

WHAT INTELLECTUAL PROPERTY CAN LEARN FROM
INFORMATIONAL PRIVACY, AND VICE VERSA

Diana Liebenau*

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I. INTRODUCTION

We resort to intellectual property (“IP”) theory to justify certain IP rights or calibrate how specific IP rules should function. Most commonly, we differentiate between three main theories: personality, labor, and welfare,¹ occasionally supplemented by interdisciplinary

* Ludwig Maximilian University of Munich, Candidate for Dr. jur.; LL.M., Harvard Law School, 2016. The research was generously supported by scholarships from the German National Merit Foundation and the German National Exchange Service. I thank Urs Gasser, Ben Sobel, and the editors of the *Harvard Journal of Law & Technology* for their helpful comments.

1. See William W. Fisher III, *Theories of Intellectual Property*, in *NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY* 168, 169–72 (Stephen R. Munzer ed., 2001) (providing an overview and suggesting a fourth theory which maps the social planning of a “good life” upon a utilitarian theory “so as to help foster the achievement of a just and

approaches.² Some scholars portray these theories as categorically different; the traditional fault line runs between US-style utilitarian welfare theory and continental European-style deontological justifications based on Hegelian personhood or Lockean labor theories.³ Others perceive their overall prescriptive power as limited.⁴

Privacy law is also governed by theories defining, justifying, and calibrating it. However, the theoretical backdrop is much more disaggregate: descriptive taxonomies⁵ compete with normative theories, of which no single classification appears to be universally accepted.⁶ This Note will distinguish among three widely recognized theories of informational privacy, which conceptualize privacy as control,⁷ limited access,⁸ and contextual integrity.⁹

But are there theories to analyze both IP *and* privacy? Intuitively, scholars have made a variety of arguments based on a structural paral-

attractive culture”); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 288–89, 303 (1988) (distinguishing as the two grand theories labor theory — refined by welfarist arguments — and personality theory).

2. See, e.g., Jeanne C. Fromer, *An Information Theory of Copyright Law*, 64 EMORY L.J. 71, 83 (2014) (calibrating the welfare theory for copyright using information theory, a field in applied mathematics which deals with coding, quantifying, and optimally transmitting information).

3. Compare ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY (2011) with Mark A. Lemley, *Faith-Based Intellectual Property*, 62 UCLA L. REV. 1328 (2015). This Note will occasionally paint in broad strokes, given that it refers to copyright, patent, trademarks, and privacy with cross-jurisdictional remarks to the United States and Europe. In the United States, privacy is protected in a sectoral way through specific laws that enumerate specific types of data such as financial, genetic, etc., and a combination of administrative law and self-regulation. The European regime relies on more open-ended rules, often based in human rights and stricter administrative enforcement. It also has been observed that in the United States lax privacy laws might coincide with what is considered revolutionary/disruptive innovation, whereas in Europe strict privacy laws meet more evolutionarily innovative industries. See Tal Zarsky, *The Privacy-Innovation Conundrum*, 19 LEWIS & CLARK L. REV. 116, 154–66 (2015). As this Note is theoretical, these generalizations are feasible. Cf. Urs Gasser, *Perspectives on the Future of Digital Privacy*, 134 ZEITSCHRIFT FÜR SCHWEIZERISCHES RECHT [ZSR] 337, 340 (2015) (Ger.) (offering methodological considerations for a phenomenological approach).

4. See Fisher, *supra* note 1, at 194.

5. See, e.g., William L. Prosser, *Privacy*, 48 CALIF. L. REV. 383, 389 (1960); see generally Daniel J. Solove, *A Taxonomy of Privacy*, 154 U. PA. L. REV. 477 (2006).

6. See, e.g., Herman T. Tavani, *Philosophical Theories of Privacy: Implications for an Adequate Online Privacy Policy*, 38 METAPHILOSOPHY 1 (2007) (distinguishing the non-intrusion, seclusion, limitation, and control, as well as mixed theories). See generally Judith DeCew, *Privacy*, in THE STAN. ENCYCLOPEDIA OF PHIL. (Edward N. Zalta ed., 2015), <http://plato.stanford.edu/archives/spr2015/entries/privacy/> (last visited Dec. 15, 2016).

7. See generally ALAN F. WESTIN, *PRIVACY AND FREEDOM* (1968) (pioneering the privacy as control theory).

8. See Ruth Gavison, *Privacy and the Limits of Law*, 89 YALE L.J. 421, 423 (1980) (pioneering the privacy as limited access theory).

9. See Helen Nissenbaum, *Privacy as Contextual Integrity*, 79 WASH. L. REV. 119, 119–20, 136–37 (2004) (pioneering the privacy as contextual integrity theory although reluctant to call her framework a legal “theory”); see also HELEN NISSENBAUM, *PRIVACY IN CONTEXT: TECHNOLOGY, POLICY AND THE INTEGRITY OF SOCIAL LIFE* 236 (2010).

lelism of privacy and IP.¹⁰ Scholarship has also carefully dissected situations with converging¹¹ or conflicting¹² interests between IP and privacy. But these accounts are selective and do not rely on a common theory. Another line of scholarship uses the theories of IP to argue in favor of a property-style right in privacy interests.¹³ Apart from that, the use of IP theories to address the privacy implications of IP is scarce.¹⁴

10. See, e.g., Jonathan Zittrain, *What the Publisher Can Teach the Patient: Intellectual Property and Privacy in an Era of Trusted Privication*, 52 STAN. L. REV. 1201, 1241–45 (2000) (arguing that “trusted systems” pioneered in copyright enforcement, i.e., technological solutions to protect privacy, could also be used to protect medical privacy); LAWRENCE LESSIG, *CODE: AND OTHER LAWS OF CYBERSPACE* 200–01 (2d ed. 2006) (paralleling IP and privacy, but describing IP interests as better understood and organized than in privacy, where counter-interests are better understood and organized); Jessica Bulman, *Publishing Privacy: Intellectual Property, Self-Expression, and the Victorian Novel*, 26 HASTINGS COMM. & ENT. L.J. 73, 76 (2003) (arguing that Victorian novelists anticipated that IP and privacy are about controlling the flow of information); Adam D. Thierer, *The Pursuit of Privacy in a World Where Information Control is Failing*, 36 HARV. J.L. & PUB. POL’Y 409, 432 (2013) (arguing that privacy and IP face the same enforcement problems); Mark Bartholomew, *Intellectual Property’s Lessons for Information Privacy*, 92 NEB. L. REV. 746, 757–59 (2014) (arguing that IP models for balancing free speech, such as the fair use doctrine, should serve as a model to solve conflicts between data privacy and the First Amendment); compare Richard A. Posner, *The Right of Privacy*, 12 GA. L. REV. 393, 410 (1977) (deriving arguments for a property right in privacy in part from IP rules) with Richard A. Epstein, *Privacy, Property Rights, and Misrepresentations*, 12 GA. L. REV. 455, 461–62 (1978) (criticizing this view).

11. IP can close perceived privacy enforcement gaps. See, e.g., Amanda M. Levendowski, *Using Copyright to Combat Revenge Porn*, 3 N.Y.U. J. INTELL. PROP. & ENT. L. 422, 439–41 (2014) (explaining how victims of revenge porn, who took the photos themselves, might use the more comprehensive IP enforcement regime against intermediaries instead of their privacy remedies). Conversely, privacy can also supplement gaps in IP. See, e.g., Julie E. Cohen, *Copyright and the Jurisprudence of Self-Help*, 13 BERKELEY TECH. L.J. 1089, 1140–41 (1998) (invoking privacy to justify a “right to hack,” i.e., to circumvent digital fences to exercise copyright entitlements).

12. For instance, in order to enforce IP rights online, privacy of consumers might be invaded. An example is that copyright owners maintain automated web crawlers to identify IP addresses. See Sonia K. Katyal, *Privacy vs. Piracy*, 7 YALE J.L. & TECH. 222, 225 (2005) (arguing for changes to copyright enforcement provisions to accommodate privacy interests). See also Julie E. Cohen, *A Right to Read Anonymously: A Closer Look at “Copyright Management” in Cyberspace*, 28 CONN. L. REV. 981, 1020 (1996) (arguing that the freedom of speech limits the scope of digital rights management).

13. See, e.g., LAWRENCE LESSIG, *CODE: AND OTHER LAWS OF CYBERSPACE* 143–63 (1999) (suggesting that the property conceptualization of privacy is accompanied by technological measures); WESTIN, *supra* note 7, at 7; Adam D. Moore, *Intangible Property: Privacy, Power, and Information Control*, 35 AM. PHIL. Q., Oct. 1988, at 2 (applying Lockean theory); but see, e.g., Mark A. Lemley, *Private Property*, 52 STAN. L. REV. 1545, 1547 (2000) (arguing against the application of property-style rights); Pamela Samuelson, *Privacy As Intellectual Property?*, 52 STAN. L. REV. 1125, 1151–70 (2000) (arguing that property-style rights are imperfect when applied to information privacy).

14. See, e.g., Amy Kapczynski, *The Cost of Price: Why and How to Get Beyond Intellectual Property Internalism*, 59 UCLA L. REV. 970, 979 (2012) (arguing based on IP welfare theory that IP seeks to minimize the deadweight loss by price discrimination and thus is geared towards gathering personal information to efficiently engage in price discrimination); Julie E. Cohen, *What Privacy Is For*, 126 HARV. L. REV. 1904, 1918–27 (2013) (arguing based on a social planning/culture theory of IP that innovation depends upon

In contrast, this Note takes another path by proposing to apply *to* IP the three commonly accepted theories of privacy — control, limited access, and contextual integrity. Both IP and privacy law regulate the flow of information, and thus control thereof, access thereto, and context therein. To be sure, these theories on the flow of information do not “justify” IP. However, through this theoretically informed prism of structural parallelism, some murky policy questions become clearer, so that IP can draw lessons from informational privacy, and conversely, informational privacy can learn from IP.

From the “control” viewpoint of structural parallelism, Part II of this Note critiques the control-based property view of IP and privacy. Under the “access” perspective, Part III presents an argument about the importance of the public domain and its competing influences on privacy and IP, and advocates for Creative Commons-style techniques of applying IP tools to privacy problems. From the “contextual integrity” angle, Part IV offers some insights of social norms and locked-in legal norms in privacy and IP. Part V concludes.

II. LESSONS IF PRIVACY IS UNDERSTOOD AS CONTROL OF INFORMATION

A classic theory of privacy understands privacy as control over information. In the often-cited words of Professor Alan Westin, “[p]rivacy is the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others.”¹⁵ The privacy-as-control theory has many iterations and can be seen as shorthand for other theoretical considerations — such as the person and her autonomy and dignity as an end in itself or as a means to enable flourishing relationships and communities¹⁶ — demanding that the individual should be in control of whether and how to reveal personal information. Control in the individualist, absolute Blackstonian sense of “sole and despotic dominion”¹⁷ is another shortcut encapsulated in the privacy-as-control theory: Westin and many others equated privacy with property and

privacy, which is increasingly under threat from online data tracking and mining, and that privacy is part of living “a good life,” a goal at which IP should be targeted); *cf.* Fisher, *supra* note 1.

15. WESTIN, *supra* note 7, at 7.

16. *See, e.g.*, Charles Fried, *Privacy*, 77 *YALE L.J.* 475, 483 (1968) (defining privacy as “control over knowledge about oneself” necessary to conceive “fundamental relations” of “respect, love, friendship and trust.”); Neil M. Richards, *Intellectual Privacy*, 87 *TEX. L. REV.* 387, 408 (2008) (arguing that free speech depends on developing ideas in private).

17. 2 WILLIAM BLACKSTONE, *COMMENTARIES ON THE LAWS OF ENGLAND* *1 (facsimile ed. 1979) (1765–69).

thus commodified privacy to ostensibly strengthen the individual's rights.¹⁸

This definition immediately invites comparison with the IP mechanism of allocating absolute rights in information. As Professor Jonathan Zittrain points out, both IP and privacy are driven by the “common desire to control the distribution of information.”¹⁹ Although IP and privacy protect different kinds of information,²⁰ the control theory suggests that IP and privacy follow the same owner-focused, proprietary logic. The control theory links inequality concerns, discussed in Section II.A, and a questionable property rhetoric in IP and privacy, discussed in Section II.B.

A. Scarcity and Inequality

If we accept this proprietary logic for the sake of argument, let us consider what the focus on control and exclusion means structurally. It means that the control theory, understood as the allocation of subjective, exclusive rights in information, makes information artificially scarce. This, however, raises a problem of inequality that is common to both IP and privacy.

At the outset, if we use welfare theory to examine the incentive structure for the respective flow of data, IP and privacy are at opposing ends of the spectrum. IP rights are one way of solving the problem of public goods. Due to their non-excludable nature, intangible creative goods such as works of art or inventions are under-produced when it is cheaper to imitate than to innovate. Due to their non-rivalrous nature, intangible goods cannot be over-consumed. Allocating exclusive rights alleviates the under-production of creative goods by artificially creating scarcity, because the right holder then has an exclusive right to control distribution and certain uses through monopoly prices.²¹

18. See *supra* note 7. Because the authors use diverging terminology, the difference between a “property rule” (as opposed to a “liability rule,” terms coined by Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972) (referring to post-realist entitlements to injunctions (“property rule”) or damage remedies (“liability rule”) without necessarily requiring an antecedent formalistic “right”)) and “property right” in the sense of an *in rem* right should be noted. See Henry E. Smith, *Property and Property Rules*, 79 N.Y.U. L. REV. 1719, 1791–97 (2004); see also Julie E. Cohen, *Examined Lives: Informational Privacy and the Subject as Object*, 52 STAN. L. REV. 1373, 1393 (2000) (differentiating between privacy as control/property and privacy as choice).

19. Zittrain, *supra* note 10, at 1203.

20. This Note only addresses information-related privacy and uses the words “data” and “information” interchangeably. Data and information can be distinguished. For a framework distinguishing semantic, structural, and syntactic information, see HERBERT ZECH, *INFORMATION ALS SCHUTZGEGENSTAND* 35 (2012).

21. See Mark A. Lemley, *IP in a World Without Scarcity*, 90 N.Y.U. L. REV. 460, 468 (2015). Arguably, trademark law is different because it incentivizes channels of communi-

A property right in privacy makes abundant information scarce as well. Unlike in IP, this scarcity does not serve to incentivize the production of information. For example, in the online world, we inadvertently create data with ordinary web surfing behavior. Privacy rights are indifferent to the production of information,²² but they seek to curb, not incentivize, the compilation and use (that is, the overconsumption) of this kind of information.²³ Indeed, this is the classical criticism of the law and economics movement concerning privacy: the protection of privacy would lead to inefficient secrecy and even fraud.²⁴ From an economic perspective, IP incentivizes the *production* of information, while privacy is concerned with *consumption*.

However, this classical dichotomy of IP responding to scarce information and privacy responding to an abundance of information is not true anymore. Products which embody IP rights can be reproduced at zero marginal cost through the Internet, 3D printing, robotics and synthetic biology.²⁵ They might even be created²⁶ or consumed²⁷ at

cation, so that consumers save on search costs, and not on the production of (otherwise scarce) creative marks. Thus, trademark law prevents consumers from depleting their scarce resources of time and attention. Some scholars do not link scarcity to under-production, but rather to over-consumption, maintaining that some intangible goods are indeed rivalrous, as indefinite parallel uses would lead to decreased utility. This is most apparent in the concept of trademark dilution, although some scholars have more expansive views. See Barton Beebe, *Intellectual Property Law and the Sumptuary Code*, 123 HARV. L. REV. 809, 814–16 (2010) (arguing that IP retains artificial scarcity in luxury goods in order to protect social status despite the extent to which counterfeit products might have the same quality); Richard A. Posner & William M. Landes, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 487–88 (2003) (arguing for an indefinitely renewable copyright for, e.g., Mickey Mouse because otherwise its commercial value would plummet: “Not only would the public rapidly tire of Mickey Mouse, but his image would be blurred, as some authors portrayed him as a Casanova, others as cat-meat, others as an animal-rights advocate, still others as the henpecked husband of Minnie.”).

22. Under a labor-based property theory of privacy, one could argue that a right should be awarded for labor in the form of generating information about oneself online.

23. See Lemley, *supra* note 13, at 1550.

24. See, e.g., Richard A. Posner, *Privacy, Secrecy, and Reputation*, 28 BUFF. L. REV. 1, 5 (1979); see also Ryan Calo, *Privacy and Markets: A Love Story*, 91 NOTRE DAME L. REV. 649 (2015) (offering a more refined argument on a market-based approach to privacy).

25. See Lemley, *supra* note 21, at 462. Lemley here builds on Jeremy Rifkin. See JEREMY RIFKIN, *THE ZERO MARGINAL COST SOCIETY* 9 (2014).

26. Computers may be the producers or the creators. See, e.g., Aviva Rutkin, *Computer Generates All Possible Ideas to Beat Patent Trolls*, NEW SCIENTIST (Apr. 18, 2016), <https://www.newscientist.com/article/2084755-computer-generates-all-possible-ideas-to-beat-patent-trolls/> [<https://perma.cc/J4SP-7UL9>] (reporting on an artist who generated “defensive” prior art by crawling patent databases and randomly putting phrases together so that patent trolls are not able to claim these “inventions,” the vast majority of which are nonsensical; however, some “inventions” might come close to incremental innovations and challenge our notion of inventive step); Ryan Abbott, *I Think, Therefore I Invent: Creative Computers and the Future of Patent Law*, 57 B.C. L. REV. 1079 (2016) (detailing the challenges of patenting subject matter produced through artificial intelligence due to a notion of romantic authorship). See also Pamela Samuelson, *Allocating Ownership Rights in Computer-Generated Works*, 47 U. PITT. L. REV. 1185 (1985) (pioneering discussion of the implications of artificial intelligence in copyright).

zero marginal cost. The IP system, which has operated under the notion that information is expensive to create and cheap to copy, is thus fundamentally challenged in its assumptions of scarcity. If creators can recoup costs without relying on artificial scarcity in this new environment, then considering IP's problem as a lack of scarcity and favoring stronger protection may be futile.

However, until recently IP holders have favored the scarcity approach and tilted at windmills by pushing for expansive enforcement mechanisms using contracts,²⁸ digital rights management,²⁹ criminal penalties,³⁰ and secondary liability.³¹ The problem of enforcing copyright against illegal streaming services and file sharing is a case in point. A similar enforcement struggle can be seen in privacy.³² With the advent of, among other things, big data, third-party data brokers, and smartphones as cameras and recording devices, individuals can more readily infer private information about others, which in turn has led to calls for more effective protection.

However, only those endowed with sufficient means can pursue enforcement in a world of decreasing scarcity.³³ Therefore, in the long run, demanding stricter enforcement is only a placebo for the disease of inequality: In IP, there will be less remuneration for creation and distribution than in pre-scarcity times. Inequality might result because intellectual creation as a form of labor might become less valuable than accruing capital.³⁴ This recalls Professor Thomas Piketty's fa-

27. Computers may also be consumers (and perhaps infringers). *See, e.g.,* Aja Romano, *A Guy Trained a Machine to "Watch" Blade Runner. Then Things Got Seriously Sci-fi*, VOX (June 1, 2016), <http://www.vox.com/2016/6/1/11787262/blade-runner-neural-network-encoding> [https://perma.cc/2VX3-XNAU] (reporting on a computer that "watched" a movie and recreated it based on its "interpretation"); James Grimmelmann, *Copyright for Literate Robots*, 101 IOWA L. REV. 657, 660–61 (2015) (detailing how a romantic notion of authorship maps onto fair use doctrine so that "consumptive" use by computers is not considered infringing). What can be inferred, in conjunction with the insights in *supra* note 26, is that given technological changes and a continuity of current legal rules, less subject matter may be protected and less actions will be infringing.

28. *See* Zittrain, *supra* note 10, at 1210–11.

29. *Compare* Sony Comput. Entm't, Inc. v. Connectix Corp., 203 F.3d 596, 608 (9th Cir. 2000) (holding that copying and thereby reverse engineering of the PlayStation firmware to enable interoperability constituted fair use) with Davidson & Assocs. v. Jung, 422 F.3d 630 (8th Cir. 2005) (holding that fair use as codified in the reverse engineering interoperability defense of 17 U.S.C. § 1201(f) can be contracted away, and that the emulation of an authentication sequence between Blizzard's game software and its server circumvented technological protection measures that controlled access to the copyrighted game software code).

30. *See* United States v. Swartz, 945 F. Supp. 2d 216 (D. Mass. 2013).

31. *See* MGM Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 954–57 (2005) (tailoring another common law doctrine to capture file sharing platforms instead of clarifying contributory infringement).

32. *See, e.g.,* Thierer, *supra* note 10, at 432.

33. *See* Yochai Benkler, *Intellectual Property and the Organization of Information Production*, 22 INT'L REV. L. & ECON. 81, 83 (2002) (arguing that strong IP protection favors large information producers).

34. *See* Lemley, *supra* note 21, at 511.

mous “return > growth” thesis that inequality is likely to increase over time as the result of the concentration of wealth when “growth” is weak and the “return” on capital is high.³⁵ Scholars from different backgrounds are exploring the inherently inequality-enhancing propensity of IP.³⁶ One of the missing pieces of the puzzle is, however, that privacy faces similarly structured inequality problems. In online privacy, an inequality issue also lurks within the lack-of-scarcity problem. It might be possible to opt out of participating in digital activities to minimize the number of data points produced about oneself. But this requires either accepting a lack of convenience and diminished social interaction, or having the financial resources to pay for online services with money rather than data.³⁷ Instead of responding to the inequality concern, however, privacy scholarship is concerned with the better enforcement of existing laws.

Considering IP and privacy together highlights that inequality is not an isolated problem, but rather one that is lurking in both regimes’ shaky assumptions on control and scarcity. Both IP and privacy seem to favor entities that consume, aggregate, and repurpose information, rather than those who generate information. Parties then fight hopeless enforcement battles over the unlawful use of that information.

B. Control as a Property Paradigm

Justifying both IP and privacy under the control theory also invites a critique of property concepts applied to both areas. The control theory blurs the lines between property, privacy, personality, and IP. This Note highlights the threat of expanding property law into privacy and IP both rhetorically and substantively in Section II.B.1, and the shortcomings of expanding IP law concepts into privacy in Section II.B.2.

1. The Danger of Expanding Property

Legal scholars often feel compelled to search for analogies from the physical world for intangible phenomena in IP and privacy. At the

35. See THOMAS PIKETTY, *CAPITAL IN THE TWENTY-FIRST CENTURY* 49 (Arthur Goldhammer trans., 2013) (mentioning IP only briefly).

36. See Peter S. Menell, *Property, Intellectual Property, and Social Justice: Mapping the Next Frontier*, 5 PROP. RTS. CONF. J. 147 (2015); see also F.M. Scherer, *The Innovation Lottery*, in *EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY* 3, 15 (Rochelle Dreyfuss et al. eds., 2001) (showing statistically a skewed log normal distribution for rewards from intellectual production: “The big prizes from innovation are thrown to a small minority of winners, while the majority of innovative efforts confer only modest rewards.”). Other research on the inequality-enhancing characteristics of IP, e.g. Marxist critiques, law and development literature, is omitted here.

37. See, e.g., Jonas Lerman, *Big Data and Its Exclusions*, 66 STAN. L. REV. 55, 60 (2013); LESSIG, *supra* note 10, at 221 (describing price discrimination practices).

bottom of this is a reference to the control theory, which is not only rhetorical but also substantive in that it leads to an undesirable expansion of property principles.³⁸

At the outset, the difference between property, IP, and privacy appears straight-forward. Both IP and privacy relate to intangible objects which must be distinguished from the physical objects in which they may be embodied. For instance, the property owner (for example, the owner of a phone on which a photo was taken) can be someone different than the copyright owner (the person taking the photo) or the person whose privacy interests are concerned (the person pictured in the photo). However, IP and privacy law have always oscillated between property and personality interests. For instance, early manifestations of privacy include analogies to property, tort, or criminal law,³⁹ and personality interests in IP rights (before publication of, or application for a registered right).⁴⁰ In many online privacy scenarios, however, single pieces of information appear to be disjoined from both personality and property interests; singular data points might say something about personality only if put together and analyzed collectively.

The control theory is connected to a tendency to interpret property expansively in order to achieve a certain outcome. Sometimes this leads to ignoring the normative baselines of IP and privacy: For instance, German courts interpret property so broadly that taking a picture of a building from within the property boundary infringes the property interests in the real estate.⁴¹ This has been criticized as contradicting copyright policy, since either the copyright term may have expired or the copyrightable architectural work may have entered the public domain, and thus the depiction of the building in the photo is privileged by freedom of panorama.⁴²

38. However, using a control theory may also have advantages, such as clearly allocating entitlements as an alternative to a balancing of interests. Cf. Henry E. Smith, *Intellectual Property as Property: Delineating Entitlements in Information*, 116 *YALE L.J.* 1742, 1752–53 (2007) (making the argument for IP that if delineating entitlements was costless, property-style exclusion rights were unnecessary because all actions a person is entitled to could be spelled out and enforced under contract or tort law).

39. See, e.g., Reichsgericht [RG] [Federal Court of Justice] Dec. 28, 1899, 45 *RGZ* 170 (Ger.) (prohibiting a paparazzo photo of former German Reich Chancellor Bismarck on his deathbed based on a criminal provision against trespass — the exceptional solution prompted the German legislature to enact privacy legislation concerning photographs); see also Daniel J. Solove, *A Brief History of Information Privacy Law*, in *PROSKAUER ON PRIVACY* § 1:3 (Christopher Wolf ed., 2006).

40. See Samuel D. Warren & Louis D. Brandeis, *The Right of Privacy*, 5 *HARV. L. REV.* 193, 200 (1890).

41. See Bundesgerichtshof [BGH] [Federal Court of Justice] Dec. 17, 2010, *GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT* [GRUR] 321, 2011 (Ger.).

42. Gesetz über Urheberrecht und verwandte Schutzrechte [Urheberrechtsgesetz] [UrhG] [Copyright Act], Sept. 9, 1965, *BGBI. I* at 1273, last amended by Gesetz [G], Oct. 1, 2013, *BGBI. I* at 3714, art. 59 (Ger.), http://www.gesetze-im-internet.de/englisch_urhg [<https://perma.cc/9BSP-8RJT>].

The control theory might also lead to filling gaps with property law to promote the baselines of IP or privacy, so that property becomes a crutch for what arguably should be an extension of IP or privacy itself. An example of this is *United States v. Jones*,⁴³ where Justice Scalia analogized the installation of a tracking device on a car to trespass. Justice Sotomayor concurred, but stressed the privacy interest: It would be dangerous to restrict the Fourth Amendment to trespass-like situations in a time where surveillance does not require physical intrusion.⁴⁴ Interpreting property expansively leads to arbitrary line-drawing when there is no physical embodiment whatsoever.

The expansive character of the control theory gains momentum rhetorically, but it is flawed. Figurative speech in legal arguments is often pejorative, one-sided, or shorthand for a conclusion that needs further justification.⁴⁵ It may also creep into legal arguments and make them formalistic, as the rhetorical device may become a new basis for deriving a conclusion.⁴⁶ For instance, in *FBI v. Apple*,⁴⁷ commentators searched for the right analog in the brick-and-mortar world to compel Apple to write code to break into a deceased terrorist's iPhone. Is it like compelling a locksmith to make a (master) key instead of kicking the door in?⁴⁸ Is it like requiring a manufacturer of a paper shredder to make mediocre shredders whose output can be put together more easily?⁴⁹

However, the desire to search for real-world analogy is driven by false assumptions in the first place. It may come from the control theory as an overarching feature of privacy, IP, and property, of which the last has the strongest control mechanism: physical dominion. However, depending on the context, the basis for the analogy should not be a notion of control, but other characteristics. Particular characteristics of intangible goods, including non-rivalry, scale, and network

43. *United States v. Jones*, 132 S. Ct. 945, 952 (2012); see also Nita A. Farahany, *Searching Secrets*, 160 U. PA. L. REV. 1239, 1265 (2012) (arguing, based on the control theory, that copyright should be the basis for search-and-seizure law).

44. *United States v. Jones*, 132 S. Ct. at 955 (Sotomayor, J., concurring).

45. See Brian L. Frye, *IP as Metaphor*, 18 CHAP. L. REV. 735, 736–37 (2015) (arguing against the use of metaphors within IP like “trolls,” “pirates,” and “farmers”); Patricia Louise Loughlan, *Pirates, Parasites, Reapers, Sowers, Fruits, Foxes . . . The Metaphors of Intellectual Property*, 28 SYDNEY L. REV. 211, 213 (2006).

46. See KARL ENGISCH, EINFÜHRUNG IN DAS JURISTISCHE DENKEN 79 (11th ed. 2010) (Ger.) (“Bilderjurisprudenz wird leicht zur Begriffsjurisprudenz”).

47. Order Compelling Apple, Inc. to Assist Agents In Search, *In re Search of an Apple iPhone Seized During the Execution of a Search Warrant on a Black Lexus IS300*, California License Plate 35KGD203, No. ED 15-0451M (C.D. Cal. Feb. 16, 2016).

48. See Tim Cook, *A Message to Our Customers*, APPLE (Feb. 16, 2016), <https://www.apple.com/customer-letter> [<https://perma.cc/6JAL-7BM4>].

49. See *The Encryption Tightrope: Balancing Americans' Security and Privacy: Hearing Before the H. Comm. on the Judiciary*, 114th Cong. 153 (2016) (question of Rep. Darrell Issa).

effects, among others,⁵⁰ are different from those of tangible property. If these characteristics, rather than a notion of control, drive the problem we seek to analogize, a property analog does not fit.

2. The Danger of Expanding Intellectual Property

The control theory is also at the heart of accounts which argue that privacy should be conceptualized as an (intellectual) property right.⁵¹ Their gist is that granting individuals property rights over their personal information might increase the level of privacy protection online. Property rights, with their built-in control-through-consent mechanism, give market power to individuals to control the flow of their data, and by extension the revenue associated with it.

In fact, this is the commercialization line of argument in IP: Control solves an information problem that would otherwise lead to market failure. Professor Kenneth Arrow has astutely described this information paradox: The potential purchaser cannot evaluate the technology unless the technology is disclosed to her, at which point the inventor has already transferred the knowledge without compensation.⁵² Thus, the patent system allows for *legal* exclusivity so that inventors do not resort to *factual* solutions, such as keeping their invention secret or obfuscating the technical applications of their ideas in order to avoid reverse engineering.⁵³ Hence, as seen in patent law, the property-consent mechanism creates a market for the commercialization of IP-protected intangible assets.

Critics of this line of argument object that privacy, as something personal, must not be commodified⁵⁴ and made part of a value exchange.⁵⁵ This is essentially the same line of argument as the one used against what is known as the right of publicity⁵⁶ and commercial per-

50. See Thierer, *supra* note 10, at 427.

51. See Cohen, *supra* note 14, at 1918–27.

52. See Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY* 609 (Nat'l Bureau of Econ. Research ed., 1962).

53. See Alan J. Devlin, *The Misunderstood Function of Disclosure in Patent Law*, 23 *HARV. J.L. & TECH.* 401, 402 (2010).

54. See DANIEL J. SOLOVE, *UNDERSTANDING PRIVACY* 27 (2008); Jane B. Baron, *Property as Control: The Case of Information*, 18 *MICH. TELECOMM. & TECH. L. REV.* 367, 389 (2012); Samuelson, *supra* note 13, at 1138; see also *Moore v. Regents of the Univ. of Cal.*, 793 P.2d 479 (Cal. 1990) (holding that a conversion remedy could not be based on privacy interests in the case where a doctor appropriated and commercialized cancer cells without the patient's informed consent).

55. See Cohen, *supra* note 14, at 1984.

56. See *Zacchini v. Scripps-Howard Broad.*, 433 U.S. 562, 576 (1977) (describing a parallel of IP and the right of publicity); see also Viktor Mayer-Schönberger, *Beyond Privacy, Beyond Rights — Toward a “Systems” Theory of Information Governance*, 98 *CALIF. L. REV.* 1853, 1862–68 (2010) (contrasting U.S.-style propertization of privacy and the European-style approach of fundamental rights and personality rights). The lines between IP-like commercial aspects of personality and idealist aspects of personalities might be increasingly

sonality rights in Europe.⁵⁷ However, in most online privacy scenarios an individual data point such as a single IP address does not interfere with notions of personality. Instead of focusing on personality, the control theory can be used to comment on commodifying privacy.

First, a property right can be consented away, and IP and privacy face similar consent dilemmas. On social media, users routinely grant a worldwide, non-exclusive, royalty-free license — with the right to sub-license — to their copyrighted content by accepting the Terms of Service agreements.⁵⁸ Privacy policies that govern if and how a website or technology can gather, use, or disclose a user’s data are equally diverse, are often far-reaching, and are thus hard for users to discern and calculate costs and benefits holistically.⁵⁹ The legal question, of course, is to decide whether these licenses are enforceable. The more a legal analysis is descriptively informed by behavioral research into user expectations and cognitive biases, the less inclined it will be to enforce these terms. However, such an analysis will ultimately fall short if it is normatively driven by an antecedent control theory with individualist, liberal notions of choice and consent. The control theory struggles to explain why people expressly value privacy highly, but easily and consciously give it up.⁶⁰

Second, IP shows that liability rules such as enforced compulsory licenses might be an alternative where property rules fail.⁶¹ We do not have to understand the control theory as requiring injunctions; it could also entitle parties to remuneration. If people cannot prevent an invasion of their privacy or the bargaining costs are too high, they might at least be able to capitalize on companies’ use of their data. Then the appeal of a property-based privacy approach would lie in ancillary remedies. Property is also subject to claims for restitution.⁶² Restitution does not address harms but rather unjust benefits. Restitution may

harder to draw in the online world where data is increasingly commercialized. *See, e.g.*, *Fraley v. Facebook, Inc.*, 966 F. Supp. 2d 939 (N.D. Cal. 2013) (regarding alleged misappropriation of Facebook users’ names and likenesses in sponsored advertisements). The right of publicity, commercial aspects of personality rights (Germany), or different doctrines such as passing off (United Kingdom) are even closer cousins to IP rights, and many rules, from those for calculating damages to private international rules, follow the same principles.

57. *See, e.g.*, Karl-Nikolaus Peifer, *Eigenheit oder Eigentum — Was schützt das Persönlichkeitsrecht?*, 104 *Gewerblicher Rechtsschutz und Urheberrecht* [GRUR] 495, 498 (2002) (Ger.).

58. *See* Casey Fiesler, Cliff Lampe & Amy S. Bruckman, *Reality and Perception of Copyright Terms of Service for Online Content Creation*, C.S.C.W. PROC. 1450, 1451 (2016) (surveying the licensing provisions of 30 social media websites and the respective user expectations).

59. *See* Daniel J. Solove, *Introduction: Privacy Self-Management and the Consent Dilemma*, 126 *HARV. L. REV.* 1880, 1881 (2013).

60. *See* NISSENBAUM, *supra* note 9, at 104–08.

61. *See supra* note 18 (discussing “property rule”).

62. *See* Daniel Friedmann, *Restitution of Benefits Obtained Through the Appropriation of Property or the Commission of a Wrong*, 80 *COLUM. L. REV.* 504, 505 (1980).

be available where tort remedies would fail, since online privacy violations, which are small on an individual level, do not result in what is traditionally understood as a harm.⁶³

Third, the flip side of consent is seen in hold-ups, where privacy could learn a lesson from IP. When a single patent covers a component of a complex product, the patent holder might want manufacturers to invest in product design only to hold up and charge excessive royalties when their product is well established. Given that many patents are bundled together to make the complex technology work, the problem is not resolved by manufacturers researching the market more, but by introducing fewer new products and thus less innovation. Hold-up situations might also occur in online privacy.⁶⁴ What is data about a certain demographic worth if individual people do not consent? The promise of big data is to have all data, to speak in statistical language, in order to analyze the whole population, not just extrapolate from a sample to make inferences about the population. A sample excluding the group of people who care most about privacy would be biased. Anonymization and pseudonymization may be technological answers,⁶⁵ supplemented perhaps by legal limitations likened to those in IP, such as fair use or limitations to injunctions based on proportionality.⁶⁶

III. LESSONS IF PRIVACY IS UNDERSTOOD AS ACCESS TO INFORMATION

Another well-established theory conceptualizes privacy as access. According to the restricted access theory, privacy is context-specific and driven by “our concern over our accessibility to others.”⁶⁷ This theory does not focus — as the privacy as control theory does — on a state, namely control, but rather on a process: enabling access. In that sense, it does not originate positively from a perspective of what we possess — like the control theory — but rather negatively from a perspective of how to mitigate losses.⁶⁸ This theory moves away from the one-sided focus on the person generating the data to a more social paradigm. Unlike the control theory, access theory is not intuitively

63. See M. Ryan Calo, *The Boundaries of Privacy Harm*, 86 IND. L.J. 1131, 1135–36 (2011).

64. See Lemley, *supra* note 13, at 1553.

65. See, e.g., Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L 119) 1, Recital 28, 29.

66. Cf. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

67. Gavison, *see supra* note 8, at 423.

68. *See id.*

connected to subjective (property) rights, but rather to other kinds of regulation.

So what can IP learn from this perspective, and what might the IP perspective reflect back on privacy as restricted access? This Note suggests that the access theory might shift our focus to the public domain in Section III.A and trade secret law in Section III.B.

A. Invigorating the Public Domain

The restricted access theory draws our attention to the respective opposites of privacy and IP. Interestingly, in both cases, the public domain opposes privacy and IP. IP carves out a protected part of the public domain. It is therefore an anticompetitive intervention by the state to guarantee private rights. Privacy protection also carves something out of the public domain. This is the premise of early law and economics criticism of privacy rights as the restriction of information is anticompetitive.⁶⁹ IP and privacy play inverse roles: In IP, taking a stance in favor of the public domain is the progressive position and a rather fuzzy concept; in privacy, favoring strong protection is progressive whereas the public domain signifies free competition and national security.⁷⁰ The following Sections explain what these inverse perceptions of the public domain might teach each other.

1. An Institutional Watchdog for the Public Domain

In both fields, the public domain does not have an institutional actor apart from “the market” assigned to it, but perhaps it should. IP right holders and the Patent & Trademark and Copyright Offices favor strong IP protection, whereas consumers and data protection agencies favor strong privacy protection. Antitrust offices investigate IP rights only in the context of an abuse of a dominant market position; cases concern mostly standard essential patents, not invalid rights clogging up the public domain.⁷¹ European countries pioneered data protection

69. See *supra* Section II.A.

70. See LESSIG, *supra* note 10, at 200–01.

71. Fraudulent patent procurement and “sham” enforcement may constitute an antitrust violation as an exception to the Petition Clause of the First Amendment as interpreted in the *Noerr* doctrine. See *E. R.R. Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127, 137–38 (1961) (holding that soliciting government action to pass laws does not constitute an antitrust violation). The Supreme Court extended *Noerr*, even if the pleading was accompanied by an anticompetitive intent or purpose. See *United Mine Workers of Am. v. Pennington*, 381 U.S. 657, 670 (1965) (extending *Noerr* to the administrative arena); *Cal. Motor Transp. Co. v. Trucking Unlimited*, 404 U.S. 508, 516 (1972) (extending *Noerr* to the judicial branch). The Supreme Court later carved out two exceptions: one for “sham” litigation and one for fraud or misrepresentation during the petitioning. The “sham” exception does not immunize behavior which is (1) “objectively baseless in the sense that no reasonable litigant could realistically expect success on the merits” and (2) subjectively baseless as

agencies, often personified as “data protection commissioners.” Especially in the case of the Federal Trade Commission (“FTC”) in the U.S., the Janus-faced agency which is both a privacy and antitrust watchdog, it is surprising that an authority starting out with a free-competition agenda became the creator of the quasi-common law of privacy.⁷² With the ubiquitous under-enforcement of privacy, a free-competition counter-agency is not needed.

But there might be a need for a free-competition agency for IP, especially for registered rights such as trademarks and patents. A putative patent infringer who invalidates a patent wins the infringement suit. However, she has to share the benefits of the invention falling into the public domain with all competitors. This forced sharing undercuts the incentive to independently start infringement suits and to fight them through; it encourages settlements over invalid patents at the expense of the public domain.⁷³ Thus, registered IP rights have a built-in free-riding problem. Incentives are especially low for non-infringers who would have to defend the public domain altruistically despite high litigation costs.

The lesson here is that the underrepresented side of the right/public domain distinction needs an institutional actor assigned to it. Thus there might be a need for an agency advocating the public domain and initiating invalidity proceedings. This could be modeled after a European-style “data protection commissioner”⁷⁴ or after the role of the Attorney General in U.S. privacy law.

“an attempt to interfere directly with the business relationships of a competitor.” See *Prof'l Real Estate Inv'rs, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 60–61 (1993) (regarding a counteraction to a copyright case). The Supreme Court's decision does not reference earlier cases such as *Handgards, Inc. v. Ethicon, Inc.*, 601 F.2d 986, 990–91 (9th Cir. 1979), *cert. denied*, 444 U.S. 1025 (1980) and *Virtue v. Creamery Package Mfg. Co.*, 227 U.S. 8, 37–38 (1913) (“Patents would be of little value if infringers of them could not be notified of the consequences . . . [this] by itself cannot be said to be illegal. Patent rights, it is true, may be asserted in malicious prosecutions as other rights, or asserted rights, may be.”). The fraud/misrepresentation exception covers enforcing a patent obtained by fraud. See *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 176 (1965); *cf.* Case C-457/10 P, *AstraZeneca v. Comm'n*, 2012 E.C.R. I-770; see also Christopher R. Leslie, *Patents of Damocles*, 83 IND. L.J. 133 (2008). On the other hand, attorneys general have authority to prosecute bad faith patent enforcement under some state laws (subject to the limits of federal preemption). See, e.g., Peter J. Wied, *Patently Unfair: State Unfair Competition Laws and Patent Enforcement*, 12 HARV. J.L. & TECH. 469, 487–504 (1998); Paul R. Gugliuzza, *Patent Trolls and Preemption*, 101 VA. L. REV. 1580, 1599–1600 (2015).

72. See Calo, *supra* note 24, at 681–82; Daniel Solove & Woodrow Hartzog, *The FTC and the New Common Law of Privacy*, 114 COLUM. L. REV. 583, 586, 598–600 (2014).

73. See Mark A. Lemley & Carl Shapiro, *Probabilistic Patents*, 19 J. ECON. PERSPECT. 75, 88–89 (2005).

74. See ALEXANDER PEUKERT, *DIE GEMEINFREIHEIT* 276 (2012) (Ger.).

2. Standardized Ways To Let Rights Enter the Public Domain

The public domain is not only underrepresented on the level of institutional actors, but also on the level of ownership. Privacy can learn a lesson from IP to invigorate the public domain. Whereas the restricted access theory hinges on privacy's relativism (that is, privacy and its limitations only exist in relation to one another), IP rights have both relativist limitations (such as the fair use defense in copyright) as well as absolute limitations (such as a limited term). One of these absolute limitations is that IP rights can be waived at the leisure of the right holder. Patents and trademarks as rights based on primarily economic foundations can be waived. European-style copyright law founded in personhood theory does not allow the right to be waived;⁷⁵ however, different licensing structures are possible.

Creative Commons licenses allow authors to tailor access to their works in a standardized way with easy-to-understand notices to reduce transaction costs, especially in the disaggregated online world.⁷⁶ Why is there no equivalent for Creative Commons in privacy?⁷⁷ Consumers themselves may want to grant access to their data in a standardized form. They would also certainly look forward to standardized, easy-to-understand privacy notices. Creative Commons is also an example of how private ordering, instead of government allocation of subjective rights, can regulate privacy.

B. Trade Secret Law as the Better Analogy?

Under the restricted access theory, trade secret law might appear to be a better reference point than IP. After all, trade secret law rests on the economic assumption that affording a commercial enterprise legal protection for their confidential information reduces socially wasteful investment in factual protection of secrecy.⁷⁸ Trade secrets are not absolute rights, but protect against certain unlawful means of obtaining information. Scholars analogize trade secrets often to IP, or as a hybrid between IP/property and unfair competition/tort.⁷⁹

75. See, e.g., Gesetz über Urheberrecht und verwandte Schutzrechte [Urheberrechtsgesetz] [UrhG] [Copyright Act], Sept. 9, 1965, BGBl. I at 1273, last amended by Gesetz [G], Oct. 1, 2013, BGBl. I at 3714, art. 29 (Ger.), http://www.gesetze-im-internet.de/englisch_urhg [<https://perma.cc/9BSP-8RJT>].

76. *Frequently Asked Questions*, CREATIVE COMMONS (Aug. 4, 2016), <https://creativecommons.org/faq/#what-is-creative-commons-and-what-do-you-do> [<https://perma.cc/WD5X-G4AV>].

77. See JONATHAN ZITTRAIN, *THE FUTURE OF THE INTERNET AND HOW TO STOP IT* 225 (2008).

78. See, e.g., Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311, 334 (2008).

79. See, e.g., *id.* at 313; see also Lauren Henry Scholz, *Privacy as Quasi-Property*, 101 IOWA L. REV. 1113 (2016).

Many articles observe the parallels between trade secrets and privacy with respect to restricting access to information. Ironically, articles argue in both directions: Re-conceptualizing trade secrets as privacy rights,⁸⁰ and rethinking privacy rights as trade secrets.⁸¹ Privacy law, like trade secret law, is relativist, as it exists under the restricted access theory only in a certain relationship, not against the world at large. Arguably, strong legal privacy protection also reduces social waste to guard information. This might be an argument against placing too much emphasis on technological solutions to privacy issues. Protecting privacy through a factual obfuscation strategy, such as through a browser plugin that systematically clicks ads to obscure user profiles,⁸² might seem like a clever solution through code but is ultimately socially wasteful.

Professor Pamela Samuelson observed that trade secret licensing default rules might give guidance for privacy to prevent the resale of data: Trade secret law generally does not presume that a non-exclusive licensee obtains the right to transfer or reuse the licensed information.⁸³ Professor Sharon Sandeen noted that the protection of business data in trade secret law is more comprehensive than the protection of private information.⁸⁴ The difference might rest on the distinction that historically, privacy is linked to personality, not confidentiality, at least in the United States and in continental Europe.⁸⁵ Indeed, Samuel Warren and Louis Brandeis⁸⁶ developed the right of privacy to a large extent out of personality rights in copyright before publication:⁸⁷ copyright before publication is a personality right to prevent publication, but after publication it is a property right. Similarly, privacy in Europe has strong ties to constitutional rights due to its historic link to the constitutional protection of personality.⁸⁸

80. See Bruce T. Atkins, *Trading Secrets in the Information Age: Can Trade Secret Law Survive the Internet?*, 1996 U. ILL. L. REV. 1151 (1996).

81. See Sharon K. Sandeen, *Relative Privacy: What Privacy Advocates Can Learn from Trade Secret Law*, 2006 MICH. ST. L. REV. 667 (2006); Samuelson, *supra* note 13, at 1151–70.

82. See JOHN PALFREY & URS GASSER, *BORN DIGITAL – HOW CHILDREN GROW UP IN A DIGITAL AGE* 74 (2d ed., 2016).

83. See Samuelson, *supra* note 13, at 1155.

84. See Sandeen, *supra* note 81, at 672.

85. See Neil M. Richards & Daniel J. Solove, *Privacy's Other Path: Recovering the Law of Confidentiality*, 96 GEO. L.J. 123 (2007) (explaining that English privacy law operates on a basis of confidentiality).

86. See Warren & Brandeis, *supra* note 40, at 205–07.

87. See Jessica Bulman, *Publishing Privacy: Intellectual Property, Self-Expression, and the Victorian Novel*, 26 HASTINGS COMM. & ENT. L.J. 73 (2003); Rochelle Cooper Dreyfuss, *Warren and Brandeis Redux: Finding (More) Privacy Protection in Intellectual Property Lore*, 1999 STAN. TECH. L. REV. 8 (1999).

88. See, e.g., Bundesgerichtshof [BGH] [Federal Court of Justice] May 25, 1954, NEUE JURISTISCHE WOCHENSCHRIFT [NJW] 1404, 1954 (Ger.) (developing a general right to privacy as a fundamental right linked to personality).

In many online privacy settings, however, some accrued data does not appear to be linked to personality anymore. Trade secret law does not have the drawback of being derived from a basis in personality rights, but it has other downsides. For instance, most jurisdictions deny protection for trade secrets that are not commercially relevant or that cover “trivial” information.⁸⁹ In big data scenarios, both in industry 4.0⁹⁰ as well as in consumer privacy, these definitions are dated because the individual information might be irrelevant, but not the aggregated data.

It remains true, however, that the trade secret analogy does not have the aforementioned personality and property drawback. Looking at privacy through the restricted access theory stresses this point.

IV. LESSONS IF PRIVACY IS UNDERSTOOD AS CONTEXTUAL INTEGRITY

The last theory under which to analyze what IP can learn from privacy, and vice versa, is Professor Helen Nissenbaum’s theory of privacy as contextual integrity. This sociological theory focuses on the context in which personal information flows, the capacities in which the individuals are sending and receiving the information, and the types of information involved to determine whether there should be privacy protection.

More specifically, the theory argues that “norms of appropriateness” determine whether a certain type of personal information is appropriate to divulge within a particular context, and that “norms of distribution” restrict information flow within and across different contexts.⁹¹ Under contextual integrity, context is not only the descriptive starting point of the theory but also a normative mandate: contextual values require that informational norms are maintained, thus preserving contextual integrity and presuming a violation of privacy.⁹² Contextual integrity has been criticized as conservative in light of technological change and as masking a necessary balancing of inter-

89. *See, e.g.*, Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the Protection of Undisclosed Know-How and Business Information (Trade Secrets) Against their Unlawful Acquisition, Use and Disclosure, 2016 O.J. (L 157) 1, Recital 14 (excluding “trivial information” from the definition of trade secret).

90. Commission Staff Working Document, *A Digital Single Market Strategy for Europe – Analysis and Evidence*, at 57, SWD (2015) 100 final (June 5, 2015); *see also* Herbert Zech, “Industrie 4.0” – Rechtsrahmen für eine Datenwirtschaft im digitalen Binnenmarkt, 117 GRUR 1151, 1160 (2015) (arguing for a property right vested in the entity generating the data in both user and industry scenarios).

91. *See* Nissenbaum, *supra* note 9, at 138–40.

92. *See* NISSENBAUM, *supra* note 9, at 233–34 (noting the resemblance between contextual integrity and the legal “reasonable expectations” test).

ests.⁹³ But what exactly does contextualism teach IP and reflect back on privacy? This Note posits in Section IV.A that it emphasizes the importance of social norms in IP and in Section IV.B highlights problems of flexible lawmaking.

A. IP and Social Norms

One insight of contextual integrity is that it can explain why people happily share information with others as long as certain social norms are met. To a varying degree, scholars have argued that intellectual production, too, relies or should rely more on social norms instead of on allocating intellectual property rights. An emerging line of scholarship — called “IP without IP,” or intellectual production without intellectual property — reminds us that social norms and sanctions become more relevant in areas where IP offers limited or no protection.⁹⁴ In areas like comedy, fashion, cuisine, academia, perfumes, pornography, and business ideas, social norms within discrete creative communities rather than IP rights are the tools that foster innovation. For instance, to the extent that copyright protects expressions, not ideas, only the rendition and not the content of a joke is protected. The social norm among the community of comedians not to “steal jokes” is sanctioned by shaming or loss of community benefits.⁹⁵ These are generally quick, efficient and low-cost remedies, though they do not work on high-status members who are not dependent on the community for support (and may not work on very low-status members not committed to the community).⁹⁶ Some communities have developed norms for giving and receiving information; empirical research shows that knowledge transfer depends on the expectation that recipients of knowledge will conform to norms of knowledge use.⁹⁷ Another line of scholarship concerning “knowledge commons,” defined as institutionalized community governance of the sharing and creation of intellectual resources as an alternative to IP

93. See Michael D. Birnhack, *A Quest for a Theory of Privacy: Context and Control*, 51 JURIMETRICS 447 (2011).

94. See Rochelle Cooper Dreyfuss, *Does IP Need IP? Accommodating Intellectual Production Outside the Intellectual Property Paradigm*, 31 CARDOZO L. REV. 1437, 1439 (2010).

95. See Dotan Oliar & Christopher Sprigman, *There’s No Free Laugh (Anymore): The Emergence of Intellectual Property Norms and the Transformation of Stand-Up Comedy*, 94 VA. L. REV. 1787 (2008).

96. See J. Richard Hackman, *Group Influences on Individuals*, in HANDBOOK OF INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY 1506 (Marvin Dunnette ed., 1976).

97. See, e.g., Emmanuelle Fauchart & Eric von Hippel, *Norms-Based Intellectual Property Systems: The Case of French Chefs*, 19 ORG. SCIENCE 187 (2008); Giada Di Stefano, Andrew A. King & Gianmario Verona, *Kitchen Confidential? Norms for the Use of Transferred Knowledge in Gourmet Cuisine*, 35 STRAT. MGMT. J. 1645 (2013).

rights,⁹⁸ may bear an even closer resemblance to the contextual integrity theory of privacy.

Social norms do not simply substitute IP, and might be at odds with it. It is, of course, a difficult normative question whether norm-based systems should be dignified by law-based systems, and, conversely, whether law-based systems should be designed to match social norms. An example where social norms do not follow the legal norms of IP is file sharing. Empirical research shows that illegal file sharers do not feel guilty about their conduct.⁹⁹ Another example is that patent law is disjoined from social norms of scientific production: Why do patent documents not look more like technical literature but rather tend to obfuscate their teaching?¹⁰⁰ If evidence-based IP policy is favored,¹⁰¹ why is a certain change in patent law not tested in randomized trials?¹⁰² An orientation on these methods might provide a real counterfactual and thus remedy economist Fritz Machlup's old complaint that the empirical evidence is inconclusive as to whether a patent system should be introduced or abolished.¹⁰³

B. Contextualizing IP and Privacy

Contextualizing IP and privacy in these ways, however, would be difficult. International treaties, most notably the Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS"), demand minimum standards and lock IP into the status quo. Relying on a principle of mutual consent by all signatories, multilateral treaties can only be changed with great difficulty.

Therefore, some countries have opted for plurilateral and bilateral agreements and have inserted IP provisions into trade agreements to push for higher IP standards.¹⁰⁴ Trade agreements come with many advantages for the signatories who are advocates of strong IP rights. First, compliance with TRIPS can be enforced through trade sanctions, unlike most international agreements, which lack enforcement

98. Michael J. Madison, Katherine J. Strandburg & Brett M. Frischmann, *Knowledge Commons*, in RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (VOL. II – ANALYTICAL METHODS) (Peter Menell & David Schwartz eds., forthcoming 2016) (providing an overview of different strands of "commons" scholarship).

99. See MÅNS SVENSSON & STEFAN LARSSON, SOCIAL NORMS AND INTELLECTUAL PROPERTY 59 (2009).

100. See Sean B. Seymore, *The Teaching Function of Patents*, 85 NOTRE DAME L. REV. 621, 641 (2010).

101. See *supra* note 3.

102. See Lisa Larrimore Ouellette, *Patent Experimentalism*, 101 VA. L. REV. 65 (2015).

103. See SUBCOMM. ON PATENTS, TRADEMARKS, AND COPYRIGHTS OF S. COMM. ON THE JUDICIARY, 85TH CONG., AN ECONOMIC REVIEW OF THE PATENT SYSTEM, STUDY NO. 15, at 32 (Comm. Print 1958) (prepared by Fritz Machlup).

104. Josef Drexl, *The Concept of Trade-Relatedness of Intellectual Property Rights in Times of Post-TRIPS Bilateralism*, in TRIPS PLUS 20, at 54–56 (Josef Drexl et al. eds., 2016).

mechanisms, such as the Paris Convention for the Protection of Industrial Property.¹⁰⁵ Second, trade agreements are typically negotiated in secret — participants in the Trans-Atlantic Trade and Investment Partnership (“TTIP”) or the Trans-Pacific Partnership (“TPP”) may have wished to piggyback IP on these trade agreements to avoid public scrutiny.¹⁰⁶ Third, developed countries have used trade agreements to make trade concessions a bargaining chip for IP protection tailored to their tastes, for which sharp criticism ensued.¹⁰⁷ The same debate will increasingly be mirrored in privacy as many trade agreements contain privacy provisions.¹⁰⁸ Developed countries have also used negotiation leverage in trade to impose their conceptions of privacy on other countries.¹⁰⁹

Although these minimum standards are principle-based rather than rule-based, they will nonetheless create inertia against policy changes in the future. For example, it is unlikely that the international community would suddenly agree that an alternative system such as a reward system would be better suited to solve the public goods problem in IP. Some principles have a place in the legal discussion just for their utility as workarounds: in patent law, for example, the principle of technological neutrality embodied in Article 27(1) of TRIPS was designed as a broad anti-discrimination clause, targeted to harmonize the different attitudes in member states concerning certain kinds of subject matter.¹¹⁰ Nowadays, states in search of policy levers that can be used to customize patent rules to different industries regard Article

105. Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 64, Apr. 15, 1994, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994).

106. Ever since Wikileaks published the IP proposals of the Anti-Counterfeiting Trade Agreement (“ACTA”), the secret negotiation mechanism in trade agreements has been controversial. See *Proposed US ACTA plurilateral intellectual property trade agreement (2007)*, WIKILEAKS (May 22, 2008), https://wikileaks.org/wiki/Proposed_US_ACTA_multilateral_intellectual_property_trade_agreement (last visited Sept. 25, 2016).

107. See Drexl, *supra* note 104, at 64–65 (providing the example of geographical identifications where the concepts in the United States and Europe differ, so that no compromise was reached during TRIPS negotiations. Instead, both players assert their preferred concept in trade negotiations with developing countries to make it the internationally dominant concept; if double-bound, this practice can result in potentially conflicting rules for the developing country to implement).

108. *E.g.*, whether or not to include “data flows” and “data localization” clauses in TTIP and in the Trade in Services Agreement (“TiSA”), which would overlap with the newly negotiated “Privacy Shield.” See Commission Implementing Decision (EU) 2016/1250 of 12 July 2016 pursuant to Directive 95/46/EC of the European Parliament and of the Council on the Adequacy of the Protection Provided by the EU-U.S. Privacy Shield, 2016 O.J. (L 207) 1.

109. *Cf.* NELSON REMOLINA ANGARITA, TRATAMIENTO DE DATOS PERSONALES 85–86 (2013) (Colom.) (explaining how Colombian privacy law responded to EU law and OECD principles).

110. Graeme B. Dinwoodie & Rochelle C. Dreyfuss, *Diversifying without Discriminating: Complying with the Mandates of the TRIPS Agreement*, 13 MICH. TELECOMM. & TECH. L. REV. 445, 448 (2007).

27(1) of TRIPS as a hindrance and seek to construe it narrowly.¹¹¹ In copyright law, (re-)introducing formalities and thus reducing the number of protected works might be socially desirable to better enable cultural production on the Internet, yet it would likely constitute a violation of the Berne Convention.¹¹²

It has always been perceived as a downside that privacy law is not governed by international treaties, but only by soft-law approaches such as the principles of the Organization of Economic Cooperation and Development (“OECD”). Perhaps this state of affairs may have upsides, as the law is not locked in prematurely. Imagine locking in privacy protection laws ten years ago by mapping them onto MySpace, a now defunct social media platform whose main privacy problem seems to have been inappropriate adult/adolescent interaction.¹¹³ Regulating Snapchat, the social media platform where photos are automatically “deleted” after they are exchanged, might arguably look different depending on whether the problem it presents is teenagers sexting¹¹⁴ or exchanging more than a hundred thousand selfies per month with filters and drawings.¹¹⁵

Contextual theory might even offer more specificity than principle-based lawmaking. Lawmaking perpetually struggles between context-specificity and fragmentation. The insight of contextualism could be that it is not necessary to make binary distinctions. Many IP legal distinctions are predominately binary, such as the dichotomy between protection and no protection. But under contextual integrity, the appropriateness depends on the context, the role, and the subject of personal information, so that binary distinctions like a control theory, a DRM-style “ownership of information” model (tracking data like watermarking photos),¹¹⁶ or the division of information into “public information” and “private information” are not convincing.¹¹⁷ Contextualism has developed decision heuristics to incorporate a dimension

111. *See id.* at 450–53.

112. *See* Symposium, *Reform(aliz)ing Copyright for the Internet Age*, 28 BERKELEY TECH. L.J. 1415–1622 (2013).

113. *MySpace Deletes 29,000 Sex Offenders*, REUTERS (Jul. 24, 2007), <http://www.reuters.com/article/us-myspace-sexoffenders-idUSN2424879820070724> [<https://perma.cc/U6NF-9FHL>].

114. *See 5 Dangerous Apps You Don't Know Your Kids Are Using*, FOX NEWS (Jan. 31, 2015), <http://www.foxnews.com/tech/2015/01/31/5-dangerous-apps-dont-know-your-kids-are-using.html> (last visited Dec. 15, 2016).

115. *See* Ben Rosen, *My Little Sister Taught Me How To “Snapchat Like The Teens.”* BUZZFEED (Feb. 8, 2016), <http://www.buzzfeed.com/benrosen/how-to-snapchat-like-the-teens> [<https://perma.cc/553S-57VQ>].

116. *See* Viktor Mayer-Schönberger, *Beyond Copyright: Managing Information Rights with DRM*, 84 DENV. U. L. REV. 181, 190 (2006).

117. *See* Adam Barth, Anupam Datta, John C. Mitchell & Helen Nissenbaum, *Privacy and Contextual Integrity: Framework and Applications*, 27TH I.E.E.E. PROC. SYMP. ON SECURITY AND PRIVACY (2006).

of context and timing into legal norms,¹¹⁸ which could make lawmaking generally more consistent and serve as a model for a nuanced implementation of theory into legal norms.

V. CONCLUSION

This Note uses the main theories of privacy — control, limited access, and contextual integrity — to explain what lessons IP can draw from these theories. It also mirrors some lessons back to privacy. First, the Note associates control theory with a cluster of linked ideas: notions of scarcity, the presumptive strength of enforcement, the tendency to not strictly distinguish between intangible and tangible subject matter in borderline cases, and the link between consent and commercialization — in both IP and privacy. Second, the Note shifts perspective from the commonly employed property-like control theory to access theory. It posits that thinking from the respective other side of the binary distinctions “government vs. private” and “commercial vs. private” may be fruitful: The Note explores additional government safeguards in the public domain for IP through analogy to privacy institutions, envisions privacy through Creative Commons instead of government regulation, and explores links between private and commercial data protection. Lastly, the Note draws from contextual integrity to dissolve the binary distinctions of IP, contemplating how to infuse context and social norms into IP.

The Note does not suggest favoring one theory over the other. Instead, it seeks to provide a more rigorous framework under which to analyze IP and privacy, two areas of law that have always been associated intuitively. Its aim is to provide a starting point for further creative thinking about the intersection between IP and privacy.

118. *Id.*