TESTIMONY AND STATEMENT FOR THE RECORD

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"The Philosophy of AI: Learning from History, Shaping Our Future"

Committee on Homeland Security and Government Affairs U.S. Senate

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Good Morning, Chairman Peters and Committee Members:

I am Margaret Hu, Taylor Reveley Research Professor and Professor of Law, and Director of the Digital Democracy Lab, at William & Mary Law School in Williamsburg, Virginia. It is an honor to be a part of this critically important dialogue on the philosophical and historical dimensions of the future of Artificial Intelligence (AI) governance.

The reason we must consider the philosophy of AI is because we are at a crossroads: either the Law governs AI, or AI governs the Law.

The first decade of my law career was dedicated to the Civil Rights Division of the U.S. Department of Justice, and for the past decade I have served as a Constitutional Law researcher and professor. I would like to approach this topic from the perspective of AI and the Law generally, and specifically AI and Constitutional Law.

Placing AI side-by-side with Constitutional Law allows us to visualize how both function on a philosophical level. It also provides us with a window into how they are philosophically in conversation with one another and how best to respond when one may philosophically conflict with the other.

I. The Philosophy of AI

A. AI and the Law: Understanding AI within Philosophical Frameworks

AI and the Law is distinctive from other areas of law, just as Constitutional Law is distinctive from other areas of law.

AI systems are more than their technological components and products. AI systems are not born independently, and AI does not operate in the abstract. Put another way, experts contend that emerging technologies can exhibit or reflect a philosophical or ideological standpoint, even inadvertently.¹ Even in the absence of instructions to do so, AI and automated systems can digest collective narratives, translate theories, and reflect hierarchies.² The way AI is designed and launched, and then interpreted and applied, is embedded within an intricate system of preexisting historical, philosophical, political, and socioeconomic structures.

AI therefore should be understood as more of a philosophy than a technology. Like Constitutional Law, AI is highly philosophical in nature.³ Specifically, AI is animated by multiple sciences and philosophies, including epistemology,⁴ a philosophy concerning knowledge structure and creation;

¹ See, e.g., MEREDITH BROUSSARD, MORE THAN A GLITCH: CONFRONTING RACE, GENDER, AND ABILITY BIAS IN TECH (2023); SAFIYA NOBLE, ALGORITHMS OF OPPRESSION: HOW SEARCH ENGINES REINFORCE OPPRESSION (2018); RUHA BENJAMIN, RACE AFTER TECHNOLOGY (2019); YARDEN KATZ, ARTIFICIAL WHITENESS: POLITICS AND IDEOLOGY IN ARTIFICIAL INTELLIGENCE (2020); SIMONE BROWNE, DARK MATTERS: ON THE SURVEILLANCE OF BLACKNESS (2015); Cathy O'Neill, WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY (2016); SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER (2019); JULIE E. COHEN: BETWEEN TRUTH AND POWER: THE LEGAL CONSTRUCTIONS OF INFORMATIONAL CAPITALISM (2019).

² *Id. See also, e.g.*, Jessica Eaglin, *Racializing Algorithms*, 111 CALIF. L. REV. 755 (2023); Brandon L. Garrett and Cynthia Rudin, *The Right to a Glass Box: Rethinking the Use of Artificial Intelligence in Criminal Justice*, CORNELL L. REV. (forthcoming); Oren Bar-Gill, Cass R. Sunstein, and Inbal Talgam-Cohen, *Algorithmic Harm in Consumer Markets*, HARV. PUB. L. WORKING PAPER NO. 23-05 (2023).

³ See generally Daniel Susser, Artificial intelligence and the body: Dreyfus, Bickhard, and the future of AI in Müller, V. (ed.) Philosophy and Theory of Artificial Intelligence, 5 Studies in Applied Philosophy, Epistemology and Rational Ethics 277–287 (2013) (citing inter alia Hubert L. Dreyfus, What Computers Can't Do: The Limits of Artificial Intelligence (1972); Hubert L. Dreyfus, What Computers Still Can't Do: A Critique of Artificial Reason (1993); Mark H. Bickhard and Loren Terveen, Foundational Issues in Artificial Intelligence and Cognitive Science: Impasse and Solution (1995)); Marvin L. Minksy, The Emotion Machine: Commonsense Thinking, Artificial Intelligence, and the Future of the Human Mind (2006); Marvin L. Minksy, The Society of the Mind (1986).

⁴ See, e.g., Bo-chiuan Su and Batnasan Luvaanjalba, *The Effect of Hubert Dreyfus's Epistemological Assumption on the Philosophy of Artificial Intelligence*, Int'l Conf. on Human-Computer Interaction, HCII 2021: HCI IN BUS., GOV'T AND ORGS. 630-44 (July 3, 2021).

semantics,⁵ the scientific and philosophical study of natural and artificial languages; and ontology,⁶ a philosophy concerning existence. AI orders vast oceans of data. For the past few decades, various forms of AI technologies have processed oceans of data into translatable information, algorithmic systems, predictions and correlations, and other results. With natural language processing and large language models (LLMs), generative AI has introduced unprecedented accessibility to AI. With ease and speed, generative AI converts unthinkably vast galaxies of information into content which can include text, depictions, sound, and code; and can imitate a wide range of reasoning processes.⁷

AI and the Law, therefore, is a highly complex field that requires grappling with its interdisciplinary consequences, just as Constitutional Law is a highly nuanced and contextualized area of law that also demands an interdisciplinary lens.

B. Understanding AI as a Governing Philosophy

In the past year, we have entered a new phase of large commercially driven AI investments. This new phase brings into sharp relief the need for a dialogue on rights-based AI governance. The creators of generative AI have shared that their ambition is to advance Artificial General Intelligence (AGI), which aims to surpass human capacities.⁸ Generative AI and AGI ambitions force us to confront these epistemological and ontological questions head on and with some urgency in a constitutional democracy.

AI is already deployed as a governing tool in multiple contexts.⁹ AI, particularly due to its combined

⁵ See, e.g., Yoav Shoham, *Temporal logics in AI: Semantical and ontological considerations*, 33 ARTIFICIAL INTELLIGENCE 89-104 (1987).

⁶ *Id. See also* Roman Krzanowski and Pawel Polak, *The meta-ontology of AI systems with human-level intelligence*, 73 PHILOSOPHICAL PROBLEMS IN SCIENCE (ZFN) 197-230 (2022).

 ⁷ See, e.g., Yejin Bang, et al., A Multitask, Multilingual, Multimodal Evaluation of ChatGPT on Reasoning, Hallucination, and Interactivity, arXiv:2302.04023 COMPUTER SCIENCE, COMPUTATION AND LANG. (Feb. 2023).
⁸ See Evgeny Morozov, The True Threat of Artificial Intelligence, N.Y. TIMES (JUNE 30, 2023) (citing Sam Altman, CEO of OpenAI, Planning for AGI and Beyond (Feb. 24, 2023), <u>https://openai.com/blog/planning-for-agi-andbeyond</u>) ("Our mission is to ensure that artificial general intelligence—AI systems that are generally smarter than humans—benefits all of humanity.")).

⁹ See generally VIRGINIA EUBANKS, AUTOMATING INEQUALITY: HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR (2018); Danielle K. Citron & Ryan Calo, *The Automated Administrative State: A Crisis of Legitimacy*, 70 Emory L. J. 797 (2021); Rashida Richardson et al., *Dirty Data, Bad Predictions: How Civil Rights Violations Impact Police Data, Predictive Policing Systems, and Justice*, 94 N.Y.U. L. REV. ONLINE 15 (2019); Jonathan Zittrain, *The Hidden Costs of Automated Thinking*, THE NEW YORKER (July 23, 2019). *See also supra* notes 1-2 and *infra* note 10.

epistemological and ontological power, and its economic, political, and social power, has the potential to evolve into a governance philosophy and governance ideology. AI is constitutive of not only a knowledge structure but also a market structure in an information society and a governing structure in a digital political economy. The incentives of AI privatization and the exponential growth of datafication can operate as an invisible governing superstructure under an invisible and unaccountable hand. Additionally, AI can execute both private and public ordering functions,¹⁰ sometimes without authorization, rapidly shifting power towards centralized and privatized, and automated or semi-automated, methods of governing.¹¹

C. <u>Understanding Constitutional Law as a Governing Philosophy</u>

The Constitution is inspired by a philosophy of how to guarantee rights and constrain power. Constitutional Law is animated by a commitment to constitutional democracy, a governing philosophy surrounding self-governance through a republican form of government. In theory and philosophy, it separates and decentralizes power; installs checks and balances to prevent or mitigate power abuses; and supports a government that is representative "of the people, by the people, for the people."¹²

An important question at this critical juncture is how to ensure AI as a governing philosophy will not compete with and rival Constitutional Law as a governing philosophy in a way that sacrifices our philosophical commitment to fundamental rights and the separation of powers. The Constitution is more than its text. It is a philosophy. AI is more than technology. It is a philosophy.

II. Three Opaque Boxes: Design, Translation, and Application

For the purposes of better understanding the historical and philosophical dimensions of the future of AI governance, I would like to discuss the idea of serial opaque and black boxes in a comparative way, placing AI's opaque boxes side-by-side with opaque boxes in Constitutional Law.

Some refer to AI as a black box as it can be difficult, and in some circumstances is impossible, to

¹⁰ See, e.g., Sonia K. Katyal, *Private Accountability in the Age of Artificial Intelligence*, 66 UCLA L. REV. 54 (2019), Joshua A. Kroll *et al.*, *Accountable Algorithms*, 165 U. PA. L. REV. 633 (2017); Solon Barocas & Andrew D. Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671 (2016).

¹¹ See supra notes 1-2, 8-10, and *infra* notes 13-14.

¹² President Abraham Lincoln, The Gettysburg Address (Nov. 19, 1863). *See also* GARRY WILLIS, LINCOLN AT GETTYSBURG: THE WORDS THAT REMADE AMERICA (2006).

understand its workings, as AI is never entirely transparent.¹³ In this vein, we can say that AI encompasses several opaque boxes in its lifecycle of design, translation, and application. This can also be said about Constitutional Law. Constitutional Law can be difficult to understand in its design, translation or judicial interpretation, and application.

A. Three Opaque Boxes of AI

The black box of AI often refers to the multiple layers of automation that make AI and emerging technologies—the algorithmic decisionmaking or generative AI results, for example—inscrutable. When looking at how AI is more of a philosophy than a technology, it is useful to think of a series of three opaque boxes: how philosophy may play a role in the opaque box of the technology itself; how philosophy may be immersed in the opaque box of designer, marketer, and user translation; and how philosophy may be integrated into an opaque box in the application of AI systems and social systems, and then how AI may evolve into forms of governance and governance philosophies or ideologies.

1. <u>AI: Opaque Box in Design</u>

Black box AI often refers to the technical infrastructure of the AI technology itself. Frank Pasquale states that "'black box AI' refers to any natural language processing, machine learning, textual analysis, or similar software which uses data which are not accessible to the data subject, or which deploys algorithms which are either similarly inaccessible, or so complex that they cannot be reduced to a series of rules and rule applications comprehensible to the data subject."¹⁴ In this way, the first opaque box of AI involves the black box of the tool itself: the inscrutability of technological method; the lack of transparency and explainability; the opacity of the algorithm or incomprehensibility of the generative AI protocol, for instance, that reached its result.¹⁵ Multiple AI ethics principles and AI risk frameworks, for example, seek

¹³ See FRANK PASQUALE, THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION (2015); Scott J. Shackelford, Anjanette Raymond, *et al.*, *Should We Trust a Black Box to Safeguard Human Rights? A Comparative Analysis of AI Governance*, 26 UCLA J. OF INT'L L. AND FOREIGN AFFAIRS 35 (2022).

¹⁴ Frank Pasquale, Normative Dimensions of Consensual Application of Black Box Artificial Intelligence in Administrative Adjudication of Benefits Claims, 84 LAW AND CONTEMPORARY PROBLEMS 35, 36 (2021).

¹⁵ See generally Janelle Shane, YOU LOOK LIKE A THING AND I LOVE YOU: HOW ARTIFICIAL INTELLIGENCE WORKS AND WHY IT'S MAKING THE WORLD A WEIRDER PLACE (2019).

to elevate attention on how biases can enter into the data and design of AI and automated systems.

2. AI: Opaque Box in Translation

Relatedly, the second opaque box of AI involves opacity in the human-system interaction with the AI. Beyond the black box of the technology, what conscious or unconscious systems drive, shape, and translate the outcomes desired by the designers and the builders of the AI? There is often a lack of comprehensibility of how the AI systems are built. The way in which a human interacts with AI in the lifecycle of AI design, testing, and decisionmaking can reflect, translate, and then incorporate multiple layers of history, philosophy, and ideology. Those who build, market, and deploy AI can infuse AI systems with these philosophical and ideological commitments. For those using such technologies, these commitments are not subject to scrutiny. Indeed, the philosophical and ideological commitments underlying AI may be invisible to its developers and marketers.

3. <u>AI: Opaque Box in Application</u>

Philosophically, some experts have noted that AI is a meta-technology with meta-ontological implications.¹⁶ Consequently, understanding the third opaque box of AI requires meta-theorization, similar to meta-theories applied in Constitutional Law:¹⁷ an interrogation of the way in which AI can enter the bloodstream of society and other preexisting complex systems, for instance, through its application and justification. Here, the opaque box encompasses the way in which AI may be shaping the world around us, affecting us directly and indirectly, without any awareness on our part.

B. Three Opaque Boxes of Constitutional Law

Constitutional Law is also more of a philosophy and a series of decisionmaking processes than simply constitutional provisions and court opinions. If seen as an analogy to AI as a philosophy, Constitutional Law can also be viewed as a series of opaque boxes. Constitutional Law has been referred to as a black box

¹⁶ See Krzanowski & Polak, The meta-ontology of AI systems, supra note 6.

¹⁷ See, e.g., Sanford Levinson, *The Audience for Constitutional Meta-Theory*, 63 U. COLO. L. REV. 389 (1992). See also infra notes 25-28.

in some contexts.¹⁸ To emphasize the benefit of a comparative method, some scholars have examined and compared what they have referred to as the black box of judicial decisionmaking against the black box of algorithmic decisionmaking.¹⁹

1. Constitutional Law: Opaque Box in Design

The first opaque box of Constitutional Law is the text of the Constitution. The philosophy of the Constitution was not stated explicitly in the text of the document beyond what was implied in the Preamble: "We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution,²¹ as did the notes on the Constitutional Convention debates,²² speeches, news reports, pamphlets, letters, and diaries of the Founding Fathers and their contemporaries.²³ Other records form the archives of the Constitution, and also include the archival records of the formation of the Bill of Rights and the Reconstruction Amendments.²⁴

2. Constitutional Law: Opaque Box in Translation

The second opaque box of Constitutional Law involves judicial decisionmaking and the variability of

judicial interpretation and translation of the text. Theories of constitutional interpretation are abundant. Jeff

¹⁸ See, e.g., Martha Minow, The Constitution as Black Box During National Emergencies: Comment on Bruce Ackerman's Before the Next Attack: Preserving Civil Liberties in an Age of Terrorism, 75 FORDHAM L. REV. 593 (2006).

¹⁹ See, e.g., Wim De Mulder et al, Are Judges More Transparent than Black Boxes? A Scheme to Improve Judicial Decision-Making by Establishing a Relationship with Mathematical Function Maximization, 84 LAW AND CONTEMPORARY PROBLEMS 47 (2021). See also Ashley Deeks, The Judicial Demand for Explainable Artificial Intelligence, 119 COLUM. L. REV. 1829 (2019).

²⁰ U.S. CONST. (1787).

²¹ Alexander Hamilton, James Madison & John Jay, FEDERALISTS PAPERS: A COLLECTION OF ESSAYS, WRITTEN IN FAVOUR OF THE NEW CONSTITUTION, AS AGREED UPON BY THE FEDERAL CONVENTION, SEPTEMBER 17, 1787, IN TWO VOLUMES (first ed. 1788).

²² JAMES MADISON, NOTES OF DEBATES IN THE FEDERAL CONVENTION OF 1787; EDWARD J. LARSON AND MICHAEL P. WINSHIP, THE CONSTITUTIONAL CONVENTION: A NARRATIVE HISTORY FROM THE NOTES OF JAMES MADISON (2005).

²³ See generally GORDON S. WOOD, THE CREATION OF THE AMERICAN REPUBLIC, 1776-1787 (1969).

²⁴ See generally Michael J. Klarman, The Framers' Coup: The Making of the United States Constitution (2016); Akhil Amar, The Bill of Rights: Creation and Reconstruction (1998); Mark A. Graber, Punish Treason, Reward Loyalty: The Forgotten Goals of Constitutional Reform After the Civil War (2023).

Powell, for instance, explores why any attempt to distill the original intent of our founding fathers under originalism is a contested interpretive strategy.²⁵ Philip Bobbitt sets forth several modalities of constitutional interpretation to make more transparent the weighted influences that feed into interpretive methodologies applied in judicial translation of the text, including: historical, textual, doctrinal, prudential, structural, and ethical tools of interpretation.²⁶

3. Constitutional Law: Opaque Box in Application

Just as the third opaque box of AI application requires meta-theorization, the third opaque box of Constitutional Law involves meta-theories of Constitutional Law's operationalization and influences.²⁷ The third opaque box of Constitutional Law is a systems-wide approach to questioning the way that it functions to allocate power and rights. This can present itself through history, social movements and its symbolism, theorization, and its interplay with other philosophical or ideological commitments.²⁸

III. Comparing AI with Constitutional Law as a Governance Philosophy

Throughout history, governance philosophies have competed with one another. AI rules are already being referred to by one AI company as a constitution.²⁹ Over time, AI may be seen as a philosophy of governance that competes with Constitutional Law and the rule of law.³⁰ AI is progressing in its

²⁵ H. Jefferson Powell, *The Original Understanding of Original Intent*, 98 HARV. L. REV. 885, 888 (1985) (The "original intent" was determined not by historical inquiry into the expectations of the individuals involved in the framing and ratifying the Constitution, but by consideration of what rights and power sovereign polities could delegate to a common agent without destroying their own essential autonomy. Thus, the original intentionalism was in fact a form of structural interpretation") (internal citations omitted)). *See also* JACK M. BALKIN, LIVING ORIGINALISM (2011); DAVID A. STRAUSS, THE LIVING CONSTITUTION (2010).

²⁶ Philip Bobbitt, Constitutional Fate: Theory of the Constitution 7 (1982).

²⁷ See supra Levinson, Constitutional Meta-Theory, supra note 17.

²⁸ See generally Erwin Chemerinsky, No Democracy Lasts Forever: How the Constitution Threatens the United States (2023); Heather Cox Richardson, How the South Won the Civil War (2020); Jack M. Balkin, Constitutional Redemption: Political Faith in an Unjust World (2011); Sanford Levison, Constitutional Faith (1988); Mark Tushnet, Red, White, and Blue: A Critical Analysis of Constitutional Law (1988); Kenneth W. Mack, Representing the Race: The Creation of the Civil Rights Lawyer (2012).

²⁹ Kevin Roose, *What if We Could All Control A.I.? Researchers at Anthropic asked roughly 1,000 Americans to write rules for their A.I. chatbot. The results could be a model for future kinds of A.I. governance*, N.Y. TIMES (Oct. 17, 2023) ("What if an A.I. company let a group of ordinary citizens write some rules, and trained a chatbot to follow them? The experiment, known as 'Collective Constitutional A.I.,' builds on Anthropic's earlier work on Constitutional A.I.').

³⁰ For discussions on similar digital crossroads, *see, e.g.*, LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999); LAWRENCE LESSIG, CODE: AND OTHER LAWS OF CYBERSPACE, VERSION 2.0 (2006); BRUCE SCHNEIER, DATA AND GOLIATH: THE HIDDEN BATTLES TO COLLECT YOUR DATA AND CONTROL YOUR WORLD;

integration into multiple forms of governance, public and private, and is centralizing its importance in national security realms, such as information warfare and cyber conflict. Because AI serves as a shortcut to governance, it potentially opens the door for accelerated undemocratic power reallocation. This makes it an obvious target for adversaries of democracy to target and control.

In information warfare, it is significant to note that foreign and domestic adversaries are actively and concertedly working to shift governance philosophies and ideologies through psychological operations. The risks of disinformation and misinformation campaigns, exacerbated by the vulnerabilities in generative AI, guarantee that cognitive manipulation will be a cornerstone of a new chapter of the Cold War. Constitutional democracy may be modified in ways that are difficult to see and assess, as AI governing systems may lack transparency, AI deployed may be opaque and almost impossible to challenge, and the philosophical dimensions of the AI may swim in the subterranean levels of social and individual consciousness.

A. Learning from History

A philosophy can speak to another philosophy. In other words, analyzing one philosophy against another can bring clarity to both. A philosophy like a constitutional democracy needs to speak to another philosophy, like the epistemology and potential ideology that is infused in AI, to consider the way in which one may or may not be consistent with the other. When a philosophy like a constitutional democracy tries to speak to AI as a technology, it may struggle, and a crucial moment to converse about risks to civil and human rights, and fundamental constitutional rights, might be lost. There may be lapses in dialogue due to an incompatibility in the framing of discourse, a lack of shared vocabulary, and a failure to comprehend the consequences of the conversation.

Constitutional Law is driven by a set of philosophical commitments, such as equality, due process under the law, limited government of enumerated and defined powers, and other principles and values. AI, by contrast, presents itself as a technology whose philosophical commitments are embedded, hidden,

BENJAMIN WITTES AND GABRIELLA BLUM, THE FUTURE OF VIOLENCE: ROBOTS AND GERMS, HACKERS AND DRONES: CONFRONTING A NEW AGE OF THREAT (2015). *See also supra* notes 1-4, 8-10, and 13.

and even denied. In the name of achieving technological efficiencies, it can reshape and even undermine core constitutional philosophical commitments.

In a constitutional democracy, the rule of law precedes power. Our Founders proclaimed that equality and freedom were endowed rights and a form of inalienable self-sovereignty. The signing of the Declaration of Independence, the Constitutional Convention, the ratification of the Bill of Rights were products of a deep historical and philosophical struggle. Going forward, the point of decision is: will AI be applied in a way that is consistent with our constitutional philosophy, or will it alter it, erode it, or mediate it?

B. Shaping Our Future

We have close to 250 years of experience in trying to make sense of how to preserve the democratic experiment through a close examination of the meaning and consequences of the U.S. Constitution. In a constitutional democracy, consent of the people and government by the people are paramount. The social contract implies a direct relationship between the people and their government. Similarly, rights are intended to be directly accessed and the failure to grant rights can be directly challenged.

In AI and our digital economy, it is said that technology has transformed people into the product. This and other emerging technologies, and other policy developments that have intersected with technology's evolution, have transformed the relationship between government and its citizenry.³¹ The social contract has been radically altered.³² Jack Balkin describes the need to fix the "grand bargain" of the modern political economy that spins on the axis of digital information.³³ Under his theorization, certain constitutional rights, such as the First Amendment, can be grasped and better protected if seen as now operating along three coordinates of a triangle: the government, the speaker, and the technology

³¹ See, e.g., WITTES & BLUM, supra note 30.

³² *Id.* (contending that social contract could be undermined by multiple trajectories, including technological, national security, and privatization and decentralization developments).

³³ See, e.g., Jack M. Balkin, *Fixing Social Media's Grand Bargain*, HOOVER WORKING GP. ON NAT'L SEC., TECH., AND LAW, AEGIS SERIES PAPER NO. 1814 (Oct. 16, 2018).

companies.³⁴ Building upon Balkin's triangle, a rights-based AI governance framework inquiry can be framed as a constitutional quadrilateral, whereby constitutional rights operate along four vertices: government, citizen and civil society, technology companies, and now AI systems. We are at a critical juncture where we must grapple with whether constitutional rights were meant to be mediated in this way: whether we can still access equality and due process; and the fundamental freedoms of autonomy, and expressive and associational rights; and other privileges, when knowledge and other interests are digitally mediated, and when it may be nearly impossible to challenge the methods and outcomes of these negotiations.³⁵

As the capacities of AI evolve, several risks will grow exponentially and more rapidly than we can anticipate, including reexamining definitions of personhood and citizenship; the erosion of privacy and autonomy through data-driven AI; drawing separation between real and virtual; incentivizing data breaches, cyber conflict, and AI weaponry; the risks of predictive policing and autonomous weaponry; information warfare and dis/misinformation campaigns; inscrutability and opacity of AI decisionmaking, and black box or opaque box accountability challenges; AI displacement of human knowledge and judgment, and labor; exacerbation of bias and discrimination; retrenchment of historical impulses that bend toward marginalization and classification; and social credit systems, datafication, scoring, and profiling, and exploitation of digital identities; and other data tracking, databasing, and cybersurveillance harms.

AI releases extraordinary potential, like many prior industrial, scientific, and technological revolutions. It can expand commerce and productivity, mapping insights through its predictive potential like automation tools have done in the past. The paramount inquiry of AI and the Law as a field of study

³⁴ See, e.g., Jack M. Balkin, *Free Speech is a Triangle*, 118 COLUM. L. REV. 2011 (2018) ("On one corner are nation-states and the European Union. On the second corner are privately owned internet-infrastructure companies, including social media companies, search engines, broadband providers, and electronic payment systems. On the third corner are many different kinds of speakers, legacy media, civil-society organizations, hackers, and trolls."). ³⁵ My prior research has attempted to explore these questions in various legal and technological contexts. *See, e.g.*, Margaret Hu, *Big Data Blacklisting*, 67 FLA. L. REV. 1735 (2015); Margaret Hu, *Algorithmic Jim Crow*, 86 FORDHAM L. REV. 633 (2017); Margaret Hu, *Biometrics and an AI Bill of Rights*, 60 DUQUESNE L. REV. 283 (2022).

and practice is how to harness the potential of AI and regulate its application in a way that is consistent with, and not irreversibly harmful to, our constitutional democracy.

IV. Conclusion

The future of AI governance and automation will likely reflect similar historical and philosophical tensions, as the conflicts and struggles will likely rhyme with the past.³⁶ In a constitutional democracy, it is important to start with the philosophy and history of democratic governance. To ground how AI must be interrogated for its governance impact, the humanities and philosophies that underscore an "analogue democracy" must serve as a guide in a "digital democracy."³⁷

If we look at AI too literally as only a technology, we run the risk of not fully grasping its impact as a challenge to philosophical foundations. We know from history that those who design, litigate, and interpret Constitutional Law can permeate it with historical biases and antidemocratic ideologies, sometimes in ways that are undertheorized and misunderstood, when reaching the intersection of two roads.

The serial opaque boxes of AI pose similar risks and vulnerabilities. As we are at the intersection of two roads, oversight of AI and other emerging technologies forces the threshold question at the crossroads: will AI govern the law or will law govern AI? To preserve a constitutional democracy, there is only one answer: it must be the latter.

³⁶ See generally KEVIN ROOSE, FUTUREPROOF: 9 RULES FOR HUMANS IN THE AGE OF AUTOMATION (2021); DARRELL M. WEST AND JOHN R. ALLEN, TURNING POINT: POLICYMAKING IN THE ERA (2020); Bruce Schneier and Davi Ottenheimer *Robots Are Already Killing People*, THE ATLANTIC (Sept. 6, 2023).

³⁷ See, e.g., Jamie Bartlett, *The war between technology & democracy*, MEDIUM (Sept. 18, 2018); NANJALA NYABOLA, DIGITAL DEMOCRACY, ANALOGUE POLITICS: HOW THE INTERNET ERA IS TRANSFORMING POLITICS IN KENYA (2015).