
AI and Captured Capital

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ABSTRACT. Increasingly, automated processes—under the catch-all term “artificial intelligence” (AI)—serve as “mechanical managers” in the workplace. They may manifest as productivity applications to spur workers to work faster or as deputized surveillants who monitor workers’ every move. Moving beyond surveillance capitalism, this Essay argues that, absent legal intervention, we are on a path toward a scientific approach to management that prioritizes efficiency and deploys AI technologies to maximize output through the collection and exploitation of worker’s captured capital. That is, the more benevolent tenets of scientific management, such as encouraging productivity or achieving mutual prosperity for employers and workers, no longer represent paramount goals for firms. Rather, emboldened by new AI capabilities, firms have set out to quantify or reduce all elements of workers’ experience to data. This data is valuable capital that (1) holds exchange value and (2) drives the automation of workplaces and the displacement of workers.

The contributions of this Essay are threefold. First, this Essay names and describes the sociolegal phenomenon of “captured capital”—that is, the coercive collection and use of worker data to facilitate workplace automation and ultimately worker displacement. Second, this Essay situates this phenomenon within an AI arms race in the workplace and analyzes it through the lens of law and political economy. Specifically, the Essay argues that the AI arms race has spurred the unchecked development and deployment of AI technologies and that a *laissez-faire* approach to globalization has encouraged the growth of a borderless labor market without adequate international labor protections, leaving workers vulnerable. Third, the Essay sets forth three potential legal avenues for redress: (1) treating the data gathered from workers as stake capital in the automation of their workplaces such that a portion of the gains from automation is rightfully returned to the worker; (2) creating a licensing regime for workers to license their data freely to firms; and (3) requiring firms that use workers’ data as part of their automation process to pay into a fund that will finance a guaranteed income. Finally, the Essay notes a role for the International Labor Organization to play in protecting workers in the AI revolution.

INTRODUCTION

A *Time* article published in January of 2023 revealed that Kenyan workers had played a crucial, yet hidden, role in bringing about the AI technology ChatGPT.¹ The workers had received as little as \$1.32 per hour for their arduous work labeling the noxious content that would become part of ChatGPT’s training data.² To produce AI models capable of speech like ChatGPT, words and sentences are scraped off the internet, and that language is used to train models enabling AI to produce speech.³ Kenyan workers were responsible for going through examples of speech and labeling them as racist, sexist, or harmful in some other way.⁴ The labels that these workers placed on the examples of speech were then fed to ChatGPT, training the AI model to identify (and avoid producing) harmful content in the future.⁵

This work is crucial to the continued efficacy of ChatGPT. ChatGPT, an AI-powered chatbot, is the brainchild of the corporation OpenAI.⁶ As of early 2024, the firm was valued at eighty billion dollars.⁷ Much of that capital has been concentrated at the top, with little recompense flowing to the Global South workers

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1. Billy Perrigo, *Exclusive: OpenAI Used Kenyan Workers on Less than \$2 Per Hour to Make ChatGPT Less Toxic*, *TIME* (Jan. 18, 2023, 7:00 AM ET), <https://time.com/6247678/openai-chatgpt-kenya-workers> [<https://perma.cc/Z4J3-5QWG>]. In this Essay, I, like many AI scholars and legislators, use the term “AI” as a catch-all term for “automated decision-making.” See, e.g., Margot E. Kaminski & Jennifer M. Urban, *The Right to Contest AI*, 121 *COLUM. L. REV.* 1957, 1959 n.1 (2021) (“For purposes of discussion, this Article uses ‘AI’ decision-making as a shorthand to refer to decision-making by algorithms more generally.”); see also Algorithmic Accountability Act of 2019, H.R. 2231, 116th Cong. § 2(1) (defining an “automated decision system” as “a computational process, including one derived from machine learning, statistics, or other data processing or artificial intelligence techniques, that makes a decision or facilitates human decision making”); David Lehr & Paul Ohm, *Playing with the Data: What Legal Scholars Should Learn About Machine Learning*, 51 *U.C. DAVIS L. REV.* 653, 717 (2017) (“[Machine learning algorithms] are the complicated outputs of intense human labor—labor from data scientists, statisticians, analysts, and computer programmers.”).
 2. Perrigo, *supra* note 1.
 3. *Id.*
 4. *Id.*
 5. *Id.*
 6. Will Douglas Heaven, *The Inside Story of How ChatGPT Was Built from the People Who Made It*, *MIT TECH. REV.* (Mar. 3, 2023), <https://www.technologyreview.com/2023/03/03/1069311/inside-story-oral-history-how-chatgpt-built-openai> [<https://perma.cc/G45C-NCSD>].
 7. Cade Metz & Tripp Mickle, *OpenAI Completes Deal that Values the Company at \$80 Billion*, *N.Y. TIMES* (Feb. 16, 2024), <https://www.nytimes.com/2024/02/16/technology/openai-artificial-intelligence-deal-valuation.html> [<https://perma.cc/VGH3-23ZM>].

who are the “draught horses” of the AI revolution.⁸ This business model is not limited to OpenAI. Sama, the San Francisco-based outsourcing firm that OpenAI used in Kenya, has also engaged African workers for other tech companies such as Google, Meta, and Microsoft in their development of AI technologies.⁹

But this Essay is not only about the exploitation of Kenyan workers. It is also not merely about how such extractive AI development echoes the oil speculation of the twentieth century, with its pell-mell pace and little regard for the human-rights abuses and environmental devastation left in its wake.¹⁰ Rather, this Essay is meant to illuminate a danger to workers everywhere: worker exploitation is found not only in the development of AI technologies, but also in their *deployment* in the workplace.¹¹

Consider the issues at the heart of the recent Screen Actors Guild-American Federation of Television and Radio Artists (SAG-AFTRA) union strike by actors in the United States. Some of the union’s demands centered on ensuring that AI technologies would not be deployed to capture the actors’ past or current

8. See Jo Constanza, *OpenAI Engineers Earning \$800,000 Year Turn Rare Skillset into Leverage*, BLOOMBERG (Nov. 22, 2023, 1:31 PM), <https://www.bloomberg.com/news/articles/2023-11-22/openai-staff-mutiny-for-sam-altman-shows-rare-skills-equal-leverage> [<https://perma.cc/567T-A4RU>]; see also Ifeoma Ajunwa, *Race, Labor, and the Future of Work*, in THE OXFORD HANDBOOK OF RACE AND LAW (Emily Houh, Khiara M. Bridges & Devon Carbado eds., 2022) (arguing that automation “would most impact minority workers” and noting that “[t]echnology companies in the Global North employ workers in the Global South to ensure that apps run smoothly and to moderate the content on apps or social media sites).
9. Perrigo, *supra* note 1. For sources further explaining the development of these companies’ AI programs, see *Our AI Journey*, GOOGLE AI, <https://ai.google/ai-milestones> [<https://perma.cc/TB8T-PJJN>] (providing a timeline of Google’s AI development efforts); *AI Research by Meta: Seamless Communication*, META, <https://ai.meta.com> [<https://perma.cc/Z76Y-6AZ2>] (describing Meta’s AI development); *Microsoft AI*, MICROSOFT, <https://news.microsoft.com/ai> [<https://perma.cc/7YED-566D>] (detailing Microsoft’s AI development).
10. Nick Couldry & Ulises A. Mejias, *Today’s Colonial “Data Grab” Is Deepening Global Inequalities*, LONDON SCH. ECON. & POL. SCI: LSE INEQUALITIES (May 1, 2024), <https://blogs.lse.ac.uk/inequalities/2024/05/01/todays-colonial-data-grab-is-deepening-global-inequalities> [<https://perma.cc/KA4A-SUWZ>]; see also KATE CRAWFORD, *ATLAS OF AI: POWER, POLITICS, AND THE PLANETARY COSTS OF ARTIFICIAL INTELLIGENCE* (2021) (detailing environmental issues with AI development).
11. Throughout this essay, I use the term “worker” instead of “employee.” This both recognizes and rebukes the fact that American law makes distinctions between workers and employees with more legal protections flowing to the latter. See generally Veena Dubal, *The New Racial Wage Code*, 15 HARV. L. & POL’Y REV. 511 (2021) (describing generally the creation of the category of “worker” which is viewed differently in the law than “independent contractor” or “employee” though an examination of Proposition 22 in California). The term “worker” is also more appropriate here because the concern of this Essay expansively includes international workers who do not fit within the U.S. legal definition of “employee.”

performances for the sole enrichment of studios.¹² The union was also concerned that AI technologies would be deployed to eliminate jobs for background actors.¹³

One actor shared her experience with AI in the film industry when, after a few days of filming, she was directed to report to a trailer for body scanning.¹⁴ She recalled being placed in front of “a series of cameras,” where she was instructed: “Have your hands out. Have your hands in. Look this way. Look that way. Let us see your scared face. Let us see your surprised face.”¹⁵ A digital replica of her body was created, and she was not told if or how that replica would be used.¹⁶ The actor lamented: “I fear that AI is eventually going to weed out background actors. They won’t have any use for us anymore.”¹⁷ This actor’s experience is not unique; other actors have reported feeling coerced to submit to such scans.¹⁸

This Essay proposes that both the Kenyan workers and the Hollywood actors are primed to be victims of the data revolution wrought by AI technologies.¹⁹ And the danger extends further. Workers everywhere are at risk of having their capital captured by corporate firms in the form of data and receiving little to no recompense. Laissez-faire attitudes towards both the development and the

12. 2023 Memorandum of Agreement Between the Screen Actors Guild - American Federation of Television and Radio Artists and the Alliance of Motion Picture and Television Producers, SAG-AFTRA 60-70 (Dec. 6, 2023), https://www.sagaftra.org/files/2023_Theatrical_Television_MOA.pdf [<https://perma.cc/T52R-H76G>].

13. *Id.* at 71-74.

14. Bobby Allyn, *Movie Extras Worry They’ll Be Replaced by AI. Hollywood Is Already Doing Body Scans*, NPR (Aug. 2, 2023, 9:58 AM ET), <https://www.npr.org/2023/08/02/1190605685/movie-extras-worry-theyll-be-replaced-by-ai-hollywood-is-already-doing-body-scan> [<https://perma.cc/4JXG-AMA2>].

15. *Id.*

16. *Id.*

17. *Id.*

18. “Five background actors interviewed by NPR all said they were caught off guard in recent months by having to undergo body scans by studios, feeling like they didn’t have much of a choice, because if they pushed back, they feared the risk of retaliation. Most of the actors . . . were required to sign non-disclosure agreements.” *Id.*

19. “Workers find themselves on the wrong end of this data revolution. They are the producers of data, but the data flows seamlessly from their work and personal experience to corporate repositories. Employers can capture the data, aggregate it into meaningful pools, analyze it, and use it to further productivity . . .” See Matthew T. Bodie, *The Law of Employee Data: Privacy, Property, Governance*, 97 IND. L.J. 707, 736 (2022).

deployment of AI technologies in the workplace have introduced new vulnerabilities for workers which demand legal attention.²⁰

Although the Kenyan workers' dire circumstances and the actors' union strike have only recently brought the phenomenon of captured capital²¹ to the public consciousness, worker data has long fueled the development of AI technologies.²² As part of the AI revolution, the capture of workers' capital may generate profits for the firm in two ways: (1) the data may be leveraged to develop technologies that will eventually displace workers, and (2) the aggregated data may simply be sold to data brokers such as credit-card issuers, pharmaceutical manufacturers, insurance providers, and airlines.²³ As an example of the first strategy, Enron emails collected as part of the investigation of the financial scandal in 2003 have widely been used as training data for language-learning models.²⁴ It was from "[u]sing these emails as raw data for real person-to-person conversations" that AI systems such as Apple's Siri and Google's Smart Compose – predecessors to more sophisticated systems like ChatGPT – learned how to understand and speak to users.²⁵ As an example of the second strategy, some

20. Ifeoma Ajunwa, *Artificial Intelligence, Afrofuturism, and Economic Justice*, 112 GEO. L.J. 1267, 1285 (2024) (noting how Black workers everywhere are the "canaries in the mine" who bring light to the issues of inequality in the AI revolution).

21. IFEOMA AJUNWA, *THE QUANTIFIED WORKER* 177 (2023) ("I argue that in addition to the human capital that workers provide, employers in a data-driven workplace may also derive captured capital from workers.").

22. See *infra* notes 24-25 and accompanying text (discussing how Enron emails from 2003 served as training data for AI technologies such as ChatGPT and Siri).

23. MAJORITY STAFF OF OFF. OF OVERSIGHT & INVESTIGATIONS, *A REVIEW OF THE DATA BROKER INDUSTRY: COLLECTION, USE, AND SALE OF CONSUMER DATA FOR MARKETING PURPOSES* 29 (2013).

24. See Bodie, *supra* note 19, at 708-10, 736; Amanda Levandowski, *How Copyright Law Can Fix Artificial Intelligence's Implicit Bias*, 93 WASH. L. REV. 579, 611 (2018) ("[T]he Enron emails remain a go-to dataset for training AI systems."); Corinne Purtill, *The Emails that Brought Down Enron Still Shape Our Daily Lives*, QUARTZ (Feb. 15, 2019), <https://qz.com/work/1546565/the-emails-that-brought-down-enron-still-shape-our-daily-lives> [<https://perma.cc/Y5E3-EPP8>] ("The [Enron] emails have been invaluable to AI researchers . . .").

25. Bodie, *supra* note 19, at 736. Professor Bodie also notes the dangers of using such training data given the business misconduct present among Enron employees at the time the data was collected:

It's disturbing to hear that AI systems learned about human interaction by churning through frenzied missives from workers at a company whose operations were going up in smoke. Enron has become synonymous with scandal, subterfuge, and excess – and yet these emails and calendar posts are teaching our algorithms how to think.

Id. at 709 (internal footnotes omitted); see also Levandowski, *supra* note 24, at 611 ("If you think there might be significant biases embedded in emails sent among employees of Texas oil-and-gas company that collapsed under federal investigation for fraud stemming from

firms that have profited from selling consumer data have started doing the same with their workers' data.²⁶ This strategy can be understood as a “form of rent-seeking—in which companies generate huge profits by packaging and selling worker data in [a] marketplace hidden from workers' eyes.”²⁷

This Essay contributes to law-and-political-economy (LPE) scholarship by tackling head-on the challenges that the AI revolution poses to worker power and self-determination, particularly with respect to workers' control over data.²⁸ As its foundation, this Essay takes the normative stance that the development and deployment of AI technologies should not come at the price of worker welfare and autonomy. In her prescient book, *In the Age of the Smart Machine*, business scholar Shoshana Zuboff described two potential paths for technological innovation: informing and automating.²⁹ As Zuboff described it, informing would create technologies that liberate humans from menial work.³⁰ Automating, on the other hand, would augment managerial control through panoptic surveillance, and it would diminish autonomy and dignity at work.³¹

Currently, we are experiencing the sociotechnical phenomenon of automating. Absent legal intervention, we are set on a path towards an extreme iteration of Taylorism—the theory of scientific management that utilizes scientific methods to increase efficiency in the workplace—where AI technologies are deployed to capture workers' capital.³² In this extreme, antiworker version of Taylorism, key benevolent tenets of scientific management, such as mutual prosperity for managers and workers alike, would no longer hold as paramount goals for firms.³³ Rather, with profit as the principal goal, firms would set out to quantify all elements of a worker's experience (job efficiency, health, mental state, social

systemic, institutionalized unethical culture, you would be right. The Enron emails are simply not representative—not geographically, not socioeconomically, not even in terms of race or gender. Indeed, researchers have used the Enron emails specifically to analyze gender bias and power dynamics. And yet the Enron emails remain a go-to dataset for training AI systems.”)

26. Sam Adler-Bell & Michelle Miller, *The Datafication of Employment*, CENTURY FOUND. (Dec. 19, 2018), <https://tcf.org/content/report/datafication-employment-surveillance-capitalism-shaping-workers-futures-without-knowledge> [https://perma.cc/22N5-NVFB].

27. *Id.*

28. The law-and-political-economy framing of this Essay is discussed further in Part II.

29. SHOSHANA ZUBOFF, *IN THE AGE OF THE SMART MACHINE: THE FUTURE OF WORK AND POWER* 7, 11-12, 117 (1988).

30. *Id.* at 7, 11-12.

31. *Id.* at 117.

32. Adler-Bell & Miller, *supra* note 26.

33. FREDERICK WINSLOW TAYLOR, *THE PRINCIPLES OF SCIENTIFIC MANAGEMENT* 10 (1919).

behavior, and so on) through the collection of data.³⁴ This evolution of Taylorism is hostile to workers because unlike consumers who often receive some measure of value for the collection of their data (e.g., in the form of reduced prices or personalized services), workers are “only ever compensated for their services—never their data.”³⁵ Furthermore, this worker data is valuable capital that drives the automation of workplaces and that may eventually animate the robots that will displace the human workers who generated the data in the first place.³⁶

This Essay develops a theory of worker data as “captured capital,” analyzes captured capital through an LPE lens, and proposes potential avenues to justice for workers. The focus of this Essay is on the property rights of workers in the data they produce in the workplace. Elsewhere, I have written extensively about the privacy³⁷ and discrimination³⁸ issues associated with the collection of employee data. As others have noted, “[P]rivacy law serves to protect information by punishing those who collect, use, or disclose information without legal authorization or justification,” whereas property law accords the owner of the information “a bundle of potential rights over the property.”³⁹ This Essay is squarely preoccupied with workers’ control of their data.

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34. AJUNWA, *supra* note 21, at 12-37 (arguing that “AI technologies have been deployed to work concurrently and cumulatively to quantify . . . all aspects of worker behavior” and reviewing the tenants and history of scientific management).
 35. Adler-Bell & Miller, *supra* note 26.
 36. Cynthia Estlund, *Regulating Work in an Age of Fissuring and Automation*, REGUL. REV. (Apr. 8, 2019), <https://www.theregreview.org/2019/04/08/estlund-regulating-work-fissuring-automation> [<https://perma.cc/8JLR-DF53>].
 37. See, e.g., Ifeoma Ajunwa, Kate Crawford & Jason Schultz, *Limitless Worker Surveillance*, 105 CALIF. L. REV. 735 (2017).
 38. See, e.g., Ifeoma Ajunwa, *The Paradox of Automation as Anti-Bias Intervention*, 14 CARDOZO L. REV. 1671 (2020); Ifeoma Ajunwa, *An Auditing Imperative for Automated Hiring Systems*, 34 HARV. J.L. & TECH. 621 (2021); Ifeoma Ajunwa, *Automated Video Interviewing as the New Phrenology*, 36 BERKELEY TECH. L.J. 1173 (2021).
 39. Bodie, *supra* note 19, at 717; see also R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 44 (1960) (describing property rights); Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1115-17 (1972) (delineating the differences between liability rules and property rules); Lucian Arye Bebchuk, *Property Rights and Liability Rules: The Ex Ante View of the Cathedral*, 100 MICH. L. REV. 601, 633-34 (2001) (discussing protection offered by property rights as opposed to liability rule protection); Richard R.W. Brooks, *The Relative Burden of Determining Property Rules and Liability Rules: Broken Elevators in the Cathedral*, 97 NW. U. L. REV. 267, 291-92 (2002) (evaluating liability rights); Louis Kaplow & Steven Shavell, *Property Rules Versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713, 715 (1996) (defining property and liability rights).

Furthermore, this Essay is not focused on parsing the distinction between personal information and other business data, as some legal scholars have explored.⁴⁰ I concede (and have argued elsewhere) that identifiable personal information deserves heightened legal protection.⁴¹ However, with the continued development of AI technologies, a sharp distinction between personal and nonpersonal data may no longer exist.⁴² An underlying assumption of this Essay is that collection of worker data in the realm of employment is a longstanding practice that technology is making easier, more affordable, and even inevitable in many industries.⁴³ Operating on this assumption, this Essay focuses on a pressing legal concern: how *control* of the data collected in the workplace and the *profit* accrued from such data should be apportioned between firms and workers.

As a final caveat, this Essay does not touch upon how to calculate the exact value or percentage of capital that should accrue to each individual worker or different types of workers. This is in recognition of wide discrepancies in worker data collection across employment sectors and even across firms. The Essay also acknowledges, and reserves for future discussion, that the issue of calculating captured capital reveals a legal tension: U.S. law mostly values property individually, whereas the captured capital from workers may have the most value in the aggregate rather than the individual form.⁴⁴

40. James R. Maxeiner, *Business Information and "Personal Data": Some Common-Law Observations About the EU Data Protection Directive*, 80 IOWA L. REV. 619, 620, 626 (1995); see also Paul M. Schwartz, *Property, Privacy, and Personal Data*, 117 HARV. L. REV. 2056, 2069-72 (2004) (describing how "technology is commodifying personal information").

41. Ajunwa et al., *supra* note 37, at 736 (noting that "current legal constraints are insufficient and may leave American workers at the mercy of 24/7 employer monitoring").

42. Dissenting in the 1987 case, *O'Connor v. Ortega*, Justice Blackmun concluded: "[T]he workplace has become another home for most working Americans. . . . [T]he tidy distinctions . . . between the workplace and professional affairs, on the one hand, and personal possessions and private activities, on the other, do not exist in reality." 480 U.S. 709, 739 (1987). See Patricia Sánchez Abril, Avner Levin & Alissa Del Riego, *Blurred Boundaries: Social Media Privacy and the Twenty-First-Century Employee*, 49 AM. BUS. L.J. 63, 64 (2012) ("These 'boundary-crossing' technologies blur the already elusive line between the private and the public, the home and the workplace."); see also Ariana R. Levinson, *Toward a Cohesive Interpretation of the Electronic Communications Privacy Act for the Electronic Monitoring of Employees*, 114 W. VA. L. REV. 461, 469 (2012) ("Technology permits a 'boundary-less' workplace. . . . [T]echnology provides more ability to monitor employees' communications . . .").

43. Ajunwa et al., *supra* note 37, 738-39.

44. See *infra* Section I.A; see also Salomé Viljoen, *A Relational Theory of Data Governance*, 131 YALE L.J. 573, 611-12 (2021) ("In a typical data flow, any one individual's data is essentially meaningless Yet in the aggregate, data is highly valuable and grows in value the more data can be combined with other kinds of data."). See generally JOHN LOCKE, *TWO TREATISES OF GOVERNMENT* (Peter Laslett ed., Cambridge Univ. Press 1963) (1690) (explaining that an individual's labor creates a property right for them in what they create).

This Essay proceeds as follows. Part I lays out the theory of captured capital and posits legal arguments for why and how both ownership and control of such capital could accrue to workers. Part II situates captured capital in an LPE framework and analyzes the legal, political, and economic conditions of capital capture. In particular, it argues that an AI arms race, the rise of a borderless labor market, and the lack of international labor-law protections concurrently create ripe conditions for the capture of workers' capital. Part III details three potential avenues for legal redress: an equity-stake approach, a licensing regime, and a guaranteed-income program for displaced workers.

I. A THEORY OF CAPTURED CAPITAL

The Legal Information Institute defines “capital” as “any asset used for a productive purpose.”⁴⁵ Such assets may “include tangible items, such as cash or machinery, or intangible items, such as intellectual property or human capital.”⁴⁶ In prior writing, I have defined “captured capital” as “the data that is siphoned from workers both knowingly and unknowingly as part of the employment bargain.”⁴⁷ What defines this data as “captured” is “the element of coercion in how it is obtained.”⁴⁸ What defines this data as “capital” is that it holds “both inherent and exchange value,”⁴⁹ meaning that either the use or the sale of the data will be profitable for the firm. Captured capital holds inherent value for the firm because it may provide organizational insights that drive greater productivity and efficiency.⁵⁰ Beyond improving everyday organizational functions, “data gained from the work habits and practical work innovation of workers . . . may even serve to power the automation of jobs.”⁵¹ Furthermore, captured capital holds exchange value for the firm because it can be sold (usually in aggregate form) to data brokers, who may then distribute it for uses orthogonal to any actual or fictive worker consent.⁵²

45. *Capital*, LEGAL INFO. INST., <https://www.law.cornell.edu/wex/capital> [<https://perma.cc/V2XX-VTED>].

46. *Id.*

47. AJUNWA, *supra* note 21, at 177.

48. *Id.*

49. *Id.*

50. *Id.*

51. *Id.*

52. See FRANK PASQUALE, *THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION* 20-27 (2015) (describing the work of shadowy brokers and how the data they distribute may be used for decision-making in insurance and lending); see also Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated*

In this Part, I expound on the theory of captured capital. First, I address the question whether this capital is indeed “captured.” I argue that the data *rightfully* belongs to the worker from whom it has been collected. Second, beyond the question of ownership, I address the question of *control*—that is, regardless of who owns the capital, who may control the capital and to what extent? I argue that the worker’s initial acquiescence to the employment bargain does not operate as an automatic waiver or affirmative relinquishment of any rights to control the capital.

A. Ownership and Control

The theory of captured capital turns on the premise that workers have *ownership* rights to their data, which finds support in natural law and statutory law.⁵³ Beyond this claim about ownership, this Essay draws from common law to make another central normative claim: that workers should legally retain some *control* over their data in the workplace, regardless of how ownership of that data is parsed.

First, a Lockean approach to the natural law of property would accord workers property rights to the data created by their labor.⁵⁴ John Locke argues that any time an individual invests their labor to create something, that creation becomes the individual’s property.⁵⁵ Workers’ labor—whether it be the writing of emails, the tagging of objectionable content, or the acting, posing, and gesturing performed for body scanning—is the *essential* element that generates valuable data. Thus, following the Lockean view of property, workers should hold a property claim to that data. Admittedly, some of the employers’ investment is

Predictions, 89 WASH. L. REV. 1, 8-18 (2014) (discussing how the data is sought on individuals looking to acquire credit and the risks associated with the collection and utilization of this data).

53. See JOHN LOCKE, TWO TREATISES OF GOVERNMENT 306 (Peter Laslett ed., Cambridge Univ. Press 1963) (1690) (“Whatsoever then he removes out of the State that Nature hath provided, and left it in, he hath mixed his *Labour* with, and joyned to it something that is his own, and thereby makes it his *Property*. It being by him removed from the common state Nature placed it in, it hath by this *labour* something annexed to it, that excludes the common right of other Men. For this *Labour* being the unquestionable Property of the Labourer, no man but he can have a right to what that is once joyned to . . .”); Jack M. Balkin, *Information Fiduciaries and the First Amendment*, 49 U.C. DAVIS L. REV. 1183, 1186 (2016) (applying the common-law concept of fiduciaries to worker data); CAL. CIV. CODE §§ 1798.100-199.100 (West 2022) (exemplifying a new statutory framework surrounding data collection by noting the rights of workers who are creating the data).
54. LOCKE, *supra* note 53, at 306.
55. *Id.*; see also Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 296-97 (1988) (stating that when viewed through a Lockean theory, society rewards labor with property because it must, and that this can be used to justify nonphysical property).

entangled in the workers' investment: for example, employers may have bought equipment for body scanning or the computer on which the emails are written. But ultimately, the *indispensable* element of the final output is workers' labor. The employer might provide the space and resources, but without workers' labor, the captured capital—that is, the data that holds inherent and exchange value—would not come to exist.

Although the Lockean approach ostensibly champions the rights of those who labor, it has led in practice to the inequitable recognition of certain types of labor as more valuable than others.⁵⁶ A Lockean approach would also dictate a quantification of each worker's labor to determine its exact value, as it theorizes that individuals hold ownership over what their own labor creates.⁵⁷ This would potentially undermine worker solidarity and create valuation issues, as workers' data is in fact inherently social and communal and not only attributable to a single individual.⁵⁸ Thus, a Lockean approach ultimately falls short. But other tenets in statutory law also support workers' ownership of their data.

Recent statutory developments could imply an ownership claim by workers to the data they generate in the workplace. Or, at the very least, those new state laws assert some measure of worker control over their workplace data. The California Consumer Privacy Act (CCPA) covers workers of for-profit companies operating in California.⁵⁹ The California Privacy Rights Act (CPRA) amended the CCPA to include some previously unregulated businesses, such as non-consumer-facing businesses, and required them to become compliant with the CCPA.⁶⁰ Under the CPRA, workers have rights regarding their personal data,

56. Lockean approaches to property law have been problematic as they have been used to justify the spread of empire and displacement of native populations. See Calum Murray, *John Locke's Theory of Property, and the Dispossession of Indigenous Peoples in the Settler-Colony*, 10 AM. INDIAN L.J. 1, 7-10 (2022).

57. LOCKE, *supra* note 53, at 306.

58. See Viljoen, *supra* note 44, at 577-86.

59. CAL. CIV. CODE §§ 1798.100-.199.100 (West 2022); see *id.* § 1798.140 (defining “[b]usiness” as a for-profit entity). The California Consumer Privacy Act (CCPA) defines workers broadly to include employees, independent contractors, job applicants, and former employees. See *id.* §§ 1798.125(a)(1)(E), 1798.145(m)(1). The legal distinction between “independent worker” and “employee” has often allowed for the exploitation of workers, especially those in the Global South, like the Kenyan workers whom American companies employ through intermediaries. AI technologies further allow for the intermediation of work and breed opportunities for abuse, especially given the legal cover from liability that the distinction between independent worker and employee provides. See, e.g., Veena Dubal, *The New Racial Wage Code*, 15 HARV. L. & POL'Y REV. 511, 511 (2021) (discussing how legal identities of on-demand workers have led to economic inequality and limited protections for this ever-growing category).

60. The California Privacy Rights Act (CPRA) passed through the ballot initiative process in 2020 and directly amended the state's Civil Code. See *California Proposition 24, Consumer Personal Information Law and Agency Initiative (2020)*, BALLOTPEdia, <https://ballotpedia.org/California>

including the right to be informed when employers collect their data; the right to access the data that has been collected from them; the right to request corrections or deletions to their data; the right to opt out of the sale or sharing of their data; and the right to limit the use of sensitive information.⁶¹ The right to opt out of sale of the data implies some ownership rights. Additionally, employers are required to provide privacy notices to employees and job applicants that specify the types of sensitive data collected, whether this data will be sold or shared, and how long it will be retained.⁶² Through the CCPA and the CPRA, consumers and employees alike in California have explicitly been granted significant rights to their data.

The premise that workers should have some control of the data they generate is also supported by common law. Professor Jack M. Balkin has popularized the concept of “information fiduciaries” as derived from the common-law doctrine of “fiduciary.”⁶³ Balkin uses the term “information fiduciaries” to refer to an individual or entity who has traditional fiduciaries duties (i.e., the duties of care and loyalty) in managing another individual’s asset, which in this case is the individual’s information (e.g., personal and sensitive information and intellectual property).⁶⁴ This concept is a response to an unavoidable modern dilemma: consumers must surrender large swaths of their data, much of it personal and sensitive, in order to participate in the digital public square and marketplace.⁶⁵ Such data can then be exploited or even used against the consumers in the practice of

Proposition 24, Consumer Personal Information Law and Agency Initiative (2020) [<https://perma.cc/F3M5-JY5C>]; CAL. CIV. CODE § 1798.100 (West 2022) (providing the text of the 2020 initiative measure, CAL. PROP. 24 § 3(A)(8) (West 2020), in the historical and statutory notes to the 2022 edition). One of the purposes of the CPRA was to extend the CCPA’s protections to employees and independent contractors, “taking into account the differences in the relationship between employees or independent contractors and businesses, as compared to the relationship between consumers and businesses.” CAL. PROP. 24 § 3(A)(8) (West 2020).

61. CAL. CIV. CODE §§ 1798.100, 1798.105, 1798.106, 1798.110, 1798.120, 1798.121 (West 2022).

62. *Id.* § 3(A)(8).

63. Balkin, *supra* note 53, at 1186; Jack M. Balkin, *Information Fiduciaries in the Digital Age*, BALKINIZATION (Mar. 5, 2014), <https://balkin.blogspot.com/2014/03/information-fiduciaries-in-digital-age.html> [<https://perma.cc/KX2U-TSBW>]. Balkin builds on previous scholarship including, for example, DANIEL J. SOLOVE, *THE DIGITAL PERSON: TECHNOLOGY AND PRIVACY IN THE INFORMATION AGE* 102-04 (2004); Ian R. Kerr, *The Legal Relationship Between Online Service Providers and Users*, 35 CAN. BUS. L.J. 419, 446 (2001).

64. Balkin, *supra* note 63.

65. Balkin, *supra* note 53, at 1205-09, 1216-18 (analogizing “information fiduciaries” to doctors and other fiduciary professionals, and explaining that fiduciary duties bridge the knowledge gap to ensure lay persons’ protection).

surveillance capitalism.⁶⁶ Consumers are thus pressured into relinquishing personal data for convenient access to the digital world. Workers face a similar but arguably even greater pressure: as part of the employment bargain, many workers must divulge personal information for the mere chance to earn a livelihood.⁶⁷ Worse still, if they gain employment, workers come under the unremitting surveillance of their employers, who have *carte blanche* to collect any and all worker data.⁶⁸ Given the vast amount of data collected from workers, legal scholar Matthew Bodie has argued that a legal designation of employers as fiduciaries, entrusted with workers' data and obligated by law to use that data in ways dictated by the employee, is appropriate.⁶⁹ This designation would allow workers to retain some control of their data even if they must relinquish said data to their employers.

B. *Overcoming Critiques of the Captured Capital Theory*

Intellectual-property law has been presented as a steadfast argument against workers' control of their data. But this Essay posits that another body of law, corporate law, provides support for workers' data rights. Corporate law, specifically corporate-governance theories of stake capital, supports workers' property rights to the data they generate as investments they have made in the firm.⁷⁰

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66. SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM* 8-12, 18-24, 236-37, 284-85, 293-94, 351-53, 376 (2019); *see also* Amy Kapczynski, *The Law of Information Capitalism*, 129 *YALE L.J.* 1460, 1464, 1468-70 (2020) (reviewing Shoshana Zuboff's book *The Age of Surveillance Capitalism*).
67. Sam Adler-Bell & Michelle Miller, *The Datafication of Employment*, CENTURY FOUND. (Dec. 19, 2018), <https://tcf.org/content/report/datafication-employment-surveillance-capitalism-shaping-workers-futures-without-knowledge> [<https://perma.cc/5CFU-4N6K>] ("For consumers, the digital age presents a devil's bargain But less well understood is the way data—its collection, aggregation, and use—is changing the balance of power in the workplace.").
68. Ajunwa et al., *supra* note 37, at 743 (listing some of the ways in which U.S. companies are able to monitor employees). *See generally* Katherine Haan, *Internet Surveillance in the Workplace: 43% Report Having Their Online Activity Monitored in 2024*, *FORBES ADVISOR* (Mar. 25, 2024, 12:42 PM), <https://www.forbes.com/advisor/business/software/internet-surveillance-workplace> [<https://perma.cc/KG5Q-KYAB>] (detailing the extent of workplace surveillance in 2024 and how employees are reacting to increased monitoring).
69. Matthew T. Bodie, *Employers as Information Fiduciaries*, 63 *SANTA CLARA L. REV.* 35, 39 (2023). Bodie suggests that the amount of information that has been amassed on their employees has led to a power imbalance in the relationship between employers and employees. *Id.* Bodie thus sees fiduciary duties as a necessary protection and natural step. *Id.* at 52-55. *See generally* Bodie, *supra* note 19, at 724 (discussing ineffective efforts in the law to reduce the flow of information from employees to employers).
70. *See* Andrew Keay, *Stakeholder Theory in Corporate Law: Has It Got What It Takes?*, 9 *RICH. J. GLOB. L. & BUS.* 249-51 (2010) (discussing whether individuals who contribute to firms,

As Professor Amy Kapczynski has noted, “Intellectual-property scholars have, for the most part, argued vociferously against any form of property protection in personal data for a variety of reasons.”⁷¹ And it is true that intellectual-property law privileges innovation and thus would elevate the unfettered flow of data as the law’s paramount goal.⁷² Take, for instance, two doctrines of intellectual-property law: “work for hire”⁷³ and “the implied duty to assign.”⁷⁴ The 1909 Copyright Act promulgated the “work for hire” doctrine, which was narrowed by the 1976 Act defining “work made for hire” as “a work prepared by an employee within the scope of his or her employment.”⁷⁵ More importantly, the Copyright Act of 1976 amended the “work for hire” doctrine to make the employer the author of any work made for hire unless expressly agreed otherwise, by default granting employers intellectual-property rights to workers’ work.⁷⁶

Opponents to the “captured capital” theory could seize on the “work for hire” doctrine as the foundation for the presumption that all data generated by workers in the workplace belong to the employer who has hired them. Similarly, the “implied duty to assign” doctrine for patent rights could be marshaled as an argument against the theory of captured capital. Although this doctrine is implied,

“stakeholders,” should replace shareholder theory as the driving force for corporations); Justin Blount & Michael Conklin, *Non-Human Stakeholders: Testing the Boundaries of Stakeholder Theory*, 76 OKLA. L. REV. 229, 233-34 (2024) (examining how stakeholder interests could be balanced with shareholder interests under current corporate-governance models). For a more in-depth discussion, see *infra* Section III.A.

71. Amy Kapczynski, *The Law of Informational Capitalism*, 129 YALE L.J. 1460, 1501 (2020); see also Jessica Litman, *Information Privacy/Information Property*, 52 STAN. L. REV. 1283 (2000) (discussing the proposition that allowing individuals to own information about themselves will be an effective way to increase data privacy protection); Simon G. Davies, *Re-Engineering the Right to Privacy: How Privacy Has Been Transformed from a Right to a Commodity*, in 143 TECHNOLOGY AND PRIVACY: THE NEW LANDSCAPE 160 (Philip E. Agre & Marc Rotenberg eds., 1997) (arguing that the issue with privacy protection is not that individuals do not have ownership over their data but that there is a market for this information).
72. See Lothar Determann, *No One Owns Data*, 70 HASTINGS L.J. 1, 1 (2018) (arguing that “new property rights in data are not suited to promote better privacy or more innovation or technological advances, but would more likely suffocate free speech, information freedom, science, and technological progress”); see also Pamela Samuelson, *Privacy as Intellectual Property?*, 52 STAN L. REV. 1125, 1171 (2000) (“Also mismatched are traditional policies of favoring free alienability and information privacy policy preferences for restrictions on alienation.”).
73. Copyright Act of 1909, ch. 320, § 23, 35 Stat. 1075, 1080 (repealed 1976) (establishing the “work for hire” doctrine).
74. *Id.*; see also Christopher M. Newman, “What Exactly Are You Implying?”: *The Elusive Nature of the Implied Copyright License*, 32 CARDOZO ARTS & ENT. 501, 519 (2014) (discussing the two doctrines and issues raised by the implied license).
75. Copyright Act of 1909, ch. 320, § 23, 35 Stat. 1075, 1080 (repealed 1976); Copyright Act of 1976, Pub. L. No. 94-553, § 101, 90 Stat. 2542, 2544.
76. Copyright Act of 1976, Pub. L. No. 94-553, § 201, 90 Stat. 2568, 2568.

not statutory like the “work for hire” doctrine, legal scholars have noted that “[c]ourts have tended to recognize such an implied duty to assign patent rights in situations where an employee hired to solve a problem engages in research, and the invention relates to that effort.”⁷⁷

These potential attacks against the theory of captured capital will be unsuccessful because they fail to recognize a crucial distinction: the aforementioned intellectual-property doctrines pertain to the finished *product*, not to parts or factors of the production *process*.⁷⁸ The product/process distinction is important because intellectual-property law is meant to reward the realization of an idea, not merely the idea itself.⁷⁹ Thus, intellectual-property law generally covers the realized idea or product and not just the process.⁸⁰

Furthermore, the notion of captured capital draws support from another area of law – corporate law. Legal scholars have previously recognized human and intellectual capital as “factors of production” separate from the finished product.⁸¹ This definition supports the idea that workers, through their production of data, are generating an input that employers can then exploit for profit. It also highlights the enduring nature of that input – data that is reusable for employers’

77. See Dan L. Burk, *Intellectual Property and the Firm*, 71 U. CHI. L. REV. 3, 15 (2004). See generally *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 187 (1933) (finding that a patent is property and therefore can be validly assigned, specifically allowing assignment through an employment contract).

78. See MELVILLE B. NIMMER & DAVID NIMMER, 1 NIMMER ON COPYRIGHT § 2A.06 (LexisNexis 2024); Pamela Samuelson, *Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection*, 85 TEX. L. REV. 1921, 1921 (2007).

79. See, e.g., *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930); *Golan v. Holder*, 565 U.S. 302, 328-29 (2012) (establishing that works previously in the public domain can be granted copyright protection); *Diamond v. Diehr*, 450 U.S. 175, 185 (1981) (establishing that patents should look at the claim as a whole to determine if it is patentable); NIMMER & NIMMER, *supra* note 78, § 2A.06; DONALD S. CHISUM, 1 CHISUM ON PATENTS § 1.03[2] (LexisNexis 2024).

80. The idea/expression dichotomy can be found in Section 102(b) of the Copyright Act. See NIMMER & NIMMER, *supra* note 78, § 2A.06[A] (“[Section 102(b)] operates as an exclusionary provision by eliminating specified matters from the scope of coverage . . . In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery.”). When, in rare instances, intellectual-property protection is indeed granted for such things, it is granted under patent law or other laws that protect utilitarian inventions. See Pamela Samuelson, *Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection*, 85 TEX. L. REV. 1921, 1921 (2007).

81. Brett M. Frischmann & Mark P. McKenna, *Response: Systems of Human and Intellectual Capital*, 93 TEX. L. REV. 231, 235-36 (2015) (“Both human and intellectual capital resources are durable inputs that generate value when used productively. These resources satisfy demand derived from the goods produced, and thus we can say the resources are means rather than ends. Economists refer to capital goods as ‘factors of production’ that are not used up, exhausted, or otherwise transformed and incorporated fully into the final output on consumption . . .”).

future productive endeavors. The worker-created data is thus a “factor of production” in whatever employers produce later, including AI technologies. Without workers’ investment of their human and intellectual capital and their generation of valuable data inputs, the employers’ finished, market-ready products would not come into existence. Therefore, in analyzing captured capital, one should view employees through the lens of corporate law, in particular corporate governance, and understand that they are stakeholders who are providing necessary “stake” – their data – to firms.⁸² In providing this data to employers, employees are neither extinguishing their ownership rights nor ceding all control of their data to employers.

II. THE LAW AND POLITICAL ECONOMY OF CAPTURED CAPITAL

The LPE movement argues that questions of market efficiency have tended to obscure questions of economic power.⁸³ Governments have allowed power derived from economic superiority to dominate, and law as a process for making society more just has left “market power” largely untouched.⁸⁴ Thus, a central precept of the LPE movement is that governmental neutrality (i.e., laissez-faire capitalism) has failed to address power imbalances and the inequality that they breed. A central tenet of the LPE approach is that economic activity ought to be accountable to the democratic government that allows it to occur.⁸⁵ For the LPE movement, the present inequality stems from a false presumption that markets are competitive enough to self-adjust, and as such, that legal inquiries into power dynamics no longer matter.⁸⁶ The LPE movement champions a hands-on approach to the economy and a move away from the notion of “autonomous” economic ordering.⁸⁷

82. This concept is discussed in greater detail in Section III.A.

83. Jedediah Britton-Purdy, David Singh Grewal, Amy Kapczynski & K. Sabeel Rahman, *Building a Law-and-Political-Economy Framework: Beyond the Twentieth-Century Synthesis*, 129 YALE L.J. 1784, 1784 (2020). See generally CYNTHIA ESTLUND, *THE AUTOMATION ANXIETY: WHY AND HOW TO SAVE WORK* (2021) (confronting how automation is leading to a shrinking demand for human labor, identifying how this loss of jobs is going to exacerbate economic inequality, and suggesting strategies to be implemented to cope with these effects).

84. Britton-Purdy et al., *supra* note 83, at 1818-23. See generally Julie E. Cohen, *Law for the Platform Economy*, 51 U.C. DAVIS L. REV. 133 (2017) (arguing that the creation of the platform economy has been facilitated by legal institutions, allowing markets to be reimaged and the impact of this change to go unmitigated).

85. Britton-Purdy et al., *supra* note 83, at 1827.

86. *Id.* at 1819-20.

87. Britton-Purdy et al., *supra* note 83, at 1833; see also Kate Andrias & Benjamin I. Sachs, *Constructing Countervailing Power: Law and Organizing in an Era of Political Inequality*, 130 YALE

The sociolegal problem of “captured capital” stems exactly from a laissez-faire approach to the economic ordering of firms that has enabled them to optimize their firm structures for AI development and deployment without regard for workers’ rights. Thus, an LPE approach calls for governmental intervention to reorient AI policies and practices toward worker equity. In the following Sections, I detail how an AI arms race and inadequate international labor protections have shaped the law and political economy of AI and enabled the capture of workers’ capital.

A. *An AI Arms Race*

The so-called AI arms race is the idea that states are in geopolitical competition to achieve superiority through the development and deployment of AI. Numerous governments have launched national AI initiatives, with China aiming to be the global AI leader by 2030 and the United States introducing the American AI Initiative and a corresponding defense strategy in 2019.⁸⁸ The AI-arms-race theory presupposes that developing efficient and effective AI will allow a country (or a business within a country) to achieve greater economic dominance in the national and international markets.⁸⁹ For example, President Biden recently touted the establishment of an AI data center in Wisconsin as a win for developing stronger American business and improving AI.⁹⁰

L.J. 546, 555-57 (2021) (encouraging the use of the law to facilitate organization by the poor and working class as a response to rampant political inequality and to allow disadvantaged individuals to exercise political power against the wealthy and elite). See generally DANIEL MARKOVITS, *THE MERITOCRACY TRAP: HOW AMERICA’S FOUNDATIONAL MYTH FEEDS INEQUALITY, DISMANTLES THE MIDDLE CLASS, AND DEVOURS THE ELITE* (2019) (arguing that the American meritocracy is to blame for social and political inequality as meritocracy, in and of itself, is a sham, and allows elites to monopolize wealth and power through access to elite institutions, slowly pushing out the middle class from the center of economic life); Robert Post, *Democracy and Equality*, 1 *LAW CULTURE & HUMAN*. 142, 147 (2005) (arguing that a state’s claim to democratic legitimacy is impaired when citizens are unable to participate equally in democratic self-government).

88. Paul Scharre, *Killer Apps: The Real Dangers of an AI Arms Race*, 98 *FOREIGN AFFS.* 135, 135 (2019).

89. Peter Asaro, *What Is an ‘Artificial Intelligence Arms Race’ Anyway?*, 15 *I/S: J.L. & POL’Y FOR INFO. SOC’Y* 45, 52-55 (2019); see also Yochai Benkler, *Degrees of Freedom, Dimensions of Power*, 145 *DAEDALUS* 18, 20-24 (2016) (viewing the internet, through big data and surveillance, as a control point of power which enables (and disables) individuals’ influence and therefore the reach of their power).

90. Erica L. Green, *Biden, Announcing AI Center, Highlights a Win of His and a Failing of Trump’s*, *N.Y. TIMES* (May 8, 2024), <https://www.nytimes.com/2024/05/08/us/politics/biden-data-center-wisconsin.html> [<https://perma.cc/V5SJ-9R86>].

Critics of the AI arms race note that the lack of intergovernmental cooperative policies promotes a warlike, adversarial attitude toward AI development and is likely to result in the irresponsible development of AI.⁹¹ Another consequence of the AI arms race is that workers become mere fodder for the automation industry.⁹² In the Sections below, I discuss how the rush toward AI technologies like ChatGPT and productivity-tracking technologies enables worker displacement.

1. *ChatGPT and the End of White-Collar Work?*

In February 2023, ResumeBuilder.com surveyed 1,000 U.S. business leaders to see how many companies currently use or plan to use ChatGPT. The findings were as follows: 49% of companies currently use ChatGPT, 30% plan to use the technology, and 48% of companies already using ChatGPT have displaced workers.⁹³ About 25% of companies deploying ChatGPT claim to have already saved at least \$75,000, and 93% of current users say they plan to expand their use of ChatGPT.⁹⁴

One of the most surprising discoveries about ChatGPT has been its ability to generate code.⁹⁵ Consequently, coders have expressed concerns about job loss.⁹⁶ Unlike previous automation—which targeted “hard, dirty, repetitive jobs”—this wave of AI innovation is affecting creative and well-educated professionals.⁹⁷ Goldman Sachs has projected that AI could automate 18% of jobs globally, posing a higher risk to white-collar workers, such as lawyers, than to those in construction or maintenance.⁹⁸

91. Kimberly A. Houser & Anjanette H. Raymond, *It Is Time to Move Beyond The ‘AI Race’ Narrative: Why Investment and International Cooperation Must Win the Day*, 18 NW. J. TECH. & INTELL. PROP. 129, 132-33, 145 (2021).

92. Brishen Rogers, *The Law and Political Economy of Workplace Technological Change*, 55 HARV. C.R.-C.L. L. REV. 531, 544 (2020).

93. *1 in 4 Companies Have Already Replaced Workers with ChatGPT*, RESUME BUILDER (Feb. 20, 2023), <https://www.resumebuilder.com/1-in-4-companies-have-already-replaced-workers-with-chatgpt> [<https://perma.cc/F63K-Q33W>].

94. *Id.*

95. Aki Ito, *The End of Coding as We Know It*, BUS. INSIDER (Aug. 26, 2023), <https://www.businessinsider.com/chatgpt-ai-technology-end-of-coding-software-developers-jobs-2023-4> [<https://perma.cc/2H8L-A79L>].

96. *Id.*

97. Pranshu Verma & Gerrit De Vynck, *ChatGPT Took Their Jobs. Now They Walk Dogs and Fix Air Conditioners*, WASH. POST (June 2, 2023, 6:00 AM EDT), <https://www.washingtonpost.com/technology/2023/06/02/ai-taking-jobs> [<https://perma.cc/6MTS-N87J>].

98. *Id.* A 2023 study conducted by McKinsey suggested that by 2030, 50% of the activities workers currently do could be automated. McKinsey is expecting the adoption of generative AI in the

2. *Data Collection as Part of Productivity Tracking*

The collection of worker data has reached a fever pitch with the introduction of AI technologies.⁹⁹ Employers now have access to a wide array of devices that can not only monitor worker productivity but also track workers' every move.¹⁰⁰ Although employers claim that worker tracking is merely aimed at improving productivity and efficiency, the hidden truth is that worker data is already serving as the training data to automate jobs and displace workers. Consider that in 2018, Amazon acquired a patent for a wristband that can detect motions and positions.¹⁰¹ The bracelet has the capability to monitor and direct the worker to the correct inventory bins via haptic feedback.¹⁰² Other companies have followed suit with patents for similar wearables, such as gloves or wristbands for workers.¹⁰³ The motivation for this type of wearable technology is to collect data that will be used to train robots. This argument is bolstered by Amazon's recent

workplace to be faster in more developed countries (like the United States) where labor costs are higher, as opposed to countries with cheaper labor (like India, China, and Mexico). Following this assertion McKinsey believes that the biggest impact of generative AI in the workplace will be on activities traditionally done by more educated workers. The 2023 study found specifically that 30% of hours worked in STEM professions as well as business and legal professions could be automated by 2030. See *The Economic Potential of Generative AI: The Next Productivity Frontier*, MCKINSEY & CO. (June 14, 2023), <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier> [<https://perma.cc/896Q-N697>].

99. See, e.g., Ifeoma Ajunwa, *Algorithms at Work: Productivity Monitoring Applications and Wearable Technology as the New Data-Centric Research Agenda for Employment and Labor Law*, 63 ST. LOUIS U.L.J. 21, 21 (2019).
100. See Andrea Peterson, *Some Companies Are Tracking Workers with Smartphone Apps. What Could Possibly Go Wrong?*, WASH. POST (May 14, 2015, 4:08 PM EDT), <https://www.washingtonpost.com/news/the-switch/wp/2015/05/14/some-companies-are-tracking-workers-with-smartphone-apps-what-could-possibly-go-wrong/> [<https://perma.cc/R657-WR2C>]; Patience Haggin, *As Wearables in Workplace Spread, So Do Legal Concerns*, WALL ST. J. (Mar. 13, 2016, 10:12 PM ET), <https://www.wsj.com/articles/as-wearables-in-workplace-spread-so-do-legal-concerns-1457921550> [<https://perma.cc/H255-ZJJ6>]. Employers also collect data for automation through the hiring process. See generally Ifeoma Ajunwa, *Automated Video Interviewing as the New Phrenology*, 36 BERKELEY TECH. L.J. 1173 (2022) (exploring the business practice of automated video interviewing).
101. Ultrasonic Bracelet & Receiver for Detecting Position in 2D Plane, U.S. Patent No. 9,881,276 (filed Mar. 28, 2016) (issued Jan. 30, 2018).
102. See Ceylan Yeginsu, *If Workers Slack Off, the Wristband Will Know. (And Amazon Has a Patent for It.)*, N.Y. TIMES (Feb. 1, 2018), <https://www.nytimes.com/2018/02/01/technology/amazon-wristband-tracking-privacy.html> [<https://perma.cc/Z6YB-2PWZ>].
103. See generally U.S. Patent Application No. 15/145,144 (filed May 3, 2016) (reflecting Intermec Technology Corporation's patent for an inventory assistance device); U.S. Patent Application No. 13/756,115 (filed Jan. 31, 2013) (same).

unveiling of humanoid robots in its warehouses.¹⁰⁴ Amazon has claimed that the robots are designed to work “alongside human workers.”¹⁰⁵ But with further training, the robots will be able to retrieve bins and fulfill Amazon orders, displacing human warehouse workers altogether.¹⁰⁶

B. *Borderless Work and Inadequate Labor Protections*

The advent of the internet and AI technologies makes borderless work possible and allows for the unchecked capture of worker capital worldwide. As the case of the Kenyan content moderators illustrates, the emergence of a planetary labor market¹⁰⁷ necessitates better international legal frameworks to protect the rights of all workers. As legal scholar Tendayi Achiume argues, one core presumption of international law is the unwavering right of states to exclude noncitizens.¹⁰⁸ This presumption that only citizens of a sovereign nation may enjoy some of its legal protections disadvantages workers in the Global South.¹⁰⁹ And as Professor Adelle Blackett has noted, individuals who cross borders to find better employment opportunities are forced to accept “inhuman conditions” and must cope with inequalities “both within and between states.”¹¹⁰ These pressures necessitate a more cooperative international approach to fair labor-market access.¹¹¹

104. Matt Day, *Humanoid Robots at Amazon Provide Glimpse of an Automated Workplace*, BLOOMBERG (Mar. 4, 2024, 7:30 AM EST), <https://www.bloomberg.com/news/articles/2024-03-04/amazon-warehouses-provide-glimpse-of-workplace-humanoid-robots> [<https://perma.cc/S2UC-TAWB>].

105. *Id.*

106. See Rogers, *supra* note 92, at 561 (2020). Several reports have documented the mistreatment of Amazon warehouse workers. See, e.g., Annie Palmer, *Amazon’s Focus on Speed, Surveillance Drives Higher Warehouse Worker Injuries, Study Finds*, CNBC (Oct. 25, 2023, 4:11 PM EDT), <https://www.cnbc.com/2023/10/25/study-amazons-focus-on-speed-surveillance-drives-worker-injuries.html> [<https://perma.cc/2V2Z-YG73>]; Jack Kelly, *A Hard-Hitting Investigative Report into Amazon Shows that Workers’ Needs Were Neglected in Favor of Getting Goods Delivered Quickly*, FORBES (Oct. 25, 2021, 1:28 PM EDT), <https://www.forbes.com/sites/jackkelly/2021/10/25/a-hard-hitting-investigative-report-into-amazon-shows-that-workers-needs-were-neglected-in-favor-of-getting-goods-delivered-quickly> [<https://perma.cc/NU2Q-HBNH>].

107. Mark Graham & Mohammad Amir Anwar, *The Global Gig Economy: Towards a Planetary Labour Market?*, 24 *FIRST MONDAY* 213, 213 (2019).

108. E. Tendayi Achiume, *Reimagining International Law for Global Migration: Migration as Decolonization?*, 111 *AM. J. INT’L L. UNBOUND* 142, 142 (2017).

109. See *id.* at 142-43.

110. Adelle Blackett, *Theorizing Emancipatory Transnational Futures of International Labor Law*, 113 *AM. J. INT’L L. UNBOUND* 390, 393 (2019).

111. *Id.* (“As human beings risk their lives to move across borders and sell their labor under particularly inhumane conditions, they disrupt legal orders through the exercise of human

The salience of race should not be lost in this discussion. LPE scholars argue that economic relations cannot be understood without reference to “the role of atavistic status subordination, particularly racialized and gendered subordination, in the construction of capitalist social relations.”¹¹² Geographer Mark Graham paints a racialized picture of worker exploitation, domination, and disenfranchisement:

[M]illions of jobs can now be done from almost anywhere on Earth. A mass migration of labor, but not of people. . . . Some of the impacts of this planetary labour market are being observed in the most unlikely of places. . . . [I]n a rural town in Central Africa . . . , in a place where many people still live in thatched huts and few families possess any of the technological gadgets of the contemporary world, . . . workers are helping to build some of the world’s most advanced technologies and services. In a large open-plan office with hundreds of desks and computers, workers spend eight hours a day doing highly repetitive work like matching names to photographs of minor celebrities they’ve never heard of, or identifying objects in photos of suburban America in cities that they will never go to. What these tasks have in common with the dozens of other routines performed in the room is that computers cannot yet perform them as effectively as humans.¹¹³

In theory, Graham adds, flexible geographies of production could distribute jobs across the world.¹¹⁴ But in practice, those geographies exert “huge downward pressure on wages and working conditions” everywhere.¹¹⁵ Graham argues that separating workers by large distances (as well as linguistic and cultural differences) limits the workers’ ability to associate and organize, which allows companies to exert greater power over the workers.¹¹⁶

Due to the rise of borderless work, the lack of adequate extraterritorial labor-law protections becomes another facet of the law and political economy of AI technologies that facilitates the capture of workers’ capital. In 2023, the U.S.

agency in the face of deep-seated inequality, both within and between states. Emancipatory transnational futures require deepened international solidarity, including by the International Labor Organization (ILO), on reasonable labor market access.”).

112. Yochai Benkler & Talha Syed, *Reconstructing Class Analysis*, 4 J.L. & POL. ECON. 731, 733 (2024).

113. Mark Graham, *The Rise of the Planetary Labour Market-and What It Means for the Future of Work*, NSTECH (Jan. 29, 2018), <https://web.archive.org/web/20180202002806/https://Tech.Newstatesman.Com/Guest-Opinion/Planetary-Labour-Market> [<https://perma.cc/37GU-HVNF>].

114. *Id.*

115. *Id.*

116. Graham & Anwar, *supra* note 107, at 213.

Supreme Court affirmed that there is a general presumption against the extraterritoriality of American law.¹¹⁷ The Court articulated a two-step test for when this presumption can be overcome, looking specifically to the intent of Congress for acts to have foreign reach and also the focus of the congressional concern.¹¹⁸ Previously, the presumption against extraterritoriality in American law had been noted by the Court in *EEOC v. Arabian American Oil Co. (Armco)*, which dealt with a plaintiff who was hired in the United States, transferred to Saudi Arabia, and then fired.¹¹⁹ He alleged that his firing was a violation of Title VII of the Civil Rights Act of 1964 (Title VII), but the Court held that Title VII did not apply abroad.¹²⁰ Legal scholars have noted that the decision in *Armco* entrenched the presumption against the extraterritorial application of American labor and employment law.¹²¹

Recently, even evidence of criminal activity has not been found to shake the presumption against extraterritoriality. In *Daramola v. Oracle America, Inc.*, the Ninth Circuit concluded that because the plaintiff's employment relationship had a locus in Canada, the antiretaliation provisions of the Sarbanes-Oxley Act and Dodd-Frank Wall Street Reform Act did not apply; it did not matter that the plaintiff faced removal as a project manager and received negative performance reviews after expressing an unwillingness to participate in fraudulent activity in the workplace.¹²² In reaching these conclusions, the court relied on a previous decision from the D.C. Circuit, in which the plaintiff was a U.S. citizen employed overseas by foreign subsidiaries of Morgan Stanley.¹²³ In that case, despite the fact that the plaintiff was a U.S. citizen working for the subsidiaries of a U.S. company, the court had ruled that applying the Sarbanes-Oxley Act would be impermissibly extraterritorial.¹²⁴

These legal precedents show that workers in the planetary labor market do not enjoy the protection of American labor laws. As *Armco* makes clear, those workers are not entitled to the antidiscrimination protections of Title VII. And as *Daramola* makes clear, those workers are also not covered by the antiretaliation provisions under American labor law that protect workers when they report misconduct in the workplace. This leaves workers in the planetary market

117. *Abitron Austria GmbH v. Hetronic Int'l, Inc.*, 600 U.S. 412, 417 (2023).

118. *Id.* at 418.

119. 499 U.S. 244, 246-47 (1991).

120. *Id.* at 247, 259; William S. Dodge, *The New Presumption Against Extraterritoriality*, 133 HARV. L. REV. 1582, 1597-98 (2020).

121. *Id.* at 1599-1600.

122. 92 F.4th 833, 836-38, 840-42 (9th Cir. 2024).

123. *Garvey v. Admin. Rev. Bd.*, U.S. Dep't of Lab., 56 F.4th 110, 115 (D.C. Cir. 2022).

124. *Id.* at 115-19, 129.

vulnerable, particularly with regard to the capture of their capital. Novel legal frameworks are needed for redress.

III. LEGAL REDRESS FOR WORKERS

An LPE approach to the problem of captured capital suggests that the law should intervene to correct the lopsided power relations enjoyed by firms in the AI revolution and prevent the exacerbation of economic inequality. In the following Sections, I propose three legal frameworks that could offer workers different paths to reclaim their captured capital. These avenues for redress include (1) a corporate-governance model of data as stake capital; (2) a data-licensing regime; and (3) a guaranteed income for displaced workers. I also address some potential critiques of these proposals. These proposed legal frameworks are not necessarily mutually exclusive; two or more of these proposals may be adopted together. Finally, I argue that the International Labor Organization (ILO), as an intergovernmental agency, can play an efficacious role in promoting worker data councils under the corporate-governance model as well as enacting a guaranteed income for displaced workers.

A. *Data as Stake Capital*

Stakeholder capital, or “stake capital” for short, is the corporate-governance theory that those with a “stake” in a firm ought to have a say in its governance.¹²⁵ Stakeholders can include employees, customers, suppliers, and creditors. The stake capital is the resources these individuals have contributed to the business, such as time or money, without actually purchasing shares of the business. Stakeholder theory suggests that these individuals should have a say in the corporate governance of the business to which they have contributed or the business that affects them.¹²⁶ This theory is generally posited within the governance of a particular business and would allow directors and officers to maximize benefits to the stakeholders, rather than focus solely on profits accrued to the shareholders. Contrary to stakeholder theory, shareholder primacy had long been a feature of American corporate law.¹²⁷ But some legal scholars now see this elevation of

125. See Keay, *supra* note 70, at 249–51 (comparing stakeholder capitalism to shareholder capitalism, which is the theory that only those holding actual shares in the company ought to have their interests considered first).

126. There is also a greater ongoing discussion of whether non-individuals such as groups or more abstract things such as the environment ought to be considered stakeholders. See Blount & Conklin, *supra* note 70, at 233–34.

127. *Dodge v. Ford*, 170 N.W. 668 (Mich. 1919) is frequently cited as the iconic case that established the theory of shareholder primacy in American corporate law. “A business

shareholder interests as an incorrect interpretation of the law.¹²⁸ Under a corporate-governance model that values stakeholder interests, the business does not solely provide profits to the stakeholders directly through investment returns but would rather seek to improve its management and conditions for employees and other affected members of the community.¹²⁹

If worker data is viewed as “stake capital,” workers would have a right to govern this data. This reconceptualization of worker data would bypass questions of ownership and focus on the issue of control. Treating worker data as “stake capital” would eliminate the need to parse which data is owned by the worker and which is owned by the employer. The focus would not be on an exclusive and quantifiable claim to ownership or even on exclusive control; rather, it would be on how the *collective* data of the firm is managed or exploited. A stake-capital theory of worker data would grant workers the right to engage in corporate-governance discussions at their firms regarding what is done with their data. Thus, in a “data-as-stake-capital” regime, one could imagine the creation of worker data councils where workers at a given firm elect representatives to bargain on their behalf regarding the collection of data and its uses. These data councils would have a separate and more particularized function compared to unions. Whereas unions would focus on labor sectors and aim to represent large swaths of workers, data councils would focus their work on one specific firm. Thus, data councils would be able to deal with the particular circumstances of any specific firm and provide more tailored approaches to data governance.

corporation is organized and *carried on primarily for the profit of the stockholders*. The powers of the directors are to be employed for that end. The discretion of directors is to be exercised in the choice of means to attain that end, and does not extend to a change in the end itself, to the reduction of profits, or to the nondistribution of profits among stockholders in order to devote them to other purposes.” *Id.* at 684 (emphasis added); see also Jonathan R. Macey, *A Close Read of an Excellent Commentary of Dodge v. Ford*, 3 VA. L. & BUS. REV. 177, 181 (2008) (“Shareholder wealth maximization, however, is still at least the law on the books, if not in practice.”); M. Todd Henderson, *The Story of Dodge v. Ford Motor Company: Everything Old Is New Again*, in CORPORATE LAW STORIES 37-75 (J. Mark Ramseyer ed., 2009) (arguing that the case establishes shareholder wealth maximization as a standard of conduct for officers and directors). Recently, however, even business leaders have begun to turn away from the notion of shareholder primacy. See, e.g., *Statement on the Purpose of a Corporation*, BUS. ROUNDTABLE (2019), <https://opportunity.businessroundtable.org/opportunity-commitment> [<https://perma.cc/3NDU-J7ZX>] (arguing the equal importance of stakeholder interests). *But see* Lucian A. Bebchuk & Roberto Tallarita, *The Illusory Promise of Stakeholder Governance*, 106 CORNELL L. REV. 91, 94-96 (2020) (questioning if the statement amounted to a real change in ethos).

128. See Lynn A. Stout, *Why We Should Stop Teaching Dodge v. Ford*, 3 VA. L. & BUS. REV. 163, 166-68 (2008); Henderson, *supra* note 127, at 37-75 (arguing that *Dodge v. Ford* establishes the business judgment rule which would excuse some decisions that don’t directly maximize shareholder profit).

129. See Keay, *supra* note 70, at 254-56 (2010); Justin Blount, *Creating Stakeholder Democracy Under Existing Corporate Law*, 18 U. PA. J. BUS. L. 365, 377-78 (2016).

This “stake-capital” approach to worker data governance would ease the legal tension between the conception of data as bearing individualized property rights and the reality that data increasingly emanates from social relationships. As legal scholar Salomé Viljoen has argued, the primary focus of data production is “to relate people to one another based on relevant shared population features.”¹³⁰ In Viljoen’s view, the transformation of information into a commodity is wrongful because it creates unjust social relations that exacerbate social inequality.¹³¹ While privacy laws in the United States primarily focus on the potential harmful effects of data on the individual,¹³² Viljoen contends that the paramount problem with improper data use is instead the harm to social relations at large.¹³³ This conceptualization of “large” data, not as an accumulation of individual data but as a set of social relations, better explains how and why data collection and use produces economic value and social harm in the digital economy. *A*’s data can harm *B*, and this relationship should be properly considered.¹³⁴ The “data-as-stake-capital” approach is sensitive to the communal and interconnected nature of data, as Viljoen has described.¹³⁵ Through worker data councils, workers can collectively advocate for how their data will be collected and used. Such advocacy could deter data-collection efforts that are solely extractive and exploitative and promote the use of data for research that would serve workers’ interests.

Some legal scholars have critiqued “stakeholderism” as “an ineffective and indeed counterproductive approach to protecting stakeholders” and “likely to be detrimental to stakeholders and society.”¹³⁶ These criticisms stem from the legal reality that corporate leaders have significant incentives not to protect stakeholders beyond what would serve shareholder value.¹³⁷ Given those legal constraints, those scholars argue instead for the necessity of external interventions via new legislation, regulation, or policies to protect stakeholders.¹³⁸ Taking these concerns as valid, in the following Sections, I also propose new external legal frameworks directly aimed at empowering workers.

130. Viljoen, *supra* note 44, at 580.

131. *See id.* at 581.

132. Privacy-law protections like notice and choice, for example, help individual users determine if they want their data to be used. *See id.* at 593-97.

133. *See id.* at 631-32.

134. *See id.* at 606-07. Viljoen provides an example of how *A*’s voluntary giving of information may unjustly harm *B*, despite it having no negative effect on *A*. This is a relational view of big data.

135. *See id.* at 579, 637.

136. Bebchuk & Tallarita, *supra* note 127, at 94-96.

137. *Id.*

138. *Id.*

B. A Data-Licensing Regime

The second proposed solution to the problem of captured capital is a legal framework for workers to license their data to different firms. While licensing is often considered an individual activity, consistent with the relational nature of data, this proposal envisions communal licensing schemes that would benefit workers in the same sector.

A recent collective-bargaining agreement negotiated by the actors' union SAG-AFTRA provides a prime example of such a licensing scheme.¹³⁹ On January 9, 2024, SAG-AFTRA announced an agreement with Replica Studios, an AI voice technology company.¹⁴⁰ This agreement allows SAG-AFTRA members to be engaged by Replica under a “fair, ethical agreement to safely create and license a digital replica of their voice” and allows Replica to use the licensed voices in video-game development and other interactive-media projects.¹⁴¹ This agreement establishes minimum terms and conditions and provides performers with the opportunity and ability to opt out of having their licensed voice used in new works.¹⁴² Importantly, this agreement is reported to achieve “fully informed consent and fair compensation” for SAG-AFTRA members who are interested in engaging in AI technology vocal work.¹⁴³ It also appears to be the hope of SAG-AFTRA that this agreement will have something of a domino effect and “pave[] the way for other companies to follow [Replica’s] lead.”¹⁴⁴

A copy of the contract to be executed was made available to the public.¹⁴⁵ Prominently at the top of this agreement are multiple definitions of allowable uses of licensed voices, such as development use and external use.¹⁴⁶ The contract also establishes wage rates through January 31, 2025, for both a four-hour workday and a six-hour workday,¹⁴⁷ and it includes a table detailing additional compensation for performers depending on the number of lines that were

139. See News Update, SAG-AFTRA, SAG-AFTRA and Replica Studio Introduce Groundbreaking AI Voice Agreements at CES (Jan. 9, 2024), <https://www.sagaftra.org/sag-aftra-and-replica-studios-introduce-groundbreaking-ai-voice-agreement-ces> [<https://perma.cc/6XRQ-YXL3>].

140. *Id.*

141. *Id.*

142. *Id.*

143. *Id.*

144. *Id.*

145. *Id.*; *Replica Digital Voice Replica Development Agreement*, SAG-AFTRA, https://www.sagaftra.org/files/sa_documents/Replica%20Studios%20Agreement%20for%20Digital%20Voice%20Replicas_o.pdf [<https://perma.cc/SX3C-EB38>].

146. *Id.* at 1.

147. *Id.* at 2.

ultimately used in a project.¹⁴⁸ The contract further stipulates that this additional compensation shall be paid to performers on or before the date the project becomes public.¹⁴⁹ Finally, the agreement establishes that developers must obtain express written consent from any performer before they can use preexisting recordings of that performer's voice.¹⁵⁰

In even more recent news, on April 12, 2024, SAG-AFTRA announced a tentative multiyear deal with Warner Music Group, Sony Music Entertainment, Universal Music Group, and Disney Music Group.¹⁵¹ This agreement created the first "collective bargain guardrails [to have been negotiated] assuring singers and recording artists ethical and responsible treatment" as it pertains to AI in the music industry.¹⁵² The 2024 Sound Recordings Code was ratified on April 30, 2024, which means that the "guardrails" are now in effect.¹⁵³ The agreement updates the definitions of "artist," "singer," and "royalty artist" to indicate that these words can only mean humans.¹⁵⁴ The agreement also requires obtaining "clear and conspicuous" consent before an artist's voice may be digitally replicated.¹⁵⁵ If an artist's voice is replicated, they are entitled to information regarding how the replication will be used as well as minimum compensation.¹⁵⁶ Furthermore, "records labels must obtain consent on a per-project basis."¹⁵⁷ A major bargaining tactic that resulted in these protections for creative workers was the history-making SAG-AFTRA strike, which lasted 118 days.¹⁵⁸

^{148.} *Id.* at 5.

^{149.} *Id.*

^{150.} *Id.* at 4.

^{151.} News Update, SAG-AFTRA, SAG-AFTRA, Record Labels Reach Tentative Sound Recordings Agreement (Apr. 12, 2024), <https://www.sagaftra.org/sag-aftra-record-labels-reach-tentative-sound-recordings-agreement> [<https://perma.cc/YFV6-VBNC>].

^{152.} *Id.*

^{153.} *Members Ratify Sound Recordings Contract*, SAG-AFTRA (Aug. 16, 2024), <https://www.sagaftra.org/members-ratify-sound-recordings-contract> [<https://perma.cc/2GTR-ZC7K>] ("On April 30, SAG-AFTRA members ratified the 2024 Sound Recordings Code with a vote of 97.69% to 2.31%."). Kristin Robinson, *SAG-AFTRA Members Ratify Sound Recordings Contract, Providing Key AI Guardrails*, BILLBOARD (May 1, 2024), <https://www.billboard.com/business/business-news/sag-aftra-ratifies-sound-recordings-contract-ai-guardrails-1235670588> [<https://perma.cc/56RV-QN2L>].

^{154.} *Id.*

^{155.} *Id.*

^{156.} *Id.*

^{157.} *Id.*

^{158.} Gene Maddaus, *SAG-AFTRA Approves Deal to End Historic Strike*, VARIETY (Nov. 8, 2023), <https://variety.com/2023/biz/news/sag-aftra-tentative-deal-historic-strike-1235771894> [<https://perma.cc/N94K-L7JN>].

The SAG-AFTRA agreement provides a useful model for future licensing schemes for worker data because it takes care to center human workers. Its provisions focus on ensuring that human actors are not displaced altogether. The notion of clear and continuous consent is also an important part of the SAG-AFTRA licensing regime that should be emulated by other licensing regimes to ensure that workers continue to have control over their data.

C. *A Guaranteed Income*

Although the paramount goal remains to empower human workers in the workplace, the third proposal is a pragmatic approach that envisions a guaranteed income for workers who will eventually be displaced by AI technologies. This proposal is predicated on a set of rights and social-justice-based ideals and draws from the ILO's principles, such as the right to just compensation and the right to fair wages, rather than a data-as-commodity framework. Specifically, the recommendation is for the ILO to request that its member countries levy a tax on companies who are planning to automate their firms. The tax proceeds would form a fund (perhaps jointly managed by the ILO and the World Bank) for a guaranteed income to be paid to displaced workers worldwide.

A corollary of this proposal can be found in the International Financial Facility for Immunization (IFFIm), which is an organization that is funded by private-sector investment.¹⁵⁹ IFFIm ensures the availability of long-term funds for global health and immunization programs in seventy of the world's poorest countries.¹⁶⁰ IFFIm derives its funds from “legally binding grants payments from its sovereign sponsors,” which include the United Kingdom, France, Norway, Italy, the Netherlands, Spain, Australia, Sweden, Brazil, South Africa, and Canada.¹⁶¹ According to the World Bank's website, “[w]ith the backing of these pledges, IFFIm borrows money by issuing bonds in the capital markets to fund vaccination programs in developing countries.”¹⁶²

Similarly, the proposed guaranteed-income fund would depend on sovereign commitments of funds from ILO member states. Even better, the funds committed by sovereign sponsors would ultimately be financed by proceeds from an increased tax on corporate entities and thus should not burden member states. While corporate tax raises might face resistance, this proposal is not

159. *International Finance Facility for Immunisation (IFFIm)*, WORLD BANK, <https://fiftrustee.worldbank.org/en/about/unit/dfi/fiftrustee/fund-detail/iffim> [<https://perma.cc/6YG3-CPAG>].

160. *Id.*

161. *Id.*; *Donors*, IFFIM, <https://iffim.org/donors> [<https://perma.cc/P8TM-KPTM>].

162. *International Finance Facility for Immunisation (IFFIm)*, *supra* note 159.

impracticable given that corporations worldwide currently pay little to no taxes on their income.¹⁶³ Corporations are able to pay a miniscule portion of their income in taxes precisely because of existing laws that allow for corporate rebates and other tax incentives.¹⁶⁴ Thus, low corporate tax payment is generally not an issue of corporations acting contrary to law or even an issue of lacking enforcement of current laws. Creating a law that mandates certain corporate taxes for this proposed fund is the first step to enforcing the payment of appropriate taxes by companies. In lieu of commodifying worker data and compensating workers for their data directly, this proposal recognizes the difficulty in quantifying the work of human beings and affirms that all humans have a right to a livelihood.

The notion of a guaranteed income has already taken root in the United States. In September 2023, two U.S. representatives reintroduced the Guaranteed Income Pilot Program Act, which would establish a nationwide pilot program as opposed to the locally funded ones currently in place.¹⁶⁵ Representative Jan Schakowsky stated: “It is our duty to ensure that all Americans have access to fundamental rights like food and shelter This bill will help gather data about guaranteed income as an innovative way to reduce inequality and create economic security.”¹⁶⁶ Generally, supporters of guaranteed-income programs note that there are many emergencies that can push families into homelessness and that there ought to be a new approach to helping families maintain financial security.¹⁶⁷ Providing income to individuals facing job displacement finds precedent in governmental actions during the COVID-19 pandemic, when millions of families received cash directly from the U.S. government, leading to

163. See Matthew Gardner & Steve Wamhoff, *55 Corporations Paid \$0 in Federal Taxes on 2020 Profits*, INST. ON TAX’N & ECON. POL’Y (Apr. 2, 2021), <https://itep.org/55-profitable-corporations-zero-corporate-tax> [<https://perma.cc/CL87-BZ8N>]; Simeon Djankov, *How Do Companies Avoid Paying International Taxes?*, PETERSON INST. FOR INT’L ECON. (Sept. 3, 2021), <https://www.piie.com/blogs/realtime-economics/2021/how-do-companies-avoid-paying-international-taxes> [<https://perma.cc/BZ2A-344L>].

164. *Id.*

165. Press Release, Off. of Rep. Jan Schankowsky, Schakowsky, Watson Coleman Lead Introduction of Guaranteed Income Pilot Program (Sept. 27, 2023), <https://schakowsky.house.gov/media/press-releases/schakowsky-watson-coleman-lead-introduction-guaranteed-income-pilot-program> [<https://perma.cc/U84D-V8EE>].

166. *Id.*

167. Glenn Daigon, *Is a National Guaranteed Income on the Horizon*, PROGRESSIVE (Apr. 25, 2024 2:23 PM), <https://progressive.org/latest/is-national-guaranteed-income-on-the-horizon-daigon-240425> [<https://perma.cc/VQ72-987S>].

“overwhelmingly positive results.”¹⁶⁸ Per the Economic Security Project, there are currently 150 guaranteed-income pilots across the United States.¹⁶⁹

One criticism of guaranteed-income programs is that they create a culture of dependency.¹⁷⁰ Another criticism revolves around how participants will spend money if the funds do not come with directions or limitations. Proponents refute this by noting that there is no evidence to support profligacy on the part of guaranteed-income recipients.¹⁷¹ Furthermore, the implementation of a guaranteed-income program is grounded in social-justice principles rather than in a commodity-based view of data. Given how worker data being collected is utilized, it will necessarily displace workers in the future.¹⁷² A justice-oriented approach dictates that workers whose data powers the AI that displaces them should be afforded a means to a livelihood.

D. Comparing the Three Proposals

The stakeholder approach is firmly grounded in corporate law, and while it would be an innovation, it is not radical. Despite the fact that the stakeholder approach might be conceptually more digestible, there remain significant issues. Even if data councils stress a *collective* ownership-and-control approach rather than an exclusive ownership approach, some employers as well as workers may argue for a more individualized approach. Such an approach would then require parsing and quantifying stake interests, creating snags for this proposal. Determining how much stake one specific individual has contributed versus another, and how much value may be attributable to certain data versus others, may then become an unsurmountable barrier to implementing this approach. Furthermore, there is the question of whether data governance is best left to the workers. Worker councils, which may bear no special expertise in data science or AI, may be too focused on immediate compensation to understand the far-reaching and downstream consequences of the data agreements they enter into today.

The data-licensing regime has existing models. The SAG-AFTRA agreement exemplifies what implementation could look like. However, since there is no existing union to represent all the workers who are affected by the phenomenon of

168. *It's More than a Check, It's the Freedom Everyone Deserves*, ECON. SEC. PROJECT, <https://economicsecurityproject.org/work/guaranteed-income> [<https://perma.cc/KXB6-FKRQ>].

169. *Id.*

170. Lisel Crocker, *Why States Should Ban Universal Basic Income Schemes*, FGA (Feb. 13, 2024), <https://thefga.org/research/why-states-should-ban-universal-basic-income-schemes> [<https://perma.cc/QCD4-B9FJ>].

171. See *It's More than a Check, It's the Freedom Everyone Deserves*, *supra* note 168.

172. See *supra* Section II.A.

“captured capital,” a licensing regime would only work if existing domestic sectoral unions are willing to take up the mantle. Additionally, it is unclear how this could work on an international scale, as there are few international unions.¹⁷³ In the era of borderless work, a data-licensing regime is dependent on the advent of true international unions that can represent workers across borders. As the following Section discusses, perhaps the ILO could play an important role here.

Finally, the guaranteed-income program provides the most ambitious solution to the compensation problem posed by captured capital. While the guaranteed-income program is firmly grounded in social justice and would address many of the inequality issues discussed in this Essay, it is also highly progressive. Garnering support for this proposal would be difficult. Furthermore, although there has been some state-level experimentation with a guaranteed income, there is not yet a good national model.¹⁷⁴ Thus, an international model might seem far-fetched until there is an organization with the platform to conduct national or even multinational pilots for guaranteed-income programs.

E. A Role for the ILO

Faced with a planetary labor market, international organizations like the ILO have an important role to play in maintaining workers’ rights. The ILO is an agency of the United Nations (UN) that works together with governments, employers, and workers to promote fair standards at work.¹⁷⁵ With the Universal Declaration of Human Rights (UDHR) as its foundation, the ILO has developed the International Labour Standards Department (ILS).¹⁷⁶ The ILS is tasked with the practical implementation of human-rights obligations at work.¹⁷⁷ The ILO’s 2019 Centenary Declaration for the Future of Work confirmed social justice as its imperative.¹⁷⁸ Four strategic objectives are identified as central to achieving social justice through the promotion of decent work: “promoting full, productive, and freely chosen employment; arranging for social protection; organizing

173. *International Trade Unions: Who They Are and What They Do*, HR POL’Y ASSOC. (Apr. 1, 2024), <https://www.hrpolicy.org/insight-and-research/global/a-walk-on-the-wild-side-podcast/s02e10-international-trade-unions-who-they-are-and> [<https://perma.cc/WU7B-QFFN>].

174. See Daigon, *supra* note 167.

175. *The Benefits of International Labor Standards*, INT’L LAB. ORG., <https://www.ilo.org/international-labour-standards/benefits-international-labour-standards> [<https://perma.cc/GH2A-F6XZ>].

176. *Id.*

177. *Id.*

178. Tim de Meyer, *International Labour Standards as Human Rights*, INT’L LAB. ORG. (Nov. 17, 2022), <https://www.ilo.org/resource/article/international-labour-standards-human-rights> [<https://perma.cc/9NCY-8DLR>].

social dialogue; and realizing fundamental principles and rights at work.”¹⁷⁹ In 2011, the UN Human Rights Council endorsed the UN Guiding Principles on Business and Human Rights, which make clear that businesses must respect human rights. At a minimum, human rights at work encompass ideals expressed in the UDHR and fundamental rights set out by ILO.¹⁸⁰

The ILO has a key role to play to protect workers’ interests in the AI revolution. It has already brought its attention to bear on researching the plight of Global South workers in the AI revolution.¹⁸¹ A 2024 ILO report examines how the rise of digital technologies, including digital labor platforms, is reshaping Kenya’s economic landscape and affecting the experiences of workers, especially women, who are engaged in this type of work.¹⁸²

The ILO should continue this work in two key ways. First, similar to its advocacy for workers’ rights to unionize,¹⁸³ the ILO is well-positioned to promote the development of worker data councils.¹⁸⁴ For instance, it could develop guidance establishing how such councils should operate and what standards for the collection and use of worker data they should implement. Second, for the proposed guaranteed-income program,¹⁸⁵ the ILO could also play a key role in collecting data and running pilots to help determine what should serve as the guaranteed minimum income in each member state as workers start to be displaced by AI automation worldwide. The ILO could coordinate its member states to impose a corporate tax on companies planning to automate their firms. The tax proceeds could then finance the fund for a guaranteed income to be paid to displaced workers.

179. *Id.*

180. *Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework*, U.N. Doc. A/HRC/17/31 (June 16, 2011), https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf [<https://perma.cc/P8VG-TVNX>].

181. *See Digital Labour Platforms in Kenya: Exploring Women’s Opportunities and Challenges Across Various Sectors*, INT’L LAB. ORG. (Apr. 4, 2024), <https://www.ilo.org/publications/digital-labour-platforms-kenya-exploring-womens-opportunities-and-o> [<https://perma.cc/L6EA-6G8B>].

182. *Id.*

183. *How Are Trade Unions Adapting to Changes in the World of Work?*, INT’L LAB. ORG. (June 2, 2023), <https://www.ilo.org/resource/news/how-are-trade-unions-adapting-changes-world-work> [<https://perma.cc/33Q8-8QW9>].

184. *See supra* Section III.A.

185. *See supra* Section III.C.

CONCLUSION

AI technologies are rapidly infiltrating the business sphere. While these technologies may enable greater worldwide labor-market access, they also introduce new vulnerabilities for workers. AI technologies whet employers' appetites for training data, and the quest for such data has enabled extractive and exploitative practices by firms. Furthermore, AI technologies may displace human workers altogether. Although a ban on the development and use of all AI technologies would be akin to King Cnut attempting to hold back the tide,¹⁸⁶ the surge of AI technologies should not induce a techno-fatalism where we complacently accept all undesirable aspects of AI technologies, including how they enable the capture of workers' capital. An LPE approach to corporate governance requires that the law no longer ignore the asymmetrical power relations enjoyed by firms in the AI revolution; instead, the law must address the deleterious effects of this asymmetry. The law must ensure that workers regain some measure of control over their data and can benefit from the data they create for firms. While this Essay's proposals are not perfect solutions, they offer an LPE-guided attempt to ensure that workers do not become human scrap in the AI revolution.¹⁸⁷

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186. Jessica Bain, *King Cnut the Great*, HISTORIC UK (July 20, 2022), <https://www.historic-uk.com/HistoryUK/HistoryofEngland/King-Cnut-The-Great> [https://perma.cc/4V3Y-LN5H].

187. "Automation cannot be permitted to become a blind monster which grinds out more cars and simultaneously snuffs out the hopes and lives of the people by whom the industry was built . . . [W]hen human values are subordinated to blind economic forces, human beings can become human scrap." Martin Luther King, Jr., "ALL LABOR HAS DIGNITY" 27 (Michael K. Honey ed., 2011).