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POWER AND PERSONAL PROPERTY LAW IN THE AGE OF INFORMATIONAL CAPITALISM

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POWER AND PERSONAL PROPERTY LAW IN THE AGE OF INFORMATIONAL CAPITALISM

Michael Guihot*

I. Abstract

Platform entities are wresting control and power from populations of users by asserting property rights in the means of production of informational capitalism. The platform entities maintain strict control over (or property in) these means of production through their ability to manipulate an array of private laws such as contract and property laws. This wresting of power from the user to the platform entity has happened largely out of the purview and consciousness of most users. Studying power exposes the mechanisms by which platform entities have achieved their power and the damage that outsized power can cause. This paper takes a novel approach to analyzing this type of power through what Steven Lukes referred to as the third dimension of power. It examines some of the ways that platform entities have been able to accrue enormous social power by manipulating their technologies, their users, and the law in almost imperceptible ways through control and normalization. It investigates the role of the law, and particularly property law in formalizing and authorizing the transfer of property and power to the platform entities that has created vast inequality between platform entities and their users.

II. Introduction

Platform entities¹ are wresting control and power from populations of users by asserting property rights in the means of production of informational capitalism. Much has been written about the outsized market power and corporate power of big technology platforms, or platform entities, and how to shift antitrust thinking to respond to that power.² There is also a nascent literature

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¹ I refer to the platforms as platform entities to emphasize that power is exercised at every stage of interaction with the platforms through the affordances of the platforms themselves, to the corporate controller (e.g., Google or Alphabet, Amazon, Facebook, Apple and Microsoft) to the directors and operators of these corporations. I do not distinguish between these levels of control in this paper but use entity as the catchall term. As our understanding of the power relationships develops, regulation can be directed at conduct occurring at more specific points in the chain.

² See e.g., Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L. J. 710 (2017); Dina Srinivasan, *The Antitrust Case Against Facebook: A Monopolist's Journey Towards Pervasive Surveillance in Spite of Consumers' Preference for Privacy*, 16 BERKELEY BUS. L. J. 39–101 (2019); Dominic Rushe, *US States to Launch Antitrust and Privacy Inquiries into Facebook and Google*, THE GUARDIAN, (Sept. 6, 2019, 8:46 AM), <https://www.theguardian.com/technology/2019/sep/06/facebook-google-antitrust-privacy-investigations-us>; Bobby Allyn, *Lina Khan, Prominent Big Tech Critic, Will Lead the FTC*, NPR (June 15, 2021, 4:55 PM), <https://www.npr.org/2021/06/15/1006807299/lina-khan-prominent-big-tech-critic-will-lead-the-ftc>; Chris Alcantara et al., *How Big Tech Got So Big: Hundreds of Acquisitions*, WASH. POST (Apr. 21, 2021), <https://www.washingtonpost.com/technology/interactive/2021/amazon-apple-facebook-google-acquisitions/>.

discussing platform power and the interrelationship of political action and the economy.³ This literature asks us to question the political and economic structures supporting the neoliberal shift to what some have termed hypercapitalism.⁴ In this vein, Cohen and others have plotted one stream of hypercapitalism; that is, the development of informational capitalism⁵ and the accrual of power by platform entities that now own and control a new means of production.⁶ Cohen argues that platforms have become the “core organizational form of the emerging informational economy”⁷ and that they “. . . do not enter or expand markets; [but] replace (and rematerialize) them.”⁸ Platforms are pinch points in networks where friction or control can be applied;⁹ where power is formed. This paper adds to the literature on informational capitalism and studies how personal property law, among other laws, is implicated in the way platform entities have gained such enormous power and control.

Much of the literature on informational capitalism concentrates on the ways that platform entities wrest control and power by claiming property rights in user data.¹⁰ Analyses of this data ownership and control is well canvassed in the literature.¹¹ Zuboff, in particular, expressed the way the platform entities exploit, not workers for labor, but the platform user for their attention and data.¹² They create capital by monetizing user data and controlling every aspect of their interaction with both their users and advertising customers to attain more data.¹³ But the control and monetization of data and information is only one way in which the platform entities have accrued their power. Building on the work of the law and political economy scholars, this paper examines the way that the platform entities have accrued and exert social power through their ownership of the whole of the means of production in informational capitalism, including the fruits of users’ labor.¹⁴ This paper argues that power in informational capitalism is derived, not only from the collection, storage, and use of data, but also from the ownership of the whole of the new means of production.

³ Jedediah Britton-Purdy et al., *Building a Law-and-Political-Economy Framework: Beyond the Twentieth-Century Synthesis*, 129 YALE L. J. 1784 (2019); Julie E. Cohen, *The Biopolitical Public Domain: The Legal Construction of the Surveillance Economy*, 31 PHIL. & TECHNOL. 213 (2018).

⁴ Phil Graham, *Hypercapitalism: Language, New Media and Social Perceptions of Value*, 13 DISCOURSE & SOC’Y. 227, 228 (2002). See also THOMAS PIKETTY, CAPITAL AND IDEOLOGY 649 (Arthur Goldhammer trans., Harvard Univ. Press 2020) (describing the period between 1990-2020 as “the era of hypercapitalism and digital technology”); SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER 5-6 (2019) (using the term surveillance capitalism to describe the shift towards wealth creation through data collection and surveillance).

⁵ MANUEL CASTELLS, THE RISE OF THE NETWORK SOCIETY (2nd ed. 2010); JULIE E. COHEN, BETWEEN TRUTH AND POWER: THE LEGAL CONSTRUCTIONS OF INFORMATIONAL CAPITALISM (2019); Amy Kapczynski, *The Law of Informational Capitalism*, 129 YALE L. J. 1460 (2019).

⁶ Control is one indicium of both power analyses and theories of property and as such the two are intimately entwined.

⁷ Julie E. Cohen, *Law for the Platform Economy*, 51 U.C. DAVIS L. REV. 133, 135 (2017).

⁸ *Id.*

⁹ COHEN, *supra* note 5, at 40.

¹⁰ ZUBOFF, *supra* note 4, at 63-64; Solon Barocas & Andrew D. Selbst, *Big Data’s Disparate Impact Essay*, 104 CALIF. L. REV. 671 (2016); Salome Viljoen, *Democratic Data: A Relational Theory For Data Governance*, 131 Yale L. J. 573 (2021). See also UBER, *Uber, Privacy Notice*, <https://www.uber.com/legal/en/document/> (June 13, 2022) (Uber “retain[s] ... user account[s] and data for a minimum of 7 years after a deletion request”).

¹¹ e.g. ZUBOFF, *supra* note 4; COHEN, *supra* note 5.

¹² ZUBOFF, *supra* note 4.

¹³ *Id.* at 63-64.

¹⁴ KARL MARX & FRIEDRICH ENGELS, THE COMMUNIST MANIFESTO 86 (Jeffrey C. Isaac trans. Yale Univ. Press 2012) (1848) (referring to capital as a social power).

In the industrial age, the means of production were obvious and included the factory, machinery, land, and the surplus labor of workers. In informational capitalism, the means of production are atomistic and dispersed. Platform entities exert control over the infrastructure in the hardware through which they siphon data, even down to restricting users' rights to repair that hardware.¹⁵ Even the functionality of the hardware is tethered to the platform entities so that the entities can alter it at will.¹⁶ Means of production other than data also include the less tangible things that allow access to the platforms such as software¹⁷ and apps, the artificial intelligence that maintains users' engagement with the platforms and tracks user preferences. The platform entities maintain strict control over (or property in) these means of production through their ability to manipulate an array of private laws such as contract and property laws. The resulting collection of property in these things gives the platform entities enormous power. As in all capitalist structures, the platform entities also increasingly exert property in the products of not (only) worker but user labor.

The platform entities have retained, and are clawing back, property in all these things through the enforcement of property rights in personal property law. To assert their property rights, the platform entities must use different and more pervasive techniques than maintaining a register of physical things, as was the case in industrial capitalism.¹⁸ Those techniques, discussed more fully in Part III below, include establishing licenses between the platform entities and individual users. The user terms and conditions contain these licenses that users must accept to be able to access the platform services but which the platform entities know users do not read.

The terms of service give a mere license to use any software supplied by the platforms, again revocable at will.¹⁹ The platforms can also amend the terms and conditions without user agreement. The platforms also retain property rights in the algorithms that optimize user content. These are often opaque and subject of trade secrecy claims, further distancing users from any property rights in them such as the right to possess and use them.

Even user content is housed on the platforms' cloud servers and is often copied and stored in multiple locations, access to which is subject to the platforms' license.²⁰ Typically, the license, although initially disclaiming ownership of user content, then creates a license back from the user for the platform to use the content for its own purposes. These purposes are left deliberately broad to assist the platform entity with providing its services. These licenses also typically give the cloud companies a right to retain copies of the data for a period after termination.

¹⁵ See Thorin Klosowski, *What You Should Know About Right to Repair*, N.Y. TIMES: WIRECUTTER (July 15, 2021), <https://www.nytimes.com/wirecutter/blog/what-is-right-to-repair/>; Adam Minter, *Americans Must Reclaim Their Right to Repair*, BLOOMBERG.COM (July 11, 2021, 5:00AM), <https://www.bloomberg.com/opinion/articles/2021-07-11/americans-must-reclaim-their-right-to-repair>.

¹⁶ JONATHAN ZITTRAIN, *THE FUTURE OF THE INTERNET AND HOW TO STOP IT* (2008).

¹⁷ While software is not always recognized as a good (or a chattel) at common law, some legislation specifically defines goods to include software. See for example the Australian Consumer Law in the Competition and Consumer Act 2010 (Cth) sch 2 (Austl.) that defines 'goods' to include electricity, gas, and computer software. See *infra* Part V.

¹⁸ See discussion *infra* Part I.

¹⁹ See *infra* Part VB.

²⁰ In *Greenwood v Council of the Municipality of Waverley* [1928] 28 NSWLR 219 (Austl.) the New South Wales Court of Appeal determined that the plaintiff storing his goods in the defendant's locker was not a bailment but a mere license.

This wresting of control from the user by the platform entity appears to be a one-way and continual process that has happened largely out of the purview and consciousness of most users. Because of this, this paper argues for the need to examine the social power of the platform entities through the lens of Lukes's third dimension of power, which identifies power that shapes peoples' preferences, cognition, or perceptions without direct conflict or overt control or manipulation. It also investigates the law's role, particularly property law, that formalizes and authorizes the transfer of property to the platform entities.

A new class antagonism has evolved between platform entities that own and control the means of production and users who increasingly own no part of and have forgone all control of the tools and technologies they use for pleasure and for work. This accumulation of property by the platform entities has normalized over time and has taken place not outside of the law but through the direct and indirect application of property and contract laws. Platform entities have encouraged or even engineered this process of normalization and in doing so have disciplined users into submitting to the platform entity's power and control. This normalized reality has occurred often outside the knowledge or understanding of the subject of power—the user. With control of every aspect of the means of production, the platform entities have shifted, reshaped, and reformed the power into themselves.

Studying power exposes the mechanisms by which platform entities have achieved their power and the damage that outsized power can cause. Not only does the shift in power leave users with little control over the way they participate in the new social and economic regime, but informational capitalism has also widened the wealth gap and increased inequality.²¹ This paper examines how platform entities have used laws, including property and contract law, to facilitate this shift in power, wealth, and inequality.

The paper proceeds in 6 parts. Part I examines power, some theories of power, and then Lukes's conception of power in three dimensions. Part II discusses the emergence of informational capitalism as a new mode of production in the 21st century. Part III examines the relationship between power and law, particularly private laws such as property and contract law. Part IV examines some of the ways that the platform entities have retained or regained property in the means of production of platform capitalism. Part V gives some examples of the things in which the platform entities retain property. Part VI sets out the ramifications of such an asymmetrical relationship and concludes.

III. Power

Power comes in many forms. Sovereign power is the ability of a monarch or the state to set laws, to tax its citizens, and to govern in their interests. Studies of sovereign power look at the sources of power and the means by which the state is governed. Market power is studied in antitrust terms. Market power is the antithesis of competition. Market power is the ability of a firm to increase prices without repercussion or to give less and charge more—an absence of competitive restraint.²² Market power exists in monopolistic market structures where big market players dominate the market and can dictate price. In this way, market power can give these firms

²¹ THOMAS PIKETTY, *CAPITAL IN THE TWENTY-FIRST CENTURY* 336 (2014).

²² *Re Queensland Co-op Milling Ass'n Ltd.* (1976) 8 ALR 481, 512 (Austl.).

economic and political power. Regulating market power provides blunt effects for large-scale problems. Those firms with market power also often have sufficient levels of economic and corporate power to resist market regulation, even if regulation can be successfully implemented.²³ If there is market failure, perhaps because of asymmetries in information or power, it is also probably too late to make meaningful changes in the behavior of individual firms that led to the accrual of power in the first place. There is substantial literature on the antitrust problems with the platform entities.²⁴ Regulators in antitrust around the world are underfunded and outlawyered by the platform entities.²⁵ Political power is the ability of powerful firms to influence political processes. This might be done by those elected to power in a democracy or by those who wield influence over those in power; those who might give political donations for example.²⁶ This latter example is sometimes referred to as corporate power, where corporations hold greater market and economic power to sway political decision-making. The Law and Political Economy movement focuses on this dynamic between economic and political power, particularly how neoliberal policies have created a system that deifies the market and abhors government intervention. This paper does not discuss these types of power. Instead, it studies the social power of the platform entities.

Bierstedt argued that social power incorporates political, economic, industrial, and military power.²⁷ This paper discusses a narrower conception of social power. Its focal point is power within society and the community rather than in the military, the government, or the state.²⁸ Marx and Engels referred to capitalism as a form of social power because it depends on and affects all members of society.²⁹ Weber referred to power as the capacity to influence within a social relationship.³⁰ Foucault studied social power at “the point where power reaches into the very grain of individuals, touches their bodies, and inserts itself into their action and attitudes, their discourses, learning processes, and everyday lives.”³¹ He examined “the way power was exercised—concretely and in detail—with its specificity, its techniques[,] and tactics”³² in the intricate webs of power, as it related to such previously unstudied areas as “the body, sexuality,

²³ The Federal Trade Commission’s antitrust suit against Facebook was dismissed in June 2021. CPI, *Judge Dismisses FTC’s Antitrust Lawsuit Against Facebook*, COMPETITION POLICY INTERNATIONAL (Jun. 28, 2021), <https://www.competitionpolicyinternational.com/judge-dismisses-ftcs-antitrust-lawsuit-against-facebook/>. The reason, the judge said, was the FTC’s “inability to offer any indication of the metric(s) or method(s) it used to calculate Facebook’s market share renders its vague ‘60%-plus’ assertion too speculative and conclusory to go forward.” *Id.* This illustrates how difficult it is for regulators to apply the law to these new entities.

²⁴ See *supra* note 2.

²⁵ Aaron Patrick, *ACCC Prepares Second Assault on Facebook, Google*, AUSTRALIAN FINANCIAL REVIEW, (July 5, 2021), <https://www.afr.com/technology/accc-prepares-second-assault-on-facebook-google-20210705-p586ww> (in which the author quotes ACCC Chair Rod Sims considering whether new laws are required and saying “All options are open. . . . We can take enforcement action or make recommendations to government about what legislation might be needed.”)

²⁶ Martin Gilens & Benjamin I. Page, *Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens*, 12 PERSP. POL. 564 (2014).

²⁷ Robert Bierstedt, *An Analysis of Social Power*, 15 AM. SOCIO. REV. 730 (1950).

²⁸ *Id.* at 730. These power relations will be part of further research by the author.

²⁹ MARX AND ENGELS, *supra* note 14.

³⁰ MAX WEBER, *ECONOMY AND SOCIETY: AN OUTLINE OF INTERPRETIVE SOCIOLOGY* 53 (Guether Ross & Claus Wittich eds., 1978).

³¹ MICHEL FOUCAULT, *POWER/KNOWLEDGE: SELECTED INTERVIEWS AND OTHER WRITINGS, 1972-1977*, at 39 (Colin Gordon ed., 1980).

³² *Id.* at 115-16.

the family, kinship, knowledge, technology”³³ This paper takes a closer look at the behavior of the players in informational capitalism to see how they attain and exert social power. It studies the interactions of the platform entities with their users to better understand how they have achieved such enormous power. The role of law is implicated, particularly private laws such as property and contract law. For information capitalism, these form part of what Cohen calls power’s “enabling legal construct”.³⁴

The consequences of outsized power are salient. The platform entities’ control of the means of production and the retention of property in the things involved has contributed to a period of great inequity. Piketty warned that when the rate of return on capital (r) is greater than economic growth (g), ($r > g$) as is the case in what he termed hypercapitalism, accumulated wealth grows faster than output or wages.³⁵ Piketty argued that “. . . a market economy based on private property, if left to itself . . . contains powerful forces of divergence, which are potentially threatening to democratic society and to the value of social justice on which they are based.”³⁶ He warned that the consequences of long term inequality are “potentially terrifying[,] . . . threatening to democratic societies and to the values of social justice on which they are based.”³⁷ Already the dispossessed who see those with great wealth treated differently have begun to react to this inequality. The Occupy movement around the world galvanized some of these reactions. The recent outbreak of violence and riots in South Africa, one the world’s most inequitable societies, is a portent of what great inequality can bring.³⁸

The following section discusses some theories of social power and argues that Lukes’s theory of power in three dimensions provides an appropriate lens through which to examine the social power of platform entities.

a. Theories of Power

Some theories of power describe it from the point of view of one actor having “power *over*” another.³⁹ This is also sometimes referred to as the probability that one actor will be “in a position” to make someone else do something they did not want to do.⁴⁰ For example, a police officer has power over a citizen yet may not always exercise that power. This is also referred to as *potential* power. Weber’s conception of power as “the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance, regardless of the basis on which that probability rests”⁴¹ defines power as a probability, a capacity or potential. Hanna Arendt also defined power as “a power potential and not an unchangeable, measurable, and reliable entity like force or strength.”⁴² Castells defined power as “the relational capacity to impose an actor’s will

³³ *Id.* at 122.

³⁴ Cohen, *supra* note 3, at 213.

³⁵ PIKETTY, *supra* note 21, at 746.

³⁶ *Id.*

³⁷ *Id.*

³⁸ Ishaan Tharoor, *South Africa’s Riots are a Warning to the World*, WASH. POST, July 19, 2021, <https://www.washingtonpost.com/world/2021/07/19/south-africa-riots-warning/>.

³⁹ Robert A. Dahl, *The Concept of Power*, 2 BEHAV. SCI. 201, 202–03 (1957).

⁴⁰ WEBER, *supra* note 30.

⁴¹ *Id.*

⁴² HANNAH ARENDT, *THE HUMAN CONDITION* 200 (2nd ed. 1998).

over another actor's will on the basis of the structural capacity of domination embedded in the institutions of society."⁴³ A different take on the exercise of power is "power to," which involves a successful attempt to make someone else do something that was not in their interests—an *actual* exercise of power. For those who ascribe to theories of power as "power to," the difference between potential and actual power is measured in outcomes.⁴⁴

A common denominator in power theories then is the capacity or the ability to exert control over another, and the actual exercise of that power. Power is a result of constantly changing force relations seeking control that are found in all aspects of life and given authority by state-sanctioned laws.⁴⁵ Foucault argued that individuals were disciplined through the machinery of governmentality—including the school, the hospital, and the workplace—and, through processes of normalization and fear of punishment. Power is normalized when the affected subjects have learned to accept the way things are.⁴⁶

Foucault discussed the control exerted by the disciplinary machinery of governmentality over time, while Deleuze referred to control as an outcome of constant modulation to create a sense of confusion and acceptance in the subject. Deleuze discussed new forces in "societies of control" that would replace Foucault's conception of institutions as the machinery of discipline.⁴⁷ Deleuze discussed power in terms of control through modulation, like a change in key in a piece of music or "a self-deforming cast that will continuously change from one moment to the other."⁴⁸ For Deleuze, "the conquests of the market are made by grabbing control and no longer by disciplinary training."⁴⁹ This grabbing is done through constantly shifting modulations that are "continually modified according to the subject's own behavior, sometimes in response to inputs from the subject but according to logics that ultimately are outside the subject's control."⁵⁰ Deleuze predicted that capitalism would mutate from a society of "concentration, for production, and for property" to one in which "control is short-term and of rapid rates of turnover, but also continuous and without limit."⁵¹ This is redolent of Marx and Engels's analysis of power in capitalist societies in the mid-nineteenth century:

Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty[,] and agitation distinguishes the bourgeois epoch from all earlier ones. All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses his real conditions of life, and his relations with his kind.⁵²

⁴³ Manuel Castells, *A Network Theory of Power*, 5 INT'L. J. COMM. 775 (2011).

⁴⁴ Dahl, *supra* note 39, at 204.

⁴⁵ MICHEL FOUCAULT, *THE HISTORY OF SEXUALITY* 92–93 (Robert Hurley trans., 1978).

⁴⁶ See discussion of normalization, *infra* Part I D.

⁴⁷ Gilles Deleuze, *Postscript on the Societies of Control*, 59 OCTOBER, 3 (Winter, 1992).

⁴⁸ *Id.* at 4.

⁴⁹ *Id.* at 6.

⁵⁰ Julie E. Cohen, *The Networked Self in the Modulated Society*, in *CROSSROADS IN NEW MEDIA, IDENTITY AND LAW: THE SHAPE OF DIVERSITY TO COME* 67, 72 (Wouter de Been, Payal Arora, & Mireille Hildebrandt eds., 2015).

⁵¹ Deleuze, *supra* note 47, at 6.

⁵² MARX AND ENGELS, *supra* note 14, at 77.

Power, then, can be attained in force relations through constantly shifting orientations that discombobulate the object of an exercise of power. This situation of constant change normalizes over time so that the powerless accept their lack of control and powerlessness as the way things are.⁵³ This is a feature of platform entity power as set out in Parts IV and V below.

Studying platform entity power requires us then to examine not sovereign power, or market power, but a form of social power that infiltrates the substrate of societies. Marx described the capacity for and actual power exercised in the relationship between the owners of capital and the workers. These theories of power compel the researcher to look at the force relations, or the relationships of domination, discipline, and control extant in the interactions people have with others—in this paper, the interactions users have with the platform entities. This is an individualistic relationship, yet, because the platforms are ubiquitous, general themes can be drawn out about power and law as they relate to the platform entities.

Law and power are symbiotic, and the role of law underpins studies of power.⁵⁴ Part III discusses the laws of personal property to see how the platform entities have been able to maintain property in the new means of production in informational capitalism. This paper identifies the way that platform entities have used property laws to retain property in the tangible and intangible things that have evolved around the platforms. Such an analysis reveals that not only are the platforms involved in data collection, storage, and use in what Cohen calls the “biopolitical public domain,”⁵⁵ but they carefully and consistently retain property in much of what exists and is created in the digital world using the enabling legal constructs of contract and property law. The paper takes a novel approach to analyzing the power of the platform entities through what Steven Lukes referred to as the third dimension of power. Including not only the capacity of the platform entities’ power, the use of power exists and is exerted, sometimes without action or conflict. This paper examines some ways that platform entities have been able to accrue enormous social power by manipulating their technologies, their users, and the law in almost imperceptible ways through control and normalization.

b. Lukes’s Three-Dimensional Power

I have written elsewhere on Lukes’s theory of power in the third dimension⁵⁶ but a short summary is required to inform the reader. In 1974, Lukes synthesized various conceptions of power and defined it as where “*A* in some way affects *B* . . . in a non-trivial or significant manner . . . contrary to *B*’s interests.”⁵⁷ Lukes argued that analyses of power could be classified in three dimensions. First-dimension power refers to an observable exercise of power that causes some event.⁵⁸ Lukes argued that the limitation on one dimensional power is that it does not reveal “the less visible

⁵³ See discussion of Steven Lukes’s third dimension of power, *infra* Part II B, C and D.

⁵⁴ See *infra* Part III.

⁵⁵ Cohen, *supra* note 3, at 214.

⁵⁶ Michael Guihot & Hannah McNaught, *Platform Power, Technology, and Law: Consumer Powerlessness in Information Capitalism*, 13 L., INNOVATION AND TECH. 510 (2021).

⁵⁷ STEVEN LUKES, POWER: A RADICAL VIEW 26 (1974).

⁵⁸ Dahl, *supra* note 39, at 204. “In looking for a flow of influence, control, or power from *A* to *a*, one must always find out whether there is a connection, or an opportunity for a connection, and if there is not, then one need proceed no further.” *Id.*

ways” power may be exercised.⁵⁹ He sought a theory of power that would explain “all the complex and subtle ways in which the inactivity of leaders and the sheer weight of institutions—political, industrial[,] and educational”⁶⁰ were at play.

The second dimension of power Lukes classified considered not only observable action, but also the ability to create “barriers to the public airing of policy conflicts,”⁶¹ including through non-decision-making or covert influence.⁶² Lukes argued that this second dimension of power “embraces coercion, influence, authority, force[,] and manipulation.”⁶³ In second dimension power, the dominant party exercises power by preventing issues becoming apparent that might challenge the values of the powerful. However, Lukes argued that, for several reasons, second dimension power still did not consider all the ways that power may be exercised. First, he said that it still relied on overt or actual behavior or concrete decisions. Second, it required actual or observable conflict and did not take account of power that can be exercised through influencing or shaping, and third, it relied on grievances or issues being raised for attention.⁶⁴

Lukes then argued that there was a third dimension of power that shapes peoples’ preferences, cognition, or perceptions without direct conflict or overt control or manipulation. In response to this third dimension of power, the less powerful “accept their role in the existing order of things.”⁶⁵ Lukes argued that this power is exercised “either because they [the powerless] can see or imagine no alternative to it, or because they see it as natural and unchangeable, or because they value it as divinely ordained and beneficial.”⁶⁶ Unlike in Dahl’s conception of first dimension power that required observable behaviour, power in the third dimension “does not interpret nondecision-making behaviourally, . . . is non-individualistic . . . considers institutional power . . . [and] considers ways in which demands are prevented, through exercise of such power, from being raised.”⁶⁷ Third dimension power is inherent in the powerful; it may not be exercised overtly or even consciously but is exercised as a controlling force. Third dimension power can occur in several ways including through “inaction rather than (observable) action.”⁶⁸ These characteristics make it difficult to prove that third dimension power has been exercised. To prove such an exercise requires proof of causation without evidence of observable conduct. Lukes outlined three causation issues with an exercise of third dimension power: first, an exercise of power may be “unconscious” but still an exercise of power; second, it may be exercised by “collectivities such as groups or institutions;”⁶⁹ and third, it may be difficult to establish a single cause.

In answer to the first issue, Lukes correctly argued that inaction can still cause a result. There are many examples of this in tort and contract cases dealing with causation and in legislation

⁵⁹ STEVEN LUKES, *POWER: A RADICAL VIEW* 39 (2nd ed. 2005).

⁶⁰ *Id.* at 40.

⁶¹ *Id.* at 20 (citing and using Bacharach and Baratz’s analysis of power in American politics as an example of what he called two-dimensional power - PETER BACHRACH & MORTON S. BARATZ, *POWER AND POVERTY: THEORY AND PRACTICE* 8 (1970)).

⁶² *Id.* at 23.

⁶³ *Id.* at 21.

⁶⁴ *Id.* at 22–25.

⁶⁵ *Id.* at 28.

⁶⁶ *Id.*

⁶⁷ *Id.* at 47.

⁶⁸ *Id.* at 52.

⁶⁹ *Id.*

specifically defined to address this issue.⁷⁰ In relation to locating causality in an exercise of power by collectivities or groups, Lukes took a functional approach by saying that “the point . . . of locating power is to fix responsibility for consequences held to flow from the action, or inaction, of certain specifiable agents.”⁷¹ To locate an exercise of power in a collectivity or group, Lukes adopted Mills’s “sociological conception of fate” that would allow observers to attribute an exercise of power “to those in strategic positions who are able to initiate changes that are in the interest of broad segments of society.”⁷² Thus Lukes attributes causation within a group, such as a platform entity, to “groups of men (1) compact enough to be identifiable, (2) powerful enough to decide with consequence, and (3) in a position to foresee the consequences and so to be held accountable.”⁷³ This would include directors, managers, or the controlling mind of the entity.

c. How to Find Power in the Third Dimension

Haugaard argued that conceptions of power share Wittgensteinian family resemblances that “give the theorist or scientist freedom to create their own conceptual tools best suited to the task at hand, thus to create sophisticated nuanced theory.”⁷⁴ If we accept that power is exercised in a third dimension as Lukes contends, we must have a way of establishing its exercise in practice—in this case, in the interactions between platform entities and their users. Lukes’s analysis of power does not provide examples of or empirical data on what methods one might use to examine third dimension power. Influenced by Foucault, though, Lukes noted that one must “elaborate in detail [the] mechanisms”⁷⁵ through which power is attained. As a guide to studying third dimension power, Lukes noted Foucault’s methodology in his study of previously unstudied areas:

the inculcation and policing of conceptions of sexual and mental “normality,” of norms of fashion and myths of beauty, and also of gender roles and age categories, and of ideological boundaries, as for instance between what is private and what is public and between market and non-market modes of allocation, the countless forms and modes of oppressive stereotyping, the framing and spinning of information in the mass media and in political campaigns, and the like.

⁷⁶

Lukes noted that all of these circumstances constrained self-determination, undermined and distorted people’s confidence and sense of self, and subverted “their judgment as to how best to advance their interests.”⁷⁷ Foucault’s methodology in his genealogical studies of sexuality and discipline grappled with the minutiae where power was exercised, not just in a broad-scale, top-down way from the sovereign, but in the small interactions in daily life. He, of course, was investigating the ways that individuals are disciplined to accept governmentality without question

⁷⁰ *Id.* at 53. For example, in tort, where a doctor fails to advise a client of a potential danger which causes a patient to delay treatment and leads to worsened conditions or death. In contract law, failing to act in accordance with contractual terms is a breach of contract. *See also* Competition and Consumer Act 2010 (Cth) sch 2 4(2) (Austl.) (defining “engaging in conduct” as “doing or refusing to do any act.”).

⁷¹ LUKES, *supra* note 59, at 58.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ Mark Haugaard, *Power: A ‘Family Resemblance’ Concept*, 13 EUR. J. CULTURAL STUD. 419, 436 (2010).

⁷⁵ LUKES, *supra* note 59, at 121.

⁷⁶ *Id.* at 127.

⁷⁷ *Id.* at 122.

and without knowing exactly why or how, and was investigating how the acceptance of power is normalized over time. To identify power in the third dimension then requires observing the many ways that potential issues are kept out of view—without observable conflict.⁷⁸

In the 1970s, Gaventa adopted Lukes’s theory to study the powerlessness of miners in their interactions with powerful unions and mining companies in the Appalachian Valley in the United States.⁷⁹ He provided examples of how third dimension power may be exercised in situations of inequality such as: through using social myths; through the social construction of meanings and patterns; through subjects adapting to powerlessness such as learned helplessness or fatalism; and through being socialized into compliance. Gaventa suggested that these might be interrelated and might combine to cause a greater effect of third dimension power.⁸⁰ So, identifying these types of situations in the interactions between platform entities and their users may reveal characteristics of the exercise of third dimension power. It is also important to identify how users come to accept the exercises of power by the platform entities.

d. Normalizing Third-Dimensional Power

The rules of the game in user relations with platform entities have become normalized over time. This process of normalization occurs without the subject of power necessarily being conscious of it. Foucault argued that the relationship between law and power was exercised by technique, normalization, and control, “methods that are employed on all levels and in forms that go beyond the state and its apparatus.”⁸¹ Koopman noted that “discipline . . . is a form of power that tells people how to act by coaxing them to adjust themselves to what is ‘normal.’ . . . [It] works more subtly, with an exquisite care even, in order to produce obedient people” or “docile subjects.”⁸² Later studies on moral learning by Bear and Knobe illustrate how humans normalize behaviors based on their perception of what is normal—or what others in a peer or social group conceive as normal.⁸³ Bear and Knobe found that, when people determine whether some conduct is normal, “they will take into account information about whether it is statistically average and prescriptively ideal.”⁸⁴ That is, they will assess the prevalence of other people doing it and whether the behavior is morally acceptable. This might help explain some of the normalizing of the conduct of platform entities, such as when users click “I Agree” to use platform entity services, and the acceptance of surveillance of their data and other more physical aspects of their private lives.

In a stunning example of mass governance, each of the billions of platform users is bound individually to the platform entities’ will when they consent to the contracts that platform entities offer as a prerequisite to accessing platform services. In this way, the platform entities control whole populations in what, in many ways, is akin to sovereignty or governmentality. Indeed,

⁷⁸ *Id.* at 28.

⁷⁹ JOHN GAVENTA, *POWER AND POWERLESSNESS: QUIESCENCE AND REBELLION IN AN APPALACHIAN VALLEY* (1980).

⁸⁰ *Id.* at 15–20.

⁸¹ FOUCAULT, *supra* note 45, at 89.

⁸² Colin Koopman, *The Power Thinker*, AEON (Mar. 15, 2017), <https://aeon.co/essays/why-foucaults-work-on-power-is-more-important-than-ever>.

⁸³ Adam Bear & Joshua Knobe, *Normality: Part descriptive, part prescriptive*, 167 *COGNITION* 25 (2017). *See also* Evan Selinger & Judy Rhee, *Normalizing Surveillance*, N. EUR. J. PHIL. (2021).

⁸⁴ Bear & Knobe, *supra* note 82, at 25.

Cohen argues that the platform entities have taken the mantle of sovereign⁸⁵ because they hold closely guarded virtual and real spaces and have user populations in the billions. They are, Cohen claims, “unmatched by other transnational corporations in the extent of the authority they wield over the day-to-day experiences and activities of their users” in which they impose “their own regulatory structures on permitted conduct.”⁸⁶ Other indicia of sovereignty for Cohen included that the platform entities also practice global diplomacy and speak with independent voices in transnational governance decisions.⁸⁷

This gradual normalization and acceptance of the way the platform entities operate is how they have accrued this almost sovereign power. They did not begin with large economic, market, corporate or political power. But over time they have corralled the techniques of more subtle power accumulation gradually and almost seamlessly. As part of this process of normalization, the platform entities have been able to use their knowledge of the law to increase their power. That is, by knowing the extent and effect of laws and the machinery of legal procedure, they have been able to apply, avoid, manipulate, manage, and even form and remove the laws that exist in their spheres of operation. The platform entities also carefully control the discourse around their technology emphasizing its possibilities to create limitless understanding, and social progress. This is done through constant marketing, trademark enforcement, and hype-filled annual releases of new and exciting products.

If we accept that we are in an epoch of informational capitalism, we must seek to understand the way that power is accrued and exercised. One tenet of capitalism is that the powerful class owns and controls the means of production. In the industrial age, the means of production were obvious and included the factory, machinery, land, and the surplus labor of workers. In informational capitalism, the means of production are atomistic and dispersed. To understand the power of the platform entities, we must identify these means of production, and how the platform entities retain property in them. In doing so, the role that third dimension power and law have played become apparent.

IV. Informational Capitalism and Property in the Means of Production

The capitalist societies described by Marx and Engels in the middle of the nineteenth century featured private ownership of the means of production and the accumulation of capital in the form of profits made by selling commodities, exploiting wage labor, and the use of the market to set prices.⁸⁸ Marx and Engels outlined how the bourgeoisie, who owned the means of production (the factories, infrastructure, tools, and natural resources), created capital by using these means and commodifying workers’ labor for excess value.⁸⁹ Marx and Engels argued that this could not happen “except by means of despotic inroads on the rights of property.”⁹⁰ Indeed, the social power of this ruling class was an inevitable byproduct of their property ownership. Marx and Engels

⁸⁵ Cohen, *supra* note 7, at 201–02.

⁸⁶ *Id.*

⁸⁷ *Id.* at 202.

⁸⁸ MARX & ENGELS, *supra* note 14, 91.

⁸⁹ *Id.*

⁹⁰ *Id.* at Ch. 2.

argued for the abolition of private property which they saw as “the final and most complete expression of the system of producing and appropriating products.”⁹¹ They anticipated that the two social classes would become increasingly antagonistic because the wage laborer obtained no personal property through his or her labor⁹² while the bourgeoisie retained all property in the means of production and its outputs. Capitalism was ably supported by democracy and market-based economics that gave the working class the illusion of control while giving actual control to the capitalists. Over time, the capitalists have at every turn wrenched property in the new means of production and the benefits of capital to themselves so that levels of inequality have continued to rise.⁹³

In 2021, we are faced with a vastly different set of circumstances to those of the mid-nineteenth century—informational capitalism now exploits data and information to accumulate capital. The twenty-first century has seen the rise of what Graham described as hypercapitalism in which “more intimate and intricate facets of human activity have become formally commodified . . . and more abstract forms of value have developed.”⁹⁴ Castells argued that while industrial capitalism sought economic growth by maximizing output, informational capitalism is oriented towards “. . . the accumulation of knowledge and towards higher levels of complexity in information processing.”⁹⁵ Despite this, Castells argued that, in informational capitalism, surplus still derives from the “private control over the means of production and circulation.”⁹⁶ As in all capitalist structures, this surplus is retained by those who own the means of production. One distinguishing factor of informational capitalism is that it relies less on exploiting worker labor. The continual investment in machinery and the outsourcing of labor to third world countries has meant that capitalism relies now not solely on workers, but on consumers both consuming platform services and creating or emanating data.⁹⁷ This leads to less human labor as an input to capital, further distancing the worker or user from property. The emphasis in the literature to date has been on how capital is now produced by the accretion of information and being able to commodify it, often in the form of advertising.

But while the emphasis in the literature has focused on property in user data, less attention has been paid to the role of the subjects of informational capitalism.⁹⁸ The platform entities obtain wealth, not only through the exploitation of wage labor, but through the exploitation of platform users’ attention, and their *inattention*. Platforms are designed to maximize user interaction so that maximum data can be expropriated and monetized. However, to do this, the platform entities depend on the user’s *inattention* to the structure and workings of this process. This system works best if the user (and the regulator) is unaware of what is happening. This double bind is executed through Lukes’s third dimension of power.⁹⁹ As discussed in Part II, this theory examines the

⁹¹ *Id.* at 85.

⁹² *Id.* at 86.

⁹³ PIKETTY, *supra* note 4.

⁹⁴ Graham, *supra* note 4, at 228. *See also* PIKETTY, *supra* note 4, at 649 (describing the period between 1990-2020 as ‘the era of hypercapitalism and digital technology’). *See also* ZUBOFF, *supra* note 4 (using the term surveillance capitalism to describe this shift because of the use of surveillance of our data to create wealth).

⁹⁵ CASTELLS, *supra* note 5, at 17.

⁹⁶ *Id.* at 16.

⁹⁷ YUVAL NOAH HARARI, *SAPIENS* 374 (Yuval Harari trans. 2014) (2011).

⁹⁸ *See e.g.*, ZUBOFF, *supra* note 4.

⁹⁹ LUKES, *supra* note 59.

acquisition of power that relies on inattention and is therefore appropriate as a lens through which to study platform entity power. It identifies the unobservable and covert ways in which platform entities continue to accrue and exercise power.

Platform entities increasingly lay property claim to the intangible things produced using the platforms, such as search results, map locations, email content, social media posts, biometric data, and purchasing history, among millions of other data points. In informational capitalism, the platform entities, which are the new bourgeoisie, have attained great wealth and power through their ownership of (or property in) not just data but the whole of the means of production and the means of providing their services.¹⁰⁰ But trying to identify the means of production in informational capitalism is problematic because informational capitalism relies on fewer *physical* or tangible things than industrial-era capitalism. The platform entities control the platforms, the operating systems, the software, and the hardware, the whole of the infrastructure through which users interact and by means of which they hook user attention. Users are permitted to use this infrastructure under a mere license, the least of the property rights. Through these claims to property, the platform entity ownership or control of the whole of the chain of production is complete. As discussed in Part III, property law, that field of law that protects the property owner's rights to things, reinforces this move.

With the double protection of contractual remedies, the informational capitalists use individual contracts to establish licenses to keep as much as possible for themselves. This almost imperceptible shift in property from citizen to platform entity has been normalized and has occurred in what Lukes described as a third dimension of power, which, as set out in Part II, is latent power that influences and manipulates people in ways contrary to their own good without their knowledge.¹⁰¹ In informational capitalism, there are fewer antagonisms between classes as referred to by Marx: property has transferred to the informational capitalists without overt conflict and users appear content to accept this as the way things are. The next Part explores this transfer of property from citizen to the platform entities through the auspices of the law. At the same time, it evaluates the way that law has enabled these shifts or transfers of power to platform entities.

V. Private Law and Power

Law is often touted as the means through which to circumscribe power. For example, employment law and work health and safety laws are, in part, designed to rebalance power between employers and employees. Tort law gives rights to those injured by civil wrongs, and contract law creates rights in those who suffer as a result of a broken bargain. But laws also create the environment in which power can develop. Barker argued that “all modern private law is an expression of the power

¹⁰⁰ Jack Nicas, *Apple Reaches \$2 Trillion, Punctuating Big Tech's Grip*, N.Y. TIMES (Aug. 19, 2020), <https://www.nytimes.com/2020/08/19/technology/apple-2-trillion.html>; Daisuke Wakabayashi, *Google Reaches \$1 Trillion in Value, Even as It Faces New Tests*, N.Y. TIMES (Jan. 16, 2020), <https://www.nytimes.com/2020/01/16/technology/google-trillion-dollar-market-cap.html>; Jeran Wittenstein & Sarah Frier, *Facebook Rally Vaults It Past \$1 Trillion in Record Pace*, BLOOMBERG (June 28, 2021, 1:14 PM), <https://www.bloomberg.com/news/articles/2021-06-28/facebook-rises-after-lawsuit-dismissal-hits-1-trillion-value?sref=yBaTdxlg>.

¹⁰¹ LUKES, *supra* note 59.

of the state.”¹⁰² Deakin et al. argued that “law is not simply an expression of power relations but is also a constitutive part of the institutionalized power structure, and a major means through which power is exercised.”¹⁰³ In *The History of Sexuality*, Foucault acknowledged law’s historical place in the exercise of power and that power has “always been formulated in terms of law.”¹⁰⁴ It is not only public laws, such as constitutional and administrative laws, that create power. Private laws, such as contract and property, are also responsible for allocating power in ways that do not always lead to the most equitable outcomes.

Some accounts of private law cast it as merely functional, setting the rules of individual self-determination within society.¹⁰⁵ Barker noted that “private law’s doctrines and rules provide individuals with their own powers of self-advancement and purposive disposition (through contract, property, and trust).”¹⁰⁶ However, Barker also noted the corrective nature of law that serves “to address and redress the effects of important misuses of power by the State, private institutions[,] and individuals.”¹⁰⁷ Despite law’s many corrective qualities, in the case of platform power, the law, especially contract and property law, has become a tool of the already powerful, used in myriad ways to gain and reinforce power.

Some laws operate in a permissive way, as when a specific law does not prohibit or proscribe some conduct. Statutory interpretation principles teach us that if some action is not proscribed—that is, if it falls outside the law’s ambit—it is legal, or at least not illegal. In this way, the law makes unproscribed conduct permissible. The role of law in this circumstance is not benign but is just as powerful in the inverse of its proscriptive nature. Platform entities use this facet of law to create and reinforce their power.

a. Law Exists in the Crevices

Zuboff noted that “Google’s freedom strategy was its ability to discern, construct, and stake its claim to unprecedented social territories that were not yet subject to law,”¹⁰⁸ and referred to this “lawlessness [as a] critical success factor in the short history of surveillance capitalism.”¹⁰⁹ But Cohen rejected this claim of lawlessness, arguing that the ubiquitous data taken and used by the platform entities was open for the taking because it existed in a “public domain of raw materials” underwritten by legal privileges that allow and support power in the takers. Similarly, Bennett Moses outlined that there is no property in information in Australian law.¹¹⁰ This is not due to a lack of law. On the contrary, the law carefully delineates property in information. These legal

¹⁰² Kit Barker, *The Dynamics of Private Law and Power*, in PRIVATE LAW AND POWER 3, 3 (Kit Barker et al. eds., 2017).

¹⁰³ Simon Deakin et al., *Legal institutionalism: Capitalism and the constitutive role of law*, 45 J. COMPAR. ECON. 188, 189 (2017).

¹⁰⁴ FOUCAULT, *supra* note 45, at 87.

¹⁰⁵ Barker, *supra* note 100, at 7–8.

¹⁰⁶ *Id.* at 3.

¹⁰⁷ *Id.*

¹⁰⁸ ZUBOFF, *supra* note 4, at 103.

¹⁰⁹ *Id.* at 104.

¹¹⁰ Lyria Bennett Moses, *Who Owns Information? Law Enforcement Information Sharing as a Case Study in Conceptual Confusion*, 43 UNIV. NEW SOUTH WALES L. J. 615, 627–28 (2020).

constructs exist in the crevices, and, according to Cohen, “have a way of filling in the empty spaces that surround new technologies and business models.”¹¹¹ Courses are charted among the many laws that already exist. Cohen argued that the law works in the favor of those who know its function and limits. The platform entities and their lawyers are “neither stupid or shortsighted”¹¹² and have been able to use the law to their advantage. Working within the laws, claims over data or information become entirely logical, if audacious.

Like Zuboff, Suzor has argued that “the law provides almost no oversight of the decisions these commercial giants make.”¹¹³ In support of the argument, Suzor noted that “the contractual terms of service that users agree to when joining give [users] absolute discretion over what they choose to remove.”¹¹⁴ However, contract law allows parties to the contract the freedom to set the bargain as they see fit, and this is merely the law working as it is designed to. There may be large information and power asymmetries at play in these bargains, but that is not to say that the law provides no oversight. Suzor also supports his argument about the lawlessness of the internet with reference to § 230 of *Communications Decency Act*. This section provides a safe harbor that protects internet providers from liability for content posted on their sites by others. Suzor points to some of the iniquities that have flowed from reliance on § 230 as a further example of the lawless nature of the internet.¹¹⁵ However, § 230 is a law. Many laws create or remove liability for conduct, place and remove burdens, or make criminal or innocent certain behaviors. We do not say that there is no law, but that the law that exists might not favor the “right” people, or that it no longer meets society’s norms. They might be what Schauer would call hard cases, ones where there is “only one relevant rule, it may be quite straightforwardly applicable, and its application would be consistent with its purpose. Yet it may still be morally, socially, or politically hard, however, in the sense of hard to swallow.”¹¹⁶

The informational capitalists have hired the best lawyers. They are practiced in using the legal machinery of the state to enforce their rights in contract and property to attain and retain power over their contractual subjects. If Cohen’s biopolitical commons argument was infallible, this type of contractual binding would be redundant. But it is not. The platform entities’ lawyers have structured platform terms of use to accrue property, not only in data, but in the things of platforms. As Pistor argued, only the best lawyers can give clients “strong priority rights for the assets of their choice, durability over and above the life expectancy of competing assets, . . . and all of the above with legal force against the world.”¹¹⁷ Platform entities have rolled out elaborate and extreme terms of service for using their platforms which transfer property in all data to the platform entity. Perhaps normatively, this is not what the law should do, but in terms of property, “should” means little against hard property rights and contracts. Singh Grewal charted the legal arrangements that underpin capitalism and how these legal structures “define the landscape of social interactions”¹¹⁸

¹¹¹ Julie E. Cohen, *Surveillance Capitalism as Legal Entrepreneurship*, 17 SURVEILLANCE & SOC’Y. 240, 241 (2019).

¹¹² *Id.* at 242.

¹¹³ NICOLAS P. SUZOR, *LAWLESS: THE SECRET RULES THAT GOVERN OUR DIGITAL LIVES* 44 (2019).

¹¹⁴ *Id.* at 44.

¹¹⁵ *Id.* at 45.

¹¹⁶ Frederick Schauer, *Easy Cases Interpretation Symposium: Philosophy of Language and Legal Interpretation*, 58 S. CAL. L. REV. 399, 415–16 (1985).

¹¹⁷ KATHARINA PISTOR, *THE CODE OF CAPITAL: HOW THE LAW CREATES WEALTH AND INEQUALITY* 161 (2019).

¹¹⁸ David Singh Grewal, *The Laws of Capitalism Book Review*, 128 HARV. LAW REV. 626, 657 (2014).

that support the inequality that capitalism brings.¹¹⁹ As Pistor noted, “there is no capital without law,”¹²⁰ and it is the law and lawyers who create the stage for capitalism. The lawyers, as “masters of the code”¹²¹ of capitalism, manipulate the modules of law for the benefit of their clients.¹²² Kapczynski acknowledged the conceptions in the literature, such as Zuboff’s, that platform entities acted in ways beyond the law. Despite this, Kapczynski provoked those writing in this area to instead identify the laws that sustain platform entity power.¹²³ In this vein, the next section attempts to chart some aspects of property law that have been used to undergird informational capitalism.

b. Property Law and Power

Cohen identified intellectual property, contract, and antitrust laws, among others as some of the “enabling legal construct[s]”¹²⁴ of informational capitalism.¹²⁵ I have written elsewhere on the interaction of consumer laws and the platforms.¹²⁶ All of these laws contribute to the patchwork of laws on which the platform entities operate. This paper analyses the interaction of platform power and the law of personal property, which establishes the rights of those who own goods or chattels to exclude others from accessing or using those goods.

Personal property can refer to both the things or chattels that can be owned by a person and a bundle of rights that signify ownership in or control of those things. In property law, a distinction is drawn between ownership—indicated by title together with a bundle of rights held by a person including the right of enjoyment, use, and alienation—and possession, actual or constructive control of the thing in question, not necessarily concomitant with physical control. Those who hold sufficient rights in property are said to have a proprietary interest in the things in question. A regime of civil and criminal laws has developed to protect these rights. The civil torts, which have a long history in the common law, include trespass to goods for a direct interference with actual possession, conversion for a repudiation of the right to possession or some physical change or destruction of the goods, and detinue which is a failure to comply with a lawful demand for the return of a good.¹²⁷ Crimes, including burglary, larceny, and theft work alongside the civil laws and have an equally long history of protecting property rights. These laws create and reinforce power relations in society. Kennedy argued the following:

[T[he rules of property, contract[,] and tort law (along with the criminal law rules that reinforce them in some but not all cases) are “rules of the game of economic struggle.” As

¹¹⁹ *Id.* at 652–61.

¹²⁰ PISTOR, *supra* note 115, at 219.

¹²¹ *Id.* at 160.

¹²² *Id.* at 161.

¹²³ Kapczynski, *supra* note 5, at 1479.

¹²⁴ Cohen, *supra* note 3, at 213.

¹²⁵ COHEN, *supra* note 5.

¹²⁶ Guihot and McNaught, *supra* note 56.

¹²⁷ George E. Woodbine, *The Origins of the Action of Trespass*, 8 YALE L. J. 799, 800 (1924) (tracing it back to at least the 13th century).

such, they differentially and asymmetrically empower groups bargaining over the fruits of cooperation in production.¹²⁸

In this way, the law reinforces the power of those with property rights to exclude or control those without those rights. Hale argued the following in 1943:

The market value of a property or of a service is merely a measure of the strength of the bargaining power of the person who owns the one or renders the other, under the particular legal rights with which the law endows him, and the legal restrictions which it places on others.¹²⁹

Recall Foucault’s contention that power is the “multiplicity of force relations”¹³⁰ within a sphere of actors under the imprimatur of law. Hale suggests that these force relations create a winner on one side and a loser on the other.¹³¹ Add to this that laws are very often created and applied in favor of the wealthy and those with the greater access to and influence over the political class.¹³² In informational capitalism, the constant hoarding of property by the informational capitalists has led to greater control, power, and wealth. At the same time, we see the erosion of the users’ willingness or ability to react to capitalist ownership of property.

c. Personal Property as a Bundle of Rights

The law protecting property in things is a construct that developed from norms protecting the rights of those who owned animals, goods, and land.¹³³ The laws establishing and enforcing property rights have ancient origins and the history of the rights in property influence theories of law itself.¹³⁴ Engels traced the probable history of property from ancient civilizations beginning with ownership by gens or families of herds and pottery,¹³⁵ through to the rise of the state as a “power standing above society” to resolve conflicts between classes with conflicting economic interests.¹³⁶ Locke conceived in 1690 of a natural right to property in the fruits of one’s labor.¹³⁷ Blackstone, too, in 1766 relied on concepts of natural law to enforce rights in property.¹³⁸ The platform entities have been able to accrue their power relying on property law to protect the bundle of rights they hold in the things that exist in the platform world. Property in goods is often described as a bundle of enforceable rights: the right to assign property, to transfer the property to

¹²⁸ Duncan Kennedy, *The Stakes of Law, or Hale and Foucault Transformative Discourses in Postmodern Social Cultural and Legal Theory*, 15 *LEGAL STUD. F.* 327, 327 (1991).

¹²⁹ Robert L. Hale, *Bargaining, Duress, and Economic Liberty*, 43 *COLUMBIA L. REV.* 603, 625 (1943).

¹³⁰ FOUCAULT, *supra* note 45, at 92–93.

¹³¹ LUKES, *supra* note 59, at 34–35 (noting that not all forms of power are zero sum relations, citing the creation of credit systems that benefit both providers and users).

¹³² See Gilens & Page, *supra* note 26; See also LARRY M BARTELS, *UNEQUAL DEMOCRACY: THE POLITICAL ECONOMY OF THE NEW GILDED AGE* (2nd ed. 2016); MARTIN GILENS, *AFFLUENCE AND INFLUENCE* (2012).

¹³³ FRIEDRICH ENGELS, *ORIGIN OF THE FAMILY, PRIVATE PROPERTY AND THE STATE* (Alick West trans., 1942) (1884), https://www.marxists.org/archive/marx/works/download/pdf/origin_family.pdf (last visited Sept. 25, 2021).

¹³⁴ *Id.* at 92–94.

¹³⁵ *Id.* at 17.

¹³⁶ *Id.* at 92.

¹³⁷ JOHN LOCKE, *SECOND TREATISE OF GOVERNMENT* Chapter V (C. B. Macpherson ed., 1980) (1690).

¹³⁸ WILLIAM BLACKSTONE, *BLACKSTONE’S COMMENTARIES ON THE LAWS OF ENGLAND VOLUMES I-IV* Chapter 9, 113–114 (Wayne Morrison ed., 2001) (1865–1867).

another person, to alienate, meaning to sell or give away the goods, and to exclude others from using the goods. These rights are sometimes metaphorically referred to as a bundle of sticks, with each stick representing a right that might be in one person's hand or another's. The bundle of sticks represents "a collection of individual rights which, in certain combinations, constitute property."¹³⁹ The rights of use and exclusion and alienation give the holder a "substantial degree of control over the property."¹⁴⁰ The High Court of Australia in *Yanner v Eaton* said the following:

The word "property" . . . does not refer to a thing; it is a description of a legal relationship with a thing. It refers to a degree of power that is recognised in law as power permissibly exercised over the thing. The concept of "property" may be elusive. Usually it is treated as a "bundle of rights."¹⁴¹

This notion of divisible rights in property, some giving greater control over things than others is replicated throughout the common law world. Hohfeld, referring to property in land, cited Mr. Justice Smith in *Eaton v B. C. & M.R. R. Co.* [51 N. H., 504, 511]:

The right of indefinite user (or of using indefinitely) is an essential quality of absolute property, without which absolute property can have no existence. . . . This right of user necessarily includes the right and power of excluding others from using the land.¹⁴²

In the United Kingdom, Lord Wilberforce in *National Provincial Bank Ltd v Ainsworth* stated the following:

Before a right or an interest can be admitted into the category of property, or of a right affecting property, it must be definable, identifiable by third parties, capable in its nature of assumption by third parties, and have some degree of permanence or stability.¹⁴³

The things in relation to which property is claimed then must be definable, identifiable, and have some permanence. Property rights include the right to use or enjoy the things, the right to exclude others from using the things, and the right to alienate, or to license, sell, or give away the thing.¹⁴⁴ If a person holds one or more of these rights in a thing or good or chattel, the person has some level of proprietary interest in them, but not necessarily full ownership. Mere possession of a thing gives a person a possessory right and a right to exclude others subject to better title. However, the platform entities have contractually locked in rights in the whole of the means of production of platform capitalism. The ceding of property to the platform entities occurs by consent through the terms and conditions agreed to by users when they gain access to the platform services.

¹³⁹ *United States v. Craft*, 535 U.S. 274, 278, 152 L.Ed. 2d 437, 446, 122 S.Ct. 1414, 1420 (2002).

¹⁴⁰ *Id.*

¹⁴¹ *Yanner v Eaton* (1999) 201 CLR 351, 365–66 (Austl.).

¹⁴² Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 YALE L. J. 16, 22 (1913).

¹⁴³ *Nat'l Provincial Bank Ltd. v Ainsworth* [1965] AC 1175 (HL) 1247-8 (appeal taken from UK).

¹⁴⁴ *Milirrpum v Nabalco* (1971) 17 FLR 141, 272 (Austl.) (stating, "property, in its many forms, generally implies the right to use or enjoy, the right to exclude others, and the right to alienate. I do not say that all these rights must co-exist before there can be a proprietary interest or deny that each of them may be subject to qualifications.").

VI. A Shift in Property and Power to the Platform Entities Using Third Dimension Techniques

This paper acknowledges that the platform entities, in their relations with users, accrue and exercise power in each of the three dimensions of power analyzed by Lukes. There is ample evidence of power exercised through overt conflict that affects others in a non-trivial or significant manner contrary to the other party's interests. Examples include suspensions from platforms, like Facebook or Twitter, for breaching their stated rules or codes of conduct.¹⁴⁵ Google has been fined and is again being pursued in Europe for preferencing its products over competing advertisers—a blatant exercise of power.¹⁴⁶ In Australia in 2021, Google briefly threatened to remove Google search from the Australian market if Google was required to pay other news services for using their content on Google news.¹⁴⁷ For the same reasons for a short time in 2021, Facebook removed its news sharing function in Australia.¹⁴⁸ These again are examples of brute, overt, observable power in the first dimension.

Similarly, second dimension power is evident in the way that platform entities create “barriers to the public airing of policy conflicts,”¹⁴⁹ including through non-decision-making or covert influence, such as through “coercion, influence, authority, force[,] and manipulation.”¹⁵⁰ Examples of platform entities exercising second dimension power include the entities claiming trade secrecy on their algorithms, using § 230 of *Communications Decency Act* to avoid liability for things published on their platforms and ensuring disputes are taken through arbitration to avoid public hearings and determinations.

But the third dimension is where the platform entities have been able to increase their power without drawing much attention. Reminiscent of Gaventa's account of the third-dimension power experienced the Appalachian coal miners, Zuboff noted the following about surveillance capitalists:

[They] camouflaged their purpose with illegible machine operations, moved at extreme velocities, sheltered secretive corporate practices, mastered rhetorical misdirection, taught helplessness, [and] purposefully misappropriated cultural signs and symbols associated

¹⁴⁵ Melissa Holzberg, *Facebook Banned 1.3 Billion Accounts Over Three Months To Combat 'Fake' And 'Harmful' Content*, FORBES (Mar. 22, 2021, 11:54 AM), <https://www.forbes.com/sites/melissaholzberg/2021/03/22/facebook-banned-13-billion-accounts-over-three-months-to-combat-fake-and-harmful-content/>; Facebook et al., *Op-Ed: Banning Trump from Twitter and Facebook isn't nearly enough*, L.A. TIMES (Jan. 15, 2021, 3:30 AM), <https://www.latimes.com/opinion/story/2021-01-15/facebook-twitter-extremism-donald-trump-violence>.

¹⁴⁶ Aaron Gregg & Gerrit De Vynck, *E.U. Opens Antitrust Investigation Into Google's Core Moneymaker: Advertising*, WASH. POST (JUNE 22, 2021, 3:57 PM), <https://www.washingtonpost.com/business/2021/06/22/google-eu-antitrust-advertising/>.

¹⁴⁷ Georgia Hitch & Melissa Clarke, *Google Says it Will Pull its Search Engine from Australia if it is Forced to Pay News Publishers to Host Their Content*, ABC NEWS (Jan. 22, 2021, 12:47 PM), <https://www.abc.net.au/news/2021-01-22/google-stop-search-engine-australia-news-media-code/13079912>.

¹⁴⁸ BBC, *Australia News Code: What's This Row With Facebook and Google All About?*, BBC NEWS (February 18, 2021), <https://www.bbc.com/news/world-australia-56107028>.

¹⁴⁹ LUKES, *supra* note 59, at 20 (using Bacharach and Baratz's analysis of power in American politics as an example of what he called two-dimensional power).

¹⁵⁰ *Id.* at 21.

with the themes of the second modernity—empowerment, participation, voice, individualization, [and] collaboration . . .¹⁵¹

Platform entities control all aspects of interactions with their users and retain property in the means of production of informational capitalism, principally through contract in the form of their terms of service. In 2015, Alex Hern of *The Guardian* read the terms of service for 33 of the most used apps on the internet and found they contained 146,000 “impenetrable” words that took 8 hours just to skim read.¹⁵² In 2019, Benolioel and Becher studied 500 online clickwrap agreements and applied linguistic tests to determine their readability. They reported that “almost all of the [agreements in the] study’s sample (498 out of 500, or 99.6%), received [a readability] score that is lower than the recommended score of sixty.”¹⁵³ That is, the platform entities require users to agree to unreadable contracts that they expect that users will not read. The terms are non-negotiable, and the platform entities will simply refuse access to their services if users do not agree to the inscrutable terms.

a. The Contract

Platform entities have grown their power within and around a system of laws—including property laws. For example, each of Google’s and Facebook’s billions of users separately enters a contract with the platform entities, and consents to and is bound by the terms of service to which they assent when they click “I Agree.”¹⁵⁴ The platform entity terms of service contain detailed terms that have important legal ramifications. Under these terms, users only have a license to use the products supplied by the platforms which is revocable at will. The platform entities retain property in the products.

b. Normalization of the Rules of the Game Through Contract

The platform entities have normalized these exercises in power. This process of normalization starts at a very young age. Apple, for example, has introduced iPad programs for primary or junior

¹⁵¹ ZUBOFF, *supra* note 4, at 193.

¹⁵² Alex Hern, *I Read All the Small Print on the Internet and It Made Me Want to Die*, THE GUARDIAN (June 15, 2015, 6:56 AM), <http://www.theguardian.com/technology/2015/jun/15/i-read-all-the-small-print-on-the-internet>.

¹⁵³ Uri Benolioel & Shmuel I. Becher, *The Duty to Read the Unreadable*, 60 BOS. COLL. L. REV. 2255, 2278 (2019).

¹⁵⁴ There is a debate about whether the terms and conditions of the platform entities are less about fully informing users or are more a deliberate attempt to obfuscate with the intention to fleece user data. A survey conducted for the Consumer Policy Research Centre found that ‘94% of Australians surveyed did not read privacy policies for all the products they signed up to’. An earlier survey found that 74% of users did not read the privacy policy before proceeding to the website. Of those that did admit to reading privacy policies and terms of service, ‘81% spent less than a minute reading, and 96% less than five minutes. Eighty-six percent of participants spent less than a minute reading the TOS, 98% less than five minutes’. Consumer Pol’y Rsch. Ctr., *CPRC 2020 Data and Technology Consumer Survey*, CONSUMER POL’Y RSCH. CTR. (Dec. 7, 2020), <https://cprc.org.au/publications/cprc-2020-data-and-technology-consumer-survey/>; PHUONG NGUYEN & LAUREN SOLOMON, *Consumer Data in the Digital Economy: Emerging Issues in Data Collection, Use and Sharing* 31 (2018), <https://apo.org.au/sites/default/files/resource-files/2018-07/apo-nid241516.pdf>; Jonathan A. Obar & Anne Oeldorf-Hirsch, *The Biggest Lie on the Internet: Ignoring the Privacy Policies and Terms of Service Policies of Social Networking Services*, 23 INFO. COMM’N SOC’Y 128 (2020).

schools.¹⁵⁵ Introducing these programs through schools normalizes the embeddedness of this technology, but also normalizes the platform entities' terms of use. The platform entities have won over schools through the cultural imaginaries that promote the platforms technological exceptionalism and the manufactured need to introduce these technologies to children as advanced educational techniques. Children learn to passively accept the contractual terms to gain access to the technology, and platform entities hijack the authority of the school system to assure the children that the technology is safe. Even if the children could read the terms of service, the children would not understand them; so, they quickly learn to click "I Agree" for immediate access to the things they want.

The ceding of all rights to the platform entities continues to normalize over the life of the user including through the discourse that promotes techno-utopia. Cultural imaginaries around technology push the message that technology facilitates individualization, empowerment, and enlightenment. The term "digital natives" is used to describe those people who have been using and have been enveloped in technology for their whole lives, and, according to the discourse, are supposed to have developed technological skills far superior to their parents' generation. However, this discourse lulls the digital native into accepting technology and the contracts that curtail their property rights into every aspect of their lives. Seen in this light, the use of the term "digital native" is merely another normalizing tactic. Digital natives accept the inevitability of technological superiority and go along with whatever the platform entities include in their overly long and complicated terms of use with a sense of confidence born of their native status. For example, the Australian Competition and Consumer Commission (ACCC) Report of 2019 noted responses to their consumer questionnaire about the lack of alternatives and the inevitability of acceptance. The ACCC Report noted that ". . . consumers perceive there to be a lack of viable alternatives, and that this lack of alternatives could reduce their incentive to be informed about, and opt-out of, digital platforms' data practices . . ."¹⁵⁶ The consumer responses included comments such as the following:

Being on Facebook is pretty much the same, it is the biggest social network, so it has the most people that you may know and therefore it is the one that you do have to use even grudgingly if you want to keep in touch. It is actually not possible to switch to another platform if none of your friends or family are there.

I have never thought about what data is collected or how it's used. Maybe I'm not concerned enough as I still continue to use these platforms, but also don't really think I have a choice not to use them. . .¹⁵⁷

Users display a sense of helplessness, of acceptance of the rules of the game, that this is the way it is. This type of helplessness or acceptance is like Gaventa's findings about third dimension power in his study of the Appalachian coal miners. Gaventa recognized as exercises of third dimension power the use of social myths, the social construction of meanings and patterns,

¹⁵⁵ Apple Inc, *Education - K-12*, APPLE (AUSTRALIA) , <https://www.apple.com/au/education/k12/> (last visited Jul 22, 2021); Janja Komljenovic, *The Rise of Education Rentiers: Digital Platforms, Digital Data and Rents*, 46 LEARNING, MEDIA & TECH. 320 (2021).

¹⁵⁶ AUSTL. COMPETITION AND CONSUMER COMM'N, *Digital Platforms Inquiry* 398 (July 26, 2019), <https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf>.

¹⁵⁷ *Id.* at 398.

adaptations to powerlessness such as learned helplessness or fatalism, or being socialized into compliance. He further suggested that these might be interrelated and could be combined to cause a greater effect.¹⁵⁸ In these ways, platform entities have been able to retain property in the things that make up the means of production in informational capitalism.

VII. In What do Platform Entities Retain Property?

In this Part, I briefly discuss the burgeoning idea of the loss of rights in property in the technological age through third dimension power techniques. The loss of property includes loss of rights in the hardware, software, and user content to the platform entities. Users may own the steel, copper, and silicon in their home computers, for example, but they do not own the things that make these items useful—the operating systems, the software, or the apps.

Neither do users have any property rights in the things that have migrated to the platforms. This includes the music they listen to. Music lovers could once buy a copy of a record or cassette album, a hard copy of which could be stored at home, listened to at any time, or taken to friends' houses to listen to on any device. This is no longer our relationship with music. As an example of how this shift in property interests has occurred, in the early 2000s iPods became the new way of storing and listening to music. As we became reliant on iPods, Apple introduced the iTunes store through which users could download any music ever produced. Once this relationship was normalized, Apple introduced a catch: amended iTunes licenses stipulated that the licensee was only able to access the tunes on five devices. This immediately introduced a finite time in which the user could claim some interest in the music—the lifetime of five computers. After that, the songs were no longer playable. But users could still point to a file on their computer and say that they had some proprietary interest in it. However, Apple no longer provides iTunes, and the music we thought we owned is no longer available to us. Now, we stream music on Spotify or another streaming service. Though music enters and exits our lives, we never achieve proprietary interest in it. A similar process is occurring with books and computer games.

Computer users also agree to license the operating systems and software they use every day for work and leisure. This includes iOS and Windows, and the software necessary for work such as Outlook, Word, Excel, Google search, Gmail, and so on. Neither do users hold the full property rights in the content that they produce. This also has evaporated over time, as the documents they produce are stored on the platforms' cloud service, rights to which are again subject to license back to the platform entities. Increasingly, users hold fewer of the indicia of property in the hardware, software, and the documents users create.

a. Hardware

Some platform entities sell user devices—the hard portals through which they access the tools necessary for work and enjoyment. For example, Apple and Microsoft sell tablets and laptop and desktop computers. Apple and Google sell smart phones. Amazon and Google sell, and sometimes give away, home agents (Alexa and Home) and even video doorbells (Ring and Nest). At first this might seem like a relinquishment of property in the means of production. However, these are

¹⁵⁸ GAVENTA, *supra* note 78.

hollow objects designed to gather user data. The home agents consist of a speaker and microphone. The doorbells are a camera connected to the internet. While possession of the manufactured product remains with the user, property in the things that make the product operable are closely kept under the control of the platform entities. Apple phones, computers, and tablets use only Apple's operating system, macOS. Many other computers use only Microsoft's Windows Operating System. For about 25 years, Microsoft has also tied its suite of Office products to computers (not only Microsoft's computers) that operate on the Windows operating system.¹⁵⁹ At any point, if Apple or Microsoft, Amazon, or Google decided to stop allowing a user access to use these systems, the hardware would effectively be "bricked."¹⁶⁰ That is, it would cease to operate. The hardware would then be worthless. In terms of market analysis, it would become an externality to the market, like pollution. By retaining this right of control, the platform entities retain a proprietary interest in the hardware.

These products are subject to regular version upgrades or updates. Often, users are unaware of these updates or are provided the option to obtain more information. However, the update is a fait accompli. Again, users have become used to these constant upgrades and are inured to their effect. The normalization of this upgrade process removes all resistance by the users. This is yet another indicator of the platform entities retaining a proprietary interest in the hardware. The platform entities constrain and control how we use "their" products. Jonathan Zittrain calls these products "tethered" because they are tied directly to the owner and licensor who controls them. In 2008, Zittrain noted that, because this affordance of smart appliances "can be updated by—and only by—their makers, [it] is fundamentally changing the way in which we experience our technologies."¹⁶¹ Zittrain equated this to Lessig's code as law and argued that one reason that companies might do this is to allow for perfect enforcement and greater regulatory control of technology.¹⁶² Crootof called this "corporate remote interference,"¹⁶³ and argued that its primary purpose is more corporate in nature. That is, it allows corporations greater control over the bargain, increased compliance, alters the functionality of the product itself through updates, and allows for "corporate self-help," or perfect and immediate enforcement of the license.¹⁶⁴ Consider Lessig's modality of architecture (or code) that is used to control our usage of the things of the internet. This tethering is Lessig's law as code writ large and brings into question the nature of law itself. This type of self-determined control of the things of the internet has caused researchers to question whether this is law as we know it or a new manifestation of law.¹⁶⁵ In the same tethered way, Amazon recently enabled its Ring doorbells to create a wireless network among neighborhoods of

¹⁵⁹ Microsoft estimates that there 1.4 billion devices in the world operating Windows. *Microsoft by the Numbers*, MICROSOFT NEWS <https://news.microsoft.com/bythenumbers/en/windowsdevices> (last visited Sept. 25, 2022).

¹⁶⁰ See, e.g., Ron Amadeo, *Google Pushed a One-Character Typo to Production, Bricking Chrome OS Devices*, ARS TECHNICA (July 22, 2021, 10:32 AM), <https://arstechnica.com/gadgets/2021/07/google-pushed-a-one-character-typo-to-production-bricking-chrome-os-devices/>.

¹⁶¹ ZITTRAIN, *supra* note 16, at 107.

¹⁶² *Id.*

¹⁶³ Rebecca Crootof, *The Internet of Torts: Expanding Civil Liability Standards to Address Corporate Remote Interference*, 69 DUKE L. J. 583, 589 (2019), <https://papers.ssrn.com/abstract=3342499>.

¹⁶⁴ *Id.* at 602-606.

¹⁶⁵ Roger Brownsword, *In the Year 2061: From Law to Technical Management*, 7 L., INNOVATION & TECH. 14 (2015).

Ring users.¹⁶⁶ This service lay dormant in Ring devices since around 2018 but was enabled without notice to users, who could have opted out if they had been able to find the correct path to do so.¹⁶⁷ The platform entities also control the right to amend the terms of service at will and also control the right to repair the hardware through which users access platform services.¹⁶⁸

Despite its name connoting otherwise, the cloud is a vast network of warehouses filled with hardware in the form of row upon row of computer processing and storage devices. It is remote computer hardware and storage, not some ethereal, limitless, and harmless space. Among many other storage providers, Amazon, Microsoft, and Google host cloud storage.¹⁶⁹ Facebook stores users' photographs and videos on the cloud. The world's music is also stored on and is accessible through the cloud. Amazon owns and controls an enormous infrastructure in land, buildings, sorting and packing warehouses, and distribution systems. However, Amazon also owns and controls the largest share of the cloud. Its company Amazon Web Services (AWS) controls around half of the cloud and services "hundreds of thousands of businesses in 190 countries around the world."¹⁷⁰ Netflix, LinkedIn, Facebook, and Twitter are among many others using AWS.¹⁷¹ However, platform entity hardware is not the only thing over which they exercise property rights. The platform entities retain title in the software and apps that allow the platforms to operate.

b. Software

Platform entities own the operating systems that users license on their computers, and the entities even own the software that interacts with the operating systems to provide the infrastructure that most of the world relies on to work. For example, users license versions of Word, Excel, Outlook, Teams, OneNote, OneDrive, and so on under restrictive license agreements. These licenses are subject to regular upgrades or updates; often, users are unaware of both the upgrades/updates and their effects. The platform entities even control the content of those licenses and can, and do, change the terms of service at will.¹⁷² The reason the technology companies can alter these products is because users do not own them—users only license them at the will of the platform entities. In this way, the technology companies hold property rights in the tools that allow the platforms to operate, constrain, and control the terms on which users use them. Because of this asymmetry in rights between platforms and users, it was not surprising that Google recently pushed COVID apps to android phones without seeking user permission.¹⁷³ The platforms also retain

¹⁶⁶ Geoffrey A. Fowler, *Amazon May Be Sharing Your Internet Connection with Neighbors. Here's How to Turn it Off.*, WASH. POST (June 8, 2021, 11:07 AM), <https://www.washingtonpost.com/technology/2021/06/07/amazon-sidewalk-network/>.

¹⁶⁷ *Id.*

¹⁶⁸ Cory Doctorow, *Monopolists are Winning the Repair Wars* (May 26, 2021), <https://pluralistic.net/2021/05/26/nixing-the-fix/#r2r>; Cory Doctorow, *Apple's Cement Overshoes* (May 23, 2022), <https://doctorow.medium.com/apples-cement-overshoes-329856288d13>.

¹⁶⁹ Quentin Hardy, *'Where Does Cloud Storage Really Reside? And Is It Secure?'*, N.Y. TIMES (Jan. 23, 2017), <https://www.nytimes.com/2017/01/23/insider/where-does-cloud-storage-really-reside-and-is-it-secure.html>.

¹⁷⁰ *About AWS*, AMAZON WEB SERVICES, INC., <https://aws.amazon.com/about-aws/> (last visited Jul 23, 2021).

¹⁷¹ Contino, *Who's Using Amazon Web Services?*, CONTINO | GLOBAL TRANSFORMATION CONSULTANCY (Jan. 28, 2020), <https://www.contino.io/insights/whos-using-aws>.

¹⁷² ZITTRAIN, *supra* note 16, at 107.

¹⁷³ Ron Amadeo, *Even Creepier COVID Tracking: Google Silently Pushed App to Users' Phones*, ARS TECHNICA (June 21, 2021, 11:07 AM), <https://arstechnica.com/gadgets/2021/06/even-creepier-covid-tracking-google-silently-pushed-app-to-users-phones/>; Amadeo, *supra* note 158.

property rights in the algorithms they use to optimize user content. These algorithms are often opaque and are the subject of trade secrecy claims, further distancing users from any property rights in them.¹⁷⁴

c. Content

User content is more and more often housed on one or another platforms' cloud server and is often copied and stored in multiple locations, access to which is subject to the platforms' license.¹⁷⁵ The cloud is a data storage device, which the platform entities control.¹⁷⁶ For example, documents created on Microsoft's suite of apps is stored on the cloud in Microsoft's storage system, OneDrive. Documents users create on Google Docs are similarly held (by Google) in the cloud. The documents that users create for work are increasingly housed on proprietary web hosting services. This is a concerning development in the history of work and in the development of capitalism. It continues the tradition where the owners of the means of production own the product of workers' labor. Cloud operators make copies of user data and store it in multiple sites as backup and in this way take possession of user data. Possession on its own is not sufficient to give title to the cloud providers, but other property rights in the data in the cloud are retained in the cloud providers' terms of service. For example, the termination clause in the AWS Customer Agreement contains indicia of claims to property in the user content. In it, AWS claims that it "will allow you to retrieve Your Content from the Services only if you have paid all amounts due under this Agreement."¹⁷⁷ Here AWS is equivalent to a warehouse asserting a warehouseman's lien. Further, under the Agreement, clause 8, "Proprietary Rights," states "You consent to our use of Your Content to provide the Service Offerings to you and any End Users."¹⁷⁸ The Agreement disclaims any warranties of fitness for purpose or merchantable quality of the services and limits liability for any failure of the service or "any unauthorized access to, alteration of, or the deletion, destruction, damage, loss or failure to store any of your content or other data."¹⁷⁹ AWS is able to assign the Agreement without consent. The Agreement deliberately abjures any overt claim to property in the user's data. This is presumably done to protect the entity from any user content that might be illegal for example. However, AWS owns and controls the physical infrastructure that houses almost half of the cloud's data under a lien under stringent terms of service that gives AWS property rights and enormous power and control. This way of covertly clawing back property in the contents of the cloud is an example of power in the third dimension.

As a further example of a claim to property in user content, Microsoft's terms and conditions that relate to user content contain terms under which users agree to license their content to Microsoft for various purposes. Under the clause titled "Your content," Microsoft initially disclaims ownership of user content. This protects Microsoft from liability for owning content if the content is harmful or illegal in any way. However, the license then contradicts the disclaimer:

¹⁷⁴ FRANK PASQUALE, *THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION* 144 (2015).

¹⁷⁵ See generally *Greenwood v Council of the Mun of Waverley*, (1928) 28 State Reps. 219 (New S. Wales).

¹⁷⁶ See *supra* Part VI A.

¹⁷⁷ *AWS Customer Agreement*, AMAZON WEB SERVICES, INC., <https://aws.amazon.com/agreement/> (Sept. 16, 2022).

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

To the extent necessary to provide the Services to you and others, to protect you and the Services, and to improve Microsoft products and services, you grant to Microsoft a worldwide and royalty-free intellectual property license to use Your Content, for example, to make copies of, retain, transmit, reformat, display, and distribute via communication tools Your Content on the Services. If you publish Your Content in areas of the Service where it is available broadly online without restrictions, Your Content may appear in demonstrations or materials that promote the Service.¹⁸⁰

Similarly, Google's terms of service contain a license in relation to user content that allows Google to do the following:

- “host, reproduce, distribute, communicate, and use your content — for example, to save your content on our systems and make it accessible from anywhere you go
- publish, publicly perform, or publicly display your content, if you've made it visible to others
- modify and create derivative works based on your content, such as reformatting or translating it
- sublicense these rights to:
 - other users to allow the services to work as designed, such as enabling you to share photos with people you choose
 - our contractors who've signed agreements with us that are consistent with these terms, only for the limited purposes described in the Purpose section below.”¹⁸¹

These licenses purposefully disclaim ownership of user content. But the licenses immediately reclaim license rights in the same. Google's license formalizes the users' permission for Google to use users' intellectual property rights.¹⁸² Because these rights are retained in the user terms of service that platform entities know users do not read, the transfer of property and power happens largely out of the purview of the users and is a further example of power in the third dimension. This contractual license gives the platform entities property rights in the user content. It removes restrictions on the use of user content and further entrenches property rights in the content. Through these licenses, Google and Microsoft extract value from what users have produced on their platforms. This grab for user content is redolent of the way the Bourgeoisie extracted excess value from workers' labor in industrial capitalism.

These examples of the platform entities claiming property in the things that make up, enable, and are created on their platforms has happened largely out of the control of users. Users, in one way or another have ceded property in these things to the platform entities. With this property, control and power has also transferred to the platform entities.

¹⁸⁰ *Microsoft Services Agreement*, MICROSOFT, <https://www.microsoft.com/en/servicesagreement/> (June 15, 2022).

¹⁸¹ *Google Terms of Service – Privacy & Terms*, GOOGLE, <https://policies.google.com/terms#toc-permission> (Jan. 5, 2022).

¹⁸² *Id.*

VIII. Ramifications of the Property Shift and Conclusions

What does this transference of ownership mean for our society? Is it another example of wealth transfer from the citizen to the technology companies? In *Tomorrow 3.0: Transaction Costs and the Sharing Economy*, Mike Munger considers the result of this trend towards the sharing economy as a loss of the rights that have underpinned power relations in our society. Munger also posits that power and profit will lie with those who own and license the goods—not with the average citizen.¹⁸³ As always, property begets wealth and wealth will transfer further out of the reach of the average person. Less like a bundle of sticks and more like a fist full of sand, these rights are slipping away the tighter we grasp them.

Piketty argued that “a market economy based on private property, if left to itself . . . contains powerful forces of divergence, which are potentially threatening to democratic society and to the value of social justice on which they are based.”¹⁸⁴ He warned that “the consequences for the long-term dynamics of wealth distribution are potentially terrifying”.¹⁸⁵ As individuals, we are caught in the informational capitalist vice, exhibiting all the characteristics of those agents in Lukes’s third dimension of power and Gaventa’s Appalachian mineworkers, adapting to powerlessness and learned helplessness. We are socialized or normalized into going along as if this was the only option. But the more that can be done to highlight the way that platform entities claim power, including by using existing laws to their advantage, the less helpless and powerless we can become, and the more power we can take back.

Applying Lukes’s theory of power in the context of platform entities, reveals some of the ways that the platform entities have accrued and maintain their power. Even though these exercises of power occur without overt action and are often exercised in secret, Lukes contended that an exercise of third dimension power such as that exercised by the platform entities can still be attributed to the persons behind the platforms. The platform entities are still ultimately controlled by a small group of people with great power and with full knowledge of the consequences of their actions. By studying their ways of operating, we give ourselves the tools with which to resist their power.

¹⁸³ MICHAEL C. MUNGER, *TOMORROW 3.0: TRANSACTION COSTS AND THE SHARING ECONOMY 2* (2018).

¹⁸⁴ PIKETTY, *supra* note 21, at 571.

¹⁸⁵ *Id.*