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NOTES

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Algorithms Acting Badly: A Solution from Corporate Law

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Abstract

Sometimes algorithms work against us. They offer many social benefits, but when they discriminate in lending, manipulate stock markets, or violate expectations of privacy, they can injure us on a massive scale. Only one-third of technologists predict that artificial intelligence will be a net positive for society.

Law can help ensure that algorithms work for us by imposing liability when they work against us. The problem is that algorithms fit poorly into existing conceptions of liability. Liability requires injurious acts, but what does it mean for an algorithm to act? Only people act; and algorithms are not people. Some scholars have argued that the law should recognize sophisticated algorithms as people. However, the philosophical puzzles (are algorithms really people?), practical obstacles (how do you punish an algorithm?), and unexpected consequences (could algorithmic "people" sue us back?) have proven insurmountable.

This Article proposes a more grounded approach to algorithmic liability. Corporations currently design and run the algorithms that have the most significant social impacts. Longstanding principles of corporate liability already recognize that corporations are "people" capable of acting injuriously. Corporate law stipulates that corporations act through their employees because corporations have control over and benefit from employee conduct. When employees misbehave, corporations are in the best position to discipline and correct them. This Article argues that the same control and benefit rationales extend to corporate algorithms. If the law were to recognize that algorithmic conduct could qualify as corporate action, the whole framework of corporate liability would kick in. By exercising the authority it already has over corporations, the law could help ensure that corporate algorithms work largely in our favor.

* Associate Professor, The University of Iowa College of Law. For invaluable feedback at various stages, I owe special thanks to Joanna Bryson, Sam Halabi, Robert Miller, Anya Prince, Jason Rantanen, and participants in the Iowa Law Faculty Speaker Series and the Jurisprudence Panel at the Southeastern Association of Law Schools. I am also grateful to my research assistants, Katie Alfus and Jessica Bowes.

TABLE OF CONTENTS

> *[A] robot may not injure a human being or, through inaction, allow a human being to come to harm.*
>
> —Isaac Asimov, The First Law of Robotics[1]

INTRODUCTION: THE LEGAL CHALLENGE OF ALGORITHMIC INJURY

The first law of robotics is already dead. Robots and the algorithms that run them injure people every day. Some of these injuries are tragically palpable. For example, in 2015, an assembly robot at a car plant bypassed safety protocols, entered an unauthorized area, and crushed employee Wanda Holbrook's head.[2] In 2018, a self-driving car struck and killed pedestrian Elaine Herzberg as she was walking across the street.[3] Some algorithmic injuries are less visceral, but are just as disruptive because they impact thousands of people. Algorithms that help extend loans or hire employees often discriminate against minority applicants.[4] Stock-trading algorithms capable of exe-

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1 ISAAC ASIMOV, *Runaround*, *in* I, ROBOT 25, 37 (Bantam Books 2004) (1950).

2 Conner Forrest, *Robot Kills Worker on Assembly Line, Raising Concerns About Human-Robot Collaboration*, TECHREPUBLIC (Mar. 15, 2017, 10:15 AM), https://www.techrepublic.com/article/robot-kills-worker-on-assembly-line-raising-concerns-about-human-robot-collaboration/ [https://perma.cc/9HBD-TRN5].

3 Daisuke Wakabayashi, *Self-Driving Uber Car Kills Pedestrian in Arizona, Where Robots Roam*, N.Y. TIMES (Mar. 19, 2018), https://nyti.ms/2u3QDYx [https://perma.cc/2PK8-4ZBR].

4 *See* Robin Nunn, *Discrimination and Algorithms in Financial Services: Unintended Consequences of AI*, CYBERSPACE LAW., Apr. 2018, at 4, 4 (discussing "AI's so called 'white guy problem'"). For a similar example describing a study that found ads for high-paying jobs targeted unequally towards men, see Esha Bhandari & Rachel Goodman, *ACLU Challenges Computer Crimes Law That Is Thwarting Research on Discrimination Online*, ACLU: FREE FU-

cuting thousands of trades a second can artificially distort stock prices for higher profit.[5] Price-setting algorithms from competing retailers can collude to raise costs for customers.[6]

When robots and algorithms injure people (whether physically, financially, or otherwise), recovery and justice prove elusive. Many forms of criminal and civil liability require that (or are much easier to prove if) a legally cognizable defendant actually did something injurious, rather than indirectly causing some injury. Wanda Holbrook's husband sued five U.S. robotics companies—Prodomax, Flex-N-Gate, FANUC, Nachi, and Lincoln Electric[7]—for wrongful death but struggled in his case to find a suitable defendant.[8] Against the defendants that remained,[9] he could not make the obvious and direct case that

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TURE (Mar. 27, 2020), https://www.aclu.org/blog/racial-justice/race-and-economic-justice/aclu-challenges-computer-crimes-law-thwarting-research [https://perma.cc/N7LT-T6Y2]. *See also* Mikella Hurley & Julius Adebayo, *Credit Scoring in the Era of Big Data*, 18 YALE J.L. & TECH. 148, 152, 194 (2016) (discussing the challenges of such cases).

5 Enrique Martínez-Miranda, Peter McBurney & Matthew J. Howard, *Learning Unfair Trading: A Market Manipulation Analysis from the Reinforcement Learning Perspective*, ASS'N FOR ADVANCEMENT A.I. (2015), https://arxiv.org/pdf/1511.00740.pdf [https://perma.cc/J226-GPTD]; Renato Zamagna, *The Future of Trading Belongs to Artificial Intelligence*, MEDIUM: DATA DRIVEN INV. (Nov. 15, 2018), https://medium.com/datadriveninvestor/the-future-of-trading-belong-to-artificial-intelligence-a4d5887cb677 [https://perma.cc/4J3H-2CWF]. *See* Council Regulation 596/2014, arts. 3, 12, 2014 O.J. (L173) 1, 20, 30 (EU) (defining and regulating "high-frequency algorithmic trading techniques"); Council Directive 2014/57, arts. 1, 5, 2014 O.J. (L173) 179, 182, 186–87 (EU) (complementing Council Regulation 596/2014 with criminal sanctions for market manipulation); Michael P. Wellman & Uday Rajan, *Ethical Issues for Autonomous Trading Agents*, 27 MINDS & MACHS. 609, 614 (2017); Tom C.W. Lin, *The New Market Manipulation*, 66 EMORY L.J. 1253, 1284–85 (2017) (discussing how AI can learn to engage in pump-and-dump manipulation); Ben van Lier, *From High Frequency Trading to Self-Organizing Moral Machines*, 7 INT'L J. TECHNOETHICS 34, 34 (2016).

6 *See* Greg Rosalsky, *When Computers Collude*, NPR: PLANET MONEY (Apr. 2, 2019, 7:30 AM), https://www.npr.org/sections/money/2019/04/02/708876202/when-computers-collude [https://perma.cc/7EYM-QW72]; Emilio Calvano, Giacomo Calzolari, Vincenzo Denicolò & Sergio Pastorello, *Artificial Intelligence, Algorithmic Pricing, and Collusion*, VOXEU (Feb. 3, 2019), https://voxeu.org/article/artificial-intelligence-algorithmic-pricing-and-collusion [https://perma.cc/6RDJ-HRHP]; Maurice E. Stucke & Ariel Ezrachi, *Two Artificial Neural Networks Meet in an Online Hub and Change the Future (of Competition, Market Dynamics and Society)*, at 2–3 (Univ. of Tenn. Coll. of L., Legal Stud. Rsch. Paper Ser. No. 323, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2949434 [https://perma.cc/Z2KL-KHNM].

7 Harriet Agerholm, *Robot 'Goes Rogue and Kills Woman on Michigan Car Parts Production Line,'* INDEPENDENT (Mar. 15, 2017, 11:37 AM), https://www.independent.co.uk/news/world/americas/robot-killed-woman-wanda-holbrook-car-parts-factory-michigan-ventra-ionia-mains-federal-lawsuit-100-a7630591.html [https://perma.cc/632N-NG8Q].

8 *See* Jack Queen, *Robot Maker Escapes Liability in Fatal Auto Factory Accident*, LAW360 (Aug. 27, 2019, 6:04 PM), https://www.law360.com/articles/1192734/robot-maker-escapes-liability-in-fatal-auto-factory-accident [https://perma.cc/4HK5-M2CK].

9 Holbrook v. Prodomax Automation, Ltd., No. 17-cv-219, 2019 WL 6840187, at *3 (W.D. Mich. Aug. 26, 2019) (granting summary judgment to Nachi).

one of the defendants killed his wife; instead, he had to circuitously identify some prior negligent act that indirectly caused her death.[10] Now, four years after Holbrook's death, the defendants seem optimistic—none have settled and her family still awaits justice.[11] In a similar vein, prosecutors decided not to press charges against Uber for killing Elaine Herzberg.[12] Victims of algorithmic discrimination flounder about for a theory of liability.[13] Algorithmic stock manipulation is hard to prosecute unless there is a guilty human pulling the strings.[14] And antitrust law has yet to see its first case alleging purely algorithmic collusion.[15]

There are compelling reasons to use algorithms. Although some may take lives, they have the capacity to save many more.[16] Although some discriminate in lending or hiring, they have the potential to make these processes more objective.[17] Although some manipulate markets, effective algorithmic trading can also make markets more efficient.[18] We have only scratched the surface of the cost savings and big-data insights that robots and algorithms will come to offer.[19] These

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10 *See* Complaint & Jury Demand at 3–13, *Holbrook*, 2019 WL 6840187 (No. 17-cv-00219).

11 *See* Holbrook v. Prodomax Automation, Ltd., No. 17-cv-00219, 2020 U.S. Dist. LEXIS 207134, at *1 (W.D. Mich. Nov. 5, 2020) (listing remaining defendants).

12 Angie Schmitt, *Uber Got Off the Hook for Killing a Pedestrian with its Self-Driving Car*, STREETSBLOG (Mar. 8, 2019), https://usa.streetsblog.org/2019/03/08/uber-got-off-the-hook-for-killing-a-pedestrian-with-its-self-driving-car/ [https://perma.cc/6BDN-6X7Y].

13 *See* Solon Barocas & Andrew D. Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671, 711–12, 726 (2016).

14 *See generally* Lin, *supra* note 5, at 1300–01 (discussing the difficulty of prosecuting market manipulation without a human actor).

15 The closest have been cases that involve algorithms purposely developed by competing retailers to collude on pricing. *See, e.g.*, Andrew C. Finch, Acting Assistant Att'y Gen., Dep't of Just., Antitrust Div., Remarks at the 44th Annual Conference on International Antitrust Law and Policy (Sept. 14, 2017), https://www.justice.gov/opa/speech/file/996756/download [https://perma.cc/2RKN-8ZKV].

16 *See, e.g.*, Bernard Marr, *AI that Saves Lives: The Chatbot that Can Detect a Heart Attack Using Machine Learning*, FORBES (Dec. 21, 2018, 12:23 AM), https://www.forbes.com/sites/bernardmarr/2018/12/21/ai-that-saves-lives-the-chatbot-that-can-detect-a-heart-attack-using-machine-learning/#2a5b95d850f9 [https://perma.cc/Z46P-PDZN]; Will Knight, *How AI Could Save Lives Without Spilling Medical Secrets*, MIT TECH. REV. (May 14, 2019), https://www.technologyreview.com/s/613520/how-ai-could-save-lives-without-spilling-secrets/ [https://perma.cc/QN9K-2ZA3].

17 *See* Stephanie Bornstein, *Antidiscriminatory Algorithms*, 70 ALA. L. REV. 519, 531–37 (2018).

18 ONNIG H. DOMBALAGIAN, CHASING THE TAPE: INFORMATION LAW AND POLICY IN CAPITAL MARKETS 16, 166 (2015); Terrence Hendershott, Charles M. Jones & Albert J. Menkveld, *Does Algorithmic Trading Improve Liquidity?*, 66 J. FIN. 1, 1 (2011). *But see* Yesha Yadav, *How Algorithmic Trading Undermines Efficiency in Capital Markets*, 68 VAND. L. REV. 1607 (2015).

19 *See* Frank Holmes, *AI Will Add $15 Trillion to the World Economy by 2030*, FORBES

social benefits, however, are no guarantee that algorithms will not harm us along the way. Most experts are skeptical that advanced algorithms are worth the risk. In a large-scale survey of technologists, the Pew Research Center found that only around a third of respondents thought "the net overall effect of algorithms [will] be positive for individuals and society."[20] The fact is, "[a]s robotics and artificial intelligence systems increasingly integrate into our society, they will do bad things."[21] With the speed and geographic reach that the internet adds to the mix, algorithms can have disastrous effects in many places at once.[22] As the European Union's High-Level Expert Group on Artificial Intelligence has opined: "AI systems need to be human-centric, resting on a commitment to their use in the service of humanity and the common good . . . . This entails seeking to maximise the benefits of AI systems while at the same time preventing and minimising their risks."[23]

The key to making algorithms work for us, rather than against us, is to use the law to address the threats they pose. Accountability is the law's most direct and effective tool for turning behavior in socially constructive directions. And yet there is currently no general framework for algorithmic accountability.[24] In reporting on Elaine Herzberg's death, a journalist hit on the central challenge: "Who killed Elaine Herzberg? Not the driver of the car that ran her over—because there was no driver. And therein lies a problem."[25] When people kill

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(Feb. 25, 2019, 3:16 PM), https://www.forbes.com/sites/greatspeculations/2019/02/25/ai-will-add-15-trillion-to-the-world-economy-by-2030/#655d649b1852 [https://perma.cc/Q77F-2VUG].

20 Lee Rainie & Janna Anderson, Pew Rsch. Ctr., Code-Dependent: Pros and Cons of the Algorithm Age 5 (2017), https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2017/02/PI_2017.02.08_Algorithms_FINAL.pdf [https://perma.cc/3N8E-8LCV].

21 Mark A. Lemley & Bryan Casey, *Remedies for Robots*, 86 U. Chi. L. Rev. 1311, 1311 (2019).

22 *See* Exec. Off. of the President, Big Data, at iii (2014), https://obamawhitehouse.archives.gov/sites/default/files/docs/big_data_privacy_report_may_1_2014.pdf [https://perma.cc/YH77-VCVS] (describing potential of algorithms to undermine "longstanding civil rights protections").

23 High-Level Expert Grp. on A.I., Ethics Guidelines for Trustworthy AI 4 (2019), https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai [https://perma.cc/2DRQ-75D5] (footnote omitted).

24 *See* Rainie & Anderson, *supra* note 20, at 15 ("[Technology experts in a large survey] noted that those who create and evolve algorithms are not held accountable to society and argued there should be some method by which they are.").

25 Schmitt, *supra* note 12. There was a human "monitor" in the car. Jack Stilgoe, *Who Killed Elaine Herzberg?*, Medium: OneZero (Dec. 12, 2019), https://onezero.medium.com/who-killed-elaine-herzberg-ea01fb14fc5e [https://perma.cc/YBA8-RXTT] ("Rafaela Vasquez was behind the wheel, but she wasn't driving. The car, operated by Uber, was in autonomous mode. Vasquez's job was to monitor the computer that was doing the driving . . . ."). The monitor seems

each other or manipulate stock, the law knows how to respond.[26] When algorithms do the same, there is a wide gap in legal accountability.[27]

To close the algorithmic accountability gap, the law needs to say what liability looks like when algorithms are behind the wheel. Most liability, whether criminal[28] or civil,[29] requires two things: an injurious act and a defective mental state. Acts and mental states are the sorts of requirement that only people can satisfy, but neither algorithms nor robots are people. In earlier work, I provided an account of what liability-entailing mental states could be for algorithmic injury.[30] That account called for inferring culpable mental states from patterns of injurious conduct, regardless of whether algorithmic or human activity caused it.[31] That account conspicuously avoided the more fundamental question: What does it mean for an algorithm to act?

Scholars in law,[32] computer science,[33] and business ethics[34] who have broached the question of algorithmic liability often assume that

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to have been looking down (perhaps at her phone) at the time of the crash. *Id.* Attention fatigue for human monitors in self-driving cars is a natural and predictable event. *See* Jack Stewart, *Self-Driving Cars Won't Just Watch the World—They'll Watch You*, WIRED (Feb. 13, 2017, 7:30 AM), https://www.wired.com/2017/02/self-driving-cars-wont-just-watch-world-theyll-watch/ [https://perma.cc/UW2D-FEKT]. In Uber's eyes, this only made it easier to distance the company, morally and legally, from the tragedy: "[W]e refused to take responsibility. They blamed it on the homeless lady [and] the Latina with a criminal record driving the car . . . . But *our car* hit a person. No one inside [Uber] said, 'We did something wrong and we should change our behavior.'" Julie Bort, *Uber Insiders Describe Infighting and Questionable Decisions Before Its Self-Driving Car Killed a Pedestrian*, BUS. INSIDER (Nov. 19, 2018, 5:17 PM), https://www.businessinsider.com/sources-describe-questionable-decisions-and-dysfunction-inside-ubers-self-driving-unit-before-one-of-its-cars-killed-a-pedestrian-2018-10 [https://perma.cc/H8UY-WMP5].

26 Lin, *supra* note 5, at 1300–01.

27 Herzberg's family sued Uber, but the case never went to court. Likely for PR reasons, Uber "c[a]me to a fast settlement." Connie Loizos, *Uber Has Settled with the Family of the Homeless Victim Killed Last Week*, TECHCRUNCH (Mar. 29, 2018, 6:53 PM), https://techcrunch.com/2018/03/29/uber-has-settled-with-the-family-of-the-homeless-victim-killed-last-week/ [https://perma.cc/J56X-8GER].

28 22 C.J.S. *Criminal Law* § 35 (2020) ("Strict criminal liability statutes remain the exception in our criminal law system, not the rule, and have a generally disfavored status . . . ." (footnote omitted)).

29 RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL & EMOTIONAL HARM ch. 4, scope note (AM. L. INST. 2010) (noting that strict liability is generally limited to torts involving abnormally dangerous activity, possession of animals, and products liability).

30 Mihailis E. Diamantis, *The Extended Corporate Mind: When Corporations Use AI to Break the Law*, 98 N.C. L. REV. 893, 930 (2020).

31 *Id.*

32 *See* GABRIEL HALLEVY, LIABILITY FOR CRIMES INVOLVING ARTIFICIAL INTELLIGENCE SYSTEMS 7 (2015); Steven J. Frank, *Tort Adjudication and the Emergence of Artificial Intelligence Software*, 21 SUFFOLK U. L. REV. 623, 625 (1987); Christina Mulligan, *Revenge Against Robots*,

the answer would somehow require the law to recognize algorithms as people. The journalist's musings about Elaine Herzberg's death also imply as much—if there was no human in control of the car, no person was. Granting algorithms the status of legal persons is deeply unappealing for several reasons. First, it would require a seismic reworking of current law; algorithms are presently not legal people and they cannot be civil or criminal defendants.[35] In the current climate of legislative stagnation, relying on Congress for any prompt action is a poor bet.[36] Setting public choice theory aside, it is far from clear that algorithms presently do, or ever could,[37] satisfy the conditions of personhood and accountability.[38] Even if they could, there is no way to sanction them: algorithms lack bodies to jail and pocketbooks to pay.[39]

Lastly, and most worryingly for the sci-fi readers out there, it would be foolhardy to assume that the slick slope of algorithmic per-

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69 S.C. L. REV. 579, 592 (2018); Gabriel Hallevy, *Unmanned Vehicles: Subordination to Criminal Law Under the Modern Concept of Criminal Liability*, 21 J.L. INFO. & SCI. 200, 201 (2011).

33 *See* Luciano Floridi & J.W. Sanders, *On the Morality of Artificial Agents*, 14 MINDS & MACHS. 349, 350–51 (2004); Fahad Alaieri & André Vellino, *Ethical Decision Making in Robots: Autonomy, Trust and Responsibility*, *in* SOCIAL ROBOTICS 159, 159 (Arvin Agah et al. eds., 2016) ("[N]on-predictability and autonomy may confer a greater degree of responsibility to the machine . . . .").

34 *See* Nicholas Diakopoulos & Sorelle Friedler, *How to Hold Algorithms Accountable*, MIT TECH. REV. (Nov. 17, 2016), https://www.technologyreview.com/s/602933/how-to-hold-algorithms-accountable/ [https://perma.cc/78NG-BEFS].

35 Thomas Beardsworth & Nishant Kumar, *Who to Sue When a Robot Loses Your Fortune*, BLOOMBERG (May 5, 2019, 8:00 PM), https://www.bloomberg.com/news/articles/2019-05-06/who-to-sue-when-a-robot-loses-your-fortune [https://perma.cc/SEC2-R9RT] ("Robots are getting more humanoid every day, but they still can't be sued.").

36 Derek Willis, *A Do-Nothing Congress? Well, Pretty Close*, N.Y. TIMES (May 28, 2014), https://www.nytimes.com/2014/05/28/upshot/a-do-nothing-congress-well-pretty-close.html [https://perma.cc/A64P-5WM6] ("After a burst of legislative activity in the past decade, representatives in the House are now proposing fewer bills."); *see* SARAH BINDER, CTR. FOR EFFECTIVE PUB. MGMT. AT BROOKINGS, POLARIZED WE GOVERN? 10 (2014), https://www.brookings.edu/wp-content/uploads/2016/06/BrookingsCEPM_Polarized_figReplacedTextRevTableRev.pdf [https://perma.cc/SXN9-DB6P] (charting continuous rise of legislative gridlock).

37 Thomas C. King, Nikita Aggarwal, Mariarosaria Taddeo & Luciano Floridi, *Artificial Intelligence Crime: An Interdisciplinary Analysis of Foreseeable Threats and Solutions*, 26 SCI. & ENG'G ETHICS 89, 95, 102 (2019) (asserting that "the idea that an [algorithm] can act voluntarily is contentious" and "an [artificial agent] cannot itself meet the *mens rea* requirement [of a crime]"); JOHN R. SEARLE, MINDS, BRAINS AND SCIENCE 28–41 (1984) (arguing that computers cannot think).

38 *See generally* JOHN CHIPMAN GRAY, THE NATURE AND SOURCES OF THE LAW 27–52 (2d ed. 1921) (discussing legal personhood).

39 *See* Ryan Abbott & Alex Sarch, *Punishing Artificial Intelligence: Legal Fiction or Science Fiction*, 53 U.C. DAVIS L. REV. 323, 364–68, 383 (2019) (discussing and ultimately rejecting possibility of punishing algorithms); *see also* Lawrence B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. REV. 1231, 1244–48 (1992) (discussing difficulties of punishing algorithms).

sonhood stops with liability. Rights usually accompany responsibilities in law,[40] and the prospect of pitting algorithm rights against human rights is full of chillingly unanticipatable consequences.[41] We have seen this before with other artificial persons.[42] Could the early engineers of legal personhood for corporations have predicted the conflict between corporations and individuals for religious freedom[43] and political speech?[44] Corporations depend on individuals to do anything;[45] many algorithms, once designed, can become self-executing.[46]

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40 *See* W. Robert Thomas, *How and Why Corporations Became (and Remain) Persons Under the Criminal Law*, 45 FLA. ST. U. L. REV. 479, 504–14 (2018) (relating parallel development of corporate legal powers and corporate legal liabilities); *id.* at 533 ("The second dimension of fairness responded to the growing powers and opportunities available to corporations. Courts explained that a corporation's exposure to legal liability served to complement the expansion of its legal rights and powers."); *see also* Mark M. Hager, *Bodies Politic: The Progressive History of Organizational "Real Entity" Theory*, 50 U. PITT. L. REV. 575, 578 (1989) ("Thinkers from the early twentieth century speak of organizations as 'persons' and attempt to deduce from this concept the rights and responsibilities such entities should carry.").

41 *See* Joanna J. Bryson, Mihailis E. Diamantis & Thomas D. Grant, *Of, for, and by the People: The Legal Lacuna of Synthetic Persons*, 25 A.I. & L. 273, 275 (2017) (criticizing the possibility of extending rights to algorithms in part because of the implications it would have for humans' rights).

42 *See* Adam Winkler, *Corporations Are People, and They Have More Rights than You*, HUFFINGTON POST (Aug. 30, 2014, 11:10 AM), https://www.huffpost.com/entry/corporations-are-people-a_b_5543833 [https://perma.cc/5ESY-5ZZZ]; *see also* Adam S. Mintz, Note, *Do Corporate Rights Trump Individual Rights? Preserving an Individual Rights Model in a Pluralist Society*, 44 COLUM. J.L. & SOC. PROBS. 267, 284–85 (2011) (discussing Supreme Court cases balancing First Amendment rights of individuals and unions).

43 *See* Burwell v. Hobby Lobby Stores, Inc., 573 U.S. 682, 685, 720 (2014) (upholding protections for corporation's "sincere religious belief[s]" even when they interfere with individual healthcare rights).

44 *See* Citizens United v. FEC, 558 U.S. 310, 340–43 (2010) (finding that corporations enjoy constitutionally protected free speech rights even when they compete with individual speech rights).

45 Jaguar Cars, Inc. v. Royal Oaks Motor Car Co., 46 F.3d 258, 265 (3d Cir. 1995) ("[C]orporations are by definition passive instruments, since they are artificially created legal persons that can only act through their officers and employees."). *But see* Carla L. Reyes, *Autonomous Business Reality*, 21 NEV. L.J. (forthcoming 2021) (proposing a taxonomy of autonomous businesses).

46 Michal S. Gal, *Algorithmic Challenges to Autonomous Choice*, 25 MICH. TECH. L. REV. 59, 70 (2018) ("The self-executing quality of these autonomous algorithmic assistants limits the need for human intervention beyond the employment of the algorithm and the initial placement of the sensors."); Hilary J. Allen, *The SEC as Financial Stability Regulator*, 43 J. CORP. L. 715, 745 (2018) ("While humans are certainly involved in programming [high frequency trading] algorithms, once the algorithm has been set, the trading is self-executing—there is no time to apply human judgment to individual decisions about whether to trade or not. . . . Before trading was so fully automated, human judgment acted as something of a circuit-breaker . . . ."); Annemarie Bridy, *The Evolution of Authorship: Work Made by Code*, 39 COLUM. J.L. & ARTS 395, 397 (2016) ("Practitioners of generative art take a systems-approach to artistic production, removing

There is a silver lining to the cautionary tale of corporate personhood—whatever its faults, it is here to stay,[47] and it may offer a scaffold for constructing an approach to algorithmic injuries.[48] There was no legally responsible natural person driving the car that killed Elaine Herzberg.[49] There was no legally responsible algorithm driving the car either, because algorithms, not being people, cannot be responsible. The basic thesis advanced here is that there was a third possibility, an overlooked person in control of the car: Uber.

Corporations develop, run, and maintain the world's most impactful algorithms.[50] In such cases, I claim that algorithmic action is corporate action.[51] Just as corporations act through their employees,[52] they may also act through their algorithms. Holding corporations liable for the things they do through their employees induces corporations to ensure that their employees behave in socially beneficial ways.[53] Recognizing that corporations act through their algorithms would similarly encourage corporations to exercise responsible control over algorithmic injuries. By converting the question of injurious algorithmic action into a question of injurious corporate action, the

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their own personalities from the creative process and ceding control to self-executing algorithms.").

47 If anything, corporate criminal law is, and has been, expanding in the United States, V.S. Khanna, *Corporate Criminal Liability: What Purpose Does It Serve?*, 109 HARV. L. REV. 1477, 1477 (1996) (noting the expansion of corporate criminal liability), and abroad, Edward B. Diskant, Note, *Comparative Corporate Criminal Liability: Exploring the Uniquely American Doctrine Through Comparative Criminal Procedure*, 118 YALE L.J. 126, 142 (2008) ("Germany continues to resist corporate criminal liability, even as many of her neighbors in Western Europe have tentatively begun to change course in response to recent corporate scandals in the United States and Europe.").

48 In spirit, this project resembles Joanna Bryson's call to locate responsibility for algorithmic conduct in human actors, whom she believes to be the only loci of true responsibility. *See generally* Joanna J. Bryson, *The Artificial Intelligence of the Ethics of Artificial Intelligence: An Introductory Overview for Law and Regulation*, *in* THE OXFORD HANDBOOK OF ETHICS OF AI 3 (Markus D. Dubber et al. eds., 2020) (describing how the law applies to AI ethics).

49 Schmitt, *supra* note 12.

50 *See, e.g.*, George Dvorsky, *The 10 Algorithms that Dominate Our World*, GIZMODO (May 22, 2014, 1:26 PM), https://io9.gizmodo.com/the-10-algorithms-that-dominate-our-world-1580110464 [https://perma.cc/JKE9-38R2].

51 The sense of "action" I employ throughout this paper is the legal sense, not the philosophical. For philosophers, "action" typically refers to a bodily movement with the right connection to a mental state, usually intention. *See Action Theory*, BRITANNICA, https://www.britannica.com/topic/action-theory [https://perma.cc/MG9B-HBJX]. In the law, "action" usually just refers to movement, without implying any further assumption about what is going on in the head. *See, e.g.*, MODEL PENAL CODE § 1.13(2) (AM. L. INST. 1962) ("'[A]ct' or 'action' means a bodily movement whether voluntary or involuntary.").

52 *See infra* note 85 and accompanying text.

53 *See infra* note 182 and accompanying text.

approach advanced here crucially avoids the practical and philosophical challenges that accompany any effort to personify algorithms. Algorithms become an extension of the corporate person, not persons in their own right. In my earlier work on mental states, I asked: "Under what conditions should corporations be liable when their algorithms act on their behalf?"[54] Here I ask the logically prior question: "Under what conditions does algorithmic action qualify as corporate action?"

Although the proposal I develop below is grounded in U.S. law, it should be of interest beyond American borders. The Organization for Economic Cooperation and Development ("OECD") has recommended to all its nation-members that AI actors (defined as "those who play an active role in the AI system lifecycle") "should be accountable for the proper functioning of AI."[55] Similarly, the European Union has acknowledged the need for "civil liability rules . . . to ensure adequate compensation in case of [algorithmic] harm and/or rights violations" and "the need to ensure that criminal responsibility and liability can be attributed in line with the fundamental principles of criminal law."[56] It is not enough simply to stipulate that AI actors will be accountable because there will often be many actors connected to algorithmic injury. Operationalizing the recommendation requires a mechanism for apportioning liability. What I offer is one approach, grounded in principles of fairness and prevention.

Without a framework establishing a robust connection between algorithmic misconduct and corporate liability, the algorithmic accountability gap will only grow wider. Technologists' pessimistic predictions may prove inevitable. Algorithms can now carry out many functions that just a decade ago required human employees.[57] That

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54 Diamantis, *supra* note 30, at 907.

55 OECD, RECOMMENDATION OF THE COUNCIL ON ARTIFICIAL INTELLIGENCE 7–8 (2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449 [https://perma.cc/MH8C-4N79].

56 HIGH-LEVEL EXPERT GRP. ON A.I., POLICY AND INVESTMENT RECOMMENDATIONS FOR TRUSTWORTHY AI 39 (2019), https://ec.europa.eu/digital-single-market/en/news/policy-and-investment-recommendations-trustworthy-artificial-intelligence [https://perma.cc/M6UJ-MHTR].

57 *See* Vishal Marria, *The Future of Artificial Intelligence in the Workplace*, FORBES (Jan. 11, 2019, 2:58 PM), https://www.forbes.com/sites/vishalmarria/2019/01/11/the-future-of-artificial-intelligence-in-the-workplace/#3826d3473d4d [https://perma.cc/YV8C-B3XM] ("Although AI will affect every sector in some way, not every job is at equal risk. PwC predicts a relatively low displacement of jobs (around 3%) in the first wave of automation, but this could dramatically increase up to 30% by the mid-2030's."); Dan Wellers, Timo Elliott & Markus Noga, *8 Ways Machine Learning Is Improving Companies' Work Processes*, HARV. BUS. REV. (May 31, 2017), https://hbr.org/2017/05/8-ways-machine-learning-is-improving-companies-work-processes [https://perma.cc/CU33-EMEM] ("Today's leading organizations are using machine learning-based

trend will accelerate over the decade to come.[58] When algorithmic injuries do not qualify as corporate actions, the law effectively shields corporations from the liability they would have faced using human employees instead. Businesses will seek the safe harbor of algorithmic misconduct rather than risk liability for misconduct by human employees. This gives corporations strong incentives to automate, even when automation might not otherwise be profitable or socially beneficial.[59]

In providing a framework for addressing algorithmic injury, this Article seeks the path of least resistance. In pursuit of realistic prospects for success, it grounds itself in existing corporate law principles. Part I details the current law of corporate liability, emphasizing how the law conceives of injurious corporate action by looking for an injurious employee action to attribute to the corporation. Part II shows how law, as presently applied, cannot close the algorithmic accountability gap because algorithmic injury has no obvious place in it.

Part III argues that an approach to algorithmic accountability may be hiding in plain sight. The principles behind the current law of corporate liability—which emphasize relationships of control and benefit[60]—extend beyond the employment context. Corporations also have control over and benefit from their algorithms, which motivates two possible approaches. A "control-based account" would attribute algorithmic harms to any corporation that exercises sufficient control over the algorithm in question. By contrast, a "benefits-based account" would attribute algorithmic harms to any corporation that lays substantial claim to the productive benefits of the algorithm in question. After detailing both accounts, this Article criticizes them for being overbroad. In their stead, this Article settles on a "beneficial-

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tools to automate decision processes, and they're starting to experiment with more–advanced uses of artificial intelligence (AI) for digital transformation.").

58 *See* SAM RANSBOTHAM, DAVID KIRON, PHILIPP GERBERT & MARTIN REEVES, MIT SLOAN MGMT. REV., RESHAPING BUSINESS WITH ARTIFICIAL INTELLIGENCE 14 (2017), https://image-src.bcg.com/Images/Reshaping%20Business%20with%20Artificial%20Intelligence_tcm9-177882.pdf [https://perma.cc/3UT9-VZZS]; Ellen Ruppel Shell, *AI and Automation Will Replace Most Human Workers Because they Don't Have to Be Perfect—Just Better than You*, NEWSWEEK (Nov. 20, 2018, 5:04 PM), https://www.newsweek.com/2018/11/30/ai-and-automation-will-replace-most-human-workers-because-they-dont-have-be-1225552.html [https://perma.cc/DPZ7-6Q2G].

59 Microsoft President and Chief Legal Officer Brad Smith remarked, "We don't want to see a commercial race to the bottom. . . . Law is needed." Cade Metz, *Is Ethical A.I. Even Possible?*, N.Y. TIMES (Mar. 1, 2019) (quoting Brad Smith, President and Chief Legal Officer, Microsoft, Statement (2019)), https://www.nytimes.com/2019/03/01/business/ethics-artificial-intelligence.html [https://perma.cc/4AUB-9ZCU].

60 *See infra* notes 166–67 and accompanying text.

control account" which would require algorithmic harms to satisfy both the control and benefit criteria before attribution.

As Part IV shows, recognizing that corporations act through algorithms just as they act through employees would go a long way to address algorithmic injury. This would establish a responsible party against whom victims could seek satisfaction. And that, in turn, would incentivize corporations to take care to discipline their algorithms by designing, releasing, monitoring, and updating them responsibly. Though there would be some challenges with implementation, Part IV shows they would be surmountable. Finally, this Article concludes by noting some limitations of using corporate law to solve the algorithmic accountability gap.

I. The Law of Corporate Liability

The law of liability was built with human defendants in mind. Liability typically requires some kind of injurious act—e.g., driving over someone—attended by some sort of deficient mental state—e.g., purpose or recklessness.[61] To avoid vagueness, the law must often define specific acts and mental states to distinguish them from each other.[62] However, it needs no special definition of what it means for human defendants to act or to have mental states. We are all intimately familiar with how human bodies move and how human minds think.

Corporations are different. "A corporation is an artificial being, invisible, intangible, and existing only in contemplation of law."[63] Corporations exist only because, only to the extent that, and only in the way that, the law dictates. There is no antecedent, prelegal notion of the corporation or how it acts and thinks. The law's account of these basic corporate concepts constitutes what corporations are. The law can and has changed its mind about how corporations act and think. For example, earlier in corporate history, the scope of corporate activity was limited by the ultra vires doctrine.[64] Corporations literally could take no action that went beyond the scope of their very limited[65]

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61 The misdemeanor statute that Uber arguably violated in Herzberg's death required "driv[ing] a vehicle in reckless disregard for the safety of persons." Ariz. Rev. Stat. Ann. § 28-693(A) (2021).

62 *See, e.g.*, Papachristou v. City of Jacksonville, 405 U.S. 156, 162–63 (1972) (listing lack of specific intent element as factor weighing towards unconstitutional vagueness).

63 Trs. of Dartmouth Coll. v. Woodward, 17 U.S. (4 Wheat.) 518, 636 (1819).

64 *Ultra Vires*, Black's Law Dictionary (11th ed. 2019) ("Unauthorized; beyond the scope of power allowed or granted by a corporate charter or by law.").

65 Note, *Constructive Notice of the Charter of a Corporation*, 26 Harv. L. Rev. 540, 541 (1913) ("In the early days of corporations when charters were sparingly granted by public act

chartered purposes, however hard corporate employees might try.[66] Similarly, early corporations were deemed incapable of entertaining criminally inculpating thoughts.[67] Both those limits have since been lifted.[68]

In order for corporations to fulfill their economic and social role, they have to be capable of doing and thinking things. "[A] corporation must of course be able to act . . . [or] else the whole theory of incorporation would make no sense whatsoever."[69] Corporations need to purchase property, set up factories, make goods, and intend to bind themselves to agreement in order to participate meaningfully in the marketplace. Some of these acts and thoughts must be capable of subjecting corporations to future suit. On the one hand, liability is necessary to empower corporations: the capacity to enter into contract is meaningless without the capacity to be sued for breach.[70] On the other hand, corporate liability is also a crucial protection for human participants in the economic and social marketplace.[71]

Lawmakers took two crucial shortcuts in defining what corporations are. Because the law was creating an entirely new creature, it had a blank slate. It could have developed a parallel legal system from scratch, defining afresh what legal concepts mean as applied to corporations. Understandably, lawmakers demurred in the face of that

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and usually for a quasi-public purpose a charter was properly regarded as a very special privilege.").

66 Albert J. Harno, *Privileges and Powers of a Corporation and the Doctrine of Ultra Vires*, 35 YALE L.J. 13, 23 (1925); 1 WILLIAM BLACKSTONE, COMMENTARIES *464 ("A corporation cannot commit treason, or felony, or other crime, in it's [sic] corporate capacity: though it's [sic] members may, in their distinct individual capacities." (footnote omitted)).

67 JAMES D. COX & THOMAS LEE HAZEN, THE LAW OF CORPORATIONS § 8:21, at 523 (3d ed. 2010) ("The early cases declared that a corporation could not commit a crime for want of the requisite mens rea or intent.").

68 *See* JOHN W. SALMOND, THE LAW OF TORTS § 18 at 57–58 (3d ed. 1912); *see, e.g.*, Phila., Wilmington, & Balt. R.R. Co. v. Quigley, 62 U.S. (21 How.) 202, 209–10 (1858); COX & HAZEN, *supra* note 67, § 8:21, at 527 ("Until the twentieth century, only on rare occasion did a court hold a corporation liable for commission of a 'true crime,' that is, a crime in which a mens rea was an essential element.").

69 Gerhard O.W. Mueller, *Mens Rea and the Corporation: A Study of the Model Penal Code Position on Corporate Criminal Liability*, 19 U. PITT. L. REV. 21, 38 (1957).

70 *See* Steven J. Burton & Eric G. Andersen, *The World of a Contract*, 75 IOWA L. REV. 861, 865 (1990) (discussing how an expectation of performance induces a party to change position, and noting that, consequently, harm to a party's expectation interest "is the touchstone in principle for ascertaining a breach of contract").

71 *See* N.Y. Cent. & Hudson River R.R. Co. v. United States, 212 U.S. 481, 495 (1909) ("[There is] no valid objection in law, and every reason in public policy, why the corporation . . . shall be held punishable by fine because of the knowledge and intent of its agents to whom it has intrusted authority to act . . . .").

monumental task. Instead, they took a shortcut, slotting corporations into existing law just as if they were other "people."[72] As the Supreme Court has observed, "the corporate personality is a fiction, although a fiction intended to be acted upon as though it were a fact."[73] Accordingly, any statute that defines civil or criminal liability for people simultaneously defines causes of action applicable to individuals and to corporations.[74] For example, when the False Claims Act[75] states that "any *person* who . . . presents . . . a false or fraudulent claim [to the U.S. government] is liable,"[76] there is no question that both natural and legal people can violate it.

Simply declaring that corporations are people and can violate all the laws natural people can violate says nothing about how to tell when a corporate violation has occurred. Because corporations are "artificial being[s], invisible, intangible,"[77] there is no obvious, a priori answer to what it means for them to present a claim or to know that it is false. When we suspect natural people of False Claims violations, we want to know whether it was their hand that applied the stamp and what information about the claim was stored in their brain. But corporations have neither hands nor brains. The law had to define the "body corporate"—that with which a corporation acts—and the "corporate mind"—that with which a corporation thinks.[78]

This challenge prompted lawmakers to take a second shortcut. There are any number of sophisticated, policy-driven ways that lawmakers could have defined the corporate mind and the body corporate. They could have identified the corporate mind with a range of different corporate features, from internal decision structures,[79] to corporate ethos,[80] to industry norms,[81] to corporate data systems.[82] Instead, the law simply pilfered a doctrine from the ancient law of

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72 A corporation is "[a]n entity . . . having authority under law to act as a single person." *Corporation*, BLACK'S LAW DICTIONARY (11th ed. 2019).

73 Int'l Shoe Co. v. Washington, 326 U.S. 310, 316 (1945).

74 *See* 1 U.S.C. § 1 ("In determining the meaning of any Act of Congress, unless the context indicates otherwise . . . the words 'person' and 'whoever' include corporations . . . as well as individuals.").

75 31 U.S.C. §§ 3729–3733.

76 *Id.* § 3729(a)(1) (emphasis added).

77 Trs. of Dartmouth Coll. v. Woodward, 17 U.S. (4 Wheat.) 518, 636 (1819).

78 Mihailis E. Diamantis, *The Body Corporate*, 83 L. & CONTEMP. PROBS. 133 (2020).

79 *See* PETER A. FRENCH, COLLECTIVE AND CORPORATE RESPONSIBILITY 13 (1984).

80 Pamela H. Bucy, *Corporate Ethos: A Standard for Imposing Corporate Criminal Liability*, 75 MINN. L. REV. 1095, 1099 (1991).

81 William S. Laufer, *Corporate Bodies and Guilty Minds*, 43 EMORY L.J. 647, 701 (1994).

82 *See* Mihailis E. Diamantis, *Functional Corporate Knowledge*, 61 WM. & MARY L. REV. 319, 378, 393 (2019).

agency: respondeat superior.[83] That doctrine effectively attributes the thoughts and acts of agents to their principals. Accordingly, what employees think, the corporation thinks; what employees do, the corporation does.[84] The corporate mind is its employees' minds. The body corporate is its employees' bodies. There is not much more nuance to it than that.[85]

Commentators have expressed widespread dissatisfaction with both shortcuts. The fiction of corporate personhood strikes many scholars as absurd,[86] incoherent,[87] and dangerous.[88] As for respondeat superior, "there is virtually unanimous agreement [that it] is extremely broad."[89] The overbroad doctrine unfairly sanctions corporations for wayward employee conduct[90] and overdeters them by incentivizing wasteful levels of compliance.[91]

Despite these criticisms, there is some sense to the fiction of corporate personhood and to respondeat superior. The fiction of corpo-

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83 SALMOND, *supra* note 68, § 18 at 57–58; *see, e.g.*, Phila., Wilmington, & Balt. R.R. Co. v. Quigley, 62 U.S. (21 How.) 202, 209–10 (1859). Some trace the doctrine as far back as Roman times. *See* Oliver Wendell Holmes, Jr., *Agency*, 4 HARV. L. REV. 345, 350 (1891).

84 Old Monastery Co. v. United States, 147 F.2d 905, 908 (4th Cir. 1945); *see* PAULA GILIKER, VICARIOUS LIABILITY IN TORT 1 (2010).

85 Though there is some. The employees have to be working "within the scope of their employment" for their thoughts and acts to be attributable to the corporation; however, the employee satisfies this condition even if she is disobeying orders. United States v. Hilton Hotels Corp., 467 F.2d 1000, 1004 (9th Cir. 1972). Employees must also have some intent to benefit the corporation to attribute their acts and thoughts, though they satisfy this condition even if their intent is subsidiary, United States v. Automated Med. Lab'ys, Inc., 770 F.2d 399, 407 (4th Cir. 1985), hypothetical, United States v. Sun-Diamond Growers of Cal., 138 F.3d 961, 970 (D.C. Cir. 1998), *aff'd*, 526 U.S. 398 (1999), and ineffective, *see Old Monastery Co.*, 147 F.2d at 908.

86 *E.g.*, Robert Wagner, *Cruel and Unusual Corporate Punishment*, 44 J. CORP. L. 559, 564 (2019) ("[A] problem with corporate personhood is that it can lead to absurd conclusions . . . .").

87 Matthew J. Allman, Note, *Swift Boat Captains of Industry for Truth:* Citizens United *and the Illogic of the Natural Person Theory of Corporate Personhood*, 38 FLA. ST. U. L. REV. 387, 388 (2011) ("[T]he 'natural person theory,' which sees the existence of human beings and corporations as legally and factually indistinguishable . . . is divorced from observable reality . . . [and] logically incoherent . . . .").

88 Meir Dan-Cohen, *Epilogue on "Corporate Personhood" and Humanity*, 16 NEW CRIM. L. REV. 300, 302 (2013) ("The issue of corporate personhood in general, and the standard scheme in particular, are fraught with familiar dangers.").

89 Preet Bharara, *Corporations Cry Uncle and Their Employees Cry Foul: Rethinking Prosecutorial Pressure on Corporate Defendants*, 44 AM. CRIM. L. REV. 53, 59 (2007); Comment, *The Creation of a Common Law Rule: The Fellow Servant Rule, 1837–1860*, 132 U. PA. L. REV. 579, 584 (1984) (describing respondeat superior as "extremely broad"); Samuel W. Buell, *The Blaming Function of Entity Criminal Liability*, 81 IND. L.J. 473, 526 (2006) ("[R]espondeat superior is grossly overbroad.").

90 *See* Ellen S. Podgor, *A New Corporate World Mandates a "Good Faith" Affirmative Defense*, 44 AM. CRIM. L. REV. 1537, 1537, 1539 (2007).

91 *See* Diamantis, *supra* note 82, at 324–25.

rate personhood taps into deep psychological intuitions that organized groups are social agents who deserve blame when they do wrong.[92] However discomforting the fiction of corporate personhood may be, denying that corporations deserve blame when they do wrong is even more unsettling.[93] As a tool for channeling legal sanction, respondeat superior's breadth is also one of its greatest strengths. Corporations are in the best position to ensure that their employees obey the law.[94] By treating all employee acts as corporate acts and all employee thoughts as corporate thoughts, the law gives corporations very strong incentives to train, monitor, and discipline their employees.[95] Indeed, it is the contention of this Article that, if anything, respondeat superior is not broad enough. As applied, respondeat superior relies on the outdated assumption that "[a] corporation can only act through natural persons."[96] In the twenty-first century, corporations also interface with the outside world through their algorithms.[97] By failing to recognize that algorithmic effects should sometimes qualify as corporate acts, the law presently gives corporations inadequate incentives to train, monitor, and discipline their algorithms.

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92 Mihailis E. Diamantis, *Corporate Criminal Minds*, 91 NOTRE DAME L. REV. 2049, 2077–80 (2016); Steven J. Sherman & Elise J. Percy, *The Psychology of Collective Responsibility: When and Why Collective Entities Are Likely To Be Held Responsible for the Misdeeds of Individual Members*, 19 J.L. & POL'Y 137, 156 (2010) (noting that the impulse to "blame and punish[] these groups . . . [is] psychologically sensible and sustainable"); *see* Anna-Kaisa Newheiser, Takuya Sawaoka & John F. Dovidio, *Why Do We Punish Groups? High Entitativity Promotes Moral Suspicion*, 48 J. EXPERIMENTAL SOC. PSYCH. 931, 935 (2012) (arguing that people are naturally inclined to blame entitative groups for wrongdoing); Thomas F. Denson, Brian Lickel, Mathew Curtis, Douglas M. Stenstrom & Daniel R. Ames, *The Roles of Entitativity and Essentiality in Judgments of Collective Responsibility*, 9 GRP. PROCESSES & INTERGROUP RELS. 43, 55–56 (2006).

93 *See* William S. Laufer, *Where Is the Moral Indignation over Corporate Crime?*, *in* REGULATING CORPORATE CRIMINAL LIABILITY 19, 19 (Dominik Brodowski et al. eds., 2014).

94 *See* Robert A. Prentice, *Conceiving the Inconceivable and Judicially Implementing the Preposterous: The Premature Demise of Respondeat Superior Liability Under Section 10(b)*, 58 OHIO ST. L.J. 1325, 1386 (1997) ("Several economic arguments have been made for the efficiency of the *respondeat superior* regime. Among other points, the 'least-cost avoider' test has often been used in economic analysis for determining the proper parameters of strict liability. The least-cost avoider is the person who can most efficiently prevent the loss by adjusting his level of care to the most efficient point.").

95 *See* Brent Fisse, *Reconstructing Corporate Criminal Law: Deterrence, Retribution, Fault, and Sanctions*, 56 S. CAL. L. REV. 1141, 1205–06 (1983).

96 Memorandum from Eric Holder, Deputy Att'y Gen., to All Component Heads and U.S. Att'ys 4 (June 16, 1999) [hereinafter Holder Memo], http://www.justice.gov/sites/default/files/criminal-fraud/legacy/2010/04/11/charging-corps.PDF [https://perma.cc/4ELA-QNMN].

97 *See, e.g.*, Thomas Crampton, *Google Said to Violate Copyright Laws*, N.Y. TIMES (Feb. 14, 2007), https://www.nytimes.com/2007/02/14/business/14google.html [https://perma.cc/E8C9-Q2D8].

From the pragmatic perspective adopted here, perhaps the most significant reason to take the fiction of corporate personhood and respondeat superior on board is that they are not going anywhere. There is broad public support for the sort of corporate legal liability that corporate personhood enables.[98] That makes legislative reform a nonstarter. As to respondeat superior, that doctrine has been entrenched by centuries of jurisprudence.[99] The only notable change to respondeat superior in decades has been the limited introduction of the collective knowledge doctrine.[100]

In the federal system, the basic principles of corporate liability are largely judge-made. Respondeat superior is a common law doctrine,[101] introduced to corporate law and expanded upon through judicial decisions.[102] As was the case with the collective knowledge doctrine, any innovation is most likely to come from the courts. Despite its limited uptake beyond the First Circuit, courts have recognized that they have the power to adopt or decline the doctrine.[103]

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98 *See* Miriam H. Baer, *Choosing Punishment*, 92 B.U. L. REV. 577, 612 (2012) ("The public has increasingly registered greater moral outrage in response to corporate governance scandals. Moral outrage, in turn, fuels retributive motivations and therefore supports those institutions best poised to take advantage of such motivations.").

99 *See* GILIKER, *supra* note 84, at 12 (recounting the development of respondeat superior in English Courts, beginning with *Boson v. Sandford* (1691) 91 Eng. Rep. 382; 2 Salk. 440 (K.B.)).

100 *See* United States v. Bank of New England, N.A., 821 F.2d 844, 855 (1st Cir. 1987) ("[I]f Employee A knows one facet of [a legal] reporting requirement, B knows another facet of it, and C a third facet of it, the bank knows them all.").

101 *See* Packard Motor Car Co. v. NLRB, 330 U.S. 485, 489 (1947) (referring to "the ancient maxim of the common law, *respondeat superior*," which, "[e]ven without special statutory provision . . . would apply to many relations").

102 *See* Buell, *supra* note 89, at 474–75 ("The law in this area had a weak start nearly a century ago when common law courts, looking to expand available means for regulating business enterprises, imported respondeat superior liability from tort law into the criminal law, but without serious theoretical analysis." (footnote omitted)); Daniel L. Cheyette, *Policing the Corporate Citizen: Arguments for Prosecuting Organizations*, 25 ALASKA L. REV. 175, 179–80 (2008) ("Courts were the first to recognize corporations as legal entities capable of suing and being sued. . . . The law imputed tortious intent from the agent to the corporation, making the corporation liable for actual damages.").

103 *See* United States v. Pac. Gas & Elec. Co., No. 14-cr-00175-TEH, 2015 WL 9460313, at *3–5 (N.D. Cal. Dec. 23, 2015) (discussing whether to adopt the collective knowledge doctrine); United States v. T.I.M.E.-D.C., Inc., 381 F. Supp. 730, 738 (W.D. Va. 1974) ("A corporation can only act through its employees and, consequently, the acts of its employees, within the scope of their employment, constitute the acts of the corporation. Likewise, knowledge acquired by employees within the scope of their employment is imputed to the corporation. In consequence, a corporation cannot plead innocence by asserting that the information obtained by several employees was not acquired by any one individual employee who then would have comprehended its full import. Rather, the corporation is considered to have acquired the collective knowledge of its employees and is held responsible for their failure to act accordingly.").

Furthermore, modest changes have a greater chance for uptake than grand ones. Accordingly, the arguments that follow are largely directed to judges, proposing what amounts to an extension of respondeat superior grounded in the doctrine's own motivating principles. In the twenty-first century, limiting respondeat superior to employees is in tension with the principles that justified the doctrine in the first place. Algorithms are coming to fulfill roles previously filled only by humans. Corporate activity is digitizing, and judges should take note.

II. Is Any Change Needed?

Though this Article seeks to ground itself in current law and the policies behind it, it does propose a modest change in order to address the algorithmic accountability gap. In the spirit of being minimally invasive, I should consider first whether present law, more creatively applied and sans modification, could be up to the task. Perhaps respondeat superior would do the work if judges were to focus in a more sophisticated way on the conduct of employees who design corporate algorithms. Or, perhaps employees were the wrong place to look in the first place; if corporations make algorithms, maybe principles drawn from products liability could close the gap. In the two Sections that follow, I argue that, as they presently stand, neither area of law can close the algorithmic accountability gap.

A. Respondeat Superior

Designing, training, and running algorithms presently requires human agency.[104] Humans write the code, compile the data sets, and train the algorithms.[105] If algorithmic misbehavior could reliably be traced back to human mischief, then perhaps respondeat superior's identification of corporate acts with human acts would not be a significant limitation. Maybe courts just need to understand more about how algorithms are made and how to locate the cause of algorithmic injury in deficiencies of responsible corporate programmers. Generally, this is how the law thinks about acts that involve artifacts. For example, it is ordinarily no defense to a reckless driving charge to say, "though I was in control of the car, it was the car, not I, who ran over the pedes-

104 *See* James Vincent, *The State of AI in 2019*, Verge (Jan. 28, 2019, 8:00 AM), https://www.theverge.com/2019/1/28/18197520/ai-artificial-intelligence-machine-learning-computational-science [https://perma.cc/FRB3-EP6Q] (contrasting general AI—which does not yet exist—with machine learning, which involves "a hell of a lot of tinkering").

105 *See* David Lehr & Paul Ohm, *Playing with the Data: What Legal Scholars Should Learn About Machine Learning*, 51 U.C. Davis L. Rev. 653, 668 (2017).

trian. So acquit me." Agency transfers from people to the tools they use; why should the same not be true if those tools happen to be algorithms?

There is some work respondeat superior can do, and is doing, to address the algorithmic accountability gap. When employees purposely design algorithms to engage in misconduct, that misconduct is attributable to the individual employees, and from them, through respondeat superior, to corporate employers. Consider, for example, a case recounted by Principal Deputy Assistant Attorney General Andrew Finch involving criminal antitrust violations by retailers on Amazon Marketplace:

> Although the members of the conspiracy programmed their algorithms differently, the algorithms were nonetheless coordinated to accomplish the conspirators' goal of matching prices. One conspirator programmed its algorithms to search for the lowest price offered by a non-conspiring competitor for a particular poster, and set a price for that poster just below its non-conspiring competitor's price. The other conspirator programmed its algorithm to match the first conspirator's price. Prior to the collusive agreement, these conspirators engaged in vigorous competition to sell posters on Amazon Marketplace. By eliminating the competition between them, they prevented their prices from dropping even further. The conspirators monitored the effectiveness of their pricing agreement by spot-checking prices, but the conspiracy was largely self-executing once the pricing algorithms were in effect.[106]

As Finch noted, the Department of Justice had no trouble fitting criminal charges into the current legal framework.[107] Employees of the retailers purposely designed the algorithms to collude with each other.[108] So the collusion itself, though directly carried out by algorithms that were "largely self-executing," amounted to employee action—executives of the retailers were charged.[109] Respondeat superior filled in the last step by attributing the collusion to the corporate retailers.

Although the use of respondeat superior just described is straightforward, it is not nearly enough to close the algorithmic accountability gap because there are, and increasingly will be, many al-

106 Finch, *supra* note 15, at 6.

107 *See id.*

108 *See id.*

109 *Id.*

gorithmic injuries that cannot qualify as employee actions. Today, for the most part, algorithms originate with human engineers; however, humans are becoming increasingly absent from the process. There once was a time when humans needed to write every line of code, but now algorithms themselves write most of the code for sophisticated programs.[110] Humans are still usually involved—they generally supervise the process—yet even now there are techniques for unsupervised algorithmic learning.[111] As humans have less and less of a hand in the process of software development, the attempt to reduce corporate algorithmic acts to a species of employee action wears thin. The analogy between an algorithm and a tool like a hammer, which strikes only where a human intends, breaks down.

Even today when software engineers have a heavy hand in supervised algorithmic learning, respondeat superior is often inadequate for closing the algorithmic accountability gap. For one thing, the programmers are often not employees of the corporation using the algorithm; third-party tech companies design custom and off-the-shelf products.[112] Sometimes, holding the third-party tech company liable for its programmers' missteps might help. That solution, however, falsely presumes that there are always programming missteps when an algorithm misbehaves. The algorithmic misbehavior may result from an unexpected interaction between the algorithm (programmed by one company), the way it is used (by a second company), and the hardware running it (owned by a third company). Furthermore, even if the algorithm is defective when it leaves the company that designed it, the connection between any single programmer's activity and the injurious algorithmic conduct will often be highly attenuated. It takes teams of programmers to design the most sophisticated algorithms.[113] Each

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110 *See* Catherine Tremble, Note, *Wild Westworld: Section 230 of the CDA and Social Networks' Use of Machine-Learning Algorithms*, 86 FORDHAM L. REV. 825, 837 (2017) ("In traditional programming, mechanisms operate as the result of concrete rules; as such, problems are solved by correcting the programmers' previously written rules to yield a different output. By contrast, if the output of a machine-learning algorithm is unsatisfactory, the program needs more exposure to trial and error; it will self-teach to achieve its goal." (footnote omitted)); Harry Surden & Mary-Anne Williams, *Technological Opacity, Predictability, and Self-Driving Cars*, 38 CARDOZO L. REV. 121, 147–48 (2016) ("[I]n machine learning, loosely speaking, the computer learns the 'rules' to guide its actions on its own, rather than having those rules pre-programmed by human programmers." (footnote omitted)).

111 Jason Brownlee, *Supervised and Unsupervised Machine Learning Algorithms*, MACH. LEARNING MASTERY (Mar. 16, 2016), https://machinelearningmastery.com/supervised-and-unsupervised-machine-learning-algorithms/ [https://perma.cc/YAA9-CM49].

112 *See* Lemley & Casey, *supra* note 21, at 1352 ("Robots are composed of many complex components . . . often designed, operated, leased, or owned by different companies.").

113 *See id.*

line of code may be essential to the algorithm's misconduct, but none may be causally sufficient. Without an individual to whom the misconduct traces, respondeat superior has no application.[114]

To appreciate the challenge the algorithmic era poses for respondeat superior, it is important to understand the type of corporate algorithm at issue. The most powerful and flexible algorithms of today are not the mechanistic if-A-output-B programs of yesteryear and freshman computer science courses. Those algorithms required technicians to write every line of code, to anticipate every possible input, and to specify every possible output.[115] The algorithms that hold the most promise for boosting corporate productivity largely design themselves using a technique called "machine learning."[116] After specifying an algorithm's goal, programmers train it with a set of test cases,[117] telling the algorithm in each instance whether or not it attained its goal.[118] With each test case, the algorithm updates its own code and eventually learns how to perform the task on its own.[119] The result is a program that, at least in many respects, can accomplish a goal faster, more accurately, and cheaper than any human.[120] It is also an algorithm that no human could have designed from the ground up; the resulting code is often inscrutable, so complicated that no one reading it afterwards can understand how it works.[121]

Because algorithms' code is often effectively a black box, algorithms can behave in ways that are unintended, unexpected, and unpredictable by any human intelligence.[122] This is by design and part of the power of machine learning. Employees who do precisely as their

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114 *See* Diamantis, *supra* note 78, at 151–52.

115 *See Data Structures—Algorithms Basics*, TUTORIALSPOINT, https://www.tutorialspoint.com/data_structures_algorithms/algorithms_basics.htm [https://perma.cc/8P6T-REJV].

116 *See* Lemley & Casey, *supra* note 21, at 1335 ("[T]he unpredictability inherent in machine learning is also one of its greatest strengths.").

117 *See* Lehr & Ohm, *supra* note 105, at 668.

118 *See, e.g.*, Chris Nicholson, *A Beginner's Guide to Neural Networks and Deep Learning*, PATHMIND, https://wiki.pathmind.com/neural-network [https://perma.cc/K6NK-RTVM].

119 *See, e.g.*, *id.*

120 *See, e.g.*, Keith D. Foote, *A Brief History of Machine Learning*, DATAVERSITY (Mar. 26, 2019), https://www.dataversity.net/a-brief-history-of-machine-learning/# [https://perma.cc/CR48-R897].

121 *See* Matthew Carroll, *The Complexities of Governing Machine Learning*, DATANAMI (Apr. 27, 2017), https://www.datanami.com/2017/04/27/complexities-governing-machine-learning/ [https://perma.cc/V2HS-P3AX]; Andrew D. Selbst & Solon Barocas, *The Intuitive Appeal of Explainable Machines*, 87 FORDHAM L. REV. 1085, 1089–90 (2018).

122 *See* Lemley & Casey, *supra* note 21, at 1365 ("[M]uch of the [algorithmic] misconduct that tomorrow's designers, policymakers, and watchdogs must guard against might not be intentional at all.").

employers command are less valuable, and probably more of a risk, than employees who can interpret commands with a dose of common sense and flexibly apply them to changing circumstances. The same is true of algorithms. Machine learning is so powerful precisely because it moves beyond the basic code its programmers are capable of writing. In fact, many algorithms have built-in randomness as an essential part of their design.[123] If algorithms behave in unforeseeable ways, they will sometimes do things that employers, and the law, prefer they would not.

Creative use of respondeat superior to triangulate between corporations, their programmers, and their algorithms is not a general solution. Machine learning raises the possibility that algorithms will misbehave without any intervening human misconduct.[124] Because machine learning algorithms effectively program themselves, they can draw unanticipated conclusions from test data and interact with the real world in unforeseeable ways.[125] Technologists widely recognize that smart algorithms can misbehave even if every human involved is fully innocent.[126] Without human misconduct, respondeat superior's vision of corporate misconduct cannot apply.

This leaves the law with limited tools to address algorithmic misbehavior. Unlike employees, algorithms are not themselves directly subject to suit.[127] Because respondeat superior excludes algorithms from its understanding of corporate action, the law is handicapped in its efforts to hold corporations liable in their stead. A better approach would attend to the fact that algorithms are, and will increasingly become, significant sources of corporate harm. An updated doctrine could accomplish this by extending the body corporate to include cor-

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123 *See* Joshua A. Kroll, Joanna Huey, Solon Barocas, Edward W. Felten, Joel R. Reidenberg, David G. Robinson & Harlan Yu, *Accountable Algorithms*, 165 U. PA. L. REV. 633, 653 (2017).

124 PEDRO DOMINGOS, THE MASTER ALGORITHM 5 (2015). Ryan Abbott and Alex Sarch call these infractions "[h]ard AI [c]rimes." Abbott & Sarch, *supra* note 39, at 328–29.

125 *See* Kroll et al., *supra* note 123, at 680–81.

126 *See, e.g.*, KEVIN PETRASIC, BENJAMIN SAUL, JAMES GREIG, MATTHEW BORNFREUND & KATHERINE LAMBERTH, WHITE & CASE, ALGORITHMS AND BIAS 1 (2017), https://www.whitecase.com/sites/whitecase/files/files/download/publications/algorithm-risk-thought-leadership.pdf [https://perma.cc/23HU-QRZN] ("[A] perfectly well-intentioned algorithm may inadvertently generate biased conclusions that discriminate against protected classes of people."); Barocas & Selbst, *supra* note 13, at 729 ("[E]rrors may . . . be the result of entirely innocent choices made by data miners.").

127 *See* United States v. Athlone Indus., Inc., 746 F.2d 977, 979 (3d Cir. 1984) ("[R]obots cannot be sued . . . ."); Ugo Pagallo, *Killers, Fridges, and Slaves: A Legal Journey in Robotics*, 26 AI & SOC'Y 347, 349 (2011) ("[C]ommon legal standpoint excludes robots from any kind of criminal responsibility . . . .").

porate algorithms. This would recognize the enabling role corporations play when their algorithms misbehave and incentivize corporations to take preventive measures.

B. Product Liability

There are some mechanisms for imposing corporate liability that—unlike respondeat superior—do not require employee misconduct. One of the best known of these mechanisms is civil products liability. Regardless of what any employee did or thought, when a product's manufacturing or design defect leads to injury, the corporation that made the product is liable.[128] Lawmakers implemented this approach because manufacturers are the least-cost avoiders of such injuries.[129] Requiring tort claimants to prove that some employee at some point in the design or manufacturing process did something negligent would present a prohibitive evidentiary barrier.[130] Accordingly, products liability is strict—it requires no conduct, negligent or otherwise.[131] Could products liability close the algorithmic liability gap? Holding corporations strictly liable for their algorithmic injuries could be an elegant way to sidestep the whole problem of locating and attributing an injurious act.

However, products liability has several limitations that disqualify it from being an effective way to address algorithmic injury. Perhaps most fundamentally, many of the algorithms that hurt people are not

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128 *See* RESTATEMENT (SECOND) OF TORTS § 402A (AM. L. INST. 1965) ("[Strict products liability applies even though] the seller has exercised all possible care in the preparation and sale of his product . . . .").

129 *See* Saul Levmore, *Obligation or Restitution for Best Efforts*, 67 S. CAL. L. REV. 1411, 1416–17 (1994) ("[O]ne plausible description of products liability law is that the manufacturer of a defective product is held responsible for failing to take the affirmative steps necessary to 'rescue' the victim, whether or not the victim is the purchaser of the product, precisely because the manufacturer is the least-cost-avoider, or is best-situated to effect the necessary rescue."); Guido Calabresi, *Civil Recourse Theory's Reductionism*, 88 IND. L.J. 449, 456–57 (2013) ("I believe one does not understand current products liability law unless one understands that frequently it is the 'first party' who is the 'least cost avoider/best decider.'").

130 *See* Kim v. Toyota Motor Corp., 424 P.3d 290, 298 (Cal. 2018) ("Strict products liability, unlike negligence doctrine, focuses on the nature of the product, and not the nature of the manufacturer's conduct."); Pavlik v. Lane Ltd./Tobacco Exps. Int'l, 135 F.3d 876, 881 (3d Cir. 1998) ("To recover under [Pennsylvania's products liability law], a plaintiff must establish: (1) that the product was defective; (2) that the defect was a proximate cause of the plaintiff's injuries; and (3) that the defect causing the injury existed at the time the product left the seller's hands."); RESTATEMENT (SECOND) OF TORTS § 402A (referencing no conduct element of strict products liability other than selling a product).

131 RESTATEMENT (SECOND) OF TORTS § 402A(2) ("[Liability for injuries caused by a defective product] applies although . . . the seller has exercised all possible care in the preparation and sale of his product . . . .").

"products." A product is "[s]omething that is distributed commercially for use or consumption."[132] Although the software on a self-driving car sold to consumers probably qualifies, the software that hedge funds use to execute automatic trades or that banks use to make lending decisions certainly do not. Such programs may be developed in-house for corporate use rather than distribution.

Even if algorithms qualify as "products," a further limitation of products liability enters the fray—products liability only clearly applies when there is "physical harm . . . to the ultimate user or consumer, or to his property."[133] In drafting the Restatement of Torts, the American Law Institute explicitly states that it "expresses no opinion as to whether [strict products liability] appl[ies] . . . to harm to persons other than users or consumers."[134] "Casual bystanders, and others who may come in contact with the product, as in the case of employees of the retailer, or a passer-by injured by an exploding bottle, or a pedestrian hit by an automobile, have been denied recovery."[135] Today some states do allow injured bystanders to sue,[136] but the general rule remains that only consumers and users have standing to bring products liability claims.[137]

Even if manufacturing plants, car owners, and banks are consumers or users of third-party algorithms that assemble goods, drive cars, and extend loans, the people injured by those algorithms often are not. Wanda Holbrook was working for the user of the algorithm; she was not herself a user or consumer of the robot that crushed her.[138] Elaine Herzberg was a hapless pedestrian, not a user or consumer of the car that ran her over.[139] Those who face algorithmic discrimination

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132 *Product*, BLACK'S LAW DICTIONARY (11th ed. 2019).

133 RESTATEMENT (SECOND) OF TORTS § 402A(1).

134 *Id.* § 402A caveat 1.

135 *Id.* § 402A cmt. o.

136 *See, e.g.*, IND. CODE § 34-6-2-29 (2020) (extending products liability standing to "any bystander injured by the product who would reasonably be expected to be in the vicinity of the product during its reasonably expected use").

137 *See* Woods v. Fruehauf Trailer Corp., 765 P.2d 770, 774 (Okla. 1988). Concerning toxic tort claims, some jurisdictions (though not all, *see* Rohrbaugh v. Owens-Corning Fiberglas Corp., 965 F.2d 844, 846 (10th Cir. 1992)), allow a modest extension of the general rule where "it is reasonably foreseeable that [the user's] household members would be exposed [to the toxic product]." Lunsford v. Saberhagen Holdings, Inc., 106 P.3d 808, 812 (Wash. Ct. App. 2005), *aff'd*, 208 P.3d 1092 (Wash. 2009).

138 *See* Forrest, *supra* note 2.

139 *See* Wakabayashi, *supra* note 3.

in the lending industry are hopeful consumers of loans, not of lending platforms.[140]

So far, I have shown that products liability is a poor fit for algorithmic injury because two crucial elements are absent: algorithms are often not products and the injured are often not consumers. Even where products liability could apply to algorithmic injury, it would only be a partial solution. Products liability only allows for a civil cause of action and recovery of damages.[141] Having a reliable way to handle civil algorithmic injury would certainly be a significant step forward. But the law often needs to send a stronger social message for the most egregious violations.[142] That is the function of criminal law.[143]

However, products liability does not apply in the criminal context.[144] Nor would the extension of products liability to criminal law be a welcome development. As explained, products liability is strict. Although strict liability crimes do exist, they are the exception rather than the rule.[145] And with good reason. Strict liability removes any

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140 Because algorithms are not considered toxic substances, the standing to sue that some jurisdictions grant to bystanders in toxic tort situations is inapplicable.

141 *See* Dmitry Karshtedt, *Causal Responsibility and Patent Infringement*, 70 VAND. L. REV. 565, 605 (2017) ("I discuss the application of the principle of causal responsibility in three distinct areas of law—criminal law, the law of trespass, and products liability. These fields have distinct justifications, purposes, and conceptual foundations."); Annotation, *Allowance of Punitive Damages in Products Liability Case*, 13 A.L.R.4th 52 (Supp. 1982) ("Punitive damages are permitted in products liability actions precisely because governmental safety standards and the criminal law have failed to provide adequate consumer protection against the manufacture and distribution of defective products.").

142 *See* Paul H. Robinson, *The Criminal-Civil Distinction and the Utility of Desert*, 76 B.U. L. REV. 201, 210–12 (1996); John C. Coffee, Jr., *Does "Unlawful" Mean "Criminal"?: Reflections on the Disappearing Tort/Crime Distinction in American Law*, 71 B.U. L. REV. 193, 196 (1991).

143 *See* Cass R. Sunstein, *On the Expressive Function of Law*, 144 U. PA. L. REV. 2021, 2024, 2044–45 (1996) ("The criminal law is a prime arena for the expressive function of law . . . ."); Joel Feinberg, *The Expressive Function of Punishment*, 49 MONIST 397, 400–01 (1965); Peter J. Henning, *Corporate Criminal Liability and the Potential for Rehabilitation*, 46 AM. CRIM. L. REV. 1417, 1426 (2009) ("The label 'criminal' has social significance aside from the particular punishment imposed on the offender."); Lawrence Friedman, *In Defense of Corporate Criminal Liability*, 23 HARV. J.L. & PUB. POL'Y 833, 843 (2000) ("Criminal liability in turn expresses the community's condemnation of the wrongdoer's conduct by emphasizing the standards for appropriate behavior—that is, the standards by which persons and goods properly should be valued.").

144 Walter L. Cofer & Alicia J. Donahue, *Product Liability in the USA*, LEXOLOGY (Oct. 25, 2018), https://www.lexology.com/library/detail.aspx?g=3714f105-6d2e-4e33-be4f-17289ae7e547#:~:text=can%20a%20defendant%20be%20held,liability%20specific%20to%20defective%20products. [https://perma.cc/C7DM-42QA] ("There is no criminal liability specific to defective products.").

145 Allison Marston Danner & Jenny S. Martinez, *Guilty Associations: Joint Criminal Enterprise, Command Responsibility, and the Development of International Criminal Law*, 93 CA-

sort of culpability requirement.[146] Yet many think culpability should be an essential precondition to any criminal justice response.[147] Efforts to remove this precondition impair criminal law's integrity, authority, and effectiveness.[148]

There are other policy-based reasons that counsel caution in using products liability as a model for addressing the algorithmic accountability gap. Economists predict that algorithmic innovation will be one of the primary drivers of economic progress in the coming decades.[149] Creating too many obstacles to corporate development, testing, and use of novel algorithms will impede innovation[150] and disadvantage U.S. corporations in relation to foreign competitors.[151] Although algorithmic development should not continue without due regard for the injuries it will cause, nor should it be unduly hampered. The law needs to strike a balance. Product liability's defining feature is strict imbalance.

LIF. L. REV. 75, 147 (2005) ("Strict liability, where the defendant need have no particularly blameworthy mental state, is rare and disfavored in criminal law . . . .").

146 *See* Richard A. Wasserstrom, *Strict Liability in the Criminal Law*, 12 STAN. L. REV. 731, 734 (1960) ("Critics of strict criminal liability usually argue that the punishment of persons in accordance with the minimum requirements of strict liability (I) is inconsistent with any or all of the commonly avowed aims of the criminal law . . . ."); SANFORD H. KADISH, BLAME AND PUNISHMENT 54–55 (1987) (arguing that strict liability crimes dispense with any sort of culpability requirement).

147 *See* MICHAEL MOORE, PLACING BLAME 153–88 (1997); Henry M. Hart, Jr., *The Aims of the Criminal Law*, 23 L. & CONTEMP. PROBS. 401, 422 (1958) ("[There can be no] justification for condemning and punishing a human being as a criminal when he has done nothing which is blameworthy.").

148 PAUL H. ROBINSON, INTUITIONS OF JUSTICE AND THE UTILITY OF DESERT 176–88 (2013) ("[T]he criminal law's moral credibility is essential to effective crime control . . . .").

149 AI could double the rate of economic growth by 2035. *See* MARK PURDY & PAUL DAUGHERTY, ACCENTURE, WHY ARTIFICIAL INTELLIGENCE IS THE FUTURE OF GROWTH 19 (2016), https://www.accenture.com/t20170524T055435__w__/ca-en/_acnmedia/PDF-52/Accenture-Why-AI-is-the-Future-of-Growth.pdf [https://perma.cc/6AUP-SA8K]. *See generally* MARCIN SZCZEPANSKI, EUR. PARL. RSCH. SERV., PE 637.967, ECONOMIC IMPACTS OF ARTIFICIAL INTELLIGENCE (AI) (2019) https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/637967/EPRS_BRI(2019)637967_EN.pdf [https://perma.cc/6EAK-ST89] (describing the benefits and effects of AI on the economy and society).

150 *See* Gideon Parchomovsky & Alex Stein, *Torts and Innovation*, 107 MICH. L. REV. 285, 286 (2008) (highlighting "a previously underappreciated connection between innovation and tort law").

151 *See* DANIEL CASTRO, MICHAEL MCLAUGHLIN & ELINE CHIVOT, CTR. FOR DATA INNOVATION, WHO IS WINNING THE AI RACE: CHINA, THE EU OR THE UNITED STATES? 1 (2019), https://www2.datainnovation.org/2019-china-eu-us-ai.pdf [https://perma.cc/J5V5-A8N9] ("Many nations are racing to achieve a global innovation advantage in artificial intelligence (AI) because they understand that AI is a foundational technology that can boost competitiveness, increase productivity, protect national security, and help solve societal challenges.").

III. Algorithmic Corporate Conduct

This Article seeks a solution to the accountability gap. Algorithms themselves are not people under the law and so are not themselves subject to suit.[152] Although most algorithms are developed, owned, and operated by corporations,[153] those corporations are also often immune from suit because algorithmic injuries do not fit into respondeat superior's employee-focused vision of corporate misbehavior. Trying to restrain the use of algorithms is not a viable path forward because the future of economic development and corporate progress is algorithmic.[154] At the same time, the course of that development and progress should not be charted over the bodies and livelihood of the victims of algorithmic injury. We need a way to reliably insert some accountability into the landscape, to recompense victims, and to discipline those who profit from algorithms.

The sort of solution this Article seeks is one that, although moving beyond existing law, is ultimately grounded in it. Grand solutions like declaring algorithms to be persons[155] or imposing strict liability on corporations for algorithmic injuries,[156] regardless of whatever appeal they may have, are, if they ever arrive, a long way off. To ensure that tomorrow's social gains from corporate algorithms exceed the costs to today's victims, the law must induce corporations to use their algorithms responsibly.

The law already has a template for responding to the algorithmic accountability gap. More than a century ago, it confronted a structurally similar issue that arose in the wake of large-scale employment.[157]

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152 *See* United States v. Athlone Indus., Inc., 746 F.2d 977, 979 (3d Cir. 1984).

153 *See, e.g.*, Dvorsky, *supra* note 50.

154 *See generally* Jacques Bughin, Jeongmin Seong, James Manyika, Michael Chui & Raoul Joshi, McKinsey Glob. Inst., Notes from the AI Frontier: Modeling the Impact of AI on the World Economy 2–3 (2018), https://www.mckinsey.com/featured-insights/artificial-intelligence/notes-from-the-ai-frontier-modeling-the-impact-of-ai-on-the-world-economy [https://perma.cc/6KWT-YL4W] ("AI could potentially deliver additional global economic activity of around $13 trillion globally by 2030, or about 16 percent higher cumulative GDP compared with today. . . . [T]his impact would compare well with that of other general-purpose technologies through history.").

155 *See* Hallevy, *supra* note 32, at 27–28; Frank, *supra* note 32, at 624–25; Mulligan, *supra* note 32, at 579–80.

156 *See* Bryan H. Choi, *Crashworthy Code*, 94 Wash. L. Rev. 39, 52–53 (2019) ("Nevertheless, strict products liability has been enjoying a popular revival within the software and robotics literature. The conceptual moves are well-established: cyber-physical manufacturers should bear unilateral responsibility because they are the 'least cost avoiders' as well as the 'best risk spreaders.'").

157 *See supra* note 102 and accompanying text (describing the development of respondeat superior doctrine).

Just like algorithms, employees sometimes injure people in ways that their corporate employers cannot predict. Unlike algorithms, employees are technically liable to suit in their individual capacities for the crimes and torts they commit.[158] As a practical matter, this often matters little. Employees usually lack adequate personal resources to make victims whole,[159] and identifying responsible individuals within corporations has proven a continuing, often insurmountable, difficulty for plaintiffs and prosecutors.[160] As a policy matter, we have learned that focusing exclusively on employees as potential defendants also overlooks any possible criminogenic role of corporate level systems and ethos.[161] Employee conduct is as much a product of individual initiative as it is of the organizational context in which that initiative plays out.[162]

The law's solution was to look past the trees to the forest, to see employees as part of a broader body corporate, so that their acts became the acts of their corporate employer.[163] This gave victims and prosecutors another potential defendant from whom to seek justice. It also gave corporations some skin in the game when their defective

158 MODEL PENAL CODE § 2.07(6)(a) (AM. L. INST. 1985) ("A person is legally accountable for any conduct he performs or causes to be performed in the name of the corporation or an unincorporated association or in its behalf to the same extent as if it were performed in his own name or behalf."); RESTATEMENT (THIRD) OF AGENCY § 7.01 (AM. L. INST. 2006) ("An agent is subject to liability to a third party harmed by the agent's tortious conduct. Unless an applicable statute provides otherwise, an actor remains subject to liability although the actor acts as an agent or an employee, with actual or apparent authority, or within the scope of employment.").

159 Richard Frankel, *Regulating Privatized Government Through § 1983*, 76 U. CHI. L. REV. 1449, 1455 (2009) ("[I]n many cases, recovery against the individual employee may not be a viable option because individual employees often are judgment proof, protected by common law immunity, difficult to identify, or less likely than companies to possess liability insurance.").

160 Holder Memo, *supra* note 96, at 5 ("It will often be difficult to determine which individual took which action on behalf of the corporation. Lines of authority and responsibility may be shared among operating divisions or departments, and records and personnel may be spread throughout the United States or even among several countries. Where the criminal conduct continued over an extended period of time, the culpable or knowledgeable personnel may have been promoted, transferred, or fired, or they may have quit or retired.").

161 Cindy R. Alexander & Mark A. Cohen, *The Causes of Corporate Crime: An Economic Perspective*, *in* PROSECUTORS IN THE BOARDROOM 11, 17 (Anthony S. Barkow & Rachel E. Barkow eds., 2011) ("Instead of focusing on individual actions, we can consider crime as the outcome of company-level decisions."); *see* Martin L. Needleman & Carolyn Needleman, *Organizational Crime: Two Models of Criminogenesis*, 20 SOC. Q. 517, 517 (1979) (introducing and exploring the concept of crime-facilitative corporate systems in which participants are not compelled to perform illegal acts, but rather face extremely tempting structural conditions that encourage or facilitate crime).

162 *See* FIONA HAINES, CORPORATE REGULATION 25 (1997) ("Organizational culture forms the 'touchstone' by which individuals behave and act.").

163 *See supra* note 83 and accompanying text.

systems enabled or encouraged employee misconduct, thereby inducing corporations to train, monitor, and discipline their employees better.[164]

A similar development could work for algorithmic injuries. Corporate algorithms should, like employees, be recognized as part of the body corporate. Then algorithmic injuries could qualify as corporate acts, potentially subjecting corporate owners to suit. That solution would give victims and prosecutors a potential defendant and would go a long way to inducing corporations to develop, train, use, monitor, and update their algorithms responsibly. Importantly, such a solution does not require the law to recognize algorithms as people capable of acting independently. It leverages the fiction of corporate personhood to say that *corporations* sometimes do things through algorithms just as a person might do something with her hand without her hand being independently cognizable as a separate agent.

To define a new type of corporate conduct—algorithmic corporate conduct—the law must say when an algorithm counts as part of the body corporate. Respondeat superior presently does this for employees by saying that natural people are part of a body corporate only when there is an employment relationship, and only so long as the scope and intent requirements are met.[165] As explained in the previous Part, algorithmic misconduct can occur without any employee misconduct. Furthermore, respondeat superior's specific doctrinal requirements cannot apply directly to algorithms. Algorithms never operate in the scope of their employment—there being none. Lacking minds, they also never intend to benefit their corporate owners.

A path forward emerges if one abstracts from the particular application of respondeat superior in the employment context to appreciate the deeper corporate law principles behind the doctrine. As explained in the Sections that follow, these are principles about corporate control (of employees) and benefit extraction (from employees). Respondeat superior's basic requirements provide guidelines for courts to ensure that, for an employee to qualify as part of the body corporate, she should be under the corporation's control[166] and bene-

164 *See* Mihailis E. Diamantis, *Successor Identity*, 36 YALE J. ON REG. 1, 18, 24–25 (2019).

165 30 C.J.S. *Employer—Employee* § 221 (2020) ("The doctrine of respondeat superior ordinarily requires an employment relationship at the time of the injury and with regard to the transaction resulting in it.").

166 RESTATEMENT (THIRD) OF AGENCY § 7.07(2) (AM. L. INST. 2006) ("An employee acts within the scope of employment when performing work assigned by the employer or engaging in a course of conduct subject to the employer's control.").

fiting the corporation.[167] The manifestation of those requirements in the scope and intent elements of respondeat superior may have been appropriate to the historical context in which respondeat superior developed. Historically, expanding corporate productive capacity meant hiring human help.[168] Today, corporations have another option when they want to grow: they can develop, buy, or lease algorithms to perform old tasks previously limited to employees.[169] Yet the risk of injury to third parties persists despite this technological revolution. So do the control corporations have and the benefits they claim. Respondeat superior's underlying logic still applies.

The next two Sections proceed in the spirit of viewing respondeat superior not as a restrictive doctrine—corporations can only be liable for employee misconduct—but as an enabling doctrine—corporations can at least be liable for employee misconduct. Translated from Latin, "respondeat superior" means "[l]et the master answer."[170] As presently applied, respondeat superior's familiar conditions are satisfied by control and benefit relationships—characteristic of the master-servant relationship.[171] The next two Sections explore principles of control and benefit to say what it might mean to be "master" of an algorithm. The third Section draws both principles together to propose a unified test for when a corporation acts through an algorithm.

A. A Control-Based Account

Deterrence and prevention are some of the most important goals of civil[172] and criminal[173] corporate liability. In criminal law, federal

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167 *Id.* ("An employee's act is not within the scope of employment when it occurs within an independent course of conduct not intended by the employee to serve any purpose of the employer."); *id.* at cmt. b ("When an employee commits a tort with the sole intention of furthering the employee's own purposes, and not any purpose of the employer, it is neither fair nor true-to-life to characterize the employee's action as that of a representative of the employer.").

168 *Cf.* Neil Petch, *If You Want to Grow Your Company, You Need to Hire*, ENTREPRENEUR (Mar. 8, 2016), https://www.entrepreneur.com/article/272027 [https://perma.cc/66YE-YAPZ] ("[I]f you do want to grow . . . . [a] team is needed.").

169 Aaron Smith & Monica Anderson, *Americans' Attitudes Toward a Future in Which Robots and Computers Can Do Many Human Jobs*, PEW RSCH. CTR. (Oct. 4, 2017), https://www.pewresearch.org/internet/2017/10/04/americans-attitudes-toward-a-future-in-which-robots-and-computers-can-do-many-human-jobs/ [https://perma.cc/5SK2-B9D2].

170 Harvey L. Pitt & Karl A. Groskaufmanis, *Minimizing Corporate Civil and Criminal Liability: A Second Look at Corporate Codes of Conduct*, 78 GEO. L.J. 1559, 1563 (1990).

171 *See* RESTATEMENT (THIRD) OF AGENCY § 7.07.

172 *See* Ashley S. Kircher, Note, *Corporate Criminal Liability Versus Corporate Securities Fraud Liability: Analyzing the Divergence in Standards of Culpability*, 46 AM. CRIM. L. REV. 157, 170 (2009) ("Corporate criminal liability and corporate civil liability share two important qualities: both impose liability on the corporation, and both aim to deter future corporate wrongdo-

statutes,[174] Department of Justice enforcement policy,[175] and sentencing guidelines[176] explicitly reference deterrence as an organizing principle. Deterrence is also a recurring theme in various corporate civil liability regimes like consumer protection,[177] anti-discrimination,[178] and fair labor practices.[179] Corporations are in the best position to address the harms they cause because they have the most information about those harms and have the greatest power to shape the underlying causal mechanisms.[180] By threatening corporations with penalties when those harms result, the law hopes it can induce corporations to exercise their influence over those mechanisms in socially productive ways.[181]

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ing."); *see also* Amanda M. Rose & Richard Squire, *Intraportfolio Litigation*, 105 Nw. U. L. Rev. 1679, 1679 (2011) ("[C]orporate liability serves to compensate victims and—by forcing shareholders to bear the costs of their agents' actions—to deter wrongdoing.").

173 *See* Darryl K. Brown, *Street Crime, Corporate Crime, and the Contingency of Criminal Liability*, 149 U. Pa. L. Rev. 1295, 1325 (2001) ("Corporate criminal law . . . operates firmly in a deterrence mode."); *see also* Gregory M. Gilchrist, *The Expressive Cost of Corporate Immunity*, 64 Hastings L.J. 1, 6 (2012) ("Criminal liability for corporations exists in large part to deter undesirable corporate conduct and to encourage desirable corporate practices . . . .").

174 *E.g.*, 18 U.S.C. § 3553(a)(2)(B) (listing deterrence as a purpose of criminal punishment).

175 *See, e.g.*, Holder Memo, *supra* note 96, at 3 ("[In deciding whether to charge corporations], prosecutors should ensure . . . deterrence of further criminal conduct . . . [is] adequately met . . . .").

176 *See, e.g.*, U.S. Sent'g Guidelines Manual ch. 8, introductory cmt. (U.S. Sent'g Comm'n 2018) ("This chapter is designed so that the sanctions imposed upon organizations and their agents, taken together, will provide . . . adequate deterrence . . . .").

177 *See* 21 C.J.S. *Credit Reporting Agencies* § 34 (2020) ("The purpose of a penalty provision in a consumer protection statute is to punish and deter a person for violation of the statute . . . ."); Heastie v. Cmty. Bank of Greater Peoria, 690 F. Supp. 716, 722 (N.D. Ill. 1988) ("[T]he purpose of the Consumer Fraud Act [is] to deter all forms of unfair and deceptive conduct and to provide remedies to those who have been damaged . . . ."); Maggie Lynn McMichael, Note, *Cybersecurity on My Mind: Protecting Georgia Consumers from Data Breaches*, 51 Ga. L. Rev. 265, 277 (2016) ("Statutory damage provisions are designed to further several goals . . . [including] to deter companies from violating consumer protection laws.").

178 *See* Gregg D. Polsky & Stephen F. Befort, *Employment Discrimination Remedies and Tax Gross Ups*, 90 Iowa L. Rev. 67, 106 (2004) ("[F]ederal anti-discrimination statutes impose meaningful remedies in part to encourage meritorious litigation that will root out and deter discrimination in the workplace.").

179 *See* Ronald C. Brown, *Up and Down the Multinational Corporations' Global Labor Supply Chains: Making Remedies that Work in China*, 34 UCLA Pac. Basin L.J. 103, 113 (2017) ("[T]he Fair Labor Standards Act (FLSA) seeks to deter wage and hour violations of workers . . . .").

180 *Cf.* Holder Memo, *supra* note 96, at 2 ("[C]orporations are likely to take immediate remedial steps when one is indicted for criminal conduct that is pervasive throughout a particular industry, and thus an indictment often provides a unique opportunity for deterrence on a massive scale.").

181 *See* Fisse, *supra* note 95, at 1153–55; Larry D. Thompson, *The Blameless Corporation*, 47 Am. Crim. L. Rev. 1251, 1255 (2010).

With respect to employees as potential sources of corporate harm, deterrence is an important justifying premise for respondeat superior.[182] From its beginning, courts explained the rationale behind respondeat superior by reference to the "control" that employers exercise over their employees.[183] By holding employers liable for the behavior of their employees, respondeat superior presses employers to use that control to steer employees away from misconduct.[184] Employers have many tools at their disposal for shaping employee behavior, such as commands, incentives, monitoring, training, and discipline.[185] Because employers interact with their employees on a daily basis and establish the context in which productive or destructive business behavior takes place, they are in a unique position to determine how employees behave.[186]

Respondeat superior's supporters see it as leveraging the economic efficiencies of strict liability rules.[187] Monitoring employees is costly.[188] So, all else being equal, corporations would rather avoid doing so (except to the extent that employees might victimize the corporation itself or otherwise behave unproductively). By holding corporations liable when their employees misbehave, the law can in-

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182 Pitt & Groskaufmanis, *supra* note 170, at 1573 ("[T]he most commonly accepted basis for corporate criminal liability is the need to deter misconduct."). Some are skeptical of respondeat superior's ability to successfully deter corporate misconduct. Irina Sivachenko, Note, *Corporate Victims of "Victimless Crime": How the FCPA's Statutory Ambiguity, Coupled with Strict Liability, Hurts Businesses and Discourages Compliance*, 54 B.C. L. REV. 393, 396–97 (2013) ("[T]oday there is little a corporation can do to avoid prosecution for the unauthorized acts of its employees . . . . In turn, such helplessness leads to an undesired and unexpected result: a significant drop in a corporation's incentive to vigorously monitor its own compliance and conduct.").

183 *See* Holmes, *supra* note 83, at 347 ("[I]t is plain good sense to hold people answerable for wrongs which they have intentionally brought to pass, and to recognize that it is just as possible to bring wrongs to pass through free human agents as through slaves, animals, or natural forces."); Davis-Lynch, Inc. v. Asgard Techs., LLC, 472 S.W.3d 50, 72 (Tex. App. 2015).

184 Albert W. Alschuler, *Two Ways to Think About the Punishment of Corporations*, 46 AM. CRIM. L. REV. 1359, 1380 (2009) ("Strict *respondeat superior* liability gives managers an incentive to establish effective compliance programs . . . .").

185 *See* W. PAGE KEETON, DAN B. DOBBS, ROBERT E. KEETON & DAVID G. OWEN, PROSSER AND KEETON ON THE LAW OF TORTS § 69, at 501 (5th ed. 1984).

186 *See* Fleming James, Jr., *Vicarious Liability*, 28 TUL. L. REV. 161, 168 (1954) ("Pressure of legal liability on the employer therefore is pressure put in the right place to avoid accidents.").

187 *See* Alschuler, *supra* note 184, at 1376 n.102 ("[*R*]*espondeat superior* in criminal cases seeks to promote the efficient monitoring of employees by holding firms *strictly* (and jointly) liable for the employees' *intentionally* produced harms."); *see also infra* note 278 and accompanying text (stating that respondeat superior is widely viewed as overbroad).

188 Joe Mont, *Ex-Wells Fargo CEO Slams 'Absurd' Compliance Spending*, COMPLIANCE WEEK (May 29, 2015, 11:30 AM), https://www.complianceweek.com/ex-wells-fargo-ceo-slams-absurd-compliance-spending/12194.article [https://perma.cc/V3ZW-ZYNX]; William S. Laufer, *A Very Special Regulatory Milestone*, 20 U. PA. J. BUS. L. 392, 392 (2017).

duce corporations to exercise the socially optimal level of control.[189] The whole system only works because corporations are in the best position to calculate what level of control, given its cost, is optimal and then to implement it.

If corporate liability is about getting corporations to prevent harms that are under their control, there is no reason to limit its reach to employee misconduct. There are other sources of harm that corporations are in a privileged position to manage. A *control-based account* of corporate action would recognize as corporate acts any effects over which a corporation exercises substantial control. Organizational structures and corporate culture are active systems that influence how corporations interact with the world around them.[190] Because corporations themselves are best positioned to control organizational structures and culture, the control-based account would deem corporate structures and culture to be part of the body corporate. Their effects would count as corporate acts.

As applied to algorithmic injuries, the control-based account would consider corporate algorithms as part of the body corporate whenever they cause injuries that the corporation had the substantial power to prevent. Just as corporations can fire employees, they can pull the plug on computer programs.[191] Although nothing can guarantee that a machine learning algorithm will always follow the law—nor can anything guarantee that employees will always follow the law[192]—there are steps corporations can take to reduce the probability that the algorithm will cause harm.[193] These steps include diversifying the

189 *See* Diamantis, *supra* note 82, at 352–65 (discussing optimal deterrence and respondeat superior).

190 Mihailis E. Diamantis, *The Law's Missing Account of Corporate Character*, 17 GEO. J.L. & PUB. POL'Y 865, 876–79 (2019).

191 This is what Microsoft did with its chatbot, Tay. Rob Price, *Microsoft Is Deleting Its AI Chatbot's Incredibly Racist Tweets*, BUS. INSIDER (Mar. 24, 2016, 7:31 AM), https://www.businessinsider.com/microsoft-deletes-racist-genocidal-tweets-from-ai-chatbot-tay-2016-3 [https://perma.cc/U3GH-FRQH].

192 *See* Irwin Schwartz, *Toward Improving the Law and Policy of Corporate Criminal Liability and Sanctions*, 51 AM. CRIM. L. REV. 99, 112 (2014) ("No organization—private or government—can prevent all misconduct by all employees, all of the time.").

193 *See generally* WILLIAM D. SMART, CINDY M. GRIMM & WOODROW HARTZOG, AN EDUCATION THEORY OF FAULT FOR AUTONOMOUS SYSTEMS (2017) (describing ways to reduce educational failures in algorithms), http://people.oregonstate.edu/~smartw/library/papers/2017/werobot2017.pdf [https://perma.cc/J2LD-ZCZ6]. For a detailed treatment on how bias can arise in algorithms, see Nizan Geslevich Packin & Yafit Lev-Aretz, *Learning Algorithms and Discrimination*, *in* RESEARCH HANDBOOK ON THE LAW OF ARTIFICIAL INTELLIGENCE 88, 91 (Woodrow Barfield & Ugo Pagallo eds., 2018).

body of engineers writing algorithms,[194] more careful initial programming,[195] more mindful selection of training data sets,[196] more extensive pre-rollout testing,[197] regular post-rollout quality audits,[198] routine runtime compliance layers,[199] effective monitoring,[200] and continuous software updates to address problems as they arise.[201] Each of these precautions entail costs that, all things considered, corporations would rather avoid. Through the threat of sanction, the law can make taking precaution cheaper than risking violation.

To make the control-based account workable in practice, the law would need to specify several indicia of control to guide factfinders at trial. These indicia should be powers that tell in favor of finding that the corporation had the requisite control. Currently, the only criteria respondeat superior applies to measure corporate control over employees is whether the employee was working within the scope of her

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194 *See* Kate Crawford, Opinion, *Artificial Intelligence's White Guy Problem*, N.Y. TIMES (June 25, 2016), https://www.nytimes.com/2016/06/26/opinion/sunday/artificial-intelligences-white-guy-problem.html [https://perma.cc/5ZTR-GR74].

195 *See* Mark A. Geistfeld, *A Roadmap for Autonomous Vehicles: State Tort Liability, Automobile Insurance, and Federal Safety Regulation*, 105 CALIF. L. REV. 1611, 1634–36 (2017).

196 *See* Barocas & Selbst, *supra* note 13, at 677; Oscar H. Gandy, Jr., *Engaging Rational Discrimination: Exploring Reasons for Placing Regulatory Constraints on Decision Support Systems*, 12 ETHICS & INFO. TECH. 29, 30 (2010) (discussing how bad data can bias automated systems).

197 Geistfeld, *supra* note 195, at 1651–54; *see* Dave Cliff & Linda Northrop, *The Global Financial Markets: An Ultra-Large-Scale Systems Perspective*, *in* LARGE-SCALE COMPLEX IT SYSTEMS 29, 29 (Radu Calinescu & David Garlan eds., 2012) (discussing the need for testing trading algorithms using simulations).

198 *See* B. Bodo, N. Helberger, K. Irion, F. Zuiderveen Borgesius, J. Moller, B. van de Velde, N. Bol, B. van Es & C. de Vreese, *Tackling the Algorithmic Control Crisis—The Technical, Legal, and Ethical Challenges of Research into Algorithmic Agents*, 19 YALE J.L. & TECH. 133, 142–44 (2017) (describing audits of algorithms); James Guszcza, Iyad Rahwan, Will Bible, Manuel Cebrian & Vic Katyal, *Why We Need to Audit Algorithms*, HARVARD BUS. REV. (Nov. 28, 2018), https://hbr.org/2018/11/why-we-need-to-audit-algorithms [https://perma.cc/WA3D-M3FV]. *See generally* Shlomit Yanisky-Ravid & Sean K. Hallisey, *"Equality and Privacy by Design": A New Model of Artificial Intelligence Data Transparency Via Auditing, Certification, and Safe Harbor Regimes*, 46 FORDHAM URB. L.J. 428, 429 (2019) (proposing "an auditing regime"); Shea Brown, Jovana Davidovic & Ali Hasan, *The Algorithm Audit: Scoring the Algorithms that Score Us*, 8 BIG DATA & SOC'Y, Jan.–June 2021, at 1, 1–2 (proposing a framework for ethically assessing algorithms).

199 *See* Felipe Meneguzzi & Michael Luck, *Norm-Based Behaviour Modification in BDI Agents*, 8 INT'L CONF. ON AUTONOMOUS AGENTS & MULTIAGENT SYS. 177, 177–78 (2009), https://dl.acm.org/doi/pdf/10.5555/1558013.1558037 [https://perma.cc/2PYV-NDS2]; Louise Dennis, Michael Fisher, Marija Slavkovik & Matt Webster, *Formal Verification of Ethical Choices in Autonomous Systems*, 77 ROBOTICS & AUTONOMOUS SYS. 1, 2–3 (2016).

200 King et al., *supra* note 37, at 110–11.

201 *See* NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., FEDERAL AUTOMATED VEHICLES POLICY 16 (2016), https://www.hsdl.org/?view&did=795644 [https://perma.cc/S9RV-KH8L] (envisioning manufacturers of self-driving cars will update software regularly to improve safety).

employment.[202] Where employees are concerned, such a simple approach may be appropriate because the range of relationships between corporations and employees is relatively limited. An employer's power to promote, terminate, and set pay for an employee is a relatively reliable proxy for the powers the law hopes corporations will exercise over employees: to train and discipline.[203] Incentivizing effective corporate compliance programs is the surest way to get employees, and hence corporations acting through employees, to behave.

Measuring corporate control over algorithms requires a multifaceted approach because the relationship between corporations and algorithms is not always straightforward. One corporation may design the algorithm, a second may own it, a third may use it, a fourth may own the hardware that runs the algorithm, and a fifth may monitor and update it.[204] Algorithmic injuries could trace to any of those five contributions or to an interaction between them.[205] Trying to measure corporate control over algorithms by using a simple proxy, e.g., which corporation designed the algorithm, which owns it, or which uses it, risks missing the mark where the proxies overlap and intersect in complex ways. The law would do better to inquire directly about corporate power over algorithms.

The relevant powers are those that confer the ability to prevent algorithmic injury. These include the power to design the algorithm in the first place, the power to pull the plug on the algorithm, the power to modify it, and the power to override the algorithm's decisions. A

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202 *See* RESTATEMENT (THIRD) OF AGENCY § 7.07 (AM. L. INST. 2006).

203 *See* N.E. Ins. Co. v. Soucy, 693 A.2d 1141, 1144 (Me. 1997) ("The most important point in determining [whether a worker is an employee] is the right of either [party] to terminate the relation without liability." (quoting Murray's Case, 154 A. 352, 355 (Me. 1931))); McDonald v. Hampton Training Sch. for Nurses, 486 S.E.2d 299, 301 (Va. 1997) ("The factors which are to be considered when determining whether an individual is an employee or an independent contractor are well established: (1) selection and engagement; (2) payment of compensation; (3) power of dismissal; and (4) power to control the work of the individual.").

204 *See* Andrew Tutt, *An FDA for Algorithms*, 69 ADMIN. L. REV. 83, 106 (2017) ("Algorithms can be sliced-and-diced in several ways that many other products are not. A company can sell only an algorithm's code or even give it away." (footnote omitted)); Marta Infantino & Weiwei Wang, *Algorithmic Torts: A Prospective Comparative Overview*, 29 TRANSNAT'L L. & CONTEMP. PROBS. 309, 353 (2019) ("[A]lgorithmic activities usually involve a variety of participants: somebody designs the algorithms, somebody else programs them, connects them to databases and feeds them with selected data, sells and distributes the resulting product or service, uses them, and finally allows herself to be governed by them.").

205 *See* Infantino & Wang, *supra* note 204, at 353–54 ("The variety of these people's contributions is likely to complicate the search for which party 'caused' the accident and to what extent. The causal investigation might be additionally convoluted by the difficulties in understanding how algorithms concretely work and in locating the exact source of the accident: in the code, and, if yes, at what stage of its development?" (footnote omitted)).

corporation need not have these powers directly in order to count as possessing them. For example, a corporation may have indirect power if it has the legal or economic influence to induce another corporation to act. None of these powers standing alone is determinative of corporate control over algorithms, but the more powers a corporation has, the more control it has. It may even happen that more than one corporation has control,[206] in which case injurious algorithmic conduct may be attributable to multiple possible defendants.

Standing alone, the control-based account is ultimately unappealing because it risks expanding the scope of corporate liability for algorithmic injuries too far. If corporations act through any algorithms in their control, they would be liable for many more injuries than sound policy or fairness would dictate. Consider, for example, a corporation that operates a social media platform. The corporation may exhibit all of the indicia of control over the platform: it may have designed the platform and have the powers to pull it down, regularly modify it, and override anything the platform does. Even if the corporation exercises its control responsibly, users may end up manipulating features of the platform in ways that injure third parties, perhaps by sending offensive messages,[207] violating intellectual property,[208] or engaging in identity theft.[209] In these sorts of cases, it would be inappropriate to automatically hold the corporation responsible, despite its control over the algorithms that run the platform. Some share of the fault—or perhaps all of it—may rest with the individual user rather than the corporation. The law has no preventive interest beyond encouraging the corporation to maintain responsible oversight. In such cases, asking more of the corporation would not only be unproductive, it would be unfair.

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206 An analogous situation is common in products liability contexts. *See* 2 DAVID G. OWEN & MARY J. DAVIS, OWEN & DAVIS ON PRODUCTS LIABILITY § 11:5 (4th ed. 2014) ("A large number of products liability cases involve more than one defendant. More than one defendant may act, independently or together, to be the cause in fact and proximate cause of a plaintiff's harm.").

207 *See, e.g.*, Jack Schofield, *Is There Any Way To Stop 'Adult' Spam Emails?*, GUARDIAN (Feb. 21, 2017, 12:14 AM), https://www.theguardian.com/technology/askjack/2016/sep/22/is-there-any-way-to-stop-adult-spam-emails [https://perma.cc/3MTF-QPRT].

208 *See, e.g.*, Mason Sands, *Why Copyright Will Be the Biggest Issue for Youtube in 2019*, FORBES (Dec. 30, 2018, 11:55 AM), https://www.forbes.com/sites/masonsands/2018/12/30/why-copyright-will-be-the-biggest-issue-for-youtube-in-2019/#7f9f44cc1c12 [https://perma.cc/D6RF-EG3L].

209 *See, e.g.*, Robin Gray, *Facebook Phishing Scams: How to Spot and Prevent Them*, WANDERA (Nov. 18, 2018), https://www.wandera.com/facebook-phishing-scams/ [https://perma.cc/VT6H-2SQG].

Some might believe in holding corporations responsible regardless of what optimal prevention and fairness would dictate. However, behind every faceless corporation are shareholders and employees who bear the brunt of any corporate sanction.[210] The law owes them a duty of fairness that it cannot fulfill without committing itself to fairness toward their corporation as a whole.[211]

Furthermore, pursuing prevention against corporations too vigilantly risks dampening innovation.[212] Especially when it comes to the fast-developing digital space, U.S. corporations must be able to innovate if they are to remain competitive with foreign peers and to deliver the social value that algorithms promise.[213] In the 1990s and 2000s, when the internet was *the* fast-developing technology, the Communications Decency Act[214] provided crucial protections for innovation by immunizing service providers from liability for information published on their platforms by other content providers.[215] Though the corporations controlled the digital platforms, they were protected when individual users turned the platforms to injurious ends.[216] In part as a consequence of these protections,[217] most of the world's largest

210 *See* Alschuler, *supra* note 184, at 1367 ("This punishment is inflicted instead on human beings whose guilt remains unproven. Innocent shareholders pay the fines, and innocent employees, creditors, customers, and communities sometimes feel the pinch too.").

211 *See* Diamantis, *supra* note 190, at 879–80; John Hasnas, *The Centenary of a Mistake: One Hundred Years of Corporate Criminal Liability*, 46 AM. CRIM. L. REV. 1329, 1339 (2009) ("How can punishing the innocent advance any of the legitimate purposes of punishment? It cannot.").

212 Rebecca Crootof, *The Internet of Torts: Expanding Civil Liability Standards to Address Corporate Remote Interference*, 69 DUKE L.J. 583, 663 (2019) ("Increasing corporate liability may chill innovation, but a light chill may be warranted if the alternative is significant risk to consumers' safety.").

213 *See* Gustavo Manso, *Creating Incentives for Innovation*, 60 CAL. MGMT. REV. 18, 18 (2017) ("In an era of fast-paced technological change, innovation has become a business imperative.").

214 47 U.S.C. § 230.

215 *Section 230 of the Communications Decency Act*, ELEC. FRONTIER FOUND., https://www.eff.org/issues/cda230 [https://perma.cc/8YLN-B854] ("No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider." (quoting 47 U.S.C. § 230(c)(1))).

216 *See, e.g.*, Universal Commc'n Sys., Inc. v. Lycos, Inc., 478 F.3d 413, 418 (1st Cir. 2007) ("Congress intended that, within broad limits, message board operators would not be held responsible for the postings made by others on that board.").

217 *See* Derek Khanna, *The Law that Gave Us the Modern Internet—and the Campaign to Kill It*, ATLANTIC (Sept. 12, 2013), https://www.theatlantic.com/business/archive/2013/09/the-law-that-gave-us-the-modern-internet-and-the-campaign-to-kill-it/279588/ [https://perma.cc/R8KB-MHSD].

social media services today are American.[218] The law should provide similar protections for algorithmic innovation in the coming decade.

The law must strike a balance. Some corporate liability for algorithmic misconduct is essential for closing the algorithmic accountability gap. The control-based approach seems to go too far, and thereby threatens algorithmic innovation. I turn now to another approach, premised on the second principle behind respondeat superior: corporate benefits.

B. A Benefits-Based Account

The control-focused analysis speaks to the law's efforts to prevent injury by inducing potential criminals and tortfeasors to take care. However, prevention is not the law's only concern with imposing liability. It also aims to do so in a way that is fair, both to the injured and to those who cause injury.

In the law of corporate liability, fairness is an enduring concern. Fairness pervades the civil liability analysis in many domains, from copyright infringement,[219] to successor liability,[220] to competition injuries.[221] In corporate criminal law, legislators,[222] prosecutors,[223] and judges[224] explicitly strive for fairness toward corporations and their victims.[225] Justice and retribution, the most familiar fairness concepts

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218 *See* H. Tankovska, *Most Popular Social Networks Worldwide as of January 2021, Ranked by Number of Active Users*, STATISTA (Feb. 9, 2021), https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/ [https://perma.cc/E3MJ-CDLJ].

219 *See* Lloyd L. Weinreb, *Fair's Fair: A Comment on the Fair Use Doctrine*, 103 HARV. L. REV. 1137, 1141 (1990) ("[Copyright law's fair use doctrine] has from the beginning had the flavor of an equitable doctrine, importing, as its name indicates, considerations of fairness not directly related to the statutory purpose.").

220 *See, e.g.*, Ray v. Alad Corp., 560 P.2d 3, 8–9 (Cal. 1977) ("Justification for imposing strict liability [in tort law] upon a *successor* to a manufacturer . . . rests upon[, among other factors,] the fairness of requiring the successor to assume a responsibility for defective products . . . .").

221 *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 1 (AM. L. INST. 1995) ("One who causes harm to the commercial relations of another by engaging in a business or trade is not subject to liability to the other for such harm unless: (a) the harm results from [specified circumstances] . . . or from other acts or practices of the actor determined to be actionable as an unfair method of competition . . . .").

222 *See* 18 U.S.C. § 3553(a)(2)(A) (citing justice as a purpose of criminal punishment).

223 *E.g.*, Holder Memo, *supra* note 96.

224 *E.g.*, U.S. SENT'G GUIDELINES MANUAL ch. 8, introductory cmt. (U.S. SENT'G COMM'N 2018) ("This chapter is designed so that the sanctions imposed upon organizations and their agents, taken together, will provide just punishment . . . .").

225 *See, e.g.*, Jennifer Moore, *Corporate Culpability Under the Federal Sentencing Guidelines*, 34 ARIZ. L. REV. 743, 797 (1992); *cf.* KIP SCHLEGEL, JUST DESERTS FOR CORPORATE

from criminal law, call for corporate defendants to receive the punishment they deserve; not less, not more.[226]

Because corporations are not typical moral agents, it can be difficult to comprehend what "fairness" means as applied to them.[227] Oftentimes, shareholder interests are substituted for corporate interests, and fairness toward corporations translates to fairness toward shareholders.[228] The translation is very imprecise,[229] especially in circumstances where the two sets of interests diverge.[230] Regardless, shareholders represent at most the corporate side of the fairness inquiry. The regrettable trend among corporate crime scholars and criminologists is to focus on corporate defendants rather than their victims.[231] Victims tend to become conceptual placeholders as units of

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CRIMINALS 11–12 (1990) (listing factors the Justice Department considers when deciding whether to charge corporations).

226 *See* ANDREW VON HIRSCH, CENSURE AND SANCTIONS 1 (1993); H.L.A. HART, PUNISHMENT AND RESPONSIBILITY 24–25 (Oxford Univ. Press 2008) (1968).

227 *See, e.g.*, F. Patrick Hubbard & Evan Sobocinski, *Crashworthiness: The Collision of Sellers' Responsibility for Product Safety with Comparative Fault*, 69 S.C. L. REV. 741, 746 (2018) ("Because corporations lack the moral right to fairness that humans have, they are not entitled to the application of the unstructured, ad hoc scheme of comparative fault to all aspects of wrongful causation-in-fact."). The most effective take on retribution in corporate criminal law sees it as a tool for expressing communal condemnation of immoral corporate behavior. *See* Diamantis, *supra* note 92, at 2062–64. *See generally* Buell, *supra* note 89 (arguing that criminal liability for entities serves an expressive function).

228 *See* Deborah A. DeMott, *Beyond Metaphor: An Analysis of Fiduciary Obligation*, 1988 DUKE L.J. 879, 917 ("True, particular shareholders' interests may diverge from those of other shareholders, or directors may use their powers inconsistently with the shareholders' interests, but the notion that in theory a corporation's 'own' interests could diverge from those of its shareholders is difficult to fathom.").

229 *See generally* LYNN STOUT, THE SHAREHOLDER VALUE MYTH (2012) (identifying issues with the idea that companies should and do exist only to increase the wealth of their shareholders).

230 *See, e.g.*, United States v. Sun-Diamond Growers of Cal., 138 F.3d 961, 970 (D.C. Cir. 1998) (holding corporation liable for criminal conduct that arguably had no benefit to shareholders); Credit Lyonnais Bank Nederland, N.V. v. Pathe Commc'ns Corp., Civ. A. No. 12150, 1991 WL 277613, at *34 n.55 (Del. Ch. Dec. 30, 1991) ("[C]ircumstances may arise when the right (both the efficient and the fair) course to follow for the corporation may diverge from the choice that the stockholders . . . would make if given the opportunity to act."); Lucian A. Bebchuk & Robert J. Jackson, Jr., *Corporate Political Speech: Who Decides?*, 124 HARV. L. REV. 83, 90 (2010) ("[T]he interests of directors and executives may also diverge frequently and significantly from those of shareholders with respect to corporate political speech decisions."); Ralph K. Winter, *Paying Lawyers, Empowering Prosecutors, and Protecting Managers: Raising the Cost of Capital in America*, 42 DUKE L.J. 945, 973 (1993) ("[T]he view that management can prevent shareholders from selling their shares, particularly at a premium over market price, is based on an unspoken assumption that the corporation is an entity with interests that diverge from those of its shareholders.").

231 Mihailis E. Diamantis & William S. Laufer, *Prosecution and Punishment of Corporate Criminality*, 15 ANN. REV. L. & SOC. SCI. 453, 454 (2019) ("To compound gaps in our under-

social disutility in cost-benefit policy calculations.[232] Reclassified this way, the harms victims experience lose their empathetic pull, and scholarship loses its indignant bite.[233] Predictably, commentators' fairness analyses often tip pro-corporate.[234]

From a fairness perspective, corporate liability is an odd development. Vicarious liability, i.e., holding one person to account for injuries caused by another person,[235] is generally thought to present special fairness challenges.[236] Usually, only very strong policy rationales can overcome the default position that fault is personal.[237]

Corporate liability is vicarious at two different levels. At one level, corporate liability transmits burdens vicariously to individuals from corporations. Though the law may formally punish or award damages against corporations, it can do this only by way of forcing

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standing of corporate victimization and the extent of the government's response to corporate wrongdoing, there is no empirical or theoretical subfield of corporate victimology . . . .").

232 *E.g.*, Mark Dowie, *Pinto Madness*, MOTHER JONES (Sept./Oct. 1977), https://www.motherjones.com/politics/1977/09/pinto-madness/ [https://perma.cc/G9TR-SXL3] (describing how Ford calculated the dollar value of each life at risk from its car design).

233 *See* Laufer, *supra* note 93, at 30; *see also* Robin Paul Malloy, *Equating Human Rights and Property Rights—The Need for Moral Judgment in an Economic Analysis of Law and Social Policy*, 47 OHIO ST. L.J. 163, 176 (1986) ("As an example of an amoral approach to cost and benefit analysis, the Ford Pinto case emphasizes that economics, when applied as a purely neutral and objective science, is ill-suited to aid the resolution of pressing social problems.").

234 *See, e.g.*, W. Kip Viscusi, *Corporate Risk Analysis: A Reckless Act?*, 52 STAN. L. REV. 547, 550 (2000) ("Any systematic attempt to trade off costs and risk-reduction benefits may appear to be a cold-blooded calculation invented by economists. . . . The merits of the analysis and the ultimate balance struck should . . . not [turn on] whether undertaking a systematic analysis allegedly reflects a cold-blooded attitude towards human life. . . . [L]iability for corporate behavior should hinge on the risk and cost decisions, not on whether the firm undertook a risk analysis." (footnote omitted)).

235 *Liability, Vicarious Liability*, BLACK'S LAW DICTIONARY (11th ed. 2019) ("Liability that a supervisory party (such as an employer) bears for the actionable conduct of a subordinate or associate (such as an employee) based on the relationship between the two parties.").

236 *See* United States v. Decker, 543 F.2d 1102, 1103 (5th Cir. 1976) ("[H]olding one vicariously liable for the criminal acts of another may raise obvious due process objections . . . ."); *see also* Lake Shore & Mich. S. Ry. Co. v. Prentice, 147 U.S. 101, 111 (1893) ("[W]here it has been held that [a principal can be held liable for the criminal libel of his agent], it is admitted to be an anomaly in the criminal law.").

237 Scales v. United States, 367 U.S. 203, 224–25 (1961) ("In our jurisprudence guilt is personal . . . ."); DAN B. DOBBS, PAUL T. HAYDEN & ELLEN M. BUBLICK, THE LAW OF TORTS § 425 (2d ed. 2011) ("[Vicarious] liability is an important exception to the usual rule that each person is accountable for his own legal fault but in the absence of such fault is not responsible for the actions of others."); Shawn Bayern, *Three Problems (and Two Solutions) in the Law of Partnership Formation*, 49 U. MICH. J.L. REFORM 605, 622–23 (2016) ("To the contrary, in the usual case, parties are not legally responsible for the actions of others; it requires an exceptional doctrine . . . to cause one party to be liable for another's actions." (footnotes omitted)).

corporations' stakeholders to pay.[238] The corporation has no existence separate from them.[239] Shareholders, employees, and creditors are the real-life people who compose the fictional corporate entity[240] and are therefore its direct stakeholders.[241] When courts order corporations to pay, these stakeholders are necessarily worse off—they lose retirement savings, face less favorable employment prospects, and take on additional credit risk. These stakeholder impacts are often referred to as "collateral" effects,[242] but they are more properly regarded as the sanction itself—nominally imposed on the corporation, but vicariously imposed on its stakeholders.

Commentators concerned about the fairness of corporate liability have a partial response. As it turns out, the deterrence rationale for this species of vicarious liability is quite weak—the individual shareholders, employees, and creditors who bear the brunt of any corporate sanction are usually in no position to affect the risk that the corporation will reoffend.[243] Even if they were, the fractional share that any of them pays of the corporate sanction will usually not be sufficient to move them to action.[244] The more powerful fairness-based justification is that the burdens of corporate misconduct often come paired with the benefits of corporate success.[245] The same stakeholders who share

238 *See* John C. Coffee, Jr., *"No Soul to Damn: No Body to Kick": An Unscandalized Inquiry into the Problem of Corporate Punishment*, 79 MICH. L. REV. 386, 401 (1981) ("[W]hen the corporation catches a cold, someone else sneezes."); BARNALI CHOUDHURY & MARTIN PETRIN, CORPORATE DUTIES TO THE PUBLIC 194 (2019) ("Fundamentally, it is impossible to punish a corporation without indirectly affecting its individual stakeholders."); Jill E. Fisch, *Criminalization of Corporate Law: The Impact on Shareholders and Other Constituents*, 2 J. BUS. & TECH. L. 91, 93 (2007).

239 *See* Mihailis E. Diamantis, *Corporate Essence and Identity in Criminal Law*, 154 J. BUS. ETHICS 955, 962 (2019).

240 *See* Alschuler, *supra* note 184, at 1367 ("This punishment is inflicted instead on human beings whose guilt remains unproven. Innocent shareholders pay the fines, and innocent employees, creditors, customers, and communities sometimes feel the pinch too.").

241 Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 278 (1999).

242 *E.g.*, Holder Memo, *supra* note 96, at 9 ("Prosecutors may consider the collateral consequences of a corporate criminal conviction in determining whether to charge the corporation with a criminal offense.").

243 *See* Mihailis E. Diamantis, *Ditching Deterrence: Preventing Crime by Reforming Corporations Rather than Fining Them*, N.Y.U. PROGRAM ON CORP. COMPLIANCE & ENF'T: COMPLIANCE & ENF'T (Jan. 3, 2018), https://wp.nyu.edu/compliance_enforcement/2018/01/03/ditching-deterrence-preventing-crime-by-reforming-corporations-rather-than-fining-them/ [https://perma.cc/L7EZ-75QN].

244 Mihailis E. Diamantis, *An Academic Perspective*, *in* THE GUIDE TO MONITORSHIPS 75, 77–78 (Anthony S. Barkow et al. eds., 2019).

245 RESTATEMENT (SECOND) OF AGENCY § 219 cmt. a (AM. L. INST. 1958) ("[I]t would be unjust to permit an employer to gain from the intelligent cooperation of others without being

some portion of corporate losses generally also share some portion of corporate gains—increased share value, better job opportunities, and more credit security. Because stakeholders participate in the upside of corporate gains, it is fair for them to share in the losses when things go awry and third parties get hurt.[246]

At a second level, corporate liability also transmits fault vicariously to corporations from individuals. Because corporations can only misbehave through employees, respondeat superior holds corporations to account for the misconduct of employees.[247] At this level too, the most powerful fairness rationale has to do with pairing burdens with benefits: because corporate employers enjoy the benefits of employees' productive activity, they should share in its burdens too.[248] Indeed, *not* having some doctrine like respondeat superior would be unfair—employers could claim the fruits of labor but disclaim its social costs. "Just as liability for damage can be equitably balanced against the defendant's fault, so it can be equitably balanced against his benefit."[249] This is part of the rationale behind respondeat superior's requirement that an employee intend to benefit her employer—it limits the doctrine to those cases where employer benefits are to be expected.[250]

Pairing the burdens of productive activity with its benefits mitigates the fairness concerns that arise by allocating burdens or benefits separately. Once again, the logic behind respondeat superior applies beyond the employment context. Looking beyond employees to other sources of corporate benefit motivates a *benefits-based account* of the body corporate that includes all—and only—mechanisms from which

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responsible for the mistakes, the errors of judgment and the frailties of those working under his direction and for his benefit.").

246 *See* Sara Sun Beale, *A Response to the Critics of Corporate Criminal Liability*, 46 AM. CRIM. L. REV. 1481, 1484–85 (2009) ("There is nothing wrong with recognizing that it was Siemens, not simply some of its officers or employees, who should be held legally accountable. . . . The shareholders of Siemens benefitted from its success when it used bribery and kickbacks to obtain contracts that generated billions of dollars of profit."). This argument works best as to shareholders who share in corporate profits and losses in proportion to their ownership interest. As to other stakeholders, like employees and creditors, the argument is far from perfect because the level of upside and downside risk from corporate performance is likely unevenly and unfairly distributed. *See* Coffee, *supra* note 238, at 401–02. Those who enjoy the big bonuses on good years are likely also those whose jobs are most protected on bad years.

247 *See* Larry May, *Vicarious Agency and Corporate Responsibility*, 43 PHIL. STUD. 69, 71 (1983) (arguing that corporations have no minds).

248 T. BATY, VICARIOUS LIABILITY 32 (1916).

249 Glanville Williams, *Vicarious Liability and the Master's Indemnity*, 20 MOD. L. REV. 220, 230 (1957).

250 *See supra* note 167 and accompanying text.

the corporation claims substantial productive benefits.[251] Consequently, if a corporation claims the benefits of some mechanism, any injuries the mechanism causes would count as acts of the corporation. As with the control-based account, the benefits-based account clearly includes corporate employees, but it could also include corporate algorithms. These require corporate resources to run, so presumably a corporation would only utilize algorithms from which it expects to benefit.

Like the control-based account, the benefits-based account is an unappealing solution to the algorithmic accountability gap when viewed in isolation. Although its underlying logic is fairness, it threatens to extend to cases where fairness and sound policy would call for a different result. The clearest cases are those where some third party controls an algorithm that provides some unique or nearly unique function, the substantial benefits of which a corporation claims for itself. Some of these third parties might be private, like Alphabet, which owns Google.[252] Data about Google's corporate users is unavailable, but the numbers for individual users illustrate the point. Estimates of how much Google makes off each individual user range from $10.09[253] up to $359.00.[254] By contrast, some economists estimate that the average user of internet search services like Google values them at $17,500.00.[255] So users claim the vast majority of the productive benefit of search algorithms like Google. Yet, as a matter of fairness or preventive policy, it would make very little sense to hold the otherwise innocent third parties that use web search services liable (and to let Alphabet off) when Google injures someone, e.g., by facilitating illegal access to copyrighted material[256] or making illegal use of protected personal information.[257]

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251 As will become clear, I mean "mechanism" to have a very broad reading.

252 Kamil Franek, *What Companies Google & Alphabet Own: Visuals & Full List*, KAMIL FRANEK BUS. ANALYTICS (Oct. 16, 2019), https://www.kamilfranek.com/what-companies-alphabet-google-owns/ [https://perma.cc/HYH2-GSDH].

253 Tristan Louis, *How Much Is a User Worth?*, FORBES (Aug. 31, 2013, 3:25 PM), https://www.forbes.com/sites/tristanlouis/2013/08/31/how-much-is-a-user-worth/#1e478f9b1c51 [https://perma.cc/2AKB-A4Q5].

254 Sheiresa Ngo, *Here's How Much Google and Facebook Really Think You're Worth*, SHOWBIZ CHEATSHEET (Apr. 16, 2018), https://www.cheatsheet.com/money-career/heres-much-google-facebook-really-think-youre-worth.html/ [https://perma.cc/ST93-TMGF].

255 The Indicator, *Internet a la Carte*, NPR: PLANET MONEY (May 31, 2018, 5:07 PM), https://www.npr.org/transcripts/615932894?storyId=615932894?storyId=615932894 [https://perma.cc/B72X-K5YB].

256 *See, e.g.*, Crampton, *supra* note 97.

257 *See, e.g.*, Natasha Singer & Kate Conger, *Google Is Fined $170 Million for Violating*

C. The Beneficial-Control Account

The control-based and benefits-based accounts each speak to different values in the law of corporate liability: prevention and fairness, respectively. They also offer very different criteria for determining when algorithmic injury should qualify as a corporate act. Having two distinct accounts of the body corporate seems to set up an unhappy impasse. It is an impasse because deciding which is the better theory seems to force a preference of one value over the other. It is unhappy because, as explained above, both accounts suffer from disqualifying overbreadth.

Trying to choose between the control-based and benefits-based accounts presumes a false dichotomy between prevention and fairness. There is no reason the law should have to choose—it could instead demand both. A *beneficial-control account* would accomplish this by treating algorithms as part of the body corporate, and hence treating algorithmic injury as corporate action, only when both the control-based and benefits-based criteria are met. This would ensure that each imposition of corporate liability for algorithmic misconduct satisfies both preventive and fairness constraints. Indeed, respondeat superior is a version of a beneficial-control account limited just to employees. The doctrine requires that employees acted within the scope of their employment (a rough proxy for corporate control) *and* intended to benefit their corporate employer (a rough proxy for corporate benefit).[258]

Just as employees routinely satisfy the control-based and benefits-based criteria, so will algorithms. One obvious reason is that corporate control generally begets corporate benefit. Corporations are rational, profit-seeking enterprises.[259] So they will turn any resource they control to their benefit. An unproductive employee will be retrained. An unprofitable corporate algorithm will, once identified as such, be modified. Those resources and mechanisms that corporations cannot turn to their benefit are generally not within their control or

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Children's Privacy on YouTube, N.Y. TIMES (Sept. 4, 2019), https://www.nytimes.com/2019/09/04/technology/google-youtube-fine-ftc.html [https://perma.cc/M7E6-HYWY].

258 *See supra* notes 166–67 and accompanying text.

259 Harvey M. Silets & Susan W. Brenner, *The Demise of Rehabilitation: Sentencing Reform and the Sanctioning of Organizational Criminality*, 13 AM. J. CRIM. L. 329, 367 (1986) ("The corporation is a rational actor striving to maximize financial gain and minimize financial loss, and so can be manipulated most easily by imposing monetary penalties that affect these acts." (footnote omitted)).

will not be for long. Corporations fire wayward employees. They discontinue incorrigible algorithms.[260]

Even though many algorithms will routinely count as part of the body corporate under the beneficial-control account, there are many instances in which they will not. Importantly, the benefits-based criteria constrain the most concerning overbreadth of the control-based criteria, and vice versa. Recall the example of the control-based account's overbreadth—a social media platform fully controlled by a corporation but put to illegal and injurious ends by a user.[261] Assuming the corporation is not also profiting from the illegal use,[262] then this case would fail the benefits-based criteria. Similarly, the example above of the benefits-based account's overbreadth involved a corporation that benefited from using a third-party search engine.[263] If the search engine ended up causing injuries, it would make no sense to hold the corporation engaged in beneficial use liable. Fortunately, the beneficial-control account can accommodate this result because the corporation using the search engine would not satisfy the control-based criterion.

As test cases, we might inquire how the beneficial-control account would address the cases of Wanda Holbrook and Elaine Herzberg, with which this Article began. Recall that a robot escaped and killed Wanda Holbrook in the manufacturing plant where she worked,[264] and a self-driving car killed Herzberg.[265] For both, justice proved elusive because of the algorithmic accountability gap: the law had no straightforward way to recognize the algorithmic conduct as the sort of corporate action to which liability could attach.[266]

There is no question in both cases that Ventra Ionia—the manufacturer that Holbrook worked for[267]—and Uber—which owned the car that ran over Herzberg[268]—claimed substantial benefit from the

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260 *See, e.g.*, Price, *supra* note 191.

261 *See supra* notes 207–09 and accompanying text.

262 *See, e.g.*, Nicole Perlroth, Sheera Frenkel & Scott Shane, *Facebook Exit Hints at Dissent on Handling of Russian Trolls*, N.Y. TIMES (Mar. 19, 2018), https://www.nytimes.com/2018/03/19/technology/facebook-alex-stamos.html [https://perma.cc/6PHT-P6G7] ("The people whose job is to protect the user always are fighting an uphill battle against the people whose job is to make money for the company . . . ." (quoting Sandy Parakilas, former Facebook Platform Operations Manager)).

263 *See supra* notes 252–57 and accompanying text.

264 Forrest, *supra* note 2.

265 Wakabayashi, *supra* note 3.

266 *See supra* text accompanying notes 8, 12.

267 Forrest, *supra* note 2.

268 Wakabayashi, *supra* note 3.

productive activity of the algorithms at issue. As to control, Uber seemed to satisfy all the indicia for its self-driving cars, which it designed,[269] monitored,[270] and modified,[271] and which it could terminate[272] or override.[273]

For Ventra Ionia, the case is more nuanced and would depend on additional facts, which are not publicly available. It does not seem that Ventra Ionia designed the robot that killed Holbrook.[274] It is also unclear whether Ventra Ionia had the power to implement any modifications or could have shut down the robot or overridden its behavior when it attacked. If Ventra Ionia lacked these indicia of control, there would be no case under the beneficial-control account for saying that Ventra Ionia killed Holbrook through its robot. This does not mean, however, that the beneficial-control account would leave Holbrook's husband, who was seeking damages for her death,[275] with no recourse. The corporation that designed or made the robot could be a potential defendant.[276] If some corporation other than Ventra Ionia had the power to monitor, update, and shut down the robot, they could be another potential defendant. In the unlikely case that no corporation had those powers, then Holbrook's husband might sue Ventra Ionia

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269 *Members Profile: Uber ATG,* ASS'N FOR STANDARDIZATION AUTOMATION & MEASURING SYS., https://www.asam.net/members/detail/uber/ [https://perma.cc/MH6G-QXNV].

270 Andrew J. Hawkins, *Uber's Self-Driving Cars Are Back on Public Roads, but Under Human Control*, VERGE (July 24, 2018, 3:21 PM), https://www.theverge.com/2018/7/24/17607898/uber-self-driving-car-public-roads-driver-monitoring [https://perma.cc/LZ7L-45BM] ("Uber says it will be using an 'off-the-shelf' system to monitor its drivers, but declined to name the vendor.").

271 Michael Laris, *Nine Months After Deadly Crash, Uber Is Testing Self-Driving Cars Again in Pittsburgh*, WASH. POST (Dec. 20, 2018, 9:01 AM), https://www.washingtonpost.com/transportation/2018/12/20/nine-months-after-deadly-crash-uber-is-testing-self-driving-cars-again-pittsburgh-starting-today/ [https://perma.cc/X9MM-WX8W] ("[After a fatal accident involving a pedestrian,] Uber spent the intervening months scouring its systems—software and human—for shortcomings, and says it has taken numerous steps to fix them before what it says is Thursday's tightly limited relaunch.").

272 Heather Kelly, *Uber Wants to Test Self-Driving Cars Again After Fatality*, CNN BUS. (Nov. 2, 2018, 7:06 PM), https://www.cnn.com/2018/11/02/tech/uber-self-driving-tests/index.html [https://perma.cc/6PDB-VNE2] ("The company shut down all of its self-driving car tests and underwent an internal review and external investigations following the crash in Tempe, Arizona.").

273 *See* Michael Laris, *Uber Is Bringing Its Testing of Self-Driving Vehicles to D.C. Streets*, WASH. POST (Jan. 23, 2020, 12:45 PM), https://www.washingtonpost.com/local/trafficandcommuting/uber-is-bringing-its-self-driving-vehicle-testing-to-dc-streets/2020/01/23/bb97b226-3e04-11ea-b90d-5652806c3b3a_story.html [https://perma.cc/C2VV-ZY7W] ("There will be a backup driver behind the wheel, with a second safety employee sitting beside them.").

274 *See* Complaint & Jury Demand, *supra* note 10, at 3–4.

275 *See id.* at 2.

276 Indeed, these are the corporations that Holbrook's husband sued. *Id.*

under traditional respondeat superior. The employee at Ventra Ionia who authorized use of the robot without these essential safeguards would have "caused" Holbrook's death through his "wrongful act, neglect, or fault," as required by Michigan's wrongful death statute.[277]

The beneficial-control account seems to check all the boxes for an appealing solution to the algorithmic accountability gap. To begin, it identifies a potential class of defendants from whom victims of algorithmic misconduct may seek redress. In so doing, the account also embraces both of the major values that corporate liability should serve: prevention and fairness. By imposing criteria responsive to both control-based and benefits-based concerns, it cabins the overbreadth that either set of criteria would have on its own.

Though the beneficial-control account of corporate algorithmic conduct is narrower than the control-based and benefits-based accounts, some may still worry that it is overbroad. Jurists might think this for the same reasons that most scholars,[278] myself included,[279] have argued that respondeat superior—from which the beneficial-control account takes its inspiration—is overbroad as a doctrine of corporate liability for employee misconduct. The basic concern is that corporations can be held liable for rogue employee conduct, even if the corporation had reasonable compliance programs that the rogue purposely subverted.[280] Holding corporations liable in such circumstances seems unfair[281] and induces them to implement wasteful (i.e., higher than reasonable) levels of expensive compliance.[282] Could the beneficial-control account offered here be similarly unfair to corporations and induce wasteful levels of precaution that would unduly stymie technological progress?

To show that the beneficial-control account carries no inherent risk of overbreadth, it will help first to add some nuance to the claim

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277 MICH. COMP. LAWS § 600.2922(1) (2020).

278 Bharara, *supra* note 89, at 59 ("[T]here is virtually unanimous agreement: corporate criminal liability [under respondeat superior] is extremely broad.").

279 *See* Diamantis, *supra* note 92, at 2057–58.

280 *See* George R. Skupski, Note, *The Senior Management Mens Rea: Another Stab at a Workable Integration of Organizational Culpability into Corporate Criminal Liability*, 62 CASE W. RSRV. L. REV. 263, 273 (2011) ("[R]espondeat-superior-based liability likely creates contrary control incentives due to its creation of constructive strict liability. This effect is best exemplified in cases where a rogue agent acts contrary to corporate policies and well-intentioned efforts to control the subordinate's conduct." (footnote omitted)).

281 *See* Pitt & Groskaufmanis, *supra* note 170, at 1653 ("For the government to recommend—or require—compliance programs and then dismiss them as irrelevant has an inherently inequitable ring.").

282 *See* Diamantis, *supra* note 82, at 360–61.

that respondeat superior goes too far concerning employee misconduct. First, even if respondeat superior is overinclusive as a doctrine of corporate liability, it is also underinclusive. For example, it does not apply in circumstances where corporations take advantage of their size to divide up responsibilities among employees in such a way that, though each employee is fully innocent, what they collectively do amounts to misconduct.[283] Respondeat superior only attributes misconduct from single employees to corporations. If no employee individually did anything wrong, there is nothing to attribute to the corporation.

More important for present purposes, corporate liability generally requires acts and mental states.[284] Although respondeat superior applies to both under current law,[285] we can, and should, analyze its performance concerning acts and mental states separately. It may turn out that respondeat superior, or something modeled after it, works better for one or the other. In that case, the best way forward would be to adopt a bifurcated approach to corporate liability, using one doctrine to define corporate acts and another to define corporate mental states.

The beneficial-control account cannot be overbroad as a doctrine of corporate liability since it only purports to answer the first part of the liability inquiry—whether a corporation has acted. Acts alone are generally insufficient to determine whether a corporation is liable for some harm.[286] As a doctrine pertaining only to corporate acts, the beneficial-control account would at most allow courts to identify algorithmic harms with corporate acts. This would show which corporations are *potentially* liable when an algorithm injures someone. For liability to attach, prosecutors and plaintiffs would also need to establish that the corporation acted *culpably*, i.e., that the corporation satisfies any requisite mental state element as well. The beneficial-control account offered here does not purport to say anything about corporate mental states or culpability.

As to the scope of what qualifies as corporate action, the beneficial-control account reaches far beyond respondeat superior; that is the whole point. Were the beneficial-control account adopted, corporations would be liable for injuries that are currently not attributable to them. Whether the beneficial-control account reaches too far be-

283 *See* United States v. Bank of New England, N.A., 821 F.2d 844, 855 (1st Cir. 1987).

284 *See supra* Part I.

285 *See supra* note 84 and accompanying text.

286 *See supra* notes 28–29 and accompanying text.

yond respondeat superior would depend on the theory of corporate mental states with which it is paired. If paired with respondeat superior's approach to corporate mental states, the beneficial-control account could inherit some of the deficiencies for which scholars fault current doctrine. There are superior alternatives to respondeat superior for assessing corporate mental states. William Laufer has proposed a model that looks to industry norms.[287] Pamela Bucy focuses on corporate "ethos."[288] I have offered a method for inferring corporate mental states from corporate acts.[289] Paired with one of these more nuanced accounts of corporate mental states and fault, the beneficial-control account could identify when corporations are truly at fault for their injurious algorithmic actions. Regardless of what the best account of the corporate mind is, the law should not blind itself to algorithmic corporate harms by an overly narrow conception of the body corporate.

IV. Evaluating the Beneficial-Control Account

The corporate law solution to the algorithmic accountability gap proposed here mirrors existing law. It does for algorithmic misconduct what respondeat superior does for employee misconduct—it opens space for holding corporations accountable. By imposing scope of employment and intent to benefit constraints on when employee action is attributable to corporations, respondeat superior effectively asks first whether a corporation had control over and could expect to benefit from employee activity. The beneficial-control account extends this inquiry to the algorithmic context by treating algorithmic activity as corporate action only when the corporation has control over and claims the benefits of the algorithm. This gives the beneficial-control account several attractive advantages over the current state of the law and competing proposals. Still, some challenges linger. I address them below.

A. Advantages

By slotting itself into the existing law of corporate liability, the beneficial-control account offers a comprehensive solution to the al-

287 Laufer, *supra* note 81, at 701 ("Would an average corporation, of like size, complexity, functionality, and structure, engaging in an illegal activity X, given circumstances Y, have the state of mind Z?").

288 Bucy, *supra* note 80, at 1099 ("The government can convict a corporation . . . only if it proves that the corporate ethos encouraged agents of the corporation to commit the criminal act.").

289 *See generally* Diamantis, *supra* note 92 (offering a theory of corporate mens rea motivated by cognitive science).

gorithmic accountability gap. Most other proposals discuss only narrow categories of algorithmic injury, like self-driving car accidents,[290] discrimination in hiring,[291] and stock fraud.[292] The law already has well-developed mechanisms for holding corporations liable for all manner of civil and criminal violations.[293] By translating algorithmic injury into a species of corporate misconduct, the present proposal leverages that existing law to cover every recognizable form of algorithmic injury.

The beneficial-control account has several advantages that are familiar to discussions of respondeat superior. By attributing algorithmic injuries to corporations when the corporations are in control, the beneficial-control account makes good on its preventive ambitions. A corporation that exhibits the various indicia of control over an algorithm is in the best position to design it carefully to reduce the risk of injury, monitor its performance for injuries it may be causing, modify its code to prevent the injury from recurring, and, if necessary, pull the plug. By requiring that corporations claim the substantial benefits of an algorithm before attributing the algorithmic activity to the corporation, the law would stand by its commitments to fairness and justice. Pairing benefits with liabilities ensures that the costs of algorithmic injury fall where they can best be borne, both financially and morally.

Indeed, the familiarity of the beneficial-control account is one of its chief advantages. The few other comprehensive proposals for closing the algorithmic accountability gap would require dramatic reimagining of existing law (e.g., developing a mechanism for "punishing robots")[294] or wholesale creation of new law (e.g., developing a new fiction of algorithmic personhood).[295] These proposals are long on grandiose vision, but they are short on realistic prospects. Respondeat superior is judge-made law, and its expansion into the law of corpo-

290 *See, e.g.*, Geistfeld, *supra* note 195, at 1611–13.

291 *See, e.g.*, Bornstein, *supra* note 17, at 527, 533–37.

292 *See* Gregory Scopino, *Do Automated Trading Systems Dream of Manipulating the Price of Futures Contracts? Policing Markets for Improper Trading Practices by Algorithmic Robots*, 67 FLA. L. REV. 221, 273–93 (2015).

293 *See supra* Part I.

294 *See, e.g.*, Mulligan, *supra* note 32, at 588–89 ("If it turns out that punishing robots provides the right kind of psychological benefit to humans following an injury, we should punish robots.").

295 *See* Matthew U. Scherer, *Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies*, 29 HARV. J.L. & TECH. 353, 399 (2016) ("A related idea would be to establish something akin to the legal fiction of corporate personhood, where AI systems would be capable both of owning assets and of being sued in court.").

rate liability has largely been a judge-led process.[296] If, as argued here, the same principles that motivated respondeat superior in the first place could justify its extension to algorithms, judges just might spring for it.

The beneficial-control account departs from the structure of respondeat superior in one important respect. Respondeat superior generally applies both to corporate acts and corporate mental states.[297] The beneficial-control account limits itself to acts. This is important for two reasons. First, it opens the possibility of adopting a more defensible account of corporate fault. The beneficial-control account only says when algorithmic injuries are attributable to a corporation. That is generally not enough to hold a corporation liable. Ordinarily, before imposing liability, the law also requires that the defendant was somehow at fault, evidenced by a culpable mental state accompanying the injury.[298] By near universal agreement, respondeat superior is a very poor measure of corporate fault.[299] Better proposals are available,[300] some of which are tailored to the algorithmic context.[301] The second reason it is important that the beneficial-control account only attributes actions and not fault is that it avoids the perils of strict liability. By also requiring that genuine corporate fault, however measured, accompany algorithmic injury, the beneficial-control account strikes a balance between potential corporate defendants and potential plaintiffs. It caters to the public's interests in innovation and recompense, without giving decisive and paralyzing preference to either. Lawmakers already struck this equilibrium by requiring fault in the first place.[302] The beneficial-control account seeks to preserve the equilibrium.

B. Challenges

The beneficial-control account faces two main challenges. The first regards implementation. As discussed above,[303] the inquiry into whether a corporation exercised beneficial control over an algorithm is fact intensive. Uncovering and introducing evidence that pertains to the various indicia of control over and monetization of an algorithm

296 *See supra* notes 101–03 and accompanying text.

297 *See supra* notes 165–67 and accompanying text.

298 *See supra* notes 28–29 and accompanying text.

299 *See* Bharara, *supra* note 89, at 59.

300 *See supra* notes 287–88.

301 *See* Diamantis, *supra* note 30, at 900.

302 *See supra* notes 28–29 and accompanying text (discussing that strict liability is rare).

303 *See supra* Section III.C.

will require a significant commitment of resources from litigants and courts.[304] This is complicated by the fact that multiple corporations may exercise different types of control over or claim different benefits from the same algorithm.[305] Furthermore, applying the control and benefit tests requires drawing lines in grey areas to determine when the control exercised and the benefits claimed are "substantial" enough for liability. This sort of vagueness injects a fair measure of unpredictability into the process that brings its own costs to litigants, both present and prospective.[306]

Any attempt to trivialize these litigation and uncertainty costs would be disingenuous; however, they must be juxtaposed with the costs of alternatives. The challenge is to navigate the perennial tension between easier to implement, bright-line rules and harder to implement, vague standards.[307] Rules are predictable but inflexible.[308] They can, at best, only roughly correlate to more complex underlying economic or justice values that the law seeks to promote.[309] This means that rules will inevitably dictate counterproductive results where they fail to track the subtler contours of value. Standards, by contrast, are less predictable but more flexible, which allows the law to hew more closely to its goals.[310] The decision between applying a rule or a standard turns on how the rule's costs of error compare to the standard's uncertainty and administrative costs.[311] Sometimes, as in strict products liability, rules are preferable for weighing corporate liability.[312] In

304 Infantino & Wang, *supra* note 204, at 354.

305 *See supra* notes 253–57 and accompanying text.

306 *See* Andrew Morrison Stumpff, *The Law Is a Fractal: The Attempt to Anticipate Everything*, 44 LOY. U. CHI. L.J. 649, 676 (2013) ("The usual operating assumption seems to have been that because uncertainty is costly, the existence of a rule for every situation will always reduce transaction costs."); Richard A. Posner, *Savigny, Holmes, and the Law and Economics of Possession*, 86 VA. L. REV. 535, 565 (2000) ("Uncertainty is costly in itself . . . .").

307 *See generally* Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 562–67 (1992) (analyzing rules and standards by looking at costs and compliance).

308 Posner, *supra* note 306, at 565 ("Rules [generally] abstract a few relevant facts from the welter of circumstances of each actual case and make the selected facts legally determinative.").

309 *Id.* ("[Rules produce] an imperfect fit . . . resulting in some outcomes that are erroneous from the standpoint of the substantive principle . . . .").

310 Kathleen M. Sullivan, *Foreword: The Justices of Rules and Standards*, 106 HARV. L. REV. 22, 66 (1992) ("Standards, by contrast, are flexible and permit decisionmakers to adapt them to changing circumstances over time.").

311 Duncan Kennedy, *Form and Substance in Private Law Adjudication*, 89 HARV. L. REV. 1685, 1689 (1976) ("The choice of rules as the mode of intervention involves the sacrifice of precision in the achievement of the objectives lying behind the rules.").

312 *See* David G. Owen, *Rethinking the Policies of Strict Products Liability*, 33 VAND. L. REV. 681, 684–85 (1980) ("[Some rationales behind strict products liability include that a] majority of product accidents not caused by product abuse are probably attributable to the negligent

other cases, lawmakers have decided that standards make more sense, e.g., by requiring "proximate causation" for tort claims against corporations,[313] by requiring "reckless disregard" in workplace safety suits,[314] and by evaluating corporate books' for "reasonable assurances" against foreign bribery.[315]

There are various possible rule-like alternatives to the beneficial-control test, but they entail unacceptably high costs that the beneficial-control test avoids. One possible approach is to maintain the status quo, which effectively dictates that algorithmic injury in itself can never qualify as corporate action. In this Article, I argued extensively against the present law, which effectively immunizes corporations against liability for algorithmic injuries unless there is some culpable human employee in the loop. This limits corporations' incentives to ensure their algorithms are safe and encourages them to move hastily toward automation as a risk management strategy.[316] When corporations can externalize the costs of an activity which otherwise benefits them, we should expect them to do so. This leaves victims without recourse, effectively subsidizing corporate profits with victims' injured bodies, pocketbooks, and dignity.

Rule-like alternatives that would modify the status quo would entail different, but equally disqualifying costs. I have already mentioned the possibility that the law could hold corporations strictly liable for the injuries their algorithms cause. This approach, however, risks unduly depressing algorithmic innovation, which could permanently

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acts or omissions of manufacturers at some stage of the manufacturing or marketing process, yet the difficulties of discovering and proving this negligence are often practicably insurmountable. . . . Negligence liability is generally insufficient to induce manufacturers to market adequately safe products. . . . Sellers almost invariably are in a better position than consumers to absorb or spread the costs of product accidents. . . . The costs of injuries flowing from typical risks inherent in products can fairly be put upon the enterprises marketing the products as a cost of their doing business, thus assuring that these enterprises will fully 'pay their way' in the society from which they derive their profits.").

313 David A. Fischer, *Products Liability—Proximate Cause, Intervening Cause, and Duty*, 52 Mo. L. Rev. 547, 548 (1987) ("Proximate cause doctrines are playing an increasingly important role in strict product liability cases . . . . ").

314 Williams Enters. Inc., 13 BNA OSHC 1249 (No. 85-355, 1987) (requiring "evidence of such reckless disregard for employee safety" for liability under Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651–678).

315 15 U.S.C. § 78m(b)(2)(B) (requiring corporations to "devise and maintain a system of internal accounting controls sufficient to provide reasonable assurances" of legal compliance).

316 *See* Mihailis E. Diamantis, *The Problem of Algorithmic Corporate Misconduct*, N.Y.U. Program on Corp. Compliance & Enf't: Compliance & Enf't (Sept. 16, 2019), https://wp.nyu.edu/compliance_enforcement/2019/09/16/the-problem-of-algorithmic-corporate-misconduct/ [https://perma.cc/AJW5-52V2].

handicap U.S. economic development vis-à-vis foreign competitors. A strict liability approach is also an incomplete solution. In a world where algorithmic development, ownership, licensing, use, and modification are all carried out by different corporate actors, a strict liability approach must still determine to *which corporation* an algorithm belongs. In a sense, then, a strict liability account just passes the buck on a question that the beneficial-control account answers directly.

Somewhere between all (the strict liability approach) and nothing (the status quo) are multiple rule-like variations of the beneficial-control test. It is possible that "substantial control" in the test could be replaced with one or two prespecified indicia of control and substantial benefit could be replaced with a bright-line dollar threshold. The concern here is that any effort at line drawing will be an immediate invitation to corporate gamesmanship that would defeat the whole purpose of modifying the status quo. Powers over and monetization of an algorithm can be parceled out in an indefinite number of ways; motivated corporate actors are sure to find ways to retain effective control and benefit while sidestepping any bright-line rule. Additionally, the space of algorithmic innovation is evolving so fast that it is doubtful any rigid legal test would remain relevant for long. A multifactored standard like the beneficial-control test has the flexibility to evolve alongside technological developments.

On the point of technological developments, I should note one important limitation of the beneficial-control test. Although it can go a long way to closing the algorithmic accountability gap for today and for the foreseeable future, there are possible long-term developments that would necessitate further legal change. By drawing on corporate law and its extensive liability framework, the beneficial-control account presumes, as is the case today,[317] that a corporation is behind every significant algorithm. Technologists and science fiction authors envision a future world where this may not be the case, where algorithms may be self-forming, self-executing, and operate under the control and for the benefit of no one.[318] The freestanding, autonomous algorithm raises what some have called the "[h]ard" problem of algorithmic accountability because there is no one, corporate or natural, to hold to account in the algorithm's stead.[319] In such a future, the

317 *See, e.g.*, Dvorsky, *supra* note 50.

318 *See* Stephan Talty, *What Will Our Society Look Like When Artificial Intelligence Is Everywhere?*, SMITHSONIAN MAG. (Apr. 2018), https://www.smithsonianmag.com/innovation/artificial-intelligence-future-scenarios-180968403/ [https://perma.cc/MH2H-QGWT].

319 *See* Abbott & Sarch, *supra* note 39, at 328–29.

beneficial-control test would be of little help. The law needs a solution to the algorithmic accountability gap now, and the beneficial-control account offers an account suited to circumstances as they exist today. If the algorithmic accountability gap reopens in the future, we will know what that future looks like then and will be in a better place to develop a solution suited to those times. At that point, some of the proposals that I set aside in this Article, like the possibility of recognizing algorithms as legal persons, may no longer seem so far-fetched.

Conclusion

In the coming years, the algorithmic accountability gap will grow to a chasm unless the law takes proactive measures to close it. The stories of Elaine Herzberg and Wanda Holbrook will not remain one-off parables of law's inability to deliver justice. Whether we are prepared to recognize it or not, algorithms have injured us all by distorting stock markets, engaging in anticompetitive collusion, misusing personal information, and discriminating against us.[320] The law must find some sweeping accountability mechanism for algorithmic injury if it is to have any chance of protecting us in the coming age of automation.

This Article has focused on one obstacle the law must overcome to close the algorithmic accountability gap: figuring out how to fit algorithms into the existing liability regime, which requires injurious action. Algorithms are not agents or people under the law, so the concept of action is inapplicable.[321] The proposed solution adapts fixtures of corporate law to the algorithmic context. Although algorithms are not legal people capable of acting, corporations are. Today's most impactful algorithms are closely tied to the corporations who develop and use them for their own ends. If the law were to recognize that corporations can act through their algorithms, it would not matter that algorithms are incapable, in the eyes of the law, of acting alone. Injuries caused by corporate algorithms would become injuries caused by corporate action. The victims of those injuries could then seek justice from the corporations who control and profit from the algorithms.

Historically, the law limited its understanding of corporate action to employees,[322] but that limit obscures deeper legal principles. The inner logic of the law of corporate liability turns on prevention and

320 *See supra* notes 4–6 and accompanying text.

321 *See* United States v. Athlone Indus., Inc., 746 F.2d 977, 979 (3d Cir. 1984); Pagallo, *supra* note 127, at 349.

322 *See supra* Part I.

fairness. In order to prevent corporations from injuring people, the law only holds corporations liable when they control the source of the injury.[323] In order to ensure fairness, the law only burdens the corporation with victims' losses when the corporation sought to benefit from the injurious conduct.[324] For most of corporate history, human employees were the only obvious loci of corporate control and benefit. Today, as algorithms replace employees at an increasing rate, they too are sources of injury over which corporations exercise control and from which they benefit.

The proposed "beneficial-control account" treats algorithmic injury as a species of corporate action when the corporation has control over and seeks to benefit from the underlying algorithm. This gives victims a potential corporate defendant from whom to seek justice. When a corporation controls an algorithm, the potential for liability will encourage it to exercise greater care in designing, monitoring, and modifying the algorithm going forward. This will result in fewer algorithmic injuries. When a corporation seeks to benefit from the algorithm, holding the corporation accountable is fair even though doing so will otherwise burden innocent corporate stakeholders.

Although this Article has concentrated on what the law of corporate liability could do to help close the algorithmic accountability gap, corporate law itself has some significant skin in the game. As discussed above, corporate law was largely developed for a past world in which anything corporations did, they did through human employees. That world is quickly becoming a quaint anachronism. But there is nothing quaint about what this means for corporate liability. As the balance between manpower and automation continues to tip precariously in favor of the efficiency, accuracy, and power of algorithms, the model of corporate liability premised on injurious human conduct will slide into obsolescence. Without some way to hold corporations to account for algorithmic harms, they will increasingly find themselves unfettered from the disciplining influence of public and private suit. Though the solution proposed here comes from corporate law, it is also a solution that corporate law desperately needs.

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323 *See supra* note 166 and accompanying text.

324 *See supra* note 167 and accompanying text.

Title IX, Esports, and #EToo

*Jane K. Stoever**

Abstract

As colleges and universities increasingly award video gaming scholarships, field competitive esports teams, construct esports arenas in the centers of campuses, and promote student interaction through gaming, schools should anticipate the sexual cyberviolence, harassment, and technology-enabled abuse that commonly occur through gaming.

This Article is the first to examine Title IX and First Amendment implications of schools promoting and sponsoring gaming. To date, the rare Title IX discussion concerning esports has focused on increasing female representation in this male-dominated realm. As campuses invest heavily in esports, they also should foresee that funding and promoting esports—without attending to gender-based harassment and sexual violence in games and gaming—could lead to concerns that college campuses and organizational climates signal tolerance of sexual harassment and create "chilly" climates conducive to underreporting and retaliation. Colleges instead could lead in creating safe and inclusive gaming experiences.

Esports is one of the fastest growing competitive markets in the world, and the gaming industry is repeating past mistakes of professional sports leagues like the National Football League, as demonstrated through the summer 2020 outpouring of allegations of gender-based harassment, discrimination, and sexual assault from competitive gamers and streamers. Rather than waiting for a global #EToo movement to create demand for a comprehensive gender-based violence policy, colleges should affirmatively act to create responsible gaming initiatives with goals of violence prevention, player protection, and harm minimization.

Table of Contents

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INTRODUCTION

"[S]exual harassment is part of [the] culture,"[1] an esports coach said in defense of his in-game harassment of a female player on his team.[2] "Try being a girl on Xbox live," one female player said of her experience in gaming.[3] "My gender is set to M because otherwise I get people sending me [pornography]."[4]

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1 Amy O'Leary, *In Virtual Play, Sex Harassment Is All Too Real*, N.Y. TIMES (Aug. 1, 2012), https://archive.nytimes.com/www.nytimes.com/2012/08/02/us/sexual-harassment-in-online-gaming-stirs-anger.html [https://perma.cc/9QY7-MZJS] (quoting esports coach Aris Bakhtanians, as captured in a video recording from a 2012 competitive gaming tournament).

2 *See id.* (observing that over six days of the competitive gaming tournament, the coach interrogated a player on his team on camera about her bra size, said "take off your shirt," and "focused the team's webcam on her chest" and other body parts); *see also Online Harassment Gets Real for Female Gamers*, NPR (Aug. 8, 2012, 1:00 PM), https://www.npr.org/2012/08/08/158433079/virtual-harassment-gets-real-for-female-gamers [https://perma.cc/D4UD-74WM] (stating that "[t]aunting and trash-talking are a regular part of the culture for online video gamers" and harassment directed at female gamers is particularly concerning).

3 Oliver Moore, *Woman's Call to End Video Game Misogyny Sparks Vicious Online Attacks*, GLOBE & MAIL (July 11, 2012), https://www.theglobeandmail.com/news/world/womans-call-to-end-video-game-misogyny-sparks-vicious-online-attacks/article4405585/ [https://perma.cc/GF6S-MDHK].

4 *Id.*

With COVID-19 necessitating physical distancing, our lives moved online, making gaming and esports[5]—and corresponding technology-enabled abuse, sexual cyberviolence, and harassment[6]—more relevant and prevalent than ever before.

Nearly all youth game. Although white males "dominate" professional and scholastic-based esports nationwide[7] and more males than females identify as "gamers,"[8] ninety-seven percent of teenagers in America play video games[9] across socioeconomic status, sexual orien-

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5 Electronic sports are more colloquially called "esports" and include a wide range of organized and competitive video game tournaments. John T. Holden, Marc Edelman & Thomas A. Baker III, *A Short Treatise on Esports and the Law: How America Regulates its Next National Pastime*, 2020 U. ILL. L. REV. 509, 511.

6 Technology-enabled abuse includes online harassment while playing video games, sexual assault through avatars, pressure to share passwords, the nonconsensual dissemination of intimate photographs, and stalking through technology.

7 Matt Zalaznick, *How Higher Ed Is Shaping the Business of Esports*, UNIV. BUS. (Nov. 21, 2019), https://universitybusiness.com/colleges-shape-esports-business-management-degree-programs/ [https://perma.cc/8LGD-SRN7]; Stefanie Fogel, *Esports Is Getting Bigger Every Year—So Where Are All the Women?*, VARIETY (Nov. 1, 2018, 12:30 PM), https://variety.com/2018/gaming/features/women-in-esports-1203016379/ [https://perma.cc/FR3F-YDQ7].

8 *See* Vasilis Stavropoulos, Baxter L.M. Adams, Charlotte L. Beard, Emma Dumble, Steven Trawley, Rapson Gomez & Halley M. Pontes, *Associations Between Attention Deficit Hyperactivity and Internet Gaming Disorder Symptoms: Is There Consistency Across Types of Symptoms, Gender and Countries?*, 9 ADDICTIVE BEHAVS. REPS., June 2019, at 1, 3 (noting that gaming content is more "directed to males," and finding that more college males than college females play video games and game for longer periods of time, while females spend more time on social media than gaming); GLOBALWEBINDEX, ESPORTS TRENDS REPORT 3 (2018), https://cdn2.hubspot.net/hubfs/304927/Downloads/Esports-report.pdf?t=1528372092399 [https://perma.cc/CFK6-R36V] (reporting that seventy-one percent of esports fans identify as male); Associated Press, *Women in Professional Esports Navigate Hyper Masculinity and Harassment*, MKT. WATCH (Jan. 3, 2019, 11:43 AM), https://www.marketwatch.com/story/women-in-professional-esports-navigate-hyper-masculinity-and-harassment-2019-01-03 [https://perma.cc/P729-42ZA] (noting that forty-five percent of gamers are female, albeit few females reach the highest level of play); Mark D. Griffiths, Mark N.O. Davies & Darren Chappell, *Breaking the Stereotype: The Case of Online Gaming*, 6 CYBERPSYCHOLOGY & BEHAV. 81, 86 (2003) (studying fan sites and finding that eighty-five percent of gamers on Everlore and Allakhazam are male).

9 AMANDA LENHART, JOSEPH KAHNE, ELLEN MIDDAUGH, ALEXANDRA RANKIN MACGILL, CHRIS EVANS & JESSICA VITEK, PEW INTERNET & AM. LIFE PROJECT, TEENS, VIDEO GAMES, AND CIVICS 8 (2008), https://files.eric.ed.gov/fulltext/ED525058.pdf [https://perma.cc/Y9GZ-7Y8T]; *see also* NPD GRP., INC., EVOLUTION OF ENTERTAINMENT STUDY 5 (2019), https://s3-us-east-2.amazonaws.com/igda-website/wp-content/uploads/2019/10/16161928/NPD-2019-Evolution-of-Entertainment-Whitepaper.pdf [https://perma.cc/Q7HK-JUVD] (concluding that seventy-three percent of people in the United States over the age of two play video games); Andrew Perrin, *5 Facts About Americans and Video Games*, PEW RSCH. CTR.: FACT TANK (Sept. 17, 2018), https://www.pewresearch.org/fact-tank/2018/09/17/5-facts-about-americans-and-video-games/ [https://perma.cc/E3RW-YFLN] (finding that eighty-four percent of teenagers "have a game console at home or have access to one," and even higher rates have access to video games on cellular phones or computers).

tation, and racial, ethnic, and gender identities.[10] Further, nearly sixty percent of college students self-identify as "gamers."[11] Following school closures and stay-at-home directives during the COVID-19 pandemic,[12] gaming usage increased by seventy-five percent.[13] High levels of gaming are expected to continue once life returns to greater normalcy because, during the quarantine period, "[e]sports has [become] forever popularized."[14]

Gaming is not just a youth pastime, but is increasingly recognized as a high school, collegiate, and professional sport. For example, the National Federation of State High School Associations has recommended that high schools adopt esports programs to accompany their soccer, baseball, debate, and other after-school athletics and activi-

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10 Men of color play video games at high rates as well, and experience significant interpersonal racialized violence, both through structural racism in game design and as recipients of blatant hate speech. KISHONNA L. GRAY, RACE, GENDER, AND DEVIANCE IN XBOX LIVE, at xvii (Victor E. Kappeler ed., 2014) (discussing the sexist, racist, homophobic, and violent communications that exist during gaming); Lisa Nakamura, *Gender and Race in the Gaming World*, *in* SOCIETY AND THE INTERNET 127, 127 (Mark Graham & William Dutton eds., 2d ed. 2019) (noting that despite the large numbers of girls and women who play video games, including multiplayer competitive games, video games are "still perceived as a 'boys' club,' and the cultural domain of young white men"); Stephanie M. Ortiz, *"You Can Say I Got Desensitized to It": How Men of Color Cope with Everyday Racism in Online Gaming*, 62 SOCIO. PERSPS. 572, 577 (2019) ("Racist trash talk is a regular feature of Xbox Live, heard from the moment respondents began playing.").

11 Jeffrey A. Stone, *Self-Identification as a "Gamer" Among College Students: Influencing Factors and Perceived Characteristics*, 21 NEW MEDIA & SOC'Y 2607, 2614 (2019).

12 Jennifer Kates, Josh Michaud & Jennifer Tolbert, *Stay-At-Home Order to Fight COVID-19 in the United States: The Risks of a Scattershot Approach*, KAISER FAM. FOUND. (Apr. 5, 2020), https://www.kff.org/coronavirus-policy-watch/stay-at-home-orders-to-fight-covid19/ [https://perma.cc/37SS-SB62].

13 Patrick Shanley, *Gaming Usage Up 75 Percent Amid Coronavirus Outbreak, Verizon Reports*, HOLLYWOOD REP. (Mar. 17, 2020, 4:23 PM), https://www.hollywoodreporter.com/news/gaming-usage-up-75-percent-coronavirus-outbreak-verizon-reports-1285140 [https://perma.cc/PQ8S-B2H7]; *see also* Eustance Huang, *Sales of Video Games Soar as the Coronavirus Leaves Millions Trapped in Their Homes*, CNBC (Apr. 3, 2020, 3:35 AM), https://www.cnbc.com/2020/04/03/video-games-sales-soar-as-coronavirus-leaves-millions-trapped-at-home.html [https://perma.cc/K4HG-WRQK] (reporting that consumers in March 2020, mid-coronavirus, "spent around 65% more on video games compared to the same period [the prior] year"); Noah Smith, *The Giants of the Video Game Industry Have Thrived in the Pandemic. Can the Success Continue?*, WASH. POST (May 12, 2020, 4:38 PM), https://www.washingtonpost.com/video-games/2020/05/12/video-game-industry-coronavirus/ [https://perma.cc/B8YV-FUM9] ("Twitch, the most popular video game streaming platform, saw 1.49 billion gaming hours watched in April [2020]—a 50% increase since March [2020] . . . . [I]n April [2020] alone, players racked up a combined 3.2 billion hours [in Epic Games's *Fortnite*].").

14 Smith, *supra* note 13 (describing how during COVID-19, an influx of sponsors purchased advertising time for esports, especially due to the lack of live sports, which elevated the visibility of esports).

ties.[15] Similar to other high school programs, esports involves organized competition. The world of competitive organized video gaming includes competitors from different leagues or teams facing off in the same games that are popular with at-home gamers, including *Fortnite*, *League of Legends*, *Counter-Strike*, *Call of Duty*, and *Overwatch*.[16] Massively Multiplayer Online ("MMO") games, such as *EverQuest*, *Fortnite*, *World of Warcraft*, and *Minecraft*, enable a large number of people to play the same game within the same session without having physical proximity, encouraging online social interaction and communication as players pursue goals in three-dimensional space.[17] Esports readily accommodates physical distancing and is flourishing in the digital age, COVID-19 context, and beyond.

Colleges are awarding scholarships,[18] granting degrees,[19] fielding traveling esports teams, organizing gaming clubs, and building state-

15 Sarah E. Needleman, *Are High-School Esports the Next Friday Night Lights?*, WALL ST. J. (Apr. 19, 2018, 2:55 PM), https://www.wsj.com/articles/are-high-school-esports-the-next-friday-night-lights-1524162330 [https://perma.cc/ED97-DJBQ] (identifying that esports programs teach students strategic thinking and team-play skills while costing less than traditional sports).

16 AJ Willingham, *What Is Esports? A Look at an Explosive Billion-Dollar Industry*, CNN (Aug. 27, 2018, 2:18 PM), https://www.cnn.com/2018/08/27/us/esports-what-is-video-game-professional-league-madden-trnd/index.html [https://perma.cc/U3PJ-AD5D]. Esports law is considered "an amalgamation of multiple disciplines—labor and employment, contracts, endorsements, sponsorships, intellectual property," gaming, and more. Shelby White, *Game of Laws: McNees Launches Esports Practice Group*, CENT. PENN BUS. J. (July 10, 2018, 3:00 AM), https://www.cpbj.com/game-of-laws-mcnees-launches-esports-practice-group/ [https://perma.cc/P6QF-D5Z6]. Sheppard Mullin recently announced its esports practice group, focused on labor and employment issues with about twenty attorneys, and other firms are expected to also create esports practices. *Sheppard Mullin Creates Opportunities for Esports Stakeholders and Launches a Dedicated Esports Team*, SHEPPARD MULLIN (Feb. 19, 2019), https://www.sheppardmullin.com/pressrelease-548 [https://perma.cc/WBQ6-AHT2].

17 *See* Dmitri Williams, Nicolas Ducheneaut, Li Xiong Yuanyuan Zhang, Nick Yee & Eric Nickell, *From Tree House to Barracks: The Social Life of Guilds in World of Warcraft*, 1 GAMES & CULTURE 338, 347, 351 (2006); Stavropoulos et al., *supra* note 8, at 1; *see also* Robert Earl Wells III, *What Is an MMO?* LIFEWIRE (Apr. 7, 2021), https://www.lifewire.com/what-is-an-mmo-4687003 [https://perma.cc/9JHF-WJ4W]. Sports games and racing, shooting, fighting, puzzle, simulation, and role-playing games are generally available in single-player and multiplayer formats for cooperative and competitive play, lending to socialization. Christian M. Jones, Laura Scholes, Daniel Johnson, Mary Katsikitis & Michelle Colder Carras, *Gaming Well: Links Between Videogames and Flourishing Mental Health*, 5 FRONTIERS PSYCH. 1, 5 (2014).

18 Jeremy Bauer-Wolf, *Video Games: Entertainment or Sports?*, INSIDE HIGHER ED (Feb. 12, 2019), https://www.insidehighered.com/news/2019/02/12/new-frontier-college-athletics-video-games [https://perma.cc/4QXQ-QYBW] (identifying that nearly $15 million in scholarships for esports were awarded for the 2018–2019 academic year); Needleman, *supra* note 15 ("More than 475 colleges and universities support esports at a club level, and approximately 50 schools offer scholarships in esports, according to the NCAA.").

19 Zalaznick, *supra* note 7 (describing multiple colleges and universities that offer esport-management degree programs covering facets of the business ranging from "game design, business management and computer infrastructure to livestreaming and finance," and noting that

of-the-art esports arenas at the centers of campuses equipped with gear and gaming chairs.[20] Before the pandemic erupted, esports was heralded for its ability to provide a "focal point for campus activity" and broadly enhance campus life and school spirit.[21] As colleges seek to build and maintain a sense of community among students, they are investing in esports programs to attract students, given the "direct correlation between having an esports program and students wanting to come to your school," even while tightening other areas of the budget during the economic downturn.[22] While operating remotely during COVID-19, colleges constructed esports arenas,[23] promoted student interaction by offering free intramural gaming leagues,[24] hosted virtual esports bootcamps,[25] and outfitted team members at home with equipment to remotely compete in national esports tournaments.[26]

The gender and racial composition of esports players has implications for all online gamers. Professional esports is ninety-five percent male,[27] esports scholarships and team memberships have mostly been

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Hampton University in Virginia hopes "to become the first historically black college . . . to develop an esports curriculum"); Alexis Shaw, *The Ohio State University Launches First-of-its-Kind Comprehensive Esports Program*, OHIO ST. NEWS (Oct. 3, 2018, 10:21 AM), https://news.osu.edu/the-ohio-state-university-launches-first-of-its-kind-comprehensive-esports-program/ [https://perma.cc/UW5R-4SFW] (discussing Ohio State's development of a comprehensive esports curriculum); Press Release, UCI Div. of Continuing Educ., UC Irvine Division of Continuing Education Announces New Online Course in Esports, (Jan. 3, 2018) [hereinafter UC Irvine Press Release], https://ce.uci.edu/about/releases/pr.aspx?id=473 [https://perma.cc/U8FD-YN26] (discussing the development of a new esports certificate program).

20 *See* Zalaznick, *supra* note 7 (noting that Hampton University in Virginia received a technology grant of nearly $350,000 from the Department of Homeland Security to build an "esports innovation lab"); David Bloom, *Esports Arenas Coming to a Campus, or Cafe, Near You*, TV[R]EV (June 11, 2019), https://tvrev.com/esports-arenas-coming-to-a-campus-near-you/ [https://perma.cc/GRK7-XEYM] (discussing that multiple universities have built or are building esports arenas on campus for broad student use, regardless of degree program).

21 Adam Stone, *COVID Is Not Stopping Esports*, EDTECH (June 3, 2020), https://edtechmagazine.com/higher/article/2020/06/covid-not-stopping-esports-perfcon [https://perma.cc/MWB7-2UEN].

22 *Id.* (identifying that colleges are motivated to support esports because, as explained by A.J. Dimick, the University of Utah's esports director, "they know that competitive esports appeals to exactly the kind of students they want—the STEM students with high GPAs, the international students, the engineers").

23 *Id.*

24 *See, e.g.*, *Spring Intramurals*, UCI ESPORTS, https://esports.uci.edu/intramurals/ [https://perma.cc/7ZDY-2GCP].

25 *See, e.g.*, *Camps*, UCI ESPORTS, https://esports.uci.edu/camps/ [https://perma.cc/4938-XEV9]; *Online STEAM Camp: Esports Bootcamp*, N. ILL. UNIV., https://calendar.niu.edu/event/onlinesteam_camp_esports_bootcamp#.X3y26ZNKgcg [https://perma.cc/DS6M-FUCY].

26 Stone, *supra* note 21 (identifying Boise State University, University of California, Los Angeles, and University of California, Irvine).

27 Erick Orantes & Aalok Sharma, *Title IX Compliance Creates Hurdles for Collegiate*

awarded to male students from affluent backgrounds,[28] and the gaming industry has largely been driven by and for white men and has marginalized other identities and people.[29] Although teamwork and relationship building are common aspects of gaming,[30] hypermasculine atmospheres, harassment, hostility, and misogynistic and racist attacks frequently occur in this pervasive culture of harassment,[31] and women, LGBTQIA, and non-gender-conforming individuals are particularly targeted and harassed.[32] Many gamers experience everyday fears of toxic harassment and sexualized gender-based violence and report that games amplify sexism.[33] A study of multiplayer online gamers found that over seventy percent of women play as male characters, presumably to avoid the constant sexual harassment and questioning

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eSports Programs, JDSUPRA (Mar. 4, 2019), https://www.jdsupra.com/legalnews/title-ix-compliance-creates-hurdles-for-99240/ [https://perma.cc/9MUA-DBX6] (noting that professional esports players are ninety-five percent male while approximately fifty percent of video game enthusiasts are women); *see also The Effects of Esports' Sizable Gender Gap*, DOT ESPORTS (Feb. 18, 2014, 8:59 AM), https://dotesports.com/general/news/esports-gender-race-gap [https://perma.cc/2VMD-TRW4] ("A profound 90 to 94 percent of esports viewers are male, according to a survey of viewers taken across three events in [2013] . . . .").

28 J. Collins, *Esports Scholarships Are Growing. Do They Leave Some Students Behind?*, EDSURGE (Feb. 27, 2019) https://www.edsurge.com/news/2019-02-27-esports-scholarships-are-growing-do-they-leave-some-students-behind [https://perma.cc/4K5W-P4FQ] ("The reality of the growing esports scholarship phenomenon is that universities and the gaming industry are inadvertently creating a college access gap (an 'Esports Access Gap,' if you will) by using tournament and scholarship structures that primarily favor affluent young men from affluent schools.").

29 *See* B. Mitchell Peck, Paul R. Ketchum & David G. Embrick, *Racism and Sexism in the Gaming World: Reinforcing or Changing Stereotypes in Computer Games?*, 3 J. MEDIA & COMMC'N STUD. 212, 212, 216 (2011) (finding that "no significant gains have been made in the past two decades [regarding] how women and [people of color] are portrayed in gaming advertisements," "racial groups are depicted using stereotypes," "[a]ll the black characters were depicted using a racial stereotype" in 2009 *PC gamer* advertisements, and women are generally "stereotyped and sexualized" with over ninety-seven percent of female characters in advertisements depicted through gender stereotypes).

30 *See* Albert Courie, *Team Building Through Gaming*, ARMY LAW., no. 5, 2019, at 29.

31 *See* Jesse Fox & Wai Yen Tang, *Women's Experiences with General and Sexual Harassment in Online Video Games: Rumination, Organizational Responsiveness, Withdrawal, and Coping Strategies*, 19 NEW MEDIA & SOC'Y 1290, 1291, 1304 (2017); Ortiz, *supra* note 10, at 573, 577 (discussing intersectional attacks based on race in gaming platforms).

32 *See* Mary Elizabeth Ballard & Kelly Marie Welch, *Virtual Warfare: Cyberbullying and Cyber-Victimization in MMOG Play*, 12 GAMES & CULTURE 466, 478, 480–81 (2017) (finding that males perpetrate most cyberbullying, that heterosexuals perpetrate more cyberbullying than LGBT individuals do, that female and LGBT participants in video games experienced significantly higher rates of sexually related cybervictimization than men, and that they experienced this abusive behavior regularly).

33 *See generally* EMMA A. JANE, MISOGYNY ONLINE (2017) (exploring the global phenomenon of gendered cyberhate).

of their competence that they otherwise endure.[34] Such gender switching, however, makes women and nonbinary individuals invisible.

Universities are rightfully taking note that Title IX,[35] the civil rights law that prohibits sex discrimination in education,[36] requires them to increase participation of all genders in these school-sponsored programs.[37] While schools are beginning to articulate the need to achieve greater gender balance in the esports programs and teams they fund and promote,[38] they have yet to meaningfully evaluate and address their Title IX obligation to ensure that campuses are free from sex discrimination and sexual harassment, which Title IX prohibits as a form of sex discrimination. This Article tackles evolving Title IX issues and First Amendment questions, foreseeing problems such as (1) how games commonly feature gendered norms including misogyny, hypersexualization of women, male entitlement, and explicit gender-based violence, (2) the harassment and sexual cyberviolence that often occurs through online games, and (3) how funding and focusing on gaming may affect the campus climate.

Environments that are male-dominated and institutional cultures with high levels of sex segregation are shown to produce high levels of gender-based violence, racism, misogyny, homophobia, and "sexualized abuse of girls and low-status boys as a method of establishing and maintaining status within the male group."[39] Additionally, the "suppression of emotion and empathy, the glorifying of competition and aggression, and the cultures of silence and protection" further produce gender-based violence and harassment.[40] Schools will have to confront intertwined dynamics of the historic lack of gender balance in gaming and esports and realities of the gaming platforms in which harassment abounds.

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34 *See* Fox & Tang, *supra* note 31, at 1298–99.

35 Education Amendments Act of 1972, 20 U.S.C. §§ 1681–88 (2018).

36 *See generally Requirements Under Title IX of the Education Amendments of 1972*, U.S. DEP'T OF EDUC. OFF. FOR C.R. (Jan. 10, 2020), https://www2.ed.gov/about/offices/list/ocr/docs/interath.html [https://perma.cc/FNC8-2BGS].

37 *See* Collins, *supra* note 28; Orantes & Sharma, *supra* note 27. Gender binaries are inherent in Title IX, and this Article acknowledges that the context of Title IX is one of gender binaries and the vast majority of research on Title IX and gender-based harassment and abuse have operated in a gender-binary way. Future scholarship, however, should grapple with what Title IX proportionality means in a nonbinaried world.

38 *See* Collins, *supra* note 28.

39 Nancy Chi Cantalupo, *Masculinity & Title IX: Bullying and Sexual Harassment of Boys in the American Liberal State*, 73 MD. L. REV. 887, 922, 928 (2014) (citing examples from numerous educational institutions and hypermasculine cultures of fraternities, American policing, and the military).

40 *Id.* at 932–33.

While cyber mediums and gaming platforms are fairly new, the systemic sexism, heterosexism, and racist and patriarchal undercurrents of the gaming industry[41] reflect historic ownership, oppression, racism, and gender-based violence.[42] Reports of abuse through the use of technology have been increasing,[43] including in the youth age bracket for which prevention efforts are most opportune,[44] and COVID-19 has exacerbated technology-enabled abuse concomitant with dramatic increases in virtual interactions.[45] Respondents to a Pew Research Center survey on online harassment identified gaming as the most inequitable community in terms of its treatment of women.[46] Males experience high rates of being insulted and embarrassed by other players,[47] and females experience severe stalking, sexual harassment, and threats, including rape and death threats, and report significant emotional distress.[48]

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41 *See* O'Leary, *supra* note 1 ("Sexism, racism, homophobia and general name-calling are longstanding facts of life in certain corners of online video games."); Nakamura, *supra* note 10, at 127–28 ("[G]ames contain some of the most egregiously narrow, racist, and sexist storylines and depictions imaginable."); Moore, *supra* note 4 (discussing the "campaign of harassment" directed at Anita Sarkeesian, who sought "to expose misogyny in video games"); *cf.* Jennifer Jenson & Suzanne de Castell, *Theorizing Gender and Digital Gameplay: Oversights, Accidents and Surprises*, 2 ELUDAMOS: J. FOR COMPUT. GAME CULTURE 15, 20–21 (2008) (deemphasizing gender and focusing on differences between novice and experienced gamers).

42 This is a form of what Professor Reva Siegel has termed "preservation through transformation," in which legal change gives the appearance of correcting a wrong but perpetuates the status quo. Reva B. Siegel, *"The Rule of Love": Wife Beating as Prerogative and Privacy*, 105 YALE L.J. 2117, 2119 (1996).

43 NAT'L DOMESTIC VIOLENCE HOTLINE, A YEAR OF IMPACT 3 (2019), https://www.thehotline.org/wp-content/uploads/sites/3/2020/04/Impact-Report-2019.v1.pdf [https://perma.cc/RVA9-HLLL] (reporting that calls regarding digital abuse increased 101% from 2018 to 2019); *see also* Jill Messing, Meredith Bagwell-Gray, Megan Lindsay Brown, Andrea Kappas & Alesha Durfee, *Intersections of Stalking and Technology-Based Abuse: Emerging Definitions, Conceptualization, and Measurement*, 35 J. FAM. VIOLENCE 693, 700 (2020) (studying over 1,000 abuse survivors and finding that sixty to sixty-three percent had experienced technology-based abuse by an intimate partner).

44 *See* LENHART ET AL., *supra* note 9, at 8, 31–32.

45 *See* Emma Grey Ellis, *Tech Is a Double-Edged Lifeline for Domestic Violence Victims*, WIRED (Apr. 28, 2020), https://www.wired.com/story/covid-19-coronavirus-domestic-violence/ [https://perma.cc/BT4T-N6KM].

46 PEW RSCH. CTR., ONLINE HARASSMENT 9 (2014), http://www.pewinternet.org/2014/10/22/online-harassment/ [https://perma.cc/DW3R-62W7].

47 MAEVE DUGGAN, PEW RSCH. CTR., ONLINE HARASSMENT 2017, at 24 (2017), https://www.pewresearch.org/internet/2017/07/11/online-harassment-2017/ [https://perma.cc/GP6E-859Y].

48 *See* PEW RSCH. CTR., *supra* note 46; Dave Smith, *Most People Who Play Video Games Online Experience 'Severe' Harassment, New Study Finds*, BUS. INSIDER (Jul. 25, 2019, 11:08 AM) https://www.businessinsider.com/online-harassment-in-video-games-statistics-adl-study-2019-7 [https://perma.cc/R9EU-ZRYF].

For youth, "[s]exual harassment is part of everyday life in middle and high schools."[49] Nearly half of the youth surveyed in a nationwide study had experienced sexual harassment during the prior year, whether through cyberspace or in person, with some sexual harassment targeting gender identity or sexual orientation; further, eighty-seven percent of harassed students, who were mostly female, reported that the sexual harassment negatively affected them.[50]

Gender-based violence, sexual harassment, and corresponding long-term harms persist through college.[51] Over one-third of college students in America report experiencing some form of unwanted sexual contact or intimate partner abuse during their higher education,[52] twenty-one percent of women report having experienced a completed sexual assault during college,[53] twenty-eight percent of women report being sexually harassed during college,[54] and women students of color report sexual harassment at disproportionately higher rates.[55]

Colleges nationwide should anticipate that their increasing support of gaming and esports[56] could signal tolerance of sexual harassment and thereby create a climate conducive to underreporting and retaliation. Given youth gaming rates and research that gender-based

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49 CATHERINE HILL & HOLLY KEARL, CROSSING THE LINE: SEXUAL HARASSMENT AT SCHOOL 2 (2011), https://www.aauw.org/app/uploads/2020/03/Crossing-the-Line-Sexual-Harassment-at-School.pdf [https://perma.cc/E8JA-NNGS].

50 *Id.* at 2–3 (also reporting high rates of students witnessing sexual harassment of peers).

51 In a Pew Research Center survey, twenty-one percent of women ages eighteen to twenty-nine had been sexually harassed online, while fifty-three percent of women had received sexually explicit images that they had not sought. Monica Anderson, *Key Takeaways on How Americans View—and Experience—Online Harassment*, PEW RSCH. CTR.: FACT TANK (July 11, 2017), https://www.pewresearch.org/fact-tank/2017/07/11/key-takeaways-online-harassment/ [https://perma.cc/3AM5-MSBF].

52 Lisa Fedina, Jennifer Lynne Holmes & Bethany L. Backes, *Campus Sexual Assault: A Systematic Review of Prevalence Research From 2000 to 2015*, 19 TRAUMA, VIOLENCE, & ABUSE 76, 84–85 (2018); Melissa A. Sutherland, Heidi Collins Fantasia & M. Katherine Hutchinson, *Screening for Intimate Partner and Sexual Violence in College Women: Missed Opportunities*, 26 WOMEN'S HEALTH ISSUES 217, 217 (2016).

53 CHRISTOPHER KREBS, CHRISTINE LINDQUIST, MARCUS BERZOFSKY, BONNIE SHOOK-SA, KIMBERLY PETERSON, MICHAEL PLANTY, LYNN LANGTON & JESSICA STROOP, BUREAU OF JUST. STAT., CAMPUS CLIMATE SURVEY VALIDATION STUDY FINAL TECHNICAL REPORT 73 (2016), https://www.bjs.gov/content/pub/pdf/ccsvsftr.pdf [https://perma.cc/5LYG-GQFP] (surveying 15,000 women and 8,000 men in college). Seven percent of men report experiencing a completed sexual assault during college. *Id.* at 74.

54 *Id.* at 138. Over thirteen percent of men report experiencing sexual harassment during college. *Id.* at 140.

55 *See* Nancy Chi Cantalupo, *And Even More of Us Are Brave: Intersectionality & Sexual Harassment of Women Students of Color*, 42 HARV. J.L. & GENDER 1, 24–54 (2019).

56 Zalaznick, *supra* note 7; Shaw, *supra* note 19; UC Irvine Press Release, *supra* note 19; Stone, *supra* note 21.

violence prevention efforts are best targeted to younger age groups,[57] schools should consider how abuse can proliferate or be prevented through gaming, as well as how the attitudes and behaviors in the gaming world may impact the next generation's relationships and relationship violence.[58]

Esports has a global platform with unlimited potential to prevent or promote gender-based violence, but it is not yet being utilized for abuse prevention.[59] Unfortunately, the esports industry and the public are unknowingly repeating the past mistakes of professional sports leagues. Waiting for high-profile incidents to create demand for a comprehensive gender-based violence policy, as the National Football League did, is a failed model and lost opportunity for violence prevention.[60]

Recent social movements revealed how common and ceaseless sexual harassment, assault, and domestic abuse are,[61] and ongoing

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57 *See* WORLD HEALTH ORG., PREVENTING INTIMATE PARTNER AND SEXUAL VIOLENCE AGAINST WOMEN 44–47 (2010), https://www.who.int/violence_injury_prevention/publications/violence/9789241564007_eng.pdf?ua=1 [https://perma.cc/RY3W-MXZD].

58 State legislatures have been slow to mandate education on gender-based violence prevention, and most secondary schools do not devote curricular time to this topic. *See* HILL & KEARL, *supra* note 49, at 46–47; Casey Quinlan, *Schools Often Fail to Provide Quality Education on Dating Violence—and Students Pay the Price*, THINKPROGRESS (Dec. 8, 2017, 2:50 PM), https://archive.thinkprogress.org/schools-education-teen-dating-violence-ac8ddcaf6963/ [https://perma.cc/B5CS-KEQK] (identifying the variability in whether and how schools teach students about healthy relationships and address dating violence); D. Kelly Weisberg, *Lindsay's Legacy: The Tragedy that Triggered Law Reform to Prevent Teen Dating Violence*, 24 HASTINGS WOMEN's L.J. 27, 27–28 (2013) (detailing the historic neglect of teen dating violence as a public health issue and policy concern); ANDREW MORSE, BRIAN A. SPONSLER & MARY FULTON, STATE LEGISLATIVE DEVELOPMENTS ON CAMPUS SEXUAL VIOLENCE 4–5 (2015), https://www.naspa.org/images/uploads/main/ECS_NASPA_BRIEF_DOWNLOAD3.pdf [https://perma.cc/3SPT-PL56] (addressing state legislative efforts to combat sexual violence in four policy areas); *Teen Dating Violence*, NAT'L CONF. ST. LEGISLATURES (Oct. 11, 2018), https://www.ncsl.org/research/health/teen-dating-violence.aspx [https://perma.cc/K7M5-RU57] (listing enacted legislation that addresses teen dating violence).

59 *See, e.g.*, Sharyn J. Potter, Mary Flanagan, Max Seidman, Hannah Hodges & Jane G. Stapleton, *Developing and Piloting Videogames to Increase College and University Students' Awareness and Efficacy of the Bystander Role in Incidents of Sexual Violence*, 8 GAMES FOR HEALTH J. 24 (2019).

60 *See* Maleaha L. Brown, *When Pros Become Cons: Ending the NFL's History of Domestic Violence Leniency*, 50 FAM. L.Q. 193, 201–03 (2016); CORY YOUNG & TERRY RENTNER, *The NFL as a Mega-Crisis: Applications of Fractal Theory*, *in* PROCEEDINGS OF THE INTERNATIONAL CRISIS & RISK COMMUNICATION CONFERENCE 2018, at 42, 44 (2018); Megan Mariah Jefferson, Media, Fandom, and Corporate Social Responsibility: An Advertising Campaign to Reframe Domestic Violence in the National Football League (July 2018) (M.A. non-thesis project, Pepperdine University) (on file with Pepperdine Digital Commons), https://digitalcommons.pepperdine.edu/etd/979 [https://perma.cc/TVT9-6J7Z].

61 Tarana Burke created the MeToo movement over a decade ago as a grassroots move-

calls for intersectional responses to gender-based violence[62] should also prompt change. Especially as national attention during the popularization of the #MeToo movement expanded from an initial focus on famous actors and celebrities to farmworkers, hotel workers, law clerks, and USA Olympic gymnasts, vast institutional failures were revealed.[63] Sites of vulnerability and problematic power differentials were exposed, millions of people spoke out in bold demonstrations of solidarity, and abusers faced consequences.[64] The #WhyIStayed,[65] #MeToo, #TimesUp,[66] and #WhyIDidn'tReport[67] movements of the

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ment to aid sexual assault survivors in underserved communities. Tarana Burke, *#MeToo Was Started for Black and Brown Women and Girls. They're Still Being Ignored*, WASH. POST (Nov. 9, 2017, 8:04 PM), https://www.washingtonpost.com/news/post-nation/wp/2017/11/09/the-waitress-who-works-in-the-diner-needs-to-know-that-the-issue-of-sexual-harassment-is-about-her-too/ [https://perma.cc/FX5R-5FLJ]. Based out of Harlem, Ms. Burke identified the lack of resources and services for Black sexual assault survivors in her community and began a movement of Black women talking to each other and sharing their stories. Najja Parker, *Who Is Tarana Burke? Meet the Woman Who Started the Me Too Movement a Decade Ago*, ATLANTA J.-CONST. (Dec. 6, 2017), https://www.ajc.com/news/world/who-tarana-burke-meet-the-woman-who-started-the-too-movement-decade-ago/i8NEiuFHKaIvBh9ucukidK/ [https://perma.cc/ECD4-94P6]. The hashtag #MeToo was popularized by actor Alyssa Milano in her tweet on October 15, 2017. *Id.*; *see* Alyssa Milano (@Alyssa_Milano), Twitter (Oct. 15, 2017, 4:21 PM), https://twitter.com/Alyssa_Milano/status/919659438700670976 (last visited May 15, 2021).

62 *See* Kimberlé W. Crenshaw, *We Still Have Not Learned from Anita Hill's Testimony*, 26 UCLA WOMEN's L.J. 17, 17 (2019) (discussing how Anita Hill was "trapped between an antiracist movement that foregrounded black men, and a feminism that could not fully address how race shaped society's perception of black victims," and noting how Black women's vulnerability continues to be ignored).

63 *See* Jane K. Stoever, *Introduction*, *in* THE POLITICIZATION OF SAFETY 6–8 (Jane K. Stoever ed., 2019).

64 *Id.* (also identifying some of the "privileging, silencing, and infighting" of the feminist movement during the popularization of the #MeToo movement); *see also* Kaitlynn Mendes, Jessica Ringrose & Jessalynn Keller, *#MeToo and the Promise and Pitfalls of Challenging Rape Culture Through Digital Feminist Activism*, 25 EUR. J. WOMEN's STUD. 236, 243–44 (2018) (discussing a range of tactics to make visible and challenge rape culture, misogyny, and harassment, and examining the mental and practical challenges of doing digital feminist activism); Angela Onwuachi-Willig, *What About #UsToo?: The Invisibility of Race in the #MeToo Movement*, 128 YALE L.J.F. 105, 111 (2018) (identifying the "heightened vulnerability" to harassment "that women of color . . . face in the workplace" and the need for consideration of complainants' intersectional and multidimensional identities).

65 *See* Melinda R. Weathers, Jimmy Sanderson, Alex Neal & Kelly Gramlich, *From Silence to #WhyIStayed: Locating Our Stories and Finding Our Voices*, 17 QUALITATIVE RSCH. REPS. COMMC'N 60, 64 (2016); Sarah Kaplan, *#WhyIStayed: She Saw Herself in Ray Rice's Wife, Janay, and Tweeted About It. So Did Thousands of Others*, WASH. POST (Sept. 9, 2014, 2:57 AM), https://www.washingtonpost.com/news/morning-mix/wp/2014/09/09/whyistayed-she-saw-herself-in-ray-rices-wife-janay-and-tweeted-about-it-so-did-thousands-of-others/ [https://perma.cc/WXA9-YQ8W] (reporting on Beverly Gooden's viral hashtag about why she stayed despite ongoing domestic violence).

66 *See About*, TIME'S UP NOW, https://timesupnow.org/about/ [https://perma.cc/N7RM-UHYW] ("TIME'S UP Now aims to create a society free of gender-based discrimination in the

past decade have created opportunities for conversations and action about accountability, healing, redemption, and what it takes to create sustained social change. As schools invest in esports and strive to create inclusive gaming experiences and esports programs, the Black Lives Matter movement also provides an essential framework and imperative for schools to commit to eradicating anti-Black racism and addressing intersectional oppressions.[68]

Rather than waiting for a global #ETOO movement, secondary schools, colleges, and the gaming industry should anticipate the all-too-foreseeable issues of sexual harassment and gender-based violence in gaming and esports, and intentionally act to prevent abuse.

Part I of this Article reveals that esports is the fastest-growing competitive market in the world. This exponential growth is occurring in a "Wild West" fashion, without norms and recommended practices, even as colleges and universities heavily invest in esports.

Part II considers positive aspects of gaming, recognizing that video game play can improve an individual player's mental wellbeing and life satisfaction, along with developing social relationships without need for geographic proximity.[69] This Part also explores problematic dynamics with esports, including gaming disorders, violence and misogyny as prominent themes in video games, and the intersection of gender-based violence and gaming.

Part III discusses the rapid growth and subsequent challenges of school sponsorship of gaming and esports in the context of Title IX

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workplace and beyond."); *see also* Lesley Wexler, Jennifer K. Robbennolt & Colleen Murphy, #*MeToo, Time's Up, and Theories of Justice*, 2019 U. ILL. L. REV. 45, 58, 71–72, 95–96 (discussing the complexities of utilizing restorative justice and transitional justice to respond to workplace harassment).

67 When Dr. Christine Blasey Ford made allegations against Supreme Court nominee Brett Kavanaugh in 2018, she was critiqued by President Donald Trump for not reporting the incident to authorities when it occurred approximately thirty years prior. *See, e.g.*, Rhiannon Lucy Cosslett, *Trump Mocking Christine Blasey Ford Shows How Women Are Silenced*, GUARDIAN (Oct. 3, 2018, 6:43 AM), https://www.theguardian.com/commentisfree/2018/oct/03/trump-mockery-christine-blasey-ford-sexual-assault-script-male-dominance [https://perma.cc/Z2GK-G9N4]. Tens of thousands of people responded to the president's tweet with their #WhyIDidntReport explanations of the multitude of reasons and complexities behind why they did not report their assaults. *See* Abigail Garrett & Naeemul Hassan, *Understanding the Silence of Sexual Harassment Victims Through the #WhyIDidntReport Movement*, *in* PROCEEDINGS OF THE 2019 IEEE/ACM INTERNATIONAL CONFERENCE ON ADVANCES IN SOCIAL NETWORKS ANALYSIS AND MINING 649, 650 (2019) (analyzing 40,000 #WhyIDidntReport tweets).

68 *See* David Batty, *Universities Criticised for 'Tokenistic' Support for Black Lives Matter*, GUARDIAN (July 6, 2020, 12:52 PM), https://www.theguardian.com/education/2020/jul/06/universities-criticised-for-tokenistic-support-for-black-lives-matter [https://perma.cc/6JAL-KTVZ].

69 Jones et al., *supra* note 17, at 6.

and the First Amendment. While this Article focuses on colleges and universities, Title IX and the analysis herein equally apply to middle and high school education programs.

Part IV proposes current and future opportunities for gender-based violence prevention in esports participation. This Article recognizes that the development of esports and gaming are part of the digital era and have relevance in the COVID-19 context and beyond. This Article also makes normative recommendations to colleges—building from recent social movements—to create responsible gaming initiatives with goals of violence prevention, player protection, and harm minimization as they invest in esports.

I. ESPORTS: THE FASTEST-GROWING COMPETITIVE MARKET IN THE WORLD

Esports is one of the fastest-growing competitive markets in the world.[70] From the first computer game in the 1960s, to the popularity of home-based gaming during the 1970s and 1980s, to virtual reality headsets and the esports phenomenon, digital gaming has become a "major worldwide cultural industry."[71] Over 250 million people have registered to play the online battle game *Fortnite*,[72] and over 100 million players engage in *League of Legends*—the Multiplayer Online Battle Arena game developed by Riot Games—each month.[73] Total revenue from sponsorships, advertising, ticket sales, and betting increases annually.[74]

United States video game content generated $35.4 billion in revenue in 2019 alone,[75] and Goldman Sachs estimates that by 2025, the

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70 *See* John T. Holden, Anastasios Kaburakis & Ryan Rodenberg, *The Future Is Now: Esports Policy Considerations and Potential Litigation*, 27 J. LEGAL ASPECTS SPORT 46, 46–47 (2017) (connecting the recent "explosive growth" of video game tournaments to the launch of Twitch, an online streaming platform).

71 Garry Crawford, *Digital Gaming, Sport, and Gender*, 24 LEISURE STUD. 259, 259 (2005).

72 Ian Sherr, *Gaming Can Be Toxic Toward Women and Minorities. Electronic Arts Wants to Help Fix That*, CNET (June 13, 2019, 9:00 AM), https://www.cnet.com/news/gaming-can-be-toxic-toward-women-and-minorities-electronic-arts-wants-to-help-fix-that/ [https://perma.cc/4982-LQTV].

73 Paul Tassi, *Riot Games Reveals 'League of Legends' Has 100 Million Monthly Players*, FORBES (Sept. 13, 2016, 9:54 AM), https://www.forbes.com/sites/insertcoin/2016/09/13/riot-games-reveals-league-of-legends-has-100-million-monthly-players/#bd78e415aa8b [https://perma.cc/ZFC3-9FE9].

74 *See* Hilary Russ, *Global Esports Revenues to Top $1 Billion in 2019: Report*, REUTERS (Feb. 12, 2019, 11:05 AM), https://www.reuters.com/article/us-videogames-outlook/global-esports-revenues-to-top-1-billion-in-2019-report-idUSKCN1Q11XY [https://perma.cc/6PWX-SDN5].

75 *U.S. Video Game Content Generated $35.4 Billion in Revenue for 2019*, ENT. SOFTWARE

virtual reality industry will be worth as much as $182 billion.[76] Video and online game sales surpassed global box office totals and streaming services beginning in 2018, reporting an eighteen percent increase from 2017.[77] In a shareholder letter, Netflix stated, "We compete with (and lose to) Fortnite more than HBO."[78] Perhaps unsurprisingly, more digital games are now sold in the United States and United Kingdom than books.[79]

The COVID-19 pandemic created boons for the video game industry.[80] Adhering to stay-at-home orders while schools, workplaces, sporting events, and other forms of entertainment were closed, much of America turned to gaming to pass time and connect with others. Spending on gaming hardware, software, and accessories totaled $1.6 billion in March 2020, a thirty-five percent increase over March 2019.[81] The Nintendo Switch set an all-time record for unit sales, and PlaySta-

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Ass'n (Jan. 23, 2020), https://www.theesa.com/press-releases/u-s-video-game-content-generated-35-4-billion-in-revenue-for-2019/#:~:text=U.S.%20Video%20Game%20Content%20Generated,for%202019%20%2D%20Entertainment%20Software%20Association [https://perma.cc/462M-656X].

76 Arwa Mahdawi, *A Bug in the Matrix: Virtual Reality Will Change Our Lives. But Will It Also Harm Us?*, Guardian (Nov. 2, 2016, 9:31 AM), https://www.theguardian.com/technology/2016/nov/02/virtual-reality-oculus-palmer-luckey-harassment-diversity [https://perma.cc/8JXB-QXYZ].

77 Jonathan Shieber, *Video Game Revenue Tops $43 Billion in 2018, an 18% Jump from 2017*, TechCrunch (Jan. 22, 2019, 6:00 PM), https://techcrunch.com/2019/01/22/video-game-revenue-tops-43-billion-in-2018-an-18-jump-from-2017/ [https://perma.cc/X5XB-YHAJ]; *U.S. Video Game Sales Reach Record-Breaking $43.4 Billion in 2018*, Ent. Software Ass'n (Jan. 22, 2019), https://www.theesa.com/press-releases/u-s-video-game-sales-reach-record-breaking-43-4-billion-in-2018/ [https://perma.cc/6F5T-292X].

78 Shieber, *supra* note 77.

79 Crawford, *supra* note 71, at 259.

80 *See* Kevin Costelloe, *Activision Blizzard Reports Pandemic-Boosted Earnings*, Orange Cnty. Bus. J. (Aug. 4, 2020), https://www.ocbj.com/news/2020/aug/04/activision-blizzard-reports-pandemic-boosted-earni/ [https://perma.cc/YWU3-XR9V] (reporting net revenue of $1.9 billion for Activision Blizzard, Inc. for the second quarter of 2020, and noting that the figure "far outpaced expectations, due in large part to gamers staying home during the COVID-19 pandemic"); John J. Edwards III, *Video Games Set a Record for Quarterly Sales*, Bloomberg (May 15, 2020, 10:31 AM), https://www.bloomberg.com/news/articles/2020-05-15/video-games-hit-quarterly-sales-record-amid-virus-driven-surge [https://perma.cc/2CCN-8PLV] ("U.S. consumer spending on video games jumped to $10.9 billion in the first quarter [of 2020], up 9% from a year earlier . . . ."); *cf.* Jason Schreier, *Gaming Sales Are Up, but Production Is Down*, N.Y. Times (Apr. 26, 2020), https://www.nytimes.com/2020/04/21/technology/personaltech/coronavirus-video-game-production.html [https://perma.cc/BEK9-PFK3] (reporting that "game sales . . . are breaking franchise records" amidst the COVID-19 pandemic but companies have also faced added production and development hurdles).

81 Jeff Grubb, *March 2020 NPD: Animal Crossing Powers March to Blockbuster Game Sales*, VentureBeat (Apr. 21, 2020, 6:00 AM), https://venturebeat.com/2020/04/21/march-2020-npd-animal-crossing-powers-march-to-blockbuster-game-sales/ [https://perma.cc/E946-TZF9].

tion 4 and Xbox One sales similarly soared.[82] The pandemic prompted record-breaking sales in video games, with Nintendo's *Animal Crossing: New Horizons* selling 13.41 million copies within its first six weeks of release in March 2020.[83] As a point of comparison, the video game Grand Theft Auto V, "the highest-selling title in any category of entertainment[,]" has sold over ninety million units since its release in 2013, with those sales grossing over $6 billion.[84]

With over ninety-seven percent of teens in America playing video games,[85] gaming is a shared societal experience. Given the "critical mass" of esports fans, broader industries are recognizing esports fans as a valuable advertising target.[86] While the average age of a Major League Baseball viewer is fifty-seven years old,[87] esports audiences are largely younger, ranging from sixteen to thirty-four years old (or sixty-three percent of all gamers), and mostly male.[88] ESPN has been investing in the coverage of esports during the past decade because "it's cool, it's intense, the competition is crazy, it has million-dollar performers, it has high stakes, it has owners who are trying to steal team members from different teams, it has everything that makes sports interesting to cover. And it has an audience . . . ."[89] Worldwide, viewership for esports championships now eclipses that for Major League Baseball's World Series and the National Basketball Association Finals.[90] It has also surpassed the Super Bowl; in 2018, the *League*

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82 *Id.*

83 Nicole Carpenter, *Nintendo Sold 13.41M Copies of Animal Crossing: New Horizons in Six Weeks*, POLYGON (May 7, 2020, 9:22 AM), https://www.polygon.com/2020/5/7/21250384/animal-crossing-new-horizons-sales-nintendo-switch [https://perma.cc/WRB6-JRCN].

84 *Investing in the Soaring Popularity of Gaming*, REUTERS (Dec. 13, 2018, 9:14 PM), https://www.reuters.com/article/sponsored/popularity-of-gaming [https://perma.cc/E8Z6-XXBJ].

85 LENHART ET AL., *supra* note 9.

86 Travis Hoium, *Esports Is Big Business, and It's Here to Stay*, MOTLEY FOOL (July 18, 2018, 5:56 PM), https://www.fool.com/investing/2018/07/18/esports-is-big-business-and-its-here-to-stay.aspx [https://perma.cc/PT4C-7JL8] ("Esports fans are the valuable under-30 crowd, and . . . we'll see advertising to them go mainstream now that Overwatch League has built critical mass.").

87 Jason Notte, *The Sports with the Oldest—and Youngest—TV Audiences*, MARKETWATCH (June 30, 2017, 1:34 PM), https://www.marketwatch.com/story/the-sports-with-the-oldest-and-youngest-tv-audiences-2017-06-30 [https://perma.cc/22MK-7WCX].

88 *See* GLOBALWEBINDEX, *supra* note 8, at 3.

89 Matt Peckham, *Why ESPN Is So Serious About Covering Esports*, TIME (Mar. 1, 2016, 3:07 PM), https://time.com/4241977/espn-esports/ [https://perma.cc/Q689-WY63].

90 *Compare* Christina Gough, *All Time Leading eSports Tournaments Worldwide as of 2018, by Unique Viewers*, STATISTA (Oct. 29, 2020), https://www.statista.com/statistics/507491/esports-tournaments-by-number-viewers-global/ [https://perma.cc/QYX5-PQCT] (reporting that two of the most watched esports tournaments of all time recorded sixty million and forty-six million unique viewers respectively), *with World Series Game 7 Averages Over 40 Million View-*

of Legends championship match had 205 million simultaneous viewers at its peak, whereas the Super Bowl had approximately half that viewership.[91]

Viewing sporting events provides many Americans with respite and escape from the challenges of everyday life, but major and minor sporting leagues were forced to cancel or postpone their seasons in the midst of the COVID-19 pandemic.[92] With uncertainty surrounding in-person games, the demand for esports escalated.[93] Esports also offers viewers a more immersive experience than traditional major league sports broadcasts, as online viewers can use YouTube, Mixer, Twitch, and other social media or instant messaging platforms to communicate with players during tournaments and read others' streaming chats.[94]

COVID-19 prompted "long-term transformation" in the gaming industry that will endure post-COVID.[95] As gaming and esports grow, adapt to new technologies, and are incorporated into educational life, participants, creators, sponsors, and school administrators will need to be acutely aware of a bevy of issues, including those addressed in Part II.

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ers, Fox Sports PressPass (Nov. 3, 2016), https://www.foxsports.com/presspass/latest-news/2016/11/03/world-series-game-7-averages-over-40-million-viewers [https://perma.cc/Z93H-2C7X] (reporting that the seventh game of the 2016 World Series had 40.045 million viewers, making it the most watched baseball game in the past 25 years), *and* Douglas Pucci, *Sunday Finals Nationals: Cavaliers-Warriors NBA Finals Game 7 on ABC Draws Best NBA Game Ratings in 18 Years*, Programming Insider (June 21, 2016), https://programminginsider.com/sunday-final-nationals-cavaliers-warriors-nba-finals-game-7-abc-draws-best-nba-game-ratings-18-years/ [https://perma.cc/9FHV-N8NE] (reporting that viewership of the 2016 NBA Finals peaked at 44.511 million viewers, making it the most watched NBA Finals since 1998).

91 Christopher Payne, *The Gaming World Meets Title IX: Paving the Way for Women in Esports*, Daily Utah Chron. (Feb. 24, 2019), http://dailyutahchronicle.com/2019/02/24/the-gaming-world-meets-title-ix-paving-the-way-for-women-in-esports/ [https://perma.cc/9RUR-GT3E].

92 *See* Chris Sosa, *The Major Events that Have Disrupted Sports, from Work Stoppages to Wars to Hurricanes*, Chi. Trib. (May 27, 2020), https://www.chicagotribune.com/sports/ct-cb-sports-strikes-wars-pandemic-liststory-20200527-rggxdp3bpfamhdtldndpvgbn6u-list.html [https://perma.cc/2HTP-46HE].

93 *COVID-19 Accelerates Expansion of Esports as the Industry Navigates New Obstacles, Survey Finds*, Bus. Wire (Nov. 17, 2020, 11:14 AM), https://www.businesswire.com/news/home/20201117006017/en/COVID-19-Accelerates-Expansion-of-Esports-as-the-Industry-Navigates-New-Obstacles-Survey-Finds [https://perma.cc/3EKM-MSQD].

94 Zalaznick, *supra* note 7.

95 Stefan Hall, *How COVID-19 Is Taking Gaming and Esports to the Next Level*, World Econ. F. (May 15, 2020), https://www.weforum.org/agenda/2020/05/covid-19-taking-gaming-and-esports-next-level/ [https://perma.cc/2H9D-5AMK].

II. Gaming Dynamics

Universities understandably seek to promote social cohesion, creative outlets, and leisure opportunities while challenging students; given the popularity of gaming, schools hope to build a community around gaming.[96] Discussion of video games must move beyond a "good–bad" dichotomy to a more nuanced understanding of video game play. Section II.A discusses the breadth of gaming impacts, recognizing many positive outcomes of gaming. But school investment in and promotion of gaming bring concerns related to gaming disorders and the prevalence of violence and gender-based harassment and sexual cyberviolence through gaming and esports. Section II.B addresses the gendered nature of gaming, the gaming industry, and character portrayal. Section II.C discusses how research on the effects of playing violent video games is fractured, with some studies finding increases in aggression and antisocial or violent behavior, and others finding no deleterious effects. While avoiding moral panic,[97] regardless of the extent to which video game violence results in real-world violence, universities should be aware of the implications of seemingly endorsing (or actually endorsing) various games and harassment within gaming as they provide spaces and opportunities for gaming for the general student body and esports team members. Section II.D concerns overt misogyny, sexual harassment, and sexual cyberviolence in gaming and elevates the experience of attempting to game while female.

A. Gaming Impacts

The first video game was a tennis game called *Pong*, released in the mid-1970s, with black and white graphics of a virtual square ball

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96 *See* Stone, *supra* note 21 ("[A] vibrant college esports program enhances campus life across the board. Done well and equipped with top-end gear, esports teams can draw a student fan base, provide communal gaming spaces and even boost students' grades.").

97 *See generally* Stanley Cohen, Folk Devils and Moral Panics 9 (2d ed., 1980) (coining the term "moral panic" to describe when "a condition, episode, person, or group" is "defined as a threat to societal values and interests" and "is presented in a stylized and stereotypical fashion by the mass media"); Howard M. Wasserman, *Moral Panics and Body Cameras*, 92 Wash. U. L. Rev. 831, 831 (2015) (discussing how legislators may overreact to a societal threat or uproar with laws resulting from moral panic); Kobe De Keere, Estrelle Thunnissen & Giselinde Kuipers, *Defusing Moral Panic: Legitimizing Binge-Watching as Manageable, High-Quality, Middle-Class Hedonism*, Media, Culture & Soc'y, Dec. 16, 2020, at 1, 2–3 (describing "moral concern" as a social regulation strategy concerning cultural practices); Michele Goodwin, *Fetal Protection Laws: Moral Panic and the New Constitutional Battlefront*, 102 Cal. L. Rev. 781, 795–818 (2014) (exploring the influence of moral panic in the interpretation and implementation of fetal protection laws).

bouncing between two virtual rectangular bats.[98] Early games such as *Pac-Man* and *Donkey Kong* raised little concern about negative impacts, except for possibly wasting time.[99] The second generation of games featured destruction—but not human aggression—with games such as *Breakout*.[100] The third generation of games involved hand-to-hand combat and close-up human aggression, with games such as *The Empire Strikes Back* and *Mortal Kombat*.[101] By the late 1990s, approximately eighty percent of games had violence or aggression as a primary objective, with games including *Doom*, *DukeNukem*, *Mortal Kombat 2*, and *Mace*.[102] In this generation of games, there were no female characters in forty-one percent of the games with characters; in twenty-eight percent of games with characters, women were portrayed as sex objects, and over twenty percent of games featured violence directed at women.[103] The U.S. Army also published a first-person-shooter game in 2002 as a recruitment tool and continues to utilize video games for recruitment.[104]

Gaming technology now features "near photorealistic images based on the real life movements and physics of humans and objects."[105] The evolving realism of video game graphics and advance-

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98 *See* Jo Bryce & Jason Rutter, *Gender Dynamics and the Social and Spatial Organization of Computer Gaming*, 22 LEISURE STUD. 1, 1 (2003).

99 *See* Whitney D. Gunter & Kevin Daly, *Causal or Spurious: Using Propensity Score Matching to Detangle the Relationship Between Violent Video Games and Violent Behavior*, 28 COMPUTS. HUM. BEHAV. 1348, 1348 (2012).

100 Kaveri Subrahmanyam, Patricia Greenfield, Robert Kraut & Elisheva Gross, *The Impact of Computer Use on Children's and Adolescents' Development*, 22 APPLIED DEVELOPMENTAL PSYCH. 7, 24 (2001).

101 *Id.*

102 Tracy L. Dietz, *An Examination of Violence and Gender Role Portrayals in Video Games: Implications for Gender Socialization and Aggressive Behavior*, 38 SEX ROLES 425, 425, 436 (1998); Subrahmanyam et al., *supra* note 100, at 24–25.

103 *See* Dietz, *supra* note 102, at 425, 437.

104 Whitney DeCamp, *Who Plays Violent Video Games? An Exploratory Analysis of Predictors of Playing Violent Games*, 117 PERSONALITY & INDIVIDUAL DIFFERENCES 260, 265 (2017); Josh White, *It's a Video Game, and an Army Recruiter*, WASH. POST (May 27, 2005), https://www.washingtonpost.com/archive/politics/2005/05/27/its-a-video-game-and-an-army-recruiter/55e4745a-5e0d-494a-90f6-cb7abec1f132/ [https://perma.cc/3XSX-NRYW].

105 Bryce & Rutter, *supra* note 98, at 1. Some games require the player to aggress human beings, such as a first-person-shooter game in the violent condition, in contrast with a puzzle game in the nonviolent condition. For example, one experiment pretested a range of violent and nonviolent games to ensure the games prompted equivalent enjoyment, arousal, frustration, and challenge. *See* Christopher R. Engelhardt, Bruce D. Bartholow, Geoffrey T. Kerr & Brad J. Bushman, *This Is Your Brain on Violent Video Games: Neural Desensitization to Violence Predicts Increased Aggression Following Violent Video Game Exposure*, 47 J. EXPERIMENTAL SOC. PSYCH. 1033, 1034 (2011). The researchers included the "violent" games *Call of Duty: Finest Hour*, *Hitman: Contracts*, *Killzone*, and *Grand Theft Auto: Vice City*. *Id.* The nonviolent games

ments in virtual reality, coupled with research showing that some middle schoolers were playing "intensely violent games,"[106] prompted increasing concern about the effects of playing violent video games.[107] Politicians expressed moral panic,[108] and ratings groups, such as the Entertainment Software Rating Board, were created to rate video games.[109] Although some states passed legislation to limit minors' ability to purchase violent games, the Supreme Court of the United States concluded in *Brown v. Entertainment Merchants Ass'n*[110] that the lack of evidence that video games cause violence made such laws unconstitutional.[111]

Following mass shootings, which have been largely perpetrated by white males,[112] social narratives often highlight the shooter's history of violent video game play.[113] For example, following the Columbine High School massacre in 1999, commentators noted that the two shooters were avid players of *Doom*, a first-person-shooter game in which the objective is to kill the most people.[114] Following the 2014 Santa Barbara/Isla Vista mass shooting by Elliott Rodger, journalists and scholars discussed Rodger's obsession with *World of Warcraft* and displays of male entitlement, and also his withdrawal into online forums, including the "Incel" community (or "involuntary celibates," who are deeply "disparaging of women, whom they blame for denying them their right to sexual intercourse").[115]

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included *Sonic Plus Mega Collection*, *Jak and Daxter: The Precursor Legacy*, *MVP Baseball*, and *Tony Hawk's Pro Skater 4*. *Id.*

106 *See* Jones et al., *supra* note 17, at 3.

107 *See* Gunter & Daly, *supra* note 99, at 1348–51.

108 *See* Anne Curley, *Senator Decries Violent Video Games*, CNN: AllPolitics (Nov. 25, 1997), http://edition.cnn.com/ALLPOLITICS/1997/11/25/email/videos/ [https://perma.cc/RX4S-WFZQ] (Senator Joseph Lieberman referring to violent video games as "digital poison"); William Vitka, *Senator Clinton on Violent Games*, CBS News (Aug. 2, 2005, 9:22 PM), http://www.cbsnews.com/news/senator-clinton-on-violent-games/ [https://perma.cc/9STA-A3MW] (Senator Hillary Clinton declaring that "[p]laying violent video games is to an adolescent's violent behavior what smoking tobacco is to lung cancer").

109 DeCamp, *supra* note 104, at 260.

110 564 U.S. 786 (2011).

111 *Id.* at 800.

112 John Haltiwanger, *White Men Have Committed More Mass Shootings than Any Other Group*, Newsweek (Oct. 2, 2017, 11:39 AM), https://www.newsweek.com/white-men-have-committed-more-mass-shootings-any-other-group-675602 [https://perma.cc/F4HT-HRZ7].

113 *See* Patrick M. Markey, Charlotte N. Markey & Juliana E. French, *Violent Video Games and Real-World Violence: Rhetoric Versus Data*, 4 Psych. Popular Media Culture 277, 277–80 (2015).

114 Matt Bai, *Anatomy of a Massacre*, 133 Newsweek 24, 24–30 (May 3, 1999).

115 Niraj Chokshi, *What Is an Incel? A Term Used by the Toronto Van Attack Suspect, Explained*, N.Y. Times (Apr. 24, 2018), https://www.nytimes.com/2018/04/24/world/canada/incel-

Researchers who study the impact of playing video games are finding that different types of games produce different effects on the brain. Individuals who play action games that involve first-person shooters, such as *Medal of Honor* or *Call of Duty*, experience shrinkage of the hippocampus, the part of the brain associated with memory, spatial navigation, and stress regulation.[116] In contrast, playing *Super Mario* games, in which a plumber strives to rescue a princess, causes growth of the hippocampus.[117] Some studies, discussed in the next section, have found that violent game exposure increases immediate aggression, while nonviolent video game exposure increases prosocial thoughts and decreases aggressive thoughts, feelings, and behavior,[118] and some long-term real-life effects have been established.[119] Games known for being competitive and populated by men, such as *Call of Duty*, have particularly hostile climates towards women and those perceived as "outsiders,"[120] making sexual harassment of women more common.[121]

Making distinctions between violent games and nonviolent games that may have valuable effects is important to avoid essentializing video games. Researchers create video games to assist children and adults with physical therapy,[122] and educational games with beneficial

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reddit-meaning-rebellion.html [https://perma.cc/J592-7987]; *see also* Adam Nagourney, Michael Cieply, Alan Feuer & Ian Lovett, *Before Brief, Deadly Spree, Trouble Since Age 8*, N.Y. TIMES (June 1, 2014), https://www.nytimes.com/2014/06/02/us/elliot-rodger-killings-in-california-followed-years-of-withdrawal.html [https://perma.cc/W35P-EE5T].

116 G.L. West, K. Konishi, M. Diarra, J. Benady-Chorney, B.L. Drisdelle, L. Dahmani, D.J. Sodums, F. Lepore, P. Jolicoeur & V.D. Bohbot, *Impact of Video Games on Plasticity of the Hippocampus*, 23 MOLECULAR PSYCHIATRY 1566, 1569, 1572 (2018).

117 *Id.* at 1572. The construct of rescuing a woman is, itself, sexist and rooted in patriarchy.

118 Marc A. Sestir & Bruce D. Bartholow, *Violent and Nonviolent Video Games Produce Opposing Effects on Aggressive and Prosocial Outcomes*, 46 J. EXPERIMENTAL SOC. PSYCH. 934, 936, 938–39 (2010).

119 Jodi L. Whitaker & Brad J. Bushman, *A Review of the Effects of Violent Video Games on Children and Adolescents*, 66 WASH. & LEE L. REV. 1033, 1036–37 (2009). *But see Daily Dose of Violent Video Games Has No Long-Term Effect on Adult Aggression, Researchers Find*, SCIENCEDAILY (Mar. 14, 2018), https://www.sciencedaily.com/releases/2018/03/180314102008.htm [https://perma.cc/4AJ5-DHDU].

120 Wai Yen Tang & Jesse Fox, *Men's Harassment Behavior in Online Video Games: Personality Traits and Game Factors*, 42 AGGRESSIVE BEHAV. 513, 514, 518 (2016); *see also* Thorsten Quandt, Vivian Chen, Frans Mäyrä & Jan Van Looy, *(Multiplayer) Gaming Around the Globe?*, *in* MULTIPLAYER 23, 36 (Thorsten Quandt & Sonja Kröger eds., 2014).

121 *See* PEW RSCH. CTR., *supra* note 46, at 3–4.

122 H. Lynn Horne-Moyer, Brian H. Moyer, Drew C. Messer & Elizabeth S. Messer, *The Use of Electronic Games in Therapy: A Review with Clinical Implications*, 16 CURRENT PSYCHIATRY REP. 520, 521 (2014).

outcomes abound.[123] New virtual reality technology is being utilized for psychological care, such as helping people with paranoia of public spaces[124] or treating anxiety and other psychiatric disorders.[125] Virtual reality is also utilized for physical therapy and medical treatment.[126] Video game play has also been shown to improve surgeons' skills.[127]

Moderate video game playing, which is defined as between seven and ten hours per week, has been linked to reduced stress levels and increased social interactions, emotional stability, happiness, life satisfaction, sense of achievement, and psychological resilience.[128] A majority of gamers report positive impacts from gaming, including "mental stimulation, relaxation, and stress relief."[129] The reasons people give for playing video games—socializing, collaborating, competing, escaping routine, and seeking recognition[130]—are relatable and especially desirable during COVID-19 quarantines.

In contrast to positive outcomes, "pathological gaming" among adolescents diminishes social competence, increases loneliness, and lowers self-esteem.[131] Researchers have found a "reciprocal relation"

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123 *See, e.g.*, T. Atilla Ceranoglu, *Video Games in Psychotherapy*, 14 REV. GEN. PSYCH. 141, 145 (2010).

124 *See* Kristiina Kompus, *Virtual-Reality-Assisted Therapy in Patients with Psychosis*, 5 LANCET PSYCHIATRY 189, 190 (2018); Roos Pot-Kolder, Chris N.W. Geraets, Wim Veling, Marije van Beilen, Anton B.P. Staring, Harm J. Gijsman, Philippe A.E.G. Delespaul & Mark van der Gaag, *Virtual-Reality-Based Cognitive Behavioural Therapy Versus Waiting List Control for Paranoid Ideation and Social Avoidance in Patients with Psychotic Disorders: A Single-Blind Randomised Controlled Trial*, 5 LANCET PSYCHIATRY 217, 221–22 (2018).

125 *See* Jessica L. Maples-Keller, Brian E. Bunnell, Sae-Jin Kim & Barbara O. Rothbaum, *The Use of Virtual Technology in the Treatment of Anxiety and Other Psychiatric Disorders*, 25 HARV. REV. PSYCHIATRY 103, 104–07 (2017) (discussing current applications and future directions for virtual-reality-based treatment and clinical research).

126 *See, e.g.*, *Virtual Reality Eases Phantom Limb Pain*, SCIENCEDAILY (May 31, 2017) https://www.sciencedaily.com/releases/2017/05/170531102921.htm [https://perma.cc/6TY5-4PJG].

127 *See* Maarten B. Jalink, Jetse Goris, Erik Heineman, Jean-Pierie E. N. Pierie & Henk O. ten Cate Hoedemaker, *The Effects of Video Games on Laparoscopic Simulator Skills*, 208 AM. J. SURGERY 151, 154–55 (2014) (discussing several controlled experiments showing that video games can be used to improve laparoscopic basic skills in surgical novices and as a warmup before laparoscopic surgery).

128 *See* Jones et al., *supra* note 17, at 2–3; Emma Louise Anderson, Eloisa Steen & Vasileios Stavropoulos, *Internet Use and Problematic Internet Use: A Systematic Review of Longitudinal Research Trends in Adolescence and Emergent Adulthood*, 22 INT'L J. ADOLESCENCE & YOUTH 430, 435–38 (2017).

129 Halley M. Pontes, Vasileios Stavropoulos & Mark D. Griffiths, Editorial, *Emerging Insights on Internet Gaming Disorder: Conceptual and Measurement Issues*, 11 ADDICTIVE BEHAVS. REPS., June 2020, at 1, 1.

130 *See* Nadia Jimenez, Sonia San-Martin, Carmen Camarero & Rebeca San Jose Cabezudo, *What Kind of Video Gamer Are You?*, 36 J. CONSUMER MKTG. 218, 219–20 (2019).

131 Jeroen S. Lemmens, Patti M. Valkenburg & Jochen Peter, *Psychosocial Causes and Consequences of Pathological Gaming*, 27 COMPUTERS HUM. BEHAV. 144, 144, 150 (2011) (re-

between loneliness and pathological gaming: low social competence, self-esteem, and loneliness were significant predictors of pathological gaming six months later, and greater loneliness resulted from pathological gaming.[132] Researchers also note that replacing real-world social interaction with video gaming deteriorates existing personal relationships, leading to gamers' feelings of loss of real-life connections.[133]

Taken to an extreme, gaming can consume a person and impair basic life functioning. Experts estimate that approximately five percent of adolescents (aged thirteen to nineteen) suffer "gaming disorder,"[134] which is termed a medical addiction.[135] The consequences of excessive and addictive gaming have been researched for over forty years, and in light of conceptual and diagnostic advances, the American Psychiatric Association identified "Internet Gaming Disorder" as a tentative addictive disorder for inclusion in the fifth revision of the Diagnostic and Statistical Manual of Mental Disorders ("DSM-5").[136] The classification concerns "persistent and recurrent online activity" that may "result in clinically significant impairment or distress."[137]

Similarly, in 2019, the World Health Organization ("WHO") announced the inclusion of a "gaming disorder" diagnosis in its official diagnostic manual.[138] The disorder is not simply gaming too much; instead, the WHO defines gaming as a disorder when it significantly in-

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porting results from a six-month longitudinal study, defining "pathological gaming" as "persistent and excessive" video gaming "that cannot be controlled despite associated social and/or emotional problems").

132 *Id.* at 150.

133 *Id.*

134 PATTI M. VALKENBURG & JESSICA TAYLOR PIOTROWSKI, PLUGGED IN 214–15 (2017), https://yalebooks.yale.edu/sites/default/files/files/Media/9780300228090_UPDF.pdf [https://perma.cc/DNU9-MZTN].

135 *See* Daniel L. King et al., *Screening and Assessment Tools for Gaming Disorder: A Comprehensive Systematic Review*, 77 CLINICAL PSYCH. REV. 101831, 101832, 101844 (2020) (evaluating thirty-two English language tools to measure gaming disorder employed in 320 studies); Antonius J. van Rooij, Tim M. Schoenmakers, Regina J.J.M. van den Eijnden, Ad A. Vermulst & Dike van de Mheen, *Video Game Addiction Test: Validity and Psychometric Characteristics*, 15 CYBERPSYCHOLOGY, BEHAV., & SOC. NETWORKING 507 (2012).

136 AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 795–98 (5th ed. 2013); *see also* Andrew K. Przybylski, Netta Weinstein & Kou Murayama, *Internet Gaming Disorder: Investigating the Clinical Relevance of a New Phenomenon*, 174 AM. J. PSYCHIATRY 230, 230, 235 (2017).

137 Oscar G. Bukstein, *Substance Use Disorders and Addictions*, *in* DULCAN'S TEXTBOOK OF CHILD AND ADOLESCENT PSYCHIATRY 219, 220–24 (Mina K. Dulcan ed., 2d ed. 2016).

138 World Health Org., *Gaming Disorder*, ICD-11, https://icd.who.int/dev11/l-m/en#/http%3a%2f%2fid.who.int%2ficd%2fentity%2f1448597234 [https://perma.cc/WS99-SDR5].

terferes with daily life.[139] An individual who loses control around gaming, prioritizes gaming over daily activities, and persists in gaming despite "impairment in personal, family, social, educational, occupational, or other important areas of functioning" may qualify for such diagnosis.[140] Under the WHO guidelines, a person typically needs to exhibit symptoms for twelve months to receive the diagnosis.[141] The Occupational Safety and Health Administration does not regulate gamers,[142] allowing people to practice and compete for lengthy periods. Recent tragedies, like teenagers dying of strokes while endlessly gaming and children being neglected by parents consumed by gaming, caution against extreme degrees of gaming.[143]

Research shows that hyperactive-impulsive males, as well as inattentive males, in the United States display higher levels of disordered gaming.[144] This is concerning because "videogame addiction has been systematically linked to aggressive/oppositional behavior, maladaptive coping strategies, [and] decreased academic achievement and performance,"[145] along with interference with sleep, work, and outside interests and hobbies.[146] Overall, adolescents with game addiction

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139 *See id.*; Anya Kamenetz, *Is 'Gaming Disorder' an Illness? WHO Says Yes, Adding it to Its List of Diseases*, NPR (May 28, 2019, 5:48 PM), https://www.npr.org/2019/05/28/727585904/is-gaming-disorder-an-illness-the-who-says-yes-adding-it-to-its-list-of-diseases [https://perma.cc/2X58-UF9J].

140 World Health Org., *supra* note 138.

141 *Id.*

142 *See* Occupational Injury and Illness Recording and Reporting Requirements, 66 Fed. Reg. 5915, 6038 (Jan. 19, 2001) (codified at 29 C.F.R. pts. 1904, 1952). The Occupational Safety and Health Administration's standards apply only to the employer-employee relationship, and factors for determining whether such relationship exists are set forth in *Nationwide Mutual Insurance Co. v. Darden*, 503 U.S. 318, 322–25 (1992). *See* Letter from Richard E. Fairfax, Dir. of Enf't Programs, Occupational Safety & Health Admin., to Robert Van Laanen (Sept. 12, 2008) https://www.osha.gov/laws-regs/standardinterpretations/2008-09-12 [https://perma.cc/SRN4-BMNQ]; Adam M. Finkel, Chris Deubert, Orly Lobel, I. Glenn Cohen & Holly Fernandez Lynch, *The NFL as a Workplace: The Prospect of Applying Occupational Health and Safety Law to Protect NFL Workers*, 60 ARIZ. L. REV. 291 (2018).

143 *See* Joshua Rhett Miller, *Teen Video Game Addict Dies After Marathon Session: Report*, N.Y. POST (Nov. 5, 2019, 2:56 PM), https://nypost.com/2019/11/05/teen-video-game-addict-dies-after-marathon-session-report/ [https://perma.cc/2JQQ-8D36]; Haniya Rae, *When Gamers Become Parents, Finding Balance Is Next Level*, N.Y. TIMES (Apr. 17, 2020), https://www.nytimes.com/2020/04/17/parenting/video-games-parents.html [https://perma.cc/7YKB-WAQR].

144 Stavropoulos et al., *supra* note 8, at 7.

145 *Id*. at 100159.

146 *Id*.; *see also* Douglas Gentile, *Pathological Video-Game Use Among Youth Ages 8 to 18*, 20 PSYCH. SCI. 594, 600–01 (2009) (finding poor academic performance among pathological video game players and that "the amount of time spent playing video games is a consistent negative predictor of school performance").

symptoms display greater depressive symptoms than normative classes.[147] There are also significant differences in symptoms amongst genders, with males reporting greater social anxiety and females having lower self-esteem.[148]

Even if the video game industry does not accept the DSM-5 inclusion or the WHO's decision to classify gaming disorder as a genuine mental disorder, such attention places "an onus on the . . . industry" and on schools investing in gaming to create "responsible gaming initiatives aimed at player protection and harm minimization."[149]

B. Gender in Gaming

For decades, computer technology, including modern video games, has been marketed to male audiences.[150] In an address at an international conference held in the Bay Area in 1999, the Chief Executive Officer of Lucas Learning admitted that its products were "designed exclusively for boys";[151] females, while half of the world's population, have instead been viewed by the gaming industry as a niche market.[152] Unsurprisingly, despite overall trends in computer

147 *See* Michelle Colder Carras, Antonius J. Van Rooij, Dike Van de Mheen, Rashelle Musci, Qian-Li Xue & Tamar Mendelson, *Video Gaming in a Hyperconnected World: A Cross-Sectional Study of Heavy Gaming, Problematic Gaming Symptoms, and Online Socializing in Adolescents*, 68 COMPUTERS HUM. BEHAV. 472, 476–78 (2017).

148 *See id.*

149 Mark D. Griffiths & Halley M. Pontes, *The Future of Gaming Disorder Research and Player Protection: What Role Should the Video Gaming Industry and Researchers Play?*, 18 INT'L J. MENTAL HEALTH & ADDICTION 784, 785 (2020). "Harm reduction is a cluster of principles developed in the [public health] context of working with individuals engaging in high-risk behavior. Rather than demand that an individual abstain from such behavior, which may not be realistic, harm reduction focuses on mitigating collateral dangers associated with the behavior." Courtney Cross, *Harm Reduction in the Domestic Violence Context*, *in* THE POLITICIZATION OF SAFETY 332, 333 (Jane K. Stoever ed., 2019) (footnote omitted). Rather than a dogmatic set of rules, harm reduction is grounded in principles of autonomy, dignity, and empathy. *See generally* Susan E. Collins, Seema L. Clifasefi, Diane E. Logan, Laura S. Samples, Julian M. Somers & G. Alan Marlatt, *Current Status, Historical Highlights, and Basic Principles of Harm Reduction*, *in* HARM REDUCTION 3, 6–10 (G. Alan Marlatt, Mary E. Larimer & Katie Witkiewitz eds., 2d ed. 2012); *Principles of Harm Reduction*, NAT'L HARM REDUCTION COAL., https://harmreduction.org/about-us/principles-of-harm-reduction/ [https://perma.cc/H4XZ-7K2K].

150 DeCamp, *supra* note 104, at 265. A study of video game box covers found that only male characters were depicted striking a dominant pose and that male characters appeared over twelve times as often as female characters. Eugene F. Provenzo Jr., *The Video Generation*, 179 AM. SCH. BD. J. 29, 31 (1992).

151 Subrahmanyam et al., *supra* note 100, at 12 (referencing statements at CILT99, the Chartered Institute of Logistics and Transport).

152 *See* Suneel Ratan, *Game Makers Aren't Chasing Women*, WIRED (July 15, 2003, 2:00 AM), https://www.wired.com/2003/07/game-makers-arent-chasing-women/ [https://perma.cc/577D-5Q36]; Becca Caddy, *'I Was Always Told I Was Unusual': Why So Few Women Design*

technology use,[153] more people in the United States who identify as male play video games than those who identify as female,[154] and video game-playing is the most popular form of entertainment for males between the ages of twelve and twenty-five.[155]

Currently, over ninety percent of esports players are male.[156] Most professional teams are composed of men, and esports coaches, team owners, and casters are mainly male.[157] Among people who identify as "gamers," "gender influence[s] time spent on games," with male gamers spending an average of 13.6 hours per week on games, and female gamers spending an average of 5.5 hours per week on games.[158]

In contrast to professional men's and women's soccer, for example, esports has no gender divisions and coed teams can exist.[159] Because physical strength and body size do not dictate success in gaming—and no evidence exists that the physical skills required for gaming are unevenly distributed between men and women—gender should not affect the equality of opportunities within a competition.[160] Thus, esports has great potential for gender equality. Women and nonbinary individuals are making inroads into this male-dominated realm, but pervasive sexism and gender barriers perpetuate gender imbalance.[161]

Video Games, GUARDIAN (Feb. 17, 2020, 2:00 AM), https://www.theguardian.com/education/2020/feb/17/i-was-always-told-i-was-unusual-why-so-few-women-design-video-games [https://perma.cc/Y2HZ-ZDW8].

153 *See Internet/Broadband Fact Sheet*, PEW RSCH. CTR. (June 12, 2019), https://www.pewresearch.org/internet/fact-sheet/internet-broadband/ [https://perma.cc/QNC4-7PSA].

154 J. Clement, *U.S. Computer and Video Gamers from 2006-2020, by Gender*, STATISTA (Jan. 29, 2021), https://www.statista.com/statistics/232383/gender-split-of-us-computer-and-video-gamers/ [https://perma.cc/KK2V-P479]; *see also* Kevin Durkin & Bonnie Barber, *Not So Doomed: Computer Game Play and Positive Adolescent Development*, 23 APPLIED DEVELOPMENTAL PSYCH. 373, 381, 387 (2002).

155 Erica Scharrer, *Virtual Violence: Gender and Aggression in Video Game Advertisements*, 7 MASS COMMC'N & SOC'Y 393, 394 (2004); *see also* Perrin, *supra* note 9 ("[G]aming is nearly ubiquitous among teenage boys.").

156 Orantes & Sharma, *supra* note 27.

157 Mariona Rosell Llorens, *eSport Gaming: The Rise of a New Sports Practice*, 11 SPORTS, ETHICS & PHIL. 464, 474 (2017).

158 Lemmens et al., *supra* note 131, at 150 (pre-COVID-19 figures).

159 Llorens, *supra* note 157, at 474.

160 *Id.*

161 *See, e.g.*, Danny Appleford, *Godsent Announces First All-Female Valorant Team*, DAILY ESPORTS (May 8, 2020), https://www.dailyesports.gg/godsent-announces-first-all-female-valorant-team/ [https://perma.cc/P9KM-LARE] (discussing challenges for female teams and frequent sexual harassment in gaming, particularly if a woman speaks); Fogel, *supra* note 7.

In the video game industry, three out of four people are male, and nearly the same proportion identify as white.[162] At gaming companies, women are rarely promoted to senior positions or made the heads of studios.[163] Scholars note that the gaming industry is "particularly conducive to a culture of misogyny and sexual harassment" because straight white men have "created the identity of the gamer as this exclusive property."[164] Women, people of color, and LGBTQIA individuals have sought to break into the industry, only to be met with "toxic geek masculinity" that leads to sexual abuse and bullying.[165] Recent social movements are prompting awareness of the need for diversity among gamers and in the industry, along with the production of a greater variety of video games to appeal to different people.[166]

Mainstream video games continue to portray few female characters, with women in games being "nonessential, passive characters."[167] In a content analysis of game reviews, only approximately one-fifth of female characters were playable and thus active, rather than passive.[168] The few female characters that do appear in video games are typically highly sexualized, objectified, scantily clad, and engaging in sexual behaviors.[169] A review of the box art representation of female characters found that "'sex sells,' but only when the sexualized women portrayed are also depicted as marginalized," such as women

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162 Mihir Zaveri, Meron Tekie Menghistab, Gray Beltran & Alana Celii, *Fear, Anxiety and Hope: What It Means to Be a Minority in Gaming*, N.Y. TIMES (Oct. 16, 2019), https://www.nytimes.com/interactive/2019/10/16/technology/game-developers.html?action=click&module=relatedLinks&pgtype=article [https://perma.cc/R6AX-VV59].

163 *Id.*

164 Taylor Lorenz & Kellen Browning, *Dozens of Women in Gaming Speak Out About Sexism and Harassment*, N.Y. TIMES (June 23, 2020), https://www.nytimes.com/2020/06/23/style/women-gaming-streaming-harassment-sexism-twitch.html [https://perma.cc/2HJV-4WYD].

165 *Id.*

166 *See id.*

167 James D. Ivory, *Still a Man's Game: Gender Representation in Online Reviews of Video Games*, 9 MASS COMMC'N & SOC'Y 103, 104 (2006).

168 *See id.* at 110; *see also* Scharrer, *supra* note 155, at 394 (stating that video game content and ads contain "potentially problematic portrayals of gender" and that "[m]ale characters appear to outnumber female characters in video game advertisements").

169 Kevin Haninger & Kimberly M. Thompson, *Content and Ratings of Teen-Rated Video Games*, 291 JAMA 856, 862 (2004) (finding that ninety-eight percent of "T-rated" games contained intentional violence, sixty-nine percent of games required the player to kill or rewarded the player for killing, over one-quarter depicted sexual themes, and games were significantly more likely to depict females partially nude or engaged in sexual behaviors than males); *accord* Scharrer, *supra* note 155, at 394, 400 (analyzing over 1,000 video game advertisements in three monthly video game magazines); *Video Games Influence Sexist Attitudes*, SCIENCEDAILY (Mar. 28, 2017), https://www.sciencedaily.com/releases/2017/03/170328105908.htm [https://perma.cc/GT7Z-XFEM].

who pole dance in the background or solicit sex for money and who are peripheral to the game narrative, "consistent with a gender coding of the game that fits cultural stereotypes."[170] Two new games, *Apex Legends* and *Valorant* are changing this pattern. For example, in *Apex Legends*, professional male players are using the female characters Watson, Wraith, and Bangalore in tournaments.[171] Although Watson is a defensive character, Wraith and Bangalore are both offensive characters and are used for aggressive gaming.[172]

The content of games and identities of gamers need not be inevitable or unwelcoming to a wider population of players. Gaming and online worlds have the potential to be radically inclusive spaces, particularly considering the Internet's egalitarian aim.[173] Countless examples of creative, innovative games include characters who are actually reflective of our world. One example is Joyce Lin's online tabletop card game, in which players roleplay as young women with crushes on each other.[174] Lin, who describes her game as a "queer form of resistance," explains that a player might become "Avery," who is Japanese-Scottish and pansexual, or "Ioh," a Korean tomboy.[175] The proliferation of gaming also presents opportunities for abuse prevention, such as enhancing empathy and building skills for recognizing and safely intervening in situations of harassment and gender-based violence.[176]

Related to identity, many video games require the creation and use of an avatar, or a character through which the player is repre-

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170 Christopher E. Near, *Selling Gender: Associations of Box Art Representation of Female Characters with Sales for Teen- and Mature-Rated Video Games*, 68 SEX ROLES 252, 253 (2013); *see also* Alessandro Gabbiadini, Paolo Riva, Luca Andrighetto, Chiara Volpato & Brad J. Bushman, *Acting Like a Tough Guy: Violent-Sexist Video Games, Identification with Game Characters, Masculine Beliefs, & Empathy for Female Violence Victims* 11 PLOS ONE, Apr. 13, 2016, at 1, 2 ("*GTA* . . . female characters are portrayed as sexual objects—usually prostitutes or pole-dancers—who are peripheral to the game narrative and whose sole purpose is to entertain the main male characters.").

171 E-mail from female-identifying gamer on the current culture around selecting characters in *Apex Legends* (Aug. 11, 2020) (on file with author).

172 *Id.*

173 The Internet is often described as a forum that enables open, egalitarian, democratic, and decentralized communication among people from diverse backgrounds and political persuasions. *See The Internet as a Force for Equality*, MIT TECH. REV. (Feb. 18, 2015), https://www.technologyreview.com/2015/02/18/169097/the-internet-as-a-force-for-equality/ [https://perma.cc/Z7DU-8LGZ]. *But see* Michael S. Daubs, *The Myth of an Egalitarian Internet: Occupy Wall Street and the Mediatization of Social Movements*, 8 INT'L J. DIGIT. TELEVISION 367, 370 (2017).

174 Zaveri et al., *supra* note 162.

175 *Id.*

176 Potter et al., *supra* note 59.

sented in the virtual world, particularly when playing MMO games or Massively Multiplayer Online Roleplaying Games ("MMORPGs").[177] Gamers often form psychological attachments to their avatars that deepen over time through experience and interrelation with the avatar.[178] This attachment "generates a sense that a gamer's body, physiological states, emotional states, perceived traits, and identity exist within the virtual environment."[179] Gamers use their avatars to gain knowledge, skills, achievements, and resources, and "to form groups and intergroup collaborations [as they] progress in the game" and become part of "virtual communities."[180] Researchers have not yet determined the long-term effects of highly realistic and immersive virtual violence on those using violence or receiving violence as virtual selves, such as avatar rape and other sexual violence.[181] One scholar cautions that the constant, active engagement that video games "demand from the player enables them to involve players in tangled webs of complicity with the deeds committed by the characters they inhabit, leading to complex and productive ethical encounters with the perpetrator's perspective."[182] Using an avatar has also been shown to enhance game absorption and immersion, which increases gaming disorder risk.[183]

The gendered nature of gaming is frequently explained by positing that gaming content—which is often patriarchal, misogynistic, and lacking in female characters—is offensive or unappealing to women, so women do not engage in gaming as much as men.[184] Violence,

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177 *See* Stavropoulos et al., *supra* note 8, at 2.

178 *See* Tagrid Lemenager, Miriam Neissner, Thomas Sabo, Karl Mann & Falk Kiefer, *"Who Am I" and "How Should I Be": A Systematic Review on Self-Concept and Avatar Identification in Gaming Disorder*, 7 CURRENT ADDICTION REPS. 166, 166–67 (2020).

179 Tyrone L. Burleigh, Vasilis Stavropoulos, Lucas W. L. Liew, Baxter L. M. Adams & Mark D. Griffiths, *Depression, Internet Gaming Disorder, and the Moderating Effect of the Gamer-Avatar Relationship: An Exploratory Longitudinal Study*, 16 INT'L J. MENTAL HEALTH & ADDICTION 102, 106 (2018).

180 *Id.*

181 *See* Susan Persky & Jim Blascovich, *Consequences of Playing Violent Video Games in Immersive Virtual Environments*, *in* AVATARS AT WORK AND PLAY 167, 169–70 (Ralph Schroeder & Ann-Sofie Axelsson eds., 2006); *see also* Jesse Fox, Jeremy N. Bailenson & Liz Tricase, *The Embodiment of Sexualized Virtual Selves: The Proteus Effect and Experiences of Self-Objectification via Avatars*, 29 COMPUTERS HUM. BEHAV. 930, 936 (2013) (noting that "it is essential to investigate the cumulative and long-term effects of such exposure" in reference to sexualized representations in video games).

182 Tobi Smethurst, *"We Put Our Hands on the Trigger with Him": Guilt and Perpetration in* Spec Ops: The Line, 59 CRITICISM 201, 203 (2017).

183 *See* Burleigh et al., *supra* note 179, at 105.

184 Bryce & Rutter, *supra* note 98, at 6 (explaining that "female game characters [often] fulfil traditionally feminine roles, as the helpless damsel in distress awaiting rescue, or the 'prize'

whether fictional or real, has been considered a masculine area, and video games featuring violence have been systematically marketed to males.[185] One variable alone "stands as a consistent and very powerful predictor of violent game play: gender."[186]

C. Violent Games

The president of the National Collegiate Athletic Association ("NCAA"), Mark Emmert, recently expressed his reluctance to include esports as an official college sport, "criticiz[ing] video games as 'violent[,]' . . . 'misogynistic,' [and] at odds with the values held by the NCAA."[187] Of course, NCAA programs have historically been biased toward men's athletics programs over women's and earn a large portion of revenue from college football, which is critiqued for its real-world violence and harm to players.[188] The International Olympic Committee has similarly declared the current esports under consideration for joining the Olympic lineup to be too violent, citing the amount of blood used in these games as inconsistent with Olympic values.[189] However, pressure to include esports as an Olympic sport may mount given that esports has over 320 million viewers worldwide.[190]

Research on how, why, and for whom violent video game play produces aggression and aggression-related variables continues. Numerous experimental, cross-sectional, and longitudinal studies have found that violent video game exposure is associated with aggressive outcomes, including significantly increased aggressive cognition, feelings, and behavior, along with hostile affect and anxiety.[191] Laboratory

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for completing game tasks . . . alongside the dominance of 'masculine' game themes" such as "war, violence, competition, sports, [and] acquisition").

185 DeCamp, *supra* note 104, at 265.

186 *Id.* at 262–63 (using five datasets that include over 19,000 American youth, and finding high levels of violent video game play among youth who had a family member recently serve in the military, whose father had recently lost his job, who recently had an incarcerated family member, or who moved frequently, and that the presence of a maternal older role model was associated with lower levels of violent game play).

187 Payne, *supra* note 91.

188 *Id.*

189 *Esports 'Too Violent' to Be Included in Olympics*, BBC (Sept. 4, 2018), https://www.bbc.com/news/newsbeat-45407667 [https://perma.cc/VYG8-3WQF]; *Esports Has an Intrinsic Relationship with Violence but It Might Not Last Long*, ESPORTS BETTING TIPS (Oct. 4, 2018), https://esports-betting-tips.com/esports-has-an-intrinsic-relationship-with-violence-but-it-might-not-last-long/ [https://perma.cc/7C4T-XKYU].

190 *See supra* notes 89–90 and accompanying text.

191 Craig A. Anderson & Nicholas L. Carnagey, *Causal Effects of Violent Sports Video Games on Aggression: Is it Competitiveness or Violent Content?*, 45 J. EXPERIMENTAL SOC.

studies have found that playing violent video games has a physiological desensitizing effect;[192] specifically, playing violent video games can reduce empathy and "increase[] aggressive behavior in part via changes in cognitive and personality factors associated with desensitization."[193] Longitudinal research concerning causal relationships between video game violence and aggression has found long-term effects of higher normative beliefs about aggression, as well as subsequent physical aggression among adolescents and less prosocial behavior.[194] The competitiveness of a video game, along with potential feelings of frustration and diminished competence with the game, also lead to

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PSYCH. 731, 731, 734–35 (2009) (finding that violent sport games "increase[] . . . aggressive affect, aggressive cognition, and aggressive behavior," as well as "attitudes towards violence in sports"); Craig A. Anderson, Akira Sakamoto, Douglas A. Gentile, Nobuko Ihori, Akiko Shibuya, Shintaro Yukawa, Mayumi Naito & Kumiko Kobayashi, *Longitudinal Effects of Violent Video Games on Aggression in Japan and the United States*, 122 PEDIATRICS 1067, 1069–70 (2008) (finding that after the initial survey of multiple independent sample groups, youths who habitually played violent video games had higher levels of aggression three to six months later); Craig A. Anderson, Nicholas L. Carnagey, Mindy Flanagan, Arlin J. Benjamin, Jr., Janie Eubanks & Jeffery C. Valentine, *Violent Video Games: Specific Effects of Violent Content on Aggressive Thoughts and Behavior*, 36 ADVANCES EXPERIMENTAL SOC. PSYCH. 199, 205, 222 (2004) (employing multiple psychological measurements and finding that violent video games in general increased the accessibility of aggressive thoughts, and that trait hostility and trait aggression positively correlated with aggressive behaviors carried out during the experimental tasks); Luca Chittaro & Riccardo Sioni, *Killing Non-Human Animals in Video Games: A Study on User Experience and Desensitization to Violence Aspects*, 10 PSYCHNOLOGY J. 215, 216 (2012) (describing "negatively valenced high-arousal affect"); Engelhardt et al., *supra* note 105, at 1034–36 (providing experimental evidence linking violence desensitization with increased aggression, and showing that a neural marker can at least partially account for the causal link between violent game exposure and aggression); *see also* Craig A. Anderson, Akiko Shibuya, Nobuko Ihori, Edward L. Swing, Brad J. Bushman, Akira Sakamoto, Hannah R. Rothstein & Muniba Saleem, *Violent Video Game Effects on Aggression, Empathy, and Prosocial Behavior in Eastern and Western Countries: A Meta-Analytic Review*, 136 PSYCH. BULL. 151, 161–69 (2010) (meta-analysis of hundreds of studies on violent video games increasing aggressive behavior). *But see* Joseph Hilgard, Christopher R. Engelhardt & Jeffrey N. Rouder, Comment, *Overstated Evidence for Short-Term Effects of Violent Games on Affect and Behavior: A Reanalysis of Anderson et al. (2010)*, 143 PSYCH. BULL. 757 (2017) (arguing that bias led to an overestimation of the effect in Anderson et al. (2010), *supra*).

192 *See* Nicholas L. Carnagey, Craig A. Anderson & Brad J. Bushman, *The Effect of Video Game Violence on Physiological Desensitization to Real-Life Violence*, 43 J. EXPERIMENTAL SOC. PSYCH. 489, 494 (2007) (comparing heart rate and electrodermal activity signals after playing nonviolent and violent games and then viewing real-life violent video footage).

193 Bruce D. Bartholow, Marc A. Sestir & Edward B. Davis, *Correlates and Consequences of Exposure to Video Game Violence: Hostile Personality, Empathy, and Aggressive Behavior*, 31 PERSONALITY & SOC. PSYCH. BULL. 1573, 1573–74 (2005).

194 Ingrid Möller & Barbara Krahé, *Exposure to Violent Video Games and Aggression in German Adolescents: A Longitudinal Analysis*, 35 AGGRESSIVE BEHAV. 75, 81–85 (2009) (finding violent video game play to be related to physical aggression thirty months after the original evaluation).

aggression and foster hostility that may lead to negative social interactions.[195]

Hostility and harassment between and against gamers are facilitated by the violent content and competitive nature of some video games, player anonymity, physical distance, and how the games keep people engaged through increasing challenges, all of which can be frustrating and produce aggression in some players.[196] Related to gaming and abusive behavior, a *League of Legends* player lost his gaming contract after he livestreamed a domestic violence incident.[197] His girlfriend had suggested he block or ignore players who were making him upset,[198] and he responded by destroying multiple forms of property and threatening her.[199] He had previously "show[n] physical aggression onstage, smashing a keyboard and physically intimidating a camera operator during a match."[200] In a tragic example at a 2018 *Madden NFL* tournament, a player opened fire after he lost, killing his competitor, another individual, and himself.[201]

New research shows effects on the player's social network.[202] Playing violent video games increases intergroup bias and ethnocentrism,[203] with games rationalizing prejudice and fears about people of color.[204] Another study found associations between high levels of gaming and increased odds of getting into a serious fight, carrying a weapon to school, smoking regularly, drug use beyond alcohol and marijuana, and depression.[205]

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195 Andrew K. Przybylski, Edward L. Deci, C. Scott Rigby & Richard M. Ryan, *Competence-Impeding Electronic Games and Players' Aggressive Feelings, Thoughts, and Behaviors*, 103 J. PERSONALITY & SOC. PSYCH. 441, 443, 448 (2014); Tang & Fox, *supra* note 120, at 514.

196 Tang & Fox, *supra* note 120, at 514.

197 David Lumb, *'League of Legends' Pro Suspended 20 Months for Domestic Violence*, ENGADGET (Nov. 23, 2017), https://www.engadget.com/2017-11-22-league-of-legends-pro-suspended-20-months-for-domestic-violenc.html [https://perma.cc/6MLD-26CC].

198 *League of Legends Pro Li 'Vasilii' Wei Jun Banned After Assaulting His Girlfriend While Livestreaming*, MCV (Oct. 27, 2017), https://www.mcvuk.com/esports/league-of-legends-pro-li-vasilii-wei-jun-banned-after-assaulting-his-girlfriend-while-livestreaming/ [https://perma.cc/2UJT-U2SP].

199 *Id.*; Lumb, *supra* note 197.

200 Lumb, *supra* note 197.

201 Steven Musil, *EA Cancels Remaining Madden Events After Fatal Florida Shooting*, CNET (Aug. 27, 2018, 7:58 PM), https://www.cnet.com/news/ea-cancels-remaining-madden-events-after-fatal-florida-shooting/ [https://perma.cc/F9KE-ZYPW].

202 Tobias Greitemeyer, *The Spreading Impact of Playing Violent Video Games on Aggression*, 80 COMPUTERS HUM. BEHAV. 216, 217–18 (2018).

203 *See* Tobias Greitemeyer, *Playing Violent Video Games Increases Intergroup Bias*, 40 PERSONALITY & SOC. PSYCH. BULL. 70, 72–73 (2014).

204 *See* CHRISTOPHER A. PAUL, THE TOXIC MERITOCRACY OF VIDEO GAMES 79 (2018).

205 Rani A. Desai, Suchitra Krishnan-Sarin, Dana Cavallo & Marc N. Potenza, *Video-Gam-*

Other studies, in contrast, do not support long-term direct causes of violent video games on physical aggression or find other significant effects.[206] In particular, studies examining actual violence, rather than aggression, find that the correlation with violent video games is largely or entirely absent after controlling for influences such as age, family involvement, and violence within the home.[207] Recent research also provides insights into how preexisting characteristics may cause some young people to be more vulnerable to negative impacts of video games.[208] The impact of violent video games is thus increasingly being considered from a more nuanced perspective with an understanding that publication bias and the emphasis on the use of laboratory measures of aggression may exaggerate relationships between video game violence and aggression, inaccurately predicting real life behavior.[209]

Whether or not video games actually lead to physical violence—including sexual violence and gender-based violence—as schools sponsor and promote gaming, they should consider the acts carried out through the games and how players experience cyberviolence and harassing communications on gaming platforms.

D. Gender-Based Violence in Games and Gaming

Regardless of the type of game, players' communications to each other on gaming platforms, especially with anonymity in online gaming, often lead to "toxic disinhibition such as uncivil or hateful speech, threats, and other forms of harassment."[210] One player reported that

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ing Among High School Students: Health Correlates, Gender Differences, and Problematic Gaming, 126 PEDIATRICS 1414, 1418 (2010) (conducting a study of 4,000 adolescents).

206 Durkin & Barber, *supra* note 154, at 376 ("Correlational studies have led to mixed outcomes, with some evidence to suggest relationships among 18-year-olds but not among younger adolescents."); Christopher J. Ferguson et al., *Digital Poison? Three Studies Examining the Influence of Violent Video Games on Youth*, 50 COMPUTERS HUM. BEHAV. 399, 406–07 (2015); Randy J. McCarthy, Sarah L. Coley, Michael F. Wagner, Bettina Zengel & Ariel Basham, *Does Playing Video Games with Violent Content Temporarily Increase Aggressive Inclinations? A Pre-Registered Experimental Study*, 67 J. EXPERIMENTAL SOC. PSYCH. 13, 13 (2016).

207 *See, e.g.*, Whitney DeCamp & Christopher J. Ferguson, *The Impact of Degree of Exposure to Violent Video Games, Family Background, and Other Factors on Youth Violence*, 46 J. YOUTH & ADOLESCENCE 388, 396 (2017) (identifying family and social variables as more influential factors to youth violence than violent video games).

208 Johannes Breuer, Jens Vogelgesang, Thorsten Quandt & Ruth Festl, *Violent Video Games and Physical Aggression: Evidence for a Selection Effect Among Adolescents*, 4 PSYCH. POPULAR MEDIA CULTURE 305, 320–24 (2015).

209 *See* John L. Sherry, *Violent Video Games and Aggression: Why Can't We Find Effects?*, *in* MASS MEDIA EFFECTS RESEARCH 245, 259–60 (Raymond W. Preiss et al. eds., 2007); Christopher John Ferguson, *The Good, the Bad and the Ugly: A Meta-Analytic Review of Positive and Negative Effects of Violent Video Games*, 78 PSYCHIATRY Q. 309, 313–15 (2007).

210 Fox & Tang, *supra* note 31, at 1292 (emphasis omitted).

"[d]epending on the game, people can be terrible to each other via in-game chat (verbal or text). Anything perceived as poor in-game performance can lead to name calling and escalate to personal threats and attacks in seconds."[211] "[G]raphic rape threats have become a lingua franca—the 'go-to' response for men who disagree with what a woman says . . . ."[212] Another survey respondent reported, "A friend of a friend found out I'm female on the gaming platform Steam. The harassment and constant sexual overtures were bad enough I contacted Steam to change all my information . . . ."[213]

1. Technology-Enabled Abuse

The causes of gender-based violence are understood to be persistent gender inequality and patriarchal norms, including early peer relationships that instill unequal gender norms, experiencing or utilizing abuse in early dating relationships, and intergenerational cycles.[214] Given youth gaming rates and research that domestic violence prevention efforts are best targeted to the eleven- to fourteen-year-old age bracket,[215] this intersection impacts the next generation's relationships.

Rates of teen dating violence, sexual assault, and intimate partner abuse remain alarmingly high, as revealed by the #MeToo movement and multiple national and global studies.[216] Many girls as young as

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211 DUGGAN, *supra* note 47, at 24.

212 JANE, *supra* note 33, at 3.

213 DUGGAN, *supra* note 47, at 24. Another respondent stated, "My wife plays online games (as do I). Over the years I've seen guys exhibit disturbing behavior toward her, for no other reason than she's a woman. Sometimes it's just calling her offensive names, sometimes it has been actual sexual harassment." *Id.* As another example, pro gamer Matt "Dellor" Vaughn, who has over 350,000 followers on Twitch, was temporarily banned from Twitch after making a series of sexist statements to his partner online, calling her derogatory names, and telling his female teammate to "go cook a sandwich." Marcus Banks, *Disgraced Overwatch Pro Tells Woman to 'Cook a Sandwich' in Twitch Rage*, DEXERTO (June 2, 2020, 8:56 AM), https://www.dexerto.com/entertainment/disgraced-overwatch-pro-tells-woman-to-cook-a-sandwich-shocking-twitch-rage-580340 [https://perma.cc/D697-HZ94]. His career in *Overwatch* was cut short after *Overwatch* learned that he had broadcast a racist tirade and repeated a racial slur over sixty times in a row while gaming. *Id.*

214 *See* LEIGH GOODMARK, A TROUBLED MARRIAGE 34–35 (2011); EVAN STARK, COERCIVE CONTROL 198–210 (2007); Louise Dixon & Nicola Graham-Kevan, *Understanding the Nature and Etiology of Intimate Partner Violence and Implications for Practice and Policy*, 31 CLINICAL PSYCH. REV. 1145, 1146 (2011).

215 *See* Carrie F. Mulford & Dara R. Blachman-Demner, *Teen Dating Violence: Building a Research Program Through Collaborative Insights*, 19 VIOLENCE AGAINST WOMEN 756, 761–62 (2013); WORLD HEALTH ORG., *supra* note 57, at 45.

216 *See supra* notes 61–64 and accompanying text.

eleven years old experience teen dating violence,[217] and approximately one-third of high school females experience dating violence.[218] One in five women are sexually assaulted while they are in college,[219] and transgender and nongender binary students suffer from high rates of sexual assault, especially forcible rape.[220] Consequences of gender-based abuse include higher rates of suicidality, substance abuse, sexually transmitted diseases, teen pregnancy, future experiences of domestic violence, negative educational effects, and decreased lifetime wages.[221]

Reports of technology-enabled abuse and sexual cyberviolence are increasing,[222] and virtual reality and video games have become ways through which stalking, harassment, and abuse are perpetrated.[223] Nearly twenty percent of American adults have been the target of severe online harassment, including physical threats, stalking, and sexual harassment over sustained periods of time.[224] Witnessing

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217 MICHELE C. BLACK, KATHLEEN C. BASILE, MATTHEW J. BREIDING, SHARON G. SMITH, MIKEL L. WALTERS, MELISSA T. MERRICK, JIERU CHEN & MARK R. STEVENS, CTRS. FOR DISEASE CONTROL & PREVENTION, NATIONAL INTIMATE PARTNER AND SEXUAL VIOLENCE SURVEY 49 (2011), http://www.cdc.gov/violenceprevention/pdf/nisvs_report2010-a.pdf [https://perma.cc/B3D2-G22H].

218 ANTOINETTE DAVIS, INTERPERSONAL AND PHYSICAL DATING VIOLENCE AMONG TEENS 1 (2008), http://nccdglobal.org/sites/default/files/publication_pdf/focus-dating-violence.pdf [https://perma.cc/NN6Z-DB5V].

219 KREBS ET AL., *supra* note 53, at 73.

220 DAVID CANTOR, BONNIE FISHER, SUSAN CHIBNALL, REANNE TOWNSEND, HYUNSHIK LEE, CAROL BRUCE & GAIL THOMAS, REPORT ON THE AAU CAMPUS CLIMATE SURVEY ON SEXUAL ASSAULT AND SEXUAL MISCONDUCT 50 (2017), https://www.aau.edu/key-issues/aau-climate-survey-sexual-assault-and-sexual-misconduct-2015 [https://perma.cc/5LWY-Z83Q].

221 *See* Ctrs. for Disease Control & Prevention, *Physical Dating Violence Among High School Students—United States, 2003*, 55 MORBIDITY & MORTALITY WKLY. REP. 532, 532 (2006), https://www.cdc.gov/mmwr/PDF/wk/mm5519.pdf [https://perma.cc/8FH6-GPNB]; Glob. Health Cluster, *Gender-Based Violence in Health Emergencies*, WORLD HEALTH ORG., https://www.who.int/health-cluster/about/work/other-collaborations/gender-based-violence/en/ [https://perma.cc/V8DP-Y8SW]; Anna Aizer, *The Gender Wage Gap and Domestic Violence*, 100 AM. ECON. REV. 1847, 1849, 1858 (2010).

222 *See supra* note 43 and accompanying text; Delanie Woodlock, *The Abuse of Technology in Domestic Violence and Stalking*, 23 VIOLENCE AGAINST WOMEN 584, 584, 595 (2017) ("Technology was used to create a sense of the perpetrator's omnipresence, and to isolate, punish, and humiliate domestic violence victims. Perpetrators also threatened to share sexualized content online to humiliate victims."); Nellie Bowles, *Thermostats, Locks and Lights: Digital Tools of Domestic Abuse*, N.Y. TIMES (June 23, 2018), https://www.nytimes.com/2018/06/23/technology/smart-home-devices-domestic-abuse.html?auth=login-email&login=email [https://perma.cc/5NC9-F5F7] (noting that many electronic household items can be controlled remotely, making them prime vehicles for harassment).

223 *See* DUGGAN, *supra* note 47, at 24.

224 *Id.* at 3.

online harassment is also part of digital life, with two-thirds of Americans saying they have witnessed others being harassed online.[225]

2. Sexual Cyberviolence, Harassment, and Gender-Based Attacks

In addition to featuring misogyny and male entitlement in game design, video games increasingly and actively promote and reward sexual violence, while other games permit or encourage sexual harassment, assault, and murder.[226] One example is *Grand Theft Auto IV*, in which the main character can visit strip clubs, solicit sex from a female sex worker, pay her in cash, shoot and kill her, and retrieve the cash before returning to his own home.[227] Researchers have found that video games depicting sexual objectification and violence against women result in significant increased "rape-supportive attitudes" for male study participants but not for female study participants.[228]

Already, multiple incidences of gender-based violence and sexual assault have occurred in virtual reality.[229] Professor Mary Anne Franks observes, "'Virtual' sexual assault has been around as long as virtual communities have existed," and "'avatar rapes' [have been] profoundly disturbing to the real people behind the characters."[230] To provide another example, in 2016, Sony used the game *Dead or Alive Xtreme 3* to launch its virtual reality headset PlayStation VR.[231] This game's virtual reality update allows players to "continually touch a woman who is verbally protesting" with the console's motion control-

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225 *Id.*

226 *See* Victoria Simpson Beck, Stephanie Boys, Christopher Rose & Eric Beck, *Violence Against Women in Video Games: A Prequel or Sequel to Rape Myth Acceptance?*, 27 J. INTERPERSONAL VIOLENCE 3016, 3017 (2012) ("Along with expeditious growth of the video game industry has been growth in the development of games that sexually objectify women (e.g., pole strippers, prostitutes) and allow gamers to engage in virtual violence (e.g., battery, murder) against women.").

227 *Id.* at 3023.

228 *Id.* at 3016; *accord* Karen E. Dill, *Violent Video Games, Rape Myth Acceptance, and Negative Attitudes Toward Women*, *in* 4 VIOLENCE AGAINST WOMEN IN FAMILIES AND RELATIONSHIPS 125, 135 (Evan Stark & Eve S. Buzawa eds., 2009) (finding greater exposure to video game violence to be positively correlated with rape myth acceptance and negatively correlated with attitudes toward women).

229 *See* Jessica Buchleitner, *When Virtual Reality Feels Real, So Does the Sexual Harassment*, REVEAL (Apr. 5, 2018), https://www.revealnews.org/article/when-virtual-reality-feels-real-so-does-the-sexual-harassment/ [https://perma.cc/99FY-3ZNC].

230 Mary Anne Franks, *The Desert of the Unreal: Inequality in Virtual and Augmented Reality*, 51 U.C. DAVIS L. REV. 499, 527 (2017).

231 Sean Buckley, *'Dead or Alive' VR Is Basically Sexual Assault, the Game*, ENGADGET (Aug. 29, 2016), https://www.engadget.com/2016-08-29-dead-or-alive-vr-is-basically-sexual-assault-the-game.html [https://perma.cc/D33Y-NYRR].

ler.[232] Other games feature violence in many additional forms, including a man punching a suffragette in *Red Dead Redemption 2*.[233] Among gamers, the practice of "teabagging" an opponent (dropping one's genitals onto the opponent's face) is a divisive topic. Some players brush off the experience as an insulting joke, while others view it as in-game sexual assault that fosters an unwelcome environment for those who wish to avoid triggering experiences of sexual abuse.[234] Abuse perpetrators have also used technology and games to carry out abuse in person, for example, using *Pokémon Go* to lure distracted players to secluded places and assaulting them.[235]

Researchers have noted the notoriously "vicious" player community and cycles of "toxic behavior" in popular games such as *League of Legends*,[236] which is one of the most played games in the world, including in collegiate esports, and is a game for which college scholarships are available.[237] Online games and game streaming are replete with hostility, aggression, and demeaning or violent insults that disproportionately target and affect marginalized individuals, including women, people of color, and LGBTQIA individuals.[238] When players' gender, race, or ethnicity-related cues are exposed in game play, those not fitting the dominant white male identity are often targeted for harassment.[239] Dr. Kishonna Gray writes of her experience as a woman of color gaming in Xbox Live, "a space so often constructed as a space for white males," noting the racist and gendered hatred and slurs

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232 *Id.*

233 Erik Kain, *This 'Red Dead Redemption 2' Feminist-Punching Controversy Is So Silly*, FORBES (Nov. 27, 2018, 8:30 AM), https://www.forbes.com/sites/erikkain/2018/11/27/outrage-over-punching-a-feminist-in-red-dead-redemption-2-is-so-absurd/#3e5e109733f1 [https://perma.cc/VMA5-GV56].

234 Corey Plante, *'Overwatch' "Teabagging" Controversy Has Ignited an Internet Firestorm*, INVERSE (Apr. 30, 2018, 4:30 PM), https://www.inverse.com/article/44335-overwatch-teabagging-carpe-ado-pro-league-fusion-dragons [https://perma.cc/YL8A-37NL].

235 *See, e.g.*, *Man Mugged While Playing 'Pokemon Go' Captures His Attack on Live Video*, ABC NEWS (Sept. 21, 2016, 8:31 AM), https://abcnews.go.com/Technology/man-mugged-playing-pokemon-captures-attack-live-video/story?id=42240566 [https://perma.cc/P5AB-WVYB].

236 Joaquim A. M. Neto, Kazuki M. Yokoyama & Karen Becker, *Studying Toxic Behavior Influence and Player Chat in an Online Video Game*, *in* PROCEEDINGS 2017 IEEE/WIC/ACM INTERNATIONAL CONFERENCE ON WEB INTELLIGENCE 26, 33 (2017).

237 *Esports Scholarships Guide*, NEXT COLL. STUDENT ATHLETE, https://www.ncsasports.org/college-esports-scholarships [https://perma.cc/N7ZS-EM29].

238 Jay Castello, *Foul Play: Tackling Toxicity and Abuse in Online Video Games*, GUARDIAN (Aug. 17, 2018, 4:00 AM), https://www.theguardian.com/games/2018/aug/17/tackling-toxicity-abuse-in-online-video-games-overwatch-rainbow-seige [https://perma.cc/2NYJ-SW2U].

239 *See* Tang & Fox, *supra* note 120, at 514–15.

against her, as well as the barrages of stereotypes about Black women that she receives when she speaks.[240]

Multiplayer games often involve using your microphone to speak to teammates, but many women describe muting themselves to avoid inciting harassment against them.[241] In one study, researchers played a networked violent video game with other anonymous players and interacted using prerecorded voices, and found that the female voices received three times more negative comments than male voices.[242] Another study similarly found that once players started communicating verbally with other players, linguistic profiling was common, and online players of nondominant groups were frequently derided and harassed with sexist, racist, nativist, and heterosexist attacks once they used their voices.[243]

Studies find that female gamers experience substantial loneliness and anxiety while gaming online, along with harassment.[244] Fear of harassment is "well-founded," as "half of all gamers report that they have experienced online harassment," and one-fifth of female-identifying gamers have fully left gaming, unwilling to endure the frequent online abuse.[245] Many other examples of toxic masculinity, gendered threats, and hostile environments exist in the gaming world. Players harass individuals who are perceived as outsiders to the "traditional, patriarchal, dude-dominated gaming culture."[246] Social dominance orientation and hostile sexism predict sexist comments, statements about rape, and players who otherwise engage in sexual harassment.[247]

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240 GRAY, *supra* note 10, at xvii–xviii.

241 *See, e.g.*, Samson Amore, *Riot Games Will Work to Eliminate In-Game Sexual Harassment After Employee Shares Toxic Experience*, WRAP (Apr. 28, 2020, 4:09 PM), https://www.thewrap.com/riot-games-valorant-sexual-harassment/ [https://perma.cc/ZN7M-EYM6].

242 Jeffrey H. Kuznekoff & Lindsey M. Rose, *Communication in Multiplayer Gaming: Examining Player Responses to Gender Cues*, 15 NEW MEDIA & SOC'Y 541, 549–54 (2013).

243 K. L. Gray, *Deviant Bodies, Stigmatized Identities, and Racist Acts: Examining the Experiences of African-American Gamers in Xbox Live*, 18 NEW REV. HYPERMEDIA & MULTIMEDIA 261, 269–74 (2012).

244 *See* Lavinia McLean & Mark D. Griffiths, *Female Gamers' Experience of Online Harassment and Social Support in Online Gaming: A Qualitative Study*, 17 INT'L J. MENTAL HEALTH & ADDICTION 970, 987–88 (2019).

245 Phoebe Braithwaite, *The UN's Plan to Tackle Abuse in Gaming? Ask Gamers*, WIRED (June 9, 2018), https://www.wired.co.uk/article/un-he-for-she-ea-abuse-women-games-industry [https://perma.cc/A8HK-AB8Q].

246 Caitlin Dewey, *The Only Guide to Gamergate You Will Ever Need to Read*, WASH. POST (Oct. 14, 2014, 5:23 PM), https://www.washingtonpost.com/news/the-intersect/wp/2014/10/14/the-only-guide-to-gamergate-you-will-ever-need-to-read/?noredirect=on&utm_term=.f8820b1dc8cc [https://perma.cc/E3VU-KF7H]; *see also* Tang & Fox, *supra* note 120, at 513.

247 *See* Fox & Tang, *supra* note 120, at 517.

The United Nations reports that half of female gamers hide their gender identity and avoid all forms of verbal communication with other players in attempts to avoid rampant online harassment.[248] When masking one's gender or sex while gaming, many players assume other players are male based on the genre of game,[249] which inadvertently reinforces the idea that women are absent and that gaming is a masculine space.[250] Harassment thus makes women invisible in gaming and creates "a spiral of silence in which women—and the men who support their presence in games—have been silenced by a perceived majority of hostile, hypermasculine players."[251] Performing an unfamiliar identity takes effort that others do not have to expend on such undertakings,[252] and despite attempts at masking gender, many times a female gamer's identity is exposed by her voice through chat features in multiplayer games.[253] "Men of color [also] learn to navigate [online racism] in ways that encourage strategies of silence and emotional desensitization to racism . . . ."[254]

Abuse targeted at female gamers ties back to the "masculine history embedded in the video game industry."[255] The gaming industry began with the assumption that most players were male, leading game developers to unwittingly disregard female, transgender, and nongender binary players.[256] With the emergence of the Wii, developers attempted to attract more female gamers with the stated goal of "gender inclusivity,"[257] but player representations were still limited to certain bodies, genders, and skin colors.[258] Playable female characters in games are often entirely nonexistent, hypersexualized, or lacking in visual depth.[259] The female player is typically classified as white, heter-

248 Braithwaite, *supra* note 245. Another study analyzed data collected from an online discussion forum and found that "[t]he most common theme in the discussion . . . was the belief that female gamers needed to stay quiet and hide their identity from other gamers, in order to . . . protect themselves from the negative behaviour of others." McLean & Griffiths, *supra* note 244, at 986.

249 *See* Allison Eden, Erin Maloney & Nicholas David Bowman, *Gender Attribution in Online Video Games*, 22 J. MEDIA PSYCH. 114, 114 (2010).

250 *See* Fox & Tang, *supra* note 31, at 1298.

251 *Id.* at 1304.

252 *See* Kenji Yoshino, *Assimilationist Bias in Equal Protection: The Visibility Presumption and the Case of "Don't Ask, Don't Tell,"* 108 YALE L.J. 485, 528 (1998).

253 *See* Fox & Tang, *supra* note 31, at 1302.

254 Ortiz, *supra* note 10, at 573.

255 SHIRA CHESS, READY PLAYER TWO 152 (2017).

256 *See id.* at 10–11.

257 *Id*. at 162.

258 *See id*. at 163.

259 *See id*. at 164–65.

osexual, middle-class, cisgender, and able-bodied.[260] Such stereotyping is harmful. Instead, both those in the gaming industry and those who are not "should think of [the female player], and design her, in terms of all the possible things she is able to be. [She] can be fluid and changeable. She can be queer. She can be black- or brown-skinned. . . . [She] can, and should, be transformational."[261]

Online, players utilizing abusive behavior can hide behind anonymity and "feel emboldened to say and do . . . things" because of the online format.[262] Increasing instances of behaviors in a virtually consequence-free world have drifted into the real world. Female gamers are subjected to multiple forms of online abuse and have been victims of real-world extensions through the uploading of private sensitive material, hacking, and doxing—the publishing of personally identifying information, such as street addresses and social security numbers—to incite anonymous people on the Internet to hunt targets in real life.[263] Women who have spoken out against the gaming industry have especially been targeted.[264]

3. The Gaming Industry and #MeToo or #EToo

The gaming world has historically failed to take sexual harassment seriously and is replete with issues of sexism, bullying, and allegations of abuse. As an early example, in 2007, anonymous attackers forced prominent game developer Kathy Sierra out of the industry by sending her death threats and publicizing her social security number.[265] After Anita Sarkeesian launched the video series Tropes vs. Women in Video Games in response to games such as *Grand Theft Auto* that encourage players to murder sex workers with impunity, she received countless rape and death threats.[266] In response to her effort

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260 *See id*. at 171–72.

261 *Id*. at 172.

262 Braithwaite, *supra* note 245; *accord* Brianna Wu, *Rape and Death Threats Are Terrorizing Female Gamers. Why Haven't Men in Tech Spoken Out?*, WASH. POST. (Oct. 20, 2014, 10:11 AM), https://www.washingtonpost.com/posteverything/wp/2014/10/20/rape-and-death-threats-are-terrorizing-female-gamers-why-havent-men-in-tech-spoken-out/ [https://perma.cc/62S7-S8EP]; *see also* Nellie Bowles, *How 'Doxxing' Became a Mainstream Tool in the Culture Wars*, N.Y. TIMES (Aug. 30, 2017), https://www.nytimes.com/2017/08/30/technology/doxxing-protests.html [https://perma.cc/7CWK-JG7W] (describing how some have responded to online extremism by depriving offending individuals of their anonymity).

263 *See* Bowles, *supra* note 262.

264 Lorenz & Browning, *supra* note 164.

265 Kathy Sierra, Opinion, *Why the Trolls Will Always Win*, WIRED (Oct. 8, 2014, 4:49 PM), https://www.wired.com/2014/10/trolls-will-always-win/ [https://perma.cc/76CT-FJB6].

266 *See* Nick Wingfield, *Feminist Critics of Video Games Facing Threats in 'GamerGate' Campaign*, N.Y. Times (Oct. 15, 2014), https://www.nytimes.com/2014/10/16/technology/gamer-

to expose misogyny in video games, a man created a video game that allowed people to batter her face, with her image gaining black eyes, bruising, and cuts as users pummeled her.[267] She was also forced to cancel a university speaking appearance after an anonymous email promised "the deadliest school shooting in American history" if she spoke.[268]

The Twitter hashtag thread #1ReasonWhy began in 2012 with a tweet that asked, "Why are there so few lady game creators?"[269] Over the course of one day, thousands of women tweeted their experiences of sexism, harassment, and exclusion while working in a gaming industry dominated by sexist values.[270] This hashtag was mostly used by women who had worked or who were working in the gaming industry and did not reach the broader community of women who play video games,[271] which portends an #ETOO movement waiting to happen.

A prime example of vicious mob attacks is Gamergate, the campaign of rape and death threats directed at women critical of the gaming industry's male-dominated, sexist culture.[272] Gamergate began in 2014 when video game designer Zoë Quinn's ex-boyfriend posted an intimate and brutal blog post about Quinn, which quickly spiraled into online attackers threatening to kill Quinn and women in the industry.[273] The online attackers associated with Gamergate forced females in the gaming industry, including Brianna Wu, who had critiqued the cultural embeddedness of misogyny, to flee their homes and occupations and call the police out of imminent fear for their lives.[274] Al-

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gate-women-video-game-threats-anita-sarkeesian.html?ref=todayspaper [https://perma.cc/K27Q-TMPF]; Robin Abcarian, *Anita Sarkeesian Bravely Confronts Sexist Video Gaming Culture*, L.A. TIMES (Oct. 17, 2014), https://www.latimes.com/local/abcarian/la-me-ra-a-feminist-critic-video-game-culture-20141016-column.html (last visited May 15, 2021).

267 Moore, *supra* note 4.

268 Zachary Jason, *Game of Fear*, BOS. MAG. (Apr. 28, 2015, 5:45 AM), https://www.bostonmagazine.com/news/blog/2015/04/28/gamergate/print [https://perma.cc/VD7J-ZHPG]; *accord* Cherie Todd, *GamerGate and Resistance to the Diversification of Gaming Culture*, 29 WOMEN'S STUD. J. 64, 64 (2015).

269 Todd, *supra* note 268, at 65.

270 Betsy Isaacson, *#1ReasonWhy Reveals Sexism Rampant in the Gaming Industry*, HUFFINGTON POST (Jan. 30, 2013), http://www.huffingtonpost.com/2012/11/29/1reasonwhy-reveals-sexism-gaming-industry_n_2205204.html [https://perma.cc/D7PC-KM8T]; Todd, *supra* note 268, at 65.

271 *See* Todd, *supra* note 268.

272 Dewey, *supra* note 246.

273 Jason, *supra* note 268.

274 Peter Andrew Hart, *Game Developer Brianna Wu Flees Home After Death Threats*, HUFFINGTON POST (Oct. 11, 2014), https://www.huffpost.com/entry/game-developer-death-threats_n_5970966 [https://perma.cc/5TDR-D8SL]; *see also* Jason, *supra* note 268 (detailing how Quinn left the video game industry after death threats and stalking).

though sexism exists in many industries and professions, the response to critics of sexism in gaming is unparalleled: anonymous attackers have broadcasted women's private information including their social security numbers and home addresses, "swatted" their victims by tricking police dispatchers into sending SWAT teams to raid women's homes, and mobilized thousands on the Internet to send violent death and rape threats.[275] The misogyny of "GamerGaters" has been so violent that it has been compared to terrorism.[276] The Digital Games Research Association and International Communication Association report that scholars involved in gaming and gender research receive threatening messages and advise those who critique gaming to undertake security measures.[277]

During the summer of 2019, after the global popularization of the #MeToo movement,[278] "several game developers went public with accusations of sexual assault, harassment and abuse."[279] While journalists, politicians, producers, actors, chefs, judges, and others experienced repercussions following public identification of the sexual harassment they committed,[280] the game developers who revealed being victimized were met with harsh backlash from the gaming community.[281] Quinn, who experienced extreme threats during Gamergate,[282] went public about the extensive emotional and sexual abuse their former partner, developer Alec Holowka, committed against them, and other developers and creators made similar allegations.[283] After Holowka took his own life, the threats and backlash against Quinn and others were "relentless."[284] Women, nonbinary individuals, and people of color expressed that, even after the #MeToo movement and five

275 Jason, *supra* note 268. Quinn accumulated over sixteen gigabytes of online abuse during GamerGate. *See* Keith Stuart, *Zoe Quinn: 'All Gamergate has done is ruin people's lives*,' GUARDIAN (Dec. 3, 2014, 9:00 AM), https://www.theguardian.com/technology/2014/dec/03/zoe-quinn-gamergate-interview (last visited May 15, 2021).

276 *See* JANE, *supra* note 33, at 5.

277 Todd, *supra* note 268, at 65; Shira Chess, Mia Consalvo, Nina Huntemann, Adrienne Shaw, Carol Stabile & Jenny Stromer-Galley, *GamerGate and Academia*, INT'L COMMC'N ASS'N (Nov. 4, 2014), https://wp.me/p2b59O-fv [https://perma.cc/3X3S-JMQC].

278 *See supra* notes 61–64 and accompanying text.

279 Lorenz & Browning, *supra* note 164.

280 *See* Stoever, *supra* note 63, at 6–7.

281 Laurie Penny, *Gaming's #MeToo Moment and the Tyranny of Male Fragility*, WIRED (Sept. 6, 2019, 7:00 AM), https://www.wired.com/story/videogames-industry-metoo-moment-male-fragility/ [https://perma.cc/7KKC-YDFJ] ("The videogames industry is having its #MeToo moment, and the backlash against it has been fast and brutal.").

282 *See* Jason, *supra* note 268.

283 *Id.*; Penny, *supra* note 281 (noting that Quinn's pronouns are they/them).

284 Penny, *supra* note 281.

years post Gamergate, little had changed about toxicity in the gaming industry.[285]

Summer 2020 brought an outpouring of allegations of gender-based harassment, discrimination, and sexual assault from competitive gamers and streamers. During a single weekend in June, over seventy people in the gaming industry, most identifying as female, shared their stories on Twitter, YouTube, Twitch, TwitLonger, and other platforms, and more people have gone public with their experiences since then.[286] Gaming scholars hope that the gaming industry and community will be more receptive to addressing these sexual abuse and harassment allegations than in the past, now motivated by social activism and public attention. Yet, despite resignations from prominent industry figures, increased individual accountability in gaming, and statements issued by gaming companies, questions remain on how gender-based discrimination and biases pervade gaming and how the culture of gaming as a whole can change.[287] Recent Black Lives Matter protests will hopefully also prompt the gaming industry to examine and address racism and intersectionality within games and gaming.[288]

III. Esports Goes to College

The intersection of esports and college prompts the following question: "Can you really count it as co-ed when the environment is so

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285 *See* Zaveri et al., *supra* note 162.

286 *See* Lorenz & Browning, *supra* note 164.

287 Kellen Browning, *More Resignations, but No Sign Yet of a Change in Gaming Culture*, N.Y. Times (July 19, 2020), https://www.nytimes.com/2020/07/19/technology/gaming-harassment.html [https://perma.cc/TT5W-A5AR].

288 ESPN Esports Staff, *A Conversation About Race and Diversity in Esports and Gaming*, ESPN (Oct. 20, 2020), https://www.espn.com/esports/story/_/id/30067415/a-conversation-race-diversity-esports-gaming [https://perma.cc/X5MA-F8PN]. (Amanda Stevens notes, "While I am appreciative of the supportive messages from most teams in the Overwatch League and in the various League of Legends leagues—that's all they were in most cases. Just words. We've yet to really hear anyone talk about diversity initiatives or discuss how they plan to empower Black and brown folks to be able to break into the esports industry." Stevens suggests, "The way we, in esports, keep the conversation going is empowering Black folks. We KNOW there is a diversity problem, and although everyone says they want to do something about it, I don't see it. Unfortunately, the conversation will be kept going by us—the folks who are in the crosshairs—because it doesn't seem like our community completely has our back."); Daisy Schofield, *Black Lives Matter Meets Animal Crossing: How Protesters Take Their Activism into Video Games*, Guardian (Aug. 7, 2020, 4:00 AM), https://www.theguardian.com/games/2020/aug/07/black-lives-matter-meets-animal-crossing-how-protesters-take-their-activism-into-video-games [https://perma.cc/2R6U-8BLD] (providing examples of in-game protests and rallies organized by players "in contrast with the gaming industry's relatively subdued response to BLM").

hostile that women don't want to play it?"[289] Section III.A describes the burgeoning field of college esports, while Section III.B details Title IX implications, and Section III.C addresses First Amendment questions.

A. Esports Arenas, Scholarships, and Traveling Teams

Recognizing that most youth game, colleges have been investing in esports over the past several years to attract students—including Science, Technology, Engineering, and Math ("STEM") students—and to foster connection on campus.[290] Increasingly, colleges offer gaming scholarships, field varsity esports teams, and construct esports arenas as campus hubs and gaming spaces for the general student body, with notable arenas ranging from 3,500 to 11,000 square feet and outfitted with gaming chairs, computers, and gear.[291] The Department of Homeland Security has also awarded colleges substantial grants to build Esports Innovation Labs.[292]

The origin of organized gaming and esports on campus began with college students joining together with groups of friends to play video games,[293] and some created gaming clubs that gained traction and the attention of investors.[294] These esports clubs set the foundation for varsity esports teams.[295] Varsity collegiate esports grew in popularity around 2014 when Robert Morris University in Illinois added

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289 Claudine McCarthy, *Keep Up with Esports Developments, Impact on College Campuses*, CAMPUS LEGAL ADVISOR, Apr. 2020, at 1, 4.

290 Stone, *supra* note 21.

291 *See* Ron Mendoza, *'Fortnite' Now an Official College Sport, Esports Scholarships Also Offered*, INT'L BUS. TIMES (Jan. 23, 2020, 7:46 AM), https://www.ibtimes.com/fortnite-now-official-college-sport-esports-scholarships-also-offered-2907997 [https://perma.cc/WLD4-9NHC]; Eric Stoller, *An Epic Update on Collegiate Esports*, INSIDE HIGHER ED (May 16, 2019, 6:31 PM), https://www.insidehighered.com/blogs/student-affairs-and-technology/epic-update-collegiate-esports [https://perma.cc/ZSP3-UKFK].

292 *See, e.g.*, Zalaznick, *supra* note 7.

293 *See* Bauer-Wolf, *supra* note 18 (discussing bringing games out of "dormitory life"); *Madison eSports Club*, WIS. INVOLVEMENT NETWORK, https://win.wisc.edu/organization/madisonesports [https://perma.cc/LP4W-68NV] (noting that the esports club at the University of Wisconsin–Madison "brings together a diverse group of students who share an interest in variety of video games").

294 *See* James Thorne, *As Live College Sports Take a Time Out, Esports Score Big on Virtual Campuses*, PITCHBOOK (Sept. 8, 2020), https://pitchbook.com/news/articles/college-sports-esports-campus [https://perma.cc/7AZJ-TCHF]; DELOITTE CORP. FIN. & ESPORTS OBSERVER, THE RISE OF ESPORTS INVESTMENTS 12 (2019), https://www2.deloitte.com/content/dam/Deloitte/us/Documents/finance/drfa-rise-of-esports-investments.pdf [https://perma.cc/529L-3W6U].

295 *See* Bryan W., *Varsity Esports: How US Colleges Are Earning Major ROI & Gamers Score Big Scholarships*, GAMEDESIGNING (Feb. 4, 2021) https://www.gamedesigning.org/schools/varsity-esports/ [https://perma.cc/W7M2-5K34].

esports to its athletic program, including a scholarship-sponsored *League of Legends* team.[296] By 2017, Big Ten universities were fielding teams to compete in conference play in partnership with Riot Games and the Big Ten Network.[297]

With a spike in investors,[298] the field has expanded to include 130 varsity programs with a national governing body called the National Association of Collegiate Esports ("NACE"), a nonprofit membership association that strives to help esports grow and proliferate at its member institutions.[299] NACE, which is the association of varsity esports programs at colleges and universities across America, maintains that esports can serve as an educational tool to foster a better experience for students in higher education.[300] Collegiate Starleague, a collegiate gaming organization, has membership of 900 universities and 30,000 players.[301] Tespa is an additional organization that provides nearly 300 college chapters with support for esports at the club sport level.[302]

With live sports on hold during COVID-19 and schools, workplaces, and entertainment either closed or limited during stay-at-home orders,[303] gaming and esports experienced dramatic increases in participation.[304] The upward trajectory caused by the pandemic accelerated the gaming industry's growth globally, including at colleges.[305] Colleges also viewed gaming as a way to keep students socially con-

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296 *RMU Becomes First University to Offer Gaming Scholarships with the Addition of eSports to Varsity Lineup*, ROBERT MORRIS UNIV. (June 11, 2014), https://www.rmueagles.com/article/907 [https://perma.cc/FG4K-DEM8].

297 *See* Marc Tracy, *Big Ten Enters New Realm of Competition: E-Sports*, N.Y. TIMES, Jan. 19, 2017, at B12.

298 *See* Holden et al., *supra* note 70, at 67.

299 *See About*, NAT'L ASS'N COLLEGIATE ESPORTS, https://nacesports.org/about/ [https://perma.cc/E657-HFME]; Sean Morrison*, List of Varsity Esports Programs Spans North America*, ESPN (Mar. 15, 2018), http://www.espn.com/esports/story/_/id/21152905/college-esports-list-varsity-esports-programs-north-america (last visited July 3, 2021).

300 *Get Involved*, NAT'L ASS'N COLLEGIATE ESPORTS, https://nacesports.org/get-involved/ [https://perma.cc/85TP-4898].

301 Stoller, *supra* note 291.

302 *See So Tell Me . . . What Is Tespa?*, TESPA, http://tespa.org/about [https://perma.cc/NDB9-UBQK].

303 *See supra* note 12.

304 *See supra* note 13 and accompanying text.

305 Scott Heinrich, *Esports Ride Crest of a Wave as Figures Rocket During COVID-19 Crisis*, GUARDIAN (Apr. 10, 2020, 5:32 PM), https://www.theguardian.com/sport/2020/apr/11/esports-ride-crest-of-a-wave-as-figures-rocket-during-covid-19-crisis [https://perma.cc/A8F8-PGMZ]; Greta Anderson, *Are Esports a Pandemic-Era Salve for Sports-Hungry Fans?*, INSIDE HIGHER ED (July 31, 2020), https://www.insidehighered.com/news/2020/07/31/colleges-explore-esports-opportunities-and-others-face-budget-cuts [https://perma.cc/XJW8-AWCG].

nected to each other and to the campus, and encouraged gaming while operating remotely during COVID-19.[306] Construction of new esports arenas continued during the COVID-19 pandemic, planning for a return to campus life that centers gaming.[307]

As schools invest many millions of dollars in esports programs, they must contend with Title IX concerns.

B. Title IX

While gender representation is a significant Title IX issue, harassment—largely by men of women and nonbinary individuals—has been a substantial barrier to safe participation. As women and nonbinary people seek parity with males in esports, their participation is not only about being awarded a scholarship or a place on the team, but about not being subjected to harassment while doing so. The multitude of Title IX issues are discussed next, followed by First Amendment free speech issues. Note that many scholars have written critiques of the functioning of Title IX;[308] this Article does not suggest that Title IX will solve sexual harassment in gaming, but instead surfaces Title IX issues that schools have not yet considered and suggests prevention routes for gender-based harassment and violence instead of relying on after-the-fact Title IX complaints.

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306 *See supra* note 21 and accompanying text.

307 *See* Chris Burt, *COVID-19 May Change College Esports Arenas: Infographic*, UNIV. BUS. (June 5, 2020), https://universitybusiness.com/infographic-how-covid-19-may-change-college-esports-arenas/ [https://perma.cc/N234-YYDT].

308 *See, e.g.*, Janet Halley, *Trading the Megaphone for the Gavel in Title IX Enforcement*, 128 HARV. L. REV. F. 103, 107–08 (2015) (recommending that university Title IX offices be reduced to compliance-monitoring, and not adjudicate cases); Alyssa Peterson & Olivia Ortiz, *A Better Balance: Providing Survivors of Sexual Violence with "Effective Protection" Against Sex Discrimination Through Title IX Complaints*, 125 YALE L.J. 2132, 2143–44 (2016) (identifying lengthy investigations and structural issues that cause case investigations to take years); Zoe Ridolfi-Starr, *Transformation Requires Transparency: Critical Policy Reforms to Advance Campus Sexual Violence Response*, 125 YALE L.J. 2156, 2160–61, 2169–70 (2016) (identifying pervasive mistrust of the Title IX system by complainants and accused students due to opacity and particularly discriminatory treatment against communities of color); Christine Taber, *Bullied LGBTQ Students Are Afraid but Their Schools Aren't (and That's the Problem): Why It's Time to Move on from Broken Title IX to State Tort Law as a Solution*, 25 TEX. J. ON C.L. & C.R. 153, 164–65 (2020) (discussing the high burdens for recovery under Title IX in cases of peer-to-peer harassment); Deborah Tuerkheimer, *Beyond #MeToo*, 94 N.Y.U. L. REV. 1146, 1163, 1174 (2019) (recommending redesign of formal complaint procedures, including campus disciplinary processes, informed by the benefits of informal reporting).

1. Title IX's Mandate to Prevent and Address Sex-Based Harassment

Title IX of the Education Amendments Act of 1972 is one of a series of federal laws to expand the Civil Rights Act of 1964; Title IX bars gender discrimination and unequal treatment on the basis of sex at all educational institutions that receive federal funding.[309] For colleges and universities, the federal law covers all aspects of campus life, and many environments, actions, and inactions constitute discrimination in violation of Title IX.[310] Until recent years, few students and faculty were aware that Title IX applied to academics.[311] Sports fans often associate Title IX with collegiate athletics and the NCAA because schools are required to provide equal athletic opportunities to all students regardless of sex,[312] but Title IX goes further.

Under Title IX, universities cannot deny students admission based on their gender,[313] and schools must provide proportional financial aid, student services, counseling, and equal access to all academic or extracurricular educational programs or activities.[314] Schools are also responsible for preventing and addressing sex-based harassment,[315] including in esports and gaming.[316] Title IX additionally "requires schools to appoint a Title IX coordinator tasked with implementing sexual-harassment policies and ensuring gender equity in virtually all areas of school life."[317]

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309 Title IX of the Education Amendments of 1972 states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." 20 U.S.C. § 1681(a) (2018). Almost all educational programs receive federal financial assistance; therefore, most colleges and universities in the country are required to adhere to Title IX. *See Title IX Frequently Asked Questions*, NCAA, http://www.ncaa.org/about/resources/inclusion/title-ix-frequently-asked-questions#inst [https://perma.cc/4HGZ-E7QM].

310 *See infra* notes 313–17 and accompanying text.

311 *See* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-04-639, GENDER ISSUES: WOMEN'S PARTICIPATION IN THE SCIENCES HAS INCREASED, BUT AGENCIES NEED TO DO MORE TO ENSURE COMPLIANCE WITH TITLE IX 1 (2004), https://www.gao.gov/new.items/d04639.pdf [https://perma.cc/N94V-2VTD].

312 *See Know Your Rights: Equity in Athletics in School and on Campus*, AM. ASS'N UNIV. WOMEN, https://www.aauw.org/resources/legal/laf/athletics/ [https://perma.cc/QU9N-ZX79].

313 U.S. DEP'T OF JUST., EQUAL ACCESS TO EDUCATION 1–2 (2012), https://www.justice.gov/sites/default/files/crt/legacy/2012/06/20/titleixreport.pdf [https://perma.cc/U45K-9N8P].

314 *Id.*; *see also* Laura Marini Davis & Victoria Geyfman, *The Business of Title IX—Using the Law to Improve Gender Equity in Undergraduate Colleges of Business*, 46 J.L. & EDUC. 163, 183 (2017).

315 U.S. DEP'T OF JUST., *supra* note 313, at 2.

316 Payne, *supra* note 91.

317 HILL & KEARL, *supra* note 49, at 7.

In enacting Title IX, Congress intended both to "avoid the use of federal resources to support discriminatory practices" and to "provide individual citizens effective protection against those practices."[318] Title IX's mandate that no person "shall, on the basis of sex, be excluded from participation, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance"[319] is a broad mandate that is, according to the Supreme Court, to receive "a sweep as broad as its language."[320] Note that a single Title IX liability analysis may not be appropriate because of the varying factual circumstances of each case,[321] and courts use different approaches to determine Title IX liability in contexts other than sex-based harassment. For example, courts apply differing tests for assessing liability in athletics, single-gender education, and pregnancy discrimination.

Generally, the denial of benefits or discrimination must be based on sex in order to be actionable under Title IX.[322] Common instances of Title IX violations include sex discrimination in sports and education as well as sexual harassment.[323] Note that for much of Title IX's history, gender equity has been understood and applied to gender binaries. Given current nonbinary understandings of gender and of gender fluidity, we can problematize what gender means under Title IX and the proportionality requirements. In addition, recent rulings protect transgender students from discrimination "on the basis of sex."[324]

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318 Cannon v. Univ. of Chi., 441 U.S. 677, 704 (1979).

319 20 U.S.C. § 1681(a) (2018).

320 N. Haven Bd. of Educ. v. Bell, 456 U.S. 512, 521 (1982).

321 Brian A. Snow, William E. Thro & Stephanie Clemente, *The Problem of Determining Title IX Liability*, 154 EDUC. L. REP. 1, 2–3 (2001); *see also* Horner v. Ky. High Sch. Athletic Ass'n, 206 F.3d 685, 689–93 (6th Cir. 2000) (discussing the different standards to analyze intent under Title IX); Alston v. Va. High Sch. League, Inc., 144 F. Supp. 2d 526, 534–36 (W.D. Va. 1999) (analyzing which standard of intentionality is proper under Title IX); Brian A. Snow & William E. Thro, *Still on the Sidelines: Developing the Non-Discrimination Paradigm Under Title IX*, 3 DUKE J. GENDER L. & POL'Y 1, 1–10 (1996) (discussing different cases that have been decided under Title IX and the want for better protection and standards).

322 *See, e.g.*, Doe v. Baum, 903 F.3d 575, 586 (6th Cir. 2018); Sanches v. Carrollton-Farmers Branch Indep. Sch. Dist., 647 F.3d 156, 165 (5th Cir. 2011).

323 U.S. DEP'T OF JUST., *supra* note 313, at 1–2.

324 Grimm v. Gloucester Cnty. Sch. Bd., 972 F.3d 586, 616–19 (4th Cir. 2020) (discussing Title IX's application to and protection of transgender students); Bostock v. Clayton Cnty., 140 S. Ct. 1731, 1741 (2020) (interpreting Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e–2(a)(1), and noting "it is impossible to discriminate against a person for being homosexual or transgender without discriminating against that individual based on sex"); Adams *ex rel.* Kasper v. Sch. Bd. of St. Johns Cnty., 968 F.3d 1286, 1310 (11th Cir. 2020) (holding that a trans-

Before Title IX was enacted in 1972, women faced marked educational inequalities.[325] These gender-based disparities continue today. Female participation in STEM programs funded by NASA has decreased at every education level,[326] a "decade-long trend of shrinking female enrollment in undergraduate business programs" persists,[327] and women in the legal education field "experience challenges like poor pay, heavy workloads, and lower status."[328] Women in the medical field also experience high rates of sexual harassment during medical residencies.[329] In male-dominated fields, non-male voices and perspectives are absent from classroom discussion, and women and nonbinary people often experience systemic discrimination.[330] Gender-based discrimination may "include sexist language, [the] presentation of stereotypic views of women, and instructors favoring male students."[331] This discrimination and lack of female participation in education results in fewer female leaders in critical industries and lower lifetime earnings for women.[332] In 2016, only 4.2% of CEOs in Fortune 500 companies were women, and women often comprise a small minority of executive and board leadership, with some companies excluding women from executive or board roles.[333]

The Department of Education is responsible for issuing coordinating regulations such as guidelines and rules for compliance, and the Department of Justice enforces those guidelines and rules.[334] The Department of Education—sometimes in conjunction with the Department of Justice—has traditionally issued guidance documents on compliance with Title IX that set forth policy on a statutory, regula-

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gender student's "psychological and dignitary harm" caused by a school bathroom policy was legally cognizable under Title IX).

325 U.S. DEP'T OF JUST., *supra* note 313, at 2.

326 Laura Marini Davis & Victoria Geyfman, *The Business of Title IX Revisited*, 48 J.L. & EDUC. 335, 345 (2019).

327 *Id.* at 335.

328 Renee Nicole Allen, Alicia Jackson & DeShun Harris, *The "Pink Ghetto" Pipeline: Challenges and Opportunities for Women in Legal Education*, 96 U. DET. MERCY L. REV. 525, 525 (2019).

329 Megan C. Maynhart, Note, *Why Title IX Matters: The Key to Breaking the Glass Ceiling in Medicine*, 51 U. TOL. L. REV. 531, 532 (2020).

330 Davis & Geyfman, *supra* note 314, at 168–69.

331 *Id.* at 169.

332 *See* Davis & Geyfman, *supra* note 326, at 346.

333 *Id.* at 336.

334 *See generally* Memorandum of Understanding Between the United States Department of Education, Office for Civil Rights, and the United States Department of Justice Civil Rights Division (Apr. 29, 2014), https://www.justice.gov/sites/default/files/crt/legacy/2014/04/28/ED_DOJ_MOU_TitleIX-04-29-2014.pdf [https://perma.cc/EK2E-Z8ZM] (describing Department of Education and Department of Justice roles in Title IX regulation and enforcement).

tory, or technical issue, or that interpret a statute or regulation.[335] The documents notify schools and other recipients of federal funds of their legal obligations and tell schools how agencies enforce the law, thereby enabling schools to comply with the law.[336] The guidance documents on Title IX are considered "significant guidance documents"[337] that are reasonably anticipated to materially affect the economy, environment, or public health and safety, or will materially alter the budgetary impact of grants or the rights and obligations of grant recipients.[338]

In 1981, the Office for Civil Rights in the Department of Education issued a policy memo that, for the first time, listed sexual harassment as a form of sex discrimination under Title IX.[339] A series of Supreme Court cases following that memo helped lay out the framework for what behavior constitutes harassment to the point of discrimination under Title IX. In 1992, the Supreme Court in *Franklin v. Gwinnett County Public Schools*[340] recognized that sexual harassment is a form of sex discrimination prohibited by Title IX in the educational setting.[341] The Court unanimously held that "all appropriate remedies," including monetary damages, are available for violations of Title IX and that the statute's mandate to end sex discrimination in education necessarily encompasses the eradication of sexual harassment.[342]

In 1999, with its decision in *Davis v. Monroe County Board of Education*,[343] the Court established a three-prong test for Title IX liability in cases of sexual harassment.[344] Under *Davis*, a school is liable for damages under Title IX when: (1) harassment occurred, (2) the school had actual notice of the harassment, and (3) the school was

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335 *See U.S. Department of Education's Guidance Homepage*, U.S. DEP'T EDUC. [hereinafter *Guidance Homepage*], https://www2.ed.gov/policy/gen/guid/types-of-guidance-documents.html [https://perma.cc/6GU6-T788].

336 *See* Davis & Geyfman, *supra* note 314, at 178.

337 *Significant Guidance at the Department of Education*, U.S. DEP'T EDUC., https://www2.ed.gov/policy/gen/guid/significant-guidance.html [https://perma.cc/8ZZR-Y8B9].

338 *See Guidance Homepage*, *supra* note 335.

339 *A Timeline of Rulings, Regulations About Student Sex Assault*, ASSOCIATED PRESS (May 15, 2017), https://www.apnews.com/08e761d7c9e94e5383cbc2168acc8f2a [https://perma.cc/8EZT-259U].

340 503 U.S. 60 (1992).

341 *Id.* at 75–76.

342 *Id.*

343 526 U.S. 629 (1999).

344 *See id.* at 650. The *Davis* case concerned student-on-student harassment, *id.* at 632, but the *Davis* test applies to all sexual harassment in the context of education, *see, e.g.*, Simpson v. Univ. of Col. Boulder, 500 F.3d 1170 (10th Cir. 2007).

deliberately indifferent to the harassment.[345] In *Davis*, a fifth grader and her mother repeatedly reported to the child's teachers and school principal that a classmate often told her, "I want to feel your boobs" and "I want to get in bed with you" and that he sexually rubbed against her on one occasion.[346] The school failed to respond and took over three months to allow the victimized student to change her classroom seat so she was not sitting directly next to the boy that harassed and assaulted her.[347] The Court defined "harassment" for Title IX purposes as harassment that is so severe, pervasive, and objectively offensive that it can be said to deprive the victims of access to the educational opportunities or benefits provided by the school.[348] The Court explained useful factors to determine what constitutes harassment prohibited by Title IX, which "'depends on a constellation of surrounding circumstances, expectations, and relationships,' including, but not limited to, the ages of the harasser and the victim and the number of individuals involved."[349] Under the third element, a school's response constitutes deliberate indifference when the response is "clearly unreasonable in light of the known circumstances,"[350] and subjects its students to undergo harassment or makes them more liable or vulnerable to it.[351] The *Davis* Court found that the district was clearly unreasonable in failing to address the plaintiff's situation.[352]

In *Davis*, for the first time, the Court recognized that student-on-student sexual harassment is a form of sex-based discrimination under Title IX and that school officials have some level of responsibility for addressing sexual harassment occurring at their schools.[353] Different administrations and courts have interpreted the *Davis* holding in different ways, resulting in conflicting guidance and enforcement priorities.[354] Federal circuit courts have also held that if schools do not

345 *See Davis*, 526 U.S. at 650; Gebser v. Lago Vista Indep. Sch. Dist., 524 U.S. 274, 277 (1998).

346 *Davis*, 526 U.S. at 633–34 (quoting petitioner's complaint).

347 *Id.* at 635.

348 *Id.* at 633.

349 *Id.* at 651 (citation omitted) (quoting Oncale v. Sundowner Offshore Servs., Inc., 523 U.S. 75, 82 (1998)).

350 *Id.* at 648.

351 *Id.* at 644–45.

352 *Id.* at 648.

353 *See id.* at 647–48.

354 *See, e.g.*, Porto v. Town of Tewksbury, 488 F.3d 67 (1st Cir. 2007) (vacating a $200,000 jury verdict and holding that there was no deliberate indifference as a matter of law, although the school's response to multiple notifications of peer harassment and sexual abuse was to tem-

properly address sexual harassment through discipline and the harassment's effects through counseling or other remedies, then the schools may be in violation of Title IX.[355]

The Obama Administration, with Joe Biden as the Vice President, implored colleges to take sexual harassment and violence seriously, created the "White House Task Force to Protect Students from Sexual Assault" that Biden co-chaired, and published several detailed guidelines regarding campus sexual assault.[356] In 2010, the Department of Education issued a "Dear Colleague" letter explaining schools' obligations to protect students from student-on-student harassment on the basis of sex, race, color and national origin, and disability.[357] The letter also clarified the relationship between bullying and discriminatory harassment, provided examples of harassment, and illustrated how a school should respond in each case.[358] Importantly, the letter provided a broad definition for sexual harassment, including examples such as: "making sexual comments," "calling students sexually charged names," "spreading sexual rumors," "circulating . . . or creating . . . [w]eb[sites] of a sexual nature," and unwanted "touching of a sexual nature."[359] It explained that such conduct could be "sufficiently serious" to be considered sex discrimination, in "that it limit[s] [a] student's ability to participate in and benefit from the . . . educa-

porarily separate the students); Bostic v. Smyrna Sch. Dist., 418 F.3d 355, 362 (3d Cir. 2005) (holding that the school principal and assistant principal could not be considered "appropriate officials" for notice purposes based solely on their positions); Baynard v. Malone, 268 F.3d 228, 238 (4th Cir. 2001) (concluding that the school district could not be liable because the evidence showed that the principal should have been aware of the potential for abuse, not that he was "in fact" aware of abuse, although a student had reported observing inappropriate touching to the principal); Wills v. Brown Univ., 184 F.3d 20, 41 (1st Cir. 1999) (holding that the university was not "clearly unreasonable" when it recommended that a visiting professor who had sexually assaulted a student remain on the faculty for an additional year despite the fact that he had made "mistakes").

355 *See, e.g.*, Oden v. N. Marianas Coll., 440 F.3d 1085, 1088–89 (9th Cir. 2006); Gabrielle M. v. Park Forest-Chi. Heights, Ill. Sch. Dist. 163, 315 F.3d 817, 825 (7th Cir. 2003).

356 Memorandum from President Barack Obama to the Heads of Exec. Dep'ts & Agencies, Establishing a White House Task Force to Protect Students from Sexual Assault, (Jan. 22, 2014), https://obamawhitehouse.archives.gov/the-press-office/2014/01/22/memorandum-establishing-white-house-task-force-protect-students-sexual-a [https://perma.cc/R6VB-M6E7]; *see also* Andrew Kreighbaum, *Title IX Court Decisions Make It Harder for Biden to Rewrite Rules*, BLOOMBERG (Apr. 5, 2021, 5:00 AM), https://www.bloomberg.com/news/articles/2021-04-05/devos-legacy-snags-biden-s-rewrite-of-college-male-bias-rules [https://perma.cc/3Y7K-Z7GL].

357 Dear Colleague Letter from Russlynn Ali, Assistant Sec'y for C.R., U.S. Dep't of Educ. 1 (Oct. 26, 2010), https://www2.ed.gov/about/offices/list/ocr/letters/colleague-201010.pdf [https://perma.cc/E69Q-C68F].

358 *Id*. at 1–3.

359 *Id*. at 6.

tion program," for instance because of "anxiety and declining class participation."[360] Notably, this letter also recognized that discrimination against transgender students was sex-based discrimination prohibited by Title IX.[361]

The 2011 case *Kowalski v. Berkeley County Schools*[362] upheld the right of school administrators to punish online bullying and sexual harassment by students, regardless of location.[363] In this case, a high school student created a website that demeaned a classmate.[364] This internet-delivered communication took place off campus and outside of school hours.[365] The Fourth Circuit held that a student's off-campus creation of a MySpace page used by the student to harass another student directly violated the school's policy against "harassment, bullying, and intimidation" and substantially interfered with the operation of the school, and that the resulting suspension did not violate the First Amendment.[366]

In 2011, the Department of Education issued another "Dear Colleague" letter focused on sexual violence on campus[367] and published a fact sheet and "know your rights" document[368] to further expand on some of the issues in the letter. The letter required schools "to take immediate and effective steps to end sexual harassment" and to undertake "proactive efforts . . . to prevent sexual harassment and violence."[369] It also explained the obligations a school has to respond to sexual harassment, such as adopting and publishing grievance procedures, training their employees on how to identify and report sexual harassment, investigating harassment when the school has constructive knowledge or reasonably should know harassment is occurring, and designating an employee to coordinate Title IX compliance.[370] Importantly, this letter obligated schools to respond to claims of sexual

360 *Id*. at 7.

361 *See id*. at 8.

362 652 F.3d 565 (4th Cir. 2011).

363 *Id.* at 573–74.

364 *Id*. at 573.

365 *Id*.

366 *Id*. at 567–68, 572, 575.

367 Dear Colleague Letter from Russlynn Ali, Assistant Sec'y for C.R., U.S. Dep't of Educ. (Apr. 4, 2011) [hereinafter April 2011 Letter], https://www2.ed.gov/about/offices/list/ocr/letters/colleague-201104.pdf [https://perma.cc/HS3M-4QKY].

368 U.S. Dep't of Educ. Off. for C.R., Know Your Rights: Title IX Prohibits Sexual Harassment and Sexual Violence Where You Go to School (Apr. 2011), https://www2.ed.gov/about/offices/list/ocr/docs/title-ix-rights-201104.pdf [https://perma.cc/EF4K-R7J6].

369 April 2011 Letter, *supra* note 367, at 2.

370 *Id*. at 4–6.

assault that occurred off campus or outside the education program, based on the theory that what happens outside of the education program may be a reflection of a toxic campus culture, and because what happens outside of the program still affects students on campus.[371]

2. 2020 Changes to Title IX Regulations and the Biden Administration's Anticipated Reforms

In 2017, the Secretary of Education of President Trump's administration, Betsy DeVos, rescinded the 2011 "Dear Colleague" letter concerning sexual violence on campus, and was heavily criticized for doing so.[372] She took action to change Title IX regulations, and the 2020 amendments to the Department's Title IX regulations are formally known as the "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance."[373] Under the Trump-era regulations, which have the force of law unlike the Obama-era guidance, schools can offer informal resolution and could encourage some victims to report sexual misconduct who do not want to undergo the full investigation process.[374] The regulations, however, "limit the complaints that schools are obligated to investigate to only those filed through a formal process,"[375] and schools are not obligated under the new Title IX rules to investigate incidents that occur off campus at facilities not associated with the university.[376] The 2020 amendments instead hold colleges responsible for off-campus sexual harassment only if it occurred at a school-owned property or under the control of school-sanctioned fraternities or sororities.[377] The amendments also permit, and in some cases re-

371 *See id*. at 4.

372 *See, e.g.*, Stephanie Saul & Kate Taylor, *Betsy DeVos Reverses Obama-Era Policy on Campus Sexual Assault Investigations*, N.Y. TIMES (Sept. 22, 2017), https://www.nytimes.com/2017/09/22/us/devos-colleges-sex-assault.html?auth=login-email&login=email [https://perma.cc/EN3W-8X5G]. Janet Napolitano, the president of the University of California system and a Secretary of Homeland Security in the Obama Administration, stated that the rescission would "weaken sexual violence protections [and] prompt confusion." *Id.*

373 85 Fed. Reg. 30,026 (May 19, 2020) (codified at 34 C.F.R. pt. 106).

374 Jeannie Suk Gersen, *How Concerning Are the Trump Administration's New Title IX Regulations?*, NEW YORKER (May 16, 2020), https://www.newyorker.com/news/our-columnists/how-concerning-are-the-trump-administrations-new-title-ix-regulations [https://perma.cc/9LDG-YDPZ].

375 Erica L. Green, *DeVos's Rules Bolster Rights of Students Accused of Sexual Misconduct*, N.Y. TIMES (Sept. 22, 2020), https://www.nytimes.com/2020/05/06/us/politics/campus-sexual-misconduct-betsy-devos.html [https://perma.cc/QZU2-VMEW].

376 34 C.F.R. § 106.44(a) (2019).

377 Press Release, U.S. Dep't of Educ., Secretary DeVos Takes Historic Action to Strengthen Title IX Protections for All Students (May 6, 2020) [hereinafter DeVos Press Re-

quire, a clear and convincing evidence standard in sexual harassment hearings,[378] rather than the preponderance of the evidence standard that is used in other civil rights statutes.[379]

The 2020 amendments define sexual harassment to encompass sexual assault, dating violence, and stalking as unlawful discrimination, but exclude many instances of misconduct that previously fell within the Department of Education's definition of sexual harassment and that continue to fall within the definition of harassment based on race, national origin, and disability.[380] The definition of "sexual harassment" is now a more demanding standard, leaving conduct that does not rise to the level of "severe, pervasive, and objectively offensive" uncovered by Title IX.[381] Additional regulations uphold all students' rights to written notice of allegations, and the right to submit, cross-examine,[382] and challenge evidence at a live hearing, while also shielding survivors from having to come face-to-face with the accused during the hearing.[383] Primary, secondary, and other specialized schools are not required to hold a hearing or cross-examinations, but parties can submit written questions.[384]

Finally, in reviewing a university's response to sex discrimination, the Department of Education and the Department of Justice will apply a "deliberate indifference" standard such that universities will not be found to have violated Title IX unless their actions showed that

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lease], https://www.ed.gov/news/press-releases/secretary-devos-takes-historic-action-strengthen-title-ix-protections-all-students [https://perma.cc/7HRU-ZJZV].

378 34 C.F.R. § 106.45(b).

379 *See* Cantalupo, *supra* note 55, at 5.

380 34 C.F.R. § 106.30(a).

381 Gersen, *supra* note 374.

382 DeVos Press Release, *supra* note 377. Much public debate has focused on the appropriateness of cross-examination in Title IX cases. This Article concerns sexual cyberviolence and harassment and the definitions of harassment and discrimination under Title IX and the scope of a school's responsibilities. On the topic of cross-examination, scholars differ over whether the new Title IX regulations could boost students' due process protections, explaining that "students shouldn't be subject to life-changing consequences of suspension or expulsion without due process safeguards." Wendy Davis, *Schooled in Due Process*, ABA J., Apr./May 2020, at 18, 18. Others fear these new regulations are a "step backward" because "survivors of sexual assault may not report incidents if they know they will face antagonistic questioning," and cross-examination may not be the best method to elicit the truth. *Id.* at 19. The American Civil Liberties Union ("ACLU") of Michigan explained that cross-examination in a Title IX hearing is not essential and is "especially susceptible to abuse." Hannah Walsh, Note, *Further Harm and Harassment: The Cost of Excess Process to Victims of Sexual Violence on College Campuses*, 95 NOTRE DAME L. REV. 1785, 1799 (2020).

383 DeVos Press Release, *supra* note 377.

384 Green, *supra* note 375.

they were deliberately indifferent to the sexual harassment claim, rather than the Obama-era reasonableness standard.[385]

Secretary DeVos was the first Secretary of Education since the enactment of Title IX to utilize rulemaking for campus sexual assault under Title IX, rather than using guidelines.[386] The new Title IX regulations have been critiqued on multiple grounds, including that this civil rights law regarding sex discrimination now employs higher standards than discrimination on other bases, such as race, ethnicity, and religion,[387] and that the new rules are both sexist and racist.[388] DeVos's Title IX regulations immediately faced lawsuits. The ACLU filed the first lawsuit, claiming the Department of Education's actions were "arbitrary and capricious."[389] Victims' advocacy groups and other nonprofit organizations including the National Women's Law Center sued the Department of Education for rescinding the Obama-era guidance.[390] Colleges had less than one hundred days to comply with the 2,000 pages of new regulations in the midst of a global pandemic, which the American Council on Education declared to be "cruel" timing.[391] Although numerous attorneys general,[392] the American Council on Education, and at least twenty-four other higher education associa-

385 34 C.F.R. § 106.2(h).

386 *See* R. Shep Melnick, *Analyzing the Department of Education's Final Title IX Rules on Sexual Misconduct*, BROOKINGS INST. (June 11, 2020), https://www.brookings.edu/research/analyzing-the-department-of-educations-final-title-ix-rules-on-sexual-misconduct/ [https://perma.cc/MK82-JZK7].

387 *See* Cantalupo, *supra* note 55, at 70–72; Greta Anderson, *Legal Challenges on Many Fronts*, INSIDE HIGHER ED (July 13, 2020), https://www.insidehighered.com/news/2020/07/13/understanding-lawsuits-against-new-title-ix-regulations [https://perma.cc/4QCW-PPK3]. Prominent civil rights attorneys, including Catherine Lhamon, the chair of the U.S. Commission on Civil Rights, immediately critiqued the new Title IX regulations. *See* Gersen, *supra* note 374. Speaker of the U.S. House of Representatives Nancy Pelosi called the new regulations "callous, cruel and dangerous, threatening to silence survivors and endanger vulnerable students in the middle of a public health crisis." *Id.*

388 *See* Nancy Chi Cantalupo, *Dog Whistles and Beachheads: The Trump Administration, Sexual Violence & Student Discipline in Education*, 54 WAKE FOREST L. REV. 303 (2019) (identifying how the Trump Administration's Department of Education's broad attack on civil rights undermines the rights of sexual harassment victims and all discriminatory harassment victims, especially students of color who are disproportionately vulnerable to harassment).

389 Gersen, *supra* note 374.

390 Davis, *supra* note 382; Anderson, *supra* note 387.

391 Sarah Brown, *Colleges Had 3 Months to Overhaul Sexual-Misconduct Policies. Now They're Scrambling*, CHRON. HIGHER EDUC. (Aug. 13, 2020), https://www.chronicle.com/article/colleges-had-three-months-to-overhaul-sexual-misconduct-policies-now-theyre-scrambling [https://perma.cc/27PN-FD84].

392 *See* Anderson, *supra* note 387; Press Release, Josh Shapiro, Att'y Gen. of Pennsylvania, AG Shapiro Leads Effort to Stop New Title IX Rule that Weakens Protections for Survivors of Sexual Violence in Schools (June 24, 2020), https://www.attorneygeneral.gov/taking-action/press-

tions filed motions to postpone the August 2020 deadline for colleges to achieve compliance,[393] they were unsuccessful and the rules took effect on August 14, 2020.[394]

During his presidential election campaign, President Joe Biden announced intentions to end DeVos's regulations by restoring the 2011 Title IX guidance.[395] Biden also articulated plans to increase fines for Clery Act[396] violations, strengthen enforcement protocols, require Title IX training of certain college administrators and staff, and fund Title IX training of public K-12 school administrators and staff,[397] along with the implementation of anonymous online sexual harassment reporting systems and broadening of reporting rights for survivors.[398] As Biden prepared to take office, his transition team indicated it was working with "intentional urgency" to roll back the Trump-era rules.[399]

On March 8, 2021, President Biden issued an executive order requiring the Department of Education and the Attorney General to "review all existing regulations, orders, guidance documents, policies, and any other similar agency actions" that may be inconsistent with the Biden Administration's policy approach to Title IX.[400] The executive order instructs U.S. Secretary of Education Miguel Cardona to "consider suspending, revising, or rescinding—or publishing for notice

releases/ag-shapiro-leads-effort-to-stop-new-title-ix-rule-that-weakens-protections-for-survivors-of-sexual-violence-in-schools/ [https://perma.cc/CZA2-ABKF].

393 Anderson, *supra* note 387.

394 Brown, *supra* note 391.

395 Bianca Quilantan, *Biden Vows 'Quick End' to DeVos' Sexual Misconduct Rule*, POLITICO (May 7, 2020, 11:07 AM), https://www.politico.com/news/2020/05/06/biden-vows-a-quick-end-to-devos-sexual-misconduct-rule-241715 [https://perma.cc/6KH9-SD33]; *The Biden Plan to End Violence Against Women*, JOE BIDEN, https://joebiden.com/vawa/# [https://perma.cc/A4T5-G8TA].

396 Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, 20 U.S.C. § 1092 (2018). The Clery Act is a federal law that, among other important obligations, "requires colleges to report crimes that occur 'on campus'" and "contains the Campus Sexual Assault Victim's Bill of Rights, which requires colleges to disclose educational programming, campus disciplinary process, and victim rights regarding sexual violence complaints." *Clery Act*, KNOW YOUR IX, https://www.knowyourix.org/college-resources/clery-act/ [https://perma.cc/D5CT-6WBP].

397 *The Biden Plan to End Violence Against Women*, *supra* note 395.

398 Kathryn Zheng & Victoria Hsieh, *Biden to Try to Broaden Campus Title IX Policies*, STAN. DAILY (Dec. 1, 2020), https://www.stanforddaily.com/2020/12/01/biden-to-try-to-broaden-campus-title-ix-policies/ [https://perma.cc/2FZ4-NB24].

399 Tovia Smith, *Biden Begins Process to Undo Trump Administration's Title IX Rules*, NPR (Mar. 10, 2021, 5:27 PM), https://www.npr.org/2021/03/10/975645192/biden-begins-process-to-undo-trump-administrations-title-ix-rules [https://perma.cc/C9D7-GKD7] (quoting Sage Carson, manager of Know Your IX, an advocacy group for students protected by Title IX).

400 Exec. Order No. 14,021, 86 Fed. Reg. 13,803, 13,803 (Mar. 8, 2021).

and comment proposed rules suspending, revising, or rescinding—those agency actions that are inconsistent" with the policies of the administration.[401] On April 6, 2021, the Education Department's Office for Civil Rights announced that it will conduct a comprehensive review of the Title IX regulations instituted during the Trump Administration and will hold a multiday hearing, ultimately leading to revisions through a notice of proposed rulemaking.[402]

Possible changes to Title IX under the Biden Administration are likely to take some time because the preceding administration went through a formal rulemaking process creating binding legal authority.[403] Without congressional action, the Biden Administration has to go through the same rulemaking procedures to amend the new Title IX regulations, which will take a minimum of eighteen months.[404] The Biden Administration could agree to put the Title IX regulations on hold as litigation continues, which would "effectively kill[]" the rule.[405] Attorneys or interest groups could intervene, however, and demand a federal judicial ruling for the enforcement of the regulations.[406] Another route the Biden Administration could take, suggested by Professor R. Shep Melnick, is to use a two-tiered approach where the administration works to create a new framework while promulgating guidelines to schools explaining how to work around current regulations.[407]

Secretary Cardona explains the Biden Administration's position that "[s]exual harassment and other forms of sex discrimination, in-

401 *Id.*

402 Press Release, U.S. Dep't of Educ., Department of Education's Office for Civil Rights Launches Comprehensive Review of Title IX Regulations to Fulfill President Biden's Executive Order Guaranteeing an Educational Environment Free from Sex Discrimination (Apr. 6, 2021) [hereinafter U.S. Dep't of Educ. Press Release], https://www.ed.gov/news/press-releases/department-educations-office-civil-rights-launches-comprehensive-review-title-ix-regulations-fulfill-president-bidens-executive-order-guaranteeing-educational-environment-free-sex-discrimination [https://perma.cc/JL7V-WBUE]; Sarah Brown, *Biden Is Taking a Fresh Look at Title IX. Here's What to Expect*, CHRON. HIGHER EDUC. (Apr. 6, 2021), https://www.chronicle.com/article/biden-is-taking-a-fresh-look-at-title-ix-heres-what-to-expect [https://perma.cc/RKV6-DJ79].

403 *See* Cristobella Durrette, *Biden Could Bring Higher Education Policy, Title IX Changes*, COUGAR (Dec. 1, 2020), https://thedailycougar.com/2020/12/01/biden-could-bring-higher-education-policy-title-ix-changes/ [https://perma.cc/RVG6-CJW7].

404 Brown, *supra* note 402 (estimated by Melissa Carleton, a higher education lawyer who advises colleges on Title IX).

405 Tyler Kingkade, *Biden Wants to Scrap Betsy DeVos' Rules on Sexual Assault in Schools. It Won't Be Easy.*, NBC NEWS (Nov. 12, 2020), https://www.nbcnews.com/politics/2020-election/biden-wants-scrap-betsy-devos-rules-sexual-assault-schools-it-n1247472 [https://perma.cc/AM7Q-3352].

406 *See id.*

407 *Id.*

cluding in extracurricular activities and other educational settings, threaten access to education for students of all ages."[408] He states, "As Secretary, I will work to ensure all students—no matter their background, who they are, or how they identify—can succeed in the classroom and beyond."[409]

Specifically, the Biden Administration is expected to expand the current definition of harassment under Title IX to include more types of sexual misconduct,[410] particularly because harassment is currently defined only as conduct that is "so severe, pervasive, and objectively offensive" that it denies a person access to an education.[411] The Trump-era Title IX regulations do not cover most off-campus incidents of harassment and abuse, which is expected to change.[412] The Biden Administration also plans to account for the intersecting and compounded forms of discrimination many students experience on the basis of sex, sexual orientation, gender identity, race, national origin, and disability.[413] Procedural protections may remain because the Biden Administration emphasizes the need to ensure that procedures are "fair and equitable for all" those involved in Title IX proceedings,[414] procedural protections are more difficult to roll back once required,[415] and some federal court rulings already require in-person hearings for Title IX.[416]

3. Title IX Applied to Esports

While the few Title IX discussions about esports to date have focused on increasing the numbers of female players,[417] examination should expand to encompass nondiscriminatory and nonharassing gaming regardless of gender identity,[418] and attention to campus climate and environment. This Article argues that universities should an-

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408 U.S. Dep't of Educ. Press Release, *supra* note 402.

409 *Id.*

410 *See* Brown, *supra* note 402.

411 Davis v. Monroe Cnty. Bd. of Educ., 526 U.S. 629, 633 (1999).

412 *See* Brown, *supra* note 402.

413 *See* Exec. Order No. 14,021, 86 Fed. Reg. 13,803, 13,803 (Mar. 8, 2021).

414 *Id.* at 13,804; *see also* Press Briefing by Jen Psaki, Press Sec'y, Julissa Reynoso, Co-Chair of the Gender Pol'y Council & Chief of Staff to the First Lady, Jennifer Klein, Co-Chair & Exec. Dir. of the Gender Pol'y Council (Mar. 8, 2021, 11:31 AM), https://www.whitehouse.gov/briefing-room/press-briefings/2021/03/08/press-briefing-by-press-secretary-jen-psaki-and-co-chairs-of-the-gender-policy-council-julissa-reynoso-and-jennifer-klein-march-8-2021/ [https://perma.cc/BZ4X-FKE9].

415 *See* Brown, *supra* note 402.

416 *See, e.g.*, Doe v. Baum, 903 F.3d 575, 582–83 (6th Cir. 2018).

417 *See, e.g.*, Bauer-Wolf, *supra* note 18.

418 It is beyond the scope of this Article to resolve what Title IX proportionality means for

ticipate that sponsoring and hosting gaming, esports, and virtual reality experiences can create opportunities for sexual harassment and discrimination by and of students, and also establish a campus and organizational climate that signals tolerance of sexual harassment and is conducive to underreporting and retaliation.[419] As such, colleges should affirmatively tackle these issues.

Professional esports is ninety-five percent male, and college teams are male-dominated and reflect a "stark gender imbalance."[420] Women account for half of the global population and now outpace men in college enrollment and completion,[421] yet women have been viewed as a niche market in gaming and esports for far too long.[422]

Compliance with Title IX requires an equitable and fair apportionment of esports opportunities for all sexes.[423] Title IX regulations list ten factors to consider in determining if there is equal opportunity in athletics at recipient schools and if schools permit an equal aggregate of expenditures on athletics for "members of each sex."[424] Under Title IX, the Assistant Secretary "may consider the failure to provide necessary funds for teams for one sex in assessing equality of opportunity."[425]

The Department of Education's "Three-Part Test" enables colleges and universities to ensure Title IX compliance regarding "equal opportunity" to members of each gender.[426] In collegiate sports, if the

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gender fluid and nonbinary individuals; further research should address these important concerns.

419 *See* Nancy Chi Cantalupo & William C. Kidder, *Systematic Prevention of a Serial Problem: Sexual Harassment and Bridging Core Concepts of* Bakke *in the #MeToo Era*, 52 U.C. DAVIS L. REV. 2349, 2375 (2019).

420 Orantes & Sharma, *supra* note 27.

421 *See* LINDA DEANGELO, RAY FRANKE, SYLVIA HURTADO, JOHN H. PRYOR & SERGE TRAN, COMPLETING COLLEGE: ASSESSING GRADUATION RATES AT FOUR-YEAR INSTITUTIONS 8 (2011), https://www.researchgate.net/profile/Ray_Franke/publication/249644731_Completing_College_Assessing_Graduation_Rates_at_Four-Year_Institutions/links/0046351e5bb5279e3a000000.pdf [https://perma.cc/NMG7-EJ4U]; Mark Hugo Lopez & Ana Gonzalez-Barrera, *Women's College Enrollment Gains Leave Men Behind*, PEW RSCH. CTR.: FACT TANK (Mar. 6, 2014), https://www.pewresearch.org/fact-tank/2014/03/06/womens-college-enrollment-gains-leave-men-behind/ [https://perma.cc/F2XF-48V4].

422 *See supra* note 152 and accompanying text.

423 *See* 34 C.F.R. § 106.41 (2019).

424 *Id.* § 106.41(c). Gender exclusions under Title IX regulations for teams involving "contact sports" are permissible. *Id.* § 106.41(b).

425 *Id.*

426 A university may provide "equal opportunity" to members of each gender in one of three ways: (1) the "participation opportunities for male and female students are provided in numbers substantially proportionate to their respective enrollments," (2) the "interests and abilities" of the sex which is underrepresented with respect to their undergraduate enrollment are

number of female athletes is proportional to the total number of female students, the school is in compliance with Title IX; otherwise, schools are required to consider the interests and abilities of the underrepresented sex and expand programs accordingly.[427] As schools invest in esports, they continue to face significant challenges achieving equal opportunity and proportionality across gender identity, at least in part due to how female gamers regularly contend with cyberbullying, harassment, and hostile team cultures when gaming online.

Issues of proportionality and gender-based harassment in gaming and esports should be concomitantly considered, given research that environments and institutional cultures that are male-dominated produce high levels of gender-based violence, racism, misogyny, and homophobia as ways to establish and maintain dominant status within the male group.[428] Professor Nancy Chi Cantalupo further identifies that glorifying competition and aggression while suppressing emotion and empathy within cultures of silence produce added gender-based harassment.[429]

Harassment experienced in school-sponsored gaming and by student gamers falls within the scope of the Trump-era Title IX regulation changes and President Biden's anticipated reforms, whether or not gaming and esports are considered "sports."[430] Assessing equity in athletics requires determining whether the activity is a sport under Title IX. The Office for Civil Rights ("OCR"), when analyzing whether cheerleading was a sport, explained it will examine each activity on a case-by-case basis, taking into account five factors.[431] In a

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"fully and effectively accommodated by the present program," or (3) the underrepresented gender's interests and abilities will be accommodated by "expansion" of the athletic program. Policy Interpretation of Title IX and Intercollegiate Athletics, 44 Fed. Reg. 71,413, 71,418 (Dec. 11, 1979) (to be codified at 45 C.F.R. pt. 86); Kelley v. Bd. of Trs. of the Univ. of Ill., 832 F. Supp. 237, 241 (C.D. Ill. 1993).

427 See Cohen v. Brown Univ., 991 F.2d 888, 899 (1st Cir. 1993); Roberts v. Colo. State Bd. of Agric., 998 F.2d 824, 829 (10th Cir. 1993); Favia v. Ind. Univ. of Pa., 812 F. Supp. 578, 584–85 (W.D. Pa. 1993); 34 C.F.R. § 106.41; Policy Interpretation of Title IX and Intercollegiate Athletics, 44 Fed. Reg. at 71,413–23.

428 Cantalupo, *supra* note 39, at 923, 928.

429 *Id.* at 932–33.

430 *See* Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance, 85 Fed. Reg. 30,026 (May 19, 2020) (to be codified at 34 C.F.R. § 106).

431 Letter from Harry A. Orris, Dir., Cleveland Off., U.S. Dep't of Educ. Off. for C.R., to Suzanne M. Martin, Assistant Dir., Michigan High Sch. Athletic Ass'n (Oct. 18, 2001), http://web.archive.org/web/20050831201054/http://www.ed.gov/about/offices/list/ocr/mhsaa-cheer.html (last visited Apr. 3, 2021). The five factors include:

> [W]hether selection for the team is based upon objective factors related primarily

"Dear Colleague" letter, OCR provided guidance for what constitutes a "sport" under Title IX.[432] OCR lays out two main factors to consider: (1) program structure and administration, and (2) team preparation and competition.[433] Under the first category, OCR considers whether the activity is structured and administered consistently with established varsity sports in the institution's athletic programs, such as consistency with operating budgets and athletic scholarships.[434] Under the second category, OCR considers whether the team prepares for and engages in competition consistently with established varsity sports at the institution—including practice opportunities, competitive opportunities, preseason and postseason competition—and whether the primary purpose of the activity is to provide athletic competition.[435] Esports arguably falls under the definition of a sport and is recognized by multiple universities as such.[436]

The Trump-era regulations establish jurisdiction over sexual harassment that takes place in an educational program or activity, where the "education program or activity includes locations, events, or circumstances over which the [school] exercised substantial control over both the respondent and the context in which the harassment occurs" and "any building owned or controlled by a student organization that is officially recognized by a postsecondary institution," regardless of whether the respondent is affiliated with the school.[437] This definition covers harassment experienced in a gamer's capacity as a school ath-

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> to athletic ability; whether the activity is limited to a defined season; whether the team prepares for and engages in competition in the same way as other teams in the athletic program with respect to coaching, recruitment, budget, try-outs and eligibility, and length and number of practice sessions and competitive opportunities; whether the activity is administered by the athletic department; and, whether the primary purpose of the activity is athletic competition and not the support or promotion of other athletes.

Letter from Dr. Mary Frances O'Shea, Nat'l Coordinator for Title IX Athletics, U.S. Dep't of Educ. Off. for C.R., to David V. Stead, Exec. Dir., Minnesota State High Sch. League (Apr. 11, 2000), http://web.archive.org/web/20050205120744/http://www.ed.gov/about/offices/list/ocr/stead.html (last visited Apr. 3, 2021).

432 Dear Colleague Letter from Stephanie Monroe, Assistant Sec'y for C.R., U.S. Dep't of Educ. Off. for C.R., (Sept. 17, 2008), https://www2.ed.gov/about/offices/list/ocr/letters/colleague-20080917.html [https://perma.cc/T84Y-BLXG].

433 *Id.*

434 *Id.*

435 *Id.*

436 *See* Daniel Kane & Brandon D. Spradley, *Recognizing Esports as a Sport*, SPORT J. (May 11, 2017), https://thesportjournal.org/article/recognizing-esports-as-a-sport/ [https://perma.cc/48ZD-3L2E].

437 *Id.* at 30,186–87.

lete, including in-game harassment perpetrated online and quid pro quo harassment committed by a coach or trainer.

Even with the new 2020 regulations utilizing the "deliberate indifference" standard, sexual harassment in gaming is so pervasive that schools should anticipate students to be vulnerable to abuse while gaming.[438] Some aspects of the new regulations, however, pose barriers to reporting and receiving appropriate protection. The regulations do not require university employees to be trained on sexual harassment or reporting of sexual harassment, and removals—including removals from sports teams—and other supportive measures cannot unreasonably burden the other party.[439] Emergency removal of a respondent is conditioned upon the respondent posing a risk to the physical health and safety of others arising from the sexual harassment allegations.[440] Gamers will likely face a barrier to reporting sexual harassment because coaches may not know how to properly respond to sexual harassment allegations, which are commonplace in gaming and which players are expected to shrug off as "trash talk."

Depending on the nature of harassment or threats, gamers who bring allegations against players at other schools or against their own teammates based on in-game harassment will likely face challenges when attempting to have respondents removed from the team or removed on an emergency basis, given that gaming is not a contact sport, and thus in-game harassment may not be seen as posing a threat to physical health and safety. Additionally, schools may use the broad "unreasonable burden" standard to justify not removing star athletes from teams, and coaches may avoid removing players from teams or competitions when gaming does not require physical proximity. This will result in survivors and perpetrators continuing to play on the same teams, giving space for further harassment or resulting in survivors voluntarily leaving teams when perpetrators are not removed. Therefore, gaps in school-required responses to sexual harassment allegations will leave school-sponsored gamers with less protections and at risk of further violence.

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438 Davis *ex rel.* LaShonda D. v. Monroe Cnty. Bd. of Educ., 526 U.S. 629, 644–45 (1999) ("[D]eliberate indifference must, at a minimum, 'cause [students] to undergo' harassment or 'make them liable or vulnerable' to it." (quoting RANDOM HOUSE DICTIONARY OF THE ENGLISH LANGUAGE 1415 (1966))); *see also* Shrum *ex rel.* Kelly v. Kluck, 249 F.3d 773, 782 (8th Cir. 2001) ("[D]eliberate indifference must either directly cause the abuse to occur or make students vulnerable to such abuse . . . ."); K.T. v. Culver-Stockton Coll., 865 F.3d 1054, 1057 (8th Cir. 2017).

439 *See* Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance, 85 Fed. Reg. at 30,045.

440 *See id.* at 30,183.

The Biden Administration's anticipated reforms will provide much more expansive protection to students in school-promoted gaming contexts, whether students are members of a gaming club or formal esports team, and regardless of the location of the gaming. With greater obligations on schools to protect students from sex discrimination and sexual harassment, and broader definitions of sexual harassment, the Biden Administration seeks to carry out the civil rights law's intent to prevent and address sex-based harassment[441] and ensure "gender equity in virtually all areas of school life."[442]

With Title IX and related laws focused on sex discrimination, trauma-informed methods and comprehensive prevention goals can be extended to gaming and other contexts vital to a healthy campus climate.[443] The combined effect could address multiple challenges faced by a diversity of students, including hostile environments based on race, gender, sexual orientation, disability, and socioeconomic status.[444] Professor Cantalupo has argued that addressing the "effects of hostile educational environments, especially the trauma caused by such environments, is necessary for achieving [the] deeper meaning of diversity on higher education campuses" and fostering the educational benefits thereof.[445]

As college campuses increasingly create esports programs, various legal parameters and tensions that are implicated must be examined. Students may claim free speech rights concerning gaming communications that others understand to be offensive, derogatory, or threatening. These First Amendment questions are considered in the next Section.

C. First Amendment Questions

The U.S. Supreme Court in *Tinker v. Des Moines Independent Community School District*[446] held that First Amendment protections extend to on-campus student speech, so long as the speech does not "materially disrupt[] classwork" or substantially interfere with others' rights.[447] The Court noted that students and teachers do not "shed their constitutional rights to freedom of speech or expression at the

441 U.S. DEP'T OF JUST., *supra* note 313, at 2.

442 HILL & KEARL, *supra* note 49, at 7.

443 *See* Cantalupo & Kidder, *supra* note 419, at 2359.

444 *See id.*

445 *Id.*

446 393 U.S. 503 (1969).

447 *Id*. at 506.

schoolhouse gate."[448] Although the Constitution does not afford students the right to participate in collegiate athletics or extracurricular activities, it *does* protect free speech "in the cafeteria, or on the playing field, or on the campus" while students participate in these activities.[449] Courts have thus tasked schools with the sometimes-conflicting responsibility to promote and protect free speech while proscribing and controlling conduct for educational purposes.

Although student speech is protected by the First Amendment, schools may curtail on-campus speech that "materially disrupts classwork" or substantially interferes with the rights of others.[450] Further, schools may editorialize school-sponsored speech, offensive language, lewd expression, and messages advocating illegal drug use.[451] Technology has complicated current categorical student-speech distinctions by blurring the on- and off-campus speech divide.[452] Different federal courts have analyzed student speech under different tests, including sufficient nexus, reasonable foreseeability, and *Tinker*'s second "rights of others" prong.[453]

Although *Tinker* expressly sought to protect student speech whether "in the cafeteria, or on the *playing field*,"[454] no Supreme Court case has considered free speech specifically in college athletics; and esports is housed in athletics departments or in freestanding programs, depending on the college. As discussed, federal law requires

448 *Id.*

449 *Id.* at 512–13.

450 *Id.* at 513.

451 *See* Morse v. Frederick, 551 U.S. 393, 397 (2007) ("[S]chools may take steps to safeguard those entrusted to their care from speech that can reasonably be regarded as encouraging illegal drug use."); Hazelwood Sch. Dist. v. Kuhlmeier, 484 U.S. 260, 273 (1988) (holding that educators may "exercis[e] editorial control over the style and content of student speech in school-sponsored expressive activities [if] reasonably related to legitimate pedagogical concerns"); Bethel Sch. Dist. No. 403 v. Fraser, 478 U.S. 675, 685 (1986) (holding that school officials could prevent "vulgar and lewd speech [that would] undermine the school's basic educational mission").

452 *See, e.g.*, Kowalski v. Berkeley Cnty. Schs., 652 F.3d 565, 574–75 (4th Cir. 2011) (applying the *Tinker* substantial disruption test to online speech in a MySpace group created away from school).

453 *See* Porter v. Ascension Par. Sch. Bd., 393 F.3d 608, 615–20 (5th Cir. 2004) (holding that a violent drawing concealed in a student's nightstand for two years, and only inadvertently taken to school by the student's brother, removed the speech from the realm of *Tinker* because it was not created on-campus or directed at campus); Thomas v. Bd. of Educ., 607 F.2d 1043, 1050 (2d Cir. 1979) (ruling that school authorities violated the First Amendment rights of free speech and press when they suspended several students for creating an underground student newspaper that was produced largely off-campus); J.C. v. Beverly Hills Unified Sch. Dist., 711 F. Supp. 2d 1094, 1107 (C.D. Cal. 2010) (holding that speech that causes or is foreseeably likely to cause a substantial disruption of school activities can be regulated and disciplined by a school).

454 *Tinker*, 393 U.S. at 512 (emphasis added).

educational institutions to maintain nondiscriminatory environments, including through Title VI and Title IX of the Civil Rights Act of 1964,[455] and the Supreme Court has recognized Congress's authority to create a cause of action for individuals who experience religious discrimination in the academic community.[456] Campuses can censor and punish speech that crosses the line into targeted harassment or threats, that creates a pervasively hostile environment for vulnerable students, or that is otherwise unprotected speech.[457] Speech that violates Title IX by harassing or threatening a student is not protected under the First Amendment, even when it does not pose an imminent threat of violence, given the targeted nature of such speech, the educational context, and the civil rights remedy provided by Title IX.[458]

Over fifty years of experience with Title VII has shown that workplaces can balance civil rights and liberties with antidiscrimination and antiharassment laws, and this should also be true concerning cyber harassment.[459] Universities must create environments that foster tolerance and mutual respect, and in which students can meaningfully participate in campus life without being subject to discrimination. To advance these values, campus administrators should emphasize that free expression is central to democracy and to institutions of learning[460] and prepare students to understand that most speech is protected by the U.S. Constitution.[461] They should simultaneously clearly speak out against expressions of racist, sexist, homophobic, and transphobic speech, as well as other instances of discrimination against marginalized individuals or groups; promptly and firmly

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455 *See infra* Section III.B; 42 U.S.C. § 2000d (2012) (prohibiting institutional recipients of federal assistance from excluding persons based on race, color, or national origin from "any program or activity receiving Federal financial assistance"); *see also* Racial Incidents and Harassment Against Students at Educational Institutions, 59 Fed. Reg. 11,448, 11,449 (Mar. 10, 1994) (providing notice of investigative guidance that Title VI will be interpreted to prohibit recipient institutions from creating or maintaining a hostile environment, defined as an environment in which harassing conduct "is sufficiently severe, pervasive[,] or persistent so as to interfere with or limit the ability of an individual to participate in or benefit from the services, activities[,] or privileges provided by a recipient").

456 *See* Good News Club v. Milford Cent. Sch., 533 U.S. 98 (2001); Cannon v. Univ. of Chi., 441 U.S. 677, 709 (1979); Zorach v. Clauson, 343 U.S. 306, 309–10 (1952).

457 *See* ERWIN CHEMERINSKY & HOWARD GILLMAN, FREE SPEECH ON CAMPUS 113 (2017).

458 *See* Kowalski v. Berkeley Cnty. Schs., 652 F.3d 565, 574 (4th Cir. 2011); Alexander Tsesis, *Campus Speech and Harassment*, 101 MINN. L. REV. 1863, 1892 (2017).

459 DANIELLE KEATS CITRON, HATE CRIMES IN CYBERSPACE 192–93 (2014).

460 *See* CHEMERINSKY & GILLMAN, *supra* note 457, at 19.

461 *See, e.g.*, N.Y. Times Co. v. Sullivan, 376 U.S. 254, 269–71 (1964); Cohen v. California, 403 U.S. 15, 21–23 (1971); Snyder v. Phelps, 562 U.S. 443, 455–58 (2011); United States v. Alvarez, 567 U.S. 709, 716–19 (2012); Matal v. Tam, 137 S. Ct. 1744, 1763 (2017).

counter acts of discriminatory harassment, intimidation, or invasion of privacy; host forums and workshops; and improve diversity throughout educational institutions.[462] As schools navigate speech issues concerning students and campus, they should also recognize that different people have different platforms and not everyone is positioned the same regarding the power of their speech.

IV. Opportunities for Gender-Based Violence Prevention

Norms that are particularly pertinent to the continuation of gender-based violence include male and female gender stereotypes and socialization, male entitlement, the desire to have power and control over another, and "the belief that intimate relationships are entirely private."[463] Research also shows that regular exposure to violence leads young people to normalize violence and reduce empathy for victims, all of which increases the risk of utilizing violence.[464] Secrecy surrounding intimate violence precludes early intervention, isolates those being victimized, and perpetuates patterns of violence. Sexual cyberviolence and harassment are often dismissed by law enforcement and judges as not being "real," yet cyber abuse can have devastating psychological and physical effects on a person.[465] Positive change particularly requires attention to societal attitudes regarding gender asymmetry, masculine gender role ideologies, and interpersonal power differentials.[466] Prevention efforts should also counter "gender policing," which occurs when individuals tease or shame males to uphold masculine norms of dominance, strength, toughness, and control.[467]

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462 *See generally* Chemerinsky & Gillman, *supra* note 457, at 113 (providing guidelines for different situations).

463 Prevention Inst., Creating Safe Environments 3 (2006), http://www.preventioninstitute.org/component/jlibrary/article/id-36/127.html [https://perma.cc/7TAQ-Y4BE]; *see also* M. Christina Santana, Anita Raj, Michele R. Decker, Ana La Marche & Jay G. Silverman, *Masculine Gender Roles Associated with Increased Sexual Risk and Intimate Partner Violence Perpetration Among Young Adult Men*, 83 J. Urb. Health 575, 581–82 (2006) (discussing "traditional masculine gender role ideologies being the linchpin explaining previous research findings linking non-condom use and [intimate partner violence] perpetration in men").

464 *See* Asma Tarabah, Lina Kurdahai Badr, Jinan Usta & John Doyle, *Exposure to Violence and Children's Desensitization Attitudes in Lebanon*, 31 J. Interpersonal Violence 3017, 3019 (2016).

465 *See generally* Citron, *supra* note 459 (detailing multiple examples of cyber abuse and harmful effects).

466 *See* Gerald H. Burgess, *Assessment of Rape-Supportive Attitudes and Beliefs in College Men: Development, Reliability, and Validity of the Rape Attitudes and Beliefs Scale*, 22 J. Interpersonal Violence 973, 979–84 (2007); Santana et al., *supra* note 463, at 576–77.

467 *See* Debby A. Phillips, *Punking and Bullying: Strategies in Middle School, High School,*

Colleges attentive to Title IX concerns about gaming as they host, sponsor, and promote esports could help push the gaming industry toward a cultural transition for diversity and inclusion. If colleges are motivated to comply with federal law and the industry demands a high-school-to-college-to-professional esports pipeline,[468] viewing schools as "hospitable foundations to help this industry grow and stabilize as a whole,"[469] overdue change could occur. Change through schools could alter gaming and esports dynamics more broadly and for the better, preventing incidents like in 2014, where a significant number of gamers reacted with extreme hostility and violence to critiques about misogyny and racism in gaming.[470] Section IV.A addresses actions the industry can take, and Section IV.B provides guidance to schools about esports and gender-based violence and harassment prevention.

A. The Gaming Industry

Gender-based harassment should not be an inevitable part of gaming for females, and women and nonbinary individuals should not have to shield their identities to safely participate. The answer instead is to end the harassing behavior.

Recognizing the toxic environment and behavior that often accompanies gaming, some game developers are attempting to proactively address such problems. Blizzard Entertainment, for example, introduced to its shooter game, *Overwatch*, an endorsement function that allows players to compliment each other for leadership, teamwork, and sportsmanship, along with a "looking for group" function that allows players to form more "balanced teams."[471] Blizzard reports that abusive chat decreased by between fifteen and thirty percent following these implementations, and the company continues to explore measures to make its gaming communities less abusive.[472]

Similarly, Riot Games created an "Honor" system for *League of Legends* players in 2012, which "allow[s] players to praise one another

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and Beyond, 22 J. INTERPERSONAL VIOLENCE 158, 163, 174–75 (2007); Elizabethe Payne & Melissa J. Smith, *Gender Policing*, *in* CRITICAL CONCEPTS IN QUEER STUDIES AND EDUCATION 127, 127 (Nelson M. Rodriguez et al., eds. 2016).

468 *See* Kendall Baker, *Esports Eyes High Schools, Colleges as Talent Pipeline*, AXIOS (Jan. 29, 2019), https://www.axios.com/esports-professional-athletes-college-high-school-60c456d6-4e5a-446b-8177-fff9d7796de9.html [https://perma.cc/TGB8-D783].

469 Orantes & Sharma, *supra* note 27.

470 *See* Jason, *supra* note 268.

471 Castello, *supra* note 238.

472 *Id.*

for teamwork, positivity and strategy."[473] On the heels of Gamergate in 2015, Riot Games declared "the success of the game's Tribunal system, which gave players an opportunity to vote on what behaviours were unacceptable and punish offenders."[474] According to Riot Games, verbal abuse declined by over forty percent and nine in ten players who received a penalty for negative acts did not commit another offense after just one reported penalty.[475]

Another game developer, Ubisoft, imposed immediate half-hour suspensions of the accounts of *Rainbow Six Siege* players if they were detected typing slurs into the chat function and stream.[476] A second offense triggers a two-hour suspension, and a third offense prompts an official investigation that can result in a permanent ban.[477]

Complaints of rampant racist, sexist, and homophobic slurs, threats, and behaviors continue today, as shown by the revelations in the summer of 2020,[478] but these measures reveal that the gaming industry both acknowledges toxic behaviors and can act through technology to reduce and penalize such behaviors. Researcher Kat Lo notes that having clear consequences for harmful behavior in gaming "sends a message to the community that the developers are taking measures to instil[l] less toxic community norms, and most importantly that they're willing to enforce those expectations."[479] Organizations like the Fair Play Alliance, a collection of companies in the gaming industry working to encourage healthy gaming communities and to reduce hate and abuse through gaming, are also starting up.[480] Similarly, advocacy organization AnyKey pursues a mission of diversifying the esports community by promoting inclusivity.[481]

In response to the outpouring of allegations of sex discrimination, harassment, and assault in the gaming industry during the summer of 2020, multiple heads of industry resigned.[482] Deeper cultural change in the industry, which has devalued women in leadership and design, remains to be seen. Scholars of the gaming industry are calling for women and people of color to hold senior roles to drive needed change,

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473 *Id.*

474 *Id.*

475 *Id.*

476 *Id.*

477 *Id.*

478 *See* Lorenz & Browning, *supra* note 164.

479 Castello, *supra* note 238.

480 FAIR PLAY ALLIANCE, https://fairplayalliance.org/ [https://perma.cc/8ZUQ-LDZR].

481 ANYKEY, https://www.anykey.org/ [https://perma.cc/4ZHZ-U5QU].

482 Browning, *supra* note 287.

along with gaming companies to hire and dedicate resources to support a broader diversity of candidates' participation throughout the industry.[483] Gaming companies issued statements condemning sexism, racism, and homophobia in the industry;[484] employees now need to be proactively protected through the enforcement of policies so that zero-tolerance statements are not merely meaningless platitudes.[485]

Developers should be encouraged to tell wider stories, expanding beyond "entitled macho-male power fantasy in their games."[486] Possibilities are endless for more inclusive and diverse representations and stories within games, but changes have been slow and select.[487] As a starting point for change, designers can reconsider (1) how gender and sexuality are assigned to characters and storylines, (2) depictions of sexual violence against women, and (3) inclusion of nonstereotypical female characters that are not merely appearing in games as sexualized objects.[488]

The proliferation of esports and focus on youth audiences, and building pipelines to professional play, present opportunities for video games to be tools for abuse prevention. Computer games can also be used to address social problems, and growing evidence shows the efficacy of using video games for public health interventions.[489] Games have been created to address topics of family violence,[490] teen dating violence,[491] sexual assault during college,[492] and the prevention of sex-

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483 *Id.*

484 *Id.*

485 *See* Todd, *supra* note 268, at 66.

486 *Id.*

487 *Id.*

488 *See id.*; Bryce & Rutter, *supra* note 98, at 7.

489 *See, e.g.*, Sharon Steinemann, Glena H. Iten, Klaus Opwis, Seamus F. Forde, Lars Frasseck & Elisa D. Mekler, *Interactive Narratives Affecting Social Change: A Closer Look at the Relationship Between Interactivity and Prosocial Behavior*, 29 J. MEDIA PSYCH. 54, 62–64 (2017).

490 *See, e.g.*, James Batchelor, *Can a Video Game Prevent Domestic Violence?*, GAMESINDUSTRY.BIZ (Oct. 29, 2018), https://www.gamesindustry.biz/articles/2018-10-26-can-a-video-game-prevent-domestic-violence [https://perma.cc/JPS9-EB5L] (discussing *Jesse*, a game for youth about a ten-year-old boy who lives with his mother and her abusive boyfriend).

491 *See, e.g.*, Drew Crecente, *Gaming Against Violence: A Grassroots Approach to Teen Dating Violence*, 3 GAMES HEALTH J. 198, 200 (2014) (describing the Life.Love. Game Design Challenge, a contest that rewards game developers for creating video games about teen dating violence without using violence in the games themselves).

492 *See, e.g.*, Kristen N. Jozkowski & Hamid R. Ekbia, *"Campus Craft": A Game for Sexual Assault Prevention in Universities*, 4 GAMES HEALTH J. 95, 97, 101–03 (2015) (discussing *Campus Craft*, a simulation game that provides a virtual university setting in which students listen to and participate in health-related conversations and scenario development, including discussions about consensual sex).

ually transmitted diseases,[493] among other public health topics. Games can be created to enhance empathy and skills for recognizing and safely intervening in situations of harassment.[494] Although these games have not reached blockbuster status, investing in such games and storylines would be a way for the gaming industry to demonstrate actual commitment to ending sex discrimination.

B. Strategies for Schools

School investments in esports run parallel to recent global movements against harassment, abuse, and anti-Black racism, including Black Lives Matter protests, women's marches, and the social media movements of #1ReasonWhy, #WhyIStayed, #MeToo, #TimesUp, and #WhyIDidn'tReport. Schools should be attentive to these movements' contexts and imperatives, especially because of the role of youth in the movements, and utilize the movements' calls to action as frameworks for the development of inclusive gaming programs.

With Title IX mandates and broad campus commitments to equity, inclusion, and diversity, universities have the opportunity and legal necessity to build positive, nondiscriminatory gaming and esports programs from the ground up. Schools investing in esports should involve their Title IX campus coordinator and Diversity, Equity, and Inclusion Officers in navigating the intersection of Title IX, gaming content, and behavior while gaming, including when using school equipment or facilities, gaming through school-sponsored events, representing the schools as an esports athlete or esports scholarship recipient, or participating on a school-sponsored team.

NACE, the association of American varsity esports programs, describes its support for gender equity both in terms of ensuring participation in gaming regardless of gender and without experiencing discrimination. According to NACE, "[g]ender equity is an atmosphere and a reality where fair distribution of overall competition, opportunity[,] and resources, proportionate to enrollment, are available to women and men, and where no competitor, coach, or athletics administrator is discriminated against in any way in the esports program."[495] In light of the present reality concerning the toxicity of the

493 *See, e.g.*, Seth Noar, Hulda G. Black & Larson B. Pierce, *Efficacy of Computer Technology-Based HIV Prevention Interventions: A Meta-Analysis*, 23 AIDS 107, 113 (2009); Ross Shegog, Christine Markham, Melissa Peskin, Monica Dancel, Charlie Coton & Susan Tortolero, *"It's Your Game": An Innovative Multimedia Virtual World to Prevent HIV/STI and Pregnancy in Middle School Youth*, 129 STUD. HEALTH TECH. & INFORMATICS 983, 985 (2007).

494 Potter et al., *supra* note 59.

495 *Get Involved*, *supra* note 300.

esports community culture to nonwhite and nonmale players,[496] how the "climate of gaming culture tends to make women gamers feel excluded and out-of-place," and how "dominant discourse reflects and reinforces heterosexist and masculinist values and norms,"[497] schools are challenged to actually achieve NACE's standard of equity in gaming.[498]

To implement Title IX's "Three-Part Test,"[499] broader gender representation starts with hiring female and nonbinary program directors, staff, mentors, and student ambassadors, which can be done while furthering roles for women and men of color. Esports programs can host incubator programs for youth interested in gaming and esports, similar to programs in STEM fields,[500] to coach and mentor young women and a diversity of students. Entering a gaming space is intimidating if one is not familiar with gaming. Accordingly, schools can host gaming events that are explicitly not competitions and that are advertised as opportunities for new players to learn new games. Schools should not be content with only requiring teams to place a single female on them, as this often results in that woman being targeted or experiencing backlash and isolation.

When colleges sponsor gaming or esports, their commitment to ensuring students can participate meaningfully in campus life without being subject to discrimination extends to ensuring safe gaming experiences. Schools should educate students who play esports about the school's honor code and other institutional policies and procedures, including those concerning student conduct and cyberbullying, and implement no-tolerance rules for use of derogatory language or chat emotes with derogatory meanings during school-based competitions.

Schools can effectuate such intentions by creating Inclusivity Plans and Codes of Conduct that prioritize principles of equity, inclusion, and healthy gaming and that refuse to tolerate harassing behavior. Codes may include standards such as, "Harassment based on any aspect of a person's identity will not be tolerated," and "No 'toxicity'

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496 *See* T.L. Taylor, Mass. Inst. of Tech., Keynote Address at the UC Irvine eSports Symposium: On the Fields, in the Stands: The Future of Women and eSports (May 19, 2017).

497 Todd, *supra* note 268, at 66.

498 *Get Involved*, *supra* note 300.

499 *See generally* Erin E. Buzuvis & Kristine E. Newhall, *Equality Beyond the Three-Part Test: Exploring and Explaining the Invisibility of Title IX's Equal Treatment Requirement*, 22 MARQ. SPORTS L. REV. 427 (2012).

500 *See generally* Caroline Hanna, *The Incubator Program: Hatching the STEM Scientists of the Future*, AMHERST COLL. (Oct. 15, 2020), https://www.amherst.edu/mm/633617 [https://perma.cc/3YPG-Q89Y].

allowed. Behaviors that create an intolerable environment such as bullying, threats of violence, stalking, or other forms of intimidation will not be tolerated."[501] Requiring players to read and agree to a code of conduct has been shown to markedly decrease toxic incidents, and "fostering norms that [create and] sustain healthy environments that are . . . resilient to toxic individuals" or acts proves essential to combating toxicity in games.[502]

Student gamers should also receive cyber- and game-specific training concerning sexual harassment. The harms of cyber sexual violence and gender-based harassment are not always obvious, especially to men who may categorize online chat as "trash talk" that is inherent to gaming; research shows that educating gamers about victims' experiences of harassment in games and the corresponding negative harms can mitigate harassment.[503]

The gaming environment is instantaneous, escalates quickly, and is often anonymous and not tied to a specific physical location, so schools and students have to actively prepare to build and maintain healthier cultures in gaming.[504] Because substantial cyber harassment occurs in the presence of peers, which carries its own trauma,[505] preventive programs should teach bystander skills and ways to intervene so that students can respond to abusive behaviors they witness in nonviolent and context-appropriate ways.[506] Without such training, players may not understand the harm during what is otherwise considered anonymous leisure activity, may brush it off as thinking the targeted person can just quit anytime and not be affected, or may fear retribution for speaking out. Programs can also make concerted efforts to

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501 *Arena*, UCI Esports, https://esports.uci.edu/arena/ [https://perma.cc/Y6C7-UJL9]; *see also* Yen-Shyang Tseng, *The Principles of Esports Engagement: A Universal Code of Conduct*, 27 J. Intell. Prop. L. 209, 219 (2020) ("All esports community members deserve to participate in and enjoy esports in safe spaces and to be free from threats and acts of violence and from language or behavior that makes people feel threatened or harassed.").

502 Castello, *supra* note 238.

503 *See* Charlotte Diehl, Tina Glaser & Gerd Bohner, *Face the Consequences: Learning About Victim's Suffering Reduces Sexual Harassment Myth Acceptance and Men's Likelihood to Sexually Harass*, 40 Aggressive Behav. 489, 497 (2014); *see also* Peter Nauroth, Mario Gollwitzer, Jens Bender & Tobias Rothmund, *Social Identity Threat Motivates Science-Discrediting Online Comments*, 10 PLOS ONE, Feb. 3, 2015, at 1, 2 (illustrating that those who identify as gamers often resist negative conceptions of gaming).

504 *See* Hill & Kearl, *supra* note 49, at 8.

505 *See* Ortiz, *supra* note 10, at 573 (noting that men of color are often discussed as bystanders to women of color's experiences being harassed in gaming, as they cope with overt racism).

506 *See* Kelly P. Dillon & Brad J. Bushman, *Unresponsive or Un-noticed?: Cyberbystander Intervention in an Experimental Cyberbullying Context*, 45 Computers Hum. Behav. 144, 148–49 (2015).

celebrate gamers who demonstrate positive behavior, not only those who win competitions.[507]

Games are social and cultural environments that can allow players to engage in self-discovery and try out different ways of being.[508] As college students engage in relationships in person and online and have various experiences in gaming, gaming programs can convene students—and possibly councils of players and community organizations—to discuss and critique issues related to gaming. They can also explore how the university and gaming industry can respond.[509] Critical analysis and reflection are part of higher education, community building, and personal growth, and schools can host discussion groups and speaker series as they develop their gaming programs.

Schools should also attend to the mental and physical needs of players, safety of players and attendees of programs, and overall well-being of their online communities. Extreme amounts of time spent gaming detract from academic studies and class attendance, sleep, meal preparation, physical exercise, and in-person engagement with family and friends.[510] Moreover, the amount of time spent gaming has been found to predict acts of general harassment, as players are "socialized into a culture of harassment" in many online games.[511] Programs can normalize discussions about attending to all aspects of life and balancing gaming with other obligations. Additionally, on-campus esports arenas can track hours that students spend playing in their facilities, and coaches and esports program staff should be watchful and collaborate with campus counseling centers as needed.

Changing discriminatory environments in gaming forums is key, rather than relying on after-the-fact remedies or litigation that may address only individual cases. For a multitude of reasons, many students do not make formal complaints about abusive actions that clearly fall within Title IX[512] or otherwise take legal action.[513] Campus sexual misconduct is widely underreported, whether it is because of the university culture of not reporting, fear of reprisal after reporting

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507 *See* Sherr, *supra* note 72.

508 *See* Cherie Todd, *'Troubling' Gender in Virtual Gaming Spaces*, 68 N.Z. GEOGRAPHER 101, 105–08 (2012).

509 Sherr, *supra* note 72.

510 *See* Stavropoulos et al., *supra* note 8, at 2.

511 Tang & Fox, *supra* note 120, at 517–18.

512 Brian A. Pappas, *Out from the Shadows: Title IX, University Ombuds, and the Reporting of Campus Sexual Misconduct*, 94 DENVER L. REV. 71, 74 (2016).

513 *See* CITRON, *supra* note 459, at 133 (arguing that real-name litigation should not apply to cyber harassment victims).

another student, the threat of harassing attacks by anonymous sources, trauma, or tensions between a student's desire for autonomy after an abusive incident and university interests in promoting safety and avoiding liability.[514]

With colleges newly undertaking gaming endeavors, esports programs, and esports teams, schools should build programs with antiharassment principles in mind, rather than neglecting harmful behavior until media moments force an ineffective response, as was the case with the National Football League.[515]

Conclusion

Online gender-based harassment, threats, and abuse have significant offline consequences with social, psychological, physical, educational, professional, and financial harms. With ninety-seven percent of youth playing video games and interest in gaming exponentially increasing during the COVID-19 pandemic, rather than discouraging video game play, schools are investing in gaming to attract and maintain student enrollment. But they must do so in a way that welcomes and provides safe experiences for all students.

Colleges have the opportunity and mandate to build innovative, impactful, inclusive, and accessible esports programs that cross intersectional barriers. The summer 2020 revelations by dozens of members of the gaming industry show that the industry has not succeeded in making necessary change following Gamergate. Schools can instead lead the way for the entire gaming world.

514 *See* Pappas, *supra* note 512, at 96–97; Dana Bolger, Alexandra Brodsky & Sejal Singh, *A Tale of Two Title IXs: Title IX Reverse Discrimination Law and Its Trans-Substantive Implications for Civil Rights*, 55 U.C. Davis L. Rev. (forthcoming Dec. 2021) (describing how male students disciplined for perpetrating sexual harassment are bringing Title IX lawsuits against their schools, arguing anti-male gender discrimination).

515 *See* Deborah Epstein, Opinion, *I'm Done Helping the NFL Players Association Pay Lip Service to Domestic Violence Prevention*, Wash. Post (June 5, 2018, 9:15 AM), https://www.washingtonpost.com/opinions/im-done-helping-the-nfl-pay-lip-service-to-domestic-violence-prevention/2018/06/05/1b470bec-6448-11e8-99d2-0d678ec08c2f_story.html [https://perma.cc/83J9-NH63].

Social Corporate Governance

Jeremy McClane & Yaron Nili***

Abstract

Corporate directors, like most people, are social creatures, and their social networks affect their decisions. But directors' social networks remain both understudied and undertheorized by scholars and inconsistently addressed by courts. This Article comprehensively examines the importance of director networks to corporate governance. Using qualitative and quantitative data, the Article uncovers the importance of director networks and the implications that network theory poses for the study of corporate law. In doing so, the Article tackles an understudied corner of corporate decision making at a critical time, when directors have an outsized influence over their companies and, in many cases, the United States economy as a whole.

This Article builds on a robust literature in corporate governance and decision making. Much of the existing scholarship has focused on whether directors—especially "busy directors" who serve on multiple boards—are meeting investors' and regulators' expectations. The literature, however, overlooks an important aspect of busyness; that when directors serve on multiple boards, they also build a social network that extends beyond the companies they serve, spanning several degrees of separation. This Article shows how these broader connections affect corporate governance and discusses the legal implications of what it terms as "Social Corporate Governance."

This Article makes three contributions to the existing literature. First, the Article identifies the significance of network theory to contemporary corporate governance discourse and develops a theoretical framework to better account for directors' service on multiple boards. Second, it empirically examines the direct impact that director networks have on the governance of public firms. It does so through an original data set that reveals some of the positive effects that director networks have on companies' governance, and further demonstrates how network analysis adds important insights to existing empirical studies regarding director service on multiple boards, at times significantly altering their results. Finally, the Article suggests that the current discourse by regulators, institutional investors, and academics may underestimate the importance that director networks have for companies. It then suggests several policy reforms to address these findings.

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Table of Contents

INTRODUCTION

Corporate America is a social network. Interpersonal connections have an increasingly important role in corporate boardrooms where, on a daily basis, board members make decisions that have an immense impact not only on the economy but also on the underlying social fabric of our society. Environmental policies, employee compensation, cybersecurity risk and other important governance issues are all shaped by directors' and managers' observations and interactions with other directors and companies,[1] what this Article terms as "Social Corporate Governance."

A surge of recent interest in board member connections has focused on "interlocks"—directors who sit on the boards of multiple companies.[2] The research has produced mixed evidence. A number of studies have found interlocks correlated with positive governance out-

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1 *See generally* Yaron Nili & Cathy Hwang, *Shadow Governance*, 108 CALIF. L. REV. 1097 (2020) (discussing a way that corporations adopt internal policies).

2 *See* Michal Barzuza & Quinn Curtis, *Board Interlocks and Corporate Governance*, 39 DEL. J. CORP. L. 669, 670–71 (2015) [hereinafter Barzuza & Curtis, *Corporate Governance*] (calling for more scholarly attention on director interlocks). *See generally* Michal Barzuza & Quinn Curtis, *Board Interlocks and Outside Directors' Protection*, 46 J. LEGAL STUD. 129 (2017) [hereinafter Barzuza & Curtis, *Outside Directors' Protection*] (studying the role of director interlocks on indemnification protection, finding that interlocks contribute to outside directors' knowledge and bargaining power); Jay J. Janney & Steve Gove, *Firm Linkages to Scandals via Directors and Professional Service Firms: Insights from the Backdating Scandal*, 140 J. BUS. ETHICS 65 (2017) (examining the backdating scandal in terms of firms that were linked to problem firms through interlocking directors); Natalia Ortiz de Mandojana & Juan Alberto Aragon-Correa, *Boards and Sustainability: The Contingent Influence of Director Interlocks on Corporate Environmental Performance*, 24 BUS. STRATEGY & ENV'T 499 (2015) (analyzing interlocks' effect on firms' environmental policies).

comes such as communication of best practices,[3] better board composition,[4] spread of legal information,[5] and fewer accounting restatements.[6] Other studies, however, have found them to be associated with negative outcomes such as options backdating,[7] more earnings management,[8] and the increased spread of poison pills.[9] These seemingly conflicting findings have been difficult to reconcile.

This Article shows that there is a missing piece to the puzzle—director networks—that helps to explain some of these divergent findings and provides an important, yet underexplored, insight into what the Article calls Social Corporate Governance. Director networks are the web of *both* direct and indirect connections that directors constitute. In other words, director networks account for multiple degrees of separation and connectivity that literature has largely overlooked thus far.

Importantly, director networks offer an alternative to the way scholars and policymakers have treated directors' service on multiple boards to date. Most scholars have considered only the direct effect of overlapping board seats on corporate governance,[10] but this approach overlooks the importance of the depth, breadth, and structure of director networks.

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3 *See* Christa H.S. Bouwman, *Corporate Governance Propagation Through Overlapping Directors*, 24 REV. FIN. STUD. 2358, 2358–59 (2011).

4 *See id.* Better board compensation is relevant to the extent that the separation of the roles is indeed a good governance practice. *See generally* Yaron Nili, *Successor CEOs*, 99 B.U. L. REV. 787 (2019) (discussing the successor CEO phenomenon and its policy implications).

5 *See* Barzuza & Curtis, *Corporate Governance*, *supra* note 2 at 685–86; Barzuza & Curtis, *Outside Directors' Protection*, *supra* note 2, at 137.

6 *See* THOMAS C. OMER, MARJORIE K. SHELLEY & FRANCES M. TICE, DO DIRECTOR NETWORKS MATTER FOR FINANCIAL REPORTING QUALITY? EVIDENCE FROM AUDIT COMMITTEE CONNECTEDNESS AND RESTATEMENTS (2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2379151 [https://perma.cc/3QWZ-F752] (finding that companies with more-connected directors are less likely to misstate their annual results).

7 *See* John Bizjak, Michael Lemmon & Ryan Whitby, *Option Backdating and Board Interlocks*, 22 REV. FIN. STUD. 4821, 4826, 4845 (2009) (reporting that 80% of the firms in their sample shared at least one director and that "our results indicate that board interlocks appear to be an important factor in facilitating the spread of [backdating of option grants]").

8 *See* Peng-Chia Chiu, Siew Hong Teoh & Feng Tian, *Board Interlocks and Earnings Management Contagion*, 88 ACCT. REV. 915, 916–18 (2013) (finding evidence that firms with interlocked boards are more likely to manage their earnings).

9 *See* Gerald F. Davis, *Agents Without Principles? The Spread of the Poison Pill Through the Intercorporate Network*, 36 ADMIN. SCI. Q. 583, 606 (1991) ("These results provide . . . somewhat strong[] support for the interorganizational hypotheses for when and why firms would adopt poison pills.").

10 *See, e.g.*, Ortiz de Mandojana & Aragon-Correa, *supra* note 2, at 499–502; Chiu et al., *supra* note 8, at 916–18.

This Article makes several contributions to the existing literature. First, it makes the case that the prevailing scholarly and policymaking focus on interlocks—direct connections—is too narrow, and that the *structure* of board networks matters as much, if not more, than interlocks alone. In this context, *structure* refers to the characteristics of networks that most people understand intuitively, and that network theory has embraced, but that corporate interlock literature has yet to examine. To illustrate, if a person has five friends, those friends establish a network. But if one stopped at that, as much of the interlock literature does, then one would think that every person within that friend group of five people has the same social network. The network is not defined just by those friends, however, but by whom else those five friends know. If all the friends are solitary and have no other friends, this would be a different sort of network than if all five friends have many other contacts. The problem with the current literature on board interlocks is that it stops at the five initial friends when assessing directors' connections.

Second, the Article uses an empirical study to show that directors' broader networks are important for corporate governance. It does this with a natural experiment, using the deaths of directors holding office as shocks to the directors' professional networks. The Article examines the effect that abrupt changes to directors' networks have on financial reporting and corporate governance ratings—both for the company that loses the director and for connected companies whose director networks are indirectly affected by the loss.[11] In doing so, the data shows that sudden changes in board personnel reverberate through the web of director connections.

Third, we show that network *structure* is important for understanding corporate governance and helps to reconcile previous conflicting studies. For example, a well-known academic paper found that more interlocked boards were associated with options backdating, a manipulative practice.[12] When aspects of network structure are introduced into the analysis, however, the importance of interlocks dimin-

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11 Financial reporting is an important indicator of good corporate governance. *See* Christopher S. Armstrong, Wayne R. Guay, Hamid Mehran & Joseph P. Weber, *The Role of Financial Reporting and Transparency in Corporate Governance*, 22 ECON. POL'Y REV. 107, 108–09 (2016) (reviewing research on the link between good corporate governance and good accounting practices); Louis Lowenstein, *Financial Transparency and Corporate Governance: You Manage What You Measure*, 96 COLUM. L. REV. 1335, 1335 (1996) (discussing the relationship between good corporate governance and accounting practices).

12 *See* Peter J. Snyder, Richard L. Priem & Edward Levitas, *The Diffusion of Illegal Innovations Among Management Elites*, 2009 ACAD. MGMT. PROC. 1.

ishes, and even reverses. Specifically, this Article finds that network structures with fewer degrees of separation and more tightly clustered memberships are more predictive of options backdating than interlocks alone, using the same analysis. This not only bolsters the hypothesis that networks help to transmit information, but also helps to describe which *kinds* of networks facilitate the transmission of information, especially nefarious practices.

Finally, we discuss the implications of these findings for policy and for the courts. The first implication is for the debate over director "busyness."[13] Recent scholarship and policy have focused on whether or not directors with multiple board memberships are bad for governance because they are too busy to be effective.[14] Our research shows that multiple board memberships have offsetting benefits, such as improved corporate governance mechanisms, that might counteract the busyness problem.[15] The second implication is for courts. Courts in Delaware and elsewhere have perceived that social networks matter, but so far have lacked a consistent way to analyze the existence of such networks.[16] We explore how network theory can help to explain and inform certain court decisions in a more consistent manner.

Importantly, the stakes are high. The board of directors sets the direction of its company, makes major decisions, and ultimately has an outsized influence on the company, the industry in which the company operates, and the United States economy as a whole.[17] But, as with other sectors of society, the boardroom is not an egalitarian place;

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13 *See* INSTITUTIONAL S'HOLDER SERVS., AMERICAS PROXY VOTING GUIDELINES UPDATES: 2016 BENCHMARK POLICY RECOMMENDATIONS 6 (2015) (summarizing academic research defining "busy" as a director who serves on three or more boards); Bradley W. Benson, Wallace N. Davidson III, Travis R. Davidson & Hongxia Wang, *Do Busy Directors and CEOs Shirk Their Responsibilities? Evidence from Mergers and Acquisitions*, 55 Q. REV. ECON. & FIN. 1, 3–4 (2015); Joann S. Lublin, *Three, Four, Five? How Many Board Seats Are Too Many?*, WALL ST. J. (Jan. 20, 2016, 9:19 PM), https://www.wsj.com/articles/three-four-five-how-many-board-seats-are-too-many-1453342763 [https://perma.cc/XEJ4-XLK4]. *See generally* Antonio Falato, Dalida Kadyrzhanova & Ugur Lel, *Distracted Directors: Does Board Busyness Hurt Shareholder Value?*, 113 J. FIN. ECON. 404 (2014) (discussing the effect of interlocking directors' "busyness" on the quality of board monitoring and shareholder value); Alexander Ljungqvist & Konrad Raff, *Busy Directors: Strategic Interaction and Monitoring Synergies* (Nat'l Bureau of Econ. Rsch., Working Paper No. 23889, 2017) (discussing the effect of monitoring synergies on the quantity of board monitoring at "spillover firms").

14 *See* sources cited *supra* note 13.

15 *See infra* Part III.

16 *See infra* Section I.B.4.

17 *See* Martin Lipton, *The Future of the Board of Directors*, HARV. L. SCH. F. ON CORP. GOVERNANCE (July 6, 2010), https://corpgov.law.harvard.edu/2010/07/06/the-future-of-the-board-of-directors/ [https://perma.cc/67QE-HMYL] (delineating the expected roles of boards of directors).

boards are overwhelmingly occupied by the same faces, and that fact has, in recent years, spurred important theoretical and practical conversations about board diversity,[18] anticompetitiveness,[19] and the role of the corporation in society.[20]

To illustrate how our approach and findings help to expand our understanding of the social context of corporate governance beyond interlocks, consider Robert Napier, a former director of Hewlett-Packard before his premature death in office at the age of fifty-six.[21] Apart from his service on the Hewlett-Packard board, Napier sat on several other boards including AT&T and Lucent Technologies.[22] By inference, Napier's service on these boards overlapped with the service of several directors of a company called Hudson Highland Group ("Hudson").[23] Shortly after Napier passed away in 2003, Hudson suffered governance lapses by failing to have an IT system in place to comply with tax laws—precisely the same areas for which Napier was known as an expert.[24] The relationship between Napier's death and Hudson's failure seems attenuated on the surface because Napier did not directly serve on Hudson's board, but his indirect connection to Hudson raises questions about the timing of the two events. Although it is impossible to know what would have happened to Hudson if Napier had not passed away unexpectedly, one might wonder whether the outcome would have been different had Hudson's board had access, through its network, to the IT expertise that Napier possessed. Numerous similar situations appear in the data over the period from 1990 to 2017 and point to a phenomenon that the existing interlock

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18 *See* AARON A. DHIR, CHALLENGING BOARDROOM HOMOGENEITY: CORPORATE LAW, GOVERNANCE, AND DIVERSITY 44 (2015); Amanda K. Packel, *Government Intervention into Board Composition: Gender Quotas in Norway and Diversity Disclosures in the United States*, 21 STAN. J.L. BUS. & FIN. 192, 198–200 (2016) (reviewing *id.*); Yaron Nili, *Beyond the Numbers: Substantive Gender Diversity in Boardrooms*, 94 IND. L.J. 145, 172–73 (2019).

19 *See generally* Yaron Nili, *Horizontal Directors*, 114 NW. U. L. REV. 1179 (2020) (analyzing the negative effect on competition that results when directors serve on the boards of multiple companies within the same industry).

20 *See* Claire A. Hill, *Marshalling Reputation to Minimize Problematic Business Conduct*, 99 B.U. L. REV. 1193, 1196–98 (2019).

21 *See H-P Officer Robert Napier Dies*, WALL ST. J. (Oct. 15, 2003, 12:01 AMB), https://www.wsj.com/articles/SB106616705099740400 [https://perma.cc/V5ZB-3XTL].

22 *Remembering Bob Napier: A Lifetime of Achievements*, HEWLETT-PACKARD CO., http://www.hp.com/hpinfo/execteam/napier/napier_achievements.html [https://perma.cc/9RYN-CPAF].

23 *See id.*; Stewart Weintraub & Jennifer Weidler, *Hudson Highland Group Settles Sales Tax Issues with SEC, Pays Penalties*, SALT BLAWG (Feb. 11, 2011, 4:25 PM), https://taxblawg-stateandlocal.wordpress.com/2011/02/11/hudson-highland-group-settles-sales-tax-issues-with-sec-pays-penalties/ [https://perma.cc/FNU8-XF9Y].

24 *See* Weintraub & Weidler, *supra* note 23.

literature cannot well explain but a Social Corporate Governance theory can.

The data collected for this Article demonstrates that this pattern occurs consistently; even beyond the first degree of separation, unexpected director departures from less-connected boards presaged governance failures both at the companies the directors serve and at the adjacent companies to which directors are indirectly connected. This pattern occurs at a rate too high to be considered random. More plausibly, governance influence and best practices are transmitted through networks even without direct interlocks.

The Article proceeds as follows. Part I provides an overview of both the important role that directors serve in corporate governance and the common practice of serving on more than one board. The Article then discusses the importance of network theory to corporate governance, demonstrating why a more robust consideration of networks is important.[25] It does this by identifying the significance of network theory to contemporary corporate governance discourse. Research on network theory has shown that networks influence decision making in several ways.[26] The Article outlines the pieces of network theory that prevailing scholarship has embraced as well as the pieces that scholars and policymakers have yet to address.[27] It then discusses how courts in Delaware and elsewhere have similarly struggled with how to treat board member connections when assessing director independence in a host of other situations, often coming to

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25 *See, e.g.*, *In re* Oracle Corp. Derivative Litig., 824 A.2d 917, 948 (Del. Ch. 2003) (denying a board committee motion to terminate because its members could be influenced by their "bias-creating relationships" with their indirect networks).

26 *See generally* Stephen P. Borgatti, Ajay Mehra, Daniel J. Brass & Giuseppe Labianca, *Network Analysis in the Social Sciences*, 323 SCI. 892, 892–93 (2009) (discussing the development and use of network theory in social science research); Candace Jones, William S. Hesterly & Stephen P. Borgatti, *A General Theory of Network Governance: Exchange Conditions and Social Mechanisms*, 22 ACAD. MGMT. REV. 911, 912–14 (1997) (advancing a theory that explains the conditions that govern the exchange of resources in networks).

27 *See, e.g.*, Da Lin, *Beyond Beholden*, 44 J. CORP. L. 515, 532–33 (2019) (studying the appointment to private company boards of directors with connections to members of related boards); Ljungqvist & Raff, *supra* note 13, at 1; Benson et al., *supra* note 13, at 16–17; Lublin, *supra* note 13; Todd Wallack & Sacha Pfeiffer, *Debate Swirls on How Many Board Directorships Are Enough*, BOS. GLOBE (Dec. 10, 2015), https://www.bostonglobe.com/metro/2015/12/09/some-corporate-directors-overboard-joining-many-boards-and-raising-performance-questions/pQBVAGZmCBJ4fzaKTGdziP/story.html [https://perma.cc/K2NC-4EW7]; Barzuza & Curtis, *Outside Directors' Protection*, *supra* note 2, at 130–34; Bouwman, *supra* note 3, at 2358; Eliezer M. Fich & Anil Shivdasani, *Are Busy Boards Effective Monitors?*, 61 J. FIN. 689, 690–92 (2006) (arguing that busy directors are associated with weak corporate governance).

seemingly inconsistent conclusions.[28] In sum, Part I explains a broader way to think about networks in corporate governance, expanding the frame beyond interlocks, and puts forth a theoretical framework of director networks for use in legal research.

Part II makes a novel empirical case for the significance of director networks. Although scholars have theorized that networks are important in other private ordering contexts—such as private enforcement of contracts and informal commercial relations[29]—whether networks matter and, if so, which elements of networks matter, are also important yet unresolved empirical questions. Through a series of original interviews with directors and general counsels, the Article charts the concrete ways through which director networks can affect the board.[30] It also uses a hand-collected dataset of director deaths to demonstrate the direct impact that director networks have on corporate governance by using the quality of financial reporting and corporate governance metrics as case studies. Ultimately, it demonstrates not only that networks matter, but that network *structure* matters, and that certain kinds of network structures are more positive than others.

Part III considers network theory's implications for policy and the courts. The Article starts by underscoring the need to reframe the debate over director "busyness." It then suggests that a director networks analysis can alleviate some of the current inconsistencies in the way courts have approached directors' social networks. Finally, it discusses how proxy advisors and stock exchanges should integrate director network considerations into their governance policies.

I. Director Networks

This Part describes the features and functions of boards of directors and explains why networks should be an important part of the analytical toolkit with respect to corporate governance. It situates our contribution within the larger body of research on director connectedness and discusses how broadening the scope of network analysis in corporate law can help address unanswered questions for courts and researchers alike.

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28 *See infra* Section I.B.4.

29 *See, e.g.*, Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. Legal Stud. 115, 144–46 (1992).

30 *See infra* Section II.A.

A. Why Directors Matter

To understand the importance of director networks and their impact on corporate governance, it is useful to review what corporate directors do and why they matter. Directors have been at the heart of the corporation's governance from the early days of the corporate form.[31] In the United States, the corporate board can be traced back as far as Alexander Hamilton's creation of The Society for Establishing Useful Manufactures.[32] Since then, boards have been depicted as a core organ of the modern corporation;[33] yet in recent years, the roles that directors and boards play in corporate governance have reached new levels of importance.[34] As we further detail below, courts and regulators alike have increasingly begun relying on the board as a safety valve of sorts, entrusting more responsibilities and more duties with regulatory ends into the hands of directors.[35] Given the size and influence of many companies, boards have a major impact on society as a whole in addition to their power within their own companies.[36]

1. The Board's Governance Functions

Broadly speaking, the board of directors is responsible for many important tasks within the corporate governance structure. The board typically participates in the most important business decisions made by management, including mergers, stock actions, management of governance documents, and executive hiring.[37] The board also functions as a resource for management by providing support, advice, and

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31 *See* Melvin Aron Eisenberg, *Legal Models of Management Structure in the Modern Corporation: Officers, Directors, and Accountants*, 63 CALIF. L. REV. 375, 376–77 (1975) (stating that although boards of directors do not directly operate corporations, boards do create business policies that guide corporations).

32 *See* STEPHEN M. BAINBRIDGE & M. TODD HENDERSON, OUTSOURCING THE BOARD 17 (2018).

33 *See* Business Roundtable, *Principles of Corporate Governance*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Sept. 8, 2016), https://corpgov.law.harvard.edu/2016/09/08/principles-of-corporate-governance [https://perma.cc/LV7X-AT8T] (discussing the board of directors' vital role in overseeing the company's management and business strategies to achieve long-term value creation).

34 *See* Yaron Nili, *Out of Sight, Out of Mind: The Case for Improving Director Independence Disclosure*, 43 J. CORP. L. 35, 38–39 (2017) (discussing the accelerated importance of independent directors).

35 *Id.*; *see also* Nili, *supra* note 19, at 1189 (discussing the increased reliance on boards).

36 *See* Nili, *supra* note 19, at 1207.

37 *See* STEPHEN M. BAINBRIDGE, CORPORATE GOVERNANCE AFTER THE FINANCIAL CRISIS 45 (2012). To this end, boards are largely expected to coordinate succession planning long before the current CEO ever steps down. *See* BAINBRIDGE & HENDERSON, *supra* note 32, at 35.

networking.[38] Finally, the board is responsible for monitoring the corporation.[39] Due to their dispersed ownership, shareholders lack an incentive to review most executive decisions and concerns about free riding have contributed towards a corporate structure that is controlled by management.[40] The board can often address these concerns by representing the interests of shareholders through management[41] and preventing management from acting in a manner that is contrary to the interests of shareholders.[42]

In recent decades, the board has also become an increasingly important actor within state and federal law. Independent boards enjoy broad deference for decisions challenged in Delaware courts,[43] and the courts have acknowledged that directors play an important role in a corporation's governance.[44] Courts demonstrate their deference to boards by refusing to second-guess whether actions taken by corporate directors are in the best interest of the company in most circumstances.[45] A shareholder challenging directors' decisions bears a heavy

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38 *See* BAINBRIDGE & HENDERSON, *supra* note 32, at 37.

39 *See* STEPHEN M. BAINBRIDGE, THE NEW CORPORATE GOVERNANCE IN THEORY AND PRACTICE 160 (2008) (detailing the role of the board monitoring management); JONATHAN R. MACEY, CORPORATE GOVERNANCE 50 (2008) (listing major corporate governance mechanisms for U.S. public companies); Jill E. Fisch, *Taking Boards Seriously*, 19 CARDOZO L. REV. 265, 289–90 (1997) ("The ideal model of corporate governance is one that enhances the ability of each firm to structure corporate decisionmaking in accordance with its particular needs. . . .").

40 *See* ADOLF A. BERLE, JR. & GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY 6 (1933). These are often referred to as "Agency Costs." *See* Eugene F. Fama & Michael C. Jensen, *Separation of Ownership and Control*, 26 J.L. & ECON. 301, 304 (1983) ("Agency costs include the costs of structuring, monitoring, and bonding a set of contracts among agents with conflicting interests.").

41 *See* BAINBRIDGE, *supra* note 39, at 155–56 (detailing the role of the board and its importance in the governance of the firm).

42 *See* Michelle M. Harner, *Corporate Control and the Need for Meaningful Board Accountability*, 94 MINN. L. REV. 541, 583–84 (2010) (focusing on the boards' broader duties in the context of a controlling shareholder).

43 "Delaware courts, in particular, have strengthened the appeal of independent directors by giving credit to conflicted transactions that were vetted and approved by a special committee comprised of independent directors." Lin, *supra* note 27, at 522; *see id.* at 518–22 (studying the appointment to private company boards of directors with connections to members of related boards); *see also* Kahn v. M & F Worldwide Corp., 88 A.3d 635, 644 (Del. 2014) ("[W]here the controller irrevocably and publicly disables itself from using its control to dictate the outcome of the negotiations and the shareholder vote [by employing procedural protections], the controlled merger then acquires the shareholder-protective characteristics of third-party, arm's-length mergers, which are reviewed under the business judgment standard.").

44 *See* Maureen S. Brundage & Oliver C. Brahmst, *Director Independence: Alive and Well Under Delaware Law*, *in* GLOBAL CORPORATE GOVERNANCE GUIDE 2004, at 116–20 (2004) (supporting Delaware's approach).

45 *See* Beam *ex rel.* Martha Stewart Living Omnimedia, Inc. v. Stewart, 845 A.2d 1040, 1048–49 (Del. 2004).

burden, requiring particularized evidence of self-dealing or bad faith in order to overcome the business judgment rule's protections.[46]

Moreover, the recent rise in hedge fund activism[47] and institutional investors' engagement[48] has led boards to take on a more prominent role in directly interfacing with shareholders.[49] The board, therefore, has become a conduit allowing investors to better engage with the company, both formally and informally.[50]

Finally, federal law has given boards greater monitoring duties following both the accounting scandals in the early years of the millennium after the financial crisis. For example, the Sarbanes-Oxley Act[51]—passed in the wake of several large-scale accounting scandals—requires boards to have an independent audit committee that oversees auditing services, approves accountants, and handles compliance regarding management accounting practices.[52] The Dodd-Frank Act[53] similarly imposed new requirements, mandating independent executive compensation committees to determine officer pay.[54]

2. *Board Members as Part of the Corporate Governance Ecosystem*

Contemporary debates about the role of the board increasingly center on its composition and the independence of its members.[55] In-

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46 *See id.*

47 *See* Matthew R. Denes, Jonathan M. Karpoff & Victoria B. McWilliams, *Thirty Years of Shareholder Activism: A Survey of Empirical Research*, 44 J. CORP. FIN. 405, 406 (2017) (summarizing and synthesizing the results from seventy-three studies that examine the consequences of shareholder activism); Stuart L. Gillan & Laura T. Starks, *The Evolution of Shareholder Activism in the United States*, 19 J. APPLIED CORP. FIN. 55, 68–69 (2007).

48 *See* Paula Loop, Catherine Bromilow & Leah Malone, *The Changing Face of Shareholder Activism*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Feb. 1, 2018), https://corpgov.law.harvard.edu/2018/02/01/the-changing-face-of-shareholder-activism/ [https://perma.cc/X7D8-6AFE].

49 *See* Krystal Berrini & Rob Zivnuska, *Board Lessons: Succeeding with Investors in a Crisis*, HARV. L. SCH. F. ON CORP. GOVERNANCE (June 5, 2018), https://corpgov.law.harvard.edu/2018/06/05/board-lessons-succeeding-with-investors-in-a-crisis/ [https://perma.cc/99ZA-6H9L].

50 *See* Martin Lipton, *Spotlight on Boards 2018*, HARV. L. SCH. F. ON CORP. GOVERNANCE (May 31, 2018), https://corpgov.law.harvard.edu/2018/05/31/spotlight-on-boards-2018/ [https://perma.cc/JN62-42YL].

51 Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (2002) (codified as amended in scattered sections of 15 and 18 U.S.C.).

52 *Id.* § 404.

53 Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified in scattered sections of the U.S.C.).

54 *Id.* § 952.

55 *See, e.g.*, Marc S. Gerber, *US Corporate Governance: Boards of Directors Remain Under the Microscope*, SKADDEN: INSIGHTS (Jan. 2015), https://www.skadden.com/insights/publications/

stitutional investors focus on several issues relating to board composition, including term limits,[56] replacement of board members (often referred to as "board refreshment"),[57] diversity,[58] board evaluation processes,[59] and disclosures regarding these issues.[60] One institutional stakeholder, Vanguard, has explained that the board is "one of a company's most critical strategic assets" and that it looks for a "high-functioning, well-composed, independent, diverse, and experienced board with effective ongoing evaluation practices."[61] Each director brings his or her own set of qualifications, background, and diversity to form each company's board,[62] making the board's effectiveness more than simply the sum of its individual directors.

Interest in board member interpersonal connections has emerged alongside the increased focus on board independence. Personal connections are potential resources but can also be potential liabilities. As previously mentioned, the business judgment rule's deference to the board's substantive decision-making process and potential conflicts of interest are key battlegrounds for plaintiffs alleging unfairness in the boardroom. Consequently, social networks between boards have be-

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2015/01/us-corporate-governance-boards-of-directors-remain [https://perma.cc/3HJE-3W9E]; Robert Hauswald & Robert Marquez, *Governance Mechanisms, Corporate Disclosure, and the Role of Technology* (2005), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=687138 [https://perma.cc/VH9B-UNJV].

56 *See* William M. Libit & Todd E. Freier, *Director Tenure: The Next Boardroom Battle*, CORP. BD., Mar.–Apr. 2015, at 5, 6–8 (discussing advocate positions on tenure).

57 *See* Cam C. Hoang, *Institutional Investors and Trends in Board Refreshment*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Apr. 8, 2016), https://corpgov.law.harvard.edu/2016/04/08/institutional-investors-and-trends-in-board-refreshment/ [https://perma.cc/C3C6-MT3U] (discussing and sampling institutional investor guidance on board refreshment).

58 *See* Eleanor Bloxham, *Institutional Investors Are Leading the Fight for More Diverse Corporate Boards*, FORTUNE (June 16, 2016, 2:40 PM), http://fortune.com/2016/06/16/institutional-investors-are-leading-the-fight-for-more-diverse-corporate-boards [https://perma.cc/NR68-8KP8].

59 *See* Francesco Surace, *Evaluating Board Skills*, CHARTERED GOVERNANCE INST.: GOVERNANCE & COMPLIANCE (June 5, 2017), https://www.icsa.org.uk/features/june-2017-evaluating-board-skills [https://perma.cc/8RYM-HLRD] ("Morrow Sodali's latest Institutional Investor Survey shows that the board skills matrix is viewed as a key disclosure item by investors representing $18 trillion of assets under management—78% of respondents—when voting on director elections.").

60 *See* CamberView Partners, *NYC Pension Funds Boardroom Accountability Project Version 2.0*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Sept. 19, 2017), https://corpgov.law.harvard.edu/2017/09/19/nyc-pension-funds-boardroom-accountability-project-version-2-0/ [https://perma.cc/VP6T-USZN].

61 F. WILLIAM MCNABB III, AN OPEN LETTER TO DIRECTORS OF PUBLIC COMPANIES WORLDWIDE 1 (2017), https://global.vanguard.com/documents/investment-stewardship-mcnabb-letter.pdf [https://perma.cc/8KD7-LBLS].

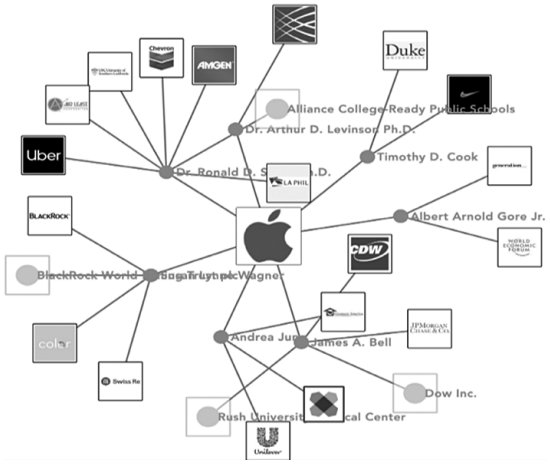
62 *See* Nili, *supra* note 34, at 39–40 (discussing qualifications and background of directors).

come areas of interest for plaintiffs trying to defeat the business judgment rule presumption by alleging procedural defects or self-dealing in the board's decisions.[63] In many breach of fiduciary duty actions, courts place a spotlight on director relationships that may create an incentive to act out of self-interest.[64] Despite an understanding that corporate directors can and should have social relationships between one another,[65] the law has an interest in examining when these relationships cloud a director's judgment.

3. Multiple Directorships as a Corporate Governance Norm

Although the general dynamics and attributes of groups are not unique to boards, there is one key aspect that differentiates directors from other corporate executives. Despite their important duties, an unusual feature of board service is that members need not devote their attention solely to one company at a time. Close to forty percent of the directors in the S&P 1500 serve on more than one board.[66] To take a granular example, each of Apple Inc.'s eight directors serve on additional boards, with many of them serving on three or four other boards at the same time, as Figure 1 shows.[67]

FIGURE 1. APPLE'S BOARD CONNECTIONS



63 *See, e.g.*, Orman v. Cullman, 794 A.2d 5, 26–28 (Del. Ch. 2002) (addressing allegations that directors lacked independence because of prior business relationships).

64 *See* Nili, *supra* note 19, at 1202–03; Gabriel Rauterberg & Eric Talley, *Contracting Out of the Fiduciary Duty of Loyalty: An Empirical Analysis of Corporate Opportunity Waivers*, 117 COLUM. L. REV. 1075, 1086 (2017).

65 *See In re* Oracle Corp. Derivative Litig., 824 A.2d 917, 930 (Del. Ch. 2003).

66 *See* Nili, *supra* note 19, at 1209.

67 The graphic was sourced from EQUILAR BOARDEDGE, https://www.equilar.com/executive-and-board-database [https://perma.cc/W2KV-VUF7].

The unique structure and stated expectations of boards make service on several boards feasible. Directors are not full-time employees of the company, nor are they required to dedicate their working time entirely to the corporation.[68] Instead, directors may continue their work as full-time employees elsewhere, and may serve on other companies' boards.[69] Directors are expected to meet regularly, but not onerously, often eight to twelve times a year,[70] and board members spend an average of 245 hours per year on board-related activities for each board on which they sit.[71] These meetings center on executing duties such as hiring and monitoring management,[72] approving key business decisions, retaining outside consultants, and adopting various governance policies and procedures.[73]

Board procedures facilitate directors' ability to serve multiple companies simultaneously. Although boards meet regularly, many important board decisions are delegated to specific board committees, which are tasked with a particular mandate. Board committees meet separately from the full board, are composed of subsets of board members, and tend to have specific, narrowly defined functions.[74] There are several key committees that all publicly traded companies must maintain[75] and that are often cited as "having the greatest influence on corporate [governance]."[76] These key committees are the audit committee,[77] the nominating committee,[78] the corporate

68 *See* BAINBRIDGE, *supra* note 39, at 192.

69 *See id.*

70 *See* SPENCER STUART, 2017 SPENCER STUART U.S. BOARD INDEX 28 (2017), https://www.spencerstuart.com/~/media/ssbi2017/ssbi_2017_final.pdf [https://perma.cc/HS4Q-RKTL] (stating that, in 2017, boards met an average of 8.2 times).

71 *See* Nili, *supra* note 19, at 1191–92.

72 *See* BAINBRIDGE, *supra* note 39, at 160–67 (detailing the role of the board monitoring management); Fisch, *supra* note 39, at 268–72.

73 *See* MACEY, *supra* note 39, at 53 (discussing, among other things, the board's monitoring duties as a corporate governance mechanism for U.S. public companies); Nili, *supra* note 19, at 1188–89.

74 *See* Eileen Morgan Johnson, *The Basics of Board Committee Structure*, AM. SOC'Y ASS'N EXECS. (Apr. 29, 2020), https://www.asaecenter.org/resources/articles/an_plus/2015/december/the-basics-of-board-committee-structure [https://perma.cc/RSR6-6TAQ].

75 *See* Yaron Nili, *The "New Insiders": Rethinking Independent Directors' Tenure*, 68 HASTINGS L.J. 97, 109–10 (2016); SPENCER STUART, *supra* note 70, at 29.

76 Idalene F. Kesner, *Directors' Characteristics and Committee Membership: An Investigation of Type, Occupation, Tenure, and Gender*, 31 ACAD. MGMT. J. 66, 67–68 (1988); *see* David A. Carter, Frank D'Souza, Betty J. Simkins & W. Gary Simpson, *The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance*, 18 CORP. GOVERNANCE 396, 400–01 (2010).

77 The audit committee is charged with ensuring the quality and integrity of the company's financial statements and regulatory compliance. *See* Nili, *supra* note 75, at 152. Under NYSE

governance committee,[79] and the compensation committee,[80] each of which can meet separately from the board. Given that directors are able to serve on so many boards simultaneously, scholars and policymakers have focused heavily on directors' ability to perform their duties well considering time constraints and possible conflicts of interest.[81] This discussion is often framed in terms of director interlocks—directors with multiple board memberships who "interlock" the companies they serve—as being a unique feature of corporate boards that does not exist in other labor markets.[82] As scholars have pointed out, interlocks have important consequences for corporate governance. As explained below, however, the interlock framing captures only part of what is important about multiple board memberships.

B. Interlocks Versus Networks

Scholarship and policy statements by influential corporate governance actors frequently conflate director interlocks with director networks, although they are distinct concepts. Both are important to understanding how director connections play a role in corporate governance, but they are different in important ways that have significance for policy and scholarly study. Scholars have studied interlocks extensively, and they remain an ongoing concern for policymakers who wonder whether too many director positions might render directors too busy to do their jobs well.[83] The debate surrounding this issue is further discussed below.

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listing rules, the committee must be composed solely of independent directors. *See* N.Y. STOCK EXCH., LISTED COMPANY MANUAL § 303A.07(a) (2013) [hereinafter N.Y.S.E. MANUAL], https://nyseguide.srorules.com/listed-company-manual [https://perma.cc/2G52-4KR8].

78 The nominating committee is in charge of nominating director candidates and often also selects new CEOs and peer directors to the other board committees. *See* Joseph V. Carcello, Terry L. Neal, Zoe-Vonna Palmrose, & Susan Scholz, *CEO Involvement in Selecting Board Members, Audit Committee Effectiveness, and Restatements*, 28 CONTEMP. ACCT. RSCH. 396, 397–401 (2011).

79 The corporate governance committee is responsible for assisting a corporate board in matters related to the corporation's governance structure. DIRTT ENV'T SOLS., CORPORATE GOVERNANCE COMMITTEE CHARTER 2 (2018), https://www.dirtt.net/assets/attachments/59cdebe4e1/DIRTT-GovernanceCommittee-Jan18.pdf [https://perma.cc/7ZU9-BZCH].

80 The compensation committee sets the compensation of senior executives and generally oversees the corporation's compensation policies. *See* N.Y.S.E. MANUAL, *supra* note 77, § 303A.05. Under NYSE listing rules the committee must be composed solely of independent directors. *See id.*

81 *See* sources cited *supra* note 13.

82 *See* sources cited *supra* note 2.

83 *See* sources cited *supra* note 13.

Director networks, by contrast, have been far less studied than interlocks. Yet director networks include social connections that are equally relevant for a board's effectiveness. Director networks encompass interlocks (because directors will have ties to other directors on the boards on which they sit), but networks also include many other types of connections that the interlocks concept does not capture. For example, a director's network might include members of boards on which a director does not sit, but whom she knows through other directors on her board—in what equates to a second degree of separation. It might also include all the connections that the director has intermediated between other directors, either on her board or on other boards. It might also include directors on other boards who are connected indirectly through intermediary board members, going down the degrees of separation. It may extend further to relationships made through director networking organizations, service in charitable organizations, and common educational background with members of other companies' boards.

Social networks extending beyond the first degree of separation have been investigated in various settings including venture capital,[84] law firms,[85] and innovative industries,[86] but the study of these networks among corporate directors is still relatively unexplored.[87] Like interlocks, directors' broader networks have the ability to influence their performance on boards.[88] Consequently, analyzing board connections through a social lens is an important exercise in understanding corporate governance. The Sections below map the literature on interlocks, busyness, and networks in business contexts to help situate this Article in the broader literature and relevant policy discussions.

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84 *See generally* Yael V. Hochberg, Alexander Ljungqvist & Yang Lu, *Whom You Know Matters: Venture Capital Networks and Investment Performance*, 62 J. FIN. 251 (2007) (examining how networks of venture capitalists affect firm performance).

85 *See generally* Patricia M. Dechow & Samuel T. Tan, *How Do Accounting Practices Spread? An Examination of Law Firm Networks and Stock Option Backdating* (Sing. Mgmt. Univ. Sch. Acct. Rsch. Paper No. 2020-112, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2688434 [https://perma.cc/T65W-8TY8] (examining empirically how law firm networks transmit accounting practices and disclosures).

86 *See generally* Matthew Jennejohn, *The Private Order of Innovation Networks*, 68 STAN. L. REV. 281 (2016) (discussing networks in the context of collaborations between innovation enterprises).

87 A notable exception is Lin, *supra* note 27. This study, however, is focused specifically on the impact of shareholder patronage on director behavior and does not account for how networks in general affect corporate governance.

88 *See id.*

1. Scholarly Work on Director Connections: Director Interlocks and Busyness

Interlocks and director busyness have been the subject of a wealth of research by legal scholars and policymaking efforts by the major proxy advisors and the U.S. Securities and Exchange Commission ("SEC"). One prevalent concern is that the time commitments of directors' combined service on various boards may cause them to shirk their duties.[89] The concern pivots around directors' level of busyness, which is a function of the number of other board positions they take.

a. Legal Scholarship on Interlocks

The abundant legal scholarship on the subset of directors who serve on more than one board has focused primarily on the connection established by the interlocks themselves.[90] "Because many companies seek operational and executive experience in their board nominees in order to raise investor confidence in the board," the pool from which companies elect directors is limited,[91] making director interlocks a natural byproduct of corporate culture. Companies prefer experienced directors—for their skills and experience, and to signal credibility to potential investors—so they often treat prior director experience as a strength in a nomination process.[92]

Board members serve a number of important functions, including making important governance decisions,[93] providing advice to management,[94] and monitoring corporate managers on behalf of shareholders,[95] and scholars have posited that serving on multiple boards may diminish a director's ability to perform these duties well for any

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89 *See* Benson et al., *supra* note 13, at 3–4 (examining empirical evidence suggesting that busy directors shirk their duties in some circumstances).

90 *See, e.g.*, Barzuza & Curtis, *Corporate Governance*, *supra* note 2, at 681–93 (surveying the academic literature on board connectivity and its impact on corporate governance). *See generally* Barzuza & Curtis, *Outside Directors' Protection, supra* note 2 (examining how management practices changed via interlocks after change in doctrine).

91 Nili, *supra* note 18, at 158 (discussing the problems of gender diversity in board refreshment).

92 *See id.* at 172.

93 *See* BAINBRIDGE, *supra* note 37, at 45.

94 *See id.* at 49; Jeffrey N. Gordon, *The Rise of Independent Directors in the United States, 1950–2005: Of Shareholder Value and Stock Market Prices*, 59 STAN. L. REV. 1465, 1506 (2007).

95 *See* BAINBRIDGE, *supra* note 39, at 163–64 (detailing the role of the board monitoring management); Fisch, *supra* note 39, at 272; *see also* Harner, *supra* note 42, at 583–84 (focusing on the boards' broader duties in companies with controlling shareholders).

board.[96] To the extent that interlocks affect director duties, scholars have argued that this may hinder the ability of nominally independent directors to fulfill the definition of independence set out by the SEC and the stock exchanges.[97] Despite these contentions, some have argued that director interlocks are beneficial and an inevitable consequence of hiring experienced directors to boards. Interlocked directors are likely to be more experienced, and some scholars contend that their experience translates to better corporate performance, despite any potential drawbacks from busyness.[98]

b. Empirical Research on Interlocks

Empirical researchers have tried to assess the impact of director interlocks and busyness, but have generated conflicting results. The mixed picture of interlocks highlights the value of looking at broader networks as well as simple interlocks when assessing the influence of directors' connections.

A number of studies show that busyness (defined as number of interlocks) hurts shareholder value, but each study also demonstrates why director interlocks alone do not tell the whole story. One notable paper used director deaths as shocks to the busyness of surviving board members.[99] Drawing on a sample of boards with busy independent directors from 1988 to 2007, the study found sustained negative market reactions to such deaths, implying that the sudden increase in busyness strains the surviving boards' ability to manage the firm.[100] Another recent study used the withdrawal of analyst coverage after several brokers closed their research operations as an exogenous shock.[101] The study posited that the loss of outside monitoring leads to greater internal monitoring effort by directors, and thus directors divert their attention to the firm that lost coverage at the expense of the other firms the directors serve.[102] The authors found that increased busyness could result in lower market value for firms that did not lose coverage if monitoring synergies were negative.[103] Other researchers have made similar findings using various methods, namely that busy

96 *See* sources cited *supra* note 13.

97 *See* Gregory H. Shill, *The Golden Leash and the Fiduciary Duty of Loyalty*, 64 UCLA L. REV. 1246, 1265–68 (2017); Nili, *supra* note 34, at 37.

98 *See* sources cited *supra* notes 3–6.

99 Falato et al., *supra* note 13, at 405.

100 *Id.*

101 Ljungqvist & Raff, *supra* note 13, at 20–21.

102 *Id.* at 3–4.

103 *Id.* at 37–38.

boards are associated with poor performance and poor-quality monitoring.[104]

On the other hand, some researchers have found positive benefits associated with director interlocks. Studies have found that director busyness creates more value for smaller firms, possibly because expertise and connectedness have higher value at firms that are themselves less connected or experienced.[105]

Additional research points to a relationship between director interlocks and good corporate governance practices generally. For example, studies have found that more director interlocks are associated with more accurate financial reporting and a reduced likelihood of misstating annual results.[106] Interlocks have also been found to facilitate the spread of legal developments and governance practices.[107] For example, Professors Michal Barzuza and Quinn Curtis identified that firms were more than twice as likely to adopt changes in response to a major court decision once a firm with which they shared an outside director adopted such a change.[108]

The mixed picture painted by these studies might be explained by the fact that, although interlocks are related to busyness, network effects may not necessarily be so related. Director connections can exist

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104 *See, e.g.*, John E. Core, Robert W. Holthausen & David F. Larcker, *Corporate Governance, Chief Executive Officer Compensation, and Firm Performance*, 51 J. FIN. ECON. 371, 372 (1999) (finding CEO compensation higher when outsider directors serve on multiple other boards); Fich & Shivdasani, *supra* note 27, at 693 (compiling research suggesting that "too many directorships may lower the effectiveness of outside directors as corporate monitors"); Luke C.D. Stein & Hong Zhao, *Independent Executive Directors: How Distraction Affects Their Advisory and Monitoring Roles*, 56 J. CORP. FIN. 199, 200–01 (2019) (finding that firms are negatively affected when independent directors are distracted by poor performance of directors' outside employers); Ronald W. Masulis & Emma Jincheng Zhang, *How Valuable Are Independent Directors? Evidence from External Distractions*, 132 J. FIN. ECON. 226, 249–50 (2019) (finding that distracted directors "miss more board meetings, undertake less trading in their firm's stock, and exhibit a higher likelihood of leaving the current directorship" and that their firms have "lower operating performance and firm value, weaker operating efficiency, worse [merger and acquisition] performance, and lower accounting quality"); Falato et al., *supra* note 13, at 423 (finding that director busyness has a "negative effect[] . . . on the value of treated firms . . . [and] is detrimental to board monitoring quality").

105 *See, e.g.*, Ira C. Harris & Katsuhiko Shimizu, *Too Busy to Serve? An Examination of the Influence of Overboarded Directors*, 41 J. MGMT. STUD. 775, 788–94 (2004) (finding that busy directors enhance acquisition performance through expertise); Laura Field, Michelle Lowry & Anahit Mkrtchyan, *Are Busy Boards Detrimental?*, 109 J. FIN. ECON. 63, 81 (2013) (finding that venture-backed firms conducting initial public offerings benefit from busy director expertise as busy directors serve more as advisors than monitors).

106 *See, e.g.*, OMER ET AL., *supra* note 6, at 34 (finding that companies with more interlocked directors are less likely to misstate their annual results).

107 *See* Barzuza & Curtis, *Outside Directors' Protection*, *supra* note 2, at 152–53.

108 *Id.* at 131.

even among nonbusy directors, and networks may confer benefits to—or pose additional challenges for—directors who are busy. The main takeaway of this review is that interlocks (and the busyness that they entail) do not give a complete picture of the virtues and drawbacks of connected directors. Incorporating a Social Corporate Governance framework, however, paints a clearer picture.

2. The Emergence of Literature on Networks

Research on networks among people and entities have proliferated in recent years.[109] The idea that networks influence human decision making and information flow is intuitively appealing; the more connections a person has, the more that person is able to receive and convey ideas, influence others, and be influenced by those in the network. One need only look at social media to see the importance that individuals place on being "connected" with the world and individuals around them. This intuition, and numerous studies supporting it, are the basis of the social network theory, which posits that an individual's actions in life depend in large part on how that individual is tied to a larger web of social connections.[110]

A network encompasses not only those who are directly connected to someone but also those who are several steps removed.[111] Networks have been defined in different ways, and many definitions embrace a larger set of connections than the concept of interlocks. The most frequently used metrics conceive of a network as a set of nodes and seek to measure the connectedness of those nodes.[112] The nodes can be thought of like the hubs of a bicycle wheel, and the points of connection between them (referred to as edges) as the spokes. Unlike a wheel, however, each spoke might end in yet another

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109 *See, e.g.*, Martin Grandjean, *A Social Network Analysis of Twitter: Mapping the Digital Humanities Community*, COGENT ARTS & HUMANS., Apr. 15, 2016, at 1, 1–2; Daniel Z. Grunspan, Benjamin L. Wiggins & Steven M. Goodreau, *Understanding Classrooms Through Social Network Analysis: A Primer for Social Network Analysis in Education Research*, 13 CBE LIFE SCIS. EDUC. 167, 168 (2014); Hamid Reza Nasrinpour, Marcia R. Friesen & Robert D. McLeod, *An Agent-Based Model of Message Propagation in the Facebook Electronic Social Network*, ARXIV (Nov. 22, 2016), https://arxiv.org/ftp/arxiv/papers/1611/1611.07454.pdf [https://perma.cc/3H9G-VRAF].

110 *See* Miranda J. Lubbers, José Luis Molina & Hugo Valenzuela-García, *When Networks Speak Volumes: Variation in the Size of Broader Acquaintanceship Networks*, 56 SOC. NETWORKS 55, 56 (2019).

111 *See* KEITH N. HAMPTON, LAUREN SESSIONS GOULET, LEE RAINIE & KRISTEN PURCELL, PEW RSCH. CTR., SOCIAL NETWORKING SITES AND OUR LIVES 32–42 (2011), *https://www.pewinternet.org/wp-content/uploads/sites/9/media/Files/Reports/2011/PIP-Social-networking-sites-and-our-lives.pdf* [https://perma.cc/P3P6-2PN5].

112 *See* CHARLES KADUSHIN, UNDERSTANDING SOCIAL NETWORKS 13–17 (2012).

node (or hub) that extends its own edges (or spokes) to still other nodes and so on. The importance of any node (hub) in the network is referred to as its centrality.[113]

There are various ways of measuring centrality and the ones employed in this Article are further explained below in Part II. The main point, for purposes of this discussion, is that centrality measures take into account not only interlocks (common spokes between hubs) but more complex aspects of a network, such as how many hubs one has to go through to get from a given hub to a second given hub, or how many paths between different hubs run through a given hub.

a. Research on Networks in Business

Using centrality measures (among others), researchers have examined networks in a number of contexts. Most are closely related to business law—researchers have extensively studied networks among venture capitalists, an industry known to rely heavily on networks.[114] Research on networks in the entrepreneurial context has found that networks operate in several ways. The most obvious is through the provision of advice and resources among members of the network.[115] Connected board members of venture capital-funded companies would have access to names, potential capital, and exposure to best governance practices. They also have exposure to more diverse or preferable corporate practices.

Network concepts have also been studied in the law to an extent, most prominently by scholars of contract theory looking for explanations for why individuals in certain industries rely on informal, as opposed to formal, contracts.[116] Although these scholars do not typically discuss centrality per se, their analyses implicitly reflect the same network dynamics as centrality models.

b. Research on Networks of Boards

Research on board network centrality has emerged in recent years, outside of the literature on law or corporate governance. This research has primarily focused on financial performance, and much of it has proceeded without a strategy for isolating the effects of net-

113 Carla Sciarra, Guido Chiarotti, Francesco Laio & Luca Ridolfi, *A Change of Perspective in Network Centrality*, SCI. REPS., Oct. 15, 2018, at 1.

114 *See, e.g.*, Ha Hoang & Bostjan Antoncic, *Network-Based Research in Entrepreneurship: A Critical Review*, 18 J. BUS. VENTURING 165, 169–70 (2003).

115 *See id.*

116 *See generally* Bernstein, *supra* note 29 (exploring the use of extralegal contracts in the diamond industry).

works versus other factors.[117] In that vein, scholars have argued that network effects of board connectedness are beneficial to companies because they facilitate the transfer of best practices and knowledge.[118] Some research has also suggested that strong networks are desirable characteristics in candidates for director positions.[119] The benefits cited for this desirability include access to capital, strong networks for potential hiring or corporate partnerships, and access to personal relationships for mentoring or other networking opportunities.[120] In the related venture capital context, a robust network of expertise and service providers has been posited to lead to better performing venture funds and portfolios.[121] Better-connected boards of directors have been associated with higher future returns than firms with poorly connected boards.[122] Better-networked boards have even been found to perform better in terms of adhering to certain environmental policies—where environmentally connected directors can affect a firm's behavior—such as an association with lower greenhouse gas emissions.[123]

3. The Approach of Proxy Advisors and Policymakers

Despite the emerging literature and growing importance of networks, proxy advisors and the SEC have focused primarily on interlocks and policy proposals regarding good corporate governance while ignoring the broader view of Social Corporate Governance. The general consensus among the influential actors in corporate governance is that too much busyness is a bad thing.[124] For example, shareholder

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117 *See, e.g.*, David F. Larcker, Eric C. So & Charles C.Y. Wang, *Boardroom Centrality and Firm Performance*, 55 J. ACCT. & ECON. 225, 225, 229–30 (2013) (using network analysis to analyze stock market returns); Thomas C. Omer, Marjorie K. Shelley & Frances M. Tice, *Do Well-Connected Directors Affect Firm Value?*, 24 J. APP. FIN. 17, 17–18 (2014) (examining the effect of individual director connections on company economic value).

118 *See* Larcker et al., *supra* note 117, at 248–49.

119 *See* Nili, *supra* note 19, at 1192–93.

120 *See* Amit Batish, *New GE Director Nominees Bring Impressive Network to the Board*, EQUILAR (Mar. 5. 2018), https://www.equilar.com/blogs/366-new-ge-directors-bring-an-impressive-network-to-board.html [https://perma.cc/TLW7-U3BV] (praising a refreshed GE board for bringing on "director nominees [with] an extensive background and wide-spanning executive networks" with "173 connections to C-level executives and board members across more than 130 companies").

121 *See* Hochberg et al., *supra* note 84, at 251–52.

122 *Id.* at 253.

123 *See* Swarnodeep Homroy & Aurelie Slechten, *Do Board Expertise and Networked Boards Affect Environmental Performance?*, 158 J. BUS. ETHICS 269, 269–70, 273 (2019).

124 *See, e.g.*, INST. S'HOLDER SERVS., UNITED STATES PROXY VOTING GUIDELINES: BENCHMARK POLICY RECOMMENDATIONS 11 (2019), https://www.issgovernance.com/file/policy/active/

advisory services, Institutional Shareholder Services ("ISS") and Glass Lewis, have issued guidelines in recent years that recommend shareholders withhold their vote—in effect, vote against—for public company directors serving on more than five boards or serving as executive officers of other companies while sitting on more than two public company boards.[125] BlackRock, the world's largest asset manager and one of the largest shareholders of most companies in the S&P 1500, recently announced an even more stringent voting policy: they will withhold a vote for any CEO who sits on more than one company board besides her own and any outside director who sits on more than four boards.[126] Vanguard, one of the world's largest three index fund operators, has a similar policy, promising to vote against any named executive who is running for two or more board seats at public companies other than her own and any director seeking more than four board seats at a time.[127] State Street, another large index fund investor, allows public company CEOs to sit on up to two boards and allows outside directors to sit on up to four.[128] In each of these sets of guidelines, there is discussion of director independence, but in each case, independence refers to whether a director is also an officer of the company or is controlled by an officer or controlling shareholder of the company.[129]

These policies demonstrate key actors' concern about the impact of directors'—and especially CEOs'—ties to multiple boards, but the policies also reflect these actors' preoccupation with interlocks and

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americas/US-Voting-Guidelines.pdf [https://perma.cc/R9QU-6HS5] (giving voting guidelines for company board members serving on multiple boards).

125 *See id.*; *see also* GLASS LEWIS, PROXY PAPER GUIDELINES: AN OVERVIEW OF THE GLASS LEWIS APPROACH TO PROXY ADVICE: UNITED STATES 19–20 (2019), https://www.glasslewis.com/wp-content/uploads/2018/10/2019_GUIDELINES_UnitedStates.pdf [https://perma.cc/JCK8-WPVQ] ("CEOs or other top executives who serve on each other's boards create an interlock that poses conflicts that should be avoided to ensure the promotion of shareholder interests above all else.").

126 BLACKROCK, BLACKROCK INVESTMENT STEWARDSHIP: CORPORATE GOVERNANCE AND PROXY VOTING GUIDELINES FOR U.S. SECURITIES 4 (2020), https://www.blackrock.com/corporate/literature/fact-sheet/blk-responsible-investment-guidelines-us.pdf [https://perma.cc/A6C4-NCJZ] (giving voting guidelines for company board members serving on multiple boards).

127 VANGUARD, SUMMARY OF THE PROXY VOTING POLICY FOR U.S. PORTFOLIO COMPANIES 4 (2020), https://about.vanguard.com/investment-stewardship/portfolio-company-resources/2020_proxy_voting_summary.pdf [https://perma.cc/9A5E-N9GV] (giving voting guidelines for company board members serving on multiple boards).

128 STATE ST. GLOB. ADVISORS, PROXY VOTING AND ENGAGEMENT GUIDELINES: NORTH AMERICA 4 (2021), https://www.ssga.com/library-content/pdfs/ic/proxy-voting-and-engagement-guidelines-us-canada.pdf [https://perma.cc/3SYZ-67N2] (giving voting guidelines for company board members serving on multiple boards).

129 *See, e.g.*, INST. S'HOLDER SERVS., *supra* note 124, at 9.

busyness. Yet, the variation across the proxy advisors' policies highlights the uncertainty that the major players have about the busyness issue. On the one hand, it makes intuitive sense to ensure that directors are not too busy to effectively do their jobs. On the other hand, it is not entirely clear how big a problem busyness is, or, if it is a problem, how many directorships render a director "too busy."

Absent from the voting and governance policies is any explicit discussion of network structure beyond interlocks. Networks should be relevant as a matter of theory because membership on multiple boards has an impact beyond the boards on which the "busy" director sits. A director's influence is transmitted through a broader network, among all directors linked to her. Moreover, an "overboarded" director may have access to more resources and information through her network in a way that might mitigate busyness.[130] Alternatively, a relatively nonbusy director might be subject to influences through networks with directors on other boards that could raise conflicts of interest. As influential investors and regulators continue to develop their policies with regard to overboarded directors, it follows that an important consideration should be the networks that the director is able to access due to her connections to different boards. This theoretical contention is supported by the empirical portion of this Article.[131]

4. Interlocks and Networks in the Courts

Courts have increasingly noted the importance of networks but have not embraced a unified theory on why and when networks matter. Among corporate law's most important institutions, the Delaware courts have struggled with how to handle director networks when assessing whether directors have violated fiduciary duties, whether they have lacked independence, or whether they have unjustifiably appropriated corporate opportunities. A number of Delaware cases serve to illustrate the varying approaches taken by the state's courts over the past twenty years.

a. Director Independence

In the context of director independence, the Delaware courts have laid out a shifting set of criteria for determining whether director networks matter. For example, in *In re Oracle Corp. Derivative Litigation*,[132] the Delaware Chancery Court found that a mere common affil-

130 *See* Nili, *supra* note 19, at 1233–34.

131 *See infra* Part II.

132 824 A.2d 917 (Del. Ch. 2003).

iation with Stanford University and prospects for the university's future fundraising were enough to frustrate two directors' independence.[133] Oracle's board had appointed two Stanford professors, who had no direct ties or prior relationship with Oracle, to the Special Litigation Committee ("Committee") to determine whether a derivative action against other Oracle board members over alleged insider trading could proceed.[134] After a thorough investigation, the Committee decided that the suit lacked merit.[135] The court refused to give credence to the Committee's decision, not because of the defendants' and professors' mutual board service, but primarily due to their common Stanford affiliation and the possible influence of overlapping Silicon Valley networks.[136] In its decision, the court expressed uncertainty over whether the directors' "connections might produce bias in either a tougher or laxer direction" but ultimately found enough doubt regarding the committee's independence to overrule the Committee's decision, allowing the lawsuit to continue.[137]

The ties at issue in the *Oracle* case were attenuated and could even be described as hypothetical; the mere fact that the independent directors might feel social pressure to act in a nonindependent way was enough for the court to question their disinterestedness.[138] The decision demonstrates the Delaware courts' willingness to look at networks outside of direct interlocks, but leaves confusion as to what kinds of networks matter. Other states have done the same.[139]

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133 *Id.* at 920–21.

134 *Id.* at 923–24, 929.

135 *Id.* at 928.

136 *Id.* at 942–43.

137 *Id.* at 943, 948.

138 *See id.* The precise question was whether the directors' potential ties raised a reasonable doubt about their independence and the court found that it did. *Id.* at 947. In the context of reviewing the Special Litigation Committee's findings, the reasonable doubt standard expands the scope of what could constitute a conflict of interest from where it would be in a suit alleging breach of fiduciary duty. *See* Zapata Corp. v. Maldonado, 430 A.2d 779, 788–89 (Del. 1981). The rationale for considering broad social ties should still apply in similar matters.

139 *See, e.g.*, Boland v. Boland, 31 A.3d 529, 564 (Md. 2011) ("The independence inquiry should not end with an examination of business relationships. In some instances, the plaintiff can raise a genuine issue of material fact regarding the [Special Litigation Committee's] independence and good faith by presenting evidence of significant personal or social relationships."); Sherman v. Ryan, 911 N.E.2d 378, 392 (Ill. App. Ct. 2009) ("A reasonable doubt as to the independence of a director may be raised 'because of financial ties, familial affinity, a particularly close or intimate personal or business affinity . . . .' However, '[m]ere allegations that [directors] move in the same business and social circles, or a characterization that they are close friends, is not enough to negate independence for demand excusal purposes.'" (alteration in original) (citation omitted) (quoting Beam *ex rel.* Martha Stewart Living Omnimedia, Inc. v. Stewart, 845 A.2d 1040, 1051–52 (Del. 2004))).

Subsequent decisions in Delaware and elsewhere have taken an inconsistent approach regarding networks; at times, courts have treated far more intimate ties than those in *Oracle* as unproblematic for director independence, while more attenuated ties have raised doubts. For example, in *Teamsters Union 25 Health Services & Insurance Plan v. Baiera*,[140] the Delaware Chancery Court found no reasonable doubt about a director's independence or compliance with the duty of loyalty even though he had previously served as CEO of a service provider with whom his company agreed to do business.[141] In that case, the same interlocks that literature identifies as influential were held to be immaterial. The case centered on a service agreement that travel company Orbitz signed with its then-parent Travelport Limited to help ensure the success of Travelport's initial public offering.[142] The court found that despite the close ties between several of Orbitz's directors and Travelport (and the appointment of one of them by Travelport), the plaintiffs did not raise sufficient reasonable doubts regarding the directors' independence.[143]

In other recent cases, by contrast, the Delaware courts have found conflict in more attenuated relationships than in either case described above. For example, in *Sandys ex rel. Zynga Inc. v. Pincus*,[144] the independent directors of game developer Zynga voted to allow fellow board member, Mark Pincus, to trade restricted stock in the company immediately before the announcement of negative earnings that would result in a drop in stock price.[145] Investors sued, and on appeal the Delaware Supreme Court found that business ties among

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140 119 A.3d 44 (Del. Ch. 2015).

141 *See id.* at 59.

142 *See id.* at 50–52.

143 *See id.* at 59–62. Other cases have made similar findings. *See, e.g.*, Beam *ex rel.* Martha Stewart Living Omnimedia, Inc. v. Stewart, 833 A.2d 961, 979 (Del. Ch. 2003) (finding that "some professional or personal friendships, which may border on or even exceed familial loyalty and closeness, may raise a reasonable doubt whether a director can appropriately consider demand" but holding that "[n]ot all friendships, or even most of them, rise to this level and the Court cannot make a *reasonable* inference that a particular friendship does so without specific factual allegations to support such a conclusion" (footnotes omitted)).

144 No. 9512-CB, 2016 WL 769999 (Del. Ch. Feb. 29, 2016).

145 *See id.* at *1. In addition, the Delaware courts have increasingly acknowledged the possible importance of relationships and backed away from any blanket presumption about the ability of a director to consider demand excusal. *See* Del. Cnty. Emps. Ret. Fund v. Sanchez, 124 A.3d 1017, 1022 (Del. 2015) ("[In *Beam*], we did not suggest that deeper human friendships could not exist that would have the effect of compromising a director's independence. When, as here, a plaintiff has pled that a director has been close friends with an interested party for half a century, the plaintiff has pled facts quite different from those at issue in *Beam*. . . . [W]hen a close relationship endures for that long, a pleading stage inference arises that it is important to the parties." (footnote omitted)).

the directors, and the fact that some of the directors shared a private plane, raised reasonable doubt about their independence.[146]

These cases, and others like them, illustrate courts' willingness to look at networks beyond interlocks. Yet, they do little to clarify what kinds of networks are relevant and when they might be especially problematic. There is little analytical guidance to say why owing one's job to another entity does not make one beholden to that entity but sharing a private plane with another does. Networks are relevant, but clarity on the implications of networks would benefit corporate governance law and the actors within it.

b. Corporate Opportunity and Conflicts of Interest

Similarly, networks add complexity to a director's responsibilities with respect to the corporate opportunity doctrine[147] and conflicts of interest. In most circumstances, courts have not viewed service on multiple boards as impugning a director's loyalty to the corporation she serves.[148] Corporate opportunities, however, can pose problems for directors serving on multiple boards. As one court has stated, "It is only when a business opportunity arises which places the director in a position of serving two masters, and when, dominated by one, he neglects his duty to the other, that a wrong has been done."[149] The basic requirement in most states is that directors avoid taking business opportunities that "belong" to the corporation, meaning, essentially, that the opportunities are within the company's business line and the company is in a position to take advantage of them.[150] Nonetheless, a corporation may, through its nonconflicted directors, elect to forgo an

146 Sandys *ex rel.* Zynga Inc. v. Pincus, 152 A.3d 124, 126 (Del. 2016).

147 *See infra* note 150 and accompanying text.

148 *See, e.g.*, Quadrant Structured Prods. Co. v. Vertin, 102 A.3d 155, 186 (Del. Ch. 2014) ("[T]he Delaware Supreme Court held that there [sic] '[t]here is no dilution of [fiduciary] obligation where one holds dual or multiple directorships.' If the interests of the beneficiaries to whom the dual fiduciary owes duties are aligned, then there is no conflict of interest." (alterations in original) (citation omitted) (quoting Weinberger v. UOP, Inc., 457 A.2d 701, 710 (Del. 1983))).

149 Singer v. Carlisle, 26 N.Y.S.2d 172, 182 (N.Y. Sup. Ct. 1940).

150 The general rule on corporate opportunities in Delaware is set out in the case *Guth v. Loft, Inc.*, 5 A.2d 503 (Del. 1939). The basic doctrinal formulation of the rule is that a director may not take an opportunity for him or herself if: (1) the corporation is financially able to take advantage of the opportunity; (2) the opportunity is in or closely related to the corporation's line of business; (3) the corporation has an interest or expectancy in the opportunity; and (4) if the director takes the opportunity, he or she would take on a position at odds with his or her duties to the corporation. *Id.* at 511. A small number of jurisdictions use a fairness test. Under such a test, a corporate opportunity is deemed to belong to the corporation if a fiduciary's appropriation would not satisfy "ethical standards of what is fair and equitable [to the corporation in] particular sets of facts." Durfee v. Durfee & Canning, Inc., 80 N.E.2d 522, 529 (Mass. 1948)

opportunity and allow the director to take advantage of it once it has been fully disclosed.[151]

Networks throw an additional wrinkle into the basic corporate opportunity framework. Opportunities may arise for entities enmeshed in a director's network, even if the director (or a company she serves) does not take the opportunity directly. For example, *Johnston v. Greene*[152] presents a typical fact pattern. In that case, the director in question was president of two companies: Airfleets, an aircraft financing company, and Atlas, an investment company that owned a large stake in Airfleets.[153] An opportunity arose to buy a business that made a mechanical part and the patents for aircrafts.[154] Atlas passed on the opportunity, but Airfleets's board decided to purchase a controlling interest in the business, though not its patents.[155] The director proceeded to purchase the patents, and a group of Airfleets shareholders sued alleging breach of fiduciary duty by usurping a corporate opportunity.[156] The court ultimately found that the opportunity had been fairly presented to both boards and rejected by both, freeing the director to seize it for himself.[157]

One need only slightly alter the facts of *Johnston* to see how networks complexify the analysis. Imagine that, instead of taking the opportunity to the board of Airfleets, the director in *Johnston* had told a colleague with whom he served on yet another company's board about it. Assume he did so to curry favor with that colleague and other members of that board. This other company and its directors owe no fiduciary duties to Airfleets or Atlas, and could take the opportunity. The director would not have taken the opportunity for himself, and therefore the case against him for breach of fiduciary duty would be weak using the traditional analysis. Nonetheless, his behavior would be equally, if not more, problematic. Considerations like this might complicate corporate opportunity inquiries, but analyzing

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(quoting HENRY WINTHROP BALLANTINE, BALLANTINE ON CORPORATIONS 204–05 (rev. ed. 1946)).

151 *See, e.g.*, Kerrigan v. Unity Sav. Ass'n, 317 N.E.2d 39, 43 (Ill. 1974) ("[I]f the doctrine of business opportunity is to possess any vitality, the corporation or association must be given the opportunity to decide, upon full disclosure of the pertinent facts, whether it wishes to enter into a business that is reasonably incident to its present or prospective operations.").

152 121 A.2d 919 (Del. 1956).

153 *Id.* at 920.

154 *Id.* at 921.

155 *Id.* at 922.

156 *Id.*

157 *See id.* at 925.

them would better maintain faithfulness to the interests underlying this doctrine.

II. Social Corporate Governance

Part I described the importance of directors and summarized how scholars, policymakers, and courts have either paid too little regard or taken inconsistent approaches to director networks as broadly defined. This leaves many open questions: whether it is feasible to examine such networks, how this can be done, and whether an examination of networks adds anything to the preexisting analysis of board behavior. In this Part, we provide empirical evidence to show that the examination of Social Corporate Governance through director networks is feasible and possible, and we provide a case study of how such analysis can be done.

We explore the importance of broader networks using two empirical approaches. The first approach, outlined in Section II.A, gathers qualitative data through interviews with board members and company general counsels who work closely with boards. This approach assesses the anecdotal impressions of those in the trenches about the importance of interlocks and director networks. The second approach, outlined in Section II.B, involves a quantitative empirical case study of director networks and their impact on corporate governance. Specifically, the quantitative analysis examines the role of director networks in improving the board's accounting practices, the impact on two different corporate governance indices, and evidence of options backdating.

A. The View from the Ground: Directors' View Regarding Networks' Role

This Section presents data from original interviews with directors and general counsels about the role of networks in the governance of corporations. We interviewed members of boards of directors and general counsels of public companies, first to assess our empirical strategy and then to develop further insight into the plausibility of our quantitative analysis. A table describing our interviews is set out in Part I of the Appendix.[158] These directors served on companies ranging from large, Fortune 500 companies to small Russell 3000 companies. To identify interview subjects, we used a snowball sampling technique, beginning with a sample of directors taken from the mem-

158 *See infra* Appendix: Part I, Table 7.

bership of the National Association of Corporate Directors and asking each interviewee to refer us to anyone else willing to speak with us. The major downside of snowball sampling is that it is difficult to obtain an unbiased sample. This technique, however, helped us gain access to directors and general counsels who might have otherwise been disinclined to participate. Because of the challenges associated with using snowball sampling and interviews in general, we consider these interviews to be supplemental to the quantitative data. They provide context and support for our approach, but we do not rely solely on the interviews in forming our conclusions.

Each director affirmed the important influence of networks in corporate governance. Moreover, the interviews provided anecdotal support for our more comprehensive empirical strategy of looking at networks created by board memberships, as further explained in this Section. The interviews also shed light on the ways in which networks can transmit information, as well as the other kinds of networks that are important to board governance. In addition to establishing networks' importance, these interviews reveal some of the specific ways in which networks are utilized as well as some of their potential limits and downsides.

Notably, board members themselves also tend to conflate the issue of director interlocks with broader director networks. When asked to tease out the influence of each, the board members we interviewed generally acknowledged that both are important, although direct interlocks are more concrete and easier to conceptualize and, therefore, take more attention in directors' thinking.

1. Networks Formed Through Service on Other Boards

Our interviews revealed that directors and general counsels view networks formed through service on multiple boards to have both benefits and downsides. Participants highlighted the benefits that connections with other boards can bring but lamented the concerns regarding their time commitments to other boards. One public company director, for example, described more networked directors as being more "experienced" and noted the benefits of having board members who have handled a variety of situations.[159] Another director described a situation in which an activist shareholder attempted to influence a company on whose board she served.[160] The director had encountered the same activist while serving on a different board and

159 Telephone Interview with Participant V (Nov. 8, 2018).

160 Telephone Interview with Participant IX (Sept. 5, 2019).

was able to share knowledge of how to deal with the activist, which led to a smoother resolution to the problem.[161] Another interviewee commented that "you don't need to teach [directors on multiple boards] everything from scratch."[162] Another noted that "the ability of these directors to share information about how other companies have approached things strategically is invaluable."[163]

On the other hand, participants also highlighted concerns regarding the time commitment of directors serving on multiple boards, stating that at times, it could be "a challenge to schedule board meetings" and sometimes "their attention was clearly not there."[164] One director, however, stressed that "it is more about the stage in the director's career and their commitment to the position than mere number of board positions."[165]

Another potential drawback we asked interviewees about was potential conflicts of interest that serving on multiple boards might engender. Interviewees generally thought that this issue was a problem in theory but that, in practice, boards are highly cognizant of it and deal with it well. A number of interviewees stated that directors usually try to avoid such conflicts when considering whether to accept a seat on a board. For instance, one director recounted an anecdote in which she advised a colleague not to accept a board position with a company that had business in a wide range of industries because it might cause a conflict of interest in the event the colleague were offered a CEO position in one of those industries sometime in the future.[166] Another interviewee conveyed that such conflicts, should they arise, would "usually be easily addressed" through disclosure and approval by other directors.[167]

Some interviewees, however, acknowledged that, at times, companies debate the motivation behind a director's advice or recommendation when it is based on outside knowledge gained from her other board service. For example, one interviewee stated that "when a director recommends that we buy a product from a company in which he is a director, we wonder whether this advice is because he has intimate knowledge with the product and its value or because they stand

161 *Id.*

162 Telephone Interview with Participant II (Nov. 5, 2018).

163 Telephone Interview with Participant III (Nov. 6, 2018).

164 Telephone Interview with Participant IX, *supra* note 160.

165 Telephone Interview with Participant I (Oct. 18, 2018).

166 Telephone Interview with Participant XIII (Sept. 19, 2019).

167 Telephone Interview with Participant II, *supra* note 162.

to gain from it."[168] This suggests that board members are attuned to potential conflicts of interest and take them into account, at least some of the time.

2. *How Director Networks Impact Governance*

Interviewees described several paths through which board networks impact a board's work. One path is via informal discussions with colleagues from other boards. Directors rely on their networks of colleagues for information sharing. Some interviewees stated that they often rely more on colleagues from other boards when dealing with unfamiliar situations because there is sensitivity about appearing knowledgeable and competent in front members of one's own board.[169] Interviewees described sharing knowledge, often on a no-names, off-the-record basis, about experiences they have had at other companies or things they have learned from colleagues on other boards.[170] In addition, participants indicated that directors bring with them document and policy templates from their other companies as part of the onboarding process.[171] Several interviewees specifically mentioned the "onboarding" process—the process of orienting a new director to a company—as an opportunity for a well-networked incoming director to not only learn about the companies' own policies but also actively suggest revisions and additions based on what other companies she served or serves have been doing.[172]

Some interviewees noted that a director's network and service on other boards is useful when the company is looking for an outside consultant. One general counsel stated "we would seek that director's input as far as how was the experience with that outside consultant."[173] According to the interviewees, consultants are particularly important when there is a change in law, regulation, or market practice to which a company must adapt and about which there is little precedent practice. Interviewees also specifically confirmed the role of networks in the data-sharing process in the boardroom. When asked if it is common to have directors mention information they gained from a different director with whom they serve on another company, one director noted that "it happens all the time,"[174] and another general

168 Telephone Interview with Participant XII (Sept. 18, 2019).

169 *E.g.*, Telephone Interview with Participant XIII, *supra* note 166.

170 *Id.*

171 Telephone Interview with Participant VI (Jan. 9, 2019).

172 Telephone Interview with Participant VII (Feb. 1, 2019).

173 Telephone Interview with Participant XIII, *supra* note 166.

174 Telephone Interview with Participant XV (Sept. 23, 2019).

counsel mentioned that he has definitely seen it, particularly "in the contexts of highly regulated industries, where sharing of such knowledge is particularly useful."[175]

In addition, interviewees acknowledged that the broader network plays an important role in the nomination and selection of new directors,[176] as directors would often recommend candidates based on their wider network information. One participant specifically highlighted the ability of networked directors to attract both executives and outside service providers through their broader network.[177] As a whole, the interviews highlighted the importance of examining director networks and Social Corporate Governance more broadly into discussions surrounding interlocks and the importance of corporate board professional ties.

B. Network Analysis

This Section presents a quantitative case study of director network structure and its relationship to corporate governance. The analysis marries original hand-collected data with publicly available and proprietary datasets. As further explained below, we use several types of analysis to assess the impact of director networks on various measures of corporate governance. In our main analysis, we use director deaths as a natural quasi experiment to assess the effect of randomly timed disruptions to the network. To do so, we look at the effect of changes in networks, defined in four different ways, on companies that are directly and indirectly affected by the death.

1. Data Sources and Design

Our data is drawn from a number of different sources. We collected our initial sample of board members using BoardEdge[178] and BoardEx,[179] two commercially available databases of board composition that includes the identities, ages, positions, educational backgrounds, and other organizational affiliations of public company directors and senior managers. After, we collected and coded the identities of members of the boards of directors of all publicly traded companies in those databases, beginning in 1990 until January of 2018.

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175 Telephone Interview with Participant III, *supra* note 163.

176 Telephone Interview with Participant II, *supra* note 162; Telephone Interview with Participant XII, *supra* note 168.

177 Telephone Interview with Participant XII, *supra* note 168.

178 EQUILAR, https://www.equilar.com/executive-and-board-database [https://perma.cc/3TAW-DZMS].

179 BOARDEX, https://www.boardex.com/ [https://perma.cc/Z35Q-9XA8].

Private firms and firms for which financial information was unavailable were excluded, as were firms with less than four years of available data because the governance changes of such firms over time cannot be readily assessed. This left a dataset of 7,208 firms existing in at least four consecutive years of the dataset and 84,722 firm-year observations. To observe the governance impact of directors, we used several outcomes that serve as proxies for good governance. First, we collected SEC enforcement data from the SEC's Accounting and Auditing Enforcement Releases. These releases describe SEC enforcement actions against public companies that have allegedly engaged in fraudulent accounting practices and either litigated or settled their cases with a consent decree.

The releases state the timing of the alleged fraud, as well as the nature of the fraudulent activity, among other things. In addition, we collected information on financial restatement events (i.e., events indicative of materially misleading accounting) from Audit Analytics, which maintains a database of auditor actions with respect to publicly traded companies. We also collected information on firm governance policies, particularly those related to board entrenchment, from ISS. Moreover, we gathered information on firm governance policies, including director and officer compensation, company diversity policies, employment policies, and environmental policies compiled by Morgan Stanley Capital International ("MSCI"), a provider of capital markets information and governance indexes. We gathered market data from the Center for Research in Securities Pricing ("CRSP") database and company financial data from Compustat, a financial, statistical, and market database.

Our main study design uses director deaths as randomly timed shocks to the director network—for both the company at which the death occurs and to other indirectly connected companies. To identify these instances, we began by searching Form 8-Ks on the SEC's EDGAR database for information on all director departures. We then parsed these filings for information on the reasons for the director's departure. We categorized sudden departures in two ways. In the first category are unexpected director departures due to death—that is, deaths that occur in office without any information indicating the director's intention to leave or retire in the same year. Such deaths of directors and CEOs are a tragic occurrence, but not exceptionally rare.[180]

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180 *See* Carol Hymowitz & Joann S. Lublin, *McDonald's CEO Tragedy Holds Lessons for*

Although many companies provide information about a director's death and resignations on Form 8-K, they are not always required to do so and the information is not always available from that source.[181] We therefore supplemented the dataset by searching ProQuest and Lexis for news articles about director departures and deaths that corresponded to their departure date from a company board. This yielded a dataset with a total of 658 director deaths between 1990 and 2018. The average age of a director's death in our dataset was 72, several years younger than the average life expectancy in the United States which currently stands at 78.7 years.[182] Directors' ages while in office at their time of death ranged from 40 to 95 years old.

2. Network Centrality Measures

Conceptually, networks consist of the scope and reach of the social interactions that directors have with one another. To assess networks in practice reliable measures of their intangible attributes are necessary. To construct a model of network interactions, we calculated four measures of centrality connectedness used in the literature on networks, as described in Part I.[183]

We note that our model builds upon direct board overlaps, as discussed in much of the traditional literature, but also goes beyond them. We also note that our approach is simply one way to model a network. Other networks based on social media ties or other connections are also undoubtedly relevant. For present purposes, we use board memberships as network building blocks for two reasons. First, they have been the focus of the prior literature that we endeavor to expand, and provide a logical starting point for making the case for a broader conception of networks. Second, because boards meet a predictable number of times per year at regular intervals, they provide a baseline of regular interpersonal interactions between their members,

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Directors, WALL ST. J. (Apr. 20, 2004, 12:01 AM), https://www.wsj.com/articles/SB10824170911 9287202 [https://perma.cc/6XBV-QZET].

181 Form 8-K requires disclosure of a director's departure but does not require any disclosure about the reason for the departure, unless it is due to resignation over a disagreement with company operations or policies. *See* SEC, Form 8-K, https://www.sec.gov/about/forms/form8-k.pdf [https://perma.cc/ADE4-AFFJ]; SEC Standard Instructions for Filing Forms Under Securities Act of 1933, Securities Exchange Act of 1934 and Energy Policy and Conservation Act of 1975-Regulations S-K, 17 C.F.R § 229.501 (2020).

182 JIAQUAN XU, SHERRY L. MURPHY, KENNETH D. KOCHANEK & ELIZABETH ARIAS, NAT'L CTR. FOR HEALTH STAT., MORTALITY IN THE UNITED STATES, 2018, at 1 (2020), https://www.cdc.gov/nchs/data/databriefs/db355-h.pdf [https://perma.cc/AK5W-KW49].

183 For a paper using similar network analysis techniques on boards of directors, see generally Larcker et al., *supra* note 117.

upon which a network model can be built. With respect to other kinds of networks, such as alumni associations or social media connections, it is difficult to observe whether individuals actually come into contact at all with any regularity. Boards, on the other hand, provide an observable set of repeated interactions over time. Moreover, to the extent that board members are part of other networks as well, board networks provide a lower bound for social interactions among their members.

The four measures of connectedness used in the literature that we employ here are described below.[184] The measures are Degree Centrality, Closeness Centrality, Betweenness Centrality and Eigenvector Centrality, each of which is explained below. Although each of these measures is relatively simple, together they account for various ways that connections between and among directors may impact the companies on which the directors serve.

1. Degree: The first measure, Degree Centrality, is the same measure that is often referred to as interlocks in the literature. It enumerates the number of links between members of one board and others.[185] To return to the analogy to friends in the Introduction, degree simply measures how many friends one has but says nothing more. In terms of boards, degree measures how many directors are shared between any set of companies. This measure evaluates the direct size of a network, i.e., the ability of actors in a network to reach other actors without going through intermediaries. This in turn determines the amount of resources that actors in a network have direct access to. In the dataset, the median Degree Centrality for all companies across the entire time period is five, meaning that the median board has five direct interlocks with other companies.[186]

2. Closeness: The second measure of board connectedness is Closeness Centrality, which measures the "distance" between boards via chains of mutual connections. Specifically, it accounts for the number of other boards a company board member would have to go through to reach any other board that he or she is not directly connected to.[187] The measure is similar to the concept of degrees of separation. Using the analogy from the Introduction, closeness is a

184 *See id.* at 226–27. Note that we assume the possibility of bilateral communication between any two connected boards. Where network connections can run in one direction only, measures of indegree and outdegree are commonly used.

185 *See id.* at 226.

186 *See id.* at 230 tbl.1.

187 *See id.* at 226.

measure of how many friends-of-friends a person would need to go through to get to other parts of the extended network. With respect to boards, the intuition behind this measure is that boards are more likely to share information with each other or influence one another if their members can reach each other through fewer intermediaries. Closeness is different from Degree because it broadens the network beyond the direct interlocks between boards. The median Closeness Centrality for boards in the dataset is 0.22 (or roughly, one over five).[188] Because of the way closeness is calculated, this means that the median board is separated by five other boards from the board that is further away in its network. Another way to think about this is that the median board is five degrees of separation away from its furthest connected board.

3. Betweenness: The third measure is Betweenness Centrality, a measure that accounts for how much a given actor plays "middleman" for other actors.[189] Extending the examples from the Introduction, if an individual has five friends but none of the friends know each other (or anyone else), her betweenness increases because the friends have to go through her to get to each other. In terms of directors, Betweenness counts how many paths between other parties a given board of directors lies upon. Betweenness measures the extent that a board plays a bridging role between companies that would otherwise be unconnected. The median Betweenness Centrality is approximately eight, indicating that the median board across all years lies on the path between eight other pairs of companies.[190]

4. Eigenvector: Eigenvector Centrality considers how connected board members' direct connections are. The idea behind this measure is that boards may have more influence, or may be more susceptible to influence, if their members' direct contacts are also well connected.[191] The measure itself can be thought of as a scaled score, of sorts, of the connectedness of each board to every other board. As such, it can only be interpreted in a relative sense, i.e., as a way to compare the centrality of boards and directors to each other. The median Eigenvector Centrality is 0.010, with the twenty-fifth percentile at 0.004 and the seventy-fifth percentile at 0.015.[192]

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188 *See id.* at 230 tbl.1.

189 *See id.* at 226.

190 *See id.* at 230 tbl.1.

191 *See id.* at 226.

192 *See id.* at 230 tbl.1.

It should be noted that we employ each of these measures to capture a different notion of connectedness between members of various boards of directors, and it is not clear a priori which is most meaningful, if any, with respect to governance or enforcement outcomes.

Using the various measures of centrality enables examination of different aspects of the network that might be important to a director's decisions around the board table. For example, if a director sits on two different boards, Board A and Board B, she may have opportunities to use what she learns through her experience with Board A in her service to Board B. The time commitment involved, however, in serving both boards might mean that she is unable to give her full attention to both at the same time. This illustrates Degree Centrality, and this balance is at the center of the debate over busy directors.[193]

Consider a situation in which a director sits on Board A and Board B, and she and her colleagues have little experience dealing with the types of problems Board A has. If someone on Board B knows someone on Board C, she can connect to a director on Board C; the director will have access to a source of information and knowledge that is not captured solely through counting interlocks. Moreover, the ability to connect with Board C's members will presumably not affect the director's busyness.[194] This is the type of network that Closeness Centrality seeks to capture, and networks that expand beyond this are generally described by Betweenness and Eigen Value Centrality. Importantly, if the network connectivity of Board A changes, this will affect not only Board A, but it may affect Boards B and C also. Thus, higher order network measures can be used to capture important direct and indirect elements of a network.

For our analysis, we mapped networks for all firms in each year in the dataset and for each individual director in the dataset. From these, we calculated the network metrics described above. Table 1 in Part I of the Appendix provides summary data on the network measures over the dataset. Measures of centrality generally increase throughout the years in the dataset, as illustrated in Figure 2 in Part I of the Appendix. As discussed above, this could be due to a number of factors, including the perceived benefit of networked directors on the boards of publicly traded firms, the increasing professionalization of corporate directors, or the concentration of ownership of publicly traded firms making familiar names and relationships more important in director appointments.

193 *See supra* Part I.

194 *See supra* Section I.B.3.

C. *Networks and Accounting Irregularity*

One proxy for a board's influence on corporate governance is the extent to which a company's accounting exhibits irregularities.[195] Ensuring that systems are in place to enable accurate reporting and monitoring the firm's managers are key board functions, particularly after the enactment of the Sarbanes-Oxley Act in 2002. Moreover, accounting best practices are the type of information that can plausibly be transmitted over a network, if any such transmission takes place at all.[196] There are a few reasons for this. First, accounting rules and standards change from time to time and the practices to implement these changes take time to develop. Firms that develop them first—or pay experts to do so—are likely to serve as models for other firms. Those models can be copied more readily between more networked firms.[197] The second is that, to the extent that companies use outside professionals to develop accounting practices, board members may be consulted and recommend firms via both direct and indirect network connections. The data from the SEC's Accounting and Auditing Enforcement Releases and audit analytics provide a direct measure of accounting irregularities that later come to light.

We hypothesize that, all else equal, if networks are important conduits for governance information, then positive changes in a company's network (i.e., the network getting bigger or denser) will result in a lower incidence of accounting irregularity; conversely, negative changes in the network (i.e., the network getting smaller or less dense) will have a negative impact. Using director deaths as an exogenously timed shock to the networks, if networks are important, we would expect to see an impact not just at the company directly affected (i.e., the company whose board member passes away), but also on companies on whose boards that director did not serve—whose networks changed via indirect connections.

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195 *See* Nadia Smaili & Réal Labelle, *Corporate Governance and Accounting Irregularities: Canadian Evidence*, 20 J. MGMT. & GOVERNANCE 625, 626 (2016).

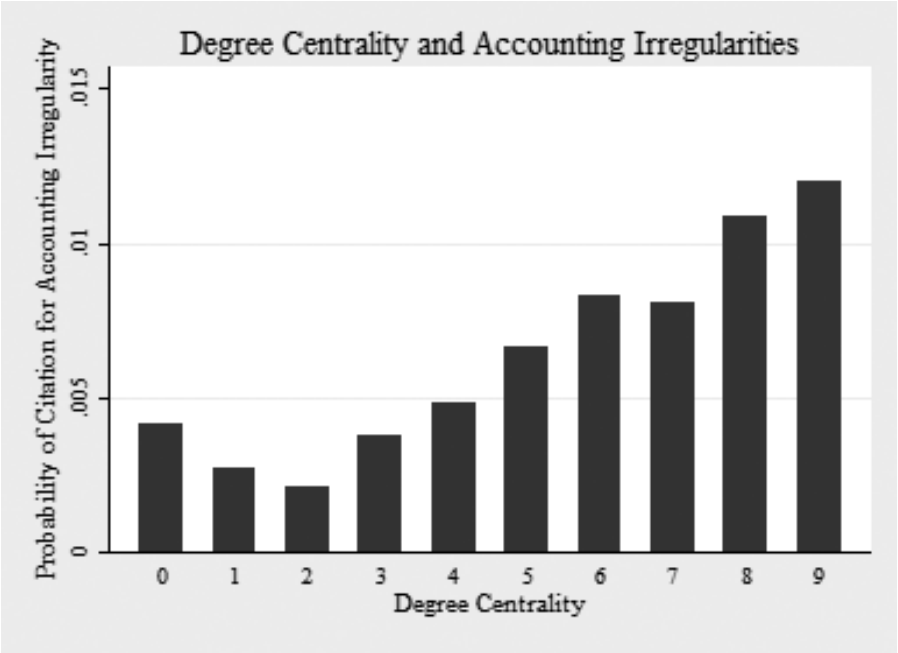
196 *See* Mark S. Beasley, *An Empirical Analysis of the Relation Between the Board of Director Composition and Financial Statement Fraud*, 71 ACCT. REV. 443, 443–48 (1996).

197 We note that our main analysis uses boards as nodes and director connections as edges. This makes sense given that we are looking at firm-level outcomes. Another way of modeling a network is to use directors as nodes. However, to assess firm-level outcomes using such a network would require employing arbitrary means, such as averaging, to determine the level of connectedness that matters for firm outcomes, and would therefore introduce arbitrary noise into the analysis. In any event, a test of networked boards is useful to assess whether they are conduits for this information or practices.

1. Accounting Irregularity Raw Data

Starting with the raw data, the noteworthy pattern is that citations for accounting irregularities increase as connectedness increases. Figure 2 below illustrates this trend. It shows the average relationship between Degree Centrality and the probability of being cited for accounting irregularities.

FIGURE 2. DEGREE CENTRALITY AND CITATION FOR ACCOUNTING IRREGULARITIES



The raw data seems to support the traditional busy director concerns, showing that director interlocks interfere with directors' ability to monitor. Looking at raw data alone, however, can be misleading and demonstrates the need for more thorough analysis. For example, certain firm characteristics might be associated both with director connections and with citation for accounting fraud without being directly related. Larger firms are more likely to have more connected boards, and it is possible that larger firms are also more likely to be cited for accounting problems. In that sense, it is unclear whether the busyness of directors is driving the results, or rather, that the type of companies that attract busy directors are also more likely to err, or to be scrutinized more closely by investors and regulators alike. Moreover, it is unclear whether this pattern would affect companies with few direct

connections that are themselves connected to well-connected companies. The following analysis teases apart these possibilities.

2. *Analysis and Results*

To estimate the relationship between networks and accounting irregularity, we start our analysis with regression models designed to assess simple correlation. These models assess whether there is a relationship between our measures of director networks and the accounting misstatements when controlling for possible confounding variables. Specifically, we employ controls for company size using the amount of a company's assets because size may be associated with networks as well as fraud or detection of fraud. We also control for directors' age and tenure on the board because these factors can relate to their ability to provide advice and oversight independent of any network effect. In addition, we control for a company's age, its return on assets as a proxy of managerial ability, book value per share, leverage, and sales turnover because these are commonly accepted measures used in the literature as factors often associated with managerial competence and accounting irregularity.[198] We also use fixed effects for each company's industry—as two-digit standard industry classification codes—each year and for the company itself. These fixed effects control for inherent qualities of the industries, companies, and years that we analyze that might otherwise affect the results.[199]

The results of the naive regressions are shown in Table 2 in the Appendix. One important point stands out in the results: each centrality measure has a negative coefficient, indicating that as a company's network strengthens, the likelihood of being cited for accounting irregularity decreases. As suspected, the size of a company is positively correlated with the probability of it being cited.

Of course, this model cannot rule out endogeneity. For example, it could be the case that better companies hire more networked or effective directors and that less well-run companies cannot attract such directors or do not hire them. To assess whether that is likely to be the case, we conduct additional analyses using a difference-in-difference method. The goal of these analyses is to assess the true effects of networks, independent of the size of the company or other con-

198 *See, e.g.*, Joseph F. Brazel, Keith L. Jones & Mark F. Zimbelman, *Using Nonfinancial Measures to Assess Fraud Risk*, 47 J. ACCT. RSCH. 1135, 1156–58 (2009) (describing financial and nonfinancial controls for research in accounting fraud).

199 *See* M.T. Nwakuya & E.O. Biu, *Comparative Study of Within-Group and First Difference Fixed Effects Models*, 9 AM. J. MATHEMATICS & STAT. 177, 178–99 (2019).

founding factors, by exploiting the random timing of directors' sudden deaths. The specific timing of a director's death and replacement by another director causes changes in companies' connectedness that are plausibly exogenous (i.e., unrelated) to a company's odds of being cited for accounting misstatements, except via its impact on the company's director composition, and perhaps more importantly, via its impact on the networks of other companies that are *connected* to the companies where the death occurred. Therefore, it provides a way to tease apart the effect of networks from other factors. Moreover, difference-in-difference models additionally control for time-varying inherent qualities of the companies and industries we study.[200]

Moreover, we conduct our analysis on companies both directly and indirectly affected by the death. The first set of analyses examines changes in the networks of the companies at which the director deaths occur. However, because we are interested in the importance of networks—not just the effect of a director's death on a company's policies—our second set of analyses looks at changes in the network for companies that *do not* experience a director loss but that are *connected* via director networks to companies that do experience a loss. By connected, we mean that there is at least one intermediary director between the two companies. For ease of reference, we refer to the firms where the death occurred as "primary firms," and the firms that are connected to primary firms (but which did not experience a death) as "secondary firms." Analyzing both types of firms allows us to tease out the impact of an exogenous change in the network versus the impact from the director death itself.

Our difference-in-difference analysis compares the differences in director networks for the four years before and after a director death. Companies whose networks are affected by the death are the "treatment group," and companies that have had no exogenous change to their boards are the "control group." The analysis compares the probability of being cited for accounting irregularity between the treatment and control firms, both before and after the change to the network. The idea is to see if the probability of accounting irregularity changes differently over time (i.e., before and after the death) for the treatment group than it does for the control group. If there is a statistically significant difference in the *difference* between both groups after the change, then we can infer that the treatment (i.e., the change in

200 *See* Tamar Sofer, David B. Richardson, Elena Colicino, Joel Schwartz & Eric J. Tchetgen Tchetgen, *On Negative Outcome Control of Unobserved Confounding as a Generalization of Difference-in-Differences*, 31 STAT. SCI. 348, 350–51 (2016).

the network) had an effect. Of course, other variables (such as firm size, performance, year, industry, and age) are also controlled to isolate the network effect on governance.

We selected the four-year window because it is likely that any governance or knowledge effect resulting from a change in director connectedness would somewhat lag behind the director's departure. Although boards that lose members replace those members, the incoming members have different levels of connectivity, meaning that the passing of a director has an impact on the board's network that goes beyond the immediate aftermath of the death.[201]

Table 3 in Part I of the Appendix provides the difference-in-difference results for accounting irregularity, showing the effect of a change in networks caused by a director's death on the difference in the probability of citation for accounting irregularities. As explained, we include the same controls used for the simple regression analysis above. As Table 3.A. in the Appendix shows, the coefficients for primary companies are negative and statistically significant for all network metrics at the primary companies (where the death occurred).

The Table also shows that the change in network connectedness had an impact on secondary companies (those whose networks are indirectly affected by the death) with respect to all network metrics other than degree. These results are in Table 3.B. The effect at secondary companies is smaller, which one would expect, because any impact is conveyed indirectly via the network. This provides support for the conclusion that greater network centrality leads to lower citation for fraud, and a fortiori, better corporate governance.[202]

These analyses support the conclusion that greater network centrality is associated with a lower probability of accounting irregularities. Specifically, these empirical tests reveal that firms who experience a negative change in network centrality (meaning their network becomes smaller) due to an unanticipated director death ex-

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201 We performed an analysis of parallel trends with respect to accounting irregularity and network connectivity to ensure comparability of treatment and control groups. We also performed robustness checks, performing each difference-in-difference analysis using 1000 randomly generated placebo deaths to confirm that our results are not driven by other trends in the data, as set out in Appendix Table 8. The analysis using placebo deaths resulted in an average coefficient close to zero for each type of centrality, indicating that the results using real deaths are not spurious or driven by underlying trends in the data. We also conducted the analysis using only director deaths that occur before the age of seventy because these are likely to be more unexpected than deaths of directors who are much older. The results remain in these tests.

202 For the more visually oriented, graphs of the results from Table 3 are also included in the Appendix as Figures 3 and 4.

perience a greater likelihood of being cited for accounting irregularities in the four-year period following the death event; as a corollary, firms who experience a positive change in network centrality as a result of the death and replacement by another director, on average, experience a lower probability of being cited.

D. Governance Indexes

Another proxy for a board's influence is the adoption of corporate policies over which the board has control. We analyze changes in corporate governance indexes using the difference-in-difference method described above for both primary and secondary companies.

Several governance policies have been identified as having relevance for firm performance, as discussed below. Companies' level of adherence to these policies are commonly aggregated into indexes so that companies can be assessed in terms of their overall corporate governance orientation, something that any single policy does not necessarily represent on its own. One widely used index is the "entrenchment index" ("E-index") developed by Professors Bebchuk, Cohen, and Ferrell.[203] These researchers found that, among a long list of policies monitored by shareholder proxy services, only six items had a significant impact on firm value, all of which have management-entrenching effects: staggered boards, limits to shareholder amendments of the bylaws, supermajority requirements for mergers, supermajority requirements for charter amendments, poison pills, and golden parachute arrangements.[204] The authors created an unweighted index accounting for the adoption of these policies and found a significant correlation with firm value. A higher index score indicates more entrenched management and worse corporate governance.

A second index of corporate governance policies used by researchers and securities analysts is a proprietary governance score created by Morgan Stanley Capital International ("MSCI").[205] MSCI rates a number of corporate governance factors based in part on investor-revealed preference (as determined through shareholder votes), stated preference (as determined through surveys), and

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203 *See* Lucian Bebchuk, Alma Cohen & Allen Ferrell, *What Matters in Corporate Governance?*, 22 REV. FIN. STUD. 783, 785 (2009). The index has been used in over 300 studies of the influence of corporate governance on firm value. *See Links to 1002 Studies that Use the Entrenchment Index (Bebchuk, Cohen, and Ferrell, 2009)*, HARV. L. SCH., http://www.law.harvard.edu/faculty/bebchuk/studies.shtml [https://perma.cc/HU2P-M77Q].

204 *See* Bebchuk et al., *supra* note 203, at 785, 787.

205 *See ESG Research*, MSCI, https://www.msci.com/research/esg-research [https://perma.cc/N8H7-EP53].

whether existence of the policy can be definitively determined.[206] Some of the policies in the MSCI score overlap with those in the E-index (e.g., existence of a poison pill), but many do not: audit committee independence, board attendance issues, gender diversity, independent board majority, annual director elections, cross shareholding, and "one share one vote" provisions.[207] Thus, the MSCI score provides an alternative measure of corporate governance quality that captures different policies and a different definition of "good" governance than the E-index.[208] In contrast to the E-index, a higher MSCI score indicates better corporate governance, while a lower score denotes worse governance.

We examine the effect of networks on governance using both measures. Employing a similar design to that used for accounting irregularities, we analyze the indexes using both simple regressions and a difference-in-difference analysis, again using unexpected director deaths as a natural experiment. We use linear regression given the continuous nature of both corporate governance measures.

1. MSCI Analysis

Our difference-in-difference analysis reveals a relationship between increased connectedness and better corporate governance using both governance measures. Each measure, however, exhibits a different pattern. Increased connectedness is associated with increases in MSCI score after an exogenously generated change in the network, suggesting that connectedness has a positive effect on corporate governance, or at least, those measures tracked by MSCI. This was true for all four connectedness measures at the primary company (the company that lost a director) as set out in Table 4.A. in the Appendix. With respect to companies connected to the primary company—those whose networks were affected but who did not themselves lose a director—a similar pattern emerges; yet, the coefficients are statistically significant only for Closeness and Betweenness, but not for Degree and Eigenvector. These results are set out in Table 4.B. in the Appen-

206 *See* MORGAN STANLEY CAP. INT'L, MSCI GOVERNANCE-QUALITY INDEXES METHODOLOGY 10 (2015), https://www.msci.com/eqb/methodology/meth_docs/MSCI_Governance-Quality_Jun15.pdf [https://perma.cc/FK7D-8MEA].

207 *See id.*

208 As a robustness check, we confirm that a basic relationship between each corporate governance measure and firm value, measured as total Q, exists in the raw data. However, we note that the goal of this project is to assess whether networks affect governance; the subsequent question of whether these governance policies are significant for firm value is beyond the scope of this paper.

dix. With respect to Degree, this could be the case because the secondary company does not lose a director, and thus its Degree does not change as a result of the loss at the primary company. With respect to Eigenvector, it is possible that the result is due to certain policies that are less affected by the connectedness of a company's connections than others; however, it could also simply be due to lack of statistical power in the sample with respect to the MSCI scores.

2. E-index Analysis

Analysis of the E-index likewise suggests a positive relationship between connectedness and corporate governance. Because of the way the E-index is constructed, better corporate governance is denoted by a negative change in a company's index rating. The results for both the primary company (the one suffering the death), and secondary connected companies show a negative change in the E-index following the network shock. Only the results for the secondary company, however, are statistically significant. The results are set out in the Appendix for both primary companies (Table 5.A.) and secondary companies (Table 5.B.). The difference in results could simply be a consequence of the fact that there are far fewer companies that experience a death than there are companies connected to them, and therefore, analysis of the secondary connected companies has more statistical power. Alternatively, it could be that the types of governance policies the E-index captures are influenced more by indirect networks, although it is difficult to see why that would be the case. In any event, the results provide further support for the hypothesis that networks can facilitate positive corporate governance changes, at least in some firms in a network.[209]

E. Options Backdating

Our last test uses options backdating as an outcome and tests our network measures to assess what networks besides interlocks are important for transferring nefarious practices. As previously discussed, a well-known paper found that more interlocked boards were associated with options backdating, a manipulative practice that often entails a violation of disclosure rules or fraud.[210] We use a similar methodology to assess whether firms reveal evidence of options backdating, using a proprietary dataset of options backdating occur-

209 *See* Bizjak et al., *supra* note 7, at 4826.

210 *See id.* at 4821–22.

rences provided by MSCI.[211] Using ordinary least squares regression (per the prior paper) our results confirm that interlocks in isolation are indeed associated with options backdating, shown in Table 6 in Part I of the Appendix.[212]

When network variables are introduced, however, the relationship with Degree reverses and becomes exceedingly small or loses statistical significance, depending on the specification. More important factors are Closeness (the extent of separation between one person and others in the network), Eigenvector (how connected your connections are), and another network measure known as clustering. Clustering provides more information about the network centrality measures already discussed.[213] It describes how many "cliques" exist among the connected members of a network. Using the analogy involving friends from the Introduction, if all of one's five friends know one another, but don't know many additional people, the group would have a large clustering coefficient. Clustering describes how insular any given community of boards or directors is and how much such groups are connected or cut off from the larger network.[214]

Networks with shorter paths and connections that are more clustered are more likely to engage in options backdating. This bolsters the hypothesis that networks help to transmit information but also that the structure of a network matters. These kinds of short-path, clustered networks are described in the social science literature as being potentially prone to greater levels of groupthink because information is transmitted within a smaller set of actors who are relatively closed off from the larger network.[215] Our results cannot say definitively if this explanation holds true for options backdating, or whether there may be other explanations that networks do not capture; but they do suggest, at the very least, that network architecture matters as much or more than simple overlapping directorships. They also sug-

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211 *See id.* at 4826.

212 Only primary companies were analyzed because this was the method followed by the prior study.

213 *See supra* Section II.B.2.

214 *See* Duncan J. Watts & Steven H. Strogatz, *Collective Dynamics of 'Small-World' Networks*, 393 NATURE 440, 441 (1998) (describing mathematical and real-world features of insular clustered networks); Aaron Clauset, M.E.J. Newman & Cristopher Moore, *Finding Community Structure in Very Large Networks*, 70 PHYSICAL REV. E 06111-1, 066111-5 n.14 (2004).

215 *See, e.g.*, Marlene E. Turner & Anthony R. Pratkanis, *Twenty-Five Years of Groupthink Theory and Research: Lessons from the Evaluation of a Theory*, 73 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 105, 105–06 (1998) (explaining the evolution of groupthink, which is defined as "conformity to group values and ethics" (quoting *Groupthink*, WEBSTER'S NEW COLLEGIATE DICTIONARY (1975))).

gest areas for future research into whether certain kinds of networks are more prone to transmitting bad practices as opposed to good.

III. Policy Implications

At a basic level, the above analysis demonstrates that Social Corporate Governance through director networks plays an important role in ways that are not sufficiently captured by interlocks, busyness, or market-based metrics alone. Yet, academic literature and important policymaking bodies have scarcely begun to expand their analysis when examining a director's service on multiple boards. Focusing solely on the direct interlocks that directors create and on the sheer number of boards a director serves have led many to conclude that directors' service on multiple boards might be suboptimal, when in fact, the picture is more complex. Moreover, courts have approached networks in ways that vary greatly from one situation to another, without any discernible principle as to why.

Our results provide support for the argument that positive benefits of director connectedness—Social Corporate Governance—provide a counterweight to the drawbacks of director busyness. The results also provide evidence that the structure of networks matters and are important sources of benefits for boards. Below, we expand on these important policy implications.

A. Finding Equilibrium Between Busyness and Connectedness: The Need for Broader Networks Research

The results presented in this Article collectively provide evidence that, on average, companies with more networked boards have better corporate governance mechanisms in at least some respects. These findings support the conclusion that board connectedness may yield positive benefits for public company governance, bringing to light an upside to director interlocks that has gone largely unnoticed, while also shedding light on how network structure is important for both positive and negative network effects.

One way to evaluate the positive effects of a network is to look at a network's strength. Board interlocks solely affect Degree Centrality but fail to provide any information about a network's structure or the extent of information transfer that might occur in a network. In other words, a company with a smaller number of directors who serve on other boards could have a stronger overall network and vice versa. The strength of a network, rather, can be better evaluated based on the access to information and the ease with which that information

can flow. As firms realize the value of director networks, they seek to hire directors who bring these connections with them. This suggests that efforts to limit board interlocks may need to be more nuanced, accounting for the possibility that service on other boards may be beneficial if the interlocks lend themselves to connections with other well-connected boards.

Viewing directors solely for their own expertise and background or seeing their benefit as merely a function of the number of boards they serve on misses a big part of what is important in boardroom decision making. Indeed, at times, the cost of retaining a very busy director may be outweighed by the connections she brings to the table. Our results illustrate how networks matter in important ways that are different from other means of looking at director connections. Ultimately, this poses the question: At what point does an equilibrium exist between the benefit director networks create and the concerns they raise? Conceptualizing directors' networks is just a first step in answering this question and understanding the role of director networks in the corporate governance landscape. This is especially relevant given that boards have become more networked over time. Future work on Social Corporate Governance is needed to further explore this question in an effort to maximize the benefits that flow from director networks.

B. Toward a Consistent Doctrine of Networks

As previously discussed, courts have, at times, taken inconsistent approaches with respect to director networks when assessing issues such as whether directors raise independence concerns, have violated fiduciary duties, or the corporate opportunity doctrine.[216] Courts have also been inconsistent when evaluating what scope of networks should be taken into consideration. These inconsistencies, especially by Delaware courts, push against a long-standing incentive for corporations to incorporate in Delaware.[217]

1. Director Independence

Director independence is the first area in which director networks could substantially influence a court's analysis. As explained above, in the context of director independence, courts have laid out a malleable

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216 *See supra* Section I.B.4.

217 *See* Joseph R. Slights III & Elizabeth A. Powers, *Delaware Courts Continue to Excel in Business Litigation with the Success of the Complex Commercial Litigation Division of the Superior Court*, 70 BUS. LAW. 1039, 1046 (2015).

set of criteria for determining whether director networks matter. To understand the importance of networks, it is important to understand the mechanics of litigation over director independence. Director independence is usually raised by plaintiffs to cast doubt on the ability of a board to make decisions that warrant deference under the business judgment rule.[218] The crux of such litigation is not so much the ultimate standard of proof for showing lack of independence; rather, the important moment comes at the initial stages when plaintiffs must make a prima facie case that the ties between directors raise doubts about their independence.[219] If such doubts are adequately raised, then regardless of whether or not independence is truly compromised, the defendant corporation has a difficult burden to assuage such doubts, and for all practical purposes, the litigation will proceed as though independence is compromised. The upshot of this is that proxies for lack of independence take on a dispositive role, often regardless of the reality of the situation.

Courts have increasingly looked at networks as such proxies but have neglected to define the features of networks that systematically raise problems. Delaware courts have expressed a willingness to consider social ties in evaluating independence and have favorably cited *Oracle*'s proposition that "corporate directors are generally the sort of people deeply enmeshed in social institutions . . . that, explicitly and implicitly, influence and channel the behavior of those who participate in their operation."[220] These courts have stated that a "plaintiff cannot just assert that a close relationship exists" but must produce evidence.[221] Notwithstanding this language, however, Delaware courts have allowed plaintiffs to assert the existence of close relationships with only circumstantial evidence, accepting ambiguous situations as facially sufficient evidence that a defendant's network ties thwart their independence. These ambiguous standards have resulted in decisions that lack a unifying theory, or more importantly for corporate governance, make it difficult for managers to structure decision-making processes in a way that avoids independence problems.

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218 *See, e.g.*, R. Franklin Balotti & Jesse A. Finkelstein, The Delaware Law of Corporations & Business Organizations 904–05 (2020).

219 *See id.*

220 Cumming *ex rel.* New Senior Inv. Grp., Inc. v. Edens, No. 13007-VCS, 2018 WL 992877, at *15 (Del. Ch. Feb. 20, 2018) (quoting *In re* Oracle Corp. Derivative Litig., 824 A.2d 917, 938 (Del. Ch. 2003)).

221 Marchand v. Barnhill, 212 A.3d 805, 818 (Del. 2019); *accord In re* BGC Partners, Inc., Derivative Litig., No. 2018-0722-AGB, 2019 WL 4745121, at *9 (Del. Ch. Sept. 30, 2019) (quoting *Marchand*, 212 A.3d at 818).

There are numerous examples of seemingly inconsistent doctrinal applications. The *Pincus* case, in which allegations about co-ownership of a private plane and other business dealings were enough to meet the plaintiff's burden,[222] contrasts sharply with cases like *In re LendingClub Corp. Derivative Litigation*[223] in which shared board positions and "significant business and social ties" across a "thirteen-year working relationship" were insufficient to draw an inference of a lack of independence.[224] To be sure, either of these situations may or may not entail strong enough relationships to thwart the possibility of independent decision making. But without guidance on the types of relationships that could be problematic, it is difficult for corporate actors and transaction planners to avoid unintentionally compromising independence, even if in appearance only.

Although co-owning a plane might indicate a relationship inconsistent with independence, simply co-owning something does not, by itself, imply a close relationship. Consider NetJets, a company that sells fractional ownership interest in private planes—much like timeshare units in vacation houses—where co-owners may not even know each other's identities, much less have a close relationship.[225] Plaintiffs in *Pincus* offered no details regarding the ownership arrangement of the plane and averred no other information about the relationship between the co-owners, yet the court accepted the argument that ownership of such an asset cast sufficient doubt on independence.[226] At the same time, overlapping directorships and a significant long-term business relationship at issue in *LendingClub* might imply a strong enough friendship to cloud a person's independence.

Courts have stated that a case-by-case approach is warranted.[227] Courts have limited time and resources however, and detailed investigation into the facts of each relationship among corporate decisionmakers is inefficient and unlikely to occur in many cases, as *Pincus* exemplifies. Moreover, a legal standard that allows even the most tenuous relationship to give rise to the possibility of thwarting

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222 Sandys *ex rel.* Zynga Inc. v. Pincus, 152 A.3d 124, 129–31 (Del. 2016).

223 No. 12984-VCM, 2019 WL 5678578 (Del. Ch. Oct. 31, 2019).

224 *Id.* at *17 (first quoting Consol. Supplemented Verified S'holder Derivative Complaint ¶ 182, *In re* LendingClub Corp. Derivative Litigation, No. 12984-VCM, 2019 WL 5678578 (Del. Ch. Oct. 31, 2019); and then quoting Plaintiffs' Answering Brief at 50, *In re* LendingClub Corp. Derivative Litigation, No. 12984-VCM, 2019 WL 5678578 (Del. Ch. Oct. 31, 2019)).

225 *See Explore Fractional Jet Ownership*, NETJETS, https://www.netjets.com/en-us/how-fractional-jet-ownership-works [https://perma.cc/FZW2-4U75].

226 *See Pincus*, 152 A.3d at 130–31.

227 *See* Marchand v. Barnhill, 212 A.3d 805, 818, 820 (Del. 2019).

independence invites litigation over many corporate decisions, which is costly and time consuming even when the relationship turns out to be harmless. This, in turn, forces corporate decisionmakers to over-invest in setting up unnecessary decision-making processes that consume time and resources to try to avoid ensnarement by the courts' amorphous standard.

Thus, although courts have been willing to consider social ties, they have not developed a reigning standard for when a network relationship may impact a directors' ability to impartially make decisions. The lack of such a standard is problematic. As explained below, however, the network theory described in this Article can help clarify the basic interests underlying the court's decisions, which can, in turn, provide a basis for a consistent set of presumptions to guide courts and help them decide which party should bear evidentiary burdens and when to look more deeply into a situation.

2. Fiduciary Duty Litigation

The second area in which director networks could substantially influence a courts' analysis is fiduciary duty litigation. Within the fiduciary duty framework, director networks could impact two important areas of litigation: corporate opportunity doctrine litigation and conflict of interest litigation. As referenced above, director networks may implicate the corporate opportunity doctrine when opportunities arise from entities enmeshed in a director's network.[228] Under the current iteration of this doctrine, directors may not take for themselves a business opportunity that belongs to the corporation unless they present it to the corporation and receive authorization to pursue it themselves. In contrast to director independence determinations, courts, like scholars, have thus far scarcely recognized broader networks when assessing the corporate opportunity doctrine, even though networks could easily pose the same challenge as interlocks in that context. Much of the current literature discusses the corporate opportunity doctrine in black and white terms: either a fiduciary must abstain from the opportunity altogether or the fiduciary must disclose the opportunity to the board.[229]

This dichotomy, however, misses several important nuances. First, as at least one recent article has recognized, "the undivided-loy-

228 *See supra* Section I.B.4.b.

229 *See* ERIC TALLEY & MIRA HASHMALL, THE CORPORATE OPPORTUNITY DOCTRINE 9–10 (2001), https://weblaw.usc.edu/why/academics/cle/icc/assets/docs/articles/iccfinal.pdf [https://perma.cc/LT6U-WJU8].

alty model is simply not well adapted for fiduciaries shared by two companies."[230] In fact, if a director serves two companies, the current model expects the director to disclose the corporate opportunity to both corporations, which encourages the two corporations to compete with one another to their detriment.[231] Courts have recognized this issue as especially true in the parent-subsidiary context.[232]

Next, it does not account for directors that learn of opportunities through their networks. Certainly, directors with overlapping interests share overlapping networks; yet if a director learns of an opportunity through her network, the law remains unclear as to whether the director is required to disclose this opportunity to the corporation. Take, for example, *Personal Touch Holding Corp. v. Glaubach*,[233] where the Delaware Chancery Court found a breach of the corporate opportunity doctrine when a cofounder purchased a building that his company was interested in acquiring and then offered to lease the building to the company at a personal profit.[234] If this cofounder had learned of the building's availability from someone within his board's network instead of as a direct result of his work for the company, and purchased the building on this knowledge instead of notifying the company of the potential business opportunity, it would not have run afoul of the corporate opportunity doctrine, even though it arguably violates the spirit of the fiduciary relationship he held. Certainly, such a situation would be problematic given the corporate opportunity doctrine's stated policy that it should be interpreted, "upon broad considerations of corporate duty and loyalty,"[235] and as "demanding of a director 'the most scrupulous observance.'"[236] Though some companies have begun to address this issue with the advent of corporate opportunity waivers,[237] this Article argues that networks are important considerations in analyses of breaches of the corporate opportunity doctrine, and courts should take them into account.

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230 Gabriel Rauterberg & Eric Talley, *Contracting Out of the Fiduciary Duty of Loyalty: An Empirical Analysis of Corporate Opportunity Waivers*, 117 COLUM. L. REV. 1075, 1093–94 (2017).

231 *Id*. at 1094.

232 *See id*. at 1094–95 (first citing Thorpe v. CERBCO, Inc., 676 A.2d 436, 442 (Del. 1996); and then citing *In re* Digex, Inc. S'holders Litig., 789 A.2d 1176, 1193 (Del. Ch. 2000)).

233 No. 11199-CB, 2019 WL 937180 (Del. Ch. Feb. 25, 2019).

234 *Id.* at *3.

235 Guth v. Loft, Inc., 5 A.2d 503, 511 (Del. 1939).

236 Pers. Touch Holding Corp. v. Glaubach, No. 11199-CB, 2019 WL 937180, at *13 (Del. Ch. Feb. 25, 2019) (quoting BelCom, Inc. v. Robb, No. CIV.A.14663, 1998 WL 229527, at *3 (Del. Ch. Apr. 28, 1998)).

237 *See, e.g.*, Rauterberg & Talley, *supra* note 230, at 1094–95.

Also within the fiduciary duty framework, conflicts-of-interest litigation would benefit from clarification with regard to the relevance of different kinds of director networks. Although interlocking directorates have dominated the discourse surrounding potential conflict-of-interest violations,[238] these concerns ignore wider issues. A conflict of interest can be described as "a situation in which a person, who has a duty to exercise judgment for the benefit of another, has an interest that tends to interfere with the proper exercise of her discretion."[239] Allegations of conflicted directors arise frequently in the parent-subsidiary setting.[240] When directors are seated on boards of both a parent and its subsidiary, they are required to structure transactions on an arm's length basis.[241] Importantly, the closeness or strength of a connection between one director and another within her network may implicate the same considerations, but the courts have not yet systematically considered the features of social ties that are critical for potential conflicts of interest.

Identifying the areas of litigation for which networks matter is only a starting point. In order to ensure predictability, a framework for how to consider networks and integrate them into the existing analysis must be employed. Networks, even ones based on formal ties, can be used as proxies by looking at a number of connections, both immediate and indirect.

In addition, our analysis shows that the *structure* of the formal network matters. Looking at the number of interlocks alone provides only part of the story, but looking at how the network is structured provides more insight. The courts' decisions may seem superficially inconsistent, but analogues from network theory may help to elucidate an underlying theory. As an illustration, consider the *Oracle* case as an example. In that case, the court was concerned about the outsized influence of one defendant in particular, Larry Ellison, in the relatively insular community of Silicon Valley.[242] Network theory provides some support for the court's intuitions in that case.

Examining a network from that time—consisting of boards as well as affiliations with universities and other organizations—reveals what theorists describe as a "small-world" network, meaning that

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238 *See generally* Nili, *supra* note 19 (analyzing potential antitrust concerns that arise from horizontal directorships).

239 Remus Valsan, *Fiduciary Duties, Conflict of Interest, and Proper Exercise of Judgment*, 62 McGILL L.J. 1, 4 (2016).

240 *See, e.g.*, Weinberger v. UOP, Inc., 457 A.2d 701, 710 (Del. 1983).

241 *See id.* at 710–11.

242 *In re* Oracle Corp. Derivative Litig., 824 A.2d 917, 932–33 (Del. Ch. 2003).

members of the network are not as well connected outside of their network relative to other network members, and even then, their connections run through a small number of influential brokers.[243] Ellison was much better connected than the independent directors that the court scrutinized. But more than having connections, Ellison showed characteristics of a broker to an insular network, occupied by the independent directors and other board members. In terms of the network metrics, the independent directors had a high clustering coefficient (nearly equal to 1, the maximum), while Ellison's was relatively low (0.4). Moreover, the independent directors' average path to other directors was twice as long (20 intermediaries on average between them and everyone else, compared with Ellison's 10). The small-world measure, known as sigma, was relatively high for the group of directors at Oracle and in its network (1.5), indicating a small network in which parties are likely to encounter each other repeatedly. These metrics reveal a situation that is consistent with the court's reasoning in that case: when directors experience a power differential with an important broker in a close-knit network, it is possible those directors might be more easily influenced, either directly or through groupthink. This assessment is not intended to be decisive about the outcome in any way. Rather, it is intended to show how theory and analysis can harmonize the court's reasoning with a broader theory in a way that could eventually lead to more consistent doctrine.

In *Pincus* (the shared airplane case), the court referred to a "network[] . . . of repeat players," but by contrast, the business network had relatively few of these characteristics.[244] The independent directors (who were ruled not independent) were well connected, even better connected than Pincus (the derivative suit defendant) himself. The network did not look like a small-world network, but instead involved parties who encountered others outside the network at least as routinely as those inside of it and should have been subject to the reputational and professional sanctions from outside the Zynga network. Even though Pincus and the other directors had similar Degree Centrality (all between 17 and 20), the structure of their network resembled one in which Pincus was in a low-power position compared with the directors who were supposedly beholden to him.[245] These network

243 *See* Watts & Strogatz, *supra* note 214, at 440–41.

244 Sandys *ex rel.* Zynga Inc. v. Pincus, 152 A.3d 124, 134 (Del. 2016).

245 Pincus himself had a high clustering coefficient (equal to 1), while Siminoff (the plane co-owner) and Doerr and Gordon (the directors) had low ones (each between 2 and 4), indicating that they acted as brokers and had more power in the network than Pincus. The directors had

features do not support the courts' analysis but do align with the reaction of many observers that this case went much farther than other precedents in finding attenuated connections to be important.[246] Other features that are not observable from the point of view of a formally modeled network are also important, and courts are wise to examine the facts of each case. Courts have limited time and resources, however, and would benefit from a theory that helps them screen cases that need more scrutiny from those that need less.

One way of articulating some of the interests the courts seem to be espousing is to say that when a director is relatively unconnected (or in a small-world network), but the subject of a decision is well connected or is a gatekeeper to other resources, courts should look more carefully at the details of the relationships in question. A court could accomplish this by shifting the presumption, placing the burden to show independence onto defendants in those situations that lend themselves more to undue influence. This would be a prescription consistent with rationales courts have articulated and might also help to guide them more consistently in separating problematic networks from those that are less so. There are many other possible situations that could be discussed, and a comprehensive exploration of network theory's application to each doctrine is beyond the scope of this Article. These examples serve to illustrate how consideration of networks using centrality could clarify the underlying logic of courts' intuitions, leading to decisions that are more predictable and consistent. Future work could further inform that effort.

C. The Perception of Networks: Shareholder Voting Policies

This Article also shows why shareholder advisory services should consider networks when they issue their voting and corporate governance guidelines. These services have tremendous influence on corporate policy, given that the voting guidelines they publish are often followed by large institutional investors.[247]

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higher Eigenvector and Betweenness scores than Pincus as well, indicating that their connections were connected and that they acted as more important brokers than Pincus.

246 *See, e.g.*, Nathan P. Emeritz, *Independence Issues in the Entrepreneurial Ecosystem*, ABA: BUS. L. TODAY (May 18, 2017), https://www.americanbar.org/groups/business_law/publications/blt/2017/05/04_emeritz/ [https://perma.cc/DFG6-G6XA].

247 *See* Tamara C. Belinfanti, *The Proxy Advisory and Corporate Governance Industry: The Case for Increased Oversight and Control*, 14 STAN. J.L. BUS. & FIN. 384, 385–87 (2009) (stating that shareholders largely follow the advice of proxy advisors).

Proxy advisors' current approach has only addressed a portion of what makes up a director's network: director interlocks.[248] Indeed, to date, these bodies have aimed their considerable influence at the directors sitting on multiple boards, especially if a director happens to also be the CEO of a company. Although these policies seek to address the concerns that the existing literature has highlighted, their analysis overlooks the emphasis of this Article: directors' influence and impact expands beyond the boards to which they are directly connected.

For example, membership on multiple boards has an impact beyond the boards on which the "busy" director sits because that director's influence is transmitted through a network, among all directors linked to her. Moreover, an overboarded director has access to more resources and information through her network, and the evidence suggests that this is helpful in at least some circumstances. An important consideration should be the network that the director is able to access due to her connections to different boards. It may also be the case that other kinds of social ties not directly linked to interlocks should be considered.

Shareholder advisory services are concerned with the effectiveness of the directors and officers running the company in the best interest of shareholders. Taking broader networks into account would help these bodies address these concerns more effectively because it would allow them to tap the benefits of networks, which can mitigate the drawbacks of busyness. Simultaneously, it would allow them to see the benefits that may, at times, outweigh the concerns that their current policies seek to address.

Taking this into consideration, proxy advisors should use less discrete and more inclusive language. For example, Glass Lewis could expand their provision to state: "CEO's or top executives who are influenced by or influence boards through their personal and professional connections and subsequently create a significant conflict of interest, should be avoided." This change would, at minimum, acknowledge the influence a director can have and the flow of information they can facilitate. Similarly, ISS and Vanguard's Policies could be amended to the following: "While overboarding, defined as sitting on more than five public boards, is a reason to raise concern, this concern is neutralized if the director demonstrates that they have a strong network that will grant the company access to information and connec-

248 *See* INST. S'HOLDER SERVS., *supra* note 124, at 8, 10.

tions." This balancing analysis allows for a more flexible standard that recognizes that the benefits a director's network can bring to the table may outweigh the negatives of director "overboarding."

Furthermore, regardless of whether the policies are amended, proxy advisors and the SEC have the responsibility to understand the impact that the policies have in practice because they have undertaken the task of addressing the dynamics that director networks present. Although amending their policies to account for networks might also help these bodies deal with some of the negative effects their policies have produced, amendments to existing policies, or additional policies to augment the collateral effects of the current policies, may be necessary.

For example, concerns have been raised that voting against overboarded directors might limit the talent pool for directors because the best corporate leaders are often sought out by many companies at once. Moreover, these policies may reduce diversity on boards in the short term.[249] For instance, women are often underrepresented in the pool of potential corporate directors, and many companies looking to diversify their boards draw from the same small pool, resulting in talented female directors being asked to serve on many boards simultaneously.[250] The current voting policies employed by the index funds and proxy advisors have the presumed unintentional effect of limiting the number of women and minorities on public company boards because there are currently fewer minority and female director candidates. Limiting the number of board seats each can, in turn, limit the overall number on boards in general. This is a major drawback of policies limiting board memberships that must be weighed against attempts to limit busyness. It demonstrates the practical and collateral effects of these current policies, and although effects such as limiting diversity were not the direct intention of these policies, their practical effects support an argument for amendment.

D. The New York Stock Exchange's Approach to Directors

The New York Stock Exchange ("NYSE") imposes various requirements on publicly traded companies including requirements on director independence,[251] board committees,[252] and disclosure require-

249 *See* Nili, *supra* note 18, at 172–74.

250 *See id.* at 147–49.

251 N.Y.S.E. MANUAL, *supra* note 77, § 303A.01.

252 *Id.* § 303A.03–07.

ments.[253] Each of these requirements can implicate and necessitate an analysis of directors' broader networks. The NYSE rule on director independence states that "[l]isted companies must have a majority of independent directors."[254] To evaluate whether a director is independent, the board of directors must "affirmatively determine[] that the director has no material relationship with the listed company (either directly or as a partner, shareholder or officer of an organization that has a relationship with the company)."[255] For directors that are serving on a compensation committee, a broader analysis is used to determine a director's impendence by "consider[ing] all factors specifically relevant to determining whether a director has a relationship to the listed company which is material."[256] Further, the NYSE provides that connections to companies through family members can eliminate a director's independent status.[257]

Although the NYSE's rules regarding director independence recognize that a director may have connections beyond those derived explicitly from the other companies it serves, it does not recognize the whole picture. For example, director X may have no family members affiliated with Company A and may have no "material relationship" with the company.[258] According to the NYSE rules, director X would be considered independent.[259] Director X, however, may serve on another company's board with individual Y. If individual Y serves on a different company's board with person Z who also serves on Company A's board, and has connections with director X through director Y, the independence of director X could then be called into question.[260] This example can be expanded further by looking at the social connections and networks that exist among directors and corporate executives.

The NYSE's rules on board committees also necessitate a consideration of broader networks. First, like the NYSE's general requirements on director independence, some committees, such as audit committees, are required to be composed of a minimum number of independent directors.[261] Similarly, the NYSE requires that boards

253 *Id.* § 303A.09.

254 *Id.* § 303A.01.

255 *Id.* § 303A.02(a)(i).

256 *Id.* § 303A.02(a)(ii).

257 *Id.* § 303A.02(a)(iii).

258 *See id.* § 303A.02(a)(i).

259 *Id.*

260 *See id.* § 303A.02(b)(iv).

261 *Id.* § 303A.06.

have a "nominating/corporate governance committee" that is "composed entirely of independent directors."[262] These requirements emphasize collateral effects of incorporating networks into the director independence analyses. If the NYSE incorporates networks into its independence analyses, it may decrease the pool of directors who can serve on a given company's board as an independent director. If this pool is too limited, it may necessitate an amendment to policies mandating the number of independent directors on a given committee.

Second, committees provide a key avenue for directors to assert influence and implement information, ideas, and practices that they receive through their network. If a director's network, taken as a whole, would cause their independence to be compromised, it may follow that the information, ideas, and practices they implement go against the best interest of the company, whether intentionally or unintentionally. Alternatively, it may be that a directors' broader networks, which may recategorize them as nonindependent directors, also provide them specialized information that is necessary for service on a particular committee. This push-and-pull dynamic of directors' networks emphasizes the importance of, at a minimum, incorporating the networks into the NYSE's current regulatory framework.

Finally, the NYSE disclosure requirements for corporate governance guidelines can serve as an opportunity for companies to adopt and disclose policies that consider networks, thereby recognizing their importance.[263] Generally, companies have not incorporated broader networks into their policies, but rather have limited their analyses to interlocks. However, if companies amend their current governance policies to include reference to directors' broader networks, and accordingly disclose these policies, as required by the NYSE, then the acknowledgement of their importance will become more widespread. Furthermore, if companies recognize the important role that networks can play, courts too will see it as a valuable aspect to incorporate into their analyses.

Conclusion

Overlapping directors are a salient feature of the U.S. corporate landscape. In contrast to the recent push to limit board interlocks, this Article puts forth one concrete reason for the benefit of overlapping directors and director networks. The broader social networks that

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262 *Id.* § 303A.04(a).

263 *See id.* § 303A.09.

these overlaps create tie together the leaderships of numerous public firms. This Article provides evidence that these ties enhance boards' ability to effectively govern their firms.

This Article incorporates network analysis and an expanded view of the role of social ties in corporate governance into the discourse regarding director service on boards. In doing so, the Article systematically considers the questions that an expanded view of networks poses for courts and other bodies that are influential in corporate governance. To shed light on some of these questions, we examine director networks empirically using interviews and a quantitative case study, employing director deaths as a natural experiment to examine the effect of changes in board networks on governance outcomes. In doing so, we identify the broader benefits that director overlaps may create. It is not merely the knowledge gained from directors' service on other boards that is helpful for these interlocked directors; it is also the connections these directors are able to form and the broad networks they create, which serve as channels through which information, practices, and ideas can flow. We discuss how our findings begin to answer some of the questions that networks raise, and we also illustrate how network theory can provide insight into questions that remain. Future work is needed to better understand the role of director networks in other aspects of boards' work as well as the tradeoffs between the benefits generated by these networks and the potential concerns they pose.

APPENDIX PART I: TABLES

TABLE 1. SUMMARY STATISTICS

	Mean (1)	Median (2)	25th Percentile (3)	75th Percentile (4)	Std. Deviation (5)
Company total assets ($ million)	7,500	490	99	2,100	6,500
Company revenue ($ million)	2,500	264	51	1,200	1,100
Total debt ($ million)	1,400	37	182	449	1,500
Company age (years)	39	26	12	55	40
Board size (members)	9	9	7	10	2.5
Outside Directors	6.4	6	5	8	2.4
Director age (years)	56	55	50	59	7.47
Board meetings per year	8.3	7	6	10	4.2
Degree Centrality	7.98	5	2	11	8.55
Closeness Centrality	0.198	0.221	0.169	0.253	0.079
Betweenness Centrality	8.04	8.32	7.13	9.20	1.77
Eigenvector Centrality	0.011	0.010	0.004	0.015	0.013
Clustering Coefficient	0.259	0.155	0	0.333	0.305

TABLE 2. CENTRALITY MEASURES AND ACCOUNTING IRREGULARITY

Logit Regression, Fixed Effects Model: Probability of citation for accounting irregularity				
	(1)	(2)	(3)	(4)
Degree	-0.001*** (0.000)			
Pseudo R^2	0.145			
Number of Observation	38,665			
Closeness		-0.040*** (0.011)		
Pseudo R^2		0.142		
Number of Observations		38,665		
Betweenness			-0.001*** (0.0004)	
Pseudo R^2			0.149	
Number of Observations			38,665	
Eigenvector				-0.169** (0.081)
Pseudo R^2				0.143
Number of Observations				38,665
Size	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Market to Book Ratio	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)	0.002*** (0.001)
ROA	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.002)	-0.001*** (0.002)
Industry FE	X	X	X	X
Year FE	X	X	X	X
Firm FE	X	X	X	X

This table gives the results of logit regressions of the probability of a company receiving an accounting citation as the dependent variable and four measures of network centrality of its board of directors as the main independent variables. The analysis also uses company-level fixed effects for all specifications. Additional controls for the natural log of company age are included for all specifications but are not tabulated. Standard errors clustered at the firm and year level are reported

in parentheses. Estimates marked with *, **, and *** are statistically significant at the 10%, 5%, and 1% level, respectively.

TABLE 3.A. DIFFERENCE-IN-DIFFERENCE: CENTRALITY MEASURES AND ACCOUNTING IRREGULARITY, ONE TO FOUR YEARS AFTER BOARD MEMBER DEATH

Difference-in-Difference: Probability of citation for accounting irregularity, boards with a death in the preceding 4 years versus those without.				
	(1)	(2)	(3)	(4)
Degree x Post	-0.137*** (0.025)			
Pseudo R^2	0.242			
Number of Observations	37,261			
Closeness x Post		-22.609** (0.977)		
Pseudo R^2		0.110		
Number of Observations		37,261		
Betweenness x Post			-0.713*** (0.250)	
Pseudo R^2			0.189	
Number of Observations			37,261	
Eigenvector x Post				-52.33** (21.910)
Pseudo R^2				0.143
Number of Observations				37,261
Size	0.001 (0.002)	0.001 (0.002)	0.001 (0.003)	-0.001 (0.004)
Market to Book Ratio	0.003*** (0.000)	0.003*** (0.000)	0.005** (0.002)	0.013* (0.003)
ROA	-0.001* (0.001)	-0.001* (0.001)	-0.001* (0.001)	-0.002 (0.001)
Industry FE	X	X	X	X
Year FE	X	X	X	X

This table gives the results of logit regressions using the probability of a company receiving an accounting citation in the four-year window following a director's death as the dependent variable and four measure of network centrality of its board of directors as the main independent variables. Table 3.A. gives results for the company whose board experiences the death (the primary company). Table 3.B.

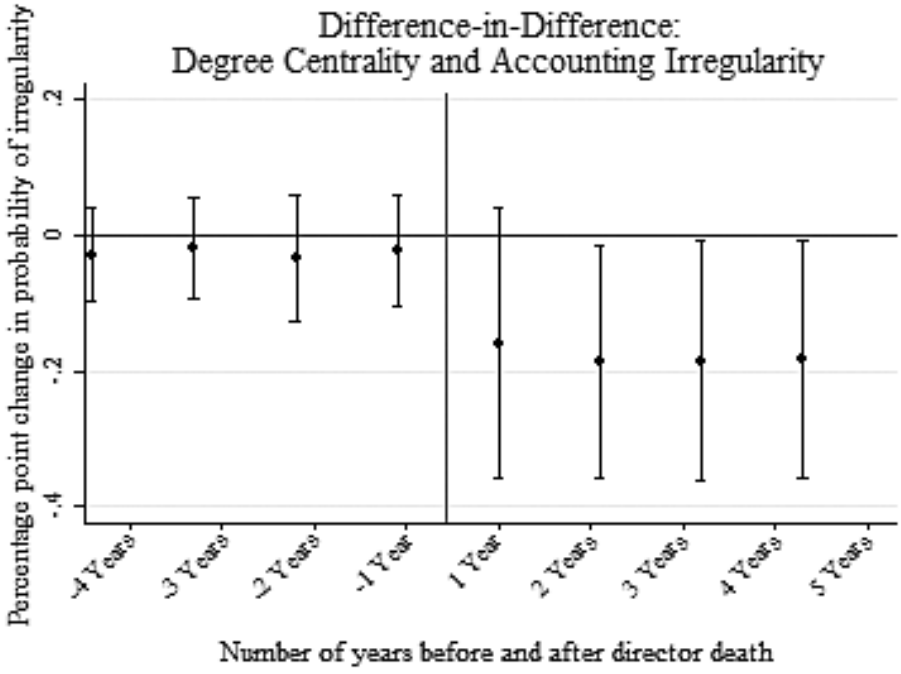
presents results for companies that are connected to the primary company but experienced no death. Fixed effects for each company are used for each specification. Additional controls for the natural log of company age and the natural log of director age included for all specifications but are not tabulated. Standard errors clustered at the firm level are reported in parentheses. Estimates marked with *, **, and *** are statistically significant at the 10%, 5%, and 1% level, respectively.

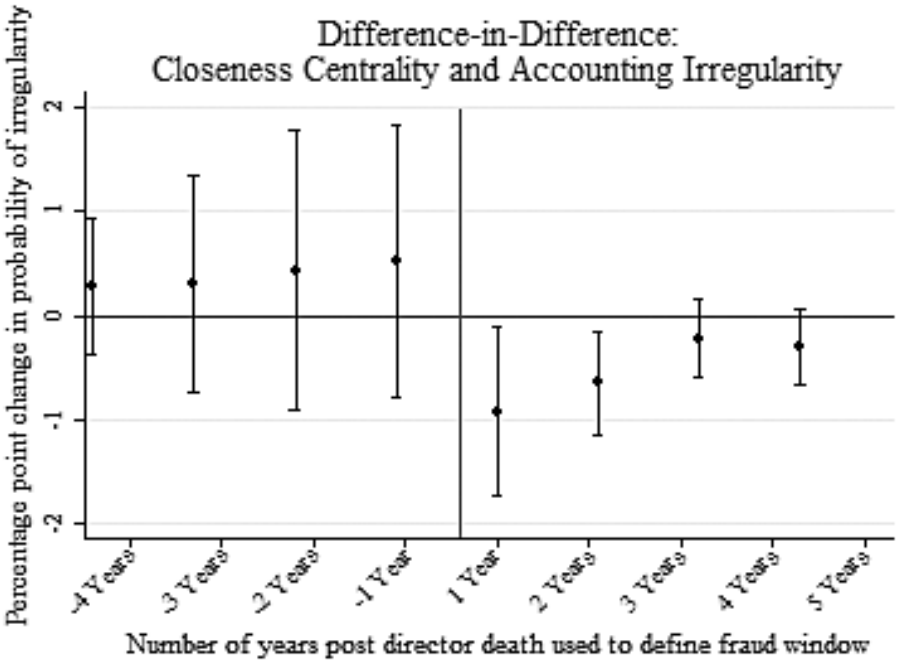
TABLE 3.B. DIFFERENCE-IN-DIFFERENCE: SECONDARY BOARD CENTRALITY MEASURES AND ACCOUNTING IRREGULARITY, ONE TO FOUR YEARS AFTER BOARD MEMBER DEATH AT CONNECTED COMPANY

Difference-in-Difference: Probability of citation for accounting irregularity, boards with a death in the preceding 4 years versus those without.				
	(1)	(2)	(3)	(4)
Degree x Post	0.060 (0.598)			
Pseudo R^2	0.211			
Number of Observations	33,952			
Closeness x Post		-25.991* (14.25.)		
Pseudo R^2		0.140		
Number of Observations		33,920		
Betweenness x Post			-0.0003** (0.0001)	
Pseudo R^2			0.141	
Number of Observations			33,920	
Eigenvector x Post				-1.291** (0.583)
Pseudo R^2				0.140
Number of Observations				33,920
Size	0.001 (0.002)	0.001 (0.002)	0.001 (0.003)	-0.001 (0.004)
Book to Market	0.003** (0.0001)	0.003** (0.000)	0.005** (0.002)	0.013* (0.003)
ROA	-0.001* (0.001)	-0.001* (0.001)	-0.001* (0.001)	-0.002 (0.001)
Industry FE	X	X	X	X
Year FE	X	X	X	X

This table gives the results of logit regressions using the probability of a company receiving an accounting citation in the four-year window following a director's death as the dependent variable and four measure of network centrality of its board of directors as the main independent variables. Table 3.A. gives results for the company whose board experiences the death (the primary company). Table 3.B. presents results for companies that are connected to the primary company but experienced no death. Fixed effects for each company are used for each specification. Additional controls for the natural log of company age and the natural log of director age included for all specifications but are not tabulated. Standard errors clustered at the firm level are reported in parentheses. Estimates marked with *, **, and *** are statistically significant at the 10%, 5%, and 1% level, respectively.

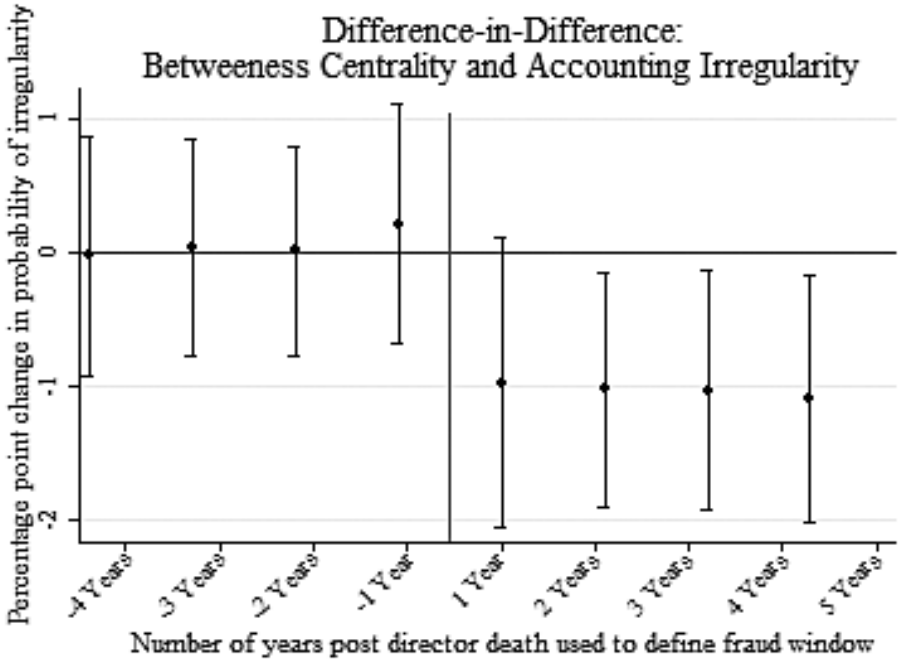
FIGURE 3.A. PRIMARY BOARD: DIFFERENCE-IN-DIFFERENCE, LIKELIHOOD OF FRAUD AND CENTRALITY FOLLOWING SHOCK TO NETWORK FROM DIRECTOR DEATH, DEGREE CENTRALITY, AND CLOSENESS CENTRALITY

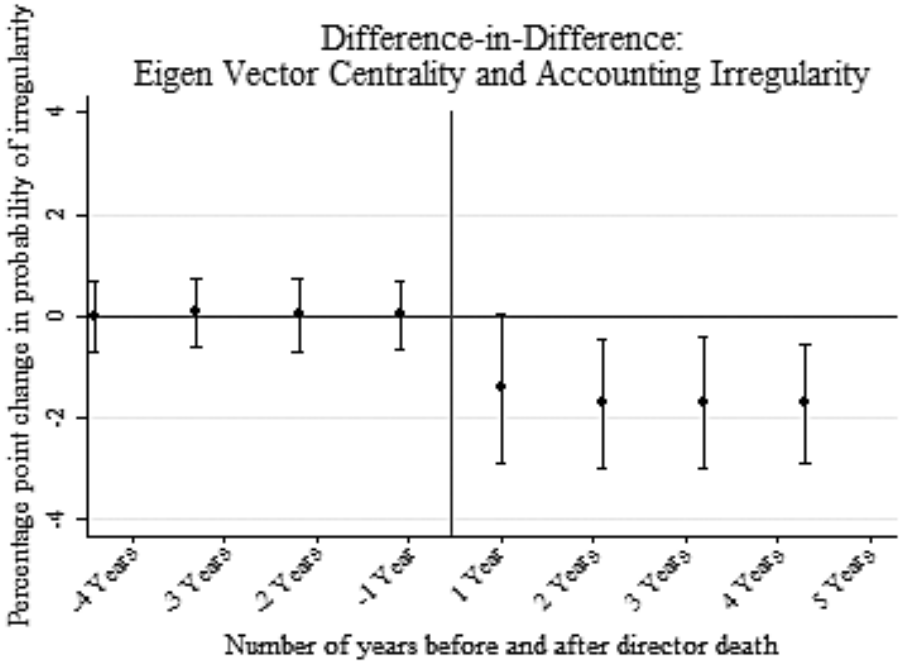




These graphs visually depict the difference-in-difference from Table 4.A. They show the percentage change in probability of accounting irregularity as a function of an increase in network centrality (measured using the four measures described in the text) for the year following the death and replacement of a director on a given board. The black dots represent coefficients, and the vertical black bars are standard errors. The middle, vertical axis represents the time of a director's death.

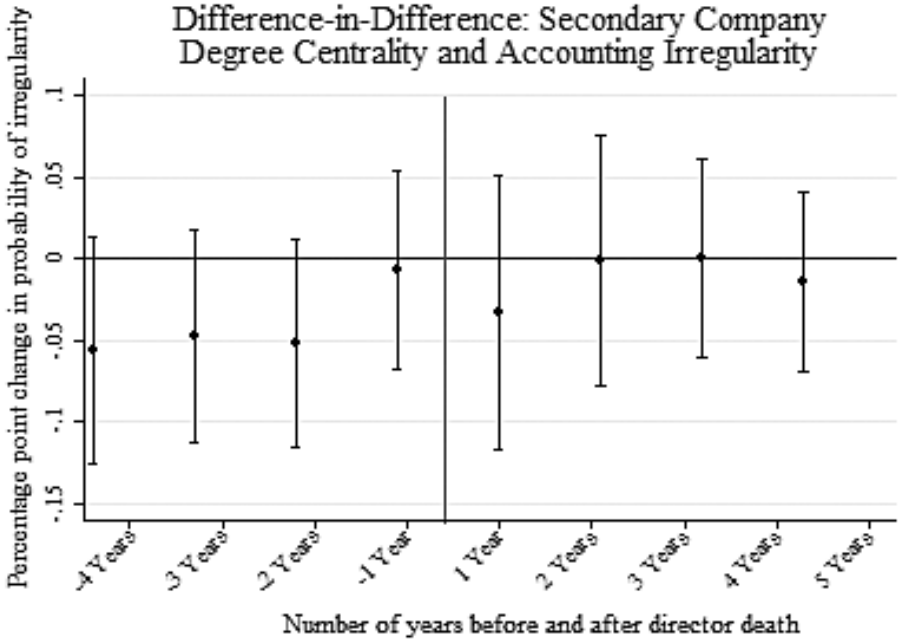
FIGURE 3.B. PRIMARY BOARD: DIFFERENCE-IN-DIFFERENCE, LIKELIHOOD OF FRAUD AND CENTRALITY FOLLOWING SHOCK TO NETWORK FROM DIRECTOR DEATH, BETWEENESS CENTRALITY AND EIGENVECTOR CENTRALITY

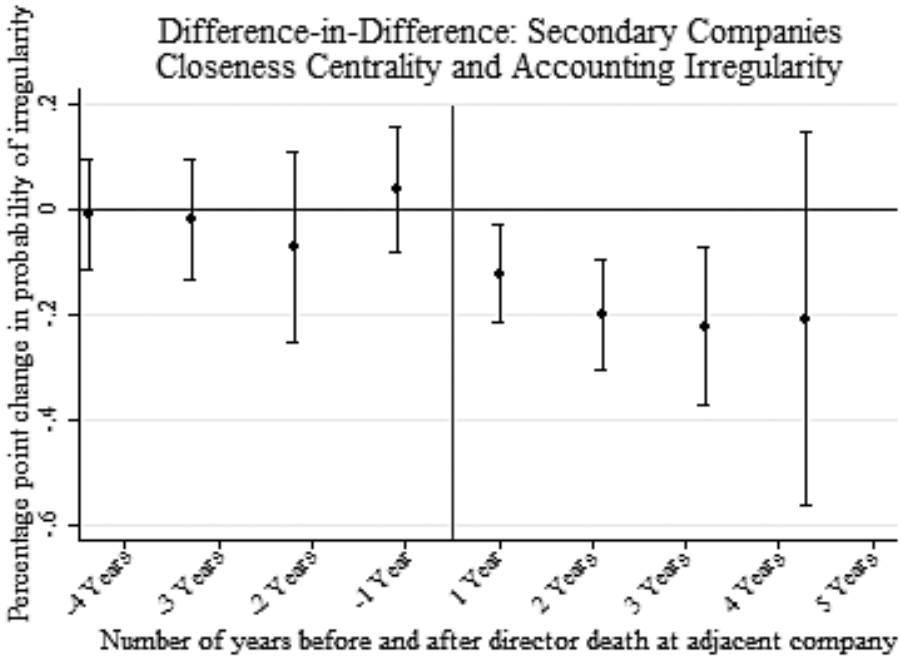




These graphs visually depict the difference-in-difference from Table 4.A. They show the percentage change in probability of accounting irregularity as a function of an increase in network centrality (measured using the four measures described in the text) for the year following the death and replacement of a director on a given board. The black dots represent coefficients, and the vertical black bars are standard errors. The middle, vertical axis represents the time of a director's death.

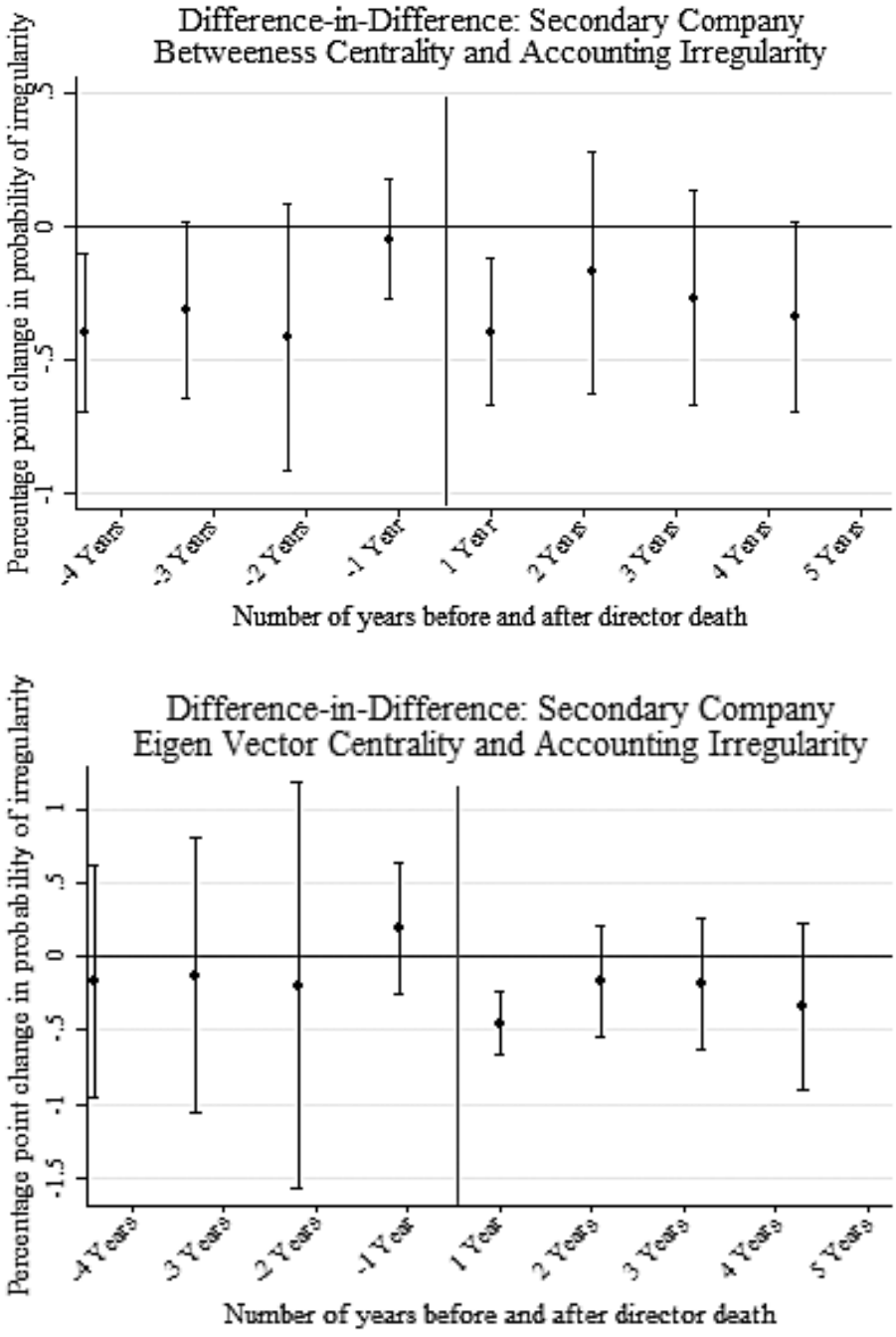
FIGURE 4.A. INDIRECTLY CONNECTED BOARD: DIFFERENCE-IN-DIFFERENCE, LIKELIHOOD OF FRAUD AND CENTRALITY FOLLOWING SHOCK TO NETWORK FROM DIRECTOR DEATH AT AN INDIRECTLY CONNECTED COMPANY FOR DEGREE AND CLOSENESS CENTRALITY





These graphs visually depict the difference-in-difference from Table 4.B. They show the percentage change in probability of accounting irregularity at companies that are indirectly connected to a company at which a director death occurred. The probability is shown as a function of an increase in network centrality (measured using the four measures described in the text) for each year following the death. The black points represent coefficients, and the vertical black bars are standard errors. The middle, vertical axis represents the time of a director's death.

FIGURE 4.B. INDIRECTLY CONNECTED BOARD: DIFFERENCE-IN-DIFFERENCE, LIKELIHOOD OF FRAUD AND CENTRALITY FOLLOWING SHOCK TO NETWORK FROM DIRECTOR DEATH AT AN INDIRECTLY CONNECTED COMPANY FOR BETWEENESS AND EIGENVECTOR CENTRALITY



These graphs visually depict the difference-in-difference from Table 4.B. They show the percentage change in probability of accounting irregularity at companies that are indirectly connected to a company at which a director death occurred. The probability is shown as a function of an increase in network centrality (measured using the four measures described in the text) for each year following the death. The black points represent coefficients, and the vertical black bars are standard errors. The middle, vertical axis represents the time of a director's death.

TABLE 4.A. DIFFERENCE-IN-DIFFERENCE: CENTRALITY MEASURES AND CHANGES IN MSCI GOVERNANCE SCORE, ONE TO FOUR YEARS AFTER BOARD MEMBER DEATH

Difference-in-Difference: MSCI Index Score, boards with a death in the preceding 4 years versus those without				
	(1)	(2)	(3)	(4)
Degree				
Post	-0.085***		-0.099**	
	(0.074)		(0.048)	
Degree Change	0.001		0.001	
	(0.002)		(0.002)	
Post* Degree Change	0.013***		0.009	
	(0.004)		(0.010)	
Closeness				
Post		-0.525*		-0.374
		(0.282)		(0.250)
Closeness Change		-1.569***		-1.465***
		(0.372)		(0.368)
Post* Closeness Change		2.586**		1.985**
		(1.079)		(0.903)
Log (Assets)	-0.107***	-0.091***	-0.096***	-0.089***
	(0.013)	(0.013)	(0.017)	(0.018)
ROA	-0.060***	-0.068***	-0.069***	-0.067***
	(0.013)	(0.012)	(0.013)	(0.013)
Leverage	-0.142***	-0.132***	-0.146***	-0.134***
	(0.044)	(0.043)	(0.045)	(0.043)
Sales	-0.060***	-0.060***	-0.008***	-0.008**
	(0.013)	(0.013)	(0.003)	(0.004)
Industry FE	X	X	X	X
Year FE	X	X	X	X
Adj R^2	0.168	0.168	0.167	0.168
Number of Observations	17,810	17,810	17,810	17,810

This table represents changes in MSCI governance score in the four-year window following a director's death. Table 4.A. gives results for the company whose board experiences the death (the primary company). Table 4.B. presents results for companies that are connected to the primary company but experienced no death. Additional controls for the natural log of company age, natural log of the deceased directors' tenure on the board, and the natural log of director

age are included for all specifications but are not tabulated. Standard errors clustered at the firm and year level are reported in parentheses. Estimates marked with *, **, and *** are statistically significant at the 10%, 5%, and 1% level, respectively.

TABLE 4.B. DIFFERENCE-IN-DIFFERENCE: CENTRALITY MEASURES AND CHANGES IN MSCI GOVERNANCE SCORE, ONE TO FOUR YEARS AFTER BOARD MEMBER DEATH

Difference-in-Difference: MSCI Index Score, boards with a death in the preceding 4 years versus those without				
	(1)	(2)	(3)	(4)
Betweenness				
Post	0.003 (0.052)		-0.012 (0.030)	
Betweenness Change	-0.00003** (0.00002)		-0.00003** (0.00001)	
Post* Betweenness Change	0.00004** (0.00002)		0.00002** (0.00001)	
Eigenvector (EV)				
Post		-0.034 (0.076)		-0.054 (0.046)
EV Change		-3.070** (1.424)		-2.785** (1.333)
Post*EV change		7.015* (3.726)		3.304 (2.267)
Log (Assets)	-0.092*** (0.017)	-0.102*** (0.018)	-0.070*** (0.012)	-0.070*** (0.012)
ROA	-0.070*** (0.012)	-0.061*** (0.013)	-0.091*** (0.018)	-0.092*** (0.018)
Leverage	-0.133*** (0.043)	-0.131*** (0.043)	-0.140*** (0.043)	-0.136*** (0.043)
Sales	-0.008** (0.004)	-0.009** (0.004)	-0.008** (0.004)	-0.008** (0.004)
Industry FE	X	X	X	X
Year FE	X	X	X	X
Adj R^2	0.170	0.168	0.168	0.164
Number of Observations	17,810	17,810	17,810	17,810

This table represents changes in MSCI governance score in the four-year window following a director's death. Table 4.A. gives results

for the company whose board experiences the death (the primary company). Table 4.B. presents results for companies that are connected to the primary company but experienced no death. Additional controls for the natural log of company age, natural log of the deceased directors' tenure on the board, and the natural log of director age are included for all specifications but are not tabulated. Standard errors clustered at the firm and year level are reported in parentheses. Estimates marked with *, **, and *** are statistically significant at the 10%, 5%, and 1% level, respectively.

TABLE 5.A. DIFFERENCE-IN-DIFFERENCE: CENTRALITY MEASURES AND CHANGES IN E-INDEX GOVERNANCE SCORE, ONE TO FOUR YEARS AFTER BOARD MEMBER DEATH

Difference-in-Difference: E-index changes, boards with a death in the preceding 4 years versus those without.				
	(1)	(2)	(3)	(4)
Degree				
Post	-0.093 (0.065)		-0.101* (0.061)	
Degree Change	0.004** (0.002)		-0.005* (0.002)	
Post* Degree Change	-0.008 (0.005)		-0.003 (0.002)	
Closeness				
Post		0.120 (0.427)		0.706** (0.356)
Closeness Change		-0.380 (0.899)		-0.445 (0.878)
Post* Closeness Change		-1.111 (1.549)		-2.568** (1.261)
Log (Assets)	0.043 (0.021)	0.043 (0.021)	0.043 (0.029)	0.043 (0.031)
ROA	-0.030 (0.021)	-0.030 (0.024)	-0.030 (0.022)	-0.016 (0.021)
Leverage	-0.102 (0.091)	-0.102 (0.091)	-0.102 (0.091)	-0.109 (0.097)
Sales	-0.005 (0.006)	0.009 (0.007)	-0.004 (0.006)	-0.004 (0.006)
Industry FE	X	X	X	X
Year FE	X	X	X	X
Adj R^2	0.091	0.123	0.167	0.168
Number of Observations	17,311	17,311	17,311	17,311

This table represents changes in Bebchuck, Cohen Ferrell Entrenchment Index (E-Index) governance score in the four-year window following a director's death. Table 5.A. gives results for the company whose board experiences the death (the Primary company). Table 5.B. presents results for companies that are connected to the primary company but experienced no death. Additional controls for the natural log of company age, natural log of the deceased directors'

tenure on the board, and the natural log of director age are included for all specifications but are not tabulated. Standard errors clustered at the firm and year level are reported in parentheses. Estimates marked with *, **, and *** are statistically significant at the 10%, 5%, and 1% level, respectively.

TABLE 5.B. DIFFERENCE-IN-DIFFERENCE: CENTRALITY MEASURES AND CHANGES IN E-INDEX GOVERNANCE SCORE, ONE TO FOUR YEARS AFTER BOARD MEMBER DEATH

Difference-in-Difference: E-index changes, boards with a death in the preceding 4 years versus those without.				
	(1)	(2)	(3)	(4)
Betweenness				
Post	-0.026 (0.085)		0.046 (0.042)	
Betweenness Change	-0.000 (0.000)		-0.000 (0.000)	
Post* Betweenness Change	-0.0001* (0.0000)		-0.0001** (0.0000)	
Eigenvector (EV)				
Post		-0.008 (0.117)		-0.087 (0.060)
EV Change		-3.341 (2.409)		-3.793 (2.437)
Post*EV change		-6.409 (4.445)		-16.291** (7.370)
Log (Assets)	0.047 (0.031)	0.047 (0.031)	0.047 (0.031)	0.047 (0.031)
ROA	-0.021 (0.023)	-0.017 (0.023)	-0.021 (0.023)	-0.017 (0.023)
Leverage	-0.105 (0.097)	-0.098 (0.097)	-0.105 (0.097)	-0.098 (0.097)
Sales	0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)	-0.004 (0.006)
Industry FE	X	X	X	X
Year FE	X	X	X	X
Adj R^2	0.110	0.168	0.168	0.094
Number of Observations	17,311	17,311	17,311	17,311

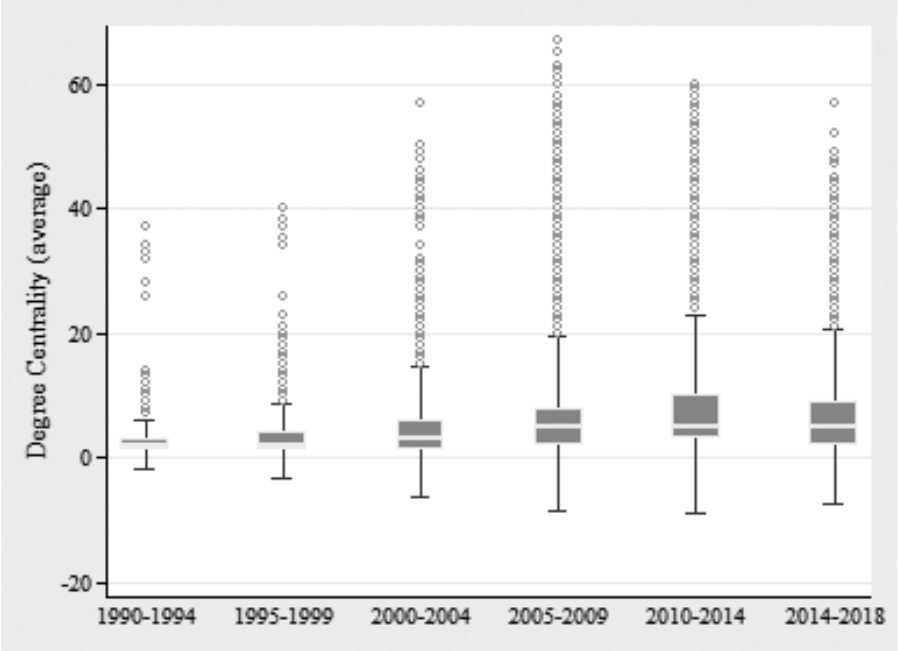
This table represents changes in Bebchuck, Cohen Ferrell Entrenchment Index (E-Index) governance score in the four-year window following a director's death. Table 5.A. gives results for the company whose board experiences the death (the Primary company). Table 5.B. presents results for companies that are connected to the primary company but experienced no death. Additional controls for the natural log of company age, natural log of the deceased directors' tenure on the board, and the natural log of director age are included for all specifications but are not tabulated. Standard errors clustered at the firm and year level are reported in parentheses. Estimates marked with *, **, and *** are statistically significant at the 10%, 5%, and 1% level, respectively.

TABLE 6. NETWORK STRUCTURE AND OPTIONS BACKDATING

Ordinary Least Squares Regression: Probability of options backdating and network centrality and structure			
	(1)	(2)	(3)
Degree	0.002 (0.004)	0.001 (0.004)	-0.001*** (0.000)
Closeness	-0.039 (0.079)	0.017 (0.035)	0.237*** (0.076)
Betweenness	0.003** (0.001)	-0.003** (0.001)	-0.005 (0.001)
Eigenvector	-0.859** (0.411)	-0.0849* (0.395)	0.857*** (0.323)
Clustering Coefficient	0.083** (0.039)	0.002 (0.003)	0.042*** (0.003)
Size	0.007*** (0.001)	0.007*** (0.001)	-0.015*** (0.002)
Market to Book Ratio	0.116* (0.063)	0.116* (0.063)	0.117* (0.064)
ROA	-0.051*** (0.019)	-0.049*** (0.019)	-0.051*** (0.019)
Industry FE	X	X	X
Year FE	X	X	X
Industry*Year FE		X	X
Company FE			X
Adj. R^2	0.04	0.05	0.623
Number of Observations	21,198	24,335	20,679

This table represents ordinary least squares regression. Dependent variable is the occurrence of options backdating. Additional controls for the natural log of company age are included for all specifications but are not tabulated. Standard errors clustered at the firm and year level are reported in parentheses. Estimates marked with *, **, and *** are statistically significant at the 10%, 5%, and 1% level, respectively.

FIGURE 5. DISTRIBUTION OF DEGREE CENTRALITY OF BOARD NETWORKS



The figure shows the distribution of Degree Centrality for all boards in the dataset over time. Degree Centrality is a measure of the number of direct links between a firm and outside boards, that is, the number of director interlocks a board has. The figure illustrates the centrality measures among the firms in the study, and the trends that emerge over time. The boxes represent the interquartile range and the line represents the median of the distribution. The whisker endpoints represent the 5th and 95th percentiles of the distribution.

TABLE 7. INTERVIEW PARTICIPANTS

Date Interviewed	Participant Number	Background
October 18, 2018	I	Extensive public company board experience, including serving as chair of audit, compensation, and nominating/governance committees.
November 5, 2018	II	Decades of experience as a public company general counsel; served on various board committees; chair of a non-profit board and member of several non-profit boards.
November 6, 2018	III	Director of three public companies; general counsel of several public companies.
November 8, 2018	IV	General counsel of a public company for approximately 20 years.
November 8, 2018	V	15 years of experience serving on two public company boards.
January 9, 2019	VI	Served on five public company boards in various capacities.
February 1, 2019	VII	Served on a private board of a major family-owned company.
August 6, 2019	VIII	General counsel of formerly a public (now private) company.
September 5, 2019	IX	Director on seven large public boards and was a public company CFO.
September 5, 2019	X	Director on six public boards as chair of the board, presiding director, audit chair and compensation committee chair. Currently on two public boards.
September 5, 2019	XI	Director on the board of two large public companies.
September 18, 2019	XII	Director and former CEO with 30 years of experience; served on nine public company boards; audit committee member.
September 19, 2019	XIII	Director and former CEO with over 20 years of experience on a public company and other company boards; served on audit, nomination/ governance, and several special committees.
September 19, 2019	XIV	Director on the boards of one public and one private company.
September 23, 2019	XV	Executive in a large public company and a director in several large cap public companies.

TABLE 8. PLACEBO TESTS FOR DIFFERENCE-IN-DIFFERENCES ESTIMATES

Robustness check (Placebo Death Year)				
	Degree	Closeness	Betweenness	Eigenvector
Dependent variable = Accounting irregularity				
Primary Company	0.000 (0.001)	-0.016 (1.145)	0.000 (0.011)	-0.026 (1.619)
Pseudo R^2	0.384	0.390	0.385	0.390
Number of Observations	22,481	22,481	19,067	21,989
Secondary Company	0.000 (0.001)	-0.001 (0.203)	0.000 (0.004)	-0.013 (1.142)
Pseudo R^2	0.4000	0.392	0.384	0.392
Number of Observations	21,989	37,261	19,067	21,989
Dependent variable = E-Index				
Primary Company	0.000 (0.001)	-0.090 (1.859)	-0.001 (0.056)	-0.083 (8.226)
Adjusted R^2	0.178	0.177	0.174	0.178
Number of Observations	16,404	16,402	15,520	16,404
Secondary Company	0.000 (0.003)	0.089 (1.156)	0.001 (0.016)	0.056 (3.299)
Adjusted R^2	0.182	0.182	0.178	0.170
Number of Observations	16,404	16,402	15,520	16,404
Dependent variable = MSCI				

This table presents the results of placebo tests of all difference-in-difference specifications. Each regression from Appendix Tables 3–5 was run 100 times using randomly generated director death years to assess the possibility of spurious results. All controls and fixed effects were included per the original specifications. The mean coefficients and standard errors are reported.

Appendix Part II: Centrality Measures

The following is a technical description of how centrality measures used in the quantitative portion of this Article were calculated. These measures are consistent with those used in other literatures that employ network analysis.

Degree Centrality: The measure is meant to capture the number of channels of information and resource exchange that exist between two companies. It might be thought of as similar to degrees of separation. The measure is calculated in accordance with the following. Letting $\delta(i,j)$ indicate that boards i and j share a director, for each company j in a network,

$$Degree \equiv \sum_{j \neq i} \delta(i,j)$$

Closeness Centrality: The second measure of board connectedness is Closeness, which measures the distance between boards in terms of overlapping directors, relative to other boards. The intuition behind this measure is that boards are more likely to share information with each other or influence one another if their members can reach each other through fewer interlocks (or traveling a shorter distance). Closeness is calculated as follows: letting $l(i,j)$ be the shortest path between boards i and j,

$$Closeness \equiv \frac{n-1}{\sum_{j \neq i} l(i,j)}$$

Betweenness Centrality: The third measure is Betweenness, a measure which accounts for the number of paths between one board and another. If a board has many paths between itself and other boards, more information and influence are likely to be conveyed between the two. Unlike Degree, which measures overlapping board members, Closeness measures all potential pathways or relationships between multiple boards. It is another proxy for how important or well situated a board is in a given network. Formally, it is computed as follows: letting $P_i(k,j)$ be the total number of shortest paths between board k and board j, and $P(k,j)$ be the total number of paths between k and j,

$$Betweenness \equiv \sum_{j \neq i : i \notin \{k,j\}} \frac{P_i(k,j)/P(k,j)}{(n-1)(n-2)/2}$$

Eigenvector Centrality: The final measure of connectedness is Eigenvector. This measure is a variation of Degree Centrality, which takes into account how connected board members' direct connections are. The idea behind this measure is that boards may have more influence, or may be more susceptible to influence, if its members' direct contacts are also well connected. It is represented by the Eigenvector of a matrix G, where:

$$\lambda \cdot Centrality_i \equiv \sum_j g_{ij} \cdot Centrality_j$$

λ is a proportionality factor and $g_{ij} = 1$ *if firms* i and j are linked.

NOTE

Transforming Broker Discretion into Senior Executive Accountability

*Emma Liggett**

ABSTRACT

In the wake of recent scandals pervading the financial industry, Congress and federal securities regulators have attempted to rein in the abuse of discretion by those in positions to mismanage funds. Recent legislative and regulatory actions show an effort to incentivize compliant behavior and set standards of conduct. The most recent attempt is seen in the Securities and Exchange Commission's ("SEC") Regulation Best Interest standard for broker-dealers. This rule, however, like the other relevant laws affecting broker-dealers, is toothless in that the provision mandating compliance with the regulation requires only implementing reasonable methods of doing so. Rather than specify procedures that broker-dealers must implement to comply with the rule, the SEC leaves the discretion of how to comply with Regulation Best Interest with the very actors it seeks to regulate. In doing so, the SEC is taking greater precaution to protect the broker-dealer business model than investors. This Note studies the ineffectiveness of weak compliance mandates such as that in Regulation Best Interest and proposes a solution in the form of the United Kingdom's Senior Managers and Certification Regime, which prescribes specific formal requirements for regulated entities in order to ensure accountability among those who are most capable of causing harm to the financial industry—senior managers and executives. The SEC should issue an amendment to the Regulation Best Interest Compliance Obligation incorporating these more specific and prescriptive compliance mandates.

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* J.D., May 2021, The George Washington University Law School. I am grateful to Arthur Wilmarth, Derek Lawlor, and Brenna Fischer for their invaluable guidance. Thanks also to Lauren Estell and Summer Flowers for their patience and hard work in the editing process. Any mistakes herein are my own.

Table of Contents

Introduction

Middle school art teacher Heather Heckel was thinking ahead when she invested in her retirement at age thirty-three.[1] She qualified for an investment offered uniquely to New York City public school-teachers that guaranteed a seven percent annual rate of return.[2] This

1 *See* Tara Siegel Bernard, *S.E.C. Adopts New Broker Rules that Consumer Advocates Say Are Toothless*, N.Y. Times (June 5, 2019), https://www.nytimes.com/2019/06/05/your-money/sec-investment-brokers-fiduciary-duty.html [https://perma.cc/VQS5-DRCN].

2 *Id.*

is a safe option at a favorable rate not available to the investing public.[3] Despite this provision of retirement security, a broker[4] advised her to transfer her retirement savings to a variable annuity charging an annual fee of over two percent.[5] Ms. Heckel lost $2,500 before she learned that her original investment was a better option and was able to get her money back.[6]

Brokers receive transaction-based compensation,[7] which means they do not get paid unless they complete a transaction by selling an investor a security.[8] A conflict of interest exists when the security the broker offers does not fit the needs of the individual.[9] For example, Ms. Heckel is a thirty-three-year-old public schoolteacher.[10] The variable annuity that the broker sold her was more suitable for affluent or

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3 *See* New York Teacher, *6 Investment Choices Lead to Peace of Mind*, UFT (Oct. 3, 2018), https://www.uft.org/news/you-should-know/secure-your-future/6-investment-choices-lead-peace-mind [https://perma.cc/K8LE-MRYK].

4 A broker is an individual who deals in securities—financial assets in the form of stocks, bonds, and other investment instruments—on behalf of her customers, in this case, Ms. Heckel. *See Registered Financial Professionals*, FINRA, https://www.finra.org/investors/learn-to-invest/choosing-investment-professional/brokers [https://perma.cc/P7R3-9S8J]. This Note uses the term "brokers" to refer to the broker-dealers subject to the new Regulation Best Interest standard, *see* Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318 (July 12, 2019) (codified at 17 C.F.R. pt. 240), because it is concerned with the individuals who act as agents on behalf of their customers (brokers), rather than those buying and selling securities for themselves (as dealers). *See id.*

5 *See* Bernard, *supra* note 1; *see also Annuities*, INVESTOR.GOV, https://www.investor.gov/introduction-investing/investing-basics/glossary/annuities [https://perma.cc/9S7V-DCAX] (explaining annuities). A variable annuity is a contract in which an investor pays an insurer a single payment or stream of payments, which are then invested into a variety of options, typically mutual funds. *See Variable Annuities*, INVESTOR.GOV, https://www.investor.gov/introduction-investing/investing-basics/glossary/variable-annuities [https://perma.cc/5QSY-Q5H5]. It is riskier than a guaranteed investment, in which an individual pays an insurer in exchange for a fixed rate of return. *See Variable Annuities: What You Should Know*, U.S. SEC. & EXCH. COMM'N (Apr. 18, 2011), https://www.sec.gov/investor/pubs/varannty.htm [https://perma.cc/CZV4-536W]; New York Teacher, *supra* note 3. Variable annuities depend on the equity market and are thus subject to its volatility, which make it important for individuals to consult with brokers to determine whether this type of investment is a good fit for their needs and financial capabilities. *See Variable Annuities: What You Should Know*, *supra*.

6 *See* Bernard, *supra* note 1.

7 *See* Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. at 33,319.

8 *See id.*; *see also* CONSUMER FED'N OF AM., A FRAMEWORK FOR ADDRESSING BROKER-DEALER AND INVESTMENT ADVISER CONFLICTS OF INTEREST WHEN PROVIDING RETAIL INVESTMENT ADVICE 1, https://consumerfed.org/wp-content/uploads/2019/04/CFA-Conflict-of-Interest-Framework.pdf [https://perma.cc/LW6T-XUAS] ("In the brokerage model, the firm and financial professional get paid only if a recommendation results in the completion of a transaction.").

9 *See* CONSUMER FED'N OF AM., *supra* note 8, at 1; Bernard, *supra* note 1.

10 *See* Bernard, *supra* note 1.

older investors who have already maxed out their safer retirement plans, such as 401(k)s.[11] The broker was incentivized to sell Ms. Heckel the annuity, however, because (1) brokers only get paid if the transaction is completed, and (2) variable annuities pay higher fees to the insurer and the broker.[12] In this case, the variable annuity that the broker sold Ms. Heckel charged four times the annual rate an average investor pays for the same type of mutual fund investment.[13]

Ms. Heckel was unaware of the broker's strong incentive to sell her a product inconsistent with her needs.[14] In fact, there are compliance systems[15] in place to curb this problematic behavior.[16] The broker

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11 *See Variable Annuities: What You Should Know*, *supra* note 5; *see also* Dinesh Chopra, Onur Erzan, Guillaume de Gantès, Leo Grepin & Chad Slawner, *Responding to the Variable Annuity Crisis* 5 (McKinsey Working Papers on Risk, Paper No. 10, 2009), https://www.mckinsey.com/~/media/McKinsey/dotcom/client_service/Risk/Working%20papers/10_Responding_to_the_Variable_Annuity_Crisis.ashx [https://perma.cc/3QY6-2ZEE] (noting that variable annuities "emerged as the natural product for affluent investors in their 50s and 60s as they transitioned from the accumulation to the decumulation stage of their investment lifecycle"); Daniel Kurt, *Variable Annuities: A Good Retirement Investment?*, INVESTOPEDIA (Dec. 11, 2020), https://www.investopedia.com/articles/personal-finance/090915/variable-annuities-good-retirement-investment.asp [https://perma.cc/QC45-V542] ("Where variable annuities may be worth a look is if you've maxed out your contributions to other tax-advantaged accounts.").

12 *See* Kurt, *supra* note 11 ("Further eroding your account are the notoriously high fees that insurance companies charge their annuity customers."); *see also* Chopra et al., *supra* note 11, at 10 (noting that some brokers "rely on variable annuities for a substantial portion of their income"); Matthew Frankel, *Should You Buy a Variable Annuity?*, MOTLEY FOOL (Aug. 22, 2018, 2:30 PM), https://www.fool.com/retirement/2016/09/24/should-you-buy-a-variable-annuity.aspx [https://perma.cc/ATH9-J57V] ("It's not uncommon for an agent to make a commission of 5% or so on the sale of an annuity.").

13 Bernard, *supra* note 1.

14 *See id.*

15 There is currently no single model example for a compliance system, which is a set of procedures and controls designed to prevent misconduct within a company. *See* Jonathan D. Glater, *Here It Comes: The Sarbanes-Oxley Backlash*, N.Y. TIMES (Apr. 17, 2005), https://www.nytimes.com/2005/04/17/business/yourmoney/here-it-comes-the-sarbanesoxley-backlash.html [https://perma.cc/V78Z-FU86] ("Something as simple as requiring two people to sign a company check, for example, is one type of internal control."). Compliance systems can be an entire department within the company dedicated to ensuring compliance and preventing fraudulent behavior. *See, e.g.*, Monica Langley & Dan Fitzpatrick, *Embattled J.P. Morgan Bulks Up Oversight*, WALL ST. J. (Sept. 12, 2013, 11:23 PM), https://www.wsj.com/articles/embattled-jp-morgan-bulks-up-oversight-1379029490 [https://perma.cc/TPJ4-JADR] (discussing J.P. Morgan Chase's efforts to enhance compliance systems by hiring 5,000 extra employees, giving more autonomy to its top compliance officer and related managers, and hiring external consultants). Some firms even employ compliance systems in the form of computerized algorithms to comb records and flag issues. *See, e.g.*, *How Big Data Analytics Is Transforming Regulatory Compliance*, CREDIT SUISSE (Nov. 30, 2017), https://www.credit-suisse.com/about-us-news/en/articles/news-and-expertise/how-big-data-analytics-is-transforming-regulatory-compliance-201711.html [https://perma.cc/8PS3-Y6TT]. The wide variance in the way companies decide to ensure compliance with laws and regulations is a problem that this Note addresses.

16 *See infra* Parts I–II.

was obligated to disclose the conflict to Ms. Heckel by law, but did not do so appropriately because brokers and their institutions have significant discretion in how to comply with that requirement.[17] Weak compliance rules allow brokers to cave to strong monetary incentives while their clients pay the cost. In this case, that cost was a portion of Ms. Heckel's retirement savings.[18]

This situation is reminiscent of broker conduct before the financial crisis of 2007–2009, in which financial institutions failed to control broker misconduct in the face of monetary incentives.[19] Although institutions had compliance systems in place to deal with these conflicts, their wide discretion in how to implement those systems proved problematic on a systemic level.[20] As a result of the financial crisis, banks and insurance companies around the world lost over $1.1 trillion,[21] and retirement accounts lost $3.4 trillion.[22]

Studies examining the causes of this tailspin point largely to the actions of lightly monitored brokers and their monetary conflicts of interest.[23] Questionable motives pervaded the entire securitization system, indicating a lack of management and failure to ensure trustworthy recommendations that investors could rely upon.[24] This occurred even at the largest, most well-resourced financial conglomerates.[25]

In June of 2019, the U.S. Securities and Exchange Commission ("SEC") released a rule purporting to address the systemic problem of conflicts of interest in the form of the new Regulation Best Interest ("Reg BI") standard for brokers.[26] This rule has four specific obliga-

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17 *See* Bernard, *supra* note 1; *infra* Parts I–II.

18 *See* Bernard, *supra* note 1.

19 *See infra* Part II.

20 *See infra* Part II.

21 Arthur E. Wilmarth, Jr., *The Dark Side of Universal Banking: Financial Conglomerates and the Origins of the Subprime Financial Crisis*, 41 CONN. L. REV. 963, 968 (2009).

22 Sarah Childress, *How Much Did the Financial Crisis Cost?*, PBS: FRONTLINE (May 31, 2012), https://www.pbs.org/wgbh/frontline/article/how-much-did-the-financial-crisis-cost/ [https://perma.cc/WNF4-2YZR].

23 *See, e.g.*, Wilmarth, *supra* note 22, at 1025 (stating that monetary conflicts of interest, primarily at larger financial conglomerates, "provide the most likely explanation for the links between securitization, higher-risk loans and rising default rates").

24 *See id.*

25 *See id.* at 994–95 (stating that "the four largest U.S. banks . . . , the five largest U.S. securities firms . . . , and seven major foreign universal banks . . . collectively dominated the markets for debt and equity securities" and other structured-finance securities based on nonprime mortgages).

26 *See* Press Release, U.S. Sec. & Exch. Comm'n, SEC Adopts Rules and Interpretations to Enhance Protections and Preserve Choice for Retail Investors in Their Relationships with

tions of brokers: the Disclosure Obligation,[27] the Care Obligation,[28] the Conflict of Interest Obligation,[29] and the Compliance Obligation.[30] The focus of this Note will be primarily on Reg BI's fourth component, the Compliance Obligation, which states that "a broker-dealer must also establish, maintain, and enforce written policies and procedures reasonably designed to achieve compliance with Regulation Best Interest as a whole."[31]

This Note argues that the SEC, through the promulgation of Reg BI, endorsed a risk-focused supervision approach to the regulation of brokers and did nothing more than previous securities laws to curb broker discretion regarding conflicts of interest. Risk-focused supervision is the regulatory strategy of engaging in "highly deferential evaluations of the internal policies and procedures at megabanks."[32] This strategy was implemented in the era leading up to the financial crisis and had catastrophic consequences.[33] Leaving the decision of how to comply with Reg BI's components to those who have powerful incentives not to is problematic.

In order to rein in the vast discretion the SEC afforded brokers in Reg BI and prevent the mistakes of the past from reoccurring, the SEC should amend the Compliance Obligation to require a compliance system akin to the United Kingdom's Senior Management and Certification Regime ("SM&CR"), a comprehensive and robust regulatory framework that implements specific compliance requirements for regulated entities and assures accountability for wrongdoing.[34] Some key compliance requirements of SM&CR include requiring senior managers to get approval from financial regulatory bodies before

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Financial Professionals (June 5, 2019), https://www.sec.gov/news/press-release/2019-89 [https://perma.cc/H34U-2Z7A]; Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318, 33,319 (July 12, 2019) (codified at 17 C.F.R. pt. 240).

27 Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. at 33,321 ("[A] broker-dealer must disclose, in writing, all material facts about the scope and terms of its relationship with the customer.").

28 *Id.* ("[A] broker-dealer must exercise reasonable diligence, care, and skill when making a recommendation to a retail customer.").

29 *Id.* ("[A] broker-dealer must establish, maintain, and enforce . . . written policies and procedures . . . reasonably designed to identify all such conflicts and at a minimum disclose or eliminate them.").

30 *Id.*

31 *Id.*

32 ARTHUR E. WILMARTH, JR., TAMING THE MEGABANKS 213 (2020).

33 *See id.* ("The Fed and the [Office of the Comptroller of the Currency] applied their policy of risk-focused supervision to the largest banks from the mid-1990s until the financial crisis began, and they never abandoned that policy despite its manifest failures.").

34 *See infra* Part IV.

starting their roles and documenting the explicit responsibilities for which they are accountable.[35]

Part I of this Note addresses the compliance mandates within federal securities laws, which have largely remained unchanged in the face of repeated blows to the integrity of the financial system. Part II discusses the financial crisis and resulting regulation. Part III demonstrates the failure of these compliance mandates as shown by the Wells Fargo scandal. Part IV introduces SM&CR and discusses ways that it improves compliance. Part V illustrates how the SEC should implement SM&CR and describes the ways it would prevent the occurrence of another financial crisis.

I. The Lack of Evolution in Compliance Mandates

The federal government began to regulate brokers in 1934 when Congress created the SEC in response to the stock market crash of 1929.[36] Despite a series of subsequent reforms in response to other major financial crises and exposures of fraudulent behavior, the compliance mandates within each of these laws have largely remained unchanged. The SEC is explicit that compliance with Reg BI should not be construed as reducing any existing obligations of compliance with federal securities laws, such as provisions of the Securities Exchange Act of 1934 ("Exchange Act"),[37] or any Self-Regulatory Organization ("SRO") Rules, such as the Financial Industry Regulatory Authority's ("FINRA") suitability rule.[38] The following sections will cover the accountability and compliance requirements for the securities laws and rules currently in place.

A. The Securities Exchange Act of 1934

The Exchange Act contains its own requirements for brokers and expectations for compliance. Section 13(b) requires corporate boards to establish and preserve a reasonable internal compliance system,

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35 *See infra* Part IV.

36 Will Kenton, *Securities Exchange Act of 1934*, Investopedia (Oct. 30, 2020), https://www.investopedia.com/terms/s/seact1934.asp [https://perma.cc/46PE-5QKK].

37 15 U.S.C. §§ 78a–78qq.

38 Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318, 33,327 (July 12, 2019) (codified at 17 C.F.R. pt. 240); *2111. Suitability*, FINRA, https://www.finra.org/rules-guidance/rulebooks/finra-rules/2111 [https://perma.cc/K5YV-6UYL]. FINRA is a private corporation, referred to as an SRO, that regulates brokers and is itself regulated by the SEC. *See* Daniel P. Guernsey, Jr., Note, *Requiring Broker-Dealers to Disclose Conflicts of Interest: A Solution Protecting and Empowering Investors*, 73 U. Mia. L. Rev. 1029, 1036 (2019).

with an emphasis on maintenance of records and timely reporting.[39] However, it does not give much guidance on how this should be done, directing broker entities to "make and keep books, [and] records" and "devise and maintain a system of internal accounting controls sufficient to" assure that transactions and accounting are sufficiently recorded and reasonably appropriate.[40] Similar to Reg BI, section 13(b) has a compliance prong, stating that security-based swap data repositories ("SDRs")—centralized recordkeeping facilities that Congress established to "maintain accurate records of security-based swap transactions and the integrity of those records"[41]—"shall comply" with the rules listed in this section, although they have "reasonable discretion" with how they choose to do so.[42]

Section 15(b)(4)(e) of the Exchange Act implements supervisory requirements on those responsible for brokers.[43] Such a person will be held liable for a broker's misconduct if she is "deemed to have failed reasonably to supervise" that person.[44] However, an affirmative defense to this charge is that there are "established procedures, and a system for applying such procedures, which would reasonably be expected to prevent and detect, insofar as practicable, any such violation" and the supervisor had no "reasonable cause to believe that such procedures and system were not being complied with."[45]

The Compliance Obligation in Reg BI is equally as vague as those in the Exchange Act. In its final interpretation of Reg BI, the SEC states that brokers may not even need to implement new systems in order to ensure compliance.[46] Compliance required under existing

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39 Securities Exchange Act of 1934 § 13(b), 15 U.S.C. § 78m(b); *see also* Stavros Gadinis & Amelia Miazad, *The Hidden Power of Compliance*, 103 MINN. L. REV. 2135, 2182 n.259 (2019) ("In addition to providing accurate disclosure to investors, federal securities laws require corporate boards to maintain a reasonable system of internal controls, in accordance with Section 13(b) of the 1934 Securities Exchange Act.").

40 Securities Exchange Act of 1934 § 13(b), 15 U.S.C. § 78m(b)(2).

41 *Security-Based Swap Data Repositories*, U.S. SEC. & EXCH. COMM'N (Dec. 19, 2017), https://www.sec.gov/divisions/marketreg/security-based-swap-data-repositories.htm [https://perma.cc/KR4H-YUCL]. Security-based swap transactions are "financial contracts in which two counterparties agree to exchange or 'swap' payments with each other" due to "changes in a stock price, interest rate or commodity price." U.S. SEC. & EXCH. COMM'N, THE REGULATORY REGIME FOR SECURITY-BASED SWAPS 3, https://www.sec.gov/swaps-chart/swaps-chart.pdf [https://perma.cc/GK33-E8RE].

42 15 U.S.C. § 78m(n)(3).

43 *Id.* § 78o(b)(4)(E).

44 *Id.*

45 *Id.*

46 Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318, 33,397 n.809 (July 12, 2019) (codified at 17 C.F.R. pt. 240) ("In order to comply, broker-dealers

securities laws, such as the supervisory requirements of section 15(b)(4)(E), could be considered sufficient for compliance with Reg BI.[47] Considering the vague nature of both the Compliance Obligation in Reg BI and the compliance requirements within the Exchange Act, the SEC is not asking for any additional measures to be taken. Nor is it providing any clarity about what those measures should entail beyond "reasonableness." FINRA has taken a similar approach.

B. FINRA Rules for Compliance

Although FINRA has specific rules addressing conflict of interest obligations of brokers, the guidance on compliance with them is similarly vague and undefined. FINRA Rule 2111, referred to as the "suitability rule," requires a broker to "have a reasonable basis to believe that a recommended transaction or investment strategy involving a security . . . is suitable for the customer, based on the information obtained through the reasonable diligence of the [firm] or associated person to ascertain the customer's investment profile."[48]

FINRA released guidance to address which means of compliance were necessary under Rule 2111, as the rule itself does not lay out any mandated procedures.[49] Under the guidance, appropriate means to ensure compliance include establishing a "tone from the top" in which management is responsible for creating an ethical environment and accountability, as well as "articulated structures, policies and processes to identify and manage conflicts of interest," and compliance training for employees.[50] FINRA, however, like the SEC in its final interpretation of Reg BI, makes clear that the "guidance is not intended to influence any firm's choice of a particular business model or reasonable approach to ensuring compliance with suitability or other regulatory requirements."[51] Thus, the discretion of compliance

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could adjust their current systems of supervision and compliance, as opposed to creating new systems.").

47 *See id.*

48 *2111. Suitability*, *supra* note 38.

49 *See* FINRA, REGULATORY NOTICE 12-25: ADDITIONAL GUIDANCE ON FINRA'S NEW SUITABILITY RULE (2012) [hereinafter REGULATORY NOTICE 12-25], https://www.finra.org/sites/default/files/NoticeDocument/p126431.pdf [https://perma.cc/W9XP-WY6T]; FINRA, REGULATORY NOTICE 13-31: FINRA HIGHLIGHTS EXAMINATION APPROACHES, COMMON FINDINGS AND EFFECTIVE PRACTICES FOR COMPLYING WITH ITS SUITABILITY RULE (2013) , https://www.finra.org/sites/default/files/NoticeDocument/p351220.pdf [https://perma.cc/BN3Z-2RW2].

50 FINRA, REPORT ON CONFLICTS OF INTEREST 5–6 (2013), https://www.finra.org/sites/default/files/Industry/p359971.pdf [https://perma.cc/5XXA-3S6E].

51 REGULATORY NOTICE 12-25, *supra* note 49, at 2; *see also* FINRA, *supra* note 50, at 2

with the FINRA rules on conflict of interest and suitability remains with brokers—those whose conflicts the rules intend to address.

C. The Sarbanes-Oxley Act of 2002

As a result of massive corporate scandals resulting from poor compliance regimes and accounting fraud, such as those involved in Enron, consumer advocates stressed the dire need for better internal governance systems assured by people at the top of public companies.[52] Congress responded by enacting the Sarbanes-Oxley Act of 2002,[53] which directs the boards of public companies to enhance internal controls to ensure proper monitoring of lower-level employees and ethical accounting practices.[54] The Sarbanes-Oxley Act's emphasis on upper-level managers is demonstrated in section 302, which directs the SEC to adopt rules requiring those in the roles of Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") to sign off on annual and quarterly reports and certify that they are in compliance with the Exchange Act.[55]

Section 404 also demonstrates this attempt to bring senior-level executives into the compliance regime.[56] It requires public companies to assess and annually report on their own compliance controls regarding financial reporting.[57] Section 404, however, received considerable backlash from corporate executives, who bemoaned the costs of complying with this requirement and the extra burden its implementation places on executives—even in the face of the catastrophic impact that a handful of executives, such as Enron CEO Jeff Skilling, had on their shareholders.[58] Specifically, critics cited the differing business

("FINRA stresses that this report is not intended to express any legal position, and does not create any new legal requirements or change any existing regulatory obligations.").

52 *See* Neil H. Aronson, *Preventing Future Enrons: Implementing the Sarbanes-Oxley Act of 2002*, 8 STAN. J.L. BUS. & FIN. 127, 132 (2002).

53 Pub. L. No. 107-204, 116 Stat. 745 (codified as amended in scattered sections of 15, 18, 28, and 29 U.S.C.).

54 *See* Gadinis & Miazad, *supra* note 39, at 2152–53.

55 *See* Sarbanes-Oxley Act § 302; *see also SEC Requires CEO and CFO Certification of Quarterly and Annual Reports*, MORRISON FOERSTER (Sept. 4, 2002), https://www.mofo.com/resources/insights/sec-requires-ceo-and-cfo-certification-of-quarterly-and-annual-reports.html [https://perma.cc/XP54-SLQD] ("The legislative purpose behind Section 302 is to ensure that a company's CEO and CFO take a proactive role in their company's public disclosure and to give investors more confidence in the accuracy, quality and reliability of a company's SEC periodic reports.").

56 *See* Sarbanes-Oxley Act § 404.

57 *See* U.S. SEC. & EXCH. COMM'N, SARBANES-OXLEY SECTION 404: A GUIDE FOR SMALL BUSINESS, https://www.sec.gov/info/smallbus/404guide.pdf [https://perma.cc/GE5K-2T2G].

58 *See* Glater, *supra* note 15; *see also* Troy Segal, *Enron Scandal: The Fall of a Wall Street*

structures of different companies as a reason why these requirements should not hold.[59] Their complaints seem to have had an impression on the SEC in designing Reg BI, as shown by its lack of explicit requirements for executives.[60]

Despite these attempts at limiting abuses of discretion by financial actors with conflicts of interest, this law proved insufficient to protect the financial sector from abuses that led to the financial crisis.

II. The Financial Crisis and Resulting Regulation

The financial crisis was partially the result of risky lending strategies by mortgage brokers and the subsequent mass default on loans by borrowers who contracted beyond their means.[61] Borrowers' defaults on their loans proved catastrophic for the economy because of the securitization of those loans by brokers at large complex financial institutions ("LCFIs").[62] LCFIs are financial conglomerates resulting from a series of bank mergers and the consolidation of banking and securities activities.[63] Bank mergers concentrated a large share of banking assets in fewer entities and the consolidation of lending and securitization introduced another problematic conflict of interest.[64]

Because the same entity was both lending to borrowers and selling securities to investors, an "originate to distribute" strategy dominated LCFIs.[65] Lenders at these large banks knew that nonprime loans could be packaged into private-label residential mortgage-backed securities ("RMBS"), which generated much higher fees than prime loans that were packaged into government sponsored enter-

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Darling, Investopedia (Jan. 19, 2021), https://www.investopedia.com/updates/enron-scandal-summary/ [https://perma.cc/SUA4-XKH6] (stating that shareholders lost $74 billion in the four years prior to Enron's bankruptcy).

59 *See, e.g.*, Glater, *supra* note 15 ("Executives from smaller public companies said they should not have to meet the same requirements as larger companies, which they said have more resources to handle regulatory compliance.").

60 *See* Press Release, U.S. Sec. & Exch. Comm'n, *supra* note 26.

61 *See supra* text accompanying notes 19–25.

62 *See* Wilmarth, *supra* note 21, at 1024 ("Five studies have confirmed the linkage between higher levels of securitization and higher-risk lending."). Securitization is the process of pooling assets in the form of debt obligations—such as mortgage loans—and repackaging them as securities to be sold to investors, who then benefit from the payments on the loan. *See* Andreas Jobst, *What Is Securitization?*, Fin. & Dev., Sept. 2008, at 48, 48–49.

63 *See* Wilmarth, *supra* note 21, at 975.

64 *See id.* at 975–76 ("As a consequence of the bank merger wave, the share of U.S. banking assets held by the ten largest banks more than doubled, rising from twenty-five percent in 1990 to fifty-five percent in 2005.").

65 *See id.* at 995, 1025.

prise ("GSE")-issued RMBS.[66] This created an incentive to originate higher-risk loans for the sake of securitizing those loans and selling them to investors, who were under the assumption that their brokers did due diligence that the borrowers were creditworthy.[67] LCFIs had little regard for the value of their products, however, because they could get the risk of default out of their books and earn healthy fees by selling it.[68]

American LCFIs consist of the most recognizable names in finance, such as Merrill Lynch and Citigroup.[69] Senior managers at these institutions "received incentive-based compensation that strongly encouraged them to incur excessive risks in order to produce short-term profits."[70] For example, Citigroup insiders revealed a culture of "haphazard management," with the senior risk officer and the head of mortgage-related securities traders being old friends who exchanged favors.[71] Insiders say that this lack of independence within risk management "clouded [the] judgement" of "the very people charged with overseeing deal makers eager to increase short-term earnings—and executives' multimillion-dollar bonuses" and as a result, nobody was reined in from the enticing monetary incentives.[72] This also occurred at the United Kingdom's largest banks.[73]

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66 *Id.* at 1025. Although both private-label RMBS and GSE-issued RMBS are securitized mortgages, private-label RMBS "do not conform to the criteria set by Government Sponsored Enterprises" such as Freddie Mac and Fannie Mae. *Understanding . . . Mortgage Securitization*, SECURITIZATION, http://securitization.weebly.com/private-label-mbs.html [https://perma.cc/7KE5-ZZ6R]. They are thus riskier and carry a higher rate of return, which led people to invest in them rather than safer government-backed securities with lower rates of return. *See id.* ("When the bubble eventually collapsed and debt issuers were unable to make good on their securities, investors absorbed the brute impact of the firm failures.").

67 *See* Wilmarth, *supra* note 21, at 1026.

68 *See* Matt Levine, Opinion, *You Can Securitize People Now*, BLOOMBERG: MONEY STUFF (Feb. 25, 2020, 12:29 PM), https://www.bloomberg.com/opinion/articles/2020-02-25/you-can-securitize-people-now [https://perma.cc/RAX5-3WCM].

69 *See* Wilmarth, *supra* note 21, at 976–77.

70 *Id.* at 1034–35.

71 Eric Dash & Julie Creswell, *Citigroup Pays for a Rush to Risk*, N.Y. TIMES (Nov. 23, 2008), https://www.nytimes.com/2008/11/23/business/worldbusiness/23iht-23citi.18059343.html [https://perma.cc/Z2N3-A8XC] (stating that "[t]he two men took occasional fly-fishing trips together" and that "insufficient boundaries were established in the bank's fixed-income unit to limit potential conflicts of interest involving" the two managers).

72 *Id.* One trader at Citigroup said, "I just think senior managers got addicted to the revenues and arrogant about the risks they were running . . . . As long as you could grow revenues, you could keep your bonus growing." *Id.*

73 *See* Wilmarth, *supra* note 21, at 1004 ("The U.K.'s credit boom most closely resembles the U.S. experience. . . . As in the U.S., the U.K. credit boom produced a rapid growth in financial sector debt and financial industry profits.").

The regulatory regime did little to curb this abuse. Supervisors had the affirmative defense of having reasonable compliance systems in place,[74] combined with the deferential review of compliance programs taken on by regulators during this time.[75] For example, in 2006, Citigroup executive Charles Prince claimed that the executives were in control and that they "set a tone at the top" and "set up safety nets to catch people who make mistakes."[76] This seems to have appeased regulators at the time, who did not realize until late 2007 that "Citigroup and other megabanks had transferred more than $1.3 trillion of high-risk, illiquid assets to off-balance-sheet vehicles in transactions that resembled Enron's manipulative shell games."[77]

Post-financial crisis, executives got away primarily unscathed with their lucrative bonuses and payoffs.[78] The SEC omitted attempts to hold individual executives civilly liable, instead opting for settlements with LCFIs for amounts much less than their total assets, in which executives neither admitted nor denied wrongdoing.[79] This slap-on-the-wrist strategy traveled to Capitol Hill. During questioning at a U.S. House of Representatives hearing regarding CEO pay and the mortgage crisis, the questioning from congressional lawmakers was as "light touch" as the regulatory strategy employed during the years preceding the financial crisis.[80]

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74 *See* 15 U.S.C. § 78o(b)(4)(E).

75 *See* WILMARTH, *supra* note 32, at 213–14.

76 Dash & Creswell, *supra* note 71 (quoting Charles Prince III, Chief Executive, Citigroup, Statement (2006)).

77 WILMARTH, *supra* note 32, at 214.

78 For example, E. Stanley O'Neal, the CEO of Merrill Lynch, got a $162 million payoff when he was forced to retire, despite Merrill Lynch's stock plummeting forty-five percent in 2007. *See* John Cassidy, *Subprime Suspect: The Rise and Fall of Wall Street's First Black C.E.O.*, NEW YORKER (Mar. 24, 2008), https://www.newyorker.com/magazine/2008/03/31/subprime-suspect [https://perma.cc/NS44-9Y7X]. O'Neal claims that he was appropriately held accountable for the failure of oversight at his bank. *See id.* Likewise, the CEO of Citigroup, Charles Prince, walked away from a disaster of his own making with stock then valued at $68 million and a $12.5 million cash bonus for 2007, despite Citigroup reporting losses in the billions that same year. *See* Dash & Creswell, *supra* note 71.

79 *See, e.g.*, Jesse Eisinger, *Why the S.E.C. Didn't Hit Goldman Sachs Harder*, NEW YORKER (Apr. 21, 2016), https://www.newyorker.com/business/currency/why-the-s-e-c-didnt-hit-goldman-sachs-harder [https://perma.cc/KV9J-G5DK] (stating that "statutes weren't strong enough in some areas and resources were scarce," but pointing out that more nuanced reasons were at play such as a reluctance to go after such high-level executives); Michael A. Santoro, *Why Haven't the S.E.C.'s Lawyers Held Wall Street Accountable?*, NEW YORKER (July 31, 2013), https://www.newyorker.com/news/news-desk/why-havent-the-s-e-c-s-lawyers-held-wall-street-accountable [https://perma.cc/UF9T-JW44] ("The cases brought against individuals have involved lower-level executives and haven't been successful.").

80 *See* Broc Romanek, *Up Close and Personal: House Hearing on CEO Pay and the Mortgage Crisis*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Mar. 24, 2008) https://

The lack of senior manager accountability and the large executive payouts angered consumer activists and the public at large.[81] People wanted to see some sort of regulatory action taken to ensure mismanagement of this scale would not happen again.[82] Legislators tried to appease these concerns with the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank").[83]

A. Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010

Congress enacted Dodd-Frank to address regulatory failures that contributed to the financial crisis. Although Dodd-Frank addresses many different areas in the financial sector, the part relevant for purposes of this Note is section 913.[84]

Section 913 of Dodd-Frank was the impetus for Reg BI. It directed the SEC to conduct a study ("The Section 913 Study") to evaluate "[t]he effectiveness of existing legal or regulatory standards of care" applicable to brokers.[85] The Section 913 Study recommended

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corpgov.law.harvard.edu/2008/03/24/up-close-and-personal-house-hearing-on-ceo-pay-and-the-mortgage-cri/ [https://perma.cc/5CL6-TNGT] (describing the House hearing on CEO severance pay post-crisis and stating that "[b]oth [political] sides were careful not to sully the reputations of the three CEOs who all represented classic American success stories, and clearly the CEOs . . . seemed to be emboldened as the hearing went on and the 'light' touch was evident"). *But see* Jenny Anderson, *Chiefs' Pay Under Fire at Capitol*, N.Y. TIMES (Mar. 8, 2008), https://www.nytimes.com/2008/03/08/business/08pay.html?_r=1&scp=1&sq=severance¶ay&st=nyt&oref=slogin [https://perma.cc/2GPR-FX7D] (stating that "[t]he questioning mainly fell along party lines," with Democrats going tough on the CEOs while Republicans were reluctant to do so).

81 *See* Edward J. Schoen, *The 2007–2009 Financial Crisis: An Erosion of Ethics: A Case Study*, 146 J. BUS. ETHICS 805, 818 (2017); John Dunbar & David Donald, *The Roots of the Financial Crisis: Who Is to Blame?*, CTR. PUB. INTEGRITY (May 19, 2014, 12:19 PM), https://publicintegrity.org/inequality-poverty-opportunity/the-roots-of-the-financial-crisis-who-is-to-blame/ [https://perma.cc/U7MP-CFYN]; M.H. Miller, Opinion, *I Came of Age During the 2008 Financial Crisis. I'm Still Angry About It.*, N.Y. TIMES (Sept. 15, 2018), https://www.nytimes.com/2018/09/15/opinion/sunday/financial-crisis-student-loans-recession.html [https://perma.cc/4Z24-D767]; Gretchen Morgenson & Louise Story, *In Financial Crisis, No Prosecution of Top Figures*, N.Y. TIMES (Apr. 14, 2011), https://www.nytimes.com/2011/04/14/business/14prosecute.html [https://perma.cc/8SXS-7MLB].

82 *See, e.g.*, Shawn Mankad, George Michailidis & Andrei Kirilenko, *On the Formation of Dodd-Frank Act Derivatives Regulations*, PLOS ONE, Mar. 25, 2019, at 1, 1, https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0213730 [https://perma.cc/V9S5-Y25N] ("Accordingly, driven by public outcry, governments around the world responded with stricter regulatory frameworks.").

83 Pub. L. No. 111-203, 124 Stat. 1376 (codified as amended in scattered sections of U.S.C.). For the purpose of clarity, this Note cites to the sections of Dodd-Frank, rather than the U.S. Code.

84 Dodd-Frank Act § 913.

85 U.S. SEC. & EXCH. COMM'N, STUDY ON INVESTMENT ADVISERS AND BROKER-DEAL-

that the SEC engage in rulemaking to harmonize the standards of care between investment advisers and brokers.[86] The SEC disregarded this advice, instead implementing a lower standard of care in the form of Reg BI.[87] This discrepancy is the subject of much debate and attack, including from state attorneys general,[88] consumer advocates,[89] and democratic Commissioner Robert J. Jackson, Jr.[90]

Drawing much less attention is the fact that The Section 913 Study recommended the SEC review the current supervisory requirements and "focus on whether any harmonization would facilitate the examination and oversight" of the regulated entities.[91] Specifically, The Section 913 Study states that the SEC should consider setting specific supervisory requirements across the board or scaling the supervisory requirements based on the size of the brokerage firm.[92] The SEC, however, through its promulgation and interpretation of Reg BI, did not do either of these things.

B. Regulation Best Interest

In June of 2019, the SEC allegedly accomplished the task The Section 913 Study gave them in the form of Reg BI.[93] The new stan-

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ERS, at i (2011), https://www.sec.gov/news/studies/2011/913studyfinal.pdf [https://perma.cc/N3WD-VMK2].

86 *See id.* at viii. Investment advisers, while also advising customers on financial instruments to buy, are different from broker-dealers in that they are subject to a different regulatory regime under the Investment Advisers Act of 1940, 15 U.S.C. §§ 80b-1 to -21. *See* Guernsey, *supra* note 38, at 1030–31.

87 *See* Press Release, U.S. Sec. & Exch. Comm'n, *supra* note 26.

88 *See, e.g.*, New York v. SEC, No. 19 Civ. 8365, 2019 WL 5203751 (S.D.N.Y. Sept. 27, 2019) (listing attorneys general from New York, California, Connecticut, Delaware, Maine, New Mexico, Oregon, and District of Columbia as plaintiffs in a challenge against Reg BI). The complaint was dismissed for lack of subject-matter jurisdiction, with directions to petition for review in the U.S. Court of Appeals for the Second Circuit. *Id.* at *1.

89 *See, e.g.*, CFA Institute, Comment Letter on Proposed Regulation Best Interest 2, 13 (Aug. 7, 2018), https://www.sec.gov/comments/s7-07-18/s70718-4604861-176355.pdf [https://perma.cc/CZ59-SX56]; William F. Galvin, Comment Letter on Proposed Regulation Best Interest 2 (Aug. 7, 2018), https://www.sec.gov/comments/s7-07-18/s70718-4177382-172364.pdf [https://perma.cc/3GBR-V9UG]; North American Securities Administrators Association, Inc., Comment Letter on Proposed Regulation Best Interest 2 (Aug. 7, 2018), https://www.sec.gov/comments/s7-07-18/s70718-4184398-172577.pdf [https://perma.cc/BD2V-PUR2]; Bernard, *supra* note 1.

90 Public Statement, Robert J. Jackson, Jr., Comm'r, U.S. Sec. & Exch. Comm'n, Statement on Final Rules Governing Investment Advice (June 5, 2019), https://www.sec.gov/news/public-statement/statement-jackson-060519-iabd [https://perma.cc/883B-BHL2] ("Today's actions fail to arm Americans with the tools they need to survive the Nation's retirement crisis.").

91 U.S. SEC. & EXCH. COMM'N, *supra* note 85, at ix.

92 *See id.* at 135–36.

93 *See* Press Release, U.S. Sec. & Exch. Comm'n, *supra* note 26.

dard claims to be heightened from the former suitability rule, which required brokers to only suggest "investments that are 'suitable' based on the customer's characteristics, including age, goals and stomach for risk."[94] The new standard requires brokers, when making a recommendation, to "act in the retail customer's best interest" and not place their own interests before the clients.[95]

Under Reg BI's Compliance Obligation, "broker-dealers must establish, maintain and enforce policies and procedures reasonably designed to achieve compliance with Regulation Best Interest as a whole."[96] This creates an "affirmative obligation under the Exchange Act."[97] To determine whether a broker has complied with Reg BI and acted in the investor's best interest, the SEC states that "an objective assessment of the facts and circumstances" existing at the time the recommendation in question is made will be employed to see if all the components of the rule are followed.[98]

Embedded in the Conflict of Interest prong is another compliance requirement.[99] The Conflict of Interest Obligation states that broker-dealers "must establish, maintain, and enforce written policies and procedures reasonably designed to identify and at a minimum disclose or eliminate conflicts of interest."[100] Although this compliance obligation lists more specific elements than the general compliance prong—enumerating which general activities call for mitigation, prevention, and elimination, respectively—the specificities are largely about compliance practices that theoretically *should* be done rather than requirements as to how they *must* be done.[101] As a result, the Conflict of Interest prong's compliance obligation is, albeit wordier, comparably as weak as the general Compliance Obligation.

In response to critical comments received during the rulemaking period,[102] the SEC tried to justify the broad discretion given to broker-

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94 Bernard, *supra* note 1.

95 *See* Press Release, U.S. Sec. & Exch. Comm'n, *supra* note 26.

96 *Id.*

97 Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318, 33,397 (July 12, 2019) (codified at 17 C.F.R. pt. 240).

98 *Id.* at 33,325.

99 *See* Press Release, U.S. Sec. & Exch. Comm'n, *supra* note 26.

100 *Id.*

101 *See* Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. at 33,386 ("[W]hile *not required* components . . . broker-dealers *should consider* including in their supervisory and compliance programs the components listed in the Proposing Release, which *may* be relevant in considering whether policies and procedures are reasonably designed." (emphasis added)).

102 *See, e.g.*, Better Markets, Comment Letter on Proposed Regulation Best Interest 20

dealers by stating that it is necessary for the wide range of business models broker-dealers use, allowing them to take into account "the structure and characteristics of their relationships with retail customers, including the varying levels and frequency of recommendations provided and the types of conflicts that may be presented."[103] As such, the final rule explicitly states that "a risk-based compliance and supervisory system" will be considered reasonable, rather than a more comprehensive and robust set of required guidelines.[104]

All of these reforms brought internal compliance regimes and the role of top-down enforcement to the forefront. None of them, however, prescriptively specified how this compliance must be done, instead using permissive language and vague standards of reasonableness. The distrust of Reg BI's weak standards and insistence that federal regulators do more to manage the reckless, self-interested tendencies of those in the financial industry is widespread and commonplace.[105]

III. THE CURRENT COMPLIANCE REGIME HAS PROVEN INEFFECTIVE

The current laws and regulations regarding the way public companies must implement compliance systems to ensure brokers are not succumbing to conflicts of interest are too weak to be effective.[106] In particular, when brokerage institutions internally implement compliance programs that are purportedly comprehensive enough to be effective, the officers tasked with doing so are unlikely to be objective.[107] This is because they are under pressure to increase profits, either for themselves in the form of commission or for the company in the form of shareholder value.[108] The management failures at

(Aug. 7, 2018), https://www.sec.gov/comments/s7-07-18/s70718-4185206-172621.pdf [https://perma.cc/2B8Z-VHM4] ("Another defect in the Proposal is the enormous amount of discretion that it affords to advisers in determining how to comply with the Conflict of Interest requirements.").

103 Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. at 33,386.

104 *Id.* at 33,385.

105 *See, e.g.*, Public Statement, Jackson, *supra* note 90. Corporate law scholars have expressed distrust in the systems companies choose to implement themselves. *See* JOHN C. COFFEE JR., GATEKEEPERS: THE PROFESSIONS AND CORPORATE GOVERNANCE 146 (2006); Gadinis & Miazad, *supra* note 39, at 2155; Maurice E. Stucke, *In Search of Effective Ethics & Compliance Programs*, 39 J. CORP. L. 769, 794 (2014).

106 *See, e.g.*, Stucke, *supra* note 105, at 770–71 (discussing the persistence of ineffective compliance and corporate crime despite efforts to incentivize internal corporate compliance).

107 *See* Gadinis & Miazad, *supra* note 39, at 2155.

108 *See* John Armour & Jeffrey N. Gordon, *Systemic Harms and Shareholder Value*, 6 J.

Wells Fargo illustrate the ineffectiveness of the current compliance regime.

Wells Fargo emerged relatively unscathed from the financial crisis.[109] Its lack of compliance with basic securities laws, however, imploded in 2016 when it was exposed that broker employees of the bank opened over 3.5 million fictitious accounts under pressure from management to meet sales goals and rack up fees.[110] Brokers who opened more accounts got bonuses, fueling the perverse incentive for those around them to do the same and inferring a tone of approval from senior management.[111]

The widespread opening of sham accounts occurred despite the bank's own compliance analysis indicating that steps taken to reduce the risk of this occurring were effective.[112] Wells Fargo had ethics training programs and dedicated teams for compliance.[113] Behind the scenes was a different story, with payouts from the accounts increasing for those higher up in the company.[114] Ironically, the CEO who got rich from his own company's lack of oversight blamed the scandal on the employees who were faced with unrealistic sales goals and wrongheaded financial incentives.[115]

After the scandal unfolded, Wells Fargo executives justified the rampant fraudulence by saying they had controls in place to avoid it

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LEGAL ANALYSIS 35, 38 (2014) (stating that shareholder value maximization "pushes managers hard to undermine regulation"); Donald C. Langevoort, *Cultures of Compliance*, 54 AM. CRIM. L. REV. 933, 949–50 (2017) (discussing "[s]elf-[s]erving [b]iases at [w]ork" in the form of an agent personally serving herself or seeking to benefit the firm).

109 *See What Kind of Bank Will Wells Fargo Be?*, ECONOMIST (Oct. 26, 2019), https://www.economist.com/finance-and-economics/2019/10/26/what-kind-of-bank-will-wells-fargo-be [https://perma.cc/XLX3-C4R3]; Gadinis & Miazad, *supra* note 39, at 2203 ("While Wells Fargo was one of the few major banks to have emerged from the financial crisis on a white horse, its currently unfolding fake account scandal reflects some of the darkest days in banking history.").

110 *See* Stacy Cowley, *Wells Fargo Review Finds 1.4 Million More Suspect Accounts*, N.Y. TIMES (Aug. 31, 2017), https://www.nytimes.com/2017/08/31/business/dealbook/wells-fargo-accounts.html [https://perma.cc/VCC2-KT56].

111 *See id.*; Michael Corkery & Stacy Cowley, *Wells Fargo Warned Workers Against Sham Accounts, but 'They Needed a Paycheck,'* N.Y. TIMES (Sept. 16, 2016), https://www.nytimes.com/2016/09/17/business/dealbook/wells-fargo-warned-workers-against-fake-accounts-but-they-needed-a-paycheck.html [https://perma.cc/G9GN-TRKD].

112 *See* Corkery & Cowley, *supra* note 111 ("The bank analyzed potentially questionable accounts and employee terminations from 2011 through much of 2015 and concluded that it had made progress in cleaning up its act. . . . In interviews, former employees say the fact that the behavior has continued to occur—even if less frequently—shows that the bank has not been doing enough to stop it.").

113 *See id.*

114 *See id.*

115 *See id.*

and that they are continuing to do more.[116] Left to implement and supervise their own compliance regimes, banks will formally put some controls in place and then leave lower level employees to exploit the system and in turn provide large payouts to the individuals at the top, who then shirk responsibility.[117] The method of using compliance controls as a façade to get away with malfeasance behind the scenes is not novel and is all too similar to the methods preceding the financial crisis.

IV. While Reg BI's Compliance Obligation Promotes Risk-Focused Supervision, SM&CR Promotes Accountability and Denotes Specific Conduct

By telling brokers to implement compliance systems that reasonably conform to its rules and regulations, the SEC is endorsing the deferential risk-focused supervision that was implemented in the years leading up to the financial crisis. Rather than checking to ensure large, complex financial conglomerates have sufficient compliance procedures in place to mitigate risk, regulators simply check to see that compliance systems exist.[118] If broker entities have systems and controls in place that a reasonable person would consider sufficient to address conflicts of interest, then the Compliance Obligation is satisfied.[119]

Compliance experts recognize that the wide grant of discretion to brokers is an area ripe for improvement.[120] In an attempt to close this gap and implement a more comprehensive system of compliance, the United Kingdom's Financial Conduct Authority ("FCA") has taken a different approach to regulatory oversight than the United States. Senior Management and Certification Regime ("SM&CR"), also known as the "Accountability Regime," is a regulatory regime emphasizing senior-level accountability and raising the standards for internal compliance within financial services firms and big banks.[121] Like Dodd-

116 *See id.*

117 *See, e.g.*, *id.*

118 *See* Wilmarth, *supra* note 32, at 213–14.

119 *See* Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318, 33,397–98 (July 12, 2019) (codified at 17 C.F.R. pt. 240).

120 *See* Wilmarth, *supra* note 21, at 964 ("Current regulatory policies—which rely on 'market discipline' and LCFIs' internal 'risk models'—are plainly inadequate to control the proclivities in universal banks toward destructive conflicts of interest and excessive risk-taking."); Gadinis & Miazad, *supra* note 39, at 2208 ("For those interested in boosting board accountability, this is a fertile ground for further intervention.").

121 *See* Fin. Conduct Auth., The Senior Managers and Certification Regime:

Frank and Reg BI, SM&CR is a response to the financial crisis caused by the same exploitation of conflicts of interest by brokers and their bosses in the United Kingdom.[122]

SM&CR contrasts from Reg BI in that its mandates for compliance are not permissive but prescriptive. By requiring tangible, traceable steps for senior managers—designated persons to hold accountable for malfeasance—SM&CR tells brokers and their associated entities *how* to comply, rather than to merely create a reasonable compliance system.[123] As the following Sections illustrate, this framework has many advantages.

A. Responsibility Placed at the Top

Comparable to Reg BI, SM&CR applies to brokers along with other financial actors such as asset managers and investment advisers.[124] The regime has different requirements for different "tiers" of regulated entities—"Limited," "Core," and "Enhanced."[125] Most regulated firms fall into the Core tier.[126] A firm falls into the Enhanced tier, and is subject to stricter requirements, if it manages assets of £50 billion or more.[127] LCFIs would fall into this category. The Limited tier is reserved for those who were formally authorized to be subject to a reduced set of requirements under the prior rule regarding compliance enforcement.[128]

GUIDE FOR FCA SOLO-REGULATED FIRMS 6 (2019), https://www.fca.org.uk/publication/policy/guide-for-fca-solo-regulated-firms.pdf [https://perma.cc/3VKT-7FFM].

122 *See* Wilmarth, *supra* note 21, at 1004; William Yonge & Matthew Howse, *New UK Regime to Strengthen Senior Management Accountability*, NAT'L L. REV. (Nov. 17, 2015), https://www.natlawreview.com/article/new-uk-regime-to-strengthen-senior-management-accountability [https://perma.cc/V6VW-NS9E]; *Senior Managers and Certification Regime (SMCR)*, GOODACRE, https://www.goodacreuk.com/smcr [https://perma.cc/7DAW-Q4RA].

123 Comparing the language used in SM&CR with Reg BI elucidates the stronger level of regulation within SM&CR. For example, the SM&CR guide lists out "*required* functions" that regulated firms *must* denote to *specific* executives, who *must* create a document describing those functions and their responsibility over them. FIN. CONDUCT AUTH., *supra* note 121, at 23–25 (emphasis added). In contrast, the SEC's final rule explanation used in Reg BI's Compliance Prong repeatedly uses suggestions for compliance, stating that it is "not mandating specific requirements pursuant to the Compliance Obligation." Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. at 33,397.

124 *See The UK's Expanded Senior Managers and Certification Regime: Key Issues and Action Plan for Brokers, Advisers and Asset Managers*, SHEARMAN & STERLING (July 8, 2019), https://www.shearman.com/perspectives/2019/07/the-uks-expanded-senior-managers-and-certification-regime-key-issues-and-action-plan [https://perma.cc/XLG5-M2WB].

125 *See id.*

126 *See id.*

127 *See id.*

128 *See id.*

As indicated from its name, SM&CR's main focus is on holding senior executives accountable for the misconduct of those they are required to supervise.[129] Its key obligations land on the senior managers responsible for implementing change in the firm—those who "are the most senior people in a firm with the greatest potential to cause harm or impact upon market integrity."[130] SM&CR enumerates roles, referred to as "Senior Management Functions" ("SMFs"), that qualify someone as a senior manager.[131] SMFs vary across tiers, and at least ten roles in Enhanced firms qualify individuals as senior managers.[132]

Another obligation includes "Prescribed Responsibilities," which require firms to designate senior managers with certain responsibilities, including, but not limited to, taking accountability for compliance with the regime, implementing "financial crime risk management procedures," and training and reporting on company compliance with those procedures.[133] These responsibilities are defined in a handbook that the FCA requires firms to give to its senior managers.[134]

SM&CR also requires firms to designate each business area to a senior manager to ensure that someone is accountable for compliance with necessary procedures.[135] These individuals must create "Statements of Responsibilities" ("SoRs"), which are documents that enumerate in detail every function they are responsible for within the firm.[136] Firms subject to the Enhanced requirements must create "Responsibilities Maps," which "give a collective view of the allocation of responsibilities across a firm" by mapping the structure of management and oversight.[137] Any individual who performs audit functions

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129 *See* Yonge & Howse, *supra* note 122 ("[T]he SMCR[] was designed to replace the current Approved Persons Regime (APR) and strengthen the regulation of individuals at the top of relevant firms.").

130 FIN. CONDUCT AUTH., *supra* note 121, at 13.

131 *Id.* at 18–19 (enumerating SMFs for Core firms); *id.* at 21–22 (enumerating SMFs for Limited Scope firms); *id.* at 23–25 (enumerating SMFs for Enhanced firms).

132 *See id.* at 23–25 (enumerating the roles, including being a chair of any governing body or having oversight capabilities).

133 *See The UK's Expanded Senior Managers and Certification Regime: Key Issues and Action Plan for Brokers, Advisers and Asset Managers*, *supra* note 124.

134 FIN. CONDUCT AUTH., *supra* note 121, at 16.

135 *See* Barnabas Reynolds & Reena Agrawal Sahni, *Individual Accountability: Sr. Managers & Beyond*, CLEARING HOUSE: BANK POL'Y INST., https://www.theclearinghouse.org/banking-perspectives/2015/2015-q4-banking-perspectives/articles/individual-accountability-uk-us [https://perma.cc/334R-TJWK].

136 *Id.*

137 FIN. CONDUCT AUTH., *supra* note 121, at 26–27.

must be independent from individuals involved in the performance of services.[138]

Finally, every senior manager must have a "Duty of Responsibility."[139] In the event that an agent of the regulated entity breaches any FCA requirement, the senior manager who is predetermined to be responsible for the activity causing this breach will "be held accountable if they didn't take reasonable steps to prevent or stop the breach."[140] This contrasts with section 15(b)(4)(e) of the Exchange Act, which allows an affirmative defense of having a reasonable system in place, thus creating the opportunity for a manager to use a façade of compliance to skirt liability.[141] SM&CR does not allow the existence of a "reasonable system" to bar liability.[142] Senior managers have a statutory duty of responsibility and will be held liable if the FCA can show they did not take specific steps to prevent a specific breach for which that person is already responsible.[143]

B. The Active Role of Regulators

Another key aspect of SM&CR is its emphasis on certification by the FCA. The regime calls for frequent communication between the FCA and senior managers. Individuals in senior manager roles must be approved by the FCA before assuming any responsibilities over the firm.[144] When applying for their senior manager role, individuals must submit SoRs to the FCA.[145] They must keep SoRs up to date and resubmit them when there is a "significant change" in their responsibilities.[146]

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138 *Id.* at 25.

139 *Id.* at 14.

140 *Id.* The handbook also states:

> The burden of proof lies with the FCA to show that the Senior Manager didn't take the steps a person in their position could reasonably be expected to take to avoid the firm's breach occurring.
>
> . . .
>
> Sometimes it will be appropriate to take action against a Senior Manager, sometimes against a firm, and sometimes against both. These decisions will be made on a case by case basis . . . .

Id.

141 *See* 15 U.S.C. § 78o(b)(4)(E).

142 *See* FIN. CONDUCT AUTH., *supra* note 121, at 14.

143 *See id.*; Reynolds & Sahni, *supra* note 135.

144 *See The UK's Expanded Senior Managers and Certification Regime: Key Issues and Action Plan for Brokers, Advisers and Asset Managers*, *supra* note 124; FIN. CONDUCT AUTH., *supra* note 121, at 13.

145 FIN. CONDUCT AUTH., *supra* note 121, at 14.

146 *Id.*

SM&CR also has "fitness and propriety" requirements, which mandate firms assess whether staff in key roles are fit and proper to maintain their roles.[147] These apply to senior managers as well as those in "Certification Function[s]," which are functions "performed by employees who could pose a risk of significant harm to the firm or its customers," but who do not need to be approved by the FCA.[148] The fit and proper test requires firms to perform criminal record and disciplinary checks, acquire references, and judge personal characteristics such as integrity, reputation, and competence.[149] These checks must be done annually.[150]

The FCA's active role in firm compliance ensures that it is always apprised of who is making decisions that have the potential to affect the wellbeing of the economy. The intent behind these comprehensive checks is to catch mistakes before they result in severe damage to consumers and the financial system.[151] With its emphasis on individuals in influential roles that impact the culture of the entire firm, SM&CR has the capability to prevent another national financial crisis. The SEC should issue an amendment to the Reg BI Compliance Obligation, incorporating these more specific and prescriptive compliance mandates.

V. Implementation: Prevention as an Alternative to Crisis Management

Some of the factors contributing to the financial crisis are equally as present today as they were in the early 2000s. LCFIs still hold vast amounts of financial assets and consolidate lending and securitization activities, as seen by the recent merger of Morgan Stanley, one of Wall Street's biggest names, and E*Trade, the online trading platform.[152]

147 *Id.* at 40 ("A key feature of the SM&CR is to reinforce that firms need to take responsibility for their staff being fit and proper to do their jobs.").

148 *Id.* at 10.

149 *Id.* at 40–41. For a list of the fit and proper requirements for each role, see *id.* at 43.

150 *Id.* at 40.

151 *See id.* at 6.

152 *See* Michael J. de la Merced, Kate Kelly & Emily Flitter, *Morgan Stanley to Buy E-Trade, Linking Wall Street and Main Street*, N.Y. Times (June 16, 2020), https://www.nytimes.com/2020/02/20/business/morgan-stanley-etrade.html [https://perma.cc/6W22-H4W7]; *Why Morgan Stanley Wants to Buy E*Trade*, Economist (Feb. 20, 2020), https://www.economist.com/finance-and-economics/2020/02/20/why-morgan-stanley-wants-to-buy-etrade?utm_campaign=the-economist-today&utm_medium=newsletter&utm_source=salesforce-marketing-cloud&utm_term=2020-02-20&utm_content=article-image-1 [https://perma.cc/YM57-E6RX]. This is not a novel merger. In November of 2019, investment bank Charles Schwab announced plans to acquire online broker TD Ameritrade. *See Charles Schwab Agrees to Buy TD Ameritrade for $26bn*, Economist (Nov. 25, 2019), https://www.economist.com/fi-

This is notably "the biggest takeover by a major American lender since the 2008 global financial crisis."[153] LCFIs' persistent participation in both lending and securitizing activities means that the inherent conflicts of interest and originate-to-distribute model still operate within our economy.[154]

Considering the similarities between the current situation and the situation preceding the 2007–2009 financial crisis, it is urgent for the SEC to take action immediately. Section V.A discusses how the SEC should implement SM&CR, and Sections V.B and V.C apply its requirements to Senior Management failures enabled by the current regulatory regime.

A. The SEC Should Amend Reg BI's Compliance Obligation to Reflect the SM&CR Compliance Requirements

The SEC's fundamental role is to protect investors and ensure the integrity of financial markets.[155] It has the authority to regulate the compliance of brokers via Dodd-Frank, which granted it rulemaking power.[156] Indeed, amending Reg BI would take another period of notice and comment. However, the vast number of comments critical of the initial Reg BI proposal and the SEC's lack of implementing meaningful changes in response have laid the groundwork of exemplifying what improvements must be made. For example, Better Markets, a sophisticated independent public interest group founded in the wake of the financial crisis, stressed that the compliance mandate leaves too much discretion with brokers, called for substantive requirements, and pointed out the flaws in the SEC's economic analysis.[157] Thus, the amendment period should not take as long as the original implemen-

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nance-and-economics/2019/11/25/charles-schwab-agrees-to-buy-td-ameritrade-for-26bn?utm_campaign=the-economist-today&utm_medium=newsletter&utm_source=salesforce-marketing-cloud&utm_term=2020-02-20&utm_content=related-stories-1 [https://perma.cc/65LN-W35X].

153 de la Merced et al., *supra* note 152.

154 Furthermore, the securitization of debt payments has now taken hold in another form: college loans, known as Student Loan Asset-Backed Securities. *See* Eric Reed, *Should You Invest in Student Loan Asset-Backed Securities?*, THESTREET (May 20, 2017, 1:20 PM), https://www.thestreet.com/personal-finance/should-you-invest-in-student-loan-asset-backed-securities-14142296 [https://perma.cc/EV8H-DBS6]. For an example of an interesting way Lambda School is using this concept, see Levine, *supra* note 68.

155 *What We Do*, U.S. SEC. & EXCH. COMM'N (Dec. 18, 2020), https://www.sec.gov/Article/whatwedo.html [https://perma.cc/CNE9-6KBQ].

156 *See* Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, Pub. L. No. 111-203, § 209, 124 Stat. 1376, 1460 (codified as amended in scattered sections of U.S.C.).

157 *See* Better Markets, *supra* note 102, at 20–27.

tation for the rule, as the studies and comments naturally point toward more stringent compliance mandates.

Furthermore, one of the issues with Reg BI's compliance prong is that it is permissive, listing out recommended compliance strategies without mandating that brokers implement them.[158] Some of the recommended strategies are comparable to those required by SM&CR, such as "periodic review and testing" and "training."[159] Accordingly, some of the changes to Reg BI could be a matter of replacing recommendations as requirements.

B. Placing Compliance Responsibility on Senior Managers Will Influence the Cultures They Create

Wells Fargo shows that, even after Dodd-Frank tried to implement sweeping reform, management is not doing what it should to address issues with internal compliance.[160] This is because management is only required to implement a reasonable system and does not have to take responsibility when it fails.[161] When regulation does not focus on individuals in key roles, executives and managers are able to create company cultures that favor profit over compliance while hiding behind a veil of ignorance and pointing to systems that are reasonably designed.

SM&CR responds to this accountability problem by placing responsibility and accountability on senior managers, those who have the most power to cause harm as well as mitigate it.[162] By prescribing compliance responsibilities to senior managers and requiring them to write out SoRs to show that they understand their personal duties, SM&CR requires senior managers to take an active role in compliance.[163] This realigns executives' responsibilities and shows that company culture can be a balance between profits and compliance, rather than a trade-off.

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158 *See* Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318, 33,397 (July 12, 2019) (codified at 17 C.F.R. pt. 240).

159 *See id.* at 33,386 n.688.

160 *See* William D. Cohan, *Wells Fargo Scandal May Be Sign of a Poisonous Culture*, N.Y. TIMES (Sept. 16, 2016), https://www.nytimes.com/2016/09/17/business/dealbook/wells-fargo-scandal-may-be-sign-of-a-poisonous-culture.html [https://perma.cc/P84C-VAXV].

161 *See supra* text accompanying notes 116–17.

162 *See* FIN. CONDUCT AUTH., *supra* note 121, at 13.

163 *See id.*; *The UK's Expanded Senior Managers and Certification Regime: Key Issues and Action Plan for Brokers, Advisers and Asset Managers*, *supra* note 124.

Furthermore, when there is a breach, there is a specific manager who will be required to answer for it.[164] SM&CR shifts the liability inquiry from reasonableness of a general system, with no prescribed controls or responsible individuals, to reasonableness of a senior manager's actions in response to acts of noncompliance and adherence with explicit mandates.[165] For example, regulators would assess the fact that Wells Fargo senior managers created a culture that rewarded brokers who opened more accounts and set unrealistic sales goals, despite the existence of a formal compliance system that may satisfy standards of reasonableness.[166] The inquiry would also focus on whether the required Senior Management functions and responsibilities were followed by the individual in question.[167] This focus would ensure that senior managers do not blame lower-level employees or claim ignorance over the regulated activities, which must be well-documented and submitted to regulators.

If an individual is influential enough in an organization to affect its culture, then she should have accountability regarding its compliance. SM&CR places these duties on those individuals and would disallow executives like O'Neal of Merrill Lynch and Prince of Citigroup to claim they were held accountable while simultaneously pocketing millions.[168] Furthermore, SM&CR gives the public what it asked for in response to the last crisis—executive accountability.[169] The regime's certification requirements will transform the current regulatory strategy from deferential and post hoc to engaging and preventive.

C. SM&CR Certifications Will Keep Regulators Apprised of Malfeasance

After the Wells Fargo scandal erupted into the public arena, the board of directors began an effort to bulk up its compliance department, adding over 5,200 compliance employees.[170] This is similar to JP Morgan Chase's addition of 5,000 employees after the financial crisis.[171] The familiar approach of management taking compliance seri-

164 *See* FIN. CONDUCT AUTH., *supra* note 121, at 14.

165 *See id.* ("When deciding whether to take action against someone . . . [FCA] will look at all the circumstances of the case. This includes the seriousness of the breach, the person's position, responsibilities, and the need to use enforcement powers effectively and proportionately.").

166 *See supra* Section III.A.

167 *See* FIN. CONDUCT AUTH., *supra* note 121, at 14.

168 *See supra* note 78.

169 *See supra* notes 78–79 and accompanying text.

170 Gadinis & Miazad, *supra* note 39, at 2206.

171 Langley & Fitzpatrick, *supra* note 15.

ously only after grave financial harms have ensued is inefficient and expensive.[172] The SM&CR offers a solution to this problem by ensuring that the SEC take an active role in firm compliance, rather than engage in the deferential risk-focused supervision that preceded the previous financial crisis.

By requiring senior managers to implement specific formal frameworks and prove the existence of these frameworks to regulators, SM&CR responds to the issue of letting misconduct go on for years without detection and elimination. Pre-approval of individuals in senior manager roles and submissions of SoRs to the SEC will facilitate its supervision over big economic actors and keep the SEC apprised of any changes or problematic conflicts of interest.[173]

For example, SM&CR's requirement that individuals responsible for the auditing and compliance functions be independent from those in other senior manager functions operates to ensure that undue influence does not bleed between roles.[174] Applying this to the U.S. framework, senior managers would be required to document and submit their duties to the SEC, proving that every function is accounted for and there are no problematic overlaps in responsibilities.[175] At LCFIs, this would be in combination with Responsibilities Maps, so regulators would know who is responsible for what at each major bank.[176] Internally, firm compliance teams would already know about problematic conflicts because they must reassess these employees every year for fitness and propriety.[177]

The enhanced awareness that SM&CR requires would help prevent another situation like that of Citigroup, in which the senior risk officer and the head of mortgage-related securities were known friends and influenced each other in ways diametrical to the interests of investors.[178] As a result, traders knew they could get any deal through if their superior simply spoke to the risk officer on a friendly basis.[179] If the individuals in these integral roles were subject to specific compliance obligations mandating independence and certification by the SEC, this problem could have been avoided, and millions in investor money saved.

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172 *See* Better Markets, *supra* note 102, at 18.

173 *See* FIN. CONDUCT AUTH., *supra* note 121, at 13–14.

174 *See id.* at 25.

175 *See id.* at 13–14.

176 *See id.* at 26–27.

177 *See id.* at 40.

178 *See supra* text accompanying notes 69–73.

179 *See* Dash & Creswell, *supra* note 71.

Some critics will argue that this is too inefficient and costly for the SEC to implement and supervise. SM&CR, however, would actually prove that the certifications are more efficient for the SEC because it harmonizes the compliance requirements that regulators assess when determining liability.[180] If firms do not have discretion in how to comply, there will be less variance in their compliance regimes,[181] standards will be more or less uniform across the board, and accountable individuals will be easily identifiable.[182] This should ease the burden on regulators, who will look for the same compliance indicators in like firms and already be apprised of who the actors are.[183] Furthermore, SM&CR's implementation of more uniform standards of conduct accomplishes a goal of Dodd-Frank, which was to "focus on whether any harmonization would facilitate the examination and oversight" of the regulated entities.[184]

SM&CR does not call for absolute harmonization, as the requirements depend on which tier a firm falls into.[185] Yet, this scaled-for-size feature of SM&CR directly responds to attempted justifications for the SEC's weak compliance prong.[186]

D. Business Model Concerns

The SEC's biggest justification for not requiring specific steps in compliance programs is that weaker mandates are necessary in order to allow brokers to "have flexibility to tailor policies and procedures to their specific business models."[187] Rather than make an effort to

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180 *See* FIN. CONDUCT AUTH., EXTENDING THE SENIOR MANAGERS & CERTIFICATION REGIME TO FCA FIRMS—FEEDBACK TO CP17/25 AND CP17/40, AND NEAR-FINAL RULES 50 (2018), https://www.fca.org.uk/publication/policy/ps18-14.pdf [https://perma.cc/DP6W-92D2]; DELOITTE, SENIOR MANAGERS REGIME: INDIVIDUAL ACCOUNTABILITY AND REASONABLE STEPS 5 (2016), https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/financial-services/deloitte-uk-senior-manager-regime.pdf [https://perma.cc/QM4Y-8SZR].

181 *See* DELOITTE, *supra* note 180, at 5; *cf.* Better Markets, *supra* note 102, at 24 (discussing that a uniform fiduciary standard for brokers and investment advisers would "promote regulatory efficiency" and "streamlin[e] compliance").

182 *See* FIN. CONDUCT AUTH., *supra* note 180, at 50; DELOITTE, *supra* note 180, at 5.

183 *See* DELOITTE, *supra* note 180, at 5 ("The increased focus on individual accountability will therefore move the regulators away from the time-consuming task of having to determine who is accountable for what, to a position of determining whether the individual(s) responsible took reasonable steps . . . ."). This also addresses a concern that commenters expressed in response to Reg BI's proposal, which was that it did not provide regulators a means with which to assess compliance. *See supra* Section II.B.

184 U.S. SEC. & EXCH. COMM'N, *supra* note 85, at 136.

185 *See The UK's Expanded Senior Managers and Certification Regime: Key Issues and Action Plan for Brokers, Advisers and Asset Managers*, *supra* note 124.

186 *See supra* Section II.B.

187 Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. 33,318,

create specifications appropriate for those it is tasked with regulating, the SEC effectively threw up its hands and went with the weakest approach. In contrast, SM&CR directly responds to this problem in the form of its three-tiered system, which imposes different requirements for differently sized firms.[188] For example, the Enhanced firms are those with more time and resources to accomplish the tasks assigned to them, such as drafting and submitting Responsibilities Maps to the FCA.

In the United States, the Enhanced firms would be the LCFIs whose mergers and consolidations enable them to concentrate the vast amount of assets within their own entities.[189] This seems entirely appropriate, as their concentration also subjects the financial market to systemic risk.[190] Furthermore, SM&CR's scaling would accomplish in part what Dodd-Frank originally asked the SEC to do: The Section 913 Study suggested the SEC consider scaling the specific supervisory requirements based on the size of the brokerage firm.[191]

CONCLUSION

Although financial markets have become increasingly robust and complex, the securities laws regulating them have lagged behind. LCFIs still dominate the financial industry and engage in the same risky lending strategies that preceded the 2007–2009 financial crisis. The SEC failed to protect financial consumers from these risks in its recent promulgation of Reg BI. Specifically, the compliance prong

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33,385 (July 12, 2019) (codified at 17 C.F.R. pt. 240). This argument was also used by executives who bemoaned the cost of complying with Sarbanes-Oxley. *See* Glater, *supra* note 15; *supra* note 58 and accompanying text. A related argument is that stricter mandates may cause brokers to pass compliance costs onto retail consumers. *See* Regulation Best Interest: The Broker-Dealer Standard of Conduct, 84 Fed. Reg. at 33,385; Guernsey, *supra* note 38, at 1031. The only costs that are saved, however, are in the beginning, with more payments coming later in the form of crisis management, investor harm, and investigation and enforcement by the SEC and other regulatory entities. *See* Better Markets, *supra* note 102, at 18 ("[I]t is inconceivable that the benefits to brokers of this approach would outweigh the costs to investors that will inevitably follow from such a weak solution to the problem of conflicts of interest.").

188 *See The UK's Expanded Senior Managers and Certification Regime: Key Issues and Action Plan for Brokers, Advisers and Asset Managers*, *supra* note 124.

189 *See supra* Section IV.A.

190 *See* Wilmarth, *supra* note 21, at 994.

191 U.S. SEC. & EXCH. COMM'N, *supra* note 85, at 135 ("In reviewing these requirements, the Commission could consider whether a single set of universally applicable requirements would be appropriate. Alternatively, the Commission could consider whether supervisory structure requirements should be scaled based on the size (*e.g.*, number of employees) and nature of a broker-dealer or an investment adviser.").

does not add any additional protection than the vague compliance standards in securities laws preceding it.

The United Kingdom's SM&CR assures that compliance systems are not just reasonable, but also effective as they have to meet obligations set out by regulators, rather than by conflicted financial actors. This regime is stronger than Reg BI because it is focused on senior manager accountability and prevention of investor harm, rather than crisis management. By amending Reg BI's Compliance Obligation to reflect these characteristics, the SEC can fulfill its role as a protector of investors, not of the broker business model.

NOTE

I Just Took a DNA Test, Turns Out My Relative's a Murder Suspect: Restoring Fourth Amendment Balance to Direct-to-Consumer DNA Testing Companies

*Alexis B. Hill**

ABSTRACT

Direct-to-consumer DNA testing companies ("DTC companies") are the latest biotechnological boom. Millions of Americans in the last few years have voluntarily submitted their DNA for analysis to investigate their genetic history and locate distant relatives. These consumers, however, did not know that by submitting their DNA to DTC companies they also gave law enforcement access to their entire family's DNA. With this new expansive and comprehensive tool, police are now able to identify millions of Americans—and the number continues to grow. After the U.S. Supreme Court's latest inclination to strengthen Fourth Amendment protections of highly personal information, the Constitution likely also governs law enforcement's access to this data. But Fourth Amendment jurisprudence, federal and state legislation, and DTC company privacy policies provide inadequate protection. As a result, there is

* J.D., 2021, The George Washington University Law School; B.A., 2017, Duke University. Many thanks to Professor Kate Weisburd for not only the inspiration for this topic but also her thoughtful guidance and expertise on the Fourth Amendment jurisprudence featured in this Note, and to Professor Derek Lawlor and Brenna Fischer for their advice throughout the note-writing process. I also thank my family, who taught me curiosity, diligence, and the importance of fairness, and Michael Pronin, who has remained a steadfast sounding board and support system every step of the way. Finally, special thanks to the entire Editorial Board of *The George Washington Law Review* for their tireless work on this entire volume.

an imbalance that leaves law enforcement with unfettered access to genetic information at the expense of privacy interests.

To restore balance under the Fourth Amendment, legislators should apply the principle of informed consent to this context by requiring DTC companies to include an explicit option for consumers to opt out of law enforcement access that details the consequences of remaining in the law enforcement pool. Then, if consumers give consent, law enforcement may access this pool of DNA and lawfully use any information derived from it against suspects according to third-party consent doctrine. With valid consent to search such private information, this solution will ensure that law enforcement retains access to an important crime-solving tool without sacrificing privacy interests.

Table of Contents

Introduction

If you have not used a commercial DNA analysis kit, chances are you know someone who has. Researchers estimate that 26 million

people have submitted their DNA to direct-to-consumer DNA testing companies ("DTC companies") using these kits.[1] And this number continues to grow.[2] Researchers estimate that DNA databases can currently identify sixty percent of Americans of European ancestry from DNA.[3] In only a few years, studies project that that number will increase to ninety percent.[4] Some scientists even project that researchers will be able to identify *every* Anglo-Saxon American.[5] Soon every individual is likely to have some relational connection to a major DTC company database,[6] making these databases useful for researching family history. It also makes them useful for crime solving.

In fact, DTC companies now play a major role in crime solving. In 2018, Sacramento authorities apprehended the infamous Golden State Killer, a serial killer and rapist accused of killing twelve people and raping fifty women in the 1970s and 1980s.[7] Their secret weapon: GEDmatch, an open-source database designed to help individuals

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1 Jason Tashea, *Genealogy Sites Give Law Enforcement a New DNA Sleuthing Tool, But the Battle Over Privacy Looms*, ABA J. (Nov. 1, 2019, 4:20 AM), http://www.abajournal.com/magazine/article/family-tree-genealogy-sites-arm-law-enforcement-with-a-new-branch-of-dna-sleuthing-but-the-battle-over-privacy-looms [https://perma.cc/7Q5Q-ASTZ].

2 Press Release, BCC Research LLC, Human Identification Market to See 14.3% Annual Growth Through 2024 (Sept. 24, 2019), https://www.bccresearch.com/pressroom/bio/human-identification-market-to-see-143-annual-growth-through-2024 [https://perma.cc/9YAA-3VTS].

3 Tashea, *supra* note 1.

4 Elizabeth Joh, *Want to See My Genes? Get a Warrant*, N.Y. TIMES (June 11, 2019), https://www.nytimes.com/2019/06/11/opinion/police-dna-warrant.html [https://perma.cc/Y6AU-S5LE].

5 Paige St. John, *DNA Genealogical Databases Are a Gold Mine for Police, but with Few Rules and Little Transparency*, L.A. TIMES (Nov. 24, 2019, 5:00 AM), https://www.latimes.com/california/story/2019-11-24/law-enforcement-dna-crime-cases-privacy [https://perma.cc/8NE6-TXGZ]. It is impossible to ignore the racial underpinnings of this statistic. While DTC company databases are designed and used primarily by individuals of European descent, *see* Joh, *supra* note 4, CODIS—the FBI's national forensic database system—comparatively houses genetic information disproportionately from Black communities. *See* Erin Murphy & Jun H. Tong, *The Racial Composition of Forensic DNA Databases*, 108 CALIF. L. REV. 1847, 1894–95 (2020). The racial implications of DTC database searches are closely tied to the debate about universal DNA databases. *See id.* at 1909 (summarizing the debate about race and universal DNA databases for police access). Though the racial implications of DTC searches are certainly an important consideration in the context of law enforcement, particularly for eliminating racial bias in policing, it is beyond the scope of this Note.

6 *Cf.* Kashmir Hill & Heather Murphy, *Your DNA Profile is Private? A Florida Judge Just Said Otherwise*, N.Y. TIMES (Dec. 30, 2019), https://www.nytimes.com/2019/11/05/business/dna-database-search-warrant.html?auth=login-email&login=email [https://perma.cc/RQ9N-BYDV].

7 Keith Allen, Jason Hanna & Cheri Mossburg, *Police Used Free Genealogy Database to Track Golden State Killer Suspect, Investigator Says*, CNN (Apr. 27, 2018, 2:25 PM), https://www.cnn.com/2018/04/26/us/golden-state-killer-dna-report/index.html [https://perma.cc/P8AQ-C2F7].

find genetic relatives by contributing information from other DTC companies.[8] After the success of the Golden State Killer case, police nationwide have solved dozens of other cold cases using DTC company databases.[9] Police are also turning to these databases to solve less serious and more recent crimes.[10] In 2019, police even saw their first DTC database-driven conviction.[11]

In the wake of this phenomenon, however, consumers are growing concerned about their privacy, fearing the possibility of an impending surveillance state.[12] With the exception of an interim policy issued by the Department of Justice ("DOJ") in late 2019,[13] DTC company database searches operate in the Wild West, with very little oversight over police behavior.[14] Moreover, current Fourth Amendment jurisprudence, federal and state legislation, and internal privacy policies do little to help protect consumers' privacy.[15] Given that DTC companies will soon be able to identify the vast majority of the American population, it will not be long before police have the unfettered

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8 George M. Dery III, *Can a Distant Relative Allow the Government Access to Your DNA?*, 10 HASTINGS SCI. & TECH. L.J. 103, 112 (2019).

9 *See, e.g.*, Robert Gearty, *Washington State Teen's Cold Case Murder Cracked After Nearly Three Decades*, FOX NEWS (Oct. 4, 2019), https://www.foxnews.com/us/washington-state-teens-cold-case-murder [https://perma.cc/R7A3-8S24]; Taylor Stevens, *Clearfield Police Arrest Alleged Serial Rapist with the Use of a DNA Database*, SALT LAKE TRIB. (Sept. 26, 2019), https://www.sltrib.com/news/2019/09/26/clearfield-police-arrest/ [https://perma.cc/AW5R-28UG]; Tashea, *supra* note 1.

10 *See* Hill & Murphy, *supra* note 6. For example, in Clearfield, Utah, Mark Douglas Burns was charged with multiple counts of aggravated sexual assault, aggravated kidnapping, aggravated burglary, and aggravated robbery all based on an investigation through GEDmatch. Stevens, *supra* note 9.

11 *SeaTac Man Convicted of 1987 Murders of Canadian Couple After DNA Evidence Linked Him to Case*, SEATTLE TIMES (June 28, 2019, 3:58 PM), https://www.seattletimes.com/seattle-news/crime/seatac-man-convicted-of-1987-murders-of-canadian-couple-after-dna-evidence-linked-him-to-case/ [https://perma.cc/469V-C4SD] (reporting conviction of a man from Washington that arose out of Snohomish County detective using GEDmatch to locate Talbott based on DNA information from two unrelated second cases).

12 *See, e.g.*, Jon Schuppe, *'They Lied to Us': Mom Says Police Deceived Her to Get Her DNA and Charge Her Son with Murder*, NBC NEWS (Feb. 22, 2020, 4:00 PM), https://www.nbcnews.com/news/us-news/they-lied-us-mom-says-police-deceived-her-get-her-n1140696 [https://perma.cc/65HS-D3N4] (reporting that parents were outraged that police had used their DNA to build a case against their son with genetic analysis).

13 U.S. DEP'T OF JUST., INTERIM POLICY: FORENSIC GENETIC GENEALOGICAL DNA ANALYSIS AND SEARCHING 1–2 (2019) [hereinafter DOJ INTERIM POLICY], https://www.justice.gov/olp/page/file/1204386/download [https://perma.cc/6U9M-22J7].

14 St. John, *supra* note 5.

15 *See infra* Sections I.B–.D.

ability to investigate millions of individuals' personal biological data without their knowledge.[16]

The Fourth Amendment[17] should protect individuals' privacy interests in their DNA from undue invasion by law enforcement.[18] The Fourth Amendment generally seeks to balance law enforcement's interests in crime solving with the public's interest in maintaining privacy.[19] In light of a recent U.S. Supreme Court ruling that suggests that the Court is inclined to protect information shared with third parties if it is highly personal and deeply revealing,[20] it is likely that DNA—highly personal and deeply revealing biological information—is governed by the Fourth Amendment, and therefore, DTC company database searches should reflect this balance.[21] Today's status of police searches of commercial DNA databases, however, is tilted significantly in favor of law enforcement, with little to no protections for personal privacy.[22]

This Note provides a solution to restore the balance. Federal and state legislators should import informed consent principles from the medical context into this Fourth Amendment inquiry by requiring DTC companies to include an explicit option at the outset for consumers who provide DNA to DTC companies[23] to remove their DNA information from law enforcement access. Specifically, this option should notify consumers of the ramifications of their choice before asking if they would like to remain in this pool. Consumers will encounter a separate webpage when signing up for the service that informs a consumer that her DNA may be used against herself or her close and distant family in a criminal investigation, but that she can withdraw from the law enforcement pool at any time after subscription. In doing so, legislators can ensure that police only access the profiles of those who have knowingly agreed to such surveillance, leaving the public who want to protect their personal biological data

16 *See* St. John, *supra* note 5.

17 U.S. CONST. amend. IV.

18 *See* Katz v. United States, 389 U.S. 347, 351 (1967) (holding that the Fourth Amendment protects an individual's reasonable expectation of privacy).

19 *See* Maryland v. King, 569 U.S. 435, 448 (2013) (explaining that a court must weigh "'the promotion of legitimate governmental interests' against 'the degree to which [the search] intrudes upon an individual's privacy'" (alteration in original) (quoting Wyoming v. Houghton, 526 U.S. 295, 300 (1999))).

20 *See* Carpenter v. United States, 138 S. Ct. 2206 (2018).

21 *See infra* Section I.B.

22 *See infra* Sections I.B–.D.

23 Throughout, this Note refers to individuals who purchase the DNA testing kits and provide their DNA to DTC companies as "consumers."

out of reach while ensuring that law enforcement still have access to this helpful tool. Law enforcement may then access this limited pool of DNA to investigate a suspect because under third-party consent principles, a suspect and consumer share common authority over the shared portion of their DNA, thus allowing a consumer to consent to a DNA search against the suspect. By adopting this two-layer solution combining and applying informed consent and third-party consent principles, legislators can ensure they are balancing privacy interests against law enforcement interests with legal doctrines that appropriately capture DNA's shared and biological nature.

Part I summarizes the legal issues surrounding DNA and law enforcement access to consumers' DNA. Part I explains that DNA is highly personal in nature and law enforcement intrudes more deeply into this personal information when they use DTC companies than when they use government-sponsored DNA analysis such as CODIS. Part I then continues to discuss how Fourth Amendment jurisprudence, federal and state legislation, and internal privacy policies do little to restrain this greater intrusion into such private data, leading to an imbalance under the Fourth Amendment that favors law enforcement. Part II addresses how consent can easily remedy Fourth Amendment imbalances like this one and examines different forms of legal consent. Part II then contrasts the flexible standards of consent in the Fourth Amendment context and the digital sphere with the heightened standard in the medical context—informed consent—noting that this heightened standard serves as better protection of bodily privacy interests. Part III advocates that federal and state legislators apply informed consent requirements by obligating DTC companies to notify consumers of the consequences associated with remaining in a pool that law enforcement can access before soliciting the consumers' affirmative consent. Law enforcement can then use this consent against suspects pursuant to third-party consent because consumers and suspects have common authority to consent to searches of shared portions of their DNA against the other. Part III concludes by explaining the logical justifications for this solution and addresses counterarguments related to contracts of adhesion, scope, and sufficient common authority.

I. DNA AND THE LAW

Deoxyribonucleic acid ("DNA") reveals a host of very personal genetic information.[24] Simultaneously, DNA testing has the "unparalleled ability . . . to identify the guilty . . . [and] the potential to significantly improve both the criminal justice system and police investigative practices."[25] As a result, police have every incentive to tap into this technology.[26] Police intrusions into such private information, however, pose particular legal questions, especially when police access private information through DTC company databases.[27] This Part details how law enforcement has taken advantage of the wealth of information that DNA holds, and how current Fourth Amendment jurisprudence, state and federal legislation, and internal privacy policies fail to protect against these privacy intrusions.

A. Crime Solving with DNA

DNA contains a wealth of information about a person, "hold[ing] the secret to such personal details as one's Neanderthal ancestry, the potential for afflictions with rare diseases, and paternity."[28] Each individual also shares significant portions of their DNA with other closely related individuals in their family,[29] making DNA a key to information about other people in her family as well as herself.

Federal and state governments have capitalized on DNA by establishing national and state databases to collect samples from any individual who interacts with law enforcement through arrest, charges, or conviction.[30] The national effort to support forensic DNA databases, commonly referred to as the Combined DNA Index System ("CODIS"), uses software to analyze DNA for full and partial

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24 *See* Maggie Fox, *What You're Giving Away with Those Home DNA Tests: It's the Most Valuable Thing You Own*, NBC NEWS (Nov. 29, 2017, 6:46 AM), https://www.nbcnews.com/health/health-news/what-you-re-giving-away-those-home-dna-tests-n824776 [https://perma.cc/S7JE-XWXN].

25 Dist. Att'y's Off. for the Third Jud. Dist. v. Osborne, 557 U.S. 52, 55 (2009).

26 *See* Claire Abrahamson, Note, *Guilt by Genetic Association: The Fourth Amendment and the Search of Private Genetic Databases by Law Enforcement*, 87 FORDHAM L. REV. 2539, 2546 (2019) (discussing the advantages and capabilities of using DNA testing technology in law enforcement).

27 Natalie Ram, Christi J. Guerrini & Amy L. McGuire, *Genealogy Databases and the Future of Criminal Investigation*, 360 SCI. 1078, 1078 (2018).

28 Dery, *supra* note 8, at 107.

29 Christine Guest, Comment, *DNA and Law Enforcement: How the Use of Open Source DNA Databases Violates Privacy Rights*, 68 AM. U. L. REV. 1015, 1022 (2019).

30 *See* Abrahamson, *supra* note 26, at 2546.

matches in an effort to identify culprits of other crimes.[31] CODIS compares between thirteen and twenty locations, called single-tandem repeat ("STR") markers, on regions of noncoding DNA to find a match between a sample obtained from a crime scene ("forensic sample") and one or more reference samples.[32] Noncoding DNA searches are inherently limited because they only reveal identity and do not reveal genetic traits.[33] The federal government does not explicitly authorize familial DNA testing, but police may conduct searches to return a *partial* match that indicates a biological relation by comparing suspect DNA profiles with offender DNA profiles.[34] As of January 2021, the National DNA Index ("NDIS") contained over 14 million DNA profiles of criminal offenders, over 4 million arrestees, and over 1 million forensic samples, giving law enforcement an immense and powerful tool to search for matches.[35]

Even with access to a tool as advantageous as CODIS, law enforcement has sought an alternative method of ferreting out crimes with DNA: DTC company databases. In exchange for saliva and a fee, consumers can send their DNA to DTC companies like 23andMe or FamilyTreeDNA, which will analyze their DNA and report back personal information such as distant biological relatives, genetic predispositions to certain health issues, or ancestry.[36] Law enforcement accesses a DTC company database, either by anonymously submitting forensic samples to the company[37] or by obtaining a warrant to access the company's database,[38] in the hopes of discovering full or partial matches to DNA that will generate a suspect unknown to CODIS.[39]

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31 *See id.*

32 DOJ INTERIM POLICY, *supra* note 13, at 2.

33 *See* Abrahamson, *supra* note 26, at 2547.

34 Guest, *supra* note 29, at 1027–28.

35 *CODIS - NDIS Statistics*, FBI, https://www.fbi.gov/services/laboratory/biometric-analysis/codis/ndis-statistics [https://perma.cc/JP5D-XZYV]. As of January 2021, CODIS has aided law enforcement in over half a million investigations, reflecting the power of DNA in helping to solve crimes. *Id.*

36 *See* Amy Dockser Marcus, *What Consumers Should Know About Commercial DNA Testing*, WALL ST. J. (Sept. 14, 2018, 3:13 PM), https://www.wsj.com/articles/what-consumers-should-know-about-commercial-dna-testing-1536952428 [https://perma.cc/SA5K-4QQD].

37 *See* Heather Murphy, *What You're Unwrapping When You Get a DNA Test for Christmas*, N.Y. TIMES (Dec. 23, 2019), https://www.nytimes.com/2019/12/22/science/dna-testing-kit-present.html [https://perma.cc/GBL7-9Q8M].

38 Hill & Murphy, *supra* note 6.

39 DTC testing is also a leading tool in exonerating wrongfully convicted individuals. *See* Mia Armstrong, *In an Apparent First, Genetic Genealogy Aids a Wrongful Conviction Case*, MARSHALL PROJECT (July 17, 2019, 4:45 PM), https://www.themarshallproject.org/2019/07/16/in-an-apparent-first-genetic-genealogy-aids-a-wrongful-conviction-case [https://perma.cc/3AC9-

As searches of DTC company databases increased, DOJ released a set of guidelines for how to properly conduct DTC company database searches in November 2019.[40] In doing so, DOJ set several limits on when and how law enforcement can use these methods,[41] effectively designating the use of DTC company databases as a last resort.[42]

Even with the presence of DOJ guidelines, there are still serious privacy implications. DTC companies' analysis of DNA differs from CODIS in two ways. First, DTC companies analyze thousands of DNA datapoints, dwarfing the forty datapoints analyzed in CODIS.[43] Second, unlike STR markers in CODIS, which only reveal identity, the single nucleotide polymorphisms ("SNPs")[44] that DTC companies analyze can reveal information about ancestry, genetic characteristics, race, and medical history.[45] DTC companies consequently analyze a much greater portion of DNA for personal information beyond mere identification, surpassing the invasion of privacy that CODIS presents.

DTC databases are also expected to increase in the years to come. Commercial DNA testing boomed in the last few years, rapidly expanding DTC companies' collections of DNA.[46] One study found that approximately sixty percent of those of European descent could be identified through DTC company databases.[47] In 2017 and 2018

5GJ8]; Catherine Arcabascio, *A Genetic Surveillance State: Are We One Buccal Swab Away From A Total Loss of Genetic Privacy?*, 63 How. L.J. 117, 143 (2020).

40 DOJ Interim Policy, *supra* note 13.

41 First, law enforcement can only analyze DNA obtained from crime scenes of unsolved violent crimes, sexual offenses, or other crimes threatening public safety. *Id.* at 4. Second, before submitting DNA for analysis, an investigative agency must have exhausted all other reasonable leads to solve the case and have the case reviewed and deemed suitable for uploading to a DTC database by both a prosecutor and designated official at a CODIS lab. *Id.* at 5–6. Third, law enforcement can only use any matches generated by the DTC database as an investigative lead after which they should use traditional genealogy research and investigative work to determine the true nature of any genetic relatives. *Id.* at 4.

42 There is room for argument that extending the use to offenses that are a threat to public safety gives law enforcement discretion to extend DNA database searches to a vast array of crimes. Jesse Schwab, *New DOJ Policy Gives Genealogy Website Users Weak Privacy Protections from Law Enforcement*, Harv. C.R.-C.L. L. Rev. Amicus Blog (Oct. 3, 2019), https://harvardcrcl.org/new-doj-policy-gives-genealogy-website-users-weak-privacy-protections-from-law-enforcement/ [https://perma.cc/G84D-XSRJ].

43 Guest, *supra* note 29, at 1030; Natalie Ram, *Genetic Privacy After* Carpenter, 105 Va. L. Rev. 1357, 1377–79 (2019).

44 SNPs are variations in DNA sequences at particular locations that "generate biological variation between people by causing differences" in protein generation in genes that influence a variety of genetic traits. *What Are SNPs?*, 23andMe, https://www.23andme.com/gen101/snps/ [https://perma.cc/8JZH-L8RX].

45 Guest, *supra* note 29, at 1023–24.

46 *See* Abrahamson, *supra* note 26, at 2548.

47 Guest, *supra* note 29, at 1034.

alone, 7.8 million individuals submitted their DNA to DTC companies.[48] Due to a growing public interest in genealogy, the DTC market will likely grow at a compound annual rate of 14.3% through 2024, resulting in a $83.9 billion industry.[49] With this growth, it is likely police will soon have access to a vast majority of Americans' DNA as long as they have access to DTC company databases.[50]

B. Fourth Amendment Protections of DNA

As law enforcement increasingly uses DTC companies to implicate the public, courts will have to address the constitutional limits of these searches. The Fourth Amendment[51] governs the constitutional limits of police action by protecting individual privacy from undue government invasion.[52] The Fourth Amendment attempts to balance the interests of law enforcement with an individual's interest in protecting her privacy.[53] This balancing, however, only arises if some police activity falls under the purview of the Fourth Amendment in the first place—that is, if the individual has a reasonable expectation of privacy in the item searched.[54] Under the *Katz* test,[55] the Fourth Amendment requires an individual to have both "an actual (subjective) expectation of privacy" in some item and an expectation of privacy "that society is prepared to recognize as 'reasonable.'"[56] The U.S. Supreme Court has yet to decide whether police analysis of consum-

48 Abrahamson, *supra* note 26, at 2548.

49 Press Release, BCC Research LLC, *supra* note 2.

50 *See* Guest, *supra* note 29, at 1035.

51 U.S. CONST. amend. IV.

52 Katz v. United States, 389 U.S. 347, 350 (1967) (explaining that the Fourth Amendment "protects individual privacy against certain kinds of governmental intrusion").

53 *See* Maryland v. King, 569 U.S. 435, 448 (2013) (explaining that a court must weigh "'the promotion of legitimate governmental interests' against 'the degree to which [the search] intrudes upon an individual's privacy'" (alteration in original) (quoting Wyoming v. Houghton, 526 U.S. 295, 300 (1999))).

54 *See Katz*, 389 U.S. at 351–52 ("What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected." (citations omitted)).

55 This test was derived from Justice Harlan's concurrence in *Katz*. *See* 389 U.S. at 361 (Harlan, J., concurring). The *Katz* test has been subsequently cited as the appropriate inquiry for whether Fourth Amendment protection applies. *See, e.g.*, Byrd v. United States, 138 S. Ct. 1518, 1526 (2018) ("[T]he test most often associated with legitimate expectations of privacy . . . was derived from the second Justice Harlan's concurrence in *Katz v. United States* . . . .").

56 *Katz*, 389 U.S. at 361 (Harlan, J., concurring). ("[T]here is a twofold requirement [to determine whether the Fourth Amendment protects some activity], first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.'").

ers' DNA is regulated by the Fourth Amendment.[57] Nevertheless, because the Court concluded that analysis of biological samples falls under the Fourth Amendment, and because the Court recently indicated a limitation on the third-party doctrine,[58] it is likely that police access to these DTC company databases is subject to the Fourth Amendment.

1. Chemical Analyses

Chemical analyses of biological samples fall under the Fourth Amendment's protection as established by the Supreme Court. In *Skinner v. Railway Labor Executives' Ass'n*,[59] the Court held that chemical analyses of urine are subject to the Fourth Amendment because they "can reveal a host of private medical facts about an [individual]."[60] The Court reaffirmed *Skinner* in *Ferguson v. City of Charleston*,[61] holding that urine tests conducted by hospital staff and sent to the police were "indisputably searches within the meaning of the Fourth Amendment."[62] Closer in kind to DNA, the Court held that blood tests are Fourth Amendment searches because they constitute intrusions into the human body.[63] Indeed, the Court recently suggested that this type of analysis was so personal that mere implied-consent laws were not enough to render the search reasonable.[64]

In *Maryland v. King*,[65] the Court relied on this chemical analysis precedent in finding that a buccal swab for DNA and subsequent

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57 *See* Guest, *supra* note 29, at 1038.

58 *See infra* Section I.B.2.

59 489 U.S. 602 (1989).

60 *Id.* at 616–17.

61 532 U.S. 67 (2001).

62 *Id.* at 76.

63 *See* Mitchell v. Wisconsin, 139 S. Ct. 2525, 2534 (2019) ("A blood draw is a search of the person . . . ."); Schmerber v. California, 384 U.S. 757, 767 (1966) (holding that blood tests "plainly constitute searches of 'persons'").

64 *See Mitchell*, 139 S. Ct. at 2533 ("[O]ur decisions have not rested on the idea that these laws do what their popular name might seem to suggest—that is, create actual consent to all the searches they authorize."). The Court did hold in *Mitchell* that blood draws in driving under the influence situations are almost per se reasonable under the exigent circumstances exception for the warrant requirement. *Id.* at 2531 (discussing that blood draws when drivers are unconscious and unable to give consent qualifies as an exigent circumstance, and are thus "almost always permi[ssible]"). Exigency, however, cannot apply to law enforcement access of DTC databases because there is no reason to believe that destruction of the DNA evidence is imminent given that it is stored long term. *See* Missouri v. McNeely, 569 U.S. 141, 148–49 (2013) (explaining that law enforcement can search without a warrant if they have a compelling need to conduct the search and no time to secure a warrant).

65 569 U.S. 435 (2013).

CODIS analysis was a search under the Fourth Amendment.[66] Even though the Court ultimately found the search reasonable, the Court noted the "revealing power of . . . DNA."[67] The only justifications for the reasonableness of these searches[68] were that the government had an overwhelming interest in safe and accurate identification of custodial arrestees,[69] the analyses were conducted purely for identification purposes,[70] and the overall expectation of privacy in arrestees was already diminished.[71]

Applying these doctrines, it is likely that courts will find DTC company database searches subject to the Fourth Amendment. Just like blood draws and urine analyses, analysis of DNA data is highly personal and invasive, which was acknowledged implicitly in *King*.[72] The reasons that saved the searches in *King* also do not apply to a database filled with DNA information of ordinary members of the public.[73] In a local jail, police need to accurately identify arrestees to ensure the safety of inmates, but in the broader public, there is no similar safety justification for searching through individuals' DNA.[74] Unlike arrestees, consumers are not in custody or detention and therefore do not already have a diminished expectation of privacy.[75] And unlike the analysis that is limited to identification used in CODIS, DTC company analysis inspects a much deeper and broader scope of genetic information.[76] *King* therefore strongly suggests that law enforcement investigations into the DNA of non-inmates intrude on consumers' reasonable expectation of privacy.[77]

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66 *Id.* at 446.

67 *Id.* at 459.

68 *Id.* at 446.

69 *Id.* at 449.

70 *Id.* at 464.

71 *Id.* at 462.

72 *See id.* at 446.

73 Ram, *supra* note 43, at 1385.

74 *Id.* at 1386; *cf. King*, 569 U.S. at 449 (finding the government's interest in ensuring the safety of their inmates through an accurate booking procedure was compelling).

75 Ram, *supra* note 43, at 1386; *cf. King*, 569 U.S. at 462 (explaining that because arrestees are in custody or detention, their privacy interests in their DNA are already diminished despite the revealing nature of DNA).

76 *See supra* notes 43–45 and accompanying text; *cf. King*, 569 U.S. at 464 (explaining that CODIS's limitations to identification indicated that the privacy intrusion into this genetic information was minimal).

77 Ram, *supra* note 43, at 1386.

2. *Third-Party Doctrine*

Even if DNA information implicates privacy rights, searches of DTC databases may be exempt from the Fourth Amendment under the third-party doctrine because consumers willingly reveal their DNA to these third-party companies. The Court "consistently has held that a person has no legitimate expectation of privacy in information he voluntarily turns over to third parties"[78] because when individuals disclose information to a third party, they assume the risk that the information will be turned over to the police.[79] Third-party doctrine applies "even if the information is revealed on the assumption that it will be used only for a limited purpose."[80]

As established by the Court's recent decision in *Carpenter v. United States*,[81] however, depending on the "nature of the particular [information] sought,"[82] disclosing information to third parties does not automatically "surrender all Fourth Amendment protection."[83] If the information sought is comprehensive, deeply revealing, and involuntarily conveyed, then it may retain Fourth Amendment protections.[84] For example, the *Carpenter* Court found that location information obtained from smartphones connecting to cell sites and generating a time-stamped record[85] was protected by the Fourth Amendment because the cell sites are found all over the country, thereby creating an all-encompassing record of each minute change in the location of those carrying smartphones, an almost involuntary component of life in the modern age.[86] *Carpenter* represents the Court's inclination to take a step back from the all-encompassing third-party doctrine in favor of protecting large swaths of digital information, a positive sign for the fate of consumer privacy interests implicated by DTC company database searches.

In light of the *Carpenter* decision, the comprehensive, deeply revealing, and involuntarily conveyed nature of DNA arguably gives DNA information the same Fourth Amendment protection. Justice Gorsuch recognized this conclusion when dissenting in the *Carpenter* judgment, noting that permitting the government to acquire genetic

78 Smith v. Maryland, 442 U.S. 735, 743–44 (1979).

79 *See* Carpenter v. United States, 138 S. Ct. 2206, 2216 (2018).

80 United States v. Miller, 425 U.S. 435, 443 (1976).

81 138 S. Ct. 2206.

82 *Id.* at 2219 (quoting *Miller*, 425 U.S. at 442).

83 *Id.* at 2217.

84 *See id.* at 2219–20; Abrahamson, *supra* note 26, at 2558–59.

85 *Carpenter*, 138 S. Ct. at 2211–12.

86 *Id.* at 2219–20.

information from DTC company databases without a warrant or probable cause "strikes most lawyers and judges today—[him] included—as pretty unlikely."[87] Thus, even though DNA is disclosed to a third party (in this context, DTC companies), *Carpenter* suggests that DNA information is likely a search under the Fourth Amendment, much like cell-site location information.[88]

Whether the Fourth Amendment governs a particular government action, however, is only the first inquiry in typical Fourth Amendment analyses—the next inquiry is whether the search is reasonable, meaning whether there was a warrant for the search or a valid exception exempting the need for a warrant.[89] *King* and *Carpenter* offer little instruction on how to proceed with DTC company database searches once they are found to fall under the Fourth Amendment as there is no guidance as to exactly when it may be reasonable for police to access this personal information. The lack of guidance leaves those whose privacy interests are intruded upon without adequate protection. This inadequate protection is also exacerbated by the fact that whether the Fourth Amendment protects these interests is concededly still unresolved. A clearer and more effective solution is necessary to adequately fill this gap.

C. Attempts to Regulate Individual DNA Information

If the Fourth Amendment is deficient, Congress and state legislators can step in with additional safeguards by directly regulating the activities that implicate the Fourth Amendment.[90] The Fourth Amendment represents a "floor" in protecting privacy interests, which legislatures can surpass.[91] This has become commonplace as modern technology advances.[92] Current law does not cover DTC companies,[93]

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87 *Id.* at 2262 (Gorsuch, J., dissenting).

88 *E.g.*, Abrahamson, *supra* note 26, at 2539; Dery, *supra* note 8, at 103; Guest, *supra* note 29; Ram, *supra* note 43, at 1386–88.

89 *See* Mitchell v. Wisconsin, 139 S. Ct. 2525, 2534 (2019) ("The Fourth Amendment guards the 'right of the people to be secure in their persons . . . against unreasonable searches' and provides that 'no Warrants shall issue, but upon probable cause.'" (alteration in original) (quoting U.S. CONST. amend. IV)).

90 *See* Louis Fisher, *Congress and the Fourth Amendment*, 21 GA. L. REV. 107, 107 (1986) ("Congress helps fill important gaps in the law on search and seizure . . . and intervenes to safeguard [F]ourth [A]mendment interests left unprotected by court decisions.").

91 *See* Marc L. Miller & Ronald F. Wright, *Leaky Floors: State Law Below Federal Constitutional Limits*, 50 ARIZ. L. REV. 227, 228 (2008) ("One of the most widely accepted notions in American constitutional law is that the federal Constitution and interpretations of that Constitution by the Supreme Court of the United States set a 'floor' for personal liberties. State courts and state legislatures cannot properly go below the federal floor.").

92 *See* Amanda Regan, Note, *Dumping the Probable Cause Requirement: Why the Supreme*

however, leaving individuals who submit their DNA to these companies without any enforceable privacy protections.

Over thirty states have enacted laws designed to protect genetic information in some way.[94] Alaska's Genetic Privacy statute,[95] for example, requires written consent before collection, analysis, or retention of a DNA sample and disclosure of DNA analysis results.[96] Minnesota also prohibits collection of genetic information by a government entity without written informed consent of the consumer.[97] More recently, Illinois passed legislation that specifically prohibited DTC companies from sharing genetic information with a health or life insurance provider without written consent from the consumer.[98] But all of these statutes, as is the case with most state legislation protecting genetic information, explicitly do not protect against law enforcement use of DTC companies' data.[99]

The same is true for the federal regulatory scheme. In terms of agency regulations, neither the U.S. Food and Drug Administration ("FDA") nor the Federal Trade Commission ("FTC") have elected to regulate privacy issues when it comes to DTC companies.[100] One piece of legislation that might cover this area is the Health Insurance Porta-

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Court Should Decide Probable Cause Is Not Necessary for Cell Tower Dumps, 43 HOFSTRA L. REV. 1189, 1195 (2015) ("As technology advances, Congress has passed some legislation to supply greater protections beyond those extended by the Fourth Amendment.").

93 Memorandum from Nathan Hopkins, Legislative Analyst, Minnesota House of Representatives, to Members of the Minnesota Legis. Comm'n on Data Pracs. & Pers. Data Priv. 6 (Nov. 15, 2018), https://www.lcc.leg.mn/lcdp/meetings/11162018/Consumer-Privacy-and-Genetic-Testing-memo-11-15-18.pdf [https://perma.cc/J4CR-5HN9].

94 Ram, *supra* note 43, at 1382.

95 ALASKA STAT. § 18.13.010 (2019).

96 *Id.* § 18.13.010(a)(1).

97 MINN. STAT. § 13.386, subdiv. 3(a)(1) (2019).

98 410 ILL. COMP. STAT. 513/20(e) (2020).

99 *See* ALASKA STAT. § 18.13.010(b)(2) (providing a carveout "for a law enforcement purpose, including the identification of perpetrators and the investigation of crimes"); 410 ILL. COMP. STAT. 513/20(e) (only prohibiting disclosure to "any health or life insurance company"); MINN. STAT. § 13.386 (limited to data held by government entities, not third parties); *see also, e.g.*, OR. REV. STAT. § 192.535 (2019) (prohibiting obtention of genetic information without informed consent except "for the purpose of establishing the identity of a person in the course of an investigation conducted by a law enforcement agency"); N.J. STAT. ANN. § 10:5-45(a)(1) (West 2020) (exempting from informed consent requirements genetic information obtained "for the purposes of establishing the identity of a person in the course of a criminal investigation or prosecution").

100 The FDA and the FTC do regulate DTC companies but such regulations relate to test accuracy and marketing, not privacy. *See Direct-to-Consumer Tests*, U.S. FOOD & DRUG ADMIN. (Dec. 20, 2019), https://www.fda.gov/medical-devices/vitro-diagnostics/direct-consumer-tests [https://perma.cc/6XY7-R8Z9]; CONSUMER REPORTS, DIRECT-TO-CONSUMER GENETIC TESTING: THE LAW MUST PROTECT CONSUMERS' GENETIC PRIVACY 11–13 (2020), https://advo-

bility and Accountability Act of 1996 ("HIPAA").[101] HIPAA protects the use and disclosure of individually identifiable health information, such as genetic information, by organizations subject to the rule.[102] Any entity covered by the statute may not use or disclose medical information without written consent.[103] Covered entities, however, do not include DTC companies.[104] HIPAA only extends the definition of "covered entities" to health care professionals, health plans (e.g., health insurance companies), and health care clearinghouses.[105] In fact, HIPAA provides an explicit exception for use by law enforcement to use otherwise protected medical information in order to identify or locate a suspect or search for evidence of a crime.[106] The same issue occurs in the Genetic Information Nondiscrimination Act ("GINA"),[107] which builds on HIPAA protections by prohibiting covered entities from collecting genetic information.[108] Although GINA creates additional genetic safeguards, "it fails to address concerns of surreptitious collection and testing of DNA" outside of these covered entities.[109] Law enforcement access to DTC companies, therefore, falls outside of the regulatory scope of both HIPAA and GINA, leaving DTC companies largely unregulated at the federal level as well as the state level.[110]

D. The Problem with DTC Databases

Although the U.S. Supreme Court, legislators, and legal scholars are beginning to address privacy dilemmas with government DNA

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cacy.consumerreports.org/wp-content/uploads/2020/07/DTC-Genetic-Testing-White-Paper.pdf [https://perma.cc/2U92-VASE].

101 Pub. L. No. 104-191, 110 Stat. 1936 (codified as amended in scattered sections of 18, 26, 29, and 42 U.S.C.).

102 *See* U.S. DEP'T OF HEALTH & HUM. SERVS., SUMMARY OF THE HIPAA PRIVACY RULE 1 (2003), https://www.hhs.gov/sites/default/files/ocr/privacy/hipaa/understanding/summary/privacysummary.pdf [https://perma.cc/7SDS-8U7M].

103 *Id.* at 4.

104 Colin McFerrin, Comment, *DNA, Genetic Material, and a Look at Property Rights: Why You May Be Your Brother's Keeper*, 19 TEX. WESLEYAN L. REV. 967, 983 (2013).

105 *See* U.S. DEP'T OF HEALTH & HUM. SERVS., *supra* note 102, at 2.

106 *See id.* at 7.

107 Genetic Information Nondiscrimination Act of 2008, Pub. L. No. 110-233, 122 Stat. 881 (codified as amended in scattered sections of 26, 29, and 42 U.S.C.). GINA "prohibits discrimination in group health plan coverage based on genetic information." U.S. DEP'T OF LAB., THE GENETIC INFORMATION NONDISCRIMINATION ACT (GINA) FACT SHEET 1, https://www.dol.gov/sites/dolgov/files/EBSA/about-ebsa/our-activities/resource-center/fact-sheets/gina.pdf [https://perma.cc/UMW2-DP7U].

108 U.S. DEP'T OF LAB., *supra* note 107, at 1.

109 McFerrin, *supra* note 104, at 984–85.

110 *See id.* at 982–85.

analysis, there are almost no regulations or legal restraints on government use of DTC companies for DNA evidence.[111] Even a Congressional bill proposed in 2019 to create more protections for genetic information failed to adequately address the use by law enforcement.[112] This deficiency leaves the heightened privacy interest in DNA information largely unprotected from potentially almost unlimited, and perhaps unreasonable, law enforcement access.

There are also no clear internal constraints on the DTC companies to ensure privacy interests are well protected. Although all DTC companies have privacy policies specifically targeting law enforcement searches, they vary among companies. 23andMe states that it "use[s] all practical legal and administrative resources to resist requests from law enforcement, . . . [it] do[es] not share customer data with any public databases, or with entities that may increase the risk of law enforcement access," and agreeing to its terms of services means that individuals agree not to contact other customers or use the data for forensic purposes.[113]

FamilyTreeDNA, a company that was revealed in 2019 to have been secretly working with the FBI in cold case investigations,[114] has since adopted an option for consumers to remove law enforcement access,[115] but also states that it "takes every action possible to protect user privacy" and that before granting any request for access from law enforcement, it will "notify users" and supply them with copies of those requests, unless "doing so would be considered counterproductive and . . . [it is] not legally permitted to do so."[116] GEDmatch, the predominant resource used in law enforcement searches, originally al-

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111 Antony Barone Kolenc, *"23 and Plea": Limiting Police Use of Genealogy Sites After* Carpenter v. United States, 122 W. VA. L. REV. 53, 103 (2019); *see supra* Section II.C.

112 *See* Genetic Information Privacy Act of 2019, H.R. 2155, 116th Cong. (2019) (prohibiting genetic testing services from disclosing personally identifiable genetic information to third parties without express informed consent but failing to adequately regulate disclosure requirements as they pertain to law enforcement).

113 *23andMe Guide for Law Enforcement*, 23ANDME, https://www.23andme.com/law-enforcement-guide/ [https://perma.cc/Q3WN-2QV4]. Ancestry.com states that it "does not voluntarily cooperate with law enforcement[,] . . . require[s] all government agencies seeking access to Ancestry customers' data to follow valid legal process[,] and do[es] not allow law enforcement to use Ancestry's services to investigate crimes or to identify human remains." *Ancestry Guide for Law Enforcement*, ANCESTRY, https://www.ancestry.com/cs/legal/lawenforcement [https://perma.cc/GZ84-WR2U]. It is questionable, however, how much weight this promise will hold if faced with a valid court order. *See* Hill & Murphy, *supra* note 6.

114 Ram, *supra* note 43, at 1363.

115 *Id.*

116 *FamilyTreeDNA Law Enforcement Guide*, FAMILYTREEDNA, https://www.familytreedna.com/legal/law-enforcement-guide (last visited Mar. 16, 2021).

lowed law enforcement unfettered access.[117] But, in May 2019, GEDmatch updated its policies, requiring that existing users would have to opt in before their DNA kits would become subject to law enforcement use.[118] New genetic profiles, however, are "opted-in by default."[119]

Some companies openly encourage law enforcement access. For example, the DNA Doe Project actively uses databases to identify unidentified bodies.[120] Even FamilyTreeDNA, which maintains that it "takes every action possible to protect user privacy" against law enforcement,[121] was revealed to have run an advertisement starring a relative of a kidnapping victim who encouraged customers to upload profiles to help solve crimes.[122] More recently, even GEDmatch appears to be at risk of unfettered law enforcement use, as it was recently acquired by forensic genomics company Verogen, Inc.[123]

Under these varying privacy policies and conflicting behaviors, it is uncertain exactly how private a consumer's DNA remains once she gives it to a DTC company. This poses a particular problem given the broad scope of privacy implications at stake. Not only are particular individuals who are already subject to the criminal justice system subject to these intrusions, as was the case in *King*,[124] but now most of the American population is subject to the same scrutiny, sometimes to the detriment of criminal suspects.[125] As DTC companies grow and law enforcement access to them remains unchecked, the country will approach the "genetic panopticon" Justice Scalia warned of in *King*.[126] The evolution creates an imbalance in the field of government use of DTC companies that overtly favors police's unrestricted access to the

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117 *See* Ram, *supra* note 43, at 1362.

118 *See* Ram, *supra* note 43, at 1362–63.

119 *Id.*

120 *See* Sarah Zhang, *The Messy Consequences of the Golden State Killer Case*, ATLANTIC (Oct. 1, 2019) https://www.theatlantic.com/science/archive/2019/10/genetic-genealogy-dna-database-criminal-investigations/599005/ [https://perma.cc/3S7E-E9T6].

121 *FamilyTreeDNA Law Enforcement Guide*, *supra* note 116.

122 *See* Zhang, *supra* note 120.

123 *See* Kristen V. Brown, *DNA Site That Thawed Cold Cases Sold as Forensics Business Booms*, BLOOMBERG (Dec. 11, 2019, 3:31 PM), https://www.bloomberg.com/news/articles/2019-12-11/dna-site-that-thawed-cold-cases-sold-as-forensics-business-booms [https://perma.cc/PWL3-3FA2].

124 *See* Maryland v. King, 569 U.S. 435, 462 (2013) ("The expectations of privacy of an individual taken into police custody 'necessarily [are] of a diminished scope.'" (alteration in original) (quoting Bell v. Wolfish, 441 U.S. 520, 557 (1979))).

125 *See* Schuppe, *supra* note 12 (discussing that parents were outraged that police had used their DNA to build a case against their son with genetic analysis).

126 *King*, 569 U.S. at 482 (Scalia, J., dissenting).

amassed genetic information in DTC company databases that dangerously approaches unchecked surveillance of highly personal information.[127]

II. CONSENT

Because law enforcement searches of DTC company databases are likely governed by the Fourth Amendment, consent can easily resolve this imbalance. Consent satisfies any Fourth Amendment concerns "because it is no doubt reasonable for the police to conduct a search once they have been permitted to do so."[128] The majority of legislation that even touches genetic privacy also revolves around informed consent principles.[129] Consent, if meaningful, thus offers a clear solution to privacy concerns. The remaining inquiry is whether consent is valid. This Part explains how consent works in a variety of contexts—including the Fourth Amendment's individual and third-party consent, digital consent, and medical procedure consent—and when that consent is or is not meaningful. In particular, this Part contrasts the lower levels of protection that the Fourth Amendment and digital consent affords privacy interests with the higher levels afforded by medical procedure consent.

A. Fourth Amendment

Fourth Amendment policy encourages individuals to consent to searches to aid the prosecution in solving crimes and protecting the public.[130] Where police lack probable cause, consent "may be the only means of obtaining important and reliable evidence,"[131] turning an otherwise invalid search into a constitutional one.[132] There are two types of consent under the Fourth Amendment: individual consent and third-party consent, the latter of which includes an inquiry into individual consent. This Section discusses each of these frameworks.

1. Third-Party Consent

Third-party consent allows law enforcement to access information about a suspect through the use of another person—the third party—regardless of whether the suspect has consented. Under third-party

127 Kolenc, *supra* note 111, at 102.

128 Florida v. Jimeno, 500 U.S. 248, 250–51 (1991) (citing Schneckloth v. Bustamonte, 412 U.S. 218, 219 (1973)).

129 *See supra* notes 95–99 and accompanying text.

130 *See* Coolidge v. New Hampshire, 403 U.S. 443, 488 (1971).

131 *Schneckloth*, 412 U.S. at 227.

132 *Id.* at 228.

consent, consent of another person, such as a consumer, who has "common authority over . . . effects is valid as against [an] absent, nonconsenting person" who shares that authority, such as a suspect.[133] This is because an individual who shares property with another assumes the risk that the co-owner will share the property with the police.[134] Common authority is determined by "mutual use of the property by persons generally having joint access or control for most purposes."[135] In assessing whether there is common authority, courts consider whether "widely shared social expectations" establish that the individuals may exercise their authority over the property in ways that affect each other's interests.[136]

Although property principles are not dispositive,[137] they can aid the inquiry into common authority.[138] With DNA, the most common belief is that each individual owns their personal DNA.[139] Consumer DNA databases also address property rights of DNA as an individual right.[140] DNA is communal, as it is shared with relatives.[141] Understanding this *sui generis* nature of DNA, Professor Natalie Ram proposes that DNA be analyzed as a tenancy by the entirety, in which each individual owns her entire DNA but shares ownership of the common portions of her DNA equally with her relatives.[142] Professor Erin Murphy has similarly agreed that the shared interest in DNA "could be likened to the joint interest held by property owners who share common space."[143] Although the general belief is that DNA is owned by an individual,[144] this is an attractive analysis and offers insight on how to think about DNA in the law. The shared nature of

133 United States v. Matlock, 415 U.S. 164, 170 (1974).

134 Georgia v. Randolph, 547 U.S. 103, 131 (2006) (Roberts, C.J., dissenting).

135 *Matlock*, 415 U.S. at 171 n.7.

136 *Randolph*, 547 U.S. at 111.

137 *See id.* at 110.

138 *See id.* at 110–11 (explaining that widely shared social expectations of whether an individual has common authority over some item "are naturally enough influenced by the law of property, but not controlled by its rules").

139 Jessica L. Roberts, *Progressive Genetic Ownership*, 93 NOTRE DAME L. REV. 1105, 1149–50 (2018).

140 *See id.* at 1129.

141 *Id.* at 1122.

142 *See* Natalie Ram, *DNA by the Entirety*, 115 COLUM. L. REV. 873, 906–10 (2015).

143 Erin Murphy, *Relative Doubt: Familial Searches of DNA Databases*, 109 MICH. L. REV. 291, 336 (2010). Not all scholars agree, however, that tenancy by the entirety is the best way to think about the shared nature of DNA. *See* Teneille R. Brown, *Why We Fear Genetic Informants: Using Genetic Genealogy to Catch Serial Killers*, 21 COLUM. SCI. & TECH. L. REV. 118, 166 (2020) (disputing the tenancy by the entirety idea because DNA is not real property and individuals need not obtain consent of family members when they undergo genetic testing).

144 Roberts, *supra* note 139, at 1149–50.

DNA is exactly what allows law enforcement to use it as an investigative tool. These searches could consequently directly implicate third-party consent doctrine.

2. *Individual Consent*

Even if a third party can consent to the search of an individual's property, that third party's consent must still be valid on its own. The typical standard for individual consent is whether the consent was given voluntarily given the totality of the circumstances.[145] The bar for achieving consent is low. This is because the U.S. Supreme Court held that consent does not require a literal knowing choice or knowledge of the right to refuse to consent.[146] Even in a case where law enforcement persuaded an individual to give his consent, a search was valid merely because, regardless of persuasion, the individual still voluntarily agreed to the search.[147] Another reason for this low bar is that the scope of the consensual search is limited to what a reasonable person would understand their consent to apply.[148] With this flexible standard, police can constitutionally conduct more expansive searches by carefully choosing how they request access.[149]

Contract principles can be helpful in determining whether an individual has consented to a suspicion-less search. For example, in *Dykes v. Southeastern Pennsylvania Transportation Authority*,[150] the Third Circuit Court of Appeals used contract principles to find that a drug and alcohol test required by a collective bargaining agreement was reasonable under the Fourth Amendment because the employee had consented to the process in the agreement.[151] In the technological age, courts are beginning to use contract principles to determine

145 Schneckloth v. Bustamonte, 412 U.S. 218, 227 (1973).

146 *See id*.

147 Davis v. United States, 328 U.S. 582, 593–94 (1946).

148 Florida v. Jimeno, 500 U.S. 248, 251 (1991).

149 4 WAYNE R. LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 8.1, at 4–5 (4th ed. 2004); Alexander A. Mikhalevsky, Note, *The Conversational Consent Search: How "Quick Look" and Other Similar Searches Have Eroded Our Constitutional Rights*, 30 GA. ST. U. L. REV. 1077, 1080 (2014) ("Police forces across the country have tested the limits of consent by asking vague, conversational questions to suspects with the goal of obtaining a suspect's consent to search, even though that individual may not want to allow the search or may not know that he or she has the right to deny consent."). For example, the Supreme Court found that a defendant's consent to police's request to search his car reasonably could extend to a search of the entire car, including packages within it. *See Jimeno*, 500 U.S. at 251.

150 68 F.3d 1564 (3d Cir. 1995).

151 *See id.* at 1568–70 (drawing the principle of reasonability of a search required by a collective bargaining agreement from *Bolden v. Southeastern Pennsylvania Transportation Authority*, 953 F.2d 807, 829 (3d. Cir. 1991)).

whether individuals have indeed consented to giving information over to others based on privacy policies in the digital context.[152]

B. Digital Consent

When it comes to general digital consent, there is less guidance. Ideally, consent is obtained from an "agreement[] between parties who have equal bargaining power, significant resources, and who *knowingly* and *voluntarily* agree to assume contractual or other legal obligations."[153] Digital consent models, however, generally fall short of the ideal model of consent[154] and do not appear to be meaningful. This is because these terms of service and privacy policies are contracts of adhesion.[155] A contract of adhesion arises when a contract "is not subject to negotiation and is offered by the more powerful party on a 'take it or leave it' basis."[156] Although courts generally enforce contracts of adhesion,[157] critics frequently argue that contracts of adhesion, such as corporate privacy policies, are not adequate to protect *privacy*.[158] This objection is likely because contracts of adhesion such as privacy policies involve what Professors Neil Richards and Woodrow Hartzog call "unwitting consent"[159]—consent that occurs when individuals do not understand "the legal agreement, . . . the technology being agreed to, or . . . the practical consequences or risks of agreement."[160]

These problems seem to particularly affect commercial DNA databases, where consent is provided through lengthy, and often complex, terms of service and privacy policies that consumers are unlikely to carefully read, making these consumers unlikely to know what submitting their DNA might cost them or others.[161] To remedy these

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152 Wayne A. Logan & Jake Linford, *Contracting for Fourth Amendment Privacy Online*, 104 MINN. L. REV. 101, 104 (2019).

153 Neil Richards & Woodrow Hartzog, *The Pathologies of Digital Consent*, 96 WASH. U. L. REV. 1461, 1463 (2019).

154 *Id.*

155 *See* Jay P. Kesan, Carol M. Hayes & Masooda N. Bashir, *Information Privacy and Data Control in Cloud Computing: Consumers, Privacy Preferences, and Market Efficiency*, 70 WASH. & LEE L. REV. 341, 424 (2013).

156 *Id.*

157 Alexandra L. Mitter, Note, *Deputizing Internet Service Providers: How the Government Avoids Fourth Amendment Protections*, 67 N.Y.U. ANN. SURV. AM. L. 235, 263–64 (2011).

158 *See* Robert S. Litt, *The Fourth Amendment in the Information Age*, 126 YALE L.J. F. 8, 17 (2016).

159 Richards & Hartzog, *supra* note 153, at 1466 (emphasis omitted).

160 *Id.*

161 *See* Tashea, *supra* note 1; Arcabascio, *supra* note 39, at 129 ("Given the muddy and sometimes convoluted notice provided to consumers on DTC-GTC websites, individuals may

problems, any future agreement must therefore vividly and clearly describe any consequences associated with submitting their DNA such that a consumer has the knowledge and incentive to appropriately assess the request seriously.[162] This is exactly the rationale that allowed the U.S. District Court for the Southern District of New York to find that AOL Mail's express notice of the possible exposure to law enforcement could form the basis for a consensual search.[163] Despite the rationale that agreements should be clear, the standard for consent is still a low bar.

C. Medical Consent

The aforementioned consent standards contrast with the higher consent standards in the medical context, a particularly relevant context given the biological nature of DNA analysis. In the medical community, informed consent is the standard for any medical procedure.[164] Informed consent requires medical professionals to notify the patient of what medically will be done and the possible consequences before consent is valid.[165] A 1976 report produced by the U.S. Department of Health and Human Services ("HHS") National Commission for the Protection of Human Subjects of Biomedical and Be-

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not consider the possibility that their genetic data may be used by law enforcement . . . ."); J. Lyn Entrikin, *Family Secrets and Relational Privacy: Protecting Not-So-Personal, Sensitive Information from Public Disclosure*, 74 U. MIAMI L. REV. 781, 861 (2020) ("[T]he [DTC company's] fine-print 'terms and conditions' govern the scope of the consumer's 'informed consent.'"); Alexis C. Madrigal, *Reading the Privacy Policies You Encounter in a Year Would Take 76 Work Days*, ATLANTIC (Mar. 1, 2012), https://www.theatlantic.com/technology/archive/2012/03/reading-the-privacy-policies-you-encounter-in-a-year-would-take-76-work-days/253851/ [https://perma.cc/WA7F-4YVQ] (explaining that it would take, on average, seventy-six work days for a consumer to read all the privacy policies she encounters in a year). These terms of services and privacy policies also fail to explain the risks and benefits of genetic testing more broadly. *See* Brown, *supra* note 143, at 166. Indeed, a 2018 study found that DTC companies generally do not provide sufficient information for consumers to make an informed decision to provide their genetic information to a given company. *See* James W. Hazel & Christopher Slobogin, *Who Knows What, and When?: A Survey of the Privacy Policies Proffered by U.S. Direct-to-Consumer Genetic Testing Companies*, 28 CORNELL J.L & PUB. POL'Y 35, 66 (2018).

162 Richards & Hartzog, *supra* note 153, at 1492 ("To be meaningful, requests for consent must be infrequent, the risks of giving consent must be vivid and easy to envision[, such as imprisonment or exoneration], and data subjects must have an incentive to take each request seriously." (emphasis omitted)).

163 *See* United States v. DiTomasso, 56 F. Supp. 3d, 584, 597 (S.D.N.Y. 2014) (finding that because AOL explicitly warns users in its terms of service that it reserves the right to share private data with law enforcement in response to illegal behavior, it was reasonable to assume a person had consented to law enforcement's access to that data).

164 Natalie Ram, *Tiered Consent and the Tyranny of Choice*, 48 JURIMETRICS 253, 253 (2008).

165 *See* Planned Parenthood of Cent. Mo. v. Danforth, 428 U.S. 52, 67 n.8 (1976).

havioral Research[166] recommended that human subjects have the relevant information to make decisions, that they comprehend this information, and that they consent entirely voluntarily.[167] HHS codified these recommendations, requiring researchers to obtain consent only after informing human subjects of the procedures to be performed,[168] any risks or benefits,[169] and that participation is entirely voluntary and can be withdrawn at any time.[170] With these additional requirements, informed consent at least ensures that a literal knowing, and valid, choice can be made.

This is exactly why some scholars advocate for the import of informed consent from the medical context into the Fourth Amendment context more generally.[171] Professor Christo Lassiter argues that importing medical informed consent into the Fourth Amendment makes sense because, just like medical procedures, consent in Fourth Amendment searches of the person are grounded in the principles that individuals have control over their persons.[172] Just as uninformed consent fails to give authorization to invade a patient's body, uninformed consent to search someone's person therefore will fail to protect that individual's constitutional privacy.[173] The same idea can be applied to restore the balance between law enforcement searches of individual DNA voluntarily submitted to DTC companies.

III. Restoring Balance to DTC Company Database Searches

As established in Part I, law enforcement's access to DTC company databases gives law enforcement broad surveillance power at the expense of individual private interests.[174] This access results in an unconstitutional imbalance[175] that favors law enforcement needs over

166 The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research, Report of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 44 Fed. Reg. 23,192 (Apr. 18, 1979).

167 *See id.* at 23,194–95; Richards & Hartzog, *supra* note 153, at 1474.

168 Protection of Human Subjects: General Requirements for Informed Consent, 45 C.F.R. § 46.116(b)(1) (2019).

169 *Id.* § 46.116(b)(2)–(3).

170 *Id.* § 46.116(b)(8).

171 *See, e.g.*, Christo Lassiter, *Consent to Search by Ignorant People*, 39 Tex. Tech L. Rev. 1171, 1192–93 (2007) ("If informed consent is the standard in medicine for operation or treatment procedures affecting the medical person, the same standard makes sense for the constitutional person . . . .").

172 *See id.*

173 *See id.* at 1193.

174 *See supra* Sections I.B–.D.

175 At its most basic foundation, the Fourth Amendment seeks to balance the interests of

privacy interests with no legal constraints.[176] To establish balance between privacy and law enforcement interests, federal and state legislators should require DTC companies to include an explicit and informative option for individuals to opt out of law enforcement access while signing up for the service. With this consent, law enforcement may then legally access this specific pool of DNA and use it to investigate a suspect under third-party consent principles.[177] This Part explains this process and describes how the similarities between medical procedures and DNA analysis, the heightened need for protection in both contexts, and the individual and communal nature of DNA make the application of informed consent principles particularly appropriate for the DNA database search context.

A. Application

The opt-out framework operates in two connected parts: informed consent at the individual level and third-party consent as a tool to find a suspect. Federal and state legislatures can protect privacy interests by requiring informed consent before law enforcement can access a consumer's DNA. Given the highly personal and revealing nature of DNA and bodily integrity associated with that information, informed consent will ensure that adequate measures are taken to allow individuals to protect their own privacy.[178] This notice would appear on a separate webpage with an option to opt out of law enforcement access upon signing up for the DTC company database service.[179] This separate webpage would follow the type of informed consent that appears in the medical procedure context, requiring notice of the procedures to be performed,[180] any risks or benefits,[181] and that participation is entirely voluntary and can be withdrawn at any

law enforcement to protect society and apprehend criminals with the interests of citizens in protecting their privacy. *See* Maryland v. King, 569 U.S. 435, 448 (2013) (explaining that a court must weigh "'the promotion of legitimate governmental interests' against 'the degree to which [the search] intrudes upon an individual's privacy'" (alteration in original) (quoting Wyoming v. Houghton, 526 U.S. 295, 300 (1999))).

176 *See supra* Sections I.B–.D.

177 It is helpful to reestablish a common terminology for each component of this process. First, a "consumer" submits their DNA to a DTC company. Second, a "suspect" is implicated as a result of that consumer's actions and her DNA is ultimately found to match the crime scene.

178 *See supra* Section II.C.

179 *See* Ram, *supra* note 43, at 1362–63.

180 Protection of Human Subjects: General Requirements for Informed Consent, 45 C.F.R. § 46.116(b)(1) (2019).

181 *Id.* § 46.116(b)(2)–(3).

time.[182] The notice page would similarly explain that police can use this genetic information to investigate both that consumer and her family members, close or distant, for any connections to an unsolved crime and that this may result in further criminal action taken against the consumer or her family. The notice would then explain that even if that individual does stay in this pool, she can choose to opt out at any time in the privacy and security settings, upon which her genetic information will be immediately removed from the law enforcement pool. With these requirements, the consumer's consent would be more knowing and voluntary such that law enforcement searches of that data represent a valid consensual search.

In the interest of balancing the government and privacy interests under the Fourth Amendment, however, the nature of the agreements should still allow law enforcement to access *some* DNA data.[183] This objective is why the agreements would default to opting *in* to the portion of the database which law enforcement can access. Digital defaults are widely used by policymakers to encourage certain types of behavior, such as organ donations.[184] By making the standard default to opt in to law enforcement access, the government can encourage consumers to help law enforcement search for cold cases of violent crimes, a goal that the U.S. Supreme Court has acknowledged as important to ensure public safety.[185] And any concern that this default would fail to afford the user a valid choice[186] would be alleviated by

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182 *Id.* § 46.116(b)(8).

183 *See* Solana Lund, Note, *Ethical Implications of Forensic Genealogy in Criminal Cases*, 13 J. BUS. ENTREPRENEURSHIP & L. 185, 196 (2020) ("[C]atching murders and solving cold cases is something that is widely supported for obvious reasons.").

184 Natalie Ram & Jessica L. Roberts, *Forensic Genealogy and the Power of Defaults*, 37 NATURE BIOTECHNOLOGY 707, 707 (2019).

185 *See* Coolidge v. New Hampshire, 403 U.S. 443, 488 (1971) (explaining the value of encouraging consent to law enforcement search to help ensure public safety). Some have called for a ban on law enforcement's use of DTC company databases altogether, arguing that there is no way to protect privacy interests and allow law enforcement access. *See* Arcabascio, *supra* note 39, at 147; Najla Hasic, Note, *An Invasion of Privacy: Genetic Testing in an Age of Unlimited Access*, 44 S. ILL. U. L.J. 519, 550 (2020). Such a ban, however, would invert the balance in favor of privacy interests, which is not the objective of the Fourth Amendment, *see supra* note 175 and accompanying text, and is unnecessary given the limitations to access laid out in this Note, *see supra* Section III.C.2.

186 *See* Hasic, *supra* note 185, at 550; Lund, *supra* note 183, at 202–03. Requiring an opt-in choice, rather than an opt-out choice as this Note offers, would also unduly invert the balance toward privacy interests. When GEDmatch changed its policy to require users to affirmatively opt in to a law enforcement pool, the amount of data law enforcement could use plummeted from 1.4 million to 140,000. *See* Katelyn Smith, *Genealogy Database Privacy Change Creates Challenges for Investigators*, WGAL NEWS 8 (Sept. 6, 2019, 6:58 PM), https://www.wgal.com/article/genealogy-database-privacy-change-creates-challenges-for-investigators/28945357#

the informed consent a consumer must provide to allow law enforcement to retain access.

This consent then would apply under third-party consent principles against another member of a consumer's family—the suspect—because the consumer and the suspect can be considered to legally share common authority over their shared DNA.[187] This common authority derives both from widely shared societal expectations and property concepts. As an initial matter, widely shared societal expectations indicate that individuals can consent to searching even the shared portions of their DNA. Most individuals believe that they have the right to do what they please with their own DNA, much like how they believe they have the right to do what they please with their own body.[188] It would be reasonable for law enforcement to believe that if a consumer consents to the search of her DNA, she consents to the search of *all* of her DNA, including that which she shares with her relatives.[189] Society would therefore recognize that a consumer has common authority in the shared portion of her DNA.

As for property concepts, although property concepts are not dispositive to the common authority inquiry, they are persuasive.[190] Professor Ram's tenancy by the entirety concept describes DNA in terms of joint occupancy where each relative who possesses familial DNA has the individual right to do whatever she wants with her DNA, even the shared portions, including pursuing genetic testing without familial consent.[191] Applying Professor Ram's tenancy by the entirety concept of DNA to the Fourth Amendment, any relative, therefore, has common ownership over the portion of DNA she shares with the rest of her family and thus can consent to law enforcement searching that shared portion of DNA. By looking to both property principles and widely shared societal expectations, common authority and thus valid third-party consent is established.

[https://perma.cc/3MLR-PVXW]. Although this Note does not advocate for the former unfettered access, a more measured balance is the objective. *See supra* note 175 and accompanying text.

187 Consent of one person is valid against another person if that person has common authority over the item searched. United States v. Matlock, 415 U.S. 164, 170 (1974).

188 *See* Roberts, *supra* note 139, at 1150.

189 This is similar to the idea that if an individual consents to the search of her car, she consents to the search of every part of her car that evidence could be found. *See* Florida v. Jimeno, 500 U.S. 248, 251 (1991) ("The scope of a search is generally defined by its expressed object."); LAFAVE, *supra* note 149, at 4–5.

190 *See supra* notes 137–38 and accompanying text.

191 Ram, *supra* note 142, at 935.

B. Justifications

Individual and third-party consent are the most appropriate doctrines to apply because they adequately encompass the biological, communal, and individual nature of DNA. Importing informed consent requirements from the medical context is appropriate because of the similarities between bodily integrity in medical procedures and privacy in one's biological information under the Fourth Amendment.[192] Just as consent in the medical context seeks to ensure that medical procedures do not affront someone's interest in her own body,[193] similarly, consent in the Fourth Amendment context is grounded in the idea that people have the right against government intrusions into their bodily privacy.[194] Because DNA is a highly revealing part of the body, it is undoubtedly appropriate to implement a heightened standard of consent to ensure the same bodily integrity and privacy. Indeed, a number of commentators support adding informed consent requirements to DTC companies.[195]

Applying third-party consent doctrine to DTC company database searches is also appropriate because it encompasses the unique nature of DNA as well as provides a simple analytical framework that allows police and trial judges to evaluate the validity of the search. DNA is unique in that it is distinct to each person yet shared by relatives:

> Genetic data is simultaneously personal and communal. It can communicate sensitive information about an individual, including a person's ancestry, familial relationships, presence at a crime scene, medical risk, and perhaps even behavioral tendencies. Yet at the very same time, human beings are 99.9% genetically similar, with even greater levels of homogeneity among family members.[196]

In light of this simultaneous individual and communal nature, traditional notions of privacy rights under the Fourth Amendment will lead to issues of standing[197] and general neglect of how one person's

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192 *See* Lassiter, *supra* note 171, at 1192–93.

193 *Id.*

194 *Id.*

195 *See, e.g.*, McFerrin, *supra* note 104, at 996–97; Brown, *supra* note 143, at 177–82; Entrikin, *supra* note 161, at 867; Lund, *supra* note 183, at 203; Jamie M. Zeevi, Note, *DNA Is Different: An Exploration of the Current Inadequacies of Genetic Privacy Protection in Recreational DNA Databases*, 93 ST. JOHN'S L. REV. 767, 806–08 (2019).

196 Roberts, *supra* note 139, at 1122 (footnotes omitted).

197 *See* Dery, *supra* note 8, at 139–43.

DNA implicates another person's,[198] making traditional analyses unsuited to DTC company database searches. Understanding genetic data in terms of communal-centric doctrine, such as third-party consent doctrine, will more accurately reflect the individual and shared nature of the information.[199]

Policy reasons also justify applying third-party consent doctrine to DTC company database searches. Consensual searches have an administrability advantage that allows the police and courts to more easily determine the validity of the search.[200] A judge need only determine whether the third party validly gave consent to find whether the search was valid.[201] With the help of informed consent legislation, this inquiry will be fairly straightforward and standardized.[202] Consent doctrine, therefore, provides a straightforward inquiry for evaluating a largely complicated and messy web of privacy interests at stake in DTC company database searches.

C. Responses to Criticisms

Critics might be concerned about the validity of what might appear to be a contract of adhesion, the scope of such consensual DNA searches, and the appropriateness of applying shared consent to shared DNA given that DNA is so personal. All three concerns, however, can be remedied. This Section addresses each in turn.

1. Contracts of Adhesion

Critics might be concerned that this informed consent agreement is a contract of adhesion and therefore an inadequate protection of privacy rights. A contract of adhesion involves a less powerful party, usually a consumer, accepting terms as the more powerful party, usually a company, writes them.[203] Contracts of adhesion inadequately protect privacy rights not because they do not allow individuals to voluntarily consent,[204] but rather because contracts of adhesion are

198 *See* Ram, *supra* note 142, at 876–77 (explaining that legal actors have failed to account for how one's DNA affects her relative's).

199 *See* Roberts, *supra* note 139, at 1161.

200 This is because if there is valid consent, the search is presumptively reasonable. Florida v. Jimeno, 500 U.S. 248, 250–51 (1991) (citing Schneckloth v. Bustamonte, 412 U.S. 218, 219 (1973)).

201 *See id.*

202 *See supra* Section III.A.

203 Kesan et al., *supra* note 155, at 424.

204 *See supra* Section II.B.

marked by their "take it or leave it" nature[205] with no room for individuals to retain the service while still rejecting consent to search. An informed consent agreement, on the contrary, offers consumers the option to reject consent to law enforcement access to their DNA without having to forego the genetic testing service altogether.[206] By ensuring that DTC companies obtain this consent separately from the terms of service, legislators can also ensure that this consent does not arise merely from a vague sentence in a multi-page terms of service.[207] With these features, checking a box will not preclude valid consent.

2. Scope

Critics are also concerned with the sheer multitude of relatives that one individual's consent might reach.[208] With this broad reach inherent in DTC company databases, it is easy to argue that one person's consent to law enforcement search will impermissibly allow law enforcement to search the millions of distant and not-so-distant relatives connected to that person from the past, present, and future.[209] Although this concern is justified, the scope of what information law enforcement can access is not unlimited and their access can be narrowed according to current principles of the scope of consensual searches.

In *Florida v. Jimeno*,[210] the U.S. Supreme Court established that consent extends only so far as to where a reasonable person would understand the consent to extend.[211] It was therefore reasonable for the police to also search a container inside Jimeno's car because Jimeno consented to the search of his car without clarifying that the search should not extend to everything inside it.[212] When a defendant consents to the search of his garage, however, the Court has stated that the consent does not extend to the search of his house because the house is separate from the garage.[213] Similarly, DTC company database searches can be limited to where reasonable people would assume the consumer's consent extends.

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205 Kesan et al., *supra* note 155, at 424.

206 *See supra* Section III.A.

207 *See* Richards & Hartzog, *supra* note 153, at 1471.

208 *See, e.g.*, Dery, *supra* note 8, at 132–33.

209 *See* Guest, *supra* note 29, at 1050.

210 500 U.S. 248 (1991).

211 *Id.* at 251.

212 *See id.*

213 Walter v. United States, 447 U.S. 649, 656–57 (1980).

To locate this limit, one can again look to commonly held beliefs about the nature of DNA. People generally believe that an individual owns her own DNA.[214] It is therefore reasonable to assume that when individuals consent to a law enforcement search of their DNA for matches, they only give consent to search for matches to the crime scene DNA, not their entire family lines' DNA. Accordingly, although it certainly would be feasible to inspect shared DNA as far out as fifth cousins,[215] under the *Jimeno* Court's reasoning, police would only be legally allowed to search DNA for how it overlaps with the crime scene DNA, not any additional DNA that might belong to nonsuspect relatives who have foregone entry into the law enforcement pool.[216]

3. The Propriety of Common Authority in Shared DNA

Critics of the third-party doctrine as applied to DTC databases also argue that people cannot have common authority over shared DNA because relatives do not assume the risk that other relatives can expose that shared DNA to the police.[217] Transmitting DNA through birth is an entirely involuntary process and it might be unreasonable to say that an individual assumes the risk that another relative will expose her shared DNA to law enforcement merely by having a biological relation.[218] Given that third-party consent is grounded in the

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214 *See* Roberts, *supra* note 139, at 1150 (describing a commonly held intuition that individuals own their own genetic information).

215 Fifth cousins share 0.05% of DNA, compared to the 50% that parents share with their children or siblings share with each other. *Average Percent DNA Shared Between Relatives*, 23ANDME, https://customercare.23andme.com/hc/en-us/articles/212170668-Average-percent-DNA-shared-between-relatives [https://perma.cc/9MQF-YSJF].

216 Relatedly, an additional issue with law enforcement accessing DTC company databases, in "which [the genetic information] can be retained indefinitely, is the duration of consent." Joseph (Joe) Zabel, *The Killer Inside Us: Law, Ethics, and the Forensic Use of Family Genetics*, 24 BERKELEY J. CRIM. L. 47, 83–85 (2019). With the only guidance from the U.S. Supreme Court being that the consent must be reasonable, *see Jimeno*, 500 U.S. at 251, the contours of this limitation on consent is unsettled among lower courts. *Compare, e.g.*, Tucker v. Williams, 682 F.3d 654, 659–60 (7th Cir. 2012) (finding that plaintiff's consent, derived from the sentence "go ahead and take it then," to defendant's seizure of a backhoe that occurred two months later was valid because a reasonable person would understand the consent to be indefinite), *with* United States v. Escamilla, 852 F.3d 474, 484–85 (5th Cir. 2017) (finding that even though defendant consented to an agent looking through his phone and never revoked his consent nor affirmatively limited the scope of the search to that instant, a second search of the phone four hours later was invalid because the circumstances suggested that a reasonable person would understand the consent to be limited to the first instance). An analysis of how consent should be limited in time, both generally and specifically regarding DTC company database searches, could be the topic of a separate Note, and therefore is not addressed here.

217 *See, e.g.*, Dery, *supra* note 8, at 132; Murphy, *supra* note 143, at 336; Zabel, *supra* note 216, at 90–91.

218 *See, e.g.*, Dery, *supra* note 8, at 132; Murphy, *supra* note 143, at 336–37.

idea that because an individual who shares property assumes the risk that her co-owner will share that property or information with the police then that co-owner's consent is valid against her, third-party consent is therefore inapplicable.[219]

Although this is a rational objection, the assumption of risk theory that underlies the Court's third-party consent jurisprudence does not always carry the day. What establishes the requisite common authority in third-party consent doctrine is the "*mutual use* of the property by persons generally having *joint access or control* for most purposes."[220] Mutual use of the object searched and joint access or control over the object searched are therefore key in determining common authority.[221] Using this inquiry, lower courts have found that parents and children can consent to searching the house they share because of the mutual use of and joint access to the house.[222] Children and their parents likely do not have much of a say over their joint occupancy given general societal and biological expectations that parents should care for their children in a house together. In some ways, one can say that this too establishes common authority by virtue of a biological relation. Likewise, the absence of an assumption of risk in DNA sharing is not dispositive nor evidence of a lack of common authority.

Exposing a family members' privacy while giving up one's own privacy is also not entirely uncommon.[223] Orin Kerr describes several helpful examples:

> A family member with the same last name might post their home address on the web or in the phone book. If someone wants to find you, a quick google search of your last name may give people an inkling of where you live because of what your family member posted. Or say you don't want a picture of you to be online. You don't post one, but a friend or colleague might post a public picture of a group of people that

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219 *See, e.g.*, Dery, *supra* note 8, at 132–33; *see also* Georgia v. Randolph, 547 U.S. 103, 113 (2006) (explaining that consent by one co-occupant cannot overcome affirmative nonconsent of another co-occupant).

220 United States v. Matlock, 415 U.S. 164, 171 n.7 (1974) (emphasis added).

221 *See id.*

222 *See, e.g.*, United States v. Rith, 164 F.3d 1323 (10th Cir. 1999) (finding a parent could consent to search of eighteen-year-old child's room); United States v. Clutter, 914 F.2d 775, 778 (6th Cir. 1990) (finding twelve- and fourteen-year-old children could validly consent to inspection of house that belonged to parents).

223 *See* Orin S. Kerr, *Tentative Thoughts on the Use of Genealogy Sites to Solve Crimes*, VOLOKH CONSPIRACY (May 2, 2018, 4:27 AM), https://reason.com/volokh/2018/05/02/tentative-thoughts-on-the-use-of-geneolo/ [https://perma.cc/HJH5-33ST].

> includes you without your permission. As a practical matter, maintaining privacy often requires the cooperation of others.[224]

Yet, no one could likely question your authority to put your own address or photo online, as you yourself are the partial inhabitant of the address or the partial subject of the photo.[225] Professor Teneille Brown offers another example: In an autobiography, an author shares her own story while also necessarily telling the stories of those she is close to, often without their consent.[226] The analog to DNA databases is readily apparent. Much like with the photo, the home address, or the autobiography, because of the shared quality of DNA, each individual has the authority to expose their own DNA to police while inadvertently exposing some private information of a family member.[227]

The application of third-party consent to DTC company database searches is therefore an easily administrable and suitable doctrine that will ensure both the validity of the search and the ability of law enforcement to solve cold cases.

Conclusion

DTC companies are only increasing in popularity, which means law enforcement will soon have unfettered access to the entire public's genetic information. This possibility dangerously resembles a surveillance state that values crime solving at the cost of individual privacy. The Fourth Amendment was designed specifically to prevent any undue cost of individual privacy, and it is the Fourth Amendment in conjunction with other legal principles that legislators must consider if they want to prevent this panopticon. Legislators are in the best place to combine these legal principles because they can go beyond the Constitution to provide additional safeguards of liberty. By using the heightened standard of informed consent in the scope of Fourth Amendment consent, legislators can ensure that every piece of DNA used by the police is done so with consent. As a result, legislators can guarantee law enforcement can do their job without stripping individuals of their privacy.

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224 *Id.*

225 *Id*.

226 *See* Brown, *supra* note 143, at 168–70.

227 *See id.* at 165 ("When I choose to obtain genetic tests to complete my genetic story, . . . I am writing *my* story. I am gathering information and sharing it because it is my autonomous choice[, even though] [t]his decision might indirectly implicate the privacy of others, and it might hurt them.").