesgray.com/-/media/Files/articles/2022/04/20220414_Bloomberg_DAO_Article.pdf?la=en&hash=658041824B53B872F7A3554798E1971418EDA41E [https://perma.cc/DRK8-ZNFF]; Teague, *supra* note 186.

oversight.[190] Even prior to the ascension of AI in the corporate realm, many prominent scholars and politicians favored removing the status of constitutional personhood from corporations, LLCs, and other business entities.[191] Despite those concerns, corporations and LLCs continue to enjoy many of the same constitutional rights as sentient human beings, including equal protection and due process of law under the Fourteenth Amendment, freedom from unreasonable searches and seizures, freedom of association, religious freedoms, and political speech rights.[192]

Although it might seem somewhat outlandish even to consider granting rights of citizenship to nonhumans, the legal status and rights of artificial entities remains a matter of pressing debate.[193] Many scholars and ethicists embrace the notion of robotic rights,[194] while others take a much more cautious approach,[195] often based on fear that unfettered autonomous entities will inflict irreparable injury on human society.[196] In 2017, the European Parliament considered legislation that would confer "electronic personhood" status on AI entities.[197]

---

[190] Robert van den Hoven van Genderen, *Legal Personhood in the Age of Artificially Intelligent Robots*, *in* RESEARCH HANDBOOK ON THE LAW OF ARTIFICIAL INTELLIGENCE, *supra* note 33, at 213, 217–19; *see also* Burri, *supra* note 175, at 542–45.

[191] *See* Saru M. Matambanadzo, *The Body, Incorporated*, 87 TUL. L. REV. 457, 461–68 (2013); Elizabeth Pollman, *Reconceiving Corporate Personhood*, 2011 UTAH L. REV. 1629, 1670.

[192] Matambanadzo, *supra* note 191, at 471–72; Brandon L. Garrett, *The Constitutional Standing of Corporations*, 163 U. PA. L. REV. 95, 98 (2014).

[193] *See generally, e.g.*, Kate Darling, *Extending Legal Protection to Social Robots: The Effects of Anthropomorphism, Empathy, and Violent Behavior Towards Robotic Objects*, *in* ROBOT LAW 213 (Ryan Calo, A. Michael Froomkin & Ian Kerr eds., 2016); SVEN NYHOLM, HUMANS AND ROBOTS: ETHICS, AGENCY, AND ANTHROPOMORPHISM 3 (2020); Iria Giuffrida, *Liability for AI Decision-Making: Some Legal and Ethical Considerations*, 88 FORDHAM L. REV. 439, 440 (2019); Gerhard Wagner, *Robot, Inc.: Personhood for Autonomous Systems?*, 88 FORDHAM L. REV. 591, 593 (2019); Mark A. Lemley & Bryan Casey, *Remedies for Robots*, 86 U. CHI. L. REV. 1311 (2019).

[194] *See generally, e.g.*, JOSHUA C. GELLERS, RIGHTS FOR ROBOTS: ARTIFICIAL INTELLIGENCE, ANIMAL AND ENVIRONMENTAL LAW (2021).

[195] *See, e.g.*, RYAN ABBOTT, THE REASONABLE ROBOT: ARTIFICIAL INTELLIGENCE AND THE LAW 3 (2020). *See generally* Nadia Banteka, *Artificially Intelligent Persons*, 58 HOUS. L. REV. 537 (2021).

[196] Adam Satariano, Nick Cumming-Bruce & Rick Gladstone, *Killer Robots Aren't Science Fiction. A Push to Ban Them Is Growing*, N.Y. TIMES (Dec. 17, 2021), https://www.nytimes.com/2021/12/17/world/robot-drone-ban.html [https://perma.cc/KCC6-5KKE]; MARY WAREHAM, HUM. RTS. WATCH, STOPPING KILLER ROBOTS: COUNTRY POSITIONS ON BANNING FULLY AUTONOMOUS WEAPONS AND RETAINING HUMAN CONTROL 1–3 (Aug. 2020), https://www.hrw.org/sites/default/files/media_2021/04/arms0820_web_1.pdf [https://perma.cc/2E86-2L66].

[197] Alex Hern, *Give Robots 'Personhood' Status, EU Committee Argues*, GUARDIAN (Jan. 12, 2017), https://www.theguardian.com/technology/2017/jan/12/give-robots-personhood-status-eu-committee-argues [https://perma.cc/F7SK-YG8L].

That same year, Saudi Arabia became the first country to grant formal citizenship to an AI-powered robot, Sophia.[198]

The basic point here is to underscore how the speed of technological innovation and development regarding AI is fundamentally changing the very nature of corporate organization and practice. AI technologies certainly have a significant impact on organizational efficiency, the quality of products and services, and ultimately corporate profitability.[199] But as AI entities themselves occupy managerial roles and perhaps even ownership positions, the underlying institutional identity of the corporation looks very different.[200] As a result, prior philosophical commitments—such as the conception of the corporation as a rights-bearing person—seem based on an anachronistic sense of corporate identity. The very proliferation of AI into the corporate realm requires revisiting those philosophical commitments to make sure they match our current descriptive understanding of the corporation and its appropriate role in society.

III. CORPORATE POLITICAL DISCOURSE AND ARTIFICIAL INTELLIGENCE

With AI finding its way into corporate boardrooms, executive offices, and ownership positions, the simultaneous tightening grip of corporate power on the political realm could threaten the basic viability of our democratic processes. As Senator Sheldon Whitehouse warned in *Captured: The Corporate Infiltration of American Democracy*, "Corporations of vast wealth and remorseless staying power have moved into our politics, to seize for themselves advantages that can be seized only by control over government."[201] That corporate assault on democratic institutions will become frighteningly more effective when guided, if not controlled, by AI entities.[202] Staving off the corruption of democratic processes requires reconceiving the role corporations should play in politics and revisiting the jurisprudential soundness of *Citizens United.*

A. *The Political Corporation*

The driving impetus for reconsidering whether corporations in the era of AI should continue to enjoy the same political speech rights as humans stems from the enduring control corporations exert in the political realm.[203] In an effort to

[198] Olivia Cuthbert, *Saudi Arabia Becomes First Country to Grant Citizenship to a Robot*, ARAB NEWS, https://www.arabnews.com/node/1183166/saudi-arabia [https://perma.cc/72MC- HQ6B] (Oct. 26, 2017).

[199] *See* Armour & Eidenmüller, *supra* note 173, at 96–97.

[200] *See* van Genderen, *supra* note 190, at 657.

[201] SHELDON WHITEHOUSE, CAPTURED: THE CORPORATE INFILTRATION OF AMERICAN DEMOCRACY, at xix (2017).

[202] *See id.* at xxii.

[203] This part explicates the enduring dominance of corporations in the political realm and standards governing corporate speech to provide an adequate foundation for challenging

enjoy greater profitability—whether through influencing consumer purchases, shaping shareholder preferences, or securing a more favorable business climate—corporations continue to seek increasing influence over politics.[204] Although many large companies voluntarily disclose some or all of their political spending,[205] current law generally permits boards of directors to marshal corporate treasuries to advance political agendas without the need for public disclosure or accountability.[206] The concentration of political power in the hands of corporate boards all but begs for corruption, as individual board members get tempted to use corporate funds for personal gain, a sort of "political insider trading."[207] Despite a variety of legislative and administrative attempts to curb inappropriate corporate political spending,[208] corporate managers remain largely free to advance secret political agendas using corporate assets.[209]

Almost a century ago, Adolf Berle and Gardiner Means presciently opined in *The Modern Corporation and Private Property* that corporations would eventually become more powerful than governments in controlling society.[210] As corporations accumulated enormous capital,[211] their influence steadily

---

the current conception of the corporation as a constitutional rights bearer. In recent work, I provided a similar descriptive background to understand how fiduciary principles might require greater transparency regarding corporate political activity. *See generally* Siebecker, *supra* note 14; Frida Ghitis, *Democracies Aren't Ready for AI's Impact*, WORLD POL. REV. (July 7, 2022), https://www.worldpoliticsreview.com/with-rise-of-artificial-intelligence-danger-to-democracy-grows/ [https://perma.cc/E7J4-5PM2]; Toni M. Massaro & Helen Norton, *Siri-ously? Free Speech Rights and Artificial Intelligence*, 110 NW. U. L. REV. 1169, 1174 (2016).

204 *See* Dorothy S. Lund & Leo E. Strine Jr., *Corporate Political Spending Is Bad Business*, HARV. BUS. REV., Jan.–Feb. 2022, at 130, 133.

205 *See, e.g.*, DAN CARROLL, BRUCE FREED, KARL SANDSTROM, CARLOS HOLGUIN & PETER HARDIN, CTR. POL. ACCOUNTABILITY, 2021 CPA-ZICKLIN INDEX OF CORPORATE POLITICAL DISCLOSURE AND ACCOUNTABILITY 14 (Nov. 2021), https://www.politicalaccountability.net/wp-content/uploads/2021/11/2021-CPA-Zicklin-Index.pdf [https://perma.cc/P9NQ-M7JL] (reporting that 293 companies in the S&P 500 "disclosed some or all of their political spending" in 2021).

206 *See* Lund & Strine, *supra* note 204, at 134.

207 *See* Siebecker, *supra* note 14, at 2720.

208 *See* CARROLL, FREED, SANDSTROM, HOLGUIN & HARDIN, *supra* note 205, at 16.

209 Siebecker, *supra* note 14, at 2720.

210 ADOLF A. BERLE, JR. & GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY 357 (1932).

211 Arthur S. Miller, *Corporations and Our Two Constitutions*, *in* CORPORATIONS AND SOCIETY: POWER AND RESPONSIBILITY 241, 242 (Warren J. Samuels & Arthur S. Miller eds., 1987) (stating that corporations' "power and influence, both externally in the national political order and internally in the so-called corporate community, make them a true form of governance"); *see also* Timothy K. Kuhner, *The Separation of Business and State*, 95 CALIF. L. REV. 2353, 2361–64 (2007).

increased in so many aspects of our social, economic, and political lives.[212] Our opinions and our behaviors often remain a product of careful corporate planning.[213] But especially in the age of AI where nonhuman algorithms increasingly control corporate decisions, the dogged manipulation of our collective lives by corporations should cause a deep reconsideration of corporations as equal constitutional rights bearers.

With the decision in *Citizens United*, the Supreme Court gave corporations a remarkable weapon to deploy in their ongoing siege of the political realm.[214] By granting corporations essentially the same political speech rights as human beings[215] and holding unconstitutional any limits on the amount of independent political expenditures[216] that corporations could make in an election,[217] the Court essentially created an unstoppable political Leviathan. Shortly after the Court issued the opinion, many predicted irreparable injury to American democracy.[218] For instance, President Barack Obama warned that "a new stampede of special interest money in our politics" would enable corporations to "marshal their power every day in Washington to drown out the voices of everyday Americans."[219] In his State of the Union address, President Obama

[212] Joan MacLeod Heminway, *Corporate Management Should All Be Feminists*, 40 MINN. J.L. & INEQ. 409, 411 (2022) ("As a result of the corporation's role in larger economic, social, and political spheres, the management and control authority of a corporate board of directors includes decision-making that influences those spheres."); *see also* Dalia Tsuk, *From Pluralism to Individualism: Berle and Means and 20th-Century American Legal Thought*, 30 L. & SOC. INQUIRY 179, 179 (2005);

[213] *See* Jennifer S. Fan, *Woke Capital: The Role of Corporations in Social Movements*, 9 HARV. BUS. L. REV. 441, 477–78 (2019).

[214] *See generally* Citizens United v. FEC, 558 U.S. 310 (2010).

[215] *Id.* at 365.

[216] According to the Federal Election Commission, "[a]n independent expenditure is an expenditure for a communication that expressly advocates the election or defeat of a clearly identified candidate and which is not made in coordination with any candidate or their campaign or political party." *Understanding Independent Expenditures*, FED. ELECTION COMM'N, https://www.fec.gov/help-candidates-and-committees/candidate-taking-receipts/understanding-independent-expenditures/ [https://perma.cc/6JJP-5FN6].

[217] *Citizens United*, 558 U.S. at 365–66.

[218] Gabrielle Levy, *How* Citizens United *Has Changed Politics in 5 Years*, U.S. NEWS & WORLD REP. (Jan. 21, 2015), https://www.usnews.com/news/articles/2015/01/21/5-years-later-citizens-united-has-remade-us-politics [https://perma.cc/LZX5-NCXZ] ("In its Citizens United v. Federal Election Commission decision, the court opened the campaign spending floodgates."); Editorial, *The Court's Blow to Democracy*, N.Y. TIMES (Jan. 21, 2010), https://www.nytimes.com/2010/01/22/opinion/22fri1.html [https://perma.cc/PD6D-HY8T] ("[T]he court's conservative majority has paved the way for corporations to use their vast treasuries to overwhelm elections and intimidate elected officials into doing their bidding."); *see also* Siebecker, *supra* note 1, at 193–95.

[219] Kenneth P. Vogel, *Court Decision Opens Floodgates for Corporate Cash*, POLITICO (Jan. 21, 2010), https://www.politico.com/story/2010/01/court-decision-opens-floodgates-for-corporate-cash-031786 [https://perma.cc/C3AN-HHEG].

predicted that the ruling would "open the floodgates for special interests, including foreign corporations, to spend without limit in our elections."[220] Widely criticized by both political parties, the ruling remains horribly unpopular—a 2018 national survey reported that three-fourths of respondents favored a constitutional amendment to reverse *Citizens United*.[221]

A few years after *Citizens United*, the Supreme Court vested corporations with even greater political power in *McCutcheon v. Federal Election Commission*.[222] In *McCutcheon*, the Court eliminated the prior cap[223] on the total amount of spending by an individual or corporation on all federal candidates and political parties in any election cycle.[224] Although embracing the notion that spending large sums of money on elections would not corrupt the political process, the Court kept contribution limits per candidate and party committee in place.[225] As a result, no limit exists for corporations on the number of political candidates and party organizations to which they may offer monetary support.[226] In conjunction with the elimination of independent political spending limits in *Citizens United*, the removal of aggregate caps on direct candidate and political party spending in *McCutcheon* provides corporations with a wickedly lopsided advantage over the average citizen in influencing political outcomes.[227]

---

220 Dan Eggen, *Poll: Large Majority Opposes Supreme Court's Decision on Campaign Financing*, WASH. POST (Feb. 17, 2010), http://www.washingtonpost.com/wp-dyn/content/article/2010/02/17/AR2010021701151.html [https://perma.cc/8YXK-EZCS].

221 Ashley Balcerzak, *Study: Most Americans Want to Kill '*Citizens United*' with Constitutional Amendment*, WORLD (May 10, 2018), https://www.pri.org/stories/2018-05-10/study-most-americans-want-kill-citizens-united-constitutional-amendment [https://perma.cc/JLQ3-GF2C].

222 *See generally* McCutcheon v. FEC, 572 U.S. 185 (2014).

223 *Id.* at 193, 219–21. Prior to the rule, the limit per election cycle was approximately $123,000 per person. LAWRENCE NORDEN, BRENT FERGUSON & DOUGLAS KEITH, BRENNAN CTR. FOR JUST., FIVE TO FOUR, at 9 (2016), https://www.brennancenter.org/media/216/download [https://perma.cc/KN3W-VBMU].

224 *See McCutcheon*, 572 U.S. at 208 ("Spending large sums of money in connection with elections, but not in connection with an effort to control the exercise of an officeholder's official duties, does not give rise to *quid pro quo* corruption. Nor does the possibility that an individual who spends large sums may garner 'influence over or access to' elected officials or political parties." (citing Citizens United v. FEC, 558 U.S. 310, 359 (2010))).

225 Marc E. Elias & Jonathan S. Berkon, *After* McCutcheon, 127 HARV. L. REV. F. 373, 377 (2014) ("The impact of the *McCutcheon* holding itself is relatively straightforward. At the federal level, individuals may now donate the maximum amount to each candidate ($2,600 per election), political committee ($5,000 per year), state party ($10,000 per year), and national party committee ($32,400 per year) without having to stay within aggregate limits. The party committees are most likely to benefit from this change.").

226 *See* NORDEN, FERGUSON & KEITH, *supra* note 223, at 9.

227 *See* Elias & Berkon, *supra* note 225, at 374 ("Critics of the plurality view lament that it will further empower wealthy individuals and large corporations at the expense of average Americans. There is some truth to that contention. But under the current system, where

Armed with those two rulings, corporations continue to spend enormous sums in political campaigns and lobbying efforts.[228] Corporations in 2021 spent over $3.7 billion in political lobbying[229] and "the biggest companies have upwards of 100 lobbyists representing them, allowing them to be everywhere, all the time . . . . Of the 100 organizations that spend the most on lobbying, 95 consistently represent business."[230] Total political advertising in the recent 2020 elections reached $8.5 billion, with a vast majority of those funds coming from corporate coffers.[231] To the extent corporate clambering for political influence infects public discourse,[232] the persistent jockeying for political power constitutes a sort of hostile takeover of American politics.[233]

---

contributions to political parties are strictly limited but contributions to so-called 'Super PACs' are not, wealthy individuals and large corporations already enjoy an outsized role.").

[228] *See* Ephrat Livni, Lauren Hirsch & Andrew Ross Sorkin, *Money in Politics, One Month Later*, N.Y. TIMES, https://www.nytimes.com/2021/02/06/business/dealbook/corporate-donations-politics.html [https://perma.cc/6JNE-WV5Z] (Apr. 17, 2021) (discussing the history and growth in corporate power with respect to political spending).

[229] Erin Duffin, *Total Lobbying Spending in the U.S. from 1998 to 2021*, STATISTA (June 21, 2022), https://www.statista.com/statistics/257337/total-lobbying-spending-in-the-us/ [https://perma.cc/QJ73-3NCN].

[230] Lee Drutman, *How Corporate Lobbyists Conquered American Democracy*, ATLANTIC (Apr. 20, 2015), http://www.theatlantic.com/business/archive/2015/04/how-corporate-lobbyists-conquered-american-democracy/390822/ [https://perma.cc/S8PR-UXAU].

[231] Howard Homonoff, *2020 Political Ad Spending Exploded: Did It Work?*, FORBES (Dec. 8, 2020), https://www.forbes.com/sites/howardhomonoff/2020/12/08/2020-political-ad-spending-exploded-did-it-work/?sh=312610863ce0 [https://perma.cc/A9JA-RUGC]; *see* Press Release, FEC, Statistical Summary of 24-Month Campaign Activity of the 2019–2020 Election Cycle (Apr. 2, 2021), https://www.fec.gov/updates/statistical-summary-24-month-campaign-activity-2019-2020-election-cycle/ [https://perma.cc/4NQ8-CBPZ].

[232] Liz Kennedy, *10 Ways* Citizens United *Endangers Democracy*, DEMOS (Jan. 19, 2012), http://www.demos.org/publication/10-ways-citizens-united-endangers-democracy [https://perma.cc/T2P7-6CMX]; *see also* Caroline Crenshaw & Michael E. Porter, *Transparency and the Future of Corporate Political Spending*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Mar. 15, 2021), https://corpgov.law.harvard.edu/2021/03/15/transparency-and-the-future-of-corporate-political-spending/ [https://perma.cc/9NH4-B7RU] ("[W]ell-accepted management theory shows why the role of American business in politics has become so counterproductive: the short-term rewards of socially destructive lobbying are too tempting for executives under constant pressure to maximize earnings.").

[233] Some suggest corporate political spending might actually enhance public discourse. Jill E. Fisch, *Frankenstein's Monster Hits the Campaign Trail: An Approach to Regulation of Corporate Political Expenditures*, 32 WM. & MARY L. REV. 587, 589 (1991) (opposing prohibition of corporate political speech premised on "the rationale that corporate political speech adds to the open marketplace of ideas protected by the first amendment").

Driven by a desire to increase profits,[234] yet anxious about potential reputational backlash from disclosing controversial political positions,[235] many corporate executives pursue clandestine corporate spending. According to some estimates, during the 2020 presidential election over $1 billion in political expenditures came from "dark money,"[236] where the source of the funds remains undisclosed due to regulatory loopholes.[237] Recent studies suggest corporations spent $750 million in dark money contributions during the 2020 election cycle,[238] although "[t]he amount of money flowing from major corporations to dark money groups is likely much higher than currently disclosed. More than half of all S&P 500 companies don't disclose donations to 501(c)(4) nonprofits . . . ."[239] Regardless of that difficulty in discerning precisely the amount and origin of dark money, the point remains that to the extent corporations anonymously inject money into political causes, it remains impossible to assess whether executives use the corporate treasury to advance their personal preferences and to hold the corporation accountable for its political actions.[240]

---

234 *See* Adam Andrzejewski, *How the Fortune 100 Turned $2 Billion in Lobbying Spend into $400 Billion of Taxpayer Cash*, FORBES (May 14, 2019), https://www.forbes.com/sites/adamandrzejewski/2019/05/14/how-the-fortune-100-turned-2-billion-in-lobbying-spend-into-400-billion-of-taxpayer-cash/ [https://perma.cc/DM7N-4SSP] (Corporations "learned that the Washington D.C. system is built on pay-to-play—and it's now part of the corporate business model."); Crenshaw & Porter, *supra* note 232.

235 *See* CARROLL, FREED, SANDSTROM, HOLGUIN & HARDIN, *supra* note 205, at 12; Crenshaw & Porter, *supra* note 232; Paul Washington & Merel Spierings, *Under a Microscope: A New Era of Scrutiny for Corporate Political Activity*, CONF. BD. (Mar. 24, 2021), https://www.conference-board.org/topics/corporate-political-activity/Under-a-Microscrope-A-New-Era-of-Scrutiny-for-Corporate-Political-Activity [https://perma.cc/F4Y9-SN2Q].

236 Anna Massoglia & Karl Evers-Hillstrom, *'Dark Money' Topped $1 Billion in 2020, Largely Boosting Democrats*, OPENSECRETS (Mar. 17, 2021), https://www.opensecrets.org/news/2021/03/one-billion-dark-money-2020-electioncycle/ [https://perma.cc/HC32-DR8U].

237 *Dark Money Basics*, OPENSECRETS, https://www.opensecrets.org/dark-money/basics [https://perma.cc/J7YW-EC89] ("'Dark money' refers to spending meant to influence political outcomes where the source of the money is not disclosed.").

238 *See* Rey Mashayekhi, *Companies Face Calls to Bring 'Dark Money' Political Spending Into the Light*, FORTUNE (Mar. 11, 2021), https://fortune.com/2021/03/11/corporate-dark-money-political-spending-disclosure-citizens-united-esg-investing/ [https://perma.cc/X9XS-2Y89]; *see also* Anna Massoglia, *Corporations Rethinking PACs Leave the Door to 'Dark Money' Open*, OPENSECRETS (Jan. 15, 2021), https://www.opensecrets.org/news/2021/01/corporations-rethinking-corporate-pacs-leave-dark-money-open/ [https://perma.cc/4KZX-XALX].

239 Massoglia, *supra* note 238.

240 *See* Citizens United *and Dark Money*, CTR. FOR POL. ACCOUNTABILITY, https://www.politicalaccountability.net/about-us/citizens-united-and-dark-money/ [https://perma.cc/4L2Y-7JSS] ("'Dark money' refers to contributions that can be made without disclosure. In the decade since *Citizens United*, corporations have donated millions to trade associations and 'social welfare' organizations that don't have to disclose their donors. The

Even if the political participation by corporations might enhance rather than harm public discourse,[241] the lack of transparency in corporate political activity represents an especially pernicious problem for shareholders,[242] consumers,[243] and other corporate constituencies.[244] In the majority opinion in *Citizens United*,

---

dark money they contribute can then be spent by the organization to influence elections and promote special interests. Nevertheless, anonymity is never a guarantee—and the money trail often leads straight to the boardroom door. The outsized capacity of a small group of economic elites to so heavily influence politics and policy raises grave issues in a democracy. At a minimum, such actions should be visible, so shareholders, employees, and customers—not to mention citizens and their elected representatives—can judge for themselves. The bottom line? Dark money and money spent without paying attention to consequences not only undermines our democracy, but also poses serious legal, reputation, and business risks to companies.").

[241] *See, e.g.*, *Corporate Political Spending*, CONF. BD., https://www.conference-board.org/politicalspending/ [https://perma.cc/QU87-SKLV] ("[C]orporate participation in the political process can be an important, and even essential, means of enhancing shareholder value, strengthening corporate reputation and goodwill, and engaging in good corporate citizenship.").

[242] *See* Crenshaw & Porter, *supra* note 232 ("For years, public companies have used money from American investors to finance secretive social welfare, trade associations, and third parties in Washington. Investors have repeatedly requested information on political spending—last year, shareholders voted in favor of greater disclosure 80% of the time that question was on a corporate ballot . . . . With our nation's financial watchdog sidelined, American investors have no way to determine whether and how their money is spent on corporations' preferred political causes."); John Coates, *SEC's Non-Decision Decision on Corporate Political Activity a Policy and Political Mistake*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Dec. 13, 2013), https://corpgov.law.harvard.edu/2013/12/13/secs-non-decision-decision-on-corporate-political-activity-a-policy-and-political-mistake/ [https://perma.cc/47ZS-KZHP] ("Dozens of studies . . . support the view that political activity can harm shareholder interests. These harms can flow through many channels—from reputational harm to dilution of strategic focus, from politically risky acquisition bets or capital investments to state laws deterring takeovers. To adequately assess those risks, shareholders need basic, standardized information about political activity—before investing, and afterwards, to monitor corporate performance and make informed decisions."); and Lisa Gilbert, *SEC Can Still Work On a Corporate Political Disclosure Rule*, HILL (Dec. 22, 2015), http://thehill.com/blogs/pundits-blog/finance/264036-sec-can-still-work-on-a-corporate-political-disclosure-rule [https://perma.cc/77BK-9P68] ("The fact that corporate executives can spend company resources for political purposes without shareholders' knowledge raises significant investor protection and corporate governance concerns. Investors should not be left in the dark as to whether executives are spending funds on political causes that may run counter to shareholders' interests.").

[243] Lund & Strine, *supra* note 204, at 135.

[244] Ann M. Lipton, *Not Everything Is About Investors: The Case for Mandatory Stakeholder Disclosure*, 37 YALE J. ON REGUL. 499, 511–13 (2020); Cydney Posner, *Is It Time for Corporate Political Spending Disclosure?*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Mar. 17, 2019), https://corpgov.law.harvard.edu/2019/03/17/is-it-time-for-corporate-political-spending-disclosure/ [https://perma.cc/Y77P-3XYQ].

Justice Kennedy effectively endorsed transparency and accountability regarding corporate political activity:

> With the advent of the Internet, prompt disclosure of expenditures can provide shareholders and citizens with the information needed to hold corporations and elected officials accountable for their positions and supporters. Shareholders can determine whether their corporation's political speech advances the corporation's interest in making profits, and citizens can see whether elected officials are "'in the pocket' of so-called moneyed interests."[245]

Of course, a dedication to transparency underpins the entire securities regulation regime, whether with respect to shareholder voting, sales of securities, or prevention of corporate fraud.[246] Absent robust transparency regarding corporate political activity, however, "shareholders have no way to assess whether corporate political spending benefits them, and [have] every reason to believe it is fraught with risks to the corporate brand, business reputation, the bottom line and, by extension, shareholder returns."[247]

Despite Justice Kennedy's blind faith that the Internet would fuel forthright disclosures and the concerted efforts of legislators, academics, and market professionals to require corporations to disclose their political spending,[248] corporations currently face no such federal or state mandate.[249] Just the opposite, securities regulations and election laws enable corporations to operate in the political shadows.[250] As Professors Lucian Bebchuk and Robert Jackson

---

[245] Citizens United v. FEC, 558 U.S. 310, 370 (2010) (quoting McConnell v. FEC, 540 U.S. 93, 259 (2003) (Scalia, J., concurring)).

[246] *See* Michael R. Siebecker, *Trust & Transparency: Promoting Efficient Corporate Disclosure Through Fiduciary Based Discourse*, 87 WASH. U. L. REV. 115, 117–18 (2009); *see also What We Do*, U.S. SEC & EXCH. COMM'N, https://www.sec.gov/about/what-we-do [https://perma.cc/F3ZV-PCVC] ("The federal securities laws we oversee are based on a simple and straightforward concept: everyone should . . . have access to certain facts about investments and those who sell them. To achieve this, we require public companies, fund and asset managers, investment professionals, and other market participants to regularly disclose significant financial and other information so investors have the timely, accurate, and complete information they need to make confident and informed decisions about when or where to invest.").

[247] Editorial, *Keeping Shareholders in the Dark*, N.Y. TIMES (Dec. 3, 2013), https://www.nytimes.com/2013/12/04/opinion/keeping-shareholders-in-the-dark.html [https://perma.cc/P6CM-M6UG].

[248] *See* Tory Newmyer, *Activist Shareholders Pressing Companies to Disclose More of Their Political Activity After Capitol Attack*, WASH. POST (Feb. 23, 2021), https:// www.washingtonpost.com/business/2021/02/23/corporate-political-giving-capitol-attack/ [https:// perma.cc/YY2E-5ZCW]. For a more historical account of the struggle for a corporate political spending rule, see generally Lucian A. Bebchuk & Robert J. Jackson, Jr., *Shining Light on Corporate Political Spending*, 101 GEO. L.J. 923 (2013).

[249] Crenshaw & Porter, *supra* note 232.

[250] Bebchuk & Jackson, *supra* note 248, at 930–38.

described in *Shining Light on Corporate Political Spending*, "public companies can, and do, engage in political spending that is never disclosed by channeling such spending through intermediaries."[251] Even when federal law requires some modest disclosure, such as reporting to the FEC donations to particular candidates, no law or regulation requires a similar disclosure to shareholders.[252] Although academics,[253] investors,[254] market professionals,[255] congressional regulators,[256] politicians,[257] interest groups,[258] and regular citizens[259] have pressed the Securities & Exchange Commission ("SEC") to adopt a regulation mandating disclosure of corporate political activity, the SEC has not yet acted.[260] Regardless of the will of the SEC to regulate, Congress routinely

---

[251] *Id.* at 927.

[252] *Id.* at 935 ("Existing election-law rules, such as regulations promulgated by the Federal Election Commission (FEC), may require that information about this type of corporate political spending be available in the public domain. These rules, however, are designed to provide the public with information about the funding sources for particular politicians—not to allow investors to assess whether public companies are using shareholder money to advance political causes.").

[253] *See, e.g.*, Lucian A. Bebchuk, Robert J. Jackson Jr., James D. Nelson & Roberto Tallarita, *The Untenable Case for Keeping Investors in the Dark*, 10 HARV. BUS. L. REV. 1, 3 (2020); Tom C.W. Lin, *Incorporating Social Activism*, 98 B.U. L. REV. 1535, 1582–83 (2018); Virginia Harper Ho, *Disclosure Overload? Lessons for Risk Disclosure & ESG Reporting Reform from the Regulation S-K Concept Release*, 65 VILL. L. REV. 67, 91 (2020).

[254] *See* Crenshaw & Porter, *supra* note 232 ("Investors have repeatedly requested information on political spending—last year, shareholders voted in favor of greater disclosure 80% of the time that question was on a corporate ballot.").

[255] *See* LISA GILBERT & RACHEL CURLEY, PUBLIC CITIZEN, THE HISTORIC CAMPAIGN FOR CORPORATE POLITICAL SPENDING DISCLOSURE 3 (Sept. 2016), https://corporatereformcoalition.org/wp-content/uploads/2016/10/Corporate-Political-Spending-Disclosure-report.pdf [https://perma.cc/4UVD-C5EW].

[256] Crenshaw & Porter, *supra* note 232; Letter from Robert J. Jackson, Jr., SEC Comm'r, to the Hon. Carolyn B. Maloney, Chair, House Subcomm. on Inv. Prot., Entrepreneurship, and Cap. Mkts. (Nov. 18, 2019), https://www.sec.gov/files/jackson-maloney-response-letter-111819-signed.pdf [https://perma.cc/V8AG-M2KP].

[257] *See, e.g.*, Alyce McFadden, *Democrats Prioritize Campaign Finance Overhaul with 'For the People Act,'* OPENSECRETS (Jan. 21, 2021), https://www.opensecrets.org/news/2021/01/for-the-people-act-democrats/ [https://perma.cc/4QT7-RRAL].

[258] *See, e.g.*, Ben Goad, *New Push for Disclosures on Corporate Giving*, HILL (Sept. 4, 2014), http://thehill.com/regulation/finance/216736-new-push-for-corporate-giving-disclosure [https://perma.cc/KF8C-E9XX].

[259] *See* Lucian A. Bebchuk & Robert J. Jackson Jr., *Hindering the S.E.C. from Shining a Light on Political Spending*, N.Y. TIMES (Dec. 21, 2015), http://www.nytimes.com/2015/12/22/business/dealbook/hindering-the-sec-from-shining-a-light-on-political-spending.html [https:// perma.cc/GTK2-AC7J] (describing over 1.2 million comments received by the SEC regarding a proposed political disclosure rule).

[260] Crenshaw & Porter, *supra* note 232.

blocks the SEC from expending any funds to craft a political disclosure rule.[261] Despite some progress in getting corporations to disclose voluntarily some of their political activity,[262] our collective trust in democratic processes will continue to wane without full transparency regarding corporate political activities.[263]

B. *AI in Politics*

The problems associated with corporate control of political discourse and lack of transparency regarding corporate political activity become more pronounced as AI entities increasingly control corporate communication strategies.[264] Because corporations realize a significant return on investment through political engagement,[265] AI could manipulate and distort the political process for pure pecuniary gain.[266]

As described at the outset of the Article, AI technologies are already being used in the political realm to cull through vast amounts of data and produce strategic messaging designed to influence individual voter preferences and election outcomes.[267] In the 2016 presidential election, both Cambridge Analytica[268] and the Russian Internet Research Agency[269] used AI enabled fake personas on social media to cajole vulnerable voters into changing their opinions.

Despite the power of AI to undermine the electoral process, candidates and campaigns are harnessing the technology, as well. The *Washington Post* reported that in the 2016 presidential election, Secretary Clinton's campaign was effectively controlled by an AI algorithm, named Ada.[270] According to the report,

---

261 *Id.*; *see also* Bill Flook, *Budget Deal Preserves Ban on SEC Political Spending Disclosure Rule*, THOMSON REUTERS (Mar. 10, 2022), https://tax.thomsonreuters.com/news/budget-deal-preserves-ban-on-sec-political-spending-disclosure-rule/ [https://perma.cc/4N2Y-XPBR].

262 CARROLL, FREED, SANDSTROM, HOLGUIN & HARDIN, *supra* note 205, at 17–23.

263 WHITEHOUSE, *supra* note 201, at xvii-xxii.

264 *Big Data and AI in Corporate Communications*, WEICHERTMEHNER, https://www.weichertmehner.com/en/insights/big-data-and-ai-in-corporate-communications/ [https://perma.cc/6EDC-7SGD].

265 *See* Andrzejewski, *supra* note 234. *But see* Lund & Strine, *supra* note 204, at 134.

266 *See* Hanna Murphy, *The New AI Tools Spreading Fake News in Politics and Business*, FIN. TIMES (May 9, 2020), https://www.ft.com/content/55a39e92-8357-11ea-b872-8db45d5f6714 [https://perma.cc/23WQ-J6U7].

267 *See* Berkowitz, *supra* note 22.

268 *See supra* notes 23–24 and accompanying text.

269 *See supra* note 25 and accompanying text.

270 John Wagner, *Clinton's Data-Driven Campaign Relied Heavily on an Algorithm Named Ada. What Didn't She See?*, WASH. POST (Nov. 9, 2016), https://www.washingtonpost.com/news/

> [T]he algorithm was said to play a role in virtually every strategic decision Clinton aides made, including where and when to deploy the candidate and her battalion of surrogates and where to air television ads—as well as when it was safe to stay dark.
>
> The campaign's deployment of other resources—including county-level campaign offices and the staging of high-profile concerts with stars like Jay Z and Beyoncé—was largely dependent on Ada's work, as well.[271]

Continuing to the 2020 presidential election, AI served as an incredibly powerful tool for both candidates. Dropping outmoded tactics,

> [t]raditional polling is giving way to AI-powered predictive modeling; massive data exchanges, once considered questionably legal, allow campaigns, PACs, and other groups to coordinate their efforts. And who can forget microtargeting? Both campaigns seek to arm themselves with comprehensive views of each potential voter and are using algorithms to segment and target voters more specifically and strategically.[272]

Taking both campaigns together, $200 million was spent by the candidates just on AI-driven messaging on Facebook.[273]

Moreover, the prevalence and sophistication of "deep fake" videos (digitally altered video of humans doing or saying something that did not in reality occur)[274] presents an especially dangerous problem for legitimate political discourse.[275] For instance, in March 2022, a deep fake video of Ukrainian President Volodymyr Zelenskyy flooded various social media outlets in which the President urged Ukrainian soldiers to lay down their arms and surrender to Russian forces.[276] Although Facebook, YouTube, and Twitter removed the

post-politics/wp/2016/11/09/clintons-data-driven-campaign-relied-heavily-on-an-algorithm-named-ada-what-didnt-she-see/ [https://perma.cc/R4DT-BJVU].

[271] *Id.*

[272] Tate Ryan-Mosley, *The Technology That Powers the 2020 Campaigns, Explained*, MIT TECH. REV. (Sept. 28, 2020), https://www.technologyreview.com/2020/09/28/1008994/the-technology-that-powers-political-campaigns-in-2020-explained/ [https://perma.cc/YK3H-JUMC].

[273] Berkowitz, *supra* note 22.

[274] *See* Geoffrey A. Fowler, *supra* note 26; Sample, *supra* note 26.

[275] *See* Soojin Jeong, Margaret Sturtevant & Karis Stephen, *Responding to Deepfakes and Disinformation*, REGUL. REV. (Aug. 14, 2021), https://www.theregreview.org/2021/08/14/saturday-seminar-responding-deepfakes-disinformation/ [https://perma.cc/D47F-J73Y]; Chris Hamilton, *The Immortal Trump*, WASH. POST (July 5, 2022), https://www.washingtonpost.com/opinions/2022/07/05/trump-avatar-metaverse-ai/ [https://perma.cc/UF3E-3EZ5].

[276] Bobby Allyn, *Deepfake Video of Zelenskyy Could Be 'Tip of the Iceberg' in Info War, Experts Warn*, NPR (Mar. 16, 2022), https://www.npr.org/2022/03/16/1087062648/

video from their platforms, Russian media continued to promote the video to control public sentiment.[277] Taking another example, the parents of Joaquin Oliver, one of the children killed in the Parkland massacre,[278] created a deep fake video in which their deceased son urges voters to elect lawmakers who could end gun violence.[279] Although not a corporation selling a product, the examples demonstrate how AI technologies might be used to affect public opinion and voting behavior.[280] With respect to corporations, the fear is that AI-driven deep fake corporate communication practices will consistently combine consumer marketing with just enough political messaging to create an amalgam of politically tinged corporate speech immune from liability under the First Amendment.[281] Thus, the political messaging might simply be a sophisticated subterfuge for corporations to secure greater profits.

IV. THE FIRST AMENDMENT AND ROBOTIC POLITICAL SPEECH

Understanding why the increasing prevalence of AI requires reconsidering the commitment to granting corporations robust political speech rights requires a brief explication of the prevailing standards for corporate speech, as well as how corporations attempt to evade liability using the First Amendment.[282]

deepfake-video-zelenskyy-experts-war-manipulation-ukraine-russia [https://perma.cc/XH99-5UMT].

[277] *Id.* For another example involving how deep fake communication is being used in the Ukrainian war, see Philip Oltermann, *European Politicians Duped into Deepfake Video Calls with Mayor of Kyiv*, GUARDIAN (June 25, 2022), https://www.theguardian.com/world/2022/jun/25/european-leaders-deepfake-video-calls-mayor-of-kyiv-vitali-klitschko [https://perma.cc/MSL5-UV69], wherein Oltermann explains that the "mayors of several European capitals have been duped into holding video calls with a deepfake of their counterpart in Kyiv, Vitali Klitschko."

[278] For a description of the Parkland shootings, see Patricia Mazzei, *Parkland: A Year After the School Shooting That Was Supposed to Change Everything*, N.Y. TIMES (Feb. 13, 2019), https://www.nytimes.com/2019/02/13/us/parkland-anniversary-marjory-stoneman-douglas.html [https://perma.cc/HV2E-NXWC].

[279] Louise Hall, *Parkland Parents Create AI Video of Slain Son Urging Voters to Support Gun Control*, INDEPENDENT (Oct. 2, 2020), https://www.independent.co.uk/news/world/americas/us-election/parkland-joaquin-oliver-parents-ai-gun-control-vote-b749248.html [https://perma.cc/K99K-8PBW].

[280] Mikko Alasaarela, *The Rise of Emotionally Intelligent AI*, MEDIUM (Oct. 9, 2017), https://medium.com/@alasaarela/the-rise-of-emotionally-intelligent-ai-fb9a814a630e [https://perma.cc/AHN8-23SZ].

[281] *See supra* notes 27–29 and accompanying text.

[282] In prior work, I provided a similar explication of the prevailing standards for corporate speech and the efforts of corporations to use the First Amendment as both a weapon and a shield. *See* Michael R. Siebecker, *Securities Regulation, Social Responsibility, and a New Institutional First Amendment*, 29 J.L. & POL. 535, 538–49 (2014).

A. *Evading Liability Through the First Amendment*

The Supreme Court's disparate approach between its handling of commercial speech and corporate political speech has created an impending jurisprudential train wreck.[283] Steeled by the decision in *Citizens United*,[284] corporations now challenge with increasing vigor basic provisions of the securities laws, consumer fraud statutes, health laws, and a variety of other legislative initiatives.[285] For example, in a series of efforts over the last decade, corporations and business interest groups have argued that the First Amendment bars SEC regulations regarding solicitation of investors;[286] shareholder rights to nominate directors for elections;[287] disclosure of payments made to governmental entities in connection with energy development;[288] and reporting the use of conflict minerals in business products.[289] Although corporate interests succeeded in getting some of these regulations invalidated, courts largely relied on non-speech grounds to support their opinions.[290] Regardless of the prevailing reasoning animating the decisions, corporations continue to invoke the First Amendment to evade regulation or liability.[291]

---

[283] Petition for Writ of Certiorari at 29, Bulldog Invs. Gen. P'Ship v. Sec'y of the Commonwealth, 953 N.E.2d 691 (Mass. 2011) (No. 11-954) ("This Court's guidance is urgently needed. Scholars have predicted 'an impending jurisprudential train wreck in the realm of securities regulation' and 'the lack of any principled grounds for carving out securities regulation from the scope of the First Amendment.'" (quoting Siebecker, *supra* note 19, at 616, 619)); Victor Brudney, *The First Amendment and Commercial Speech*, 53 B.C. L. REV. 1153, 1154–55 (2012).

[284] *See generally* Citizens United v. FEC, 558 U.S. 310 (2010).

[285] *See generally* Alan K. Chen, *Compelled Speech and the Regulatory State*, 97 IND. L.J. 881, 882, 885 (2022); Miriam H. Baer, *Law Enforcement's* Lochner, 105 MINN. L. REV. 1667, 1724–27 (2021); Tim Wu, *The Right to Evade Regulation: How Corporations Hijacked the First Amendment*, NEW REPUBLIC (June 3, 2013), https://newrepublic.com/article/113294/how-corporations-hijacked-first-amendment-evade-regulation [https://perma.cc/J6HH-TCUD].

[286] *See, e.g.*, Bulldog Invs. Gen. P'Ship v. Sec'y of the Commonwealth, 953 N.E.2d 691, 700 (Mass. 2011), *cert. denied*, 566 U.S. 987 (2012).

[287] *See e.g.*, Bus. Roundtable v. SEC, 647 F.3d 1144, 1146 (D.C. Cir. 2011).

[288] *See e.g.*, Am. Petroleum Inst. v. SEC, 953 F. Supp. 2d 5, 8 (D.D.C. 2013).

[289] *See e.g.*, Nat'l Ass'n of Mfrs. v. SEC, 956 F. Supp. 2d 43, 46 (D.D.C. 2013), *aff'd in part*, *rev'd in part*, 748 F.3d 359 (D.C. Cir. 2014).

[290] *See, e.g.*, *id.* at 46 (rejecting the First Amendment argument); *Am. Petroleum Inst.*, 953 F. Supp. 2d at 11 (holding for vacatur of rule but refusing to answer the First Amendment argument on procedural defects); *Bus. Roundtable*, 647 F.3d at 1148–49 (invalidating the rule but refusing to answer the First Amendment question due to procedural defects).

[291] *See e.g.*, Exxon Mobil Corp. v. Healey, 28 F.4th 383, 389–90 (2d Cir. 2022) (describing a corporate defendant invoking free speech protections). For a discussion of predicted litigation regarding SEC proposals, see Lawrence Cunningham, *Opinion: Do the SEC's Recent Proposals Violate the First Amendment?*, DIRS. & BDS., https://www.directorsandboards.com/articles/singleopinion-do-secs-recent-proposals-violate-first-amendment

The Supreme Court's failure to define sufficiently clearly what constitutes commercial speech, corporate political speech (and the boundaries between them) makes the First Amendment an attractive and easy weapon for corporations to wield.[292] Despite the Court's rather oblique suggestions that certain areas of the securities laws remain outside the reach of the First Amendment, the Court has not yet offered any sound jurisprudential arguments for insulating the securities laws or consumer fraud statues from the First Amendment.[293] Considering the securities laws often operate through content-based restrictions on compelled speech, some of which touch upon inherently political matters, this definitional ambiguity calls into question the legitimacy of various important securities regulations.[294] Whether with respect to the securities regulation regime, consumer fraud statutes, or a host of other regulatory contexts,[295] the primary fear in the wake of *Citizens United* remains the possibility that corporations will engage in an "artful alchemy"[296] of commingling political messages with standard commercial content to create an amalgam of "politically tinged commercial speech"[297] that remains wholly immune from regulation or liability under the First Amendment.

If corporations master that artful alchemy, investors will eventually realize they cannot trust the veracity of corporate communications.[298] As a result, the integrity of the capital markets and the viability of consumer protection regimes hang in the balance.[299] For example, the foundation supporting the burgeoning market for corporate social responsibility ("CSR") becomes quite shaky if corporations can dissemble without accountability.[300] Investors and consumers concerned about CSR make decisions about whether to purchase a corporation's products or stock based on whether the corporation's behavior on a variety of environmental, ethical, political, human rights, and other social issues comports with CSR expectations.[301] Currently over $103 trillion dollars is invested

---

[https://perma.cc/PPT5-KQ4W]; Senator Kevin Cramer et al., Comment Letter on Proposed SEC Rule Regarding the Enhancement and Standardization of Climate-Related Disclosures for Investments. (Apr. 5, 2022), https://bit.ly/3MZR8WH [https://perma.cc/6J8P-7T9N]. *See also* Opening Brief of Appellants at 52–58, Nat'l Ass'n of Mfrs. v. SEC, 748 F.3d 359 (D.C. Cir. 2014) (No. 13-CV-5252).

292 Michael R. Siebecker, *Building A "New Institutional" Approach to Corporate Speech*, 59 ALA. L. REV. 247, 250–57 (2008); Siebecker, *supra* note 19, at 641–45.

293 Siebecker, *supra* note 19, at 641–45.

294 *Id.* at 621–26.

295 *See generally* Chen, *supra* note 285.

296 Siebecker, *supra* note 292, at 249.

297 *Id.* at 248.

298 *See* Siebecker, *supra* note 246, at 122.

299 *See id.*

300 *See generally* Miriam A. Cherry, *The Law and Economics of Corporate Social Responsibility and Greenwashing*, 14 U.C. DAVIS BUS. L.J. 281 (2014). *See also* Siebecker, *supra* note 15, at 115–16.

301 *See* Siebecker, *supra* note 246, at 123–26.

worldwide in companies based on one or more socially responsible screening criteria.[302] But if corporations can continually obfuscate without risk of liability under the First Amendment, consumers and investors will not be able to trust the accuracy of corporate communications.[303] As a result, the $103 trillion market for socially responsible business practices will eventually collapse.[304]

But how does AI play a role in this perennial problem? Quite simply, AI continues to take greater control of corporate communication, whether directed at consumers, investors, or the general population.[305] The ability to engage in any artful alchemy in combining commercial messages with just enough political content becomes much more pronounced.[306] As a result, AI puts society at greater risk of domination by corporate interests, especially when the legal constructs to protect society from fraudulent manipulation become less effective.[307]

B. *Prevailing Standards for Corporate Speech*

Adopting an analytical framework resembling the tripartite standards of review under the Equal Protection Clause of the Fourteenth Amendment,[308] the Supreme Court applies three distinct levels of judicial scrutiny to corporate speech.[309] If corporate speech relates simply to a commercial transaction, the Court applies one of the two lower levels of scrutiny.[310] In contrast, regulations touching corporate political speech receive strict scrutiny.[311] What makes the three rungs of constitutional review so wobbly is the Supreme Court's failure to articulate what constitutes commercial speech, political speech, or the boundaries between them.[312] As corporations increasingly engage in an artful

---

302 *See Annual Report 2020*, PRINCIPLES FOR RESPONSIBLE INV. (2020), https://www.unpri.org/about-the-pri/annual-report-2020/6811.article [https://perma.cc/Q8ZE-DPKB] ("The collective [Assets Under Management] represented by PRI signatories increased by 20%, from US$86.3 trillion to US$103.4 trillion as of 31 March 2020, representing 3,038 signatories.").

303 Siebecker, *supra* note 15, at 106.

304 *See id.*; *see supra Annual Report 2020*, note 302.

305 *See supra* Part II.B.1 and accompanying notes.

306 *See supra* notes 296–97 and accompanying text.

307 *See supra* notes 210–17 and accompanying text.

308 For a general description of the levels of protection afforded under the Equal Protection Clause, see generally Mario L. Barnes & Erwin Chemerinsky, *The Once and Future Equal Protection Doctrine?*, 43 CONN. L. REV. 1059, 1076–80 (2011).

309 *See generally* VICTORIA L. KILLION, CONG. RSCH. SERV., IFII072, THE FIRST AMENDMENT: CATEGORIES OF SPEECH (2019).

310 *Id.*; *see also* Va. State Bd. of Pharmacy v. Va. Citizens Consumer Council, Inc., 425 U.S. 748, 762 (1976).

311 Citizens United v. FEC, 558 U.S. 310, 340 (2010); *see also* Siebecker, *supra* note 292, at 254–57.

312 *Id.* at 250–57.

alchemy of mixing just enough political content with otherwise commercial messages in order to evade regulation or liability, predicting which level of scrutiny the Supreme Court might apply poses quite a difficult task.[313]

The lowest rung of constitutional review applies when the government requires uncontroversial, purely factual commercial disclosures that promote public access to complete and accurate information.[314] In *Zauderer v. Office of Disciplinary Counsel of the Supreme Court of Ohio*, the Supreme Court considered the constitutionality of a governmental requirement that attorney advertisements disclose their fees for legal representation.[315] After determining that the information subject to disclosure was purely factual, the Court upheld the regulation as "reasonably related to the State's interest in preventing deception of consumers."[316] Although the Constitution often abhors government-compelled speech,[317] disclosure obligations targeting purely commercial facts do not receive strict judicial scrutiny.[318]

On the second rung of commercial speech review, the Supreme Court employs an intermediate scrutiny test when the government prohibits, rather than compels, commercial speech.[319] In *Central Hudson Gas & Electric Corp. v. Public Services Commission*,[320] the Court struck down a regulation banning all advertising by a utility company after articulating a multipart test to assess whether commercial speech deserves protection.[321] According to the Court, governmental restriction of commercial speech that otherwise relates to a lawful activity and is not misleading will be upheld only if the regulation directly advances a substantial governmental interest and is no more extensive than necessary.[322] Although the Court asserted that commercial speech deserved less protection under the First Amendment than other forms of protected expression,[323] the intermediate level of scrutiny announced in *Central Hudson*

---

[313] *See id.* at 249.

[314] Dayna B. Royal, *Resolving the Compelled-Commercial-Speech Conundrum*, 19 VA. J. SOC. POL'Y & L. 205, 218–19 (2011).

[315] *See generally* Zauderer v. Off. of Disciplinary Couns. of the Sup. Ct. of Ohio, 471 U.S. 626 (1985).

[316] *Id.* at 651.

[317] *See* Richard H. Fallon, Jr., *Strict Judicial Scrutiny*, 54 UCLA L. REV. 1267, 1268–79 (2007).

[318] *Id.* at 1299 (stating that the test for commercial speech is "less stringent than strict scrutiny but more searching than rational basis review").

[319] *See* Royal, *supra* note 314, at 217–20.

[320] *See generally* Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n, 447 U.S. 557 (1980).

[321] *Id.* at 566, 571.

[322] *Id.* at 566.

[323] *Id.* at 563; *see also* Siebecker, *supra* note 19, at 631–32 (discussing how *Central Hudson* broadened the definition of commercial speech from what *Virginia State Board* had previously established).

has produced inconsistent results.[324] In some cases, substantial regulation of commercial speech is permitted, while in other contexts, courts afford broad protection to commercial speech even in the face of significant state interests.[325]

At the top of the jurisprudential ladder, the Supreme Court applies strict scrutiny to instances of compelled corporate political speech. Although Supreme Court jurisprudence regarding corporate political speech remains a bit murky, *Pacific Gas & Electric Co. v. Public Utilities Commission of California* and *Citizens United* establish in tandem that the First Amendment affords the greatest protection to political commercial speech.[326] In *Pacific Gas*, the Supreme Court struck down a California law that required a utility company to include in its billing statements newsletters from third parties opposed to the company's viewpoints.[327] Casting aside the State's assertion that companies could be compelled to disseminate unwanted political content, the plurality opinion noted that "[t]he identity of the speaker is not decisive in determining whether speech is protected. Corporations and other associations, like individuals, contribute to the 'discussion, debate, and the dissemination of information and ideas' that the First Amendment seeks to foster."[328] The Court found that the regulation granting third parties the right to include in the utility company's mailings unwanted political messages was not a "narrowly tailored means of serving a compelling state interest."[329] Thus, despite the otherwise clear commercial purpose of the mailings, the required inclusion of an unwanted policy statement created an amalgam of commercial and political content deserving strict scrutiny.[330]

In contrast to the compelled political speech examined in *Pacific Gas*, *Citizens United* addressed the First Amendment right of corporations to engage in voluntary political speech.[331] *Citizens United* involved a challenge to section 203 of the Bipartisan Campaign Reform Act of 2002 ("BCRA"), which banned corporate expenditures for speech that expressly advocated the election or defeat of a candidate for office within thirty days of a primary or sixty days of a general

---

[324] Siebecker, *supra* note 19, at 632–35.

[325] *Id.*

[326] *See* Pac. Gas & Elec. Co. v. Pub. Utils. Comm'n, 475 U.S. 1, 16–17 (1986); Citizens United v. FEC, 558 U.S. 310, 340 (2010).

[327] *Pac. Gas*, 475 U.S. at 5–7.

[328] *Id.* at 8 (quoting First Nat'l Bank of Bos. v. Bellotti, 435 U.S. 765, 783 (1978)).

[329] *Id.* at 19–20.

[330] *See* Nat Stern, *The Subordinate Status of Negative Speech Rights*, 59 BUFF. L. REV. 847, 874–75 n.168 (2011) (positing that *Pacific Gas* requires applying strict scrutiny in cases of compelled disclosure that involve an amalgam of "commercial and fully protected expression").

[331] *See generally* Siebecker, *supra* note 14, at 2755–58 (discussing the speech doctrine embedded in *Citizens United*).

election.[332] Citizens United sought a declaratory judgment against the BCRA provisions because it intended to distribute a documentary film criticizing then-presidential candidate Hillary Clinton within the restricted time period of section 203.[333] In determining that BCRA section 203 violated the First Amendment, the Supreme Court stated: "Laws that burden political speech are 'subject to strict scrutiny,' which requires the Government to prove that the restriction 'furthers a compelling interest and is narrowly tailored to achieve that interest.'"[334] Emphasizing that strict scrutiny would apply to any regulation that encumbers political speech, whether by a person or a corporation,[335] the Court also overruled prior precedent in *Austin v. Michigan Chamber of Commerce*,[336] in which the Court previously embraced a concern about the deleterious effects of corporate influence over the electoral process.[337] Taken together, *Pacific Gas* and *Citizens United* suggest that strict scrutiny will apply to government regulations that prohibit or compel corporate political speech.

Most certainly, this very brief explication does not intend to provide a full or nuanced analysis of prevailing corporate speech jurisprudence. Instead, the description of the somewhat vague First Amendment standards surrounding corporate political speech simply describes the basic lay of the land on the existing battleground regarding corporate political speech.[338]

C. *Potential Protections for Robotic Political Speech*

The preceding discussion focused on the speech rights of corporations and how the increasing influence of AI in directing and shaping corporate practices—including corporate communication—could harm public discourse and the stability of our political institutions. The precise focus of the investigation, however, remained the First Amendment protections that *corporations* enjoy as constitutional rights bearers. The discussion largely set aside the knotty philosophical and existential questions about whether *AI entities* themselves could claim constitutional personhood. What this Article attempts to tackle is the nicer question of whether the increasing control AI entities exert over corporate practices lays bare the folly of our steadfast jurisprudential fidelity to the conception of corporations as constitutional rights

[332] Citizens United v. FEC, 558 U.S. 310, 320–21 (2010); Bipartisan Campaign Reform Act of 2002, Pub. L. No. 107-155, § 203, 116 Stat. 81, 91–92 (codified as amended 2 U.S.C. § 441b(a), transferred to 52 U.S.C. § 30118).

[333] *Citizens United*, 558 U.S. at 321.

[334] *Id*. at 340 (quoting FEC v. Wis. Right to Life, Inc., 551 U.S. 449, 464 (2007)).

[335] *Id.* at 342–43.

[336] Austin v. Mich. Chamber of Com., 494 U.S. 652 (1990), *overruled by Citizens United*, 558 U.S. at 365.

[337] *See id.* at 659–60.

[338] For a fuller description of the cases involved in the current battle over corporate political disclosure, see Siebecker, *supra* note 282, at 537–49.

bearers. For if AI entities can gain a full panoply of constitutional protections simply by acting through existing corporate structures, we may not reach the more weighty questions about the moral status of AI entities themselves. Because corporations possess essentially the same political speech rights as humans, an AI controlled (or owned) corporation would effectively confer upon algorithmic entities that same constitutional rights as our fellow corporate citizens.[339]

Nonetheless, with the existing prevalence of AI entities in directing corporate communication and the reality of autonomous AI fast approaching, many scholars already explore what speech rights (and other constitutional protections) AI entities should enjoy.[340] To be sure, the advent of AI appropriately causes deep reflection regarding the basic function and animating principles of the First Amendment within our evolving democratic republic. Moreover, AI raises questions about the nature of public discourse and discursive interactions in an increasingly virtual society.

Unsurprisingly at this nascent stage in the evolution of AI entities, consensus does not exist among First Amendment scholars, moral philosophers, and political scientists regarding the scope and shape of constitutional protections. Recently, *The Washington Post* reported that a Google engineer believed Google's proprietary chatbot, LaMDA, achieved sentience.[341] Although few believe AI has already achieved human consciousness,[342] some suggest that AI entities deserve strong speech protections. For instance, Professors David Skover and Ronald Collins embrace a utilitarian approach in arguing "what really matters is that the receiver experiences robotic speech as meaningful and potentially useful or valuable."[343] Taking a slightly differently tack, Professors Toni Massaro and Helen Norton contend that the First Amendment focuses primarily on the value of speech to listeners and not on the status or identity of speakers.[344] They conclude that AI entities should likely

---

339 *See supra* Parts III.A, III.B and accompanying notes.

340 *See supra* Part II.C and accompanying notes.

341 Nitasha Tiku, *The Google Engineer Who Thinks the Company's AI Has Come to Life*, WASH. POST (June 11, 2022), https://www.washingtonpost.com/technology/2022/06/11/google-ai-lamda-blake-lemoine/ [https://perma.cc/X8FG-JE65].

342 *Id.*; Timnit Gebru and Margaret Mitchell, Opinion, *We Warned Google That People Might Believe AI Was Sentient. Now It's Happening*, WASH. POST (June 17, 2022), https://www.washingtonpost.com/opinions/2022/06/17/google-ai-ethics-sentient-lemoine-warning/ [https://perma.cc/V4AN-C27B].

343 RONALD K.L. COLLINS & DAVID M. SKOVER, ROBOTICA: SPEECH RIGHTS AND ARTIFICIAL INTELLIGENCE 42 (2018).

344 Toni M. Massaro & Helen Norton, *Artificial Intelligence and the First Amendment*, *in* RESEARCH HANDBOOK ON THE LAW OF ARTIFICIAL INTELLIGENCE, *supra* note 33, at 353, 355 [hereinafter Massaro & Norton, *Artificial Intelligence*]. *See generally* Toni M. Massaro, Helen Norton & Margot E. Kaminski, *Siri-ously 2.0: What Artificial Intelligence Reveals About the First Amendment*, 101 MINN. L. REV. 2481 (2017); Massaro & Norton, *supra* note 203.

enjoy robust First Amendment rights, while conceding that the "capacity to harm human autonomy, dignity, equality, and property" might justify significant regulation of "speech outputs."[345] Concerned about the deleterious effects of robust speech rights for AI entities, Bruce E.H. Johnson warns against promoting a "dystopia of computerized lies," especially when the AI speech touches upon politics or other matters of public concern.[346]

Addressing just a few scholars' views on how existing First Amendment principles might apply to robotic speech does not intend to provide clarity regarding the moral or constitutional status of algorithmic entities. Again, the point is to highlight that given the clear constitutional status of corporations and the malleability of prevailing corporate law jurisprudence regarding the ability of non-humans to own and operate corporations, those deep questions might miss the jurisprudential forest for the trees. Perhaps oddly, as AI approaches the evolutionary cusp of moral responsibility and volition, the primary concern might be retooling our views regarding the constitutional rights of corporations.

V. IMPLICATIONS

With corporations continuing to dominate the political arena and AI taking an increasingly important, if not controlling, role in determining the content and manner of corporate communication, the implications of adherence to the notion that corporations should enjoy the same political speech rights as humans becomes clear. To be sure, utilizing AI to reshape corporate discourse might actually improve the quality and integrity of corporate communications.[347] In that manner, AI could help sustain the fiduciary bond between management and the shareholders. But blithely plodding along the jurisprudential path announced in *Citizens United* will debase our democratic values and surrender our political sovereignty to algorithms. Only by revisiting *Citizens United* and recasting the limits of corporate personhood can we sustain human dominion over the integrity and shape of our communal identity.[348]

A. *Democracy Debased*

Although the continued use of AI in politics by political candidates and interest groups might be inevitable,[349] affording AI entities within the corporate

---

345 Massaro & Norton, *Artificial Intelligence*, *supra* note 344, at 354.

346 *See* Bruce E.H. Johnson, *An Old Libel Lawyer Confronts* Robotica's *Brave New World*, *in* ROBOTICA: SPEECH RIGHTS AND ARTIFICIAL INTELLIGENCE 94, 99 (2018).

347 *See supra* Part II.B.1 and accompanying notes.

348 In recent work, I provided a similar description of the potential effects of unfettered AI on democratic values. *See* Siebecker, *supra* note 30, at 141–42.

349 *See* Vyacheslav W. Polonski, *Artificial Intelligence Can Save Democracy, Unless It Destroys It First*, OXFORD INTERNET INST. (Aug. 10, 2017), https://www.oii.ox.ac.uk/blog/artificial-intelligence-can-save-democracy-unless-it-destroys-it-first/ [https://perma.cc/

setting full political speech rights will inevitably debase our democratic values.[350] Even prior to the advent of AI, a systemic lack of transparency prevented consumers, investors, and other corporate stakeholders to hold corporations and their managers accountable for corporate political activity.[351] Armed by *Citizens United*, corporations use the First Amendment to manipulate public opinion for pecuniary gain and also to avoid regulation or liability.[352] With AI entities increasingly determining the content, manner, and timing of corporate communications, the problems get compounded.[353] AI does not have an innate sense of moral value to which humans can appeal.[354] Instead, AI works to achieve embedded goals, such as enhancing corporate profits.[355] And as secrecy enables corporations to manipulate public attitudes without suffering accountability, AI will naturally pursue communication strategies that enhance the corporate bottom line.[356] There is no "democratic sensibility" stopgap that prevents AI from undermining political processes to the point of breaking democracy altogether.[357]

After all, "[t]he corporation itself has evolved from 'a simple investment vehicle to an increasingly dominant force' in shaping some of the most important economic, social, and political aspects of our lives."[358] Indeed, corporations encroach so deeply into territory once occupied exclusively by government actors that now, boardroom deliberations supplant public debates as the new battleground for effectuating social good and our collective lives.[359] Although shareholders traditionally occupy passive roles in directing corporate affairs, a vital movement to enhance shareholder democracy continues to

---

P37R-CQCK] ("The use of AI techniques in politics is not going away anytime soon; it is simply too valuable to politicians and their campaigns.").

[350] *See* Karl Manheim & Lyric Kaplan, *Artificial Intelligence: Risks to Privacy and Democracy*, 21 YALE J.L. & TECH. 106, 111–12 (2019) ("We do not underestimate the productive benefits of AI, and its inevitable trajectory, but feel it necessary to highlight its risks as well . . . . Humans may not be at risk as a species, but we are surely at risk in terms of our democratic institutions and values.").

[351] *See* Siebecker, *supra* note 14, at 2724–28; Siebecker, *supra* note 246, at 128–34.

[352] *See* Siebecker, *supra* note 15, at 109–18.

[353] *See generally* Sergio Alberto Gramitto Ricci, *Artificial Agents in Corporate Boardrooms*, 105 CORNELL L. REV. 869 (2020).

[354] *See id.* at 888; Lawrence B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. REV. 1231, 1262 (1992).

[355] *See* Solum, *supra* note 354, at 1273 (noting AIs' lack of free will as "mere robots, carrying out the will of the human that programmed them").

[356] *See* Siebecker, *supra* note 14, at 2764.

[357] *See* JANNA ANDERSON & LEE RAINIE, PEW RSCH. CTR., MANY TECH EXPERTS SAY DIGITAL DISRUPTION WILL HURT DEMOCRACY 5 (Feb. 2020), https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2020/02/PI_2020.02.21_futuredemocracy_REPORT.pdf [https://perma.cc/5CPZ-XUGJ].

[358] Siebecker, *supra* note 14, at 2764.

[359] *Id.*

flourish so that shareholder preferences can be adequately taken into account before crafting corporate strategies and policies.[360] Only through mechanisms that enhance discourse between corporate managers and shareholders (and arguably other relevant consumer and stakeholder constituencies that affect shareholder interests) can officers and directors ensure fidelity to the corporate interests that they are bound to represent.[361] Secrecy necessarily undermines the accountability and attentiveness corporate managers must afford their shareholder constituents.[362] And without the transparent discourse that enables such attentiveness, the path the corporation takes risks running far afield of shareholders' intended destination.

Moreover, in light of the great power corporations wield in the political realm, transparency regarding corporate political spending remains necessary to ensure legitimacy in the polity.[363] *Citizens United* explicitly connected democratic accountability with the ability of citizens to determine if elected officials might be corrupted by corporate influences.[364] Because the corporation has become so institutionally important to our collective political identity, "the integrity of [the corporation's] organizational structure significantly affects, if not controls, the confidence in our democratic processes. If special interests, managerial imperialism, or other antidemocratic values dominate corporations, we will realize a diminished sense of citizenship within our polity."[365] Clandestine corporate political speech masterfully managed by AI encourages corruption rather than constructive civic participation.[366]

Perhaps what concerns most is the severe adulteration, if not destruction, of the social norms that underpin our democratic values. MIT Professor Daron Acemoglu warns that governments already use AI to quell dissent, discourage political activism, and sow distrust in civic institutions.[367] As Daron explains:

> With AI-powered technologies already able to collect information about individual behavior, track communications, and recognize faces and voices, it is not far-fetched to imagine that many governments will be better positioned to control dissent and discourage opposition. But the effects of these technologies may well go beyond silencing governments' most vocal critics.

---

360 *See* Siebecker, *supra* note 15, at 109–13.

361 *See id.* at 104–06; Siebecker, *supra* note 1, at 165–68.

362 *See* Siebecker, *supra* note 15, at 121.

363 *See generally* Siebecker, *supra* note 1, at 168 (arguing for enhanced corporate discourse in light of "the increasing dominance of corporations in all aspects of economic, political, and social life"); Siebecker, *supra* note 246 (suggesting "encapsulated trust" as a useful framework for improving poor transparency in corporate discourse).

364 *See* Citizens United v. FEC, 558 U.S. 310, 370 (2010).

365 Siebecker, *supra* note 15, at 152.

366 *See id.* at 152–53; Anderson & Rainie, *supra* note 357, at 35.

367 Daron Acemoglu, *AI's Future Doesn't Have to Be Dystopian*, BOS. REV. (May 20, 2021), https://www.bostonreview.net/forum/ais-future-doesnt-have-to-be-dystopian/ [https://perma.cc/UL6R-EC9Y].

> With the knowledge that such technologies are monitoring their every behavior, individuals will be discouraged from voicing criticism and may gradually reduce their participation in civic organizations and political activity. . . .
>
> Individual dissent is the mainstay of democracy and social liberty, so these potential developments and uses of AI technology should alarm us all.[368]

If AI so debases our confidence in the value of exchanging ideas and discussing the common good, we become isolated and atomized.[369] Institutions of civil society become instruments of distrust.[370] Without some modicum of trust in social discourse to bind our social fabric together, the very commitment to a democratic polity remains at risk.[371]

B. *Revisiting* Citizens United

The jurisprudential commitment in *Citizens United* to corporate personhood and corporate political speech rights requires retooling, because the extraordinary risks that our democratic processes face with the advent of AI become much more pronounced in the corporate realm. And it is not simply a matter of exacerbating the systemic problems that currently exist regarding secret corporate political activity and avoidance of regulation or liability through First Amendment claims.[372] No doubt, however, AI-managed corporate communication will advance the ability of corporations to dominate the political realm and shape public opinion for monetary gain.[373]

The fundamental problem becomes most obvious in the context of corporate entities wholly owned and operated by AI entities, which through their status as constitutional persons, enjoy essentially the same political speech rights as

---

[368] *Id.* For a comprehensive study of ways in which the U.S. government can direct the research, development, and deployment of AI, see generally SOPHIE-CHARLOTTE FISCHER ET AL., UNIV. OF OXFORD, AI POLICY LEVERS: A REVIEW OF THE U.S. GOVERNMENT'S TOOLS TO SHAPE AI RESEARCH, DEVELOPMENT, AND DEPLOYMENT (Mar. 2021), https://www.fhi.ox.ac.uk/wp-content/uploads/2021/03/AI-Policy-Levers-A-Review-of-the-U.S.-Governments-tools-to-shape-AI-research-development-and-deployment-%E2%80%93-Fischer-et-al.pdf [https://perma.cc/4DRN-CA3Z].

[369] *See generally* Philip Pettit, *Republican Theory and Political Trust*, *in* TRUST & GOVERNANCE 295 (Valerie Braithwaite & Margaret Levi eds., 1998) (discussing the significant role of trust in republican systems of government).

[370] *See* Valerie Braithwaite, *Communal and Exchange Trust Norms: Their Value Base and Relevance to Institutional Trust*, *in* TRUST & GOVERNANCE, *supra* note 369, at 46, 46–47; Margaret Levi, *A State of Trust*, *in* TRUST & GOVERNANCE *supra* note 369, at 77, 80.

[371] *See generally* M. Kent Jennings, *Political Trust and the Roots of Devolution*, *in* TRUST & GOVERNANCE, *supra* note 369, at 218.

[372] *See* Siebecker, *supra* note 1, at 189; Siebecker, *supra* note 14, at 2724–28.

[373] *See* Siebecker, *supra* note 30, at 110–13.

humans.[374] Without any human oversight to stem manipulative communication practices, an AI-owned and -operated corporate entity could wreak havoc on our political system. After all, although corporations might lack souls, the absence of humans within the corporation does not cure that moral deficit.[375] The Fun Guns scenario described at the outset might very well become the norm.[376] The lack of nettlesome shareholders (and plucky watchdog lawyers who act on their behalf) could provide a cloak of anonymity for AI entities to use clandestine political speech—whether or not combined with some commercial content—to manipulate our individual and collective values.[377] The very nature of political discourse could be corrupted to promote hidden interests that may be wholly divorced from any human values.

For some, removing human self-interest from politics might not seem terribly bad.[378] After all, do we find the content and manner of current political discourse satisfying and productive? Perhaps rather than having AI assist humans in advancing corrupt corporate messages, just the reverse would promote a better outcome. Through control of political action committees with secret donations, social media influencing, targeted deep fake communication with human partners, AI-owned and -operated entities might actually improve society and the values we collectively espouse.

Faith in such algorithmic altruism seems somewhat foolhardy because nothing assures that AI would embrace the value of humanity itself. Bruce Johnson, a prominent First Amendment lawyer and scholar recently cautioned that affording AI entities robust speech rights could destroy meaningful democratic discourse.[379] According to Johnson, robotic political speech "will resist regulations, fueled by First Amendment doctrine, overwhelmed by the inevitable Russian-sponsored botnets, and afflicted with algorithms and constant confirmation bias, and Americans may find themselves trapped in a toxic Trumpian dystopia of computerized lies. Discourse, of course, will be dead."[380] Absent some confidence that AI entities will not aim to do violence to political institutions, it makes little sense to permit the fundamental corruption of the very political processes that give us collective dominion over our shared lives.[381] Unless we revisit *Citizen United* and recalibrate the commitment to

[374] *See supra* Part II.C; *see also* Citizens United v. FEC, 558 U.S. 310, 319 (2010).

[375] For a description of the evolution of this famous phrase, see Christopher M. Bruner, *The Enduring Ambivalence of Corporate Law*, 59 ALA. L. REV. 1385, 1387–95 (2008).

[376] *See supra* Part I.

[377] For related discussion, *see* Siebecker, *supra* note 15, at 115.

[378] *See, e.g.*, Sam Shead, *More than Half of Europeans Want to Replace Lawmakers with AI, Study Says*, CNBC (May 27, 2021), https://www.cnbc.com/2021/05/27/europeans-want-to-replace-lawmakers-with-ai.html [https://perma.cc/P7DW-N33W].

[379] Johnson, *supra* note 346, at 99.

[380] *Id.*

[381] *See id.*

corporate political speech rights in the age of AI, humans will blithely surrender our sovereignty to algorithmic entities.

C. *Corporate Discourse Reconceived*

So many of the existential concerns regarding the proliferation of AI call into question the viability of current rules governing how corporations communicate and interact with the world they inhabit.[382] Because AI lacks innate moral sensitivity, empathy, or appreciation for human rights, many innovative applications of AI seem somewhat dangerous despite the purported benefits.[383] Whether using AI for autonomous weapons targeting or to clandestinely shape popular opinion, it seems all too clear that AI will radically disrupt our current lives.[384] But we cannot pretend AI will simply fade away. Instead, the concerns about the nefarious uses to which AI might be dedicated require a careful reconsideration of the legal framework within which AI takes shape and gains increasing effect.[385]

---

382 *See* Henry A. Kissinger, *How The Enlightenment Ends*, ATLANTIC (June 2018), https://www.theatlantic.com/magazine/archive/2018/06/henry-kissinger-ai-could-mean-the-end-of-human-history/559124/ [https://perma.cc/MFL3-FGX9]; Sara Castellanos, *Microsoft AI Ethicist Guides Businesses on Responsible Algorithm Design*, WALL ST. J. (Oct. 18, 2018), https://blogs.wsj.com/cio/2018/10/18/microsoft-ai-ethicist-guides-businesses-on-responsible-algorithm-design/ [https://perma.cc/2PSW-W5W4].

383 For example, the MIT Media Lab and the Berkman Klein Center for Internet & Society at Harvard University launched an Ethics and Governance of Artificial Intelligence initiative that studies the effect of AI technologies on “fairness, human autonomy, and justice.” *See* ETHICS AND GOVERNANCE OF A.I. INITIATIVE, https://aiethicsinitiative.org/ [https://perma.cc/F9PE-BFXR]; *see also* West & Allen, *supra* note 3 (“[T]hese developments raise important policy, regulatory, and ethical issues. For example, how should we promote data access? How do we guard against biased or unfair data used in algorithms? What types of ethical principles are introduced through software programming, and how transparent should designers be about their choices? What about questions of legal liability in cases where algorithms cause harm?”); James Vincent & Russell Brandom, *Axon Launches AI Ethics Board to Study the Dangers of Facial Recognition*, VERGE (Apr. 26, 2018), https://www.theverge.com/2018/4/26/17285034/axon-ai-ethics-board-facial-recognition-racial-bias [https://perma.cc/9BVR-F43D].

384 Michael Kassner, *The Malicious Uses of AI: Why It’s Urgent to Prepare Now*, TECHREPUBLIC (Mar. 27, 2018), https://www.techrepublic.com/article/the-malicious-uses-of-ai-why-its-urgent-to-prepare-now [https://perma.cc/X5FK-XB9T]; *see also* Cade Metz, *Efforts to Acknowledge the Risks of New A.I. Technology*, N.Y. TIMES (Oct. 22, 2018), https://www.nytimes.com/2018/10/22/business/efforts-to-acknowledge-the-risks-of-new-ai-technology.html [https://perma.cc/G64X-KM4E] (“Still, a growing number of researchers are trying to reveal the potential dangers of A.I. In February, a group of prominent researchers and policymakers from the United States and Britain published a paper dedicated to the malicious uses of A.I.”).

385 *Cf. generally* Nizan Geslevich Packin, *RegTech, Compliance and Technology Judgment Rule*, 93 CHI.-KENT L. REV. 193 (2018) (exploring the efforts to regulate ever-

With respect to corporate communications, deep concerns persist that AI would steer corporate discourse down a path that could destroy trust in institutions, faith in democratic values, and the ability of humans to retain a sense of sovereignty over their collective lives.[386] Although certainly plausible outcomes, AI could actually make corporate decision-making more humane (whether the corporation is owned and operated by humans, algorithms, or a combination).[387] But how would that work? Within our existing corporate governance framework, corporate executives and managers face continual criticism for arguably pursuing selfish ends rather than promoting the interests of shareholders or other corporate constituencies.[388] Perhaps as a result of casting a blind eye to corporate criminality,[389] using the corporate treasury to pursue personal political goals,[390] ignoring the interests of corporate stakeholders,[391] promoting managerial interests that run counter to shareholder values,[392] or hiding behind the First Amendment to avoid transparency and accountability,[393] corporate managers often find themselves plagued by recurring waves of corporate scandals.[394]

Using AI to assist in corporate discourse and decision-making could reinvigorate the fiduciary bond of trust that tethers corporate managers to shareholders and ultimately to the communities that corporations inhabit. In a somewhat surprising turn, AI could actually enhance a corporation's ability to

burgeoning "FinTech" and the feasibility and ethics of employing "RegTech" to do so). *See also* West & Allen, *supra* note 3; Metz, *supra* note 384; Kassner, *supra* note 384.

386 *See generally* Anderson & Rainie, *supra* note 357.

387 For a general defense of creating AI that serves to advance humanity, see Will Douglas Heaven, *"We'll Never Have True AI Without First Understanding the Brain,"* MIT TECH. REV. (Mar. 3, 2021), https://www.technologyreview.com/2021/03/03/1020247/artificial-intelligence-brain-neuroscience-jeff-hawkins/ [https://perma.cc/9249-6B3A], and JEFF HAWKINS, A THOUSAND BRAINS: A NEW THEORY OF INTELLIGENCE 5 (2021).

388 *See, e.g.*, Brian R. Cheffins, *Corporate Governance and Countervailing Power*, 74 BUS. LAW. 1, 31–34 (2019).

389 *See generally* Michael R. Siebecker & Andrew M. Brandes, *Corporate Compliance and Criminality: Does the Common Law Promote Culpable Blindness?*, 50 CONN. L. REV. 387 (2018).

390 *See* Sarah C. Haan, *The CEO and the Hydraulics of Campaign Finance Deregulation*, 109 NW. U. L. REV. 269, 275–76 (2015). *See generally* Siebecker, *supra* note 14.

391 *See* Siebecker, *supra* note 1, at 222–24.

392 *See* Siebecker, *supra* note 15, at 104–13.

393 *See* Siebecker, *supra* note 1, at 189–98 (2010); Siebecker, *supra* note 282, at 537–51; John C. Coates IV, *Corporate Speech & the First Amendment: History, Data, and Implications*, 30 CONST. COMMENT. 223, 248–65 (2015).

394 *See, e.g.*, S. Burcu Avci, Cindy A. Schipani & H. Nejat Seyhun, *Do Independent Directors Curb Financial Fraud? The Evidence and Proposals for Further Reform*, 93 IND. L.J. 757, 758–70 (2018).

create and sustain trust among all those affected by the corporate enterprise.[395] For trust and transparency remain inextricably linked.[396] And by dedicating AI to strengthening fiduciary trust, the problems of corporate manipulation and dissembling might decline.

So, how could corporate discourse be reconceived in order to foster a sense of communal protection from the social havoc that AI-controlled corporate speech might wreak on the economy, social organization, and politics? In a series of prior works, I articulated a new "discourse theory" of the firm that posited realigning corporate fiduciary duties around rules of fair and just discourse with shareholders and other stakeholder constituencies affected by corporate behavior.[397] By cabining all corporate communication around enhanced fiduciary duties, many of the harms associated with corporate manipulation of political, social, and consumer preferences can be circumvented.[398] Rather than simply allowing (if not encouraging) corporations to claim immunity from regulation or liability under the First Amendment, a shift towards a more robust framework of fiduciary trust could enhance corporate transparency and accountability.[399]

But could such a change in the governing framework occur without a revolution in our thinking about corporate jurisprudence? Quite frankly, the revolution is already upon us.[400] As the nature of the corporation swiftly evolves from a simple vehicle for generating wealth to an institution that effectively controls some of the most important economic, social, and political aspects of our lives, the rules governing corporate behavior must evolve as well. Even before the prevalence of AI in corporate decision-making, in light of the creeping scope of corporate control over so many facets of our communal lives and personal viewpoints, the rules governing corporate behavior ranked among the most important societal proscriptions.[401] The increasing dominance of AI causes the need to shift accordingly the governing principles of the corporation that fits our new descriptive conception of what the corporation represents and how it should behave. As technology continues to drive our collective evolution, our corporate jurisprudence must adapt to preserve our shared values and societal aspirations.

In *Democracy, Discourse, and the Artificially Intelligent Corporation*, a companion piece appearing in a later volume of this journal, I address more fully how a new "discourse theory" of the firm might operate in an enhanced fiduciary

---

[395] For a general work regarding how AI could be used to enhance our collective humanity and social bonds, see generally HAVENS, *supra* note 83.

[396] *See generally* Siebecker, *supra* note 246.

[397] *See generally* Siebecker, *supra* note 1; Siebecker, *supra* note 15; Siebecker, *supra* note 30.

[398] *See* Siebecker, *supra* note 246, at 118–19.

[399] *See id.* at 119.

[400] *See supra* Part IV and accompanying notes.

[401] *See* Siebecker, *supra* note 15, at 109.

framework to align more closely corporate behavior with shareholder and stakeholder interests.[402] This Article, however, represents a necessary first step in the analysis and covers equally important ground. As the reality of AI effectively controlling and owning corporations nears, we need to rethink our fidelity to the corporation as a full constitutional rights bearer and to revise our jurisprudential commitment to affording corporations the same political speech rights as humans.

VI. CONCLUSION

Because AI has transformed the fundamental nature of the corporation, continued adherence to *Citizens United* remains jurisprudentially unsound and destructive to human control over society itself. For if corporations can use AI data mining and predictive analytics to manipulate political preferences and election outcomes for greater profits, the basic viability and legitimacy of our democratic processes seem questionable at best. Moreover, if AI technology itself plays an increasingly important, if not controlling, role in determining the content of corporate political communication, granting corporations the same political speech rights as humans surrenders the political realm to algorithmic entities. In the end, although AI can be used to make corporations act more humanely, the very notion of a business entity heavily influenced or controlled by non-human entities creates the need to revisit our arguably flawed philosophical conception of corporations as full constitutional rights bearers. In this new era of AI, unless we revamp the jurisprudential principles governing corporate participation in politics, basic human sovereignty remains at risk.

---

[402] *See* Michael R. Siebecker, *Democracy, Discourse, and the Artificially Intelligent Corporation*, 84 OHIO ST. L.J. (forthcoming 2023).