

THE SILICON VALLEY EFFECT

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The most influential Artificial Intelligence (“AI”) companies are shaping AI’s legal order and regulatory discourse to protect their business interests and shift focus away from how their practices harm human beings. I call Big Tech’s influence on AI’s legal order the “Silicon Valley Effect” and argue that it is understudied and underestimated.

The major AI companies rely on global value chains and global markets. Capitalism drives them to exploit and experiment on vulnerable populations in permissive regulatory environments. Industry-influenced transnational legal orders—including domestic regulation and treaties—protect companies’ practices and products from regulation. Legal scholarship should account for how global informational capitalism drives the industry to influence the development of law transnationally.

Scholars who study technology’s political economy tend to advocate for localized regulation, and scholars who focus on technology’s global legal orders tend to focus on states. Focusing on isolated domestic remedies for transnational phenomena is a mistake since it permits the industry to develop harmful products and practices elsewhere. Focusing exclusively on states’ transnational influence elides the industry’s significant influence on regulatory discourse, and on foreign and domestic policy.

As the AI industry accumulates power, it can overwhelm weakening state regulators in parts of the world that could initially resist their influence. “Strong” states are one election away from vulnerability. To be resilient, they should stop relying solely on domestic regulation and develop transnationally harmonized legal orders in the public interest to curtail the industry’s power and counteract the Silicon Valley Effect.

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I. INTRODUCTION

In 2023, OpenAI CEO Sam Altman went on a world tour, visiting Brazil, Australia, and East Asia.¹ During the tour, as well as in conversation with American senators, Altman maintained that AI² should be regulated.³ The question is what Altman means by regulation. OpenAI lobbied the European Union to ensure that its AI Act did not classify OpenAI products as high-risk or restrict their use for employment or education.⁴ A profitable company's attempt to influence regulators to

¹ Rishi Iyengar, *OpenAI's CEO Goes on a Diplomatic Charm Offensive*, FOREIGN POL'Y (June 20, 2023), <https://perma.cc/X9HL-ESNC>; Keach Hagey & Mike Cherney, *ChatGPT Owner Vows to Improve Its AI Tools After Sam Altman's World Tour*, WALL ST. J. (June 29, 2023), <https://perma.cc/2F2S-ZWA6>.

² I share scholars' concerns about the impreciseness of the term "AI," but I use this term here since it is used by regulators and in law. I also use "algorithmic systems" interchangeably with AI in this article. See Ifeoma Ajunwa, *The Paradox of Automation as Anti-Bias Intervention*, 41 CARDOZO L. REV. 1671, 1684 (2020).

³ Iyengar, *supra* note 1.

⁴ *Id.*

its advantage is not new or surprising. Other AI companies' CEOs have also called for regulation.⁵ Altman's tour and OpenAI's influence on European regulators are a part of what I call the "Silicon Valley Effect."⁶ The major AI companies—all global—influence AI regulation and its priorities. The Silicon Valley Effect on AI regulation around the world is severely underestimated.

Altman suggested to Congress that the United States should take the lead in setting global standards.⁷ He also proposed the establishment of an International Atomic Energy Agency-like body for global cooperation.⁸ OpenAI is not alone in its efforts. OpenAI, Anthropic, Google, and Microsoft have launched an industry body called the "Frontier Model Forum"⁹ focusing on "ensuring safe and responsible development of frontier AI models," which also appears to be meant to lead regulatory discourse about future models.¹⁰ Microsoft has a United Nations Affairs office, which has seven broad priorities that "roll up to global governance."¹¹ Regulators and advocates should be attentive to how OpenAI and other Big Tech¹² companies create and influence transnational norms. Transnational norms can allow companies to make and sell harmful algorithmic products, like the data-driven system labeling young women as pregnancy risks that Microsoft developed in collaboration with Argentina's Ministry of Early Childhood.¹³ The existence and normalization of these products elsewhere makes them an ever-present risk for carefully regulated markets when regulators weaken.¹⁴ Microsoft might be able to market similar products to states within the United States that are devoting resources to preventing abortion.

I argue that the world's most powerful AI companies are engaging in regulatory entrepreneurship¹⁵ to create a transnational legal order ("TLO") that protects their transnational business models. I call this the "Silicon Valley Effect" in

⁵ Johana Bhuiyan, *Tech Leaders Agree on AI Regulation but Divided on How in Washington Forum*, GUARDIAN (Sept 13, 2023), <https://perma.cc/2SVU-RWF8>; Lauren Irwin, *Microsoft CEO: AI Needs 'Guardrails' After Fake Explicit Images of Taylor Swift Go Viral*, HILL (Jan. 27, 2024), <https://perma.cc/B5CB-TNLA>.

⁶ I take inspiration from Anu Bradford's brilliant framing of the "Brussels effect," which she describes as "a deeply underestimated aspect of European power that the discussion on globalization and power politics overlooks: Europe's unilateral power to regulate global markets." Anu Bradford, *The Brussels Effect*, 107 NW. U.L. REV. 1, 3 (2012).

⁷ Craig S. Smith, *OpenAI's Sam Altman to Congress: Regulate Us, Please!*, FORBES (May 16, 2023), <https://perma.cc/ZR7W-XJP9>.

⁸ Jon Gambrell, *OpenAI CEO Suggests International Agency like UN's Nuclear Watchdog Could Oversee AI*, ASSOCIATED PRESS (June 6, 2023), <https://perma.cc/3ZG4-T97P>.

⁹ Dan Milmo, Google, Microsoft, OpenAI and Startup Form Body to Regulate AI Development, GUARDIAN (July 26, 2023), <https://perma.cc/4KRA-YRM4>.

¹⁰ *Id.*

¹¹ *Why Does Microsoft Have an Office at the UN? A Q&A with the Company's UN Lead*, MICROSOFT: ON THE ISSUES (Oct. 5, 2020), <https://perma.cc/7SRZ-4M7B>.

¹² By Big Tech, I refer to American companies which currently are worth much more than their counterparts from any other country, including China. Microsoft has invested heavily in OpenAI, which relies on Azure. Other companies have similar connections. For example, Amazon and Google have invested heavily in Anthropic, which appears to use both Amazon web services and Google Cloud.

¹³ See *infra* Part II.A.3 for a detailed discussion of this system, and how it puts young women at risk in a state where abortion has been either illegal or highly contested.

¹⁴ See *id.* for a discussion of how related Microsoft products have been introduced in other markets.

¹⁵ See Jordan M. Barry & Elizabeth Pollman, *Regulatory Entrepreneurship*, 90 S. CAL. L. REV. 90, 383 (2017).

homage to Anu Bradford's "Brussels Effect."¹⁶ A TLO consists of legal norms, institutions, and actors that "authoritatively" order how law is understood and practiced across states.¹⁷ It can take various forms, including global and local, and public and private institutions.¹⁸ Gregory Shaffer's field-building work, which I draw from heavily here, shows that different TLOs can compete until a regulatory equilibrium is reached.¹⁹ Although companies cannot create laws the way states do, they are able to influence the framing and interpretation of law.

Bradford's outstanding book, *Digital Empires*, discusses the contestation between China, the European Union, and the United States of America's TLOs.²⁰ While Bradford offers a nuanced discussion of Big Tech's engagement with states, she characterizes this engagement as vertical contestation with different states.²¹ I suggest the contestation includes the Silicon Valley Effect, through which American-origin transnational companies create their own TLO or "Digital Empire" in Bradford's language,²² by influencing regulatory discourse and regulatory institutions. I draw from Julie Cohen's work on market actors' influence on law,²³ offering a more detailed explication of their cross-border and transnational influence and a detailed discussion of how market actors are influencing law governing AI.

If the companies successfully create TLOs that protect their business models, they can limit the extent to which people can turn to democratic institutions to regulate AI's harms in the future. For example, the global legal order that protects pharmaceutical product patents constrains states from responding to democratically driven efforts to limit property rights in pharmaceutical patents in the interests of affordable medicines and vaccines. Before the AI industry successfully creates a powerful TLO to protect its interests, regulators, researchers, and activists who are concerned about AI's harmful effects should contest the industry's influence on law and discourse, and encourage democratic risk identification and norm-setting.²⁴ States will find their hands tied by a TLO that protects the industry from regulation unless they counter its formation by creating a democratically driven TLO in the public interest for AI.

One visible outcome of companies' influence is that the dominant global

¹⁶ Bradford, *supra* note 6.

¹⁷ TERENCE HALLIDAY & GREGORY SHAFFER, TRANSNATIONAL LEGAL ORDERS 7-21 (2015).

¹⁸ I discuss this in detail below. *See infra* Part III.A.1.

¹⁹ *See* GREGORY C. SHAFFER, TRANSNATIONAL LEGAL ORDERING AND STATE CHANGE 43 (2015).

²⁰ ANU BRADFORD, *DIGITAL EMPIRES: THE GLOBAL BATTLE TO REGULATE TECHNOLOGY* 7 (2023) [hereinafter BRADFORD, *DIGITAL EMPIRES*]. Bradford describes the digital empires as "the leading technology, economic, and regulatory powers, each with the ambition and capability to shape the global digital order toward their interests and values." *Id.* She adds, "Not unlike the empires of the past, they have further exported their domestic models in an effort to expand their respective spheres of influence, thus pulling other countries into the orbits of the American, Chinese, or European digital empires. . . . Today's digital empires are primarily exporting their tech companies, technologies, and rules governing those technologies, thus shaping countries and individuals that fall under their influence toward the norms and values they espouse." *Id.*

²¹ *Id.* at 12.

²² *Id.*; *see also* Chinmayi Arun, *Transnational AI and Corporate Imperialism*, CARNEGIE ENDOW. FOR INT'L PEACE (2024), <https://perma.cc/9PMH-L7PM>.

²³ *See* JULIE E. COHEN, BETWEEN TRUTH AND POWER 203-24 (2019).

²⁴ I discuss this in detail below. *See infra* Part III.C and Part IV.

governance discourse takes a techno-centric view of the problem.²⁵ Unsurprisingly, the major AI companies frame the problem in ways that lead to industry-led regulatory solutions.²⁶ They encourage a focus on questions like AI eradicating humans, which are not proximate.²⁷ More subtly, the companies' influence on discourse has resulted in treating unjust and harmful outcomes as technical problems of algorithms and datasets.²⁸ The framing of a problem affects the framing of regulation. A technocentric view of harm allows the industry to take the lead in AI regulation since it owns the technology and possesses the expertise.²⁹ Companies can then engage in direct or indirect transnational self-regulation, setting standards for themselves.³⁰

Only a few firms possess the resources necessary for the world's most advanced AI systems. These resources include access to the sophisticated physical infrastructure to store and process data, extensive data sets safeguarded by private law,³¹ the means to label them, systems for collection of information and experimentation, and the highly skilled researchers who can advance this work.³² The firms possessing these resources, including Meta, Amazon, Google, and Microsoft, build on modern capitalism's business models and use global value chains.³³ The "Big Tech" firms, as I am going to call them, operate transnationally, with a vertical stack of businesses, to develop and use advanced AI systems.³⁴ They outsource jobs

²⁵ Kevin Roose, *A Conversation with Bing's Chatbot Left Me Deeply Unsettled*, N.Y. TIMES (Feb. 17, 2023), <https://perma.cc/P7VU-RXUZ>.

²⁶ For example, major AI firms' CEOs joined other prominent people to announce that human extinction is AI's most salient risk. See Margo Anderson, *'AI Pause' Open Letter Stokes Fear and Controversy*, IEEE SPECTRUM (Apr. 7, 2023), <https://perma.cc/RJB6-5J8K>; see also Reuters Videos, *Humanoid Robot 'Imagines' Nightmare AI Scenario*, YAHOO NEWS (June 1, 2023), <https://perma.cc/ADG5-KEVP>.

²⁷ See *id.*; see also David Donoho, *Data Science at the Singularity*, 6 HARV. DATA SCI. REV., <https://perma.cc/89J5-JA8K> (2004).

²⁸ Abeba Birhane, *Algorithmic Injustice: A Relational Ethics Approach*, 2 PATTERNS 1 (2021); Inioluwa Deborah Raji et al., *Closing the AI Accountability Gap: Defining an End-to-End Framework for Internal Algorithmic Auditing*, PROCEEDINGS OF THE 2020 CONFERENCE ON FAIRNESS, ACCOUNTABILITY, AND TRANSPARENCY 33 (2020).

²⁹ See *infra* Part III.B.2 for a detailed account of how the industry dominates AI regulatory discourse.

³⁰ See generally Gregory C. Shaffer, *How Business Shapes Law: A Socio-Legal Framework*, 42 CONN. L. REV. 147 (2009) [hereinafter Shaffer, *Business Shapes Law*].

³¹ Amy Kapczynski, *The Law of Informational Capitalism*, 129 YALE L.J. 1460, 1508-14 (2020) [hereinafter Kapczynski, *Informational Capitalism*]. For an explanation of how newer companies like OpenAI and Anthropic are connected with these firms, see *supra* note 12.

³² See Michael Veale et al., *AI, and Global Governance: Modalities, Rationales, Tensions*, 19 ANN. REV. L. & SOC. SCI. 255, 259 (2023); see also *supra* note 12.

³³ See IGLP Law and Global Production Working Group, *The Role of Law in Global Value Chains: A Research Manifesto*, 4 LONDON REV. INT'L L. 57 (2016).

³⁴ Veale et al., *supra* note 32, at 257.

like data labeling to “cheaper markets,”³⁵ and experiment in these markets.³⁶ They own and sell hardware, operating systems, cyber surveillance infrastructures, cloud computing, networking, and increasingly, AI models.³⁷ Significant players like OpenAI and Anthropic rely on Big Tech infrastructure. The free flow of information across borders enables these global businesses to grow.

This article argues that scholars and regulators should pay closer attention to AI’s global political economy, to AI companies’ influence on regulatory discourse, and to the TLO that AI companies are shaping to protect their transnational value chains and markets. Law and political economy (LPE) scholars expanded the socio-technical perspective that dominates AI scholarship, but LPE scholarship about technology typically focuses on the intra-state market society and how it can be regulated. I argue that scholars should widen their focus from domestic regulation of AI to AI’s TLO because the AI industry operates transnationally. Failing to do so will mean that they over-rely on states holding more power than global AI companies in the future. State-led framing of AI’s harms falls short in its eliding the global nature of AI’s political economy and harms. AI systems are transnational because they are driven by global capitalism.³⁸

I discuss AI’s global economy in Part II, showing how companies normalize harmful practices and products by experimenting on vulnerable populations who tend to be ignored in regulatory conversations. Few people in the United States know about Microsoft’s Teenage Pregnancy Prediction System in an impoverished province of Argentina, but they may eventually end up being affected by it. I highlight the relationship between companies’ harmful practices and global capitalism, arguing that these harmful practices will boomerang to stronger regulatory jurisdictions unless regulators treat AI as a transnational problem to be addressed by transnational regulation. To reorient transnational governance, scholars, activists, and regulators may also need to ensure that global informational policy accounts for the data economy: AI companies collect and process large quantities of data using transnational supply chains, accessing cheap labor to clean and label data. The cross-border movement of proprietary data is different from the knowledge-sharing that dominates most conversations about cross-border information flows.

In Part III, I discuss how the major AI companies influence regulation, regulatory discourse, and regulatory institutions to preserve their harmful models and practices. Although the companies’ practices and norm-setting are contested in multiple jurisdictions, these fragmented challenges might benefit from mobilizing

³⁵ *Id.*; see also KATE CRAWFORD, THE ATLAS OF AI: POWER, POLITICS AND THE PLANETARY COSTS OF ARTIFICIAL INTELLIGENCE 63, 108-09 (2021); Kate Crawford & Vladan Joler, *Anatomy of an AI System: The Amazon Echo as an Anatomical Map of Human Labor, Data, and Planetary Resources*, AI NOW INST. & SHARE LAB (2018), <https://perma.cc/AE4Q-QQS9>; *infra* Part II.A.2. See generally Kira J.M. Matus & Michael Veale, *Certification Systems for Machine Learning: Lessons from Sustainability*, 16 REGUL. & GOV. 177 (2022).

³⁶ See, e.g., Deepa Gupta, *This AI Chatbot “Sidney” Is Misbehaving*, MICROSOFT CMTY. (Nov. 23, 2022), <https://perma.cc/TQ76-TGGE>; Gary Marcus, *What Did They Know, and When Did They Know It? The Microsoft Bing Edition*, THE ROAD TO AI WE CAN TRUST (Feb. 21, 2023), <https://perma.cc/KL7E-HR3P>; see also Arun, *supra* note 22.

³⁷ Veale et al., *supra* note 32, at 257.

³⁸ For the discussion of transnational technology companies driven by capitalism that informs my work, see COHEN, *supra* note 23, and ULISES A. MEJIAS & NICK COULDRY, DATA GRAB: THE NEW COLONIALISM OF BIG TECH AND HOW TO FIGHT BACK (2024).

once the companies' practices are treated as interconnected and their power and reach are viewed as transnational. Industry-influenced TLOs will protect and perpetuate the companies' harmful practices: As companies steer transnational norm development, states will find their power to regulate AI curtailed by treaties and global norms. As the companies accumulate power, they can overwhelm relatively weak states and influence relatively strong states. Harmful algorithmic products, once available, can be used in strong states when they take an authoritarian turn. Recognizing the Silicon Valley Effect is a prerequisite to understanding that AI regulation in the public interest requires transnationally coordinated state power, and mobilization or other countervailing power to contest the companies' TLO.

This is why both a reframing of the problem and a countervailing movement advocating for TLOs that serve the public are critical. Regulators, researchers, activists, and others who are interested in AI regulation in the public interest frame the problem bearing affected publics worldwide in mind.³⁹ Finding ways to contest the industry's influence is complicated. In Part IV, I outline a broad path toward it. A TLO necessitates enforceable law and will require coordination of states' administrative power. States will need to engage in structural regulation and other strategies that address the Silicon Valley Effect, whether it takes the form of regulatory capture or indirect influence. Since public interest is best determined through democratic participation, regulatory institutions will need to engage and be accessible to the range of publics affected by AI, enabling them to exercise countervailing power and develop countervailing norms. Instead of focusing on questions framed and highlighted by the AI industry, states, and other powerful actors, like foundations and think tanks, will need to seek out, invest in, and amplify the public's voice, especially the collective voices and concerns of marginalized and disempowered publics.

II. AI'S GLOBAL POLITICAL ECONOMY

Regulators, advocates, and scholars tend toward at least one of two omissions while discussing AI. Those who work on domestic law elide AI's transnational nature—its transnational value chains and markets. Those who work on international or transnational law focus on the role of states, trade relations, and political rights, eliding capitalism's forces and the transnational business models that the companies rely on and protect. I discuss AI's global political economy and how the industry shapes law in Part II. Accounting for global capitalism's role in shaping AI, and the laws that govern it is necessary for effective and resilient AI regulation.

Reframing AI's harms in terms of its global political economy draws important cross-border connections between the harms. It shows how Americans might eventually be affected by the industry's exploitative and unjust practices

³⁹ I use the term "publics" through this essay to recognise that the "public" consists of a variety of groups and communities who are sometimes allied but sometimes at odds with each other. See Chinmayi Arun, *Facebook's Faces*, 135 HARV. L. REV. F. 236, 256-57 (2022); Nancy Fraser, *Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy*, 25/26 SOC. TEXT 56, 57-61 (1990).

elsewhere, even if they appear to be about Kenyan data workers,⁴⁰ Congolese children mining cobalt,⁴¹ or impoverished young Argentinian women whom AI systems unjustly label as being at risk of teenage pregnancies in a state where abortions are illegal⁴² Global capitalism causes this exploitation and injustice and will drive it elsewhere.

To address the problem of the overlooked global political economy, I propose two major shifts in regulatory discourse. The first shift, already underway, is expanding conversations about AI's harmful impact to include the harms caused by AI's political economy. These conversations tend to focus on technical or socio-technical systems,⁴³ overlooking the economic relationships shaping these systems. They would benefit from recognizing that AI companies and their choices are driven by capitalism and are therefore oriented toward cutting costs, scaling, and maximizing profits. This explains why AI's dominant business models include outsourcing labor and accessing several markets. Treating AI as a part of the market society adds an important dimension to the AI scholarship that already covers socio-technical perspectives. It accounts for the harms caused when companies compete to increase their profit margins.

Since the world's most significant AI companies are transnational, AI is not a local phenomenon. Harms that initially manifest in other countries may also appear in the United States if they are caused by transnational companies' practices. Regulators who fail to take note of harm to human beings in other states risk allowing the growth and normalization of harmful practices, which will eventually boomerang toward populations who were initially protected. The extraction industry offers cautionary tales, from its general impact on the environment to practices that eventually resulted in the Deepwater Horizon oil spill in the Gulf of Mexico.⁴⁴ A transnational response to the oil spills in Niger might have influenced oil companies' practices in ways that spared the Gulf of Mexico.⁴⁵

The second shift is that global information policy should account for the data economy. This means that discussions of global and cross-border information need to evolve further from the outdated view of the free flow of undifferentiated expression to recognizing that much of this flow is of proprietary data to a few companies. Global data flows are an integral part of AI business models.⁴⁶ International trade agreements can restrict states' lawmaking protecting their

⁴⁰ See *infra* Part II.A.2.

⁴¹ *Id.*

⁴² See *infra* Part II.A.3.

⁴³ See, e.g., Margot E. Kaminski, *Regulating the Risks of AI*, 103 B.U. L. REV. 1347, 1378 (2023); Ifeoma Ajunwa, *Automated Governance*, 101 N.C. L. REV. 355 (2023); Serena Oduro, *Why AI Safety Requires a Sociotechnical Approach: Our Top Ten Reads*, DATA & SOC'Y (July 24, 2024), <https://perma.cc/Q6GR-UGUV>; RYAN CALO, *THE SCALE AND THE REACTOR* (2022).

⁴⁴ Terry Hallmark, *Oil and Violence in the Niger Delta Isn't Talked About Much, but It Has a Global Impact*, FORBES (Feb. 13, 2017), <https://perma.cc/MN9S-LYWQ>; John Vidal, *Nigeria's Agony Dwarfs the Gulf Oil Spill. The US and Europe Ignore It*, GUARDIAN (May 29, 2010), <https://perma.cc/V8V7-GFRW>.

⁴⁵ Andreas Kotsakis & Avi Boukli, *Transversal Harm, Regulation, and the Tolerance of Oil Disasters*, 12 TRANSNAT'L ENV'T L. 71, 86-93 (2023).

⁴⁶ See *infra* Part II.C; see also Angelina Fisher & Thomas Streinz, *Confronting Data Inequality*, 60 COLUM. J. TRANSNAT'L L. 829, 864-80 (2022); MEJIAS & COULDRY, *supra* note 38, at 57-98.

citizens' data. Major debates on cross-border information flows tend to focus on publishing and exchanging knowledge.⁴⁷ Policymakers and activists should rethink the cross-border flow of information to account for the significant role of big data in the global political economy.

This Part explains why these shifts are necessary and offers a more accurate framing of AI and information flows for regulators. This might enable them to account for global capitalism's role in the most significant AI models and to connect the political economy of AI with AI's harms. Below, I first discuss the harms that scholars and policymakers should account for and then proceed to show why these harms are not anecdotal or anomalous but are consequences of the market society and of global capitalism's shaping the world's most significant algorithmic systems. Following this, I discuss why the shift in global information policy discourse is also necessary.

A. Unrecognized Harms

Most influential regulatory proposals for AI fail to account for the risks of the global political economy of AI. Physical labor such as mining, transport, and assembly for AI's material infrastructure, cognitive labor for data labeling and fine-tuning, and the risks of product trials and negligent experimentation are elided,⁴⁸ as are the effects of introducing harmful algorithmic products to other markets.

Here, I highlight some transnational harms inflicted by American AI companies. Although vulnerable Americans are also susceptible to some of the harms I describe, I focus on populations that are less likely to be covered by a future protective legal order unless AI regulation takes a transnational turn. These populations are in AI's political economy's peripheries and are absent from regulatory discourse on AI's risks. In Part II.B, I question their erasure and their structural "disposability" as Bhattacharya,⁴⁹ Vora,⁵⁰ and Posada⁵¹ might describe it⁵² and to show how the global political economy drives AI companies to extract profit by harming and exploiting them.⁵³

This is an introduction to what the law leaves out. The examples illustrate what is ignored or seen as someone else's problem. First, I discuss recognized harms to show how powerful regulators and significant AI scholarship tend to focus on local harms. After this, I highlight the unrecognized harms that are missing from influential states' conception of AI's impact. These include the exploitation of labor (physical and cognitive) that builds and powers AI systems and the injustice that results from

⁴⁷ See *infra* Part II.C.3.

⁴⁸ Shakir Mohamed et al., *Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence*, 33 CORNELL INT'L L.J. 659, 659-84 (2020).

⁴⁹ GARGI BHATTACHARYYA, RETHINKING RACIAL CAPITALISM: QUESTIONS OF REPRODUCTION AND SURVIVAL 122 (2018).

⁵⁰ NEDA ATANASOSKI & KALINDI VORA, SURROGATE HUMANITY: RACE, ROBOTS AND THE POLITICS OF TECHNOLOGICAL FUTURES 77 (2019).

⁵¹ Julian Posada, *Embedded Reproduction in Platform Data Work*, 25 INFO., COMMUN & SOC'Y 816, 823-31 (2022).

⁵² See *infra* Part II.B.3.

⁵³ MEJIAS & COULDRY, *supra* note 38.

AI products and services in transnational markets.

1. Recognized Harms

The White House's Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence (rescinded in January 2025) was framed entirely in terms of keeping Americans safe and secure.⁵⁴ The White House's blueprint for AI offered an expansive framework that covers most of the known problems with AI and suggested an approach that preserves human autonomy while mitigating AI's known harms. However, it discussed the "American public,"⁵⁵ limiting the populations to whom it is intended to apply. The European AI Act also appears to be concerned mainly with European citizens.⁵⁶ But harms within the United States or the European Union are connected to harms elsewhere. I explain why in Part II.B.3.

Brilliant scholarship already explains AI's labor harms. For example, scholarship on algorithmic wage discrimination shows how on-demand ride-hailing app drivers in California feel they face greater "opacity, deception, and manipulation" when they are directed and paid through platforms, specifically apps.⁵⁷ Veena Dubal argues that it is the firms' extractive logics and workers' limited institutionalized power that harm workers.⁵⁸ Below, in my discussion of AI companies' relationship with data annotators, I discuss how the major AI companies rely on the very same extractive logics and disempowerment of workers in Kenya and elsewhere.

Ifeoma Ajunwa's work demonstrated why treating bias in automated hiring decisions as a technical problem is a mistake and how the real problem is that American law permits decisions based on nebulous categories like "cultural fit."⁵⁹ She also suggests that applicants could be offered recourse through consumer protection law.⁶⁰ Citron and Pasquale's article discussing automated scoring systems and their problems presciently predicted the connection between these systems and evolving artificial intelligence. They pointed out that the engineering goals of AI will often lead to a "'black box,' which converts inputs to outputs without revealing how it does so"⁶¹ and that the use of these systems raises serious fairness and accuracy concerns.⁶² The article goes on to explain how American regulators might introduce safeguards for predictive scoring, including licensing and audit systems. Again, bias and opacity are problems that these systems demonstrate everywhere.

⁵⁴ Exec. Order No. 14,110, 88 Fed. Reg. 75191 (Nov. 1, 2023).

⁵⁵ WHITE HOUSE, BLUEPRINT FOR AN AI BILL OF RIGHTS: MAKING AUTOMATED SYSTEMS WORK FOR THE AMERICAN PEOPLE (2022), <https://perma.cc/6X98-UPXD>.

⁵⁶ See Regulation of the European Parliament and of the Council on Artificial Intelligence (Artificial Intelligence Act), 2024 O.J. (L 202) 1 (EU) [hereinafter E.U. A.I. Intelligence Act].

⁵⁷ Veena Dubal, *On Algorithmic Wage Discrimination*, 123 COLUM. L. REV. 1929, 1938 (2023).

⁵⁸ *Id.* at 1979.

⁵⁹ Ifeoma Ajunwa, *supra* note 2, at 1682, 1712-17.

⁶⁰ *Id.* at 1735-41.

⁶¹ Danielle K. Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89 WASH. L. REV. 1, 6 (2014).

⁶² *Id.* at 4.

The scholars I name above and several others have done immeasurably valuable work in unearthing and explaining algorithmic systems' harms. All of them focus on the local effects of these problems and how local laws might address them.⁶³ Countries where scholarship has had the freedom and resources to flourish have scholars who engage in this work. However, there will always be states in which scholarship, media, and advocacy are not able to highlight and question local harms.

Below, I offer examples of harmful practices that the American regulatory and policy discourse is likely to elide since they occur largely in other states. These are American companies' harmful practices abroad and might easily be adopted within the United States for the reasons that I lay out in Part II.B.

2. *Exploitation Harms*

In January 2023, Billy Perrigo wrote a story for Time magazine on Kenyan workers earning less than \$2 an hour, whose labor made ChatGPT less toxic.⁶⁴ OpenAI trained its model with "labeled examples of violence, hate speech, and sexual abuse" to ensure that it could detect toxic speech.⁶⁵ Human beings labeled tens of thousands of snippets of toxic speech, including child sexual abuse, bestiality, murder, suicide, torture, self-harm, and incest.⁶⁶ Since companies seek out the cheapest available labor, the labeling was outsourced to Kenyan workers.⁶⁷ OpenAI did not hire the workers. It hired Sama AI, a company created by an American, which in turn hired Kenyan workers for 9-hour shifts paid at \$1.32 or \$2 per hour labeling the data.⁶⁸ The work was traumatic, consisting of narrative and imagery that would be deeply disturbing to most human beings.⁶⁹ The employees interviewed by Time reported being scarred.⁷⁰

The digital working class is systematically overlooked by regulation. Crawford and Joler offer an expansive definition of "digital labor," as encompassing the range of exploited, invisible people who make AI work.⁷¹ These include the indentured labor used to collect the minerals for the devices; poorly paid precarious workers used for the manufacture and assembly of the physical devices; the physical workers who transport and eventually clean the toxic waste from these products; and the underpaid precarious labor, included women and children, whose "cognitive

⁶³ It is worth noting that Dubal has done excellent work on ride-share drivers in Brazil, and she has drawn the connection with American companies. My larger point is that the remedies proposed by LPE scholars tend to be local, and therefore globally fragmented.

⁶⁴ Billy Perrigo, *The \$2 Per Hour Workers Who Made ChatGPT Safer*, TIME (2023), <https://perma.cc/B5B6-LVPU> (last visited Mar. 27, 2025). Sama has since committed to improving conditions for its workers. See FAIRWORK, FAIRWORK AI RATINGS 2023: THE WORKERS BEHIND AI AT SAMA. REPORT (2023), <https://perma.cc/2E7P-N42N>.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.*

⁷¹ Crawford & Joler, *supra* note 35, at XVIII.

labor” trains AI by labeling its datasets.⁷² Human beings are involved at all these stages, and they are cast aside as regulation focuses on consumers. This applies to exploited workers within and outside the United States.⁷³

Apple, Google, and Microsoft were among the companies named in a lawsuit filed in Washington, D.C., on behalf of Congolese families whose children were “killed or maimed while mining for cobalt used to power smartphones, laptops, and electric cars.”⁷⁴ The lawsuit was dismissed in part because the judge found the harm was not traceable to the defendants and was not convinced that the civil remedy portion of the Trafficking Victims Protection Reauthorization Act applies extraterritorially.⁷⁵ What we are left with is that these companies use cobalt in their products, that the Democratic Republic of Congo is a major supplier of cobalt, and that child labor is not only used while mining cobalt but that a lawsuit was filed because children had sustained a variety of injuries, including smashed limbs and broken spines, while others were killed by tunnel collapses or falling into an unprotected mining shaft.⁷⁶ Over half of the world’s cobalt resources are in the Congo, and global supply chains ensure that intermediary companies that employ and endanger child labor eventually supply major technology companies with cobalt.⁷⁷ The exploitation of labor is a part of capitalism’s value chains.

The traumatized Kenyan data annotators Perrigo discussed are a part of informational capitalism’s⁷⁸ value chains. This is also true of outsourcing companies like Sama AI that employ them and workers like them in India and Uganda.⁷⁹ These companies are replacing Amazon’s Mechanical Turk, which used to be the main platform through which companies sourced “crowdwork.”⁸⁰ Sama AI provides services to large American companies and breaks large projects into “microwork,” consisting of computer-based tasks designed for people with basic English skills and limited training.⁸¹ Before “microwork,” which is outsourced to profit-making companies, there was “crowdwork,” through which projects were broken down and

⁷² *Id.*

⁷³ See ATANASOSKI & VORA, *supra* note 50.

⁷⁴ Annie Kelly, *Apple and Google Named in US Lawsuit over Congolese Child Cobalt Mining Deaths*, GUARDIAN (Dec. 16, 2023), <https://perma.cc/EB5Y-HXJE>.

⁷⁵ Sebastian Klovig Skelton, *USA: Washington DC Court Dismisses Cobalt Mining Deaths’ Case Against Five Major Technology Companies*, BUS. & HUM. RTS. RES. CTR. (Nov. 12, 2012), <https://perma.cc/62G2-9RKX>.

⁷⁶ *Id.*; AMNESTY INTERNATIONAL, EXPOSED: CHILD LABOR BEHIND SMARTPHONE AND ELECTRIC CAR BATTERIES (Jan. 19, 2016), <https://perma.cc/Y8BQ-TYU7>.

⁷⁷ RON DEIBERT, RESET: RECLAIMING THE INTERNET FOR CIVIL SOCIETY 118-20 (2020); AMNESTY INTERNATIONAL, *supra* note 76.

⁷⁸ MANUEL CASTELLS, INFORMATIONALISM, NETWORKS, AND THE NETWORK SOCIETY: A THEORETICAL BLUEPRINT 11 (2004) [hereinafter CASTELLS, INFORMATIONALISM] (arguing that informational capitalism involves a shift to informationalism, such that the “action of knowledge upon knowledge upon knowledge” is the source of productivity); see also Kapeczynski, *supra* note 31; COHEN, *supra* note 23; SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER 128-75 (2019).

⁷⁹ James Muldoon et al., *A Typology of Artificial Intelligence Data Work*, 11 BIG DATA & SOC’Y 1 (2024) [hereinafter Muldoon et al., *Typology*].

⁸⁰ Adrienne Williams et al., *The Exploited Labor Behind Artificial Intelligence*, NOEMA (Oct. 13, 2022), <https://perma.cc/CRM9-Z9MC>.

⁸¹ Francesca Gino & Bradley R. Staats, *The Microwork Solution*, HARV. BUS. REV. (Dec. 2012), <https://perma.cc/JRQ9-FA4J>.

outsourced to a pool of anonymous workers around the world through a platform like Amazon's Mechanical Turk.⁸² Workers were paid a very small sum for each task. Data annotation or labeling companies have stepped in to offer Big Tech companies quality control.⁸³

Materials published by data annotation companies imply that data annotators benefit from the training that they are given and access livelihoods that might otherwise be outside their reach. Sama AI describes its original mission as “giving work, not aid, by hiring workers in impoverished areas, training them in AI data annotation, and providing the technology to plug their skills into the global digital economy where they could earn living wages.”⁸⁴ The company launched using a non-profit model and continues to claim to uplift Kenyan and Indian workers out of poverty by providing them with dignified living wage work, and by taking opportunities to people who would not be able to access platforms like Mechanical Turk.⁸⁵ This narrative of charity and upliftment is used to undermine workers' demands for fairer pay. In his exposé, Perrigo unearths a telling quote by Sama's late founder, Leila Janah: “One thing that's critical in our line of work is to not pay wages that would distort local labor markets,” she said. “If we were to pay people substantially more than that, we would throw everything off.”⁸⁶ Sama's employees in Kenya are attempting to unionize.⁸⁷

Just as AI companies erase exploitative cognitive work with phrases like “data enrichment,” data annotation companies present it as the upliftment of the cognitive laborers.⁸⁸ Their goal is the growth of their profits. While this can sometimes benefit workers by creating jobs,⁸⁹ these jobs are created in conditions without workers' rights, which permits the companies to set the terms. A data annotation company like Sama markets itself to large AI companies as a “one-stop shop for data curation, annotation, and validation” and as offering quality controls.⁹⁰ These companies raise hundreds of millions in venture capital funds while the data labelers make less than \$2 an hour. Billy Perrigo also noted this disparity in money received by the outsourcing companies and money paid to the workers.⁹¹ It is unsurprising since the workers would need collective bargaining and strong states to negotiate better wages.⁹² However, it appears that underpayment is not the only way

⁸² MARY GRAY & SIDDHARTH SURI, *GHOST WORK: HOW TO STOP SILICON VALLEY FROM BUILDING A NEW GLOBAL UNDERCLASS* XV (2019).

⁸³ See, e.g., SAMA, <https://perma.cc/78QN-EBPY>.

⁸⁴ *Founder: Leila Janah*, SAMA, <https://perma.cc/P2AP-AKAE>.

⁸⁵ See SAMA, ABOUT US: IMPACT. For a detailed typology, see Muldoon et al., *Typology*, *supra* note 79.

⁸⁶ Perrigo, *supra* note 64; Dave Lee, *Why Big Tech Pays Poor Kenyans to Teach Self-Driving Cars*, BBC (Nov. 3, 2018), <https://perma.cc/4B6L-PBJ3> (discussing Samasource, Sama AI's previous name).

⁸⁷ Perrigo, *supra* note 64.

⁸⁸ See generally James Muldoon et al., *The Poverty of Ethical AI: Impact Sourcing and AI Supply Chains*, 28 AI & SOC'Y (2023) [hereinafter Muldoon et al., *Poverty*].

⁸⁹ Karishma Mehrotra, *Human Touch*, FIFTY TWO (July 23, 2022), <https://perma.cc/47UN-XYQ5>; see Muldoon et al., *Poverty*, *supra* note 88.

⁹⁰ SAMA, <https://perma.cc/78QN-EBPY> (last visited Mar. 27, 2025).

⁹¹ Perrigo, *supra* note 64.

⁹² Mark Graham, Isis Hjorth & Vili Lehdonvirta, *Digital Labour and Development: Impacts of Global Digital Labour Platforms and the Gig Economy on Worker Livelihoods*, 23 TRANSFER: EUR. REV. LAB. & RSCH. 135, 146 (2017).

in which they are exploited.

Critics point out that workers are embedded in highly controlled work environments that are designed to enable managerial control rather than workers' rights or welfare. Sama's contractors for Meta were monitored by Meta's software which gave them less than a minute to make decisions about content, regardless of whether it consisted of extremely disturbing messages or videos.⁹³ Data labeling interfaces treat workers like machines and punish deviation through automated tools.⁹⁴ A Sama employee working on ChatGPT reported having to "view up to 700 text passages a day, many depicting graphic sexual violence," which affected his mental health and personal relationships.⁹⁵ Another was refused a 5-minute break by his supervisor after viewing a video of friends and people he grew up with being slaughtered in the civil war in his country.⁹⁶ Perrigo reports that despite Sama's statement that it had revised its mental health processes and coached its team leads, employees found the results inadequate.⁹⁷ The Kenyan judiciary is currently hearing a lawsuit filed by content moderators against Sama and Meta. Meta attempted, unsuccessfully, to argue that it cannot be sued in Kenya because it is not registered there.⁹⁸

The upliftment story is challenged further by three scholars who interviewed twenty-five data annotators and ten industry experts and found that recruitment agencies for the data annotation industry in India require an undergraduate degree and value this over data annotation experience.⁹⁹ They also found that while full-time data annotation employment offers some stability and employment benefits during employment, other features of the job, such as the short duration of employment (12-18 months), long working hours and unpaid overwork, the constant scrutiny, and lack of professional development and opportunities for growth paint a "grim picture."¹⁰⁰ They concluded that full-time employment of exploitable data annotation workers benefits data annotation firms and those requesting their services more than data annotators.¹⁰¹

The Sama AI example illustrates the power imbalance between Big Tech and its workers.¹⁰² The digital working class tends to be drawn from populations mired in relationships of power and inequality created by colonialism and racial and

⁹³ Billy Perrigo, *Inside Facebook's African Sweatshop*, TIME (Feb. 14, 2022), <https://perma.cc/Q4XY-MFHC>.

⁹⁴ Williams et al., *supra* note 80.

⁹⁵ Niamh Rowe, *'It's Destroyed Me Completely': Kenyan Moderators Decry Toll of Training of AI Models*, GUARDIAN (Aug. 2, 2023), <https://perma.cc/H33F-2NGH>.

⁹⁶ Erica Hellerstein, *Silicon Savanna: The Workers Taking on Africa's Digital Sweatshops*, CODA (Oct. 11, 2023), <https://perma.cc/6E9M-SAFH>.

⁹⁷ Perrigo, *supra* note 93.

⁹⁸ BUSINESS AND HUMAN RIGHTS RESOURCE CENTER, *META & SAMA LAWSUIT (RE: POOR WORKING CONDITIONS & HUMAN TRAFFICKING, KENYA)* (May 10, 2022), <https://perma.cc/B9VK-QTEE>.

⁹⁹ See Ding Wang et al., *Whose AI Dream? In Search of the Aspiration in Data Annotation*, PROCEEDINGS OF THE CHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS 6 (2022).

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² See FAIRWORK, *supra* note 64, at 9-17.

gendered exploitation of labor.¹⁰³ Digital workers are impacted by AI but systematically ignored by those who regulate.

3. Justice Harms

In 2018, while abortions remained criminalized in Argentina, Wired magazine ran a brief, chilling story about an algorithmic system introduced by Microsoft and Argentina's Ministry of Early Childhood in the province of Salta, that was meant to predict which girls would become teenage mothers.¹⁰⁴ The consequences of what I am going to call the "Teenage Pregnancy Prediction System" were opaque, and the system's tangible impact on young women identified as likely to get pregnant remains unclear.¹⁰⁵ Given that getting abortions was criminalized at the time and remains stigmatized,¹⁰⁶ it may be safe to assume that being labeled as a teenage pregnancy risk was, itself, perilous. Argentina's anti-abortion activists were enthusiastic about this system,¹⁰⁷ viewing it as a way to prevent abortion. The then governor of Salta was opposed to decriminalizing abortion and was a vocal supporter of the Teenage Pregnancy Prediction System.¹⁰⁸

Salta, where the Teenage Pregnancy Prediction System was to be introduced, has a large proportion of the immigrant, indigenous, and impoverished population of Argentina.¹⁰⁹ Of the province's total population, 45.5% live in poverty.¹¹⁰ The number of people affected by this project appears significant if one considers that "territorial agents" collected this data from 200,000 residents, including 12,000 women and girls.¹¹¹ It is unclear who these agents worked for, although one set of academics implies that they were likely from the Catholic non-profit organization working with Microsoft to create these systems. Two things are clear. One is that several of the young women under scrutiny were minors, and the second is that Salta is home to many disempowered people.¹¹²

Based on reports about the data collected and the intended use of this data, this project exemplifies both data injustice and algorithmic injustice. These forms of injustice are related and are what Linnet Taylor describes as "complex multidimensional problems" in the same class as climate (in)justice, terrorism, and

¹⁰³ See ATANASOSKI & VORA, *supra* note 50, at 5. For the original argument, see KALINDI VORA, LIFE SUPPORT (2015). See also Posada, *supra* note 51, at 4.

¹⁰⁴ Diego Jamio et al., *The Case of the Creepy Algorithm that 'Predicted' Teen Pregnancy*, WIRED (Feb. 16, 2022), <https://perma.cc/7EM2-X4VN>.

¹⁰⁵ *Id.*

¹⁰⁶ Agustina Latourrette, *Abortion May Be Legal in Argentina but Women Still Face Major Obstacles*, BBC (Mar. 4, 2023), <https://perma.cc/6PZY-FRXH>.

¹⁰⁷ Paz Peña & Joana Varon, *Teenager Pregnancy Addressed Through Data Colonialism in a System Patriarchal by Design*, CODING RIGHTS (Apr. 26, 2022), <https://perma.cc/G4F7-2KPH>.

¹⁰⁸ Alexa Hagerty et al., *Predictive Puericulture in Argentina: The Plataforma Tecnológica de Intervención Social and the Reproduction of Latin Eugenics*, BJHS THEMES 221, 223 (2023).

¹⁰⁹ *Id.* at 226.

¹¹⁰ *Id.*

¹¹¹ Jamio et al., *supra* note 104.

¹¹² *Id.*

poverty.¹¹³ Both result in several visible and invisible forms of injustice, some of which I will try to highlight here.

The potential data injustice is clear given that the Teenage Pregnancy Prediction System relied on data about girls and women from the ages of ten to nineteen, not boys or men.¹¹⁴ The data gathered focused on age, ethnicity, country of origin, disability status, number of people in the household, whether the household had hot water in the bathroom, neighborhood/area, whether the girl or young woman was currently or had previously been pregnant, and whether the head of household dropped out of school.¹¹⁵ Critics have pointed out the high likelihood that teenagers being surveyed would not share the truth about current or past pregnancies.¹¹⁶ No data about contraception, sexual violence, abortion, or sex education was collected.¹¹⁷ Questions of *how* underage women are impregnated seem to be missing from this project. This is even more significant if one notes that the nearby Tucuman province had a controversial legal case in which an eleven-year-old who had been assaulted by her step-grandfather faced legal obstacles to getting an abortion.¹¹⁸

The young women of Salta who were declared to have a high “risk” of pregnancy do not appear to have been able to review and contest the data based on which they were labeled this way.¹¹⁹ This is a classic problem with “data-driven decision-making” using opaque datasets, which treat people as subjects without access to the information based on which decisions are made about them. A “pregnancy risk” label might migrate to other databases, affecting the young women further. The scale of potential harm to these young women becomes evident when one considers that an influential dataset or knowledge practice affects how people are viewed and understood,¹²⁰ and that databases that are widely used can enforce the subordination of whole social groups based on their identity.¹²¹

Algorithmic injustice results when algorithms use these flawed datasets and knowledge practices.¹²² Algorithms absorb pre-existing databases and ontologies that contain unjust social relationships¹²³ and harmful views of disempowered people,

¹¹³ Linnet Taylor, *What is Data Injustice: The Case for Connecting Digital Rights and Freedoms Globally*, 4 BIG DATA & SOC’Y 2, 6 (2017).

¹¹⁴ Alexa Hagerty et al., *supra* note 108, at 224.

¹¹⁵ *Id.*

¹¹⁶ Irina Sternik, *The Intelligence that Does Not Think*, PAGINA 12 (Aug. 21, 2018), <https://perma.cc/FJ92-TUP8>.

¹¹⁷ *Id.*

¹¹⁸ Michael Brice-Saddler, *An 11-year-old Pleaded for an Abortion After She Was Raped. She Was Forced to Give Birth*, WASH. POST (Feb. 28, 2019), <https://perma.cc/8Q4T-AYBU>; Uki Goñi, ‘Thousands’ of Young Girls Denied Abortion After Rape in Argentina, GUARDIAN (Mar. 5, 2019), <https://perma.cc/CV7U-TNJU>.

¹¹⁹ Jamio et al., *supra* note 104.

¹²⁰ See JACK M. BALKIN, CULTURAL SOFTWARE: A THEORY OF IDEOLOGY 30-34 (1998); Jack M. Balkin, *Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation*, 51 U.C. DAVIS L. REV. 1149, 1154 (2018) [hereinafter Balkin, *Big Data*]; MEJIAS & COULDRY, *supra* note 38, at 39.

¹²¹ CRAWFORD, *supra* note 35, at 133-47.

¹²² MEJIAS & COULDRY, *supra* note 38, at 39.

¹²³ See Salomé Viljoen, *A Relational Theory of Data Governance*, 131 YALE L.J. 573, 573 (2021); Solon Barocas & Andrew D. Selbst, *Big Data’s Disparate Impact*, 104 CALIF. L. REV. 671, 680-81 (2016).

especially from communities that have a history of being erased, oppressed, and exploited.¹²⁴ Schoolgirls from a disadvantaged group labeled as pregnancy risks in a country that prohibits abortion may find that their college admissions, scholarships, and job prospects are affected. This creates what Iris Marion Young calls “the institutional constraint on self-development” and “the institutional constraint on self-determination.”¹²⁵ AI will be poorly trained if the data used to train it is an unfair or inaccurate sample of the population,¹²⁶ or when data is labeled from a biased point of view.¹²⁷ I used the word “unfair” for datasets that accurately reflect historic prejudice.

A state with an interest in surveilling women to prevent abortion has discernable reasons for creating the Teenage Pregnancy Prediction System. Microsoft’s involvement in creating this system should be of interest to anyone who is trying to understand Big Tech’s harmful AI practices. Microsoft’s website refers to the Salta project as “machine learning to predict teenage pregnancy and school dropouts.”¹²⁸ The context and consequences of these predictions, when made in Salta, are missing. The website describes the project as a part of twenty-five years of work to include AI in the daily lives of people and organizations.¹²⁹ Microsoft confirms that the Salta government, along with the CONIN foundation, used Microsoft technology to obtain data and analyze it.¹³⁰ It elides the criminalization of abortion and the fact that the head of the CONIN foundation was vocally opposed to abortion.¹³¹ According to activists who criticized the system, the system was exported to other states in Argentina and other countries like Colombia and Brazil.¹³² In the same period as the Salta project, Microsoft’s Azure platform was deployed similarly—to identify students at risk of dropping out of school—in India.¹³³

Owing to the negative media attention and the activism against the project, it appears to have been restricted. It is not clear what became of the Teenage Pregnancy Prediction System’s offshoots. Once a product or system like this is created for profit by a transnational company, successful local efforts to regulate or mobilize may merely send the harmful products and systems to other markets. These systems may feel distant from Western democracies, but with changes in abortion laws in the United States, it is not hard to imagine that some states might become markets for products like the Teenage Pregnancy Prediction System.

The versions of machine learning created and used by global technology

¹²⁴ MEJIAS & COULDRY, *supra* note 38.

¹²⁵ IRIS MARION YOUNG, *JUSTICE AND THE POLITICS OF DIFFERENCE* 37 (1990).

¹²⁶ Barocas & Selbst, *supra* note 123.

¹²⁷ See generally Amandalynne Paullada et al., *Data and Its (Dis)contents: A Survey of Dataset Development and Use in Machine Learning Research*, 2 PATTERNS 1 (Nov. 12, 2021).

¹²⁸ *Avanza el uso de la Inteligencia Artificial en la Argentina con experiencias en el sector público, privado y ONGs [The Use of Artificial Intelligence is Advancing in Argentina with Experiences in the Public, Private and NGO Sectors]*, NEWS CENTER MICROSOFT LATIN AMÉRICA (Apr. 2, 2018), <https://perma.cc/ASC6-KKLN>.

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ Jamio et al., *supra* note 104.

¹³² Peña & Varon, *supra* note 107.

¹³³ Umamaheswara Rao, *Govt Ties Up with Microsoft to Check Dropouts*, TIMES OF INDIA (Apr. 22, 2018), <https://perma.cc/UV8M-7ADE>.

companies automate and perpetuate historic oppression.¹³⁴ There are ways in which predictive technology should never be used, such as labeling young women as “at risk of pregnancy” or flagging people as future political dissidents. AI-based systems can create a world in which some people never get second chances.¹³⁵ AI systems’ fossilized inequalities¹³⁶ are already visible in the use of algorithms in education, workplaces, health, criminal justice, immigration, and credit.¹³⁷ The political economy incentivizes scaling up with the use of performative safeguards that do nothing for marginalized populations. It allows for technical solutions to address the needs of some people but not others.

B. Capitalism’s AI

The harms inflicted by AI’s political economy and business models are elided when regulatory discourse focuses on AI’s technological risks or on local dimensions of what might more accurately be characterized as global risks and harms. Several of AI businesses’ harmful characteristics are not necessary for the creation or use of algorithms and datasets. AI systems may need humans in the loop to function effectively, but they do not need those humans to be poorly paid, precariously employed, or living in challenging, sometimes dangerous, environments. The companies’ drive to “move fast and break things” results in unjust practices and products like the Teenage Pregnancy Prediction System.¹³⁸ Drawing on scholarship about capitalism can help explain the companies’ choices and goals.¹³⁹ Although my examples focus on specific companies, capitalism drives every company’s choices. If corporations self-regulate, competitor companies step in to engage in the harmful activity for profit.¹⁴⁰

Scholars focus on the technological or socio-technical risks of algorithmic systems,¹⁴¹ for good reasons. However, AI legal scholarship should account for AI’s political economy because the companies’ drive to profit influences their technology and its design.¹⁴² Global capitalism forms the technology that influences societies

¹³⁴ CATHY O’NEIL, *WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY* 199-205 (2016); Birhane, *supra* note 28.

¹³⁵ See SARAH MYERS WEST ET AL., *DISCRIMINATING SYSTEMS: GENDER, RACE, AND POWER IN AI* 19 (2019).

¹³⁶ Hideyuki Matsumi & Daniel J. Solove, *The Prediction Society: AI and the Problems of Forecasting the Future* (Geo. Wash. U. Legal Stud. Rsch. Paper, Paper No. 2023-58, 2024), <https://perma.cc/E2DB-BCMX>.

¹³⁷ See generally Maria P. Angel, *Privacy’s Algorithmic Turn*, 30 B.U. J. SCI. & TECH. L. 1 (2024).

¹³⁸ See Hagerty et al., *supra* note 108, at 235. I do not mean to imply that these products and practices are intentionally harmful.

¹³⁹ See Yochai Benkler, *The Role of Law in Capitalism*, THE LPE PROJECT: LPE BLOG, (Oct. 31, 2023), <https://perma.cc/HB8A-FLDT>, in which Benkler points out that one of the characteristics of a market society is that the market dependence for production drives capitalists and the managerial class to “continuously seek out, create, and exploit power asymmetries to extract rents.”

¹⁴⁰ See Woodrow Hartzog, *Two AI Truths and a Lie*, 26 YALE J.L. & TECH. 595, 604 (2024).

¹⁴¹ Kaminski, *supra* note 43, at 1377-78; CALO, *supra* note 43, at 1-3; Ajunwa, *supra* note 2, at 362-69.

¹⁴² See FRANK PASQUALE, *THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION* 100-01 (2015); COHEN, *supra* note 23, at 25-47; Kapczynski, *Informational Capitalism*, *supra* note 31, at 1485-89.

and cultures and affects the societies and cultures that, in turn, shape technology.¹⁴³ Only a few firms possess the resources to develop generative AI systems.¹⁴⁴ These firms, including Amazon, Google, and Microsoft, operate transnationally and use a vertical stack of businesses to develop and manage AI systems.¹⁴⁵ Generative AI's business models are tied to informational capitalism and its global political economy. Regulators, lagging behind scholars, are almost oblivious to this.

Forward-thinking lawmakers should consider that the companies' harmful practices will eventually affect even stronger regulatory states. It is the drive to expand and profit,¹⁴⁶ not the technology, that will cause large-scale harm. While the Teenage Pregnancy Prediction System is a socio-technical problem, its initial production for South American markets and future customer base here is a feature of global capitalism. Companies sometimes recognize that transnational products produce transnational harms before scholars do. Facebook's Public Policy Director for Global Elections called the Philippines "patient zero" in the weaponization of digital platforms during elections,¹⁴⁷ but policymakers and scholars do not appear to have anticipated that Donald Trump might weaponize the platform the way that political leaders in Ethiopia and India did before him.¹⁴⁸ To understand the scope of harms of AI or data-driven algorithmic decision-making, one has to account for the transnational business models through which Big Tech's products and practices emerge and for the companies' drive to profit and remain competitive.

1. AI's Value Chains

Descriptions of AI erase the hidden costs and impact of algorithmic systems. For example, McKinsey characterizes generative AI's value chain as including computer hardware; cloud platforms; foundational or core models on which AI apps can be built; and model hubs and machine learning operations to fine-tune, host, or manage the models.¹⁴⁹ At a later stage, this can involve specialized services that McKinsey calls "training, feedback, and reinforcement learning."¹⁵⁰ Although these services often involve human beings who train the machines, McKinsey encourages investors to focus on the cost-effectiveness of the training, eliding how this is achieved. The AI industry markets its innovative technology and processes without discussing the location, materiality, and consequences of AI's value chain. This is not very different from the fast fashion industry's unwillingness to volunteer

¹⁴³ See Matthew Tokson & Ari Ezra Waldman, *Social Norms in Fourth Amendment Law*, 120 MICH. L. REV. 265, 279-84 (2021); see also CALO, *supra* note 43, at 9.

¹⁴⁴ Veale et al., *supra* note 32, at 259.

¹⁴⁵ *Id.*

¹⁴⁶ MEJIAS & COULDRY, *supra* note 38, at 59-97.

¹⁴⁷ Craig Silverman, *The Philippines Was a Test of Facebook's New Approach to Countering Disinformation. Things Got Worse*, BUZZFEED NEWS (Aug. 7, 2019), <https://perma.cc/SQM6-WRX6>.

¹⁴⁸ Adam Satariano, *After Barring Trump, Facebook and Twitter Face Scrutiny About Inaction Abroad*, N.Y. TIMES (Jan. 17, 2021), <https://perma.cc/5LY2-CFMY>.

¹⁴⁹ Tobias Härlin et al., *Exploring Opportunities in the Generative AI Value Chain*, QUANTAMBLACK AI BY MCKINSEY (Apr. 26, 2023), <https://perma.cc/7JX6-HAVB>.

¹⁵⁰ *Id.*

information about its outsourcing of labor to sweatshops.¹⁵¹

Regulatory conversations based on the industry's framing and description of algorithmic systems fail to account for labor, environmental, and consumer harms, including harms pioneered by these companies. As Mary Gray and Siddharth Suri put it, "Beyond some basic decisions, today's artificial intelligence cannot function without humans in the loop."¹⁵² The humans include Americans who are paid \$15 an hour with no benefits¹⁵³ and data labelers in faraway countries like Kenya and India who are paid less than \$2 an hour.¹⁵⁴ They are erased when McKinsey uses neutral language like "data management" and describes it as including "data availability, quality, and control to feed the AI system."¹⁵⁵ Workers create the clean, labeled datasets for high-precision AI systems.¹⁵⁶ Informational capitalism's AI relies not only on cognitive labor but on opaque datasets and algorithmic design embedded with unequal, oppressive views of the world, which are then used to create AI models and become encased or fossilized in these models.¹⁵⁷

AI companies build on commodity value chains¹⁵⁸ to extract new kinds of value. Data labeling is among the jobs that tend to get outsourced to "cheaper markets."¹⁵⁹ Gray and Suri call this "ghost work."¹⁶⁰ The companies are insulated from this transitory workforce by platforms like Mechanical Turk¹⁶¹ (and companies like Sama AI).¹⁶² This transitory workforce can also be found in Queens and Detroit, not just in Caracas and Nairobi.¹⁶³ Companies will engage extractive practices wherever feasible and profitable.¹⁶⁴

As Veale et al. point out, a "small number of firms control the resources that facilitate the training of AI systems."¹⁶⁵ These resources are:

[P]hysical (such as large clusters of graphical processing units connected to cheap sources of electricity), epistemic (access to cutting-edge groups of

¹⁵¹ *Global Fashion Brands Exploiting Bangladesh Workers: Study*, AL JAZEERA (Jan. 11, 2023), <https://perma.cc/EJ8T-JBY4>.

¹⁵² GRAY & SURI, *supra* note 82, at 5; *see also* JAMES MULDOON ET AL., *FEEDING THE MACHINE: THE HIDDEN HUMAN LABOR POWERING A.I.* (2024).

¹⁵³ David Ingram, *ChatGPT is Powered by These Contractors Making \$15 An Hour*, NBC NEWS (May 6, 2023), <https://perma.cc/24F6-PFRL>.

¹⁵⁴ Mack DeGeurin, *'That Was Torture;' OpenAI Reportedly Relied on Low-Paid Kenyan Laborers to Sift Through Horrific Content to Make ChatGPT Palatable*, GIZMODO (Jan. 18, 2023), <https://perma.cc/S4W8-WDHX>.

¹⁵⁵ Jacomo Corbo et al., *Scaling AI Like a Tech Native: The CEO's Role*, McKinsey (Oct. 13, 2021), <https://perma.cc/2MVY-835F>.

¹⁵⁶ *Responsible Sourcing of Data Enrichment Services*, P'SHIP ON AI (June 16, 2021), <https://perma.cc/5XMU-589T>.

¹⁵⁷ Matsumi & Solove, *supra* note 136.

¹⁵⁸ Matus & Veale, *supra* note 35, at 2-5.

¹⁵⁹ *Id.*; Crawford & Joler, *supra* note 35, at XI.

¹⁶⁰ GRAY & SURI, *supra* note 82, at XIV.

¹⁶¹ *Id.*

¹⁶² *See supra* Part II.A.2.

¹⁶³ Ruth Berins Collier et al., *Labor Platforms and Gig Work: The Failure to Regulate*, (INST. FOR RSCH. ON LAB. & EMP., Working Paper No. 106-17, 2017), <https://perma.cc/3WUL-2UFR>.

¹⁶⁴ MEJIAS & COULDRY, *supra* note 38, at 4-6, 140-47; *see also* ZUBOFF, *supra* note 78, at 3-26.

¹⁶⁵ Veale et al., *supra* note 32, at 259.

researchers, the ability to pay huge salaries to university professors), and informational (access to datasets, the resources to pay for extensive labeling, and live systems for collection and experimentation) resources.”¹⁶⁶

While the framing is different, this description of the resources necessary for AI systems is consistent with McKinsey’s.¹⁶⁷ These firms use global value chains,¹⁶⁸ unsurprisingly, since this model has long been considered the face of modern capitalism. They do so in traditional and non-traditional ways.

The competitive drive towards profit-making leads companies to hire cheap labor that cannot negotiate with or even access firm leadership,¹⁶⁹ to experiment in places where the costs of failure are low, and sell in markets that will not regulate their products. AI models are embedded in machine learning products, marketed worldwide, and integrated into other products. With generative AI, influential “base” or “foundation” models, in particular, may be a part of several AI-based systems worldwide. These models may be fine-tuned for context, using more detailed and context-appropriate data. However, since fine-tuning requires higher-quality data,¹⁷⁰ companies are unlikely to engage in it unless the effort yields profits. They will likely seek cost-effective methods to fine-tune.

2. Capitalism’s Influence

A significant part of AI companies’ harmful impact on human beings comes from their drive to maximize profits. The history of global capitalism and the choices made by global online platform companies offer insights into the companies’ incentives and goals. Informational capitalism triggers a new generation of problems.¹⁷¹ The shift to informationalism makes global informational capitalism distinct from global capitalism.¹⁷² The “action of knowledge upon knowledge upon knowledge” is the source of productivity¹⁷³ for informational capitalism. Both kinds of capitalism can involve exploitation and appropriation of resources.¹⁷⁴ The value chains I described above make it possible for companies to extract and exploit transnationally through intermediaries, contractors, and platforms. Intermediaries like Sama AI were used to employ Kenyans and other workers who sanitized

¹⁶⁶ *Id.*

¹⁶⁷ Veale et al., *supra* note 32, at 257, 259; Härlin et al., *supra* note 149.

¹⁶⁸ Veale et al., *supra* note 32, at 257.

¹⁶⁹ See GRAY & SURI, *supra* note 82, at 11, 80; Mark Graham et al., *Digital Labor and Development: Impacts of Global Digital Labor Platforms and the Gig Economy on Worker Livelihoods*, 23(2) TRANSFER 135 (2017).

¹⁷⁰ Paul Ohm, *Focusing on Fine-Tuning: Understanding the Four Pathways for Shaping Generative AI*, 25 COLUM. SCI & TECH. L. REV. 214, 223-28 (2024).

¹⁷¹ Balkin, *Big Data*, *supra* note 120, at 1155-1160.

¹⁷² COHEN, *supra* note 23, at 5-6; Kapczynski, *Informational Capitalism*, *supra* note 31, at 1466, 1486; CASTELLS, INFORMATIONALISM, *supra* note 78, at 9-19.

¹⁷³ CASTELLS, INFORMATIONALISM, *supra* note 78, at 17; see also COHEN, *supra* note 23, at 5-6; Kapczynski, *Informational Capitalism*, *supra* note 31, at 1487.

¹⁷⁴ See COHEN, *supra* note 23, at 25-33; See also Graham et al., *supra* note 169, at 152-56; ATANASOSKI & VORA, *supra* note 50, at 70-71; KALINDI VORA, LIFE SUPPORT: BIOCAPITAL AND THE NEW HISTORY OF OUTSOURCED LABOR 15 (2015); MEJIAS & COULDRY, *supra* note 38, at 3-11.

ChatGPT.

AI's value chains rely on the global economy, which emerged in the late twentieth century and was made possible in part by the development of information and communication.¹⁷⁵ It was also made possible by TLOs created by the governments of the world's wealthiest countries¹⁷⁶ through deregulation and liberalization policies implemented through international institutions.¹⁷⁷ While capitalism had been expanding well before this, the global economy was a significant development since it made it possible for capitalist actors "to work as a unit in real-time, or chosen time, at a planetary scale."¹⁷⁸ Transnational production networks emerged in the 1990s,¹⁷⁹ introducing the production processes in which different components were made in different places.¹⁸⁰ Big Tech companies produce AI using these processes.

As a part of AI's transnational value chains, model experimentation,¹⁸¹ which is also a part of creating machine learning systems, is often outsourced to the developing world to reduce the costs and risks for the companies.¹⁸² This might include both machine learning models and business models that incorporate machine learning. Microsoft's AI Chatbot Sydney was tested in India, and negative feedback appears to have been ignored.¹⁸³

To understand the power accumulated by Big Tech, and the significance of its transnational operation, it is worth thinking about its mobility and the spans of time within which it operates. Unlike politicians who operate within a territory and the temporality of election cycles, companies operate in "continuous space and time," in which they might move locations, merge, or go out of business.¹⁸⁴ They can form links, unions and alliances, and dissolve and ignore them when they stop serving capital accumulation.¹⁸⁵ This mobility enables Big Tech companies to exploit "the uneven geographical conditions under which capital accumulation occurs" and to take advantage of "the 'asymmetries' that inevitably arise out of spatial exchange relations."¹⁸⁶

Capitalism and informational capitalism present different problems of power

¹⁷⁵ MANUEL CASTELLS, *THE NETWORK SOCIETY: A CROSS-CULTURAL PERSPECTIVE* 8-19 (2004) [hereinafter CASTELLS, *NETWORK SOCIETY*]; Jeffrey D. Sachs, *Twentieth Century Political Economy: A Brief History of Global Capitalism*, 15(4) OXFORD REV. ECON. POL'Y 90, 99, 101 (1999).

¹⁷⁶ COHEN *supra* note 23, at 204-17.

¹⁷⁷ QUINN SLOBODIAN, *THE GLOBALISTS* 2-26 (2018).

¹⁷⁸ MANUEL CASTELLS, *THE INFORMATION AGE ECONOMY, SOCIETY, AND CULTURE* VOL. 1 114 (2010).

¹⁷⁹ *Id.* at 128.

¹⁸⁰ *Id.* at 129-30.

¹⁸¹ See generally Manasi Vartak & Samuel Madden, *MODELDB: Opportunities and Challenges in Managing Machine Learning Models*, IEEE DATA ENG'G BULL. 16 (2018).

¹⁸² Matus & Veale, *supra* note 35, at 5; see also Crawford & Joler, *supra* note 35, at IX.

¹⁸³ Pranav Dixit, *Microsoft's Bing AI Chatbot 'Sydney' Was Secretly Tested in India for Years*, BUS. TODAY (Feb. 25, 2023), <https://perma.cc/2E52-TMTW>.

¹⁸⁴ DAVID HARVEY, *THE NEW IMPERIALISM* 27 (2003).

¹⁸⁵ Christian Fuchs, *A Contribution to the Critique of the Political Economy of Transnational Informational Capitalism*, 21 RETHINKING MARXISM 387, 394-95 (2009).

¹⁸⁶ HARVEY, *supra* note 184, at 31.

than states did because the territorial and capitalist logics of power are different.¹⁸⁷ If one accepts that global capitalism has a center or core, and peripheries,¹⁸⁸ it is easier to see why populations at the peripheries might be at risk earlier and in different ways than populations at the core. From this point of view, Sama AI's Kenyan workforce and the East Asian victims of Facebook's experimentation appear more inevitable than surprising.

While I cannot argue with these descriptions, I think that they risk leaving out the shared oppression and exploitation that blurs the line between people in core and peripheral states. What affects the Niger Delta eventually affects the Gulf of Mexico.

3. *Everyone Is at Risk*

AI has transnational markets in addition to transnational value chains, as is evidenced by OpenAI CEO Sam Altman's world tour.¹⁸⁹ A poorly regulated transnational industry can affect people in what appear to be strong regulatory states since its practices and products move across borders. Ulrich Beck calls this "Brazillianization of the West," acknowledging that companies will extract wherever they can. To illustrate how, I discuss two examples from transnational capitalism—the environmental impact of the oil industry and how banned pesticides sold in Mexico affected Americans. Following this, I discuss what Big Tech's social media can teach us and why Americans should worry about the Teenage Pregnancy Prediction System.

Oil companies have engaged in extractive practices, exploiting natural resources and labor in countries like Nigeria, and leaving local populations to deal with short and long-term harms.¹⁹⁰ Shell, the transnational company that dominates the oil and gas industry,¹⁹¹ the way the Big Tech companies dominate the information industry, profited from extraction in Nigeria through an arrangement with the Nigerian government. Local communities absorbed the costs in the form of loss of natural resources and environmental harm to the Niger Delta. The practices that led to oil spills in Nigeria eventually affected the United States. The 2010 Deepwater Horizon oil spill in the Gulf of Mexico killed eleven workers and has been described by the U.S. Environmental Protection Agency as "the largest spill of oil in the history of marine oil drilling operations."¹⁹² Rory Van Loo has argued in favor of deterrence

¹⁸⁷ See GIOVANNI ARRIGHI ET AL., *POLITICAL ECONOMY AND GLOBAL CAPITALISM* 7-24 (2007).

¹⁸⁸ IMMANUEL WALLERSTEIN, *MODERN WORLD-SYSTEM I: CAPITALIST AGRICULTURE AND THE ORIGINS OF THE EUROPEAN WORLD-ECONOMY IN THE SIXTEENTH CENTURY* 162 (2011).

¹⁸⁹ Iyengar, *supra* note 1.

¹⁹⁰ Sandra Laville, *Nearly 14,000 Nigerians Take Shell to Court over Devastating Impact of Pollution*, *GUARDIAN* (Feb. 02, 2023), <https://perma.cc/63MF-G8Y8>; Camillus Eboh & Felix Onuah, *U.N. Slams Shell as Nigeria Needs Biggest ever Oil Clean-up*, *REUTERS* (Aug. 4, 2011), <https://perma.cc/NH5T-4KJZ>.

¹⁹¹ J. George Frynas, *Royal Dutch/Shell*, 8 *NEW POL. ECON.* 275, 275 (2003).

¹⁹² U.S. ENV'T PROT. AGENCY, *DEEPWATER HORIZON – BP GULF OF MEXICO OIL SPILL* (July 24, 2024), <https://perma.cc/S4CF-QAGS>.

and monitoring companies in the public interest to prevent these risks.¹⁹³

Based on global market incentives, one can expect that companies will sell products banned in Europe or the United States elsewhere to profit from markets that will permit it. A tragic example from commodities markets is of a Texas-based company's export of the nerve-attacking pesticide Leptophos to thirty countries, including Egypt, resulting in the deaths of several farmers and animals.¹⁹⁴ The pesticide was not registered for sale in the United States,¹⁹⁵ but eventually affected Americans when it re-entered through imported tomatoes, partially paralyzing workers here.¹⁹⁶ This is one tragic example of many occasions on which products banned in the United States—ranging from baby pacifiers banned for causing choking deaths in infants to the pesticide Herbicide 2.4.5-T were exported to developing countries.¹⁹⁷

Facebook hosted electoral misinformation for years and controversially permitted political leaders in arguably weak democracies to use its platform to amplify calls for violence. After its catastrophic role in other states, especially Myanmar, the company developed some internal policies about harmful content, and it was able to draw on these policies when Donald Trump called for violence on its platform. However, because no enforceable policy was in place, it was an ad hoc decision. Facebook's own Oversight Board encouraged it to take a more rule-driven approach.¹⁹⁸ The company benefited from its learnings from Myanmar and the processes it put in place as a result. The gaps—both in company policies and laws—proved to be as big a problem here as they are elsewhere.¹⁹⁹

The Salta Teenage Pregnancy Prediction System²⁰⁰ is an example of a harmful algorithmic product that might migrate here. Microsoft describes the project as one that uses AI to “prevent teenage pregnancy and school dropouts,”²⁰¹ and has used Azure to predict school dropouts in India.²⁰² Around the same time, the company partnered with the Tacoma Public School district in Washington for a project that identifies potential school dropouts.²⁰³ The little information available about the

¹⁹³ Rory Van Loo, *The Missing Regulatory State: Monitoring Businesses in an Age of Surveillance*, 72 VAND. L. REV. 1563, 1630-31 (2019).

¹⁹⁴ Laird M. Street, *U.S. Exports Banned for Domestic Use, but Exported to Third World Countries*, 6 MD. J. INT'L L. 95, 96 (1980); see also Patrick B. Seferovich, *United States Export of Banned Products: Legal and Moral Implications*, 10 DENV. J. INT'L L. & POL'Y 537, 537 (1981); Jack G. Kaikati, *Domestically Banned Products: For Export Only*, 3 J. PUB. POL'Y & MKTG., 125, 126-27 (1984).

¹⁹⁵ *Id.* at 96.

¹⁹⁶ Seferovich, *supra* note 194, at 537.

¹⁹⁷ *Id.* at 538-39.

¹⁹⁸ *Case Decision 2021-001-FB-FBR*, OVERSIGHT BD. 9-10 (May 5, 2021), <https://perma.cc/3EJT-CH8T>.

¹⁹⁹ For a detailed discussion, see Arun, *supra* note 39.

²⁰⁰ See *supra* Part II.A.3.

²⁰¹ *Avanza el uso de la Inteligencia Artificial en la Argentina con experiencias en el sector público, privado y ONGs [The Use of Artificial Intelligence is Advancing in Argentina with Experiences in the Public, Private and NGO Sectors]*, NEWS CENTER MICROSOFT LATIN AMÉRICA, *supra* note 128.

²⁰² Janakiram M.S.V., *How Microsoft Is Making Big Impact with Machine Learning*, FORBES (July 30, 2016), <https://perma.cc/W9V2-ZBD5>.

²⁰³ See JOSHUA NEW, CENTER FOR DATA INNOVATION, BUILDING A DATA-DRIVEN EDUCATION SYSTEM IN THE UNITED STATES (Nov. 15, 2016), <https://perma.cc/3UXN-V8ME>; SOFIA EDUCATION

Tacoma project celebrates it as an example of how data analytics can facilitate targeted intervention that helps at-risk students.²⁰⁴ These systems can certainly support positive changes. However, as researcher Mikaela Pitcan has observed, student data takes on different meanings depending on how educators interpret and use it.²⁰⁵ In Tacoma, information identifying at-risk students was used to support them, but administrators with different goals might use data to reduce resources and opportunities for at-risk students.²⁰⁶

Consider the many private and public organizations in the United States with an interest in surveilling women to prevent abortions.²⁰⁷ It is not hard to imagine that an anti-abortion state might want to deploy the Teenage Pregnancy Prediction System or that such a system might be weaponized against young women. Once such a product has been developed, refined, and deployed in more than one market by a Big Tech company that did not oversee or restrict its use with sufficient care, it becomes available for use here. It is possible that the company may understand or be more responsive to harm in the United States,²⁰⁸ but as X.com might indicate, a harmful product may find new sellers in addition to new buyers. Companies' practices and values can change with new ownership.

C. The Cross-Border Flow of Information

Although I focus on AI regulation in this paper, it is worth discussing scholarship and policy conversations about global informational policy, and how they need to change to account for the political economy that drives the production and use of global information technology. The framing of global information flows heavily informs how these flows are regulated. Companies' race to collect data,²⁰⁹ to employ underpaid workers to process the data, and then to market algorithmic products across the world are all enabled by the free flow of information across borders.

EXPERTS, PREDICTING STUDENT DROPOUT RISKS, INCREASING GRADUATION RATES WITH CLOUD ANALYTICS (Aug. 23, 2018), <https://perma.cc/8JUC-DLE4>.

²⁰⁴ *Id.* The framing, statistics and recurring citation of a Microsoft source that is no longer online, suggest that the framing and information in these stories comes from a single source. SEE Team, *Predicting Student Dropout Risks, Increasing Graduation Rates with Cloud Analytics*, SOFIA EDUC. EXPERTS (Aug. 23, 2018), <https://perma.cc/65XB-J8UM>.

²⁰⁵ Mikaela Pitcan, *Does Data-driven Learning Improve Equity?*, DATA & SOC'Y, POINTS BLOG (Mar. 18, 2016), <https://perma.cc/63L6-CZ2Z>.

²⁰⁶ For a discussion of how AI and data about students can be used in discriminatory ways, see Priscilla M. Regan & Jolene Jesse, *Ethical Challenges of Edtech, Big Data and Personalized Learning: Twenty-First Century Student Sorting and Tracking*, 21 ETHICS & INFO. TECH. 167, 168-74 (2019); see also Elana Zeide, *The Silicon Ceiling: How Artificial Intelligence Constructs an Invisible Barrier to Opportunity*, 91 UMKC L. REV. 403, 427-28 (2022).

²⁰⁷ Alfred Ng, *'A Uniquely Dangerous Tool': How Google's Data Can Help States Track Abortions*, POLITICO (July 18, 2022), <https://perma.cc/27VA-4VXT>; Jeremy Kahn, *After Roe Fears Mount About A.I.'s Ability to Identify Those Seeking Abortions*, FORTUNE (June 28, 2022), <https://perma.cc/75H3-T7ZV>.

²⁰⁸ Arun, *supra* note 39, at 246-57.

²⁰⁹ See ZUBOFF, *supra* note 78, at 128-146; COHEN, *supra* note 23, at 51-52, 63-74.

1. *The Cross-Border Flow of Data*

The major debates about cross-border information have tended to focus on either the publication and exchange of information, or technical protocols. While Barlow's utopian vision for cyberspace was shattered long ago, the underlying idea of "global conveyance of thought [which] no longer requires . . . factories to accomplish" has persisted.²¹⁰ It animated Goldsmith and Wu's book, which contested the central premise of Barlow's idea and argued that governments would eventually control the internet.²¹¹ The book was concerned with speech, and the global flow of information in terms of communication rather than data.²¹² This was true of much writing about the internet in that period²¹³ which is reasonable given what was known then.²¹⁴ A binary vision of the global information society dominated: Either a "cyberspace" connecting everyone, or fragmented networks controlled by states exercising territorial jurisdiction. Terms like "digital divide" distinguished people who had access to the internet from people who did not.²¹⁵ Participation in the networked society was assumed to be an unambiguously desirable goal, implying agency and the capacity to communicate.

This binary view emerged when information capitalism and the big data economy were unfathomable but has outlived its utility in theorizing the global information society. It is now clear that data powers the algorithmic society.²¹⁶ A different way of seeing the internet gained traction over the next decade, describing the information society in terms of international trade and focusing on flows of data and international trade law and norms.²¹⁷ The Internet of Things highlighted the significance of global flows of information that are not communication between human beings.²¹⁸ This vision offers a more accurate picture of the global information society and helpfully acknowledges data flows as a part of global trade, but it is missing important facets of the global data economy. Several major thinkers who developed the global trade framing of information flows continued to critique protectionism and restriction of data flows.²¹⁹

Once one thinks of the internet in terms of global trade, it is easy enough to cross the remaining distance. Like global trade during industrialization, the global

²¹⁰ John Perry Barlow, *A Declaration of the Independence of Cyberspace*, 18 DUKE L. & TECH. REV. 5, 5-7 (2019).

²¹¹ JACK GOLDSMITH & TIM WU, WHO CONTROLS THE INTERNET? ILLUSIONS OF A BORDERLESS WORLD 179-84 (2006).

²¹² See *id.* at 1-10.

²¹³ See COHEN, *supra* note 23, at 37-38, 60; see also Fisher & Streinz, *supra* note 46, 867-68.

²¹⁴ For a history of the shift to the data economy, see ZUBOFF, *supra* note 78, at 128-46, and STEPHEN LEVY, IN THE PLEX: HOW GOOGLE THINKS, WORKS, AND SHAPES OUR LIVES 114-20 (2011).

²¹⁵ ESZTER HARGITAI, *The Digital Divide and What to Do About It*, in NEW ECONOMY HANDBOOK 821, 822 (D.C. Jones ed., 2003).

²¹⁶ See Balkin, *Big Data*, *supra* note 120, at 1154-57.

²¹⁷ Joshua Meltzer, *The Internet, Cross-Border Data Flows and International Trade*, 2 ASIA & PAC. POL'Y STUD. 90, 90-102 (2014).

²¹⁸ See Anupam Chander, *The Internet of Things: Both Goods and Services*, 18 WORLD TRADE REV. S9, S14-15 (2019).

²¹⁹ Meltzer, *supra* note 217, at 3-6.

data economy is intertwined with structural inequality.²²⁰ However, global informational capitalism is treated differently than global capitalism because of the significant shift to informationalism.²²¹ If we recognize that the informational economy is about the production, accumulation, and processing of information,²²² it is clear that our focus should be on data flows, not on communication. Data harvesting, *datafication*, *propertization*, and *platformization* are key to informational capitalism.²²³

2. What Difference Data Makes

The shift to thinking in terms of cross-border data prioritizes different questions and issues, triggering new research agendas. While the older questions about cross-border speech remain relevant, the pressing questions raised by data flows require attention. The nature of speech and data and their economies are different. As Part III.B.1 discusses, Generative AI leads to a greater concentration of resources which will affect the information economy.

Speech has traditionally been seen as empowering people, enabling them to get information about how their lives are affected and making it possible for them to organize to exert their collective influence. While influential platforms disproportionately control speech, and some speakers are more visible, online platforms continue to enable many-to-many communication.²²⁴ This means it remains possible for a lone, marginal speaker to reach a large audience, even accounting for algorithmic ranking of content that deprioritizes marginalized people without resources. Data, on the other hand, tends to benefit those who have the capacity to collect, store, and process it.²²⁵ It takes extensive resources to acquire this capacity to collect, store, and process data at a meaningful scale, making the transfer of data a tide that flows toward those who have resources. This also creates a growing asymmetry of power between those who own and use the data, and those whose data is owned and used.²²⁶

As a part of the competition triggered by informational capitalism, companies race to find new ways to collect, control, and use data.²²⁷ Large-scale datafication became possible because of a technological paradigm shift: the ability and practice of enhanced recording and processing of information.²²⁸ However,

²²⁰ MEJIAS & COULDRY, *supra* note 38, at 40-50.

²²¹ COHEN, *supra* note 23, at 5-6; Kapczynski, *Informational Capitalism*, *supra* note 31, at 1466; see CASTELLS, *INFORMATIONALISM*, *supra* note 78, at 9-19. Cohen and Kapczynski draw on Manuel Castells' theory.

²²² COHEN, *supra* note 23, at 88.

²²³ *Id.* at 15-38.

²²⁴ YOCHAI BENKLER, *THE WEALTH OF NETWORKS* 11, 370 (2006).

²²⁵ COHEN, *supra* note 23, at 55-57.

²²⁶ Balkin, *Big Data*, *supra* note 120, at 1156; see also NEIL RICHARDS, *WHY PRIVACY MATTERS* 7-11 (2021); MEJIAS & COULDRY, *supra* note 38, at 71-72.

²²⁷ See ZUBOFF, *supra* note 78, at 128-175.

²²⁸ CASTELLS, *INFORMATIONALISM*, *supra* note 78, at 15; VIKTOR MAYER-SCHONBERGER & KENNETH CUKIER, *BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK AND THINK* 73-97 (2014).

although this shift made large-scale datafication possible, it did not have to lead to companies aggressively competing to outdo each other in collecting data. This behavior resulted from the structural shifts that led to the contemporary informational economy²²⁹ with its imperative to gather and create as much data as possible.²³⁰ It is not datafication alone, but its economies of scale that created data's role in the informational economy.²³¹ For data to carry meaningful value, companies have to acquire a high volume of it and have the capacity to process, analyze, and use it.²³² With the shift to Generative AI, companies also need to access a great amount of computational power, referred to as "compute," to be competitive.

As Professor Cohen explains, informational capitalism reconstructs labor, land, and money as *datafied* inputs to algorithmic modes of extraction.²³³ The capacity to engage in the activities central to the digital economy—the production, accumulation, and processing of information²³⁴—at a meaningful scale is not easily acquired. It is not the YouTube star or Instagram influencer making it big from her basement that is central to the informational economy. Speech is on the periphery. The informational economy is oriented toward data, and increasingly towards "compute." To engage in the activities of the informational economy means to have a meaningful capacity to process, analyze, and use data. This, in turn, is only possible with access to infrastructures like the internet, cloud computing for storage and processing, and resources that can be used to work on the data.²³⁵ Those who can collect data hold significant power over those whose data is collected.²³⁶ Even if data's significance fades, the concentration of resources for Generative AI will widen a gap between those who control these systems and those who use or work on them. This suggests that it is the free flow of data and information that is prioritized over the free flow of communication in the informational economy.

Unsurprisingly, economies of scale apply. A limited number of companies are capable of extracting large profits from data and algorithmic products, and they compete ferociously to retain that capability. Their race against each other means that increasing volumes of data are generated and hoovered up by these companies. The companies then use the law and technology to control this data.²³⁷ As a result of the data imperative²³⁸ much of the information flow is towards a few powerful companies who hoard this data and find innovative ways to profit from it.

In other words, lawmakers need to shift their attention from communication, which we are going to loosely define as mutual exchanges, such as conversations

²²⁹ COHEN, *supra* note 23, at 15-17; see Christian Fuchs, *Labor in Informational Capitalism and on the Internet*, 26 INFO. SOC'Y 179, 179-80 (2010).

²³⁰ Jathan Sadowski, *When Data is Capital: Datafication, Accumulation, and Extraction*, 6 BIG DATA SOC'Y 1, 7 (2019); Marion Fourcade & Kieran Healy, *Seeing Like a Market*, 15 SOCIO-ECON. REV. 9, 13 (2017).

²³¹ Katharina Pistor, *Rule by Data: The End of Markets?*, 83 L. & CONTEMP. PROBS. 101, 106 (2020).

²³² *Id.* at 112.

²³³ COHEN, *supra* note 23, at 25-37.

²³⁴ COHEN, *supra* note 23 at 16, 38-47.

²³⁵ See Fisher & Streinz, *supra* note 46, 854-63.

²³⁶ Balkin, *Big Data*, *supra* note 120 at 1156-58; see RICHARDS, *supra* note 226, at 162.

²³⁷ See Fisher & Streinz, *supra* note 46, at 860-97.

²³⁸ Sadowski, *supra* note 230, at 9-17; see also Fourcade & Healy, *supra* note 230, at 14-16.

with friends in other parts of the world, or open public discourse, including mass media like newspapers. They need to focus more on the invisible flow of data to Amazon about the books that the people in our communities are reading and the things they are buying, and on the information going to Google from everyone possessing a Google-enabled device while commuting, such that the corporation knows the traffic rhythms of our cities and how events like the weather or a new and popular TV show affect them.

3. Information Tides Flow One Way

In 2022, about sixty-six percent of the world's undersea cable capacity was being used by Amazon, Microsoft, Meta (previously Facebook), and Alphabet (Google's parent company).²³⁹ The undersea cables are a crucial part of the infrastructure for the cross-border movement of information.²⁴⁰ They play such an important role that the four companies pledged to invest in over thirty new long-distance cables by 2024, connecting the continents of the world.²⁴¹ This expensive infrastructure enables imperceptible and unimpeded movement of data across borders. My goal here is to offer an account of the cross-border flow of information which suggests that this flow consists of vast tides of data entering a few major firms. This makes these firms and their practices disproportionately impactful.

While some of the free flow of information across borders remains an exchange of ideas, most of the flow is the one-way tide of data. By one way, I mean that a few firms exert a disproportionately high gravitational pull on data, and they are concentrated in a few countries such as the United States and China. The economies of scale that led to the data collection imperative²⁴² lead naturally to a global data collection imperative²⁴³ in a world where cross-border trade is the norm. Large multinational companies with access to technical and informational infrastructure are best placed to acquire and use data at scale. They do so globally.

I am not denying that firms spread across the world engage in informational capitalism or that there are local and global data economies. The nature of the data economy favors large companies that have advantages in the form of network effects, intangible capital, and control of vast data infrastructures. While smaller firms may contract with them or find specialized markets, the global firms access a bigger market and can be more efficient. It is important for regulators and researchers who focus on the information society to understand the role of these firms in the global data economy and their impact on the world's societies.

Unsurprisingly, informational capitalist companies are eager to ensure that the free flow of data remains a feature of the information society. It is not just technological infrastructure that enables the free flow of data. It is also a legal

²³⁹ Christopher Mims, *Google, Amazon, Meta and Microsoft Weave a Fiber-Optic Web of Power*, WALL ST. J. (Jan. 15, 2022), <https://perma.cc/TE4E-VZEK>.

²⁴⁰ Stu Woo, *Facebook Backs Underwater Cable Projects to Boost Internet Connectivity*, WALL ST. J. (Aug. 16, 2021), <https://perma.cc/R87N-W5CH>.

²⁴¹ Mims, *supra* note 239.

²⁴² ZUBOFF, *supra* note 78, at 103, 108-29.

²⁴³ See COHEN, *supra* note 23, at 59-62.

infrastructure. Towards this, the companies use the language of access to information and capability to advocate for trade agreements²⁴⁴ and national laws that codify their capacity to accumulate, transfer, and use data unrestricted. They resist data localization and get closely involved with data protection lawmaking to protect their access to data. The speech-focused vision of the free flow of information enables companies to gather support from activists in ensuring that they remain free from state control or regulation in their global markets. It centers the debate on questions of states' restriction of the public's access to information. In doing so, it poses questions about public access to information held by the companies, even when this information is about the public. Here, the companies are able to discreetly use private law and technology to enclose their algorithms and datasets.²⁴⁵ This enclosure means that as AI models are used widely, their opacity makes it difficult to anticipate or even understand harms embedded in their training data and design.

III. AI'S TRANSNATIONAL LEGAL ORDER

A little over a decade ago, it was unimaginable that there might be a market in the United States for the data-driven system labeling young women as pregnancy risks introduced in Salta,²⁴⁶ but it may not be as hard to imagine today. The global proliferation of dangerous but profitable practices and products presents an ongoing risk to human beings. I discuss how AI's emerging legal order can either reinforce and expand capitalism's global legal order or mitigate informational capitalism's harmful consequences. As I highlighted in the introduction, Big Tech AI companies are invested in reinforcing and building on capitalism's transnational legal order ("TLO") to protect their business models in the age of informational capitalism.²⁴⁷ This is what I call the Silicon Valley Effect. It is a digital empire unbound by territory, although it thrives when a powerful state supports it. I explicate what I mean by the Silicon Valley Effect in Part III.B.

Companies seek legal protection of their supply chains, business models, and access to markets. For example, the law makes the enforcement of intellectual property and access to markets across borders possible and protects both capital and information flow across borders.²⁴⁸ Capitalism's legal order protects powerful private interests and divests countervailing democratic forces of fora and legal remedies to contest these private interests. People harmed by transnational companies in Myanmar and the Niger Delta struggle to find legal fora that would help them hold the companies accountable.²⁴⁹ They need access to institutions that are able and willing to hold the companies accountable. This is challenging even in better-resourced parts of the world, albeit less and differently so: European regulators

²⁴⁴ See Kapczynski, *Informational Capitalism*, *supra* note 31, at 1513-14; COHEN, *supra* note 23, at 75.

²⁴⁵ COHEN, *supra* note 23, at 45, 62-63.

²⁴⁶ See *infra* Part IV.B.2.

²⁴⁷ See COHEN, *supra* note 23, at 202-17, for a discussion of technology companies and emerging law. My article focuses on the AI industry which is more concentrated.

²⁴⁸ COHEN, *supra* note 23, at 214-17; Kapczynski, *Informational Capitalism*, *supra* note 31, at 1496-514.

²⁴⁹ See *supra* Part II.

struggle to regulate Big Tech companies.²⁵⁰ Unless regulators intervene, companies will set regulatory agendas, create private rules, and influence the creation of laws and softer norms across borders and internationally, creating a TLO that protects the major AI companies' business models from state regulation. Yet, influential scholarship on the transnational dimension of technology regulation focuses on the role and power of states²⁵¹ instead of on the role and power of the companies in shaping law, regulation, and regulatory discourse.²⁵²

The Silicon Valley Effect framing recognizes AI companies' capacity to overwhelm states' regulatory institutions. As AI's profitability and harms scale up because of its transnational supply chains and markets, capitalism's TLO restricts labor, consumer, and other affected people's access to legal remedies. This permits harmful AI products and practices to be normalized in weaker regulatory states before they boomerang back to the United States.²⁵³ This boomeranging of harm has taken place in other industries, as the Horizon Deepwater oil spill²⁵⁴ and the controversies surrounding Facebook's role in the January 6th storming of the U.S. Capitol might show us.²⁵⁵ However, AI policy conversations remain local, eliding transnational developments.

To counter the Silicon Valley Effect, a foundational shift is necessary in the framing and strategic priorities of AI regulation, scholarship, and in advocacy concerned with the public interest. Movements and public institutions should recognize that AI regulation is a transnational project and then consider how to contest the companies' TLO with democratically driven regulation. Influential states, regional blocs, international agencies, and movement leaders might consider working toward transnational norm-creation regulating transnational companies' harmful practices worldwide. While discussing TLOs below, I highlight features of capitalism's transnational legal order to show how a global legal order can enable the exploitation of labor, consumers, and the environment globally and restrict local regulatory intervention. If no countervailing force or alternative ordering emerges, AI companies are likely to create TLOs that protect their harmful products and practices.

A. A Transnational Legal Order for Transnational AI

A transnational phenomenon will tend to be addressed by a TLO, even if the order emerges through systems of practice.²⁵⁶ The companies have an interest in preserving their global value chains and their access to global markets and are

²⁵⁰ Anu Bradford offers the powerful example of how the Irish Data Protection Commission was only able to bring a small number of cases against Dublin based Big Tech companies, leaving a very high proportion of complaints unresolved. See BRADFORD, *DIGITAL EMPIRES*, *supra* note 20, at Chapter 3.

²⁵¹ See, e.g., BRADFORD, *DIGITAL EMPIRES*, *supra* note 20.

²⁵² Julie Cohen is a notable exception. See COHEN, *supra* note 23, at 207-15, 221-24, 228-30.

²⁵³ See ULRICH BECK, *RISK SOCIETY: TOWARDS A NEW MODERNITY* 37-38 (1992).

²⁵⁴ Kotsakis & Boukli, *supra* note 45, at 80-93.

²⁵⁵ Craig Timberg et al., *Inside Facebook, Jan. 6 Violence Fueled Anger, Regret Over Missed Warning Signs*, WASH. POST (Jan. 22, 2024), <https://perma.cc/R5CE-95WJ>.

²⁵⁶ Through the use of arbitration or the law of contract, for example like *lex mercatoria*. See COHEN, *supra* note 23, at 210.

influencing the creation of laws to protect them.²⁵⁷ Unimpeded, these norms will ensure that companies retain their global mobility to experiment in underregulated spaces and exploit populations at risk. This will enable the creation of dangerous products, practices, and services in underregulated spaces, as can already be seen from Microsoft's Teenage Pregnancy Prediction System and Facebook's algorithmic amplification of harmful speech in Myanmar.

History suggests that there is a high likelihood of companies' harmful products and practices boomeranging to countries with a weakened legal order. I begin with a discussion of how we should understand TLOs, followed by a discussion of capitalism's TLO, after which I outline how companies are shaping AI's TLO. The question is not whether AI will be governed by a TLO but whether regulators, scholars, and advocates can ensure that the prevailing TLO serves the publics and addresses AI's risks and harms. Except for the limited degree to which Europe exerts countervailing influence,²⁵⁸ it appears that AI's legal order may orient toward protecting the global AI companies' property rights and market access transnationally.

1. Transnational Law and Transnational Legal Orders

Among the most widely quoted passages about transnational law comes from Phillip Jessup's storied Storrs lecture, in which he pointed out that "transnational situations" can "involve individuals, corporations, states, organizations of states, or other groups."²⁵⁹ However, it is Shaffer and Halliday's sociological lens—the TLO, described as "a collection of formalized legal norms and associated organizations and actors that authoritatively order the understanding and practice of law across national jurisdictions,"²⁶⁰—that offers a better way to understand the fluidity and contestations of the legal orders governing technology, especially AI. A TLO includes and necessitates local and domestic legislation. While it may involve international law or global regulation, it does not have to do so. A TLO might easily consist of a constellation of local and global legal norms and institutions. There may be multiple orders that gain and lose strength.

Enforceable multilateral treaties are, in theory, the simplest legal instrument for a TLO governing AI but are very difficult to negotiate in practice. Fortunately, there are many paths and forms of TLOs. Shaffer and Halliday write that TLOs include private law, which means norms to be used in contracts and private standard-setting that are enforceable by courts, agencies, and arbitral bodies.²⁶¹ This suggests that the Brussels Effect²⁶² creates a TLO, as do bodies like the Internet Corporation

²⁵⁷ COHEN, *supra* note 23, at 207, 214-17; Iyengar, *supra* note 1; Billy Perrigo, *OpenAI Lobbied the E.U. to Water Down AI Regulation*, TIME (June 20, 2023) [hereinafter Perrigo, *OpenAI Lobbying*], <https://perma.cc/3US5-WZPW>.

²⁵⁸ BRADFORD, DIGITAL EMPIRES, *supra* note 20, at 358-62.

²⁵⁹ PHILIP C. JESSUP, TRANSNATIONAL LAW 2 (1956).

²⁶⁰ HALLIDAY & SHAFFER, *supra* note 17, at 11.

²⁶¹ *Id.* at 18-20.

²⁶² Bradford, *The Brussels Effect*, *supra* note 6, at 3.

for Assigned Names and Numbers or ICANN. Arguably, fiduciary duties²⁶³ or algorithmic obligations,²⁶⁴ if encoded and enforceable in several jurisdictions, could be a part of a TLO.

This sociological narration of TLOs is a goal-agnostic, useful lens to understand transnational norms and their influence. TLOs can have different goals and can be in tension with each other, as Anu Bradford has shown, using the example of the American, European, and Chinese approaches to regulation of technology.²⁶⁵ Shaffer and Halliday's highlighting of privately influenced legal orders suggests that states are not the only actors that create influential transnational norms and that the major technology companies might also shape the TLOs regulating them.²⁶⁶

In an article that predates the book, Shaffer argues that business shapes law through public institutions and through its private legal systems, which interact dynamically.²⁶⁷ The industry exerts influence through interactions with national public institutions—legislative, administrative, and judicial—and international public institutions such as the United Nations and the World Trade Organization (“WTO”).²⁶⁸ Global companies can influence public institutions and regulatory agendas across borders in a coordinated manner, shaping a harmonized legal order.²⁶⁹ Shaffer and Halliday write about the “settlement and unsettlement of legal norms.”²⁷⁰ Although they recognize, as Bradford does, that states play an irreplaceable role in lawmaking, they also recognize that private actors can create norms that are then adopted, even if indirectly and informally, by legal institutions.²⁷¹ This makes the question of who TLOs are meant to serve²⁷² critical.

Bradford's narration of how American Big Tech companies lobbied states independently of the State Department supports the idea that these companies have power and agency.²⁷³ This is also evident in the companies' engagement with European regulators in the context of the AI Act.²⁷⁴ However, arguably, other private actors—such as advocacy groups—also have power and agency. Later in this paper, I discuss how they might find ways to consolidate and strategically exercise their collective power toward a legal order that is not dominated by the companies.

The Shaffer and Halliday theory allows for the ebb and flow of TLOs, and for contestation between different TLOs. The relative power of different actors can

²⁶³ See Jack M. Balkin, *Information Fiduciaries and the First Amendment*, 49 U.C. DAVIS L. REV. 1183, 1221-25 (2016) [hereinafter Balkin, *Fiduciaries*]; Neil Richards & Woodrow Hartzog, *Privacy's Trust Gap*, 126 YALE L.J. 1180, 1214-15 (2017).

²⁶⁴ Raji et al., *supra* note 28, at 39-42.

²⁶⁵ See BRADFORD, *DIGITAL EMPIRES*, *supra* note 20, at 147-254.

²⁶⁶ HALLIDAY & SHAFFER, *supra* note 17, at 31-51.

²⁶⁷ Shaffer, *Business Shapes Law*, *supra* note 30, at 169.

²⁶⁸ *Id.* at 152-54.

²⁶⁹ See COHEN, *supra* note 23, at 207-10.

²⁷⁰ HALLIDAY & SHAFFER, *supra* note 17, at 28.

²⁷¹ HALLIDAY & SHAFFER, *supra* note 17, at 22-59.

²⁷² See THE MANY LIVES OF TRANSNATIONAL LAW: CRITICAL ENGAGEMENTS WITH JESSUP'S BOLD PROPOSAL 319 (Peer Zumbansen ed., 2020).

²⁷³ BRADFORD, *DIGITAL EMPIRES*, *supra* note 20, at 272. Bradford offers a vivid example of how Google Chairman Eric Schmidt engaged in diplomatic missions to Myanmar and North Korea to encourage the government in both places to open up the internet with private sector support.

²⁷⁴ See Perrigo, *OpenAI Lobbying*, *supra* note 257.

affect whose priorities shape a TLO, and shifts in power can change the settlement of transnational norms.²⁷⁵ The first step is exerting influence over how the problem is framed.

2. *Capitalism's Transnational Legal Order*

AI's emerging legal order risks amplifying the problems embedded in capitalism's legal order. Capitalism's transnational legal order enables global value chains and global markets to thrive.²⁷⁶ This legal order provides a foundation for transnational informational capitalism, which consists in part of existing law and in part of emerging laws which I discuss below. Businesses are able to move through different states because of the neoliberal encasement of the global market by mobilizing economically powerful states and through institutions like the WTO and the International Monetary Fund ("IMF").²⁷⁷

Capitalism's global legal order protects capital while offering limited protection to labor movements, consumers, and the public. It protects transnational companies from states that try to regulate to protect their workers or consumers, and it enforces their property rights against states that may have preferred not to recognize these rights.²⁷⁸ This transnational legal order does very little for exploited labor—whether it is the children in Congolese mines or the Kenyan micro workers. It limits states' capacity to restrict the sale of harmful products within their borders.

Capitalism's TLO is institutionalized in multi-national treaties, and overseen by organizations like the WTO and the IMF, and increasingly through bilateral and regional agreements.²⁷⁹ In his powerful account of the creation of this neoliberal TLO, Quinn Slobodian highlights how its architects used metaphors like "tariff barriers" and "obstacles to trade" to build a narrative that treats states' minimal restriction of global trade as the baseline.²⁸⁰ The WTO privileges global trade, and exceptions have to be litigated. European efforts to restrict flows of information that might violate privacy have resulted in the United States trying to negotiate an arrangement that would permit as much data to flow as possible.²⁸¹ States or regional blocs with less power than Europe might not have succeeded.

Slobodian argues that the prevailing TLO was created by neoliberals to "encase markets beyond democratic accountability,"²⁸² and that as intended, it insulates the world economy from representative (or indeed any) government intervention.²⁸³ The states within which the companies are headquartered protect

²⁷⁵ HALLIDAY & SHAFFER, *supra* note 17, at 35-38.

²⁷⁶ See COHEN, *supra* note 23, at 214-17; Kapczynski, *Informational Capitalism*, *supra* note 31, at 1508-14.

²⁷⁷ SLOBODIAN, *supra* note 177, at 1-26.

²⁷⁸ See COHEN, *supra* note 23, at 207-17.

²⁷⁹ COHEN, *supra* note 23, at 214-17; Kapczynski, *Informational Capitalism*, *supra* note 31, at 1508-14.

²⁸⁰ SLOBODIAN, *supra* note 177, at 40.

²⁸¹ COHEN, *supra* note 23, at 216.

²⁸² SLOBODIAN, *supra* note 177, at 266.

²⁸³ *Id.* at 276.

their interests and property worldwide without regulating their practices and growth adequately.²⁸⁴ When a powerful state like the United States protects private economic power from democratic control within its territory, through trade secrecy or First Amendment law, for example,²⁸⁵ it often also uses foreign policy to protect this economic power from the democratic forces of other states.²⁸⁶ A powerful regional bloc like the European Union may be able to resist the companies' economic power and American political power,²⁸⁷ to protect its people but weaker states may not be able to do so.

Neoliberal ideologues were counting, in part, on the lack of solidarity between people geographically distant from each other in permitting capitalism's unhindered exploitation.²⁸⁸ Through gig work and microwork, informational capitalism has refined capitalism's art of persuading exploited individuals to think of themselves as being in competition, not solidarity, with one another.²⁸⁹ The lack of collective action, and paucity of institutions where labor can seek redressal, makes remedies difficult to access even when labor mobilizes. Workers are left to seek redress at the state level, which means that labor is left with no redressal if it is located in a state that is unable to withstand the influence of the global companies or their states of origin. Similarly, consumers in weak regulatory states are also left with limited access to institutions that can hold the companies accountable: regulating to protect consumers may trigger a WTO dispute involving regulating states about non-tariff barriers. Unlike the companies, consumers do not have an international institution like the WTO to enforce their interests.²⁹⁰

International institutions and multilateral agreements may have been directed at protecting capital, but they can end up serving as a focal point for transnational movements through which people across the world have come together in solidarity. The Access to Knowledge movement and its engagement with the Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS") is a prominent example, discussed in detail in Amy Kapczynski's paper on how transnational law's "gravitational pull" may create global publics or polities.²⁹¹ However, years later, it is evident that neoliberalism's legal order had developed a practice of dissipating this gravitational pull by using bilateral free trade agreements.²⁹² Additionally, transnational corporations are now large enough to influence policymakers in states around the world, furthering their interests at the state level.²⁹³ Transnational movements, in the meantime, are struggling to find effective policy changes to mobilize around, and with the increasingly expertise-

²⁸⁴ WALLERSTEIN, *supra* note 188, at 349-52.

²⁸⁵ Kapczynski, *Informational Capitalism*, *supra* note 31, at 1509-10.

²⁸⁶ BRADFORD, *DIGITAL EMPIRES*, *supra* note 20, at Chapter 7.

²⁸⁷ *Id.* at Chapter 6.

²⁸⁸ See SLOBODIAN, *supra* note 177, at 103 ("Hayek and Robbins agreed that people would not accept either tariffs or redistributive policies for the sake of people geographically distant from them.").

²⁸⁹ Graham et al., *supra* note 169, at 146.

²⁹⁰ Mateja Durovic, *International Consumer Law: What Is It All About?*, 43 J. CONSUMER POL'Y 125, 128, 131-32 (2019).

²⁹¹ Amy Kapczynski, *The Access to Knowledge Mobilization and the New Politics of Intellectual Property*, 117 YALE L.J. 804, 811-20, 859-83 (2008) [hereinafter Kapczynski, *Access*].

²⁹² COHEN, *supra* note 23, at 206-07.

²⁹³ COHEN, *supra* note 23, at 207.

dominated discourses, they need to find the resources to participate.

3. *AI's Emerging TLO*

Below, I detail some significant international and national efforts to regulate AI. The regulatory frameworks I discuss here include law, soft norms, and private ordering that take the form of ethical standards, guidelines, and best practices.²⁹⁴ While I do not discuss private law in detail, it is worth noting that companies are also covered by international agreements, contracts, and licensing that they can opt into.²⁹⁵ States that possess the resources and power to regulate the companies—such as U.S. or European Union (“EU”) law—draft narrow, localized regulations that permit the companies to continue their harmful practices and create harmful products elsewhere. Below, I discuss AI’s emerging legal order with a focus on U.S. and EU regulation and note the European Union’s regulatory efforts since they have the potential to create democratically oriented TLOs. I also acknowledge international and private norm-setting exercises since they may be influential even if they are not enforceable.

The WTO Joint Statement Initiative (“JSI”) Agreement on Electronic Commerce is a recent, visible example of international negotiation of transnational law affecting AI companies. The major technology companies, including Google, through an industry coalition, have prioritized a set of recommendations for the WTO e-commerce discussions that include “allow[ing] data to move across borders” and “ensur[ing] full market access for services.”²⁹⁶ These recommendations propose restricting several kinds of state regulation of technological products and internet services. They also suggest prohibition of taxes and tariffs on cross-border data flows and digital products; intermediary liability protection; prohibition of any requirements for companies to transfer technology, source code, or algorithms; broader deregulation such as full market access for services (including new services); and elimination or reduction of “red tape and discriminatory regulatory barriers.”²⁹⁷ These recommendations are directed toward creating a legal order in which states struggle to regulate AI companies.

The negotiation of the WTO JSI has been fraught. The first Trump administration’s recommendations were aligned with the companies’ recommendations about the free flow of information across borders and prohibiting state laws requiring data localization and reviews of software source code, but these were withdrawn in 2023 to align with the Biden administration’s goals.²⁹⁸ India, South Africa, and Indonesia wanted to be able to tax cross-border electronic transmissions.²⁹⁹ The negotiation continues and may receive support now that U.S. leadership has changed once again.

²⁹⁴ See Veale et al., *supra* note 32, at 258-65.

²⁹⁵ See *id.*

²⁹⁶ INFORMATION TECHNOLOGY INDUSTRY COUNCIL, RECOMMENDED PRIORITIES FOR THE WTO E-COMMERCE DISCUSSIONS 1 (July 16, 2023), <https://perma.cc/598X-4ZSG>.

²⁹⁷ *Id.*

²⁹⁸ David Lawder, *US Drops Digital Trade Demands at WTO to Allow Room for Stronger Tech Regulation*, REUTERS (Oct. 25, 2023), <https://perma.cc/3QSC-655J>.

²⁹⁹ Manoj Kumar, *India to Oppose Extended E-commerce Tariff Ban at WTO Meet - Sources*, REUTERS (Feb. 20, 2024), <https://perma.cc/7Q93-RNQE>.

The companies' efforts to preserve transnational access to markets and to minimize the degree to which they are regulated are not new. Google tried to influence international law to create commitments that would forbid states from enacting data localization laws and restrict them from regulating information flows.³⁰⁰ A TLO protecting access to markets tends to treat labor and consumer protection as obstacles to trade.³⁰¹ It enables American companies and the State Department to challenge and sanction foreign states that try to regulate to protect labor and consumers. Efforts to institutionalize global protection for the free flow of information across borders³⁰² try to extend the TLO protecting capitalism's trade of goods and services to informational capitalism's trade of data and algorithmic products and services.³⁰³

Transnational companies possess the resources to stitch together a TLO from local laws, and they also influence law creation at the state level across the world. For example, Uber and other transnational companies campaigned to create the legal category of "intermediate worker" in Brazil to opt out of local labor laws and legalize their exploitative practices.³⁰⁴ Google Chairman Eric Schmidt urged the Myanmar government to create a "free internet" with private sector support in 2013.³⁰⁵

International efforts to regulate AI are currently soft norms. Influential efforts include the Partnership on AI's 2016 thematic pillars, the European Union's AI Act, the Asilomar Principles, the White House Executive Order and Blueprint for an AI Bill of Rights, and the National Institute of Standards and Technology ("NIST") AI Risk Management Framework. Frameworks like Fairness, Accountability, and Transparency are a part of the web of norms that influence regulation. The U.N. Educational, Scientific and Cultural Organization ("UNESCO") and the Office of the U.N. High Commissioner for Human Rights ("OHCHR") have published the principles that they believe should apply. The U.N. Secretary General's advisory body on "the risks, opportunities, and international governance of artificial intelligence" has published its report arguing that global governance of AI is necessary but that the United Nations should confine itself to serving as a forum for discussing and harmonizing standards for now.³⁰⁶ It appears that the U.N. panel of experts believes that states and companies are not ready to discuss adopting international standards.

Of the international norms and principles that do exist for AI regulation,

³⁰⁰ See GOOGLE, ENABLING TRADE IN THE ERA OF INFORMATION TECHNOLOGIES: BREAKING DOWN BARRIERS TO THE FREE FLOW OF INFORMATION 14-16 (2010), <https://perma.cc/A7RJ-2G3A>.

³⁰¹ See COHEN, *supra* note 23, at 224. For examples of how, see generally Robert House, *The World Trade Organization, and the Protection of Workers' Rights*, CAL. L. REV. 885 (2003).

³⁰² Lawder, *supra* note 298.

³⁰³ Although the WTO's JSI's protection of informational flows is being contested, the effort to use international law to protect this movement of information from domestic regulation is already visible in bilateral agreements and regional trade agreements to prevent states from regulating data, technology, and services. See COHEN, *supra* note 23, at 214-17.

³⁰⁴ Veena Dubal & Renan Kalil, *The Latest US Export to Brazil? Legalized Labor Exploitation*, LPE PROJECT (Sep. 28, 2023), <https://perma.cc/PR5C-EZRG>.

³⁰⁵ BRADFORD, DIGITAL EMPIRES, *supra* note 20, at 275.

³⁰⁶ UNITED NATIONS, GOVERNING AI FOR HUMANITY 48-58 (2024), <https://perma.cc/5LY9-HCZS>.

most have a democratic deficit.³⁰⁷ Norms unconnected to movements are already emerging from the Organisation for Economic Co-operation and Development (“OECD”). The OECD’s influential norms, although they were developed by a multi-stakeholder group of experts, are reflective of elite priorities. The five principles for “trustworthy” AI developed by this group are (1) inclusive growth, sustainable development, and well-being; (2) human-centered values and fairness; (3) transparency and explainability; (4) robustness, security, and safety; and (5) accountability.³⁰⁸ Within human-centered values, the OECD does include “freedom, dignity and autonomy, privacy and data protection, non-discrimination and equality, diversity, fairness, social justice, and internationally recognised labour rights.”³⁰⁹ However, under this framework, “AI actors” are left to implement these values. AI actors are defined as “those who play an active role in the AI system lifecycle, including organizations and individuals that deploy or operate AI.”³¹⁰ The Global Partnership on AI has adopted these principles.³¹¹ The National Institute of Standards and Technology’s Artificial Intelligence Risk Management Framework also draws on the OECD principles, although in its final form, it centers on people, organizations, and ecosystems.³¹²

Several AI regulatory frameworks explicitly refer to “risk management.”³¹³ Both the NIST AI Risk Management Framework and the European Union’s AI Act take a risk-based approach to regulation.³¹⁴ Risk-based approaches involve imaginaries of what is likely to happen in the future. Risk-based regulation, as the EU AI Act indicates, focuses on measuring potential harm and deciding when the risk is “reasonable” enough to be assumed. Since regulatory frameworks are new in the context of data and algorithms, they influence other efforts to regulate, gradually creating an influential body of principles and modes of regulating AI.³¹⁵

AI regulation currently relies heavily on risk frameworks. Recognizing the law’s expressive function,³¹⁶ would mean recognizing that this risk-based legal order will influence how risks are defined, signaling which risks are salient. The identification and prioritization of risks are political processes, and powerful actors

³⁰⁷ See *supra* Part II.C; DAVID KENNEDY, A WORLD OF STRUGGLE: HOW POWER, LAW AND EXPERTISE SHAPE GLOBAL POLITICAL ECONOMY 36 (2016); Zachary D. Liscow & Daniel Markovits, *Democratizing Behavioral Economics*, 39 YALE J. ON REGUL. 1217, 1274 (2022).

³⁰⁸ *AI Principles*, ORG. FOR ECON. COOP. & DEV., <https://perma.cc/ZHC6-DA75> (last visited Mar. 27, 2025).

³⁰⁹ ORG. FOR ECON. COOP. & DEV., RECOMMENDATION OF THE COUNCIL ON ARTIFICIAL INTELLIGENCE 1.2(a) (2019), <https://perma.cc/KZP4-7N73> (OECD revised these principles in 2024).

³¹⁰ *Id.*

³¹¹ GLOB. P’SHIP ON A.I., 2024 GPAI NEW DELHI DECLARATION ¶ 4 (July 3, 2024), <https://perma.cc/Z6HF-9G97>; see also GLOB. P’SHIP ON A.I., GPAI BELGRADE MINISTERIAL DECLARATION (Dec. 4, 2024), <https://perma.cc/H2VY-VQSD>.

³¹² NAT’L INST. OF STANDARDS AND TECH., U.S. DEP’T OF COM., NIST AI 100-1, ARTIFICIAL INTELLIGENCE RISK MANAGEMENT FRAMEWORK (AI RMF 1.0) 1 (2023).

³¹³ See Kaminski, *supra* note 43, at 1351.

³¹⁴ See *NIST Risk Management Framework*, NAT’L INST. OF STANDARDS & TECH., <https://perma.cc/Z5TF-H82S> (last visited Mar. 27, 2025); E.U. A.I. Intelligence Act, *supra* note 56.

³¹⁵ See, e.g., Bradford, *The Brussels Effect*, *supra* note 6, at 3.

³¹⁶ Danielle K. Citron, *Law’s Expressive Value in Combating Cyber Gender Harassment*, 108 MICH. L. REV. 373, 407-08 (2009) [hereinafter Citron, *Law’s Expressive Value*]; Jack M. Balkin & Reva B. Siegel, *Principles, Practices, and Social Movements*, 154 U. PA. L. REV. 927, 930-33 (2006).

have an interest in prioritizing different risks. Big Tech CEOs may focus on obstacles to their innovation as risks. Scholars and commentators from privileged backgrounds may focus on risks that affect people that they identify with.³¹⁷ Risk-based regulation, owing to its assessment of harm at a societal level, is also prone to being tailored for mainstream populations.³¹⁸ It permits powerful and influential institutions and individuals to persuade society to focus on their vision of AI's risks.³¹⁹ This can elide harm to disempowered people, effectively dismissing and trivializing them.³²⁰

B. The Silicon Valley Effect

As I show above, the AI industry, which is highly concentrated, works hard to influence the law in the United States, Europe, and elsewhere, effectively creating TLOs that work in its favor. While corporate lobbying and market-oriented governance are not new,³²¹ the power held by the major AI companies and their capacity to influence the foundational norms of AI regulation transnationally should be of concern.³²² The AI industry exercises power through overt political influence, as well as by purveying its view of AI's most salient risks. This is what I refer to as the Silicon Valley Effect.

Professor Anu Bradford has suggested that the power and capacity to influence how technology is regulated rests with what she calls the three digital empires—the United States, the European Union, and China.³²³ She has recognized that the United States took steps to ensure that its companies can do business worldwide by influencing international institutions and other states, but that this state support might end with American public discourse shifting in favor of holding Big Tech accountable. I argue that the Silicon Valley Effect is independent of states, and that AI companies exert influence on other states and on the United States to access its institutional power.³²⁴ I build on Professor Julie Cohen's argument about technology and internet governance³²⁵ and argue that the AI industry, being even more dominant, exercises a dangerous degree of influence on the regulatory agenda. This political influence is visible in the relationship between American tech

³¹⁷ Kaminski, *supra* note 43, at 1392.

³¹⁸ *Id.* at 1392.

³¹⁹ Kaminski writes, "Risk analysis often determines acceptable risk by looking to the average man—typically, the average adult white man. Anyone whose profile deviates from this benchmark—women, people of color, non-binary people, really any minority—can suffer the consequences of a policy that treats them as invisible and their needs of little worth." *Id.*

³²⁰ Citron, *Law's Expressive Value*, *supra* note 316, at 377.

³²¹ See, e.g., Sandra Laville, *Top Oil Firms Spending Millions Lobbying to Block Climate Change Policies, Says Report*, GUARDIAN (Mar. 21, 2019), <https://perma.cc/7R7K-BDZZ>; see also Shaffer, *Business Shapes Law*, *supra* note 30, at 167-75; Kapczynski, *Informational Capitalism*, *supra* note 31, at 1490-92; *supra* Part II.A.2.

³²² Julie Cohen has discussed the informational capitalist companies' power brilliantly in a book written before generative AI became public. See generally COHEN, *supra* note 23. This power is enhanced in the context of AI because the companies can now claim technical expertise and argue that the law should favor and protect innovation.

³²³ See BRADFORD, *DIGITAL EMPIRES*, *supra* note 20, at 6-11.

³²⁴ While this paper was going through the journal's editorial process, the U.S. presidential election took place. It may be fair to say that the industry now has possibly unprecedented access to state power.

³²⁵ COHEN, *supra* note 23, at 219-20.

billionaires and President Trump.³²⁶

While writing about digital empires, Professor Bradford has discussed how companies exert power and influence over governments. She treats the companies' relationship with states as vertical and points out that companies must comply with laws even if they initially resist them.³²⁷ I argue that the companies' vertical struggles with states are a part of how they shape legal norms transnationally. A transnational corporation can use a unified strategy to further its interests worldwide.³²⁸ Although Bradford rightly points out that the Big Tech companies' interests are not always aligned and they do compete, the industry is unified against government measures that protect labor or the environment or restrict the pace at which they develop and release products.³²⁹ The industry's efforts toward a harmonized global legal order are to protect these interests. The Silicon Valley Effect is largely uncontested because it is not recognized as a significant force shaping global legal norms.

While Professor Bradford's narration of the companies' role is excellent and offers details that I rely on here, her framing risks minimizing that role's impact. In my discussion of the AI companies' role, I draw on scholarship about how the capitalist logic of power differs from the territorial logic of power,³³⁰ and on Professor Gregory Shaffer's work, including a book he co-authored with Professor Terence Halliday, on transnational legal ordering. I build on and reframe Professor Cohen's detailed discussion of how companies influence transnational standards and law.³³¹ The industry acts by creating private rules and institutions, by influencing national and international public institutions, and through information capture.³³² The Silicon Valley Effect operates within states and internationally, shaping regulation and regulatory agendas to protect the global business models I described in Part II through a TLO that protects property, not people. It works to persuade regulators and others that the industry can play a significant role in mitigating risks and in developing AI tools that will benefit humankind.³³³ The "AI Pause" open letter co-signed by Big Tech leaders and prominent academics³³⁴ was a powerful example of how discourse can be influenced.³³⁵ I discuss other, less visible, ways in which the industry influences regulatory discourse below.

³²⁶ Fin Gómez & Ed O'Keefe, *Jeff Bezos, Elon Musk, Mark Zuckerberg to Attend Trump's Inauguration*, CBS NEWS (Jan. 14, 2025), <https://perma.cc/ER8X-L9EG>.

³²⁷ See BRADFORD, *DIGITAL EMPIRES*, *supra* note 20, at 265.

³²⁸ COHEN, *supra* note 23, at 207.

³²⁹ See Shaffer, *Business Shapes Law*, *supra* note 30, at 153.

³³⁰ HARVEY, *supra* note 184, at 101-08.

³³¹ COHEN, *supra* note 23, at 207-15, 221-24, 228-30.

³³² See Shaffer, *Business Shapes Law*, *supra* note 30, at 152; Zephyr Teachout & Lina Khan, *Market Structure and Political Law: A Taxonomy of Power*, 9 DUKE J. CONST. L. & PUB. POL'Y 37, 46-49 (2014).

³³³ See Woodrow Hartzog, *Two AI Truths and a Lie*, 26 YALE J.L. & TECH. 595, 617-29 (2024).

³³⁴ Anderson, *supra* note 26.

³³⁵ See Gebru et al., *Statement from the Listed Authors of Stochastic Parrots on the "AI Pause" Letter*, DAIR INSTIT. (Mar. 31, 2021), in which the authors write that the recommendations in the letter that they agree with are "overshadowed by fearmongering and AI hype, which steers the discourse to the risks of imagined 'powerful digital minds' with 'human-competitive intelligence.' Those hypothetical risks are the focus of a dangerous ideology called longtermism that ignores the actual harms resulting from the deployment of AI systems today."

1. Industry Influenced Regulation

In 2023, Time reported that Meta, Google (through Alphabet), Microsoft, and Amazon each spent over \$10 million on lobbying the U.S. federal government about artificial intelligence and that the trade association Information Technology Industry Council spent \$2.7 million.³³⁶ In contrast, the Mozilla Foundation spent \$120,000, and other non-profit groups spent even lower amounts.³³⁷ A 2021 report by non-profit research and campaign organizations Corporate Europe Observatory and LobbyControl suggested that over €97 million is spent annually on corporate lobbying of European Union institutions over digital economy policies. Google spent the most (€5,750,000 according to the report), closely followed by Facebook or Meta (at €5,550,000) and Microsoft (at €5,250,000).³³⁸ Over 60 senators are reported to have attended a closed-door meeting featuring panels on which the CEOs of OpenAI, Microsoft, Meta, and Google spoke.³³⁹

BigTech influences policy through more than lobbying and visible influence.³⁴⁰ It impacts policy discourse through media campaigns, through the already criticized “revolving door,” in which company employees are hired by the government and government employees are recruited by companies,³⁴¹ and by creating and disseminating information.³⁴² In 2019, Yochai Benkler pointed out that Big Tech was exerting excessive power over framing research on how its systems impact society, highlighting Facebook’s \$7.5 million investment in the Institute for Ethics in Artificial Intelligence at the Technical University of Munich, Germany, and expressing concern about the U.S. National Science Foundation’s (“NSF”) collaboration with Amazon for a \$7.6 million program on Fairness in Artificial Intelligence.³⁴³ The NSF’s collaboration with Amazon has been renewed in 2022 for \$9.5 million in financial support.³⁴⁴

In addition to influencing law and discourse in jurisdictions like the United States and the European Union, the companies also target law and discourse internationally and in other states. While the Big Tech companies do have conflicting

³³⁶ Will Henshall, *There’s an AI Lobbying Frenzy in Washington. Big Tech Is Dominating*, TIME (Apr. 30, 2024), <https://perma.cc/AW7H-D85P>.

³³⁷ *Id.*

³³⁸ Max Bank et al., *The Lobby Network: Big Tech’s Web of Influence in the EU*, CORP. EUR. OBSERVATORY AND LOBBYCONTROL (2021), <https://perma.cc/8LGB-UD79>.

³³⁹ Rebecca Klar & Al Weaver, *Tech CEOs, Senators Talk Risks of AI, Need for ‘Safeguards’*, HILL (Sept. 13, 2023), <https://perma.cc/S34Y-3R74>.

³⁴⁰ Teachout & Khan, *supra* note 332, at 42.

³⁴¹ See, e.g., Cat Zakrzewski & Gerrit De Vynck, *OpenAI Adds Trump-appointed Former NSA Director to Its Board*, WASH. POST (June 14, 2024), <https://perma.cc/39TB-ZUDZ>; see also Adira Levine, *Increasing Transparency at the National Security Commission on Artificial Intelligence*, LAWFARE (July 1, 2020), <https://perma.cc/7C3V-S2VZ>; PASQUALE, *supra* note 142, at 207; Pawel Popiel, *The Tech Lobby: Tracing the Contours of New Media Elite Lobbying Power*, 11 COMM’N CULTURE & CRITIQUE 566, 568-69, 572, 575 (2018).

³⁴² Teachout & Khan, *supra* note 332, at 44; see also Tom Simonite, *How Tech Companies Are Shaping the Rules Governing AI*, WIRED (May 16, 2019), <https://perma.cc/R24W-LXU8>.

³⁴³ Yochai Benkler, *Don’t Let Industry Write the Rules for AI*, 569 NATURE 161 (May 1, 2019).

³⁴⁴ U.S. Nat’l Sci. Found., *NSF and Amazon Continue Collaboration that Strengthens and Supports Fairness in Artificial Intelligence and Machine Learning*, NSF NEWS (Aug. 8, 2022), <https://perma.cc/H8QW-FRE5>.

interests and often call for regulating their competitors,³⁴⁵ they have common interests that result in the creation of bodies like the Frontier Model Forum.³⁴⁶ They have the resources to directly influence state-level policymaking around the world and can harness state power when they persuade the U.S. government to advocate for their interests. The Clinton and Obama administrations included internet freedom as a top diplomatic priority.³⁴⁷ The Trump administration has advocated for international law obligating states to allow cross-border flow of data and prohibiting states from implementing laws that mandate data localization and software source code reviews.³⁴⁸

On his world tour, OpenAI CEO Sam Altman made remarks that were framed as asking for regulation.³⁴⁹ Altman proposed to Congress that the United States should lead the framing of global standards.³⁵⁰ Despite these calls for regulation, OpenAI lobbied the EU over its AI Act and successfully ensured that its products were not classified as high-risk, and that they would not be restricted from use for employment or education.³⁵¹ This lobbying clarifies what kind of regulation the profit-driven company desires. OpenAI created a private industry body called the Frontier Model Forum, along with Anthropic, Google, and Microsoft, to “[ensure] safe and responsible development of frontier AI models.”³⁵² This body appears to be meant to lead regulatory discourse about future models.³⁵³ Amazon and Meta joined it in 2024.

American companies have also committed to a series of transparency measures in the interest of “earning the public’s trust,” including reporting on the security and limitations of AI systems.³⁵⁴ These commitments of quality, safety, and transparency help companies persuade governments to allow self-regulation instead of state regulation while encouraging future customers and users to trust their products. However, these transparency measures are insufficient to address the exploitation, injustice, and other harms on which companies depend for their profits.³⁵⁵ Transparency alone cannot enable publics to hold the industry accountable for complex, cascading harms, because greater expertise is necessary to model the consequences of the information shared by companies.³⁵⁶

The companies have published their regulatory priorities. The Information Technology Industry Council describes itself as “the premier global advocate for

³⁴⁵ BRADFORD, *DIGITAL EMPIRES*, *supra* note 20, at Chapter 6.

³⁴⁶ See *Frontier Model Forum*, <https://perma.cc/GT4Y-VCWV> (last visited Mar. 27, 2025).

³⁴⁷ U.S. DEP’T OF STATE, REMARKS ON INTERNET FREEDOM (Jan. 21, 2010), <https://perma.cc/EAE7-42BS>.

³⁴⁸ See Lawder, *supra* note 298.

³⁴⁹ See Iyengar, *supra* note 1.

³⁵⁰ See Smith, *supra* note 7.

³⁵¹ See Iyengar, *supra* note 1; Perrigo, *OpenAI Lobbying*, *supra* note 257.

³⁵² See Milmo, *supra* note 9.

³⁵³ OpenAI, *Frontier Model Forum*, OPENAI BLOG (July 26, 2023), <https://perma.cc/AFC5-WU9N>.

³⁵⁴ U.S. WHITE HOUSE, BIDEN-HARRIS ADMINISTRATION SECURES VOLUNTARY COMMITMENTS FROM EIGHT ADDITIONAL ARTIFICIAL INTELLIGENCE COMPANIES TO MANAGE THE RISKS POSED BY AI (Sep. 12, 2023), <https://perma.cc/UT7X-NFLV> (Internet Archive version).

³⁵⁵ See ARI EZRA WALDMAN, *INDUSTRY UNBOUND* 37-43, 217-20 (2021).

³⁵⁶ K. SABEEL RAHMAN, *DEMOCRACY AGAINST DOMINATION* 117 (2017).

technology, representing the world's most innovative companies,"³⁵⁷ and features Apple, Google, Amazon, Meta, and Microsoft among its members. In its global AI policy recommendations, it includes, "[g]overnments should recognize the need for global cooperation and coordination, maintain interoperability across borders by engaging in ongoing dialogue, ensure the protected free flow of data across borders, and support global, voluntary, industry-led standards."³⁵⁸ In other parts of its recommendations, it also supports a risk-based approach to AI in which the industry is consulted about "how to characterize 'high-risk' applications of AI,"³⁵⁹ and argues that "AI specific laws would run counter to the principle of technological neutrality."³⁶⁰

Although I have focused on how industry shapes legal norms, it is worth noting that the industry's other tools include using litigation and other dispute settlement resources to build precedent where law does not favor business.³⁶¹ This can include using contracts and waivers to avoid litigation.³⁶² Companies are also able to strategically intervene to shape how courts approach new conceptual problems arising from emerging technology in ways that shield their businesses from oversight.³⁶³

2. *AI's Regulatory Agenda*

The Silicon Valley Effect can powerfully influence the development of AI regulation. Company-led framing, which influences how policymakers think about the global risks of AI, claims that AI creates a reasonably proximate risk of extinction,³⁶⁴ and that regulators should focus on "product safety" (which the companies propose to address by "security testing" of their AI systems for risks such as "biosecurity and cybersecurity, as well as its broader societal effects").³⁶⁵ Bradford makes a valuable argument about the ideological power of EU regulation and the possibility that other states or transnational companies will adopt the EU's norms. I argue that the industry also exerts considerable ideological power, admittedly through the United States, but also within and outside it. Big Tech's response to the GDPR—limited compliance within Europe, no compliance outside, and disseminating the view that the European data protection law hinders innovation—suggests that companies will contest regulatory agendas that disadvantage them globally.

The AI industry shapes AI's regulatory agenda. For example, it prioritizes the "AI safety" discourse. It invests substantially in creating and disseminating

³⁵⁷ *Who We Are*, INFO. TECH. INDUS. COUNCIL, <https://perma.cc/72R4-RP2B> (last visited Mar. 27, 2025).

³⁵⁸ INFO. TECH. INDUS. COUNCIL, GLOBAL AI POLICY RECOMMENDATIONS 1 (2021), <https://perma.cc/P93V-PU4T>.

³⁵⁹ *Id.* at 10.

³⁶⁰ *Id.*

³⁶¹ Shaffer, *Business Shapes Law*, *supra* note 30, at 158-60.

³⁶² COHEN, *supra* note 23, at 156.

³⁶³ *Id.* at 168.

³⁶⁴ See Anderson, 'AI Pause' Open Letter, *supra* note 26.

³⁶⁵ U.S. WHITE HOUSE, *supra* note 354.

information that takes a techno-centric view of AI's risks. The Center for AI Safety ("CAIS"), which published and publicized the AI CEOs letter about the risk of extinction being a high priority for AI regulation, received over \$10 million from Open Philanthropy, which is financed by Facebook co-founder and stockholder Dustin Moskovitz.³⁶⁶ As noted previously, OpenAI, Google, Microsoft, and Anthropic partnered to create the Frontier Model Forum, which Amazon and Meta have joined, that focuses on AI safety research and responsible development of models.³⁶⁷ The Forum has a ten-million-dollar fund for "research in the field of AI safety."³⁶⁸ Open Philanthropy has given over \$410 million to organizations working on potential risks from Advanced AI. Politico reports that CAIS spent close to a \$100,000 lobbying in the last three months of 2023.³⁶⁹

The impact of this regulatory agenda shaping is visible in reports about the first AI Safety Summit at Bletchley Park, where Big Tech leaders like Sam Altman and Elon Musk rubbed shoulders with political leaders.³⁷⁰ This transnational gathering of political and tech industry leaders led to the creation of AI Safety institutes in several countries, including the United States, the United Kingdom, Japan, Singapore, Canada, and the EU.³⁷¹ One might argue that the creation of the AI Safety Institute here,³⁷² and in the United Kingdom,³⁷³ implies that industry-led discourse is influencing regulation.

Public and private regulators' vision of those whose interests they are trying to protect can tend to be based on themselves and the people they know. Cory Doctorow highlighted the hilarious disconnection between the industry view and their customers' reality through a story of how broadcasting industry executives trying to define a household for video sharing purposes were easily able to envision a household consisting of summer villas across state borders, luxury cars, and boats, but struggled with the idea that the more common household consists of people who are migrant laborers in different countries.³⁷⁴ In other words, they were able to work out how to share a household subscription that included foreign summer homes and luxury boats, but not one that included a rented basement in New York and a farmer's dwelling in the Philippines.

Like all regulation, AI and data regulation is likely to center historically

³⁶⁶ See Brendan Bordelon, *AI Doomsayers Funded by Billionaires Ramp Up Lobbying*, POLITICO (Feb. 23, 2024), <https://perma.cc/MPL5-5CZC>; see also *About Us*, OPEN PHILANTHROPY, <https://perma.cc/NZ7U-2LSR> (last visited Mar. 27, 2025); and *Grants*, OPEN PHILANTHROPY, <https://perma.cc/KCL9-B9PJ> (last visited Mar. 27, 2025).

³⁶⁷ See FRONTIER MODEL FORUM, <https://perma.cc/GT4Y-VCWV> (last visited Mar. 27, 2025).

³⁶⁸ See *Announcing Chris Meserole as Executive Director and the New AI Safety Fund*, FRONTIER MODEL F., <https://perma.cc/9XJZ-9AMP> (last visited Mar. 27, 2025).

³⁶⁹ See Bordelon, *supra* note 366.

³⁷⁰ Paul Sandle & Martin Coulter, *AI Safety Summit: China, US and EU Agree to Work Together*, REUTERS (Nov. 1, 2023), <https://perma.cc/4PRG-M4Q6>.

³⁷¹ Amlan Mohanty & Tejas Bharadwaj, *The Importance of AI Safety Institutes*, CARNEGIE INDIA (June 28, 2024), <https://perma.cc/LBT9-DRJD>.

³⁷² Paul Sandle & David Shepardson, *US to Launch Its Own AI Safety Institute*, REUTERS (Nov. 1, 2023), <https://perma.cc/W53K-DQFC>.

³⁷³ Dan Milmo, *UK's AI Safety Institute 'Needs to Set Standards Rather than Do Testing'*, GUARDIAN (Feb. 11, 2024), <https://perma.cc/G8UA-W9BD>.

³⁷⁴ Cory Doctorow, *This Is What Netflix Thinks Your Family Is*, ATLANTIC (Feb. 7, 2024), <https://perma.cc/VP3G-6UUH>.

privileged people's interests and concerns.³⁷⁵ If regulatory priorities are defined by the industry, and the imaginations of people who do not carry the worst of AI's harms, law will prioritize their interests not the greatest social harms. Safiya Noble's focus on Black women revealed that the Google search engine and its underlying datasets inflicted a different kind of reputational injury on Black women and girls, as opposed to other groups of people, including women, by sexualizing them.³⁷⁶ To unearth these injuries, law and policy need to focus on these groups, their socio-political context, and the particular ways in which they are harmed. Facebook, in its early days of regulating hate speech, made the mistake of treating race and gender as neutral categories³⁷⁷ and had to rewrite these policies to acknowledge the disparities that are present in society.

3. *Salient and Erased Harms*

If emerging law and discourse define and prioritize harms, it is helpful to consider the harms that are elided. It is dangerous to create a legal order that enables the companies' exploitative and unjust practices and products to proliferate across the world. Products like a pregnancy prediction system, and companies that exploit workers, can find their way to many receptive markets. Law focused on safety and ethics does not offer ways to highlight and address these harms.

The European Union has already moved to regulate AI, and there are calls for regulation in the United States. Although this regulation may be ideologically powerful, powerful states usually regulate transnational companies to protect their citizens, but not non-citizens, reasoning that other states should regulate to protect their citizens. This creates unregulated sites, or places where law enables companies' exploitative practices, which the industry has an interest in preserving.

Regulatory infrastructures have a domestic focus except in three contexts. The first is when regulation is international. While international norms are often unenforceable, some bodies such as the WTO and the International Telecommunications Union have successfully created enforceable international regulatory norms. The second is when the regulation is private, or company-led. Online platforms' rules for online content can order behavior on these platforms worldwide, as can rules made by private bodies like Internet Corporation for Assigned Names and Numbers. The third is when domestic regulation, such as the Foreign Corrupt Practices Act of 1977, applies across borders.³⁷⁸ There is a potential fourth context when domestic regulation is mirrored by other jurisdictions to create a bottom-up harmonized system, but each set of local norms is domestically focused in this case. The viability of these four possible non-domestic contexts is mixed. The first is very difficult since it requires geopolitical agreement. The second and the third

³⁷⁵ YOUNG, *supra* note 125, at 12.

³⁷⁶ See generally SAFIYA UMOJA NOBLE, *ALGORITHMS OF OPPRESSION* (2018).

³⁷⁷ Julia Angwin, ProPublica & Hannes Grassegger, *Facebook's Secret Censorship Rules Protect White Men from Hate Speech but Not Black Children*, PROPUBLICA (June 28, 2017), <https://perma.cc/624S-9HJ4>.

³⁷⁸ See Delphia Lim et al., *Access to Remedies for Transnational Public Bribery: A Governance Gap*, in *ISSUES IN COMBATTING TRANSNATIONAL CORRUPTION*, 28 FALL CRIM. JUST. 38, 35-42 (2013).

are more viable in the short term but may have a democratic deficit. The fourth might emerge from companies' local influence on the law in several jurisdictions but might also emerge from a transnational movement.

Even where rules are crafted equitably, they might be interpreted in ways that prioritize some people and exclude others. Feminist scholars and scholars writing about race have pointed this out repeatedly. Anita Allen argues brilliantly,

In the United States, discussions of privacy and data protection law ground the case for reform in values of individual autonomy, limited government, fairness, and trust—values that are, in theory, appealing to all people. Yet, until recently, the material conditions and interests of African Americans, particularly from their perspectives, have received limited attention in such discussions.³⁷⁹

In her pathbreaking article about sexual privacy, Professor Danielle Citron pointed out that American information privacy law that “does little to curtail the private sector’s amassing of vast amounts of intimate information,”³⁸⁰ enables private sector intimate surveillance, and the risks of this surveillance are borne disproportionately by women and other marginalized groups.³⁸¹ Scholars who focus on marginalized communities find that they are structurally excluded by the law, which fails to address concerns particular to them.

The institutions that interpret and implement legal rules and ethical principles tend to be run by the elite and powerful. Even when made somewhat inclusive, they remain infused with the ideologies of the powerful and reproduce their ways of seeing the world.³⁸² People from marginalized communities within these institutions can internalize and perpetuate these institutional ideologies.³⁸³ For example, U.S. labor laws initially imagined a workforce consisting solely of men whose partners (invariably, women) performed unofficial domestic and emotional labor. This framework failed women until the feminist movement challenged the male-centric imagination of the U.S. workforce. However, changes in law did not immediately change the minds of people, including women. They had internalized the expectation that women in the formal workplace must function like men, without consideration for women’s lack of access to caregiving partners, making it difficult for women who were primary caregivers to progress in the workplace. In the private sector, which lacks even the minimal safeguards of the public sector, workers who challenge institutional or workplace ideologies are easily ousted.³⁸⁴

³⁷⁹ Anita L. Allen, *Dismantling the “Black Opticon”: Privacy, Race Equity, and Online Data-Protection Reform*, 131 YALE L.J. 907, 909-10 (2021).

³⁸⁰ Danielle K. Citron, *A New Compact for Sexual Privacy*, 62 WM. & MARY L. REV. 1763, 1804 (2021) [hereinafter Citron, *Sexual Privacy*].

³⁸¹ *Id.* at 1770.

³⁸² Dan M. Kahan & Donald Braman, *Cultural Cognition and Public Policy*, 24 YALE L. & POL’Y REV. 149, 152-53 (2006).

³⁸³ See, e.g., JAMES FORMAN, JR., *LOCKING UP OUR OWN: CRIME AND PUNISHMENT IN BLACK AMERICA* 12-13 (2017).

³⁸⁴ Tom Simonite, *What Really Happened When Google Ousted Timnit Gebru*, WIRED (June 8, 2021), <https://perma.cc/2KFN-JLVZ>.

This suggests that people are left vulnerable when states fail to regulate transnational companies, especially when the failure is caused by companies' domination of regulatory discourse and institutions because they are able to overwhelm, capture or circumvent democratic forces, or because the states are restricted from regulating them by external forces (such as more powerful states or international institutions). The Kenyan law that might undo any remedies provided to Sama employees by the Kenyan Supreme Court is one example. This is likely to be true of states that are unable to resist the influence exerted both by powerful companies and the United States. Additionally, populations like refugees are vulnerable because they are excluded from states' redressal processes.³⁸⁵

Access to vulnerable populations permits companies markets in which they can normalize and refine exploitative and unjust practices and products. Transnational AI companies affect publics around the world, and several states do not have the will or power to regulate them. This permits the companies to engage in regulatory arbitrage³⁸⁶ until their practices are normalized³⁸⁷ or they accumulate enough power to overwhelm even more powerful regulators.

C. A Transnational Legal Order in the Public Interest

The Silicon Valley Effect describes how Big Tech AI companies act transnationally, not just to create supply chains and access markets, but as norm entrepreneurs building and reinforcing a legal order that protects them. AI regulation is polycentric, taking place at multiple levels with decision-making systems that are independent of each other.³⁸⁸ The industry tends to create its own institutions, influence public ones,³⁸⁹ and set the terms of regulatory conversations.³⁹⁰ As the companies accumulate the power to influence and overwhelm states, it is important to reorient state power toward the interests of affected publics, not capital.

I agree with the parts of Altman and OpenAI's proposal that suggest that there should be regulation, that it should apply across the world, and that the United States may be able to play a leading role. The critical change I propose is that regulators, scholars, and activists contest the Silicon Valley Effect, to create countervailing discourse and norms influencing TLOs such that they protect labor and protect populations from the companies' harmful products, practices, and services. This should include framing AI regulation's goals, and institutionalizing accountability. A powerful TLO can set a baseline for regulating AI worldwide,

³⁸⁵ HANNAH ARENDT, *THE ORIGINS OF TOTALITARIANISM* 283-97 (1973).

³⁸⁶ COHEN, *supra* note 23, at 221-24.

³⁸⁷ ZUBOFF, *supra* note 78, at 132, 402.

³⁸⁸ See PAUL GOWDER, *THE NETWORKED LEVIATHAN: FOR DEMOCRATIC PLATFORMS* 100-05 (2023); see also Gregory Shaffer, *Theorizing Transnational Legal Ordering*, 12 ANN. REV. L. & SOC. SCI. 231, 241 (2016).

³⁸⁹ For example, the U.N. Secretary-General's multi-stakeholder High-Level Advisory Body on AI had the opportunity to engage in a publicly oriented norm-setting exercise but failed to do so because it inserted industry representatives in the same pool as independent experts and those who were meant to voice the risks and harms created by the industry. See Press Release, Secretary General, UN Secretary-General Launches AI Advisory Body on Risks, Opportunities and International Governance of Artificial Intelligence, U.N. Press Release (Oct. 25, 2023), <https://perma.cc/W9EX-JCH3>.

³⁹⁰ Teachout & Khan, *supra* note 332, at 41-53.

addressing concerns about competition from Chinese companies.

Influential regulators have the power to define global norms, instead of letting the companies do it.³⁹¹ Professor Bradford has shown that this is so.³⁹² Recognizing the Silicon Valley Effect means acknowledging that state institutions, in isolation or in competition with each other, may not have the power to restrict transnational corporations harmful practices or resist their influence over regulation without faltering over time. Professor Ulrich Beck was referring to this problem when he discussed the creation of global risk and a global public.³⁹³ His argument that the “world risk society brings a new, historic key logic to the fore: no nation can cope with its problems alone,”³⁹⁴ is validated by Bradford’s account of how the Irish Data Protection regulator is struggling with bringing cases against the Big Tech companies.³⁹⁵ If a relatively powerful European regulator struggles with these companies, other regulators must face greater challenges. Additionally worldwide harms like climate change affect everyone. As I show in Part III.B, informational capitalism scales up capitalism’s harms and adds new informational harms that will unfurl over time.

States, civil society, private actors, and other interest groups from the ecosystem may be opposed to the Big Tech-led legal order.³⁹⁶ However, a fragmented opposition may not be able to resist companies that operate in continuous space and time, with substantial concentrated power.³⁹⁷ Big Tech can influence susceptible states to create legal norms, and wait at the gates elsewhere to overwhelm weakening state regulators. Any individual state might see its regulatory infrastructure weakened eventually, so every state should seek a TLO that reinforces local regulation. To do so, states will need a harmonized legal order that draws its legitimacy from, and is accountable to, the publics affected by AI. This legitimacy and ongoing connection with affected publics, in contrast with elite or corporate capture, is a necessary part of what I am proposing. I discuss essential features of this TLO in Part IV.

Populations across the world, in powerful and marginalized states, share experiences of exploitation and injustice because of the Big Tech companies. They are often unable to contest how they are treated because of capitalism’s TLOs. One alternative is for these affected populations to join forces linking locally and globally, bringing together organizations and movements to destabilize Big Tech’s TLO.³⁹⁸ Professor Boaventura de Sousa Santos calls this “insurgent cosmopolitanism.”³⁹⁹ A TLO in the public interest will need to be internationally coordinated and locally enforceable, and will need to be resilient. While the technical subject-matter will

³⁹¹ BRADFORD, DIGITAL EMPIRES, *supra* note 20, at 322.

³⁹² *Id.* at 322; Bradford, *The Brussels Effect*, *supra* note 6, at 3.

³⁹³ BECK, RISK SOCIETY, *supra* note 253, at 36-44; Ulrich Beck, *Living in the World Risk Society*, 35 ECON. & SOC’Y. 329, 339 (2006) [hereinafter Beck, *Living in the World*].

³⁹⁴ Beck, *Living in the World*, *supra* note 393, at 342.

³⁹⁵ BRADFORD, DIGITAL EMPIRES, *supra* note 20, at 140.

³⁹⁶ See generally Dionysia Katelouzou & Peer Zumbansen, *The New Geographies of Corporate Governance*, 42 U. PA. J. INT’L L. 51 (2020).

³⁹⁷ For a discussion of how companies operate in space and time and the power they exert as a result, see HARVEY, *supra* note 184, at 27.

³⁹⁸ Boaventura de Sousa Santos, *Globalizations*, 23 THEORY, CULTURE & SOC’Y, 393-99, 397; see also DAVID GREWAL, NETWORK POWER: THE SOCIAL DYNAMICS OF GLOBALIZATION 190 (2009)

³⁹⁹ Santos, *supra* note 398, at 397.

necessitate the involvement of experts, this TLO will lack legitimacy unless it guards against capture by Big Tech and prioritization of elite populations' concerns, ignoring the voices of disempowered groups. The TLO I propose will be designed to be as democratic as possible,⁴⁰⁰ and to ensure that a greater range of risks to populations receive regulatory recognition. Its processes will try to ensure that harms to under-considered groups are named and prioritized, educating society about them.⁴⁰¹

TLOs in the public interest might try to enable insurgent cosmopolitanism through countervailing power,⁴⁰² to identify and recognize harms that are otherwise erased or trivialized by risk-thinking framed by elite experts or dominant group priorities. A compelling proposal of such a TLO might also exert a gravitational pull⁴⁰³ that encourages movements around the world to coalesce around it. Processes that encourage and seek mobilization and voice would be the most democratic way to develop norms for AI's TLO. I present this as an ideal, acknowledging that constructing it will be challenging. I hope to offer granular proposals in future work, and I start here by proposing an inclusive approach and identifying pathways toward it.

IV. FEATURES OF A PUBLIC INTEREST TLO

A publicly oriented TLO is foundational to this project. This necessitates a shift such that AI's TLOs are democratically driven, instead of being steered by AI companies' business interests. This will require contesting the companies' political and economic power and reducing their influence on regulatory discourse, which is challenging given the AI industry's highly concentrated power and close ties to American political leadership.⁴⁰⁴ Countering economic domination with democratic participation and collective action transnationally might be even more challenging.⁴⁰⁵ Even if states find ways to regulate AI companies, it does not follow that miners, data labelers, or impoverished minors affected by discriminatory AI products will be able to reach regulatory institutions.

This paper is largely confined to identifying the Silicon Valley Effect as the AI industry's regulatory power that needs to be contested to protect the people affected. The Silicon Valley Effect can be countered by state power, but given the AI companies' economic and political power, it will need states' combined, coordinated transnational administrative power. To ensure that the administrative power is not captured by the wealthy and powerful, and is exercised democratically, structurally disempowered groups will need ways to exercise collective influence, and governments will need the technical and legal ability to implement public interests.⁴⁰⁶

⁴⁰⁰ GREWAL, *supra* note 398, at 190.

⁴⁰¹ For an example of how groups' under-considered harms are named and prioritized, and society is educated about them, see Citron, *Law's Expressive Value*, *supra* note 316, at 377 (2009).

⁴⁰² Amy Kapczynski & Joel Michaels, *Administering a Democratic Industrial Policy*, 18 HARV. L. & POL'Y REV. 6 (forthcoming 2024).

⁴⁰³ Kapczynski, *Access*, *supra* note 291, at 859-83.

⁴⁰⁴ See BRADFORD, *supra* note 20, at 257-77.

⁴⁰⁵ See RAHMAN, *supra* note 56, at 10-19.

⁴⁰⁶ See Kapczynski & Michaels, *supra* note 402, at 6.

This requires careful design of public institutions and enabling movements and organizations that can advocate for disempowered groups.

I recognize that many may say I am building castles in the air, given the United States' role in building the TLOs that protect industry. I think it is worth envisioning how this state power can be redirected toward TLOs that protect human beings. Even if the United States has different priorities in the near future, other states might form coalitions or build on the European Union's attempts to regulate. They can also limit the industry's domination of AI's regulatory discourse using structural reforms, amplify affected groups' voices and support transnational movement building and mass-membership organizations for disempowered groups.

Below, I discuss the path forward in broad terms, focusing on three essential features of a TLO that serves people affected by AI: independence from private influence, the capacity to account for the interests of the range of publics affected, and the development of expertise that serves these publics. The first feature I discuss here is that the TLO should be oriented toward public interest. The second is that the TLO should institutionalize a consultative approach, actively trying to hear, understand, and reflect public interest, especially the interests of the relatively disempowered groups most affected by informational capitalism. The third feature is related: law and institutions can create and invigorate movements. To benefit from the knowledge and democratic legitimacy these movements offer, institutions creating and implementing AI's legal order should include translational resources to ensure the publics' voices are heard and their concerns prioritized.

A. TLOs that Serve the Public

For a TLO to serve the public, states will need processes that identify democratically driven regulatory goals, values, and norms, aligned with the public's interests instead of the industry's interests. They will need to address the AI companies' regulatory capture and AI industry-influenced discourse,⁴⁰⁷ and will need to activate and empower publics to act collectively to shape lawmaking.⁴⁰⁸

If the industry continues dominating the framing of AI regulation (as described in Part III.B.2), the resulting TLO will be in private, not public interest. Unquestioning reliance on the AI industry and industry-proximate experts is like learning how to regulate fossil fuels from the oil industry. Regulators, with support from others, can identify and eliminate or address industry influences such as direct lobbying, lobbying via trade associations, and the industry's shaping of knowledge through universities, think tanks, and the media.⁴⁰⁹ Transparency and disclosure laws have some utility in helping measure and discuss industry influence but are

⁴⁰⁷ For a discussion of regulatory capture, narrowly and broadly conceived, see David Thaw, *Enlightened Regulatory Capture*, 89 WASH. L. REV. 329, 335 (2014); Ganesh Sitaraman, *Reforming Regulation Policies to Counteract Capture and Improve the Regulatory Process* 2-4 (Vanderbilt Pub. L., Rsch. Paper No. 17-8) (2016), <https://perma.cc/MBD9-KJAP>; see also Teachout & Khan, *supra* note 332.

⁴⁰⁸ RAHMAN, *supra* note 56, at 117.

⁴⁰⁹ See Teachout & Khan, *supra* note 332, at 44-49.

insufficient without added support for publics, especially disempowered groups.⁴¹⁰

AI is likely to cause complex problems with cascade effects,⁴¹¹ which may require expertise to process and predict. This may leave publics over-reliant on regulators to be neutral and public-minded.⁴¹² Industry-influenced discourse can shape regulators' judgments about social costs and benefits.⁴¹³ For example, the U.N. Governing AI for Humanity Report mentions value chains twice but discusses 'safety' throughout the report,⁴¹⁴ despite extensive academic work and journalism highlighting AI's value chain problems. The inclusion of AI's value chains is likely a result of scholarship, strategic policy influence, movement building, and journalism. These counternarratives will need to further contest the private sector's powerfully and repeatedly articulated goals and values. Risk-oriented regulation relies on speculation about what is harmful and privileges powerful groups' concerns.⁴¹⁵

Reducing industry dominance through structural reforms can help address information asymmetry problems and industry-influenced regulatory discourse.⁴¹⁶ Regulators can reduce the concentration of private power by restructuring firms, limiting the companies' activities, and creating public obligations for them.⁴¹⁷ The European Union is attempting this. The EU's recent Corporate Sustainability Due Diligence Directive attempts to regulate large transnational companies' value chains worldwide, but it remains to be seen how far European states can create processes that enforce it.⁴¹⁸ The EU's legal order limiting transnational companies' harmful practices will be more effective if other major markets' states coordinate their structural reform standards with it.

The United States can lead cross-border regulation through laws that restrict companies' harmful transnational products and practices worldwide and by using foreign policy to encourage regulatory mirroring worldwide, reinforcing it through international agreements. American regulation can influence global norms as may be evident from how the Department of Health, Education, and Welfare's Fair Information Practices influenced the OECD's Privacy Guidelines in 1980, and the Council of Europe's Convention for the Protection of Individuals with Regard to Automatic Processing of Personal Data.⁴¹⁹ However, this will require an institutional willingness to recognize that extraterritorial harms affect Americans, and a reversal of the Supreme Court's unwillingness to apply laws like the Alien Torts Statute

⁴¹⁰ For a discussion of the limits of the effectiveness of transparency and disclosure laws, see WALDMAN, *supra* note 355, at 37-43, 217-20.

⁴¹¹ For a discussion of regulating complex problems with cascade effects see RAHMAN, *supra* note 56, at 117.

⁴¹² *Id.* at 118, 126.

⁴¹³ *Id.* at 118-27.

⁴¹⁴ UNITED NATIONS, GOVERNING AI FOR HUMANITY 27, 56-58, 69 (2024) available at <https://perma.cc/3NBE-8FN5>.

⁴¹⁵ See Kaminski, *supra* note 43, at 1392.

⁴¹⁶ RAHMAN, *supra* note 56, at 128-29.

⁴¹⁷ *Id.*

⁴¹⁸ See MULDOON ET AL., *supra* note 152, at 202-04 (pointing out that Germany enacted a supply chain law in 2023, and that extraterritorial modern slavery laws have been effective in the past).

⁴¹⁹ Anupam Chander & Paul Schwartz, *Privacy and/or Trade*, 90 U. CHI. L. REV. 49, 61 (2023); see also ROBERT GELLMAN, FAIR INFORMATION PRACTICES: A BASIC HISTORY 9-17 (2022).

extraterritorially.⁴²⁰

In addition to restricting private power, a public interest TLO must have democratic features, including accountability to the public(s),⁴²¹ which means states need to catalyze public participation.⁴²² This raises questions about what democratic legitimacy means across state borders. Gowder has argued that John Dewey's "public" might apply beyond nation-state models to a "global public."⁴²³ In addition to applying across borders, AI regulation's publics', conceived in terms of its political economy, include labor, like the cognitive workers, and other affected parties, like the women affected by the Teenage Pregnancy Prediction System.⁴²⁴ They include other populations I may not have highlighted or who might find themselves affected later. I discuss voice below in III B.

A public-interest TLO requires institutions and processes that are accountable to its publics,⁴²⁵ to avoid sacrificing democracy as it harnesses states' institutional power to contest the AI industry's domination. This might require "administrative power,"—the "government's technical and legal ability to effectively implement broadly shared public interests"—to be exerted in coordination with "countervailing power," which is "the organized capacity of structurally disadvantaged groups to exercise collective influence."⁴²⁶ In the transnational context, administrative power can be exercised by an international institution, but is more typically exercised by state-level institutions administering harmonized or international law.

Countervailing power is a little more complex. It might come from a movement like the Access to Knowledge movement⁴²⁷ or from non-profit institutions, like the Fairwork Project⁴²⁸ that access networks of workers and local experts, assessing workers' needs and working with them toward coordinated transnational policy advocacy. However transnational movements require more resources, ways to create the kinship and shared experience that drive local movements, and access to the shared language, effective messaging and framing that makes them resonate with wider audiences.⁴²⁹

⁴²⁰ See Christopher Ewell, Oona A. Hathaway & Ellen Nohle, *Has the Alien Tort Statute Made a Difference?*, 107 CORNELL L. REV. 1205, 1235-43 (2021).

⁴²¹ See Hannah Bloch-Wehba, *Algorithmic Governance from the Bottom Up*, 48 BYU L. REV. 69, 77-90 (2022).

⁴²² RAHMAN *supra* note 56, at 89.

⁴²³ GOWDER, *supra* note 388, at 22, 168.

⁴²⁴ See Bloch-Wehba, *supra* note 421, at 130-34; MULDOON ET AL., *supra* note 152, at 181-87.

⁴²⁵ GOWDER, *supra* note 388, at 22, 168.

⁴²⁶ Kapczynski & Michaels, *supra* note 402, at 6. Kapczynski and Michaels offered this proposal in the context of domestic industrial policy. *Id.*

⁴²⁷ See Kapczynski, *Access*, *supra* note 291.

⁴²⁸ See Mark Graham et al., *The Fairwork Foundation: Strategies for Improving Platform Work in a Global Context*, 112 GEOFORUM 100, 101-02 (2020).

⁴²⁹ See Margaret E. Keck & Kathryn Sikkink, *Transnational Advocacy Networks in the Movement Society*, in *THE SOCIAL MOVEMENT SOCIETY: CONTENTIOUS POLITICS FOR A NEW CENTURY* 219-26 (David S. Meyer, Sidney G. Tarrow eds., 1998).

B. TLOs that Hear the Public

AI's TLO should account for the range of publics affected, and will need to be compatible with or translatable in other jurisdictions.⁴³⁰ It will need to account for affected populations' needs, including groups that are distant—geographically and culturally—from those who regulate. If Sama's data annotators and Salta's activists have no input in the TLO and no access to justice, the global norms may fail to account for harms like systemic exploitation of workers and the pregnancy prediction algorithms, failing to flag harmful products and practices that might affect others in the future. Inclusive, consultative norm creation is important.

Consultative norm-setting can serve several ends, including legitimating norms so that there is widespread willingness to enforce them,⁴³¹ ensuring inclusive coverage of algorithmic systems' risks and harms, expanding the law's expressive function to serve a variety of publics, and creating publics around the conversation about norms.⁴³² It has the potential to render risks and harms to marginalized people salient: institutions have their imaginaries of people whose injuries are legible to them.

While framing norms, regulators use stakeholder and expert consultation.⁴³³ Given the extent of industry influence, regulators will need to ensure that the companies do not dominate consultations as they dominated multi-stakeholder internet governance in the past.⁴³⁴ Consultations should account for minority groups: Gilman has written of the importance of stakeholder input for marginalized people in the context of data-centric technologies, drawing on Sasha Constanza-Chock's powerful argument highlighting the importance of full inclusion of, accountability to, and control by people with direct lived experiences of the conditions under question.⁴³⁵

Norm-setting is not the only process that needs to be consultative. The interpretation and enforcement of norms matter.⁴³⁶ Regulators and other stewards of norms, based on their worldviews, might decide that some risks are more salient than others.⁴³⁷ Owing to lack of access to influential regulators and institutions, disempowered groups face additional challenges. They might struggle to persuade institutions to acknowledge outcomes that are harmful to them. They may not have the resources to litigate strategically so that the law is interpreted in their favor, or to contest mechanisms like contractual waivers, statutory damages and alternative

⁴³⁰ GREWAL, *supra* note 398, at 173-76. Grewal also argues that network standards should be accessible and malleable. *Id.*

⁴³¹ Shaffer, *supra* note 388, at 234, 242; Tom R. Tyler, *Procedural Justice, Legitimacy, and the Effective Rule of Law*, 30 CRIM. JUST. J. 283, 291, 329 (2003).

⁴³² See Balkin & Siegel, *supra* note 316, at 930-33; Kapczynski & Michaels, *supra* note 402, at 6.

⁴³³ See Michele Estrin Gilman, *Beyond Window Dressing: Public Participation for Marginalized Communities in the Datafied Society*, 91 FORDHAM L. REV. 503, 512-16 (2022).

⁴³⁴ See COHEN, *supra* note 23, at 228-34.

⁴³⁵ Gilman, *supra* note 433, at 520.

⁴³⁶ Shaffer, *supra* note 388, at 241.

⁴³⁷ See Dan M. Kahan et al., *Cultural Cognition of Scientific Consensus*, 14 J. RISK RSCH. 147, 148-49 (2011) (citing MARY DOUGLAS & AARON WILDAVSKY, *RISK AND CULTURE: AN ESSAY ON THE SELECTION OF TECHNOLOGICAL AND ENVIRONMENTAL DANGERS* (1983)).

dispute resolution that deprive them of access to justice.⁴³⁸ They may not even have access to the institutions that can hold the companies accountable.⁴³⁹ Public institutions and the support offered to disempowered groups will need to account for these obstacles.

In fairness to regulators, like NIST, the Federal Trade Commission, and the White House, they do often engage in public and stakeholder consultations to give a variety of stakeholders a voice in the articulation of risk. This is an important step. However, all new knowledge does not have an equal effect on how risk is conceived. Risk is often based on scientific or expert knowledge, but it is also constructed through social processes.⁴⁴⁰ Whether someone is willing to accept new knowledge or an expert discourse can depend on their existing interests and positions.⁴⁴¹ This is because of what Dan Kahan calls “cultural cognition”: people’s beliefs are not shaped by the mere presence and accessibility of knowledge.⁴⁴² This can also affect institutions that are interpreting the law.

Disadvantaged groups’ effectiveness in consultations will be diminished if decision-makers are unfamiliar with their knowledge practices, potentially leading to their knowledge being dismissed. They might also struggle to find time and resources, and to access the language to participate effectively.⁴⁴³ Participatory decision-making can address these challenges by offering resources, building capacity, and ensuring the materials are communicated in accessible ways.⁴⁴⁴ Support to disadvantaged groups might enable them to exercise collective influence.⁴⁴⁵ Kate Andrias and Benjamin Sachs have suggested that mass-membership organizations, like trade unions, can “equalize the political voice of citizens who lack the political influence that comes from wealth.”⁴⁴⁶ At the transnational level, it implies both transnational co-ordination of regulatory agencies or other state bodies and transnational movement building, including of mass-membership organizations like unions that can enable publics across the world to access collective, institutional power.

Activists and other interested parties might build decentralized movements, and other intermediate institutions, that seek out voice, build solidarity and persuade states to adopt transnational norms.⁴⁴⁷ But they need political and institutional processes that they can influence. Formal processes to regulate AI, at the state, industry, and international levels, will need to understand AI’s transnational nature, and be receptive to hearing the range of publics affected.

⁴³⁸ See COHEN, *supra* note 23, at 143-69.

⁴³⁹ Ewell et al., *supra* note 420, at 1235-43, 1294-1301.

⁴⁴⁰ Sheila Jasanoff, *The Songlines of Risk*, 8 ENV’T. VALUES 135, 139-40 (1999).

⁴⁴¹ Kahan et al., *supra* note 437, at 148-49.

⁴⁴² *Id.*

⁴⁴³ Gilman, *supra* note 433, at 529.

⁴⁴⁴ *Id.* at 555.

⁴⁴⁵ Kapczynski & Michaels, *supra* note 402, at 6.

⁴⁴⁶ See Kate Andrias & Benjamin I. Sachs, *Constructing Countervailing Power: Law and Organizing in an Era of Political Inequality*, 130 YALE L.J. 546, 551 (2021); see also JOHN KENNETH GALBRAITH, *AMERICAN CAPITALISM* 111-23 (2017).

⁴⁴⁷ See Bloch-Wehba, *supra* note 421, at 133-34; MULDOON ET AL., *supra* note 152, at 181-87.

C. Helping the Public Find Its Voice

I suggest that the way forward is a triangular relationship between those who regulate, those who are marginalized, and experts. Regulators will have to make choices about framing and interpreting risks and are likely to lean on expert knowledge to do so. Ensuring that regulators are representative and in contact with those they regulate for is important to help orient them toward being open to marginalized people's concerns. However, marginalized people's concerns can be strategically voiced by experts. For this, experts will need to be in conversation with and guided by the needs and views of marginalized people while interacting with regulators and retaining recognition within the professional field of those who advise regulators in creating and interpreting norms.

Disempowered and marginalized populations cannot be made to carry the burden of both acquiring expertise and finding ways to engage with institutions and experts effectively. States should construct the roles of experts not as elite and exclusionary, but as playing a translational role to support ordinary people. With this and other resources, marginalized groups will be able to engage more effectively with the legal order. Although professionals and experts will need to play a translational role in recognizing AI's risks to disempowered people, their translational role needs to be more democratic than technocratic.

The role of experts as intermediaries between regulators and movements has a complicated history. Liscow and Markovits discuss this history in the context of behavioral economics and caution against systems in which technocrats end up directing or supplanting the voices of those they are supposed to represent.⁴⁴⁸ One of the hazards of professionalization is that experts can adopt the ideologies of the dominant. However, they play a necessary role in making AI's TLOs accessible to disempowered people, who might struggle to influence policy effectively without access to strategic expertise and need access to experts who translate their voice without taking it over.⁴⁴⁹ In Liscow and Markovits's words, the experts would serve as "tech-support, empowering ordinary people to make choices that they more fully and deeply embrace."⁴⁵⁰

Marginalized populations from different cultures will struggle to persuade institutions to prioritize addressing what they see as risky. They will also need movements through which they can exert "countervailing power."⁴⁵¹ Risks often need to be articulated in a manner that fits prevalent knowledge practices and culture⁴⁵² and attributed to whoever caused them, such that a remedy can be sought. We might think of this in terms of "naming," "blaming," and "claiming."⁴⁵³ I suggest that disempowered groups work with experts to name risks, blame the responsible

⁴⁴⁸ Liscow & Markovits, *supra* note 307, at 1267-72; *see also* KENNEDY, *supra* note 307, at 36.

⁴⁴⁹ *Id.* at 1274.

⁴⁵⁰ *Id.* at 1275.

⁴⁵¹ Kapczynski & Michaels, *supra* note 402, at 6.

⁴⁵² Lynn Mather & Barbara Yngvesson, *Language, Audience, and the Transformation of Disputes*, 15 L. & SOC'Y REV. 775, 778-79 (1981).

⁴⁵³ *See* William L.F. Felstiner et al., *The Emergence and Transformation of Disputes: Naming, Blaming, Claiming*, 15 L. & SOC'Y REV. 631 (1980).

parties, and claim redressal. Expertise can also help ensure that risks are treated as salient.

Thinking through the stages of articulation and prioritization of risk reveals obstacles as well as opportunities for intervention. “Naming” is the stage at which an experience is flagged as injurious. The articulation of risk can take time since it involves ideating, translational work, and advocacy. Individuals and institutions can influence this process. Florence Nightingale famously used data visualization to show politicians the health risks of poor sanitation.⁴⁵⁴ “Blaming” is the stage of attribution during which this injury is transformed into a grievance.⁴⁵⁵ This is the stage at which a person or entity is assigned responsibility for the injury. Danielle Keats Citron and Mary Anne Franks blamed platforms for sharing and amplifying non-consensual intimate imagery.⁴⁵⁶ They recognized that the reputational harm came from the widespread sharing of these images, which the platforms enabled. “Claiming” is the stage at which a remedy is sought.⁴⁵⁷ Safiya Noble took this further, claiming that Google should address the injuries its algorithms were inflicting on Black women.⁴⁵⁸ These stages of articulating a risk, identifying those responsible, and asking for redressal are not accessible to everyone. Effective naming, blaming, and claiming make risks and remedies legible to the people and institutions who have the power to regulate.

V. CONCLUSION

Capitalism plays a significant role in determining how artificial intelligence is developing and what its risks are. The companies that dominate the AI sector globally also play a significant role in influencing and shaping the transnational legal order that will govern AI. Without a countervailing TLO and alternative discourses to challenge the priorities, norms, and processes the companies seek, AI’s TLO will protect the companies’ transnational value chains and markets.

The Silicon Valley Effect is powerful and grows transnationally. To counter it, regulators, public institutions and movements need to co-ordinate to contest the companies’ influence with transnational legal orders in the public interest that can regulate the companies worldwide according to democratically derived norms. This necessitates a reframing of the problem, and a willingness to engage in transnational norm setting.

Institutional actors will need to develop consultative, inclusive processes for norm formation, interpretation, and enforcement. If the TLO is viewed as inclusive, adaptable and legitimate, that might make global adoption and enforcement more likely.

⁴⁵⁴ See Siobhan O’Connor et al., *Data Visualization in Healthcare: The Florence Effect*, 76 J. ADV. NURS. 1488 (2020).

⁴⁵⁵ Felstiner et al., *supra* note 453, at 635.

⁴⁵⁶ Danielle Keats Citron & Mary Anne Franks, *Criminalizing Revenge Porn*, 49 WAKE FOREST L. REV. 345, 350 (2014).

⁴⁵⁷ Felstiner et al., *supra* note 453, at 636.

⁴⁵⁸ NOBLE, *supra* note 376, at 67-102.