

THE PROCEDURAL FOUNDATIONS OF ~~INTELLECTUAL~~
~~PROPERTY~~ INFORMATION REGULATION

by
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In the academy, legal scholarship on intellectual property, or “IP,” abounds, most of it focusing on the substance of IP. Far less, however, is written about the procedural aspects of IP. This Article focuses on the often-ignored procedural foundations of IP and suggests—at a minimum—that procedure so thoroughly pervades IP that IP’s true foundations might be in procedure rather than substance. Considering “IP as procedure” may further allow us to recognize that IP procedures may need to be reconceptualized within a broader field of information regulation procedures.

I.	Introduction	110
II.	What Is “IP Procedure”?	114

* © 2019 Ira Steven Nathenson, Professor of Law and Director, Intellectual Property Law Certificate Program, St. Thomas University School of Law. A prior version of this Article was presented at the September 2018 Business Law Fall Forum at Lewis & Clark Law School, a conference that focused on the intersection of intellectual property and civil procedure. As discussed later in this Article, the redline through the phrase “Intellectual Property” is intentional.

I would like to thank the Forum’s participants for their comments on an earlier draft of this Article: Professors Daniel J. Gervais, Lydia Loren, Tony Reese, Zahr Said, Christopher Jon Sprigman, Marketa Trimble, Saurabh Vishnubhakat, and Molly Shaffer Van Houweling. My Article also benefitted from the ideas discussed by a group of internet/tech/IP professors at Elon University where we workshopped a forthcoming casebook on Information Law by Professors David Levine and Sharon Sandeen. My thinking further benefitted from the panelists of an AALS Civil Procedure panel I moderated in January 2018, *Procedure as Technology/Technology as Procedure*, so additional thanks to Professors Simona Grossi, Megan M. La Belle, Thomas O. Main, Frank Pasquale, Judith Resnik, and Alan M. Trammell. Finally, I would like to thank Professor Loren for inviting me to the Lewis & Clark Forum, and to express my gratitude to the editors of the *Lewis & Clark Law Review* for their assistance and patience, particularly Audrey Davis and Savannah Wolfe.

Other articles from the Lewis & Clark Forum were previously published in this journal in Volume 23, Issue 2 (2019). This Article—intended to lay out my ideas, even if not in optimal form—is a belated addition, the delay caused by the sudden and successive deaths this past year of both my parents, who were married 58 years. This Article is in their memory. Any errors or shortcomings in this Article—as they are in life—are mine alone.

A.	<i>Why Do I Care About Procedure?</i>	114
B.	<i>Why Should We Care About Procedure?</i>	115
C.	<i>So What Is IP Procedure?</i>	116
III.	IP as Procedure.....	119
A.	<i>Procedures Used to Enforce IP Rights in and out of Court</i>	119
1.	<i>Legal Process (In-Court) IP Procedure</i>	120
a.	<i>Transsubstantive IP Procedure</i>	120
b.	<i>Exceptionalist IP Procedure</i>	121
2.	<i>Extra-Legal (Out-of-Court) IP Procedure</i>	124
a.	<i>Direct IP Enforcement</i>	124
b.	<i>Indirect Enforcement</i>	126
c.	<i>Algorithmic Enforcement</i>	129
B.	<i>IP's Inherent Procedural Structure Illustrated</i>	130
1.	<i>Patents</i>	130
2.	<i>Copyrights</i>	131
3.	<i>Trademarks</i>	133
4.	<i>Trade Secrets</i>	134
IV.	Implications for a Law of Information Regulation.....	134
A.	<i>The Procedural Foundations of Intellectual Property</i>	135
B.	<i>Information Regulation Procedure</i>	138
C.	<i>Countervailing Considerations</i>	141
V.	Conclusion.....	143

I. INTRODUCTION

I'll assume that the reader is familiar with the film *The Matrix*.¹ In that film, the hero, Neo, is a man living alone, trying to find out the truth of the seemingly straightforward world in which he lives.² Eventually Neo finds a man, Morpheus, and seeks answers to the burning questions that keep him up, "night after night, [sitting at his] computer."³ They talk:

Morpheus: . . . Let me tell you why you're here. You're here because you know something. What you know you can't explain, but you feel it. You've felt it your entire life, that there's something wrong with the world. You don't know what it is, but it's there, *like a splinter in your mind, driving you mad*. It is this feeling that has brought you to me. Do you know what I'm talking about?

Neo: The Matrix.

¹ THE MATRIX (Warner Brothers 1999).

² *Id.*

³ *The Matrix*, WIKIQUOTE, [https://en.wikiquote.org/wiki/The_Matrix_\(film\)](https://en.wikiquote.org/wiki/The_Matrix_(film)) (last visited Sept. 9, 2019).

Morpheus: Do you want to know what it is?⁴

Soon, Neo learns that the substance of “reality” is an illusion. As a character in a later scene in the film notes, “[t]here is no spoon,”⁵ i.e., the “reality” of *The Matrix* is an illusion.

In this Article, I make a similar claim about intellectual property, or “IP”: there is no spoon, i.e., there is no such *thing* as IP in isolation.⁶ Instead, IP only makes sense as a concept when one also considers the *procedures* attendant to the regulation of “IP” information. My perspective is admittedly influenced by the fact that in addition to teaching IP and internet law, I also teach *procedure*. These subjects have long fueled my scholarship, which looks at the connections between IP, technology, and procedure.⁷ But as I’ll argue below, while IP scholarship has much to say about substance—such as the boundary between idea and expression, the scope of patentable subject matter, the scope of fair use, etc.⁸—far too little is said about IP and procedure.⁹

⁴ *Id.* (emphasis added).

⁵ *Id.* The fuller quote is stated by a young boy sitting on the floor in the apartment of a truth-teller called “The Oracle.” The boy *seems* to bend a spoon with his mind. But as he illustrates to Neo, the world is not real and neither is the spoon: “Do not try to bend the spoon—that’s impossible. Instead, only try to realize the truth: there is no spoon.” *Id.*

⁶ See Michael J. Madison, *Law as Design: Objects, Concepts, and Digital Things*, 56 CASE W. RES. L. REV. 381, 381–83 (2005).

⁷ See, e.g., Ira S. Nathenson, *Civil Procedures for a World of Shared and User-Generated Content*, 48 U. LOUISVILLE L. REV. 911 (2010) [hereinafter Nathenson, *Civil Procedures*]. Even my IP classes are heavily rooted in IP procedures. My copyright, trademark, and patent classes all emphasize lawyer practice, requiring students to learn the basics of such matters as registration, searching, and enforcement. In my view, it is impossible to talk about IP without understanding the procedures that make it happen. See Ira Steven Nathenson, *Best Practices for the Law of the Horse: Teaching Cyberlaw and Illuminating Law Through Online Simulations*, 28 SANTA CLARA COMPUTER & HIGH TECH. L.J. 657, 658 (2012).

⁸ By analogy, in another context (a procedural context, confession of judgment), a judge recently cited to one case and then noted that there were a “shit ton” of other similar cases written by her colleagues. Joe Patrice, *Irritated Judge Writes the Best String Cite Ever*, ABOVE L. (Sept. 10, 2018), <https://abovethelaw.com/2018/09/irritated-judge-writes-the-best-string-cite-ever/> (quoting *S.O.S. Capital Inc. v. Sorrells Enters., LLC*, No. 803512/2018, at 2 (N.Y. Sup. Ct. Sept. 27, 2018)). Suffice it to say here that there is now a “shit ton” of IP scholarship, much more on substance than procedure.

⁹ Encouragingly, there are a number of scholars now turning their focus on the intersection of IP and procedure, such as the speakers and authors at the Lewis & Clark symposium. Daniel Gervais, *Improper Appropriation*, 23 LEWIS & CLARK L. REV. 599 (2019); Lydia Pallas Loren & Anthony Reese, *Proving Infringement: Burdens of Proof in Copyright Infringement Litigation*, 23 LEWIS & CLARK L. REV. 621 (2019); Christopher Jon Sprigman & Samantha Fink Hedrick, *The Filtration Problem in Copyright’s “Substantial Similarity” Infringement Test*, 23 LEWIS & CLARK L. REV. 571 (2019); Marketa Trimble, *The Territorial Discrepancy Between Intellectual Property Rights Infringement Claims and Remedies*, 23 LEWIS & CLARK L. REV. 501 (2019); Molly Shaffer Van

Thus, just as Neo had “burning questions” that kept him up at night, my time spent focusing on both IP and Civil Procedure have given rise to a more benign but persistently nagging question: *how does procedure affect IP, and without procedure, does IP even make sense as a coherent concept?* My quick answer: procedure does have such an effect, and without procedure, IP makes little sense.

There can be little doubt that IP procedures have a huge impact on the scope of substantive IP rights. For example, the federal patent venue statute was abused for years by patent owners, who filed suits in the Eastern District of Texas, not because of some substantial nexus to national infringement but rather because of the ease of obtaining venue in a district infamous for juries that granted huge plaintiff awards.¹⁰ The Supreme Court fixed this problem in 2017 with a more restrictive reading of the patent venue statute.¹¹ Prior to this fix, the question of patent venue had little to do with the substance of patent rights but everything to do with how much the patents were worth to the owners.¹²

In this Article, I hope to make more than the otherwise banal assertion that procedure affects substance. Instead, I argue that IP rights are *at their foundation procedural rather than substantive*. Importantly, by “procedure” I don’t mean *just* transsubstantive (i.e., all-purpose) procedures such as those contained in the Federal Rules of Civil Procedure or in the diversity jurisdiction statute. Instead, I mean *all* kinds of procedures and processes, *things we do*, that are necessary predicates to the creation of IP “rights.” Professor Betsy Rosenblatt is working on similar ideas as well, arguing that we should think of IP in terms of verbs rather than nouns.¹³ I entirely agree with her reported observation that “[w]ork, mark, and design are verbs as well as nouns; invention is a thing people do as well as an output.”¹⁴ Put differently, IP is fundamentally about what we *do*: we *fix* works in a tangible medium of

Houweling, *Equitable Estoppel and Information Costs in Contemporary Copyright*, 23 LEWIS & CLARK L. REV. 553 (2019).

¹⁰ See Paul R. Gugliuzza & Megan M. La Belle, *The Patently Unexceptional Venue Statute*, 66 AM. U. L. REV. 1027, 1030–31 (2017).

¹¹ See *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17 (2017); see also 28 U.S.C. § 1400(b) (2012).

¹² As Justice Kennedy similarly noted in the context of the interplay between patents and injunctions, a patent “injunction, and the potentially serious sanctions arising from its violation, can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent.” *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396 (2006) (Kennedy, J., concurring).

¹³ While preparing an earlier draft of this Article, I read—with a growing pit in my stomach!—that Professor Rosenblatt presented similar ideas at the Intellectual Property Scholars Conference in August of 2018. See Rebecca Tushnet, *IPSC Session 6*, 43(B)LOG (Aug. 10, 2018), <https://tushnet.blogspot.com/2018/08/ipsc-session-6.html> (discussing Betsy Rosenblatt, *Verbing Intellectual Property*, <https://www.law.berkeley.edu/wp-content/uploads/2018/07/Betsy-Rosenblatt.pdf> (last visited Sept. 9, 2019)).

¹⁴ *Id.*

expression; we *use* marks in connection with goods and services; we *disclose* a product or *process* (a *process!*, more on that later) in a *written* disclosure. We don't *own* IP; instead, as Nike says, we "just *do* it."¹⁵

Thus, IP procedures are the things we do—actions taken relating to IP, whether to vest rights, enforce rights, or limit rights and defenses. If one accepts this idea, then it becomes clear that IP is deeply intertwined with process, perhaps fundamentally so, and that it is dangerous to ignore the existence and effects of such processes. Why? Because bad process can lead to bad substantive results, either in terms of social policy or simply by causing real-world *de facto* IP rights that far exceed the judicial *de jure* rights that would be found by a court.¹⁶ Thus, by paying closer attention to how we do the IP things we do, we may better shape IP policy.

Because of these concerns, the title of this Article speaks of the "procedural foundations" of intellectual property. Just like the foundation of a building, these procedural foundations may be unseen, but the structure (here, IP) cannot exist without them. It is important to carefully consider the procedures we use to create, enforce, and limit IP, lest "cracks" in these foundations create legal structures (here, IP rights) that cannot and perhaps should not stand. We need a change in perspective,¹⁷ and it's time to look more carefully at the procedural foundations of IP rather than just the substantive rights that rest on those foundations.

Part II proposes a definition of "IP procedures," a broad one that includes in-court and out-of-court processes and actions taken relating to IP. It encompasses not just human actions but also algorithmic processes. In short, "IP procedures" are *actions taken, or a series of steps done, to achieve some sort of goal or result relating to IP*.

Part III, "IP as Procedure," is the heart of this Article, and makes the claim that IP is so heavily grounded in procedure (both in-court and out-of-court), that it makes little sense to talk about IP in isolation from the procedures that are used to create, protect, and limit IP rights. The connection between IP and procedure is so foundational that minor changes to procedures can make huge impacts on real-world substantive rights.

Part IV considers the "IP as procedure" from a more theoretical perspective and suggests that it may be better to start thinking of IP in terms of information

¹⁵ As a scholar and one who writes and teaches about copyright, I will err on the side of giving credit to Professor Rosenblatt for publicly asserting the "verb" idea first. My focus in the initial development of this Article was on the primacy of procedure in IP. Considering that *procedures* are things we *do*, *such as processes*, our ideas are quite similar, and I heartily admit that I cannot know where Professor Rosenblatt's idea ends and mine begins. They are inextricably interwoven, for sure, and in any case I will gladly cede credit to her.

¹⁶ See Nathenson, *Civil Procedures*, *supra* note 7, at 919.

¹⁷ See Orin S. Kerr, *The Problem of Perspective in Internet Law*, 91 GEO. L.J. 357, 357–58 (2003).

regulation procedures rather than as a discrete subject separate from other information-regulation regimes. This section also considers some potential counterarguments to the thesis.

II. WHAT IS “IP PROCEDURE”?

What is a “procedure”? Regarding IP, the term “procedure” would include all *civil* processes related to court litigation of IP cases, such as those found in the Federal Rules of Civil Procedure, Federal Rules of Evidence, Local Area Rules, and so on. However, a laundry list of procedures fails to provide a clear understanding of what “procedure” is. Nor is it sufficiently extensive to include other types of procedures that, while not relating to court litigation, are still central to the operation of IP. This section first explains how my own experiences led me to this thinking¹⁸ as well as why we should care about procedure and IP,¹⁹ and provides a working definition of “IP procedure.”²⁰

A. *Why Do I Care About Procedure?*

A little storytelling may shine some light on my perspective. Many of the ideas here are fueled by my own experiences as a lawyer, a teacher, and a scholar. As a young lawyer, I did a lot of IP enforcement work, which involved basic enforcement grunt work, namely, researching online infringements, building files, and sending out both cease-and-desist letters (to the direct infringers) and DMCA takedown notices (to ISPs). Thus, my experience as an IP lawyer was heavily tied up in the *procedures* (here, mostly private, out-of-court procedures) used to enforce IP rights. I also served as a judicial clerk on the U.S. Court of Appeals, a job that also required constant attention to procedure.

These experiences were later channeled directly into my teaching and research. When I was an aspiring law professor looking for a job, I wanted to teach only IP and cyberlaw. When my school offered to hire me, my dean (well aware of my judicial clerkship experience) asked me to take on civil procedure “for a year or two” so that the students could get to know me. This was actually a major request on his part because at the time civil procedure was a two-semester course, which meant that in a normal teaching load for my school, I’d only get to teach my courses of choice twice a year. Figuring that the civil procedure commitment would be short-term (and gain me a job along with the good will of the administration), I did what any ambitious candidate would do: I said *yes*.

Of course, I’m in my 14th year of teaching at my current institution (out of 16 total years of teaching), and that “year or two” of teaching civil procedure has yet to

¹⁸ See *infra* Part II.A.

¹⁹ See *infra* Part II.B.

²⁰ See *infra* Part II.C.

end. And I wouldn't want it to. Civil procedure has become a huge part of my thinking and research, and as I developed my courses and research, procedural concepts gave me useful insights into the nature of IP. Like the "splinter" that kept Neo up at night, my studies of procedure have given me the unshakable feeling that there is more to IP than the *substance* of patent, copyright, etc., and that the *procedures* were equally important to the scope of IP, if not more so.

Thus, in earlier scholarship, I explored the procedural nature of IP enforcement through the takedown *processes* of the DMCA, a private enforcement mechanism created by statutory copyright law.²¹ In a later article, I argued (and remain convinced) that the bulk of copyright disputes today are resolved through private extra-legal procedures such as cease-and-desist notices, DMCA takedowns, and algorithmic enforcement code such as YouTube's Content ID system.²² In that article, I suggested that such extra-legal procedures, when used by aggressive content owners, could lead to *de facto* (real-world) IP rights that were far in excess of *de jure* (what a court would find) IP rights.²³ Whereas most of my IP colleagues seemed to be writing about the substance of IP, I was far more interested in how IP procedures could be used for good—and for evil.

B. *Why Should We Care About Procedure?*

Those who study procedure well understand how it can be used as a lethal weapon, a sharpened blade that can undercut erstwhile substantive policy. I often recall U.S. Representative John Dingell's pithy statement about the primacy of procedure over substance: "I'll let you write the substance of a statute, and you let me write the procedure, and I'll screw you every time."²⁴ Others, such as Professor Jenny Martinez, have pointed out the effects procedure can have on substantive rights.²⁵

Thus, procedure is where the real power lies. Here's one example, one that falls outside IP but serves as a rather chilling example of the substantive power that procedure can play. Reports in 2018 indicated that the (at the time) Republican-con-

²¹ See Ira S. Nathenson, *Looking for Fair Use in the DMCA's Safety Dance*, 3 AKRON INTELL. PROP. J. 121, 122–24 (2009).

²² See Nathenson, *Civil Procedures*, *supra* note 7, at 914.

²³ See *id.* at 916.

²⁴ *Regulatory Reform Act: Hearing on H.R. 2327 Before the H. App. Comm., Before the Subcomm. on Admin. Law and Governmental Regulations of the H. Comm. on the Judiciary*, 98th Cong. 312 (1983) (statement of Rep. Dingell); see also Nathenson, *Civil Procedures*, *supra* note 7, at 913.

²⁵ Jenny S. Martinez, *Process and Substance in the "War on Terror,"* 108 COLUM. L. REV. 1013, 1019 (2008) (stating that "substance and procedure are deeply intertwined").

trolled House of Representatives was considering eliminating the 200+ year-old requirement of complete diversity of citizenship²⁶ in cases arising under the diversity statute.²⁷ Few talk-show hosts or cable pundits would notice or care about this bill. *After all, it's just procedure!* But such a bill could vastly increase the number of cases on the federal court docket. Why might a Republican-controlled House want to do that? At first blush, such a proposal would seem supremely silly: state courts already exist to hear such cases and moving them to the federal courts would add to the federal deficit. So why do such a strange thing? The answer may lie in *another* procedural bill proposed by the same Congress. This second bill would add 52 *federal district court judge positions*,²⁸ presumably to be filled by a Republican president and Republican Senate. The goal, in *procedural* terms? To expand the scope of diversity jurisdiction. And the *real* goal in *substantive terms*? Nothing more than a “Midnight Judges Act of 2018,”²⁹ a justification to pack the federal judiciary with new Republican-nominated judges, in the hope that they will spend decades implementing possibly anti-majoritarian Republican goals while the demographics of the United States continue to shift increasingly Democratic.

That is the power of procedure.

C. So What Is IP Procedure?

Rounding back to the main question of this sub-part, what *is* IP procedure? Like other things that seem axiomatic, procedure as a concept is both extremely easy and extremely difficult to define. Certainly, procedure includes but is not limited to

²⁶ See *Strawbridge v. Curtiss*, 7 U.S. (3 Cranch) 267, 267 (1806); see also 28 U.S.C. § 1332(a) (2012).

²⁷ See H.R. 3487, 115th Cong. (1st Sess. 2017) (introduced July 27, 2017, scheduled for committee markup Sept. 13, 2018) (Rep. King). The bill would amend the diversity statute to eliminate *Strawbridge's* requirement of complete diversity, permitting jurisdiction premised on minimal diversity, such as in a case with at least one litigant of diverse citizenship, even if the case has citizens of the *same* state as opponents. On September 13, 2018, the bill underwent further amendments (particularly related to removal) during the House Judiciary markup session. H.R. 3487, 115th Cong. (2017) (“To amend section 1332 of title 28, United States Code, to provide that the requirement for diversity of citizenship jurisdiction is met if any one party to the case is diverse in citizenship from any one adverse party in the case.”); see also H.R. 3487 (Nadler Amendment), <https://docs.house.gov/meetings/JU/JU00/20180913/108691/BILLS-115-HR-3487-N000002-Amdt-1.pdf>. Many thanks to Professor Arthur Hellman for sharing this information with me and others.

²⁸ See H.R. 6755, 115th Cong. (2d Sess. 2018). Thanks to Professor Richard Heppner.

²⁹ The original Midnight Judges Act was an attempt by outgoing President Adams and the Federalists in Congress to pack the judiciary with Federalist judges. See *An Act to Provide for the More Convenient Organization of the Courts of the United States*, ch. 4, 2 Stat. 89 (1801) (repealed 1802). This Act indirectly led to the seminal case of *Marbury v. Madison*, which involved one of the so-called Midnight Judges. See *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 170–71 (1803).

in-court litigation procedures under codes like the Federal Rules of Civil Procedure, Evidence, Criminal Procedure, and Appellate Procedure. But such examples, though potentially useful for the beginnings of a taxonomy, provide less guidance as to what other things should also count as “procedure.”

In fact, I think of “procedure” much more broadly than court procedure. In my opinion, it includes *any process used to achieve some sort of goal or result*. In the IP context, that would mean *any process used to achieve some sort of goal or result relating to IP*. Such a definition would include not just court procedure, but also extralegal procedures such as cease-and-desist letters. Also, note the use of the passive voice (“used to achieve some sort of goal or result”), which leaves the user of the procedure unidentified. The definition thus also includes automated and algorithmic processes, such as content blocking algorithms that are used to enforce copyrights. And, as I argue later in Part IV, if we re-define “intellectual property” to be a subset of “information regulation,” then we can also recognize how other algorithms—such as loan processing algorithms or internet packet-switching protocols—serve as processes or procedures that work towards the *regulation of information*.

Additional and unintentional support for this definition is provided, badly, by the Patent Act, which tautologically defines the term “process” as follows: “The term ‘process’ means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.”³⁰ What a useless definition! Even worse than my definition (which defines “procedure” as “process”), it defines “process” as “process.” A process is a process? One could not imagine a definition more unhelpful. As Justice Stevens said in his concurrence in *Bilski*:

The text of the Patent Act does not on its face give much guidance about what constitutes a patentable process. The statute defines the term “process” as a “process, art or method [that] includes a new use of a known process, machine, manufacture, composition of matter, or material.” § 100(b). But, this definition is not especially helpful, given that it also uses the term “process” and is therefore somewhat circular.³¹

Circular indeed: if one of my 1Ls defined a term in such a manner, I would press them in class for more clarity.

But terms like “procedure” or “process” are indeed difficult to define. In recent years, the Supreme Court has struggled with what kinds of processes count as patentable subject matter, particularly regarding computer, software, and business method patents.³² In the civil procedure context, courts have similar difficulties de-

³⁰ 35 U.S.C. § 100(b) (2012).

³¹ *Bilski v. Kappos*, 561 U.S. 593, 622 (2010) (Stevens, J., concurring).

³² See *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355, 2360 (2014) (holding that an abstract idea of an intermediated settlement was a patent ineligible process). In another case, the Court held unpatentable a “procedure for instructing buyers and sellers how to protect against

fining terms like “procedure.” As Justice Reed said in his concurrence in *Erie Railroad Co. v. Tompkins*, “[t]he line between procedural and substantive law is hazy.”³³ And despite the importance of the so-called substance/procedure distinction, courts have long struggled with determining how and where to draw the line.³⁴

Regardless of the difficulties of defining “procedure,” in the context of IP, it’s not quite as difficult in the context of this Article. In the most helpful definition I’ve seen, Professor Stephen McJohn suggests that a patent “process” means making something, using something, or doing something.³⁵ I think that McJohn’s treatment of processes applies beyond just patent law to a functional definition of procedure in the law in general. Put differently, procedures are *how you do things* and not about the things themselves.³⁶

In contrast, courts that struggle with how to define the meaning of “process,” or discern the line between substance and procedure, are doing so in very different contexts. Courts trying to determine what counts as a patentable “process” are not trying to determine what *is* a process; they are trying to determine *which processes are patentable*. Courts analyzing *Erie* are not trying to figure out what procedures are; rather, they are trying to figure out when to use state law as opposed to federal law.

The stakes here are quite different: I’m trying to point out that we put too much weight on the nature of substantive IP and ignore the things we do to create,

the risk of price fluctuations in a discrete section of the economy” but declined to “define further what constitutes a patentable ‘process’” beyond looking to prior cases. *Bilski*, 561 U.S. at 598, 612.

³³ *Erie R.R. Co. v. Tompkins*, 304 U.S. 64, 92 (1938) (Reed, J., concurring).

³⁴ For instance, the Rules Enabling Act, which is the foundation of the entire Federal Rules of Civil Procedure, has a provision that federal rules of procedure “shall not abridge, enlarge or modify any substantive right.” 28 U.S.C. § 2072 (2012). In one case, Justice Scalia wrote that federal rules of procedure do not violate Section 2072(b) so long as they “really regulat[e] procedure.” *Shady Grove Orthopedic Assocs., P.A. v. Allstate Ins. Co.*, 559 U.S. 393, 407 (2010) (plurality opinion). In the same case, Justice Stevens concurred in the result but argued that the purported procedural nature of the federal rule was not determinative, but rather, that the issue “turns on whether the state law actually is part of a State’s framework of substantive rights or remedies.” *Id.* at 419 (Stevens, J., concurring in part and concurring in judgment). Scalia’s approach suffers from the common infirmity of measuring procedure by asking whether it is “really procedural.” Stevens is not much more helpful, comparing the federal procedure to the “substantive” nature of the competing state law. The point here is not to summarize cases that even the Justices do not seem to understand but to note the deep difficulties in defining something so obvious yet so nebulous: *procedure*.

³⁵ See STEPHEN M. MCJOHN, *INTELLECTUAL PROPERTY: EXAMPLES & EXPLANATIONS* 252 (6th ed. 2019) (citing DONALD S. CHISUM & MICHAEL A. JACOBS, *UNDERSTANDING INTELLECTUAL PROPERTY LAW* 2–19 (1992)).

³⁶ Interestingly, the term “process” was added to the Patent Act in 1952, replacing the former long-standing term “art.” See *Diamond v. Diehr*, 450 U.S. 175, 182 (1981).

enforce, and limit IP rights. So, if it is unsatisfying to define “procedure” as “process used to achieve some sort of goal or result relating to IP,” then let’s try this: *IP procedures are actions taken, or a series of steps done, to achieve some sort of goal or result relating to IP.* Whether we use the term “procedure,” “process,” “method,” or “algorithm,” when we use such terms in connection with IP, the terms mean essentially the same thing: things we or machines do to achieve an IP-related result.

III. IP AS PROCEDURE

Enforcing IP rights in court requires procedure; thus, the importance of “IP *and* procedure” is not in dispute. To file suit, you must draft and file a complaint that states one or more claims,³⁷ serve process,³⁸ and—if you want a court-issued remedy—obtain a judgment.³⁹ You may also take discovery⁴⁰ and assert or oppose one or more dispositive motions.⁴¹ Thus, rights without enforcement procedures are empty vessels, and having an intellectual property “right” without a process to enforce that right is meaningless. In that sense, saying that IP works with procedure is “patently obvious.”

This part, however, focuses on the idea of “IP *as* procedure,” the principle that IP is fundamentally and inherently procedural in nature. First, I explore types of procedures relating to IP. Those procedures may be in-court (legal process, such as the Federal Rules of Civil Procedure (FRCP) and the patent and copyright venue statute),⁴² and extra-legal (such as private cease-and-desist enforcement, notices of claimed infringement, and algorithmic enforcement).⁴³ Second, I explore the structure of IP itself, concluding that patents, copyrights, trademarks, and trade secrets are *themselves* inherently and fundamentally procedural in nature.⁴⁴

A. Procedures Used to Enforce IP Rights in and out of Court

Enforcement procedures include those used both in court (legal process procedures) and privately out of court (extra-legal procedures).

³⁷ FED. R. CIV. P. 8(a).

³⁸ FED. R. CIV. P. 4.

³⁹ FED. R. CIV. P. 50 (judgment as a matter of law); FED. R. CIV. P. 52 (findings and conclusions by the court; judgment on partial findings); FED. R. CIV. P. 54 (judgment and costs); FED. R. CIV. P. 55(b) (default judgment); FED. R. CIV. P. 56 (summary judgment); FED. R. CIV. P. 57 (declaratory judgment); FED. R. CIV. P. 58 (entering judgment).

⁴⁰ FED. R. CIV. P. 26–37.

⁴¹ See FED. R. CIV. P. 12(b) (pre-answer motion); FED. R. CIV. P. 12(c) (motion for judgment on the pleadings); FED. R. CIV. P. 50 (judgment as a matter of law); FED. R. CIV. P. 56 (summary judgment).

⁴² See *infra* Part III.A.1.

⁴³ See *infra* Part III.A.2.

⁴⁴ See *infra* Part III.B.

1. *Legal Process (In-Court) IP Procedure*

This section addresses court procedures used in IP cases, or “legal process” IP procedures. Put differently, by “legal process” IP procedure, I refer to procedures that apply to the *enforcement of IP rights* by a judicial or quasi-judicial decision-maker. These fall into two categories. The first are procedural rules of general applicability, or “transsubstantive,” procedural rules. These are rules that apply in all classes of civil actions, such as Rule 8(a)(2), which requires a “short and plain statement of the claim.”⁴⁵ The second are special or “exceptionalist” IP-specific procedures, such as the specialized IP subject matter and venue statutes.⁴⁶

a. *Transsubstantive IP Procedure*

One of the reasons people generally do not think of IP in procedural terms is because procedure is ubiquitous to the practice of law. Much of procedural law is “transsubstantive,” meaning that the procedures are rules of general applicability, applying in all cases, whether patent, copyright, civil rights, employment discrimination, or even basic torts and contract cases. Thus, “transsubstantive” procedure means what it sounds like—*procedural* rules that apply across the board, regardless of the various *substantive* laws at issue.

The FRCP provide some of the most obvious and basic rules of transsubstantive procedural law, such as the rules of signature and certification under Rule 11⁴⁷ and the rules requiring a short and plain statement under Rule 8(a)(2).⁴⁸ Indeed, Rule 1 expressly says that the rules contained therein “govern the procedure in all civil actions and proceedings in the United States district courts.”⁴⁹ Statutory examples include jurisdictional statutes such as the federal-question statute⁵⁰ and the diversity statute.⁵¹ Procedural case law can also be transsubstantive, such as case law defining the scope of personal jurisdiction,⁵² cases defining the bounds of subject

⁴⁵ See *infra* Part III.A.1.a.

⁴⁶ See *infra* Part III.A.1.b.

⁴⁷ FED. R. CIV. P. 11.

⁴⁸ FED. R. CIV. P. 8(a)(2).

⁴⁹ FED. R. CIV. P. 1. Other federal rules that can apply transsubstantively in IP cases include the Federal Rules of Evidence, and in appeals, the Federal Rules of Appellate Procedure.

⁵⁰ 28 U.S.C. § 1331 (2012).

⁵¹ *Id.* § 1332(a). Students often fail to realize it, but a case may fall under both federal-question and diversity jurisdiction, such as a federal employment discrimination case seeking over \$75,000 between diverse parties.

⁵² See, e.g., *Burger King Corp. v. Rudzewicz*, 471 U.S. 462 (1985). At the Supreme Court, *Burger King* was a contracts case, dealing with whether the district court had personal jurisdiction over a franchisee alleged to have breached his franchise agreement. However, before the district court, Burger King also alleged that the respondent had infringed Burger King’s trademarks. Rudzewicz did not appeal the district court’s finding that he had infringed Burger King’s trademarks. *Id.* at 469 n.11.

matter jurisdiction,⁵³ and the *Twombly-Iqbal* “plausibility” pleading standard for claims under Rule 8(a)(2).⁵⁴

b. Exceptionalist IP Procedure

More interesting are *non-transsubstantive* court-based IP procedures. Those rules are not substance-independent, but substance-dependent, meaning that they are exceptions to rules of general applicability. Rather than using the awkward term “non-transsubstantive” IP procedures, I’ll call those *exceptionalist IP procedures*, meaning they apply only in IP cases.⁵⁵ A significant example of exceptionalist IP procedure is the 1982 creation of the United States Court of Appeals for the Federal Circuit, which has exclusive jurisdiction over patent appeals and which today serves as the main body that decides important issues of patent law.⁵⁶

The law is riddled with other examples of exceptionalist IP procedures. One example would be the existence of specialized jurisdiction and venue statutes for IP claims. Section 1338 of the Judicial Code provides federal courts with original ju-

⁵³ See, e.g., *Gunn v. Minton*, 568 U.S. 251, 258–59, 261–62 (2013). *Gunn* raised the question of whether the plaintiff’s state law claim for attorney malpractice “arose under” federal patent laws when the malpractice claim hinged on the defendant attorney’s alleged failure to raise a patent issue in a former client’s prior federal patent litigation. If the state law claim with the federal patent ingredient arose under the federal patent subject matter statute, 28 U.S.C. § 1338(a), then the state court would have been divested of subject matter jurisdiction. The court held that the claim did not “arise under” federal patent jurisdiction and thus was properly heard in the state court, even though the state court would have to construe federal patent law as an element of the state law malpractice claim. See *id.* at 263–64. Although the case involved patent law, at its core *Gunn* is a transsubstantive subject matter jurisdiction opinion, further defining the limited contours of when federal court jurisdiction exists over state law claims with embedded federal ingredients.

⁵⁴ See *Ashcroft v. Iqbal*, 556 U.S. 662, 677–78 (2009); *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 556–57 (2007). Prior to *Iqbal*, some hoped that *Twombly*, which established the plausibility standard, would be non-transsubstantive, and apply only to procedure for the substantive antitrust context underlying *Twombly*. In *Iqbal*, Justice Kennedy concluded that the plausibility standard applied in “all civil actions,” citing FRCP 1 as support. *Iqbal*, 556 U.S. at 684. In one sense, the *Twombly-Iqbal* plausibility standard is transsubstantive, since it applies in all federal civil actions. In another sense, it might also be described as somewhat non-transsubstantive, since what kind of factual “heft” might be “plausible” can vary depending on the underlying substantive cause of action at issue.

⁵⁵ Some of the procedures below are the exclusive procedures for IP cases, but some of them apply in addition to normal transsubstantive procedural rules. A quick example: plaintiff sues diverse defendant in federal court seeking \$1,000,000 for patent infringement. Subject matter jurisdiction is properly premised on diversity jurisdiction (transsubstantive rule), federal question (transsubstantive rule), and the patent and copyright jurisdiction statute (exceptionalist rule).

⁵⁶ See Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25.

jurisdiction over civil actions arising under “any Act of Congress” relating to copyright, patent, plant variety, and federal trademark laws.⁵⁷ This jurisdiction is exclusive in the case of copyright, patent, and plant variety protection.⁵⁸ Section 1338 goes even further to divest state courts of jurisdiction over the exclusive subject matter over such claims, even if raised by a counterclaim.⁵⁹

In fact, IP law is so exceptional that a new statute, Section 1454, allows removal of any civil action containing the exclusive subject matter, even if the patent, copyright, or plant variety claim is asserted by counterclaim.⁶⁰ Section 1454 thus breaks the normal “rules” for removal in cases involving patents and copyrights, and does so in two really exceptional ways. First, Section 1454 allows any party, defendant or plaintiff, to remove a case with a patent or copyright claim or counterclaim.⁶¹ Second, it serves as a rare exception to the well-established “well-pleaded complaint” rule, which requires that federal-question jurisdiction be measured by the plaintiff’s cause of action and not by a federal defense or a federal counterclaim.⁶² Under Section 1454, *Mottley* has been partially overruled, and a defendant’s patent or copyright counterclaim is a sufficient basis for removal.⁶³ This was done specifically to make sure that state courts could not hear patent, copyright, or plant variety claims created by an Act of Congress and to allow easy removal of such cases.⁶⁴

Yet another example of an exceptionalist IP procedure can be found in the patent and copyright venue statute, Section 1400. This statute indicates where venue is proper in copyright and patent cases.⁶⁵ Due to previous Federal Circuit

⁵⁷ 28 U.S.C. § 1338(a) (2012).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.* § 1454.

⁶¹ *Id.* § 1454(b)(1).

⁶² See *Louisville & Nashville R.R. Co. v. Mottley*, 211 U.S. 149, 153–54 (1908) (articulating well-pleaded complaint rule); *Holmes Grp., Inc. v. Vornado Air Circulation Sys., Inc.*, 535 U.S. 826, 830 (2002) (extending the *Mottley* rule to counterclaims).

⁶³ 28 U.S.C. § 1454(a) (“A civil action in which any party asserts a claim for relief arising under any Act of Congress relating to patents, plant variety protection, or copyrights may be removed to the district court of the United States for the district and division embracing the place where the action is pending.”).

⁶⁴ See Federal Courts Jurisdiction and Venue Clarification Act of 2011, Pub. L. No. 112–63, 125 Stat. 758 (2011). Section 1454 was added in 2011 to undo the effects of *Holmes Group*, which held that the “well-pleaded” complaint rule prevented the Federal Circuit from hearing an appeal in which the patent claim was asserted by counterclaim. See *Holmes Grp.*, 535 U.S. 826 at 833–34. Prior to the enactment of the 2011 revisions, *Holmes Group* made it possible for state courts to hear certain patent and copyright counterclaims. Thus, section 1454 provides a limited statutory overruling of *Mottley* and *Holmes Group* in the context of patent, copyright, and plant variety counterclaims. Talk about exceptionalist IP procedure!

⁶⁵ See 28 U.S.C. § 1400(b); *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1516–17 (2017); see also *Gugliuzza & La Belle*, *supra* note 10, at 1030.

precedent, the statute was often abused by patent owners who filed cases in the plaintiff-friendly Eastern District of Texas.⁶⁶ In *TC Heartland LLC v. Kraft Foods Group Brands LLC*, the Supreme Court cut back on the reach of the venue statute, making it harder to file cases in the Eastern District of Texas; however, the Court also re-affirmed the special status of Section 1400, noting that it provided the sole basis for federal patent venue and that the general (transsubstantive) venue statute in Section 1391 did not apply.⁶⁷

Thus, federal procedural law includes a significant body of IP-specific procedures. This apparently exceptionalist approach to IP procedure dates back a long time.⁶⁸ Even the original FRCP contained clear hints that there is something special about the relationship between IP substance and IP procedure. Pursuant to the Rules Enabling Act passed in 1934, the FRCP became effective in 1938.⁶⁹ Of particular interest, the supposedly transsubstantive FRCP contained express provisions specific to IP law. FRCP 62 did (and still does) carve out an exception regarding executions of judgments. The default rule is that no judgment may be executed upon for at least 14 days (originally, 10) after its entry. But patents are carved out of an exception from this rule: “unless the court orders otherwise, there is no stay for an order or judgment of an accounting in an action for patent infringement.”⁷⁰

Even more interesting are the forms created along with the original 1938 version of the FRCP.⁷¹ The original FRCP contained a number of forms for practitioners to use.⁷² The majority of the forms (Forms 3 through 18) were simple model complaints, most of which are for state law claims, such as a promissory note (Form 3), negligence (Form 9), and specific performance (Form 12). Forms 14 through 17, however, were for federal claims, and two of them were for IP claims: Form 16

⁶⁶ Gugliuzza & La Belle, *supra* note 10, at 1030 (“In the past two years, roughly forty percent of all patent cases have been filed in one district: the Eastern District of Texas.”).

⁶⁷ *TC Heartland LLC*, 137 S. Ct. at 1518 (holding that “the patent venue statute constituted ‘the exclusive provision controlling venue in patent infringement proceedings’ and thus was not supplemented or modified by the general venue provisions” (quoting *Stonite Prod. Co. v. Melvin Lloyd Co.*, 315 U.S. 561, 563 (1942))).

⁶⁸ For example, the federal venue statute discussed in *TC Heartland* dates back to 1897. See *TC Heartland LLC*, 137 S. Ct. at 1518.

⁶⁹ See Rules Enabling Act, Pub. L. 73–415, 48 Stat. 1064 (1934); see also 28 U.S.C. § 2071.

⁷⁰ FED. R. CIV. P. 62(a).

⁷¹ See FED. R. CIV. P. 84 (1938) (“The forms contained in the Appendix of Forms are intended to indicate, subject to the provisions of these rules, the simplicity and brevity of statement which the rules contemplate.”).

⁷² Appendix of Forms to Federal Rules of Civil Procedure. FED. R. CIV. P. app. at 891 (Supp. V 1934).

was a model patent infringement complaint and Form 17 was a model for copyright and unfair competition suits.⁷³

The recitation of examples of exceptionalist IP enforcement procedures could go on and on, including procedures used by quasi-judicial tribunals such as opposition and cancellation proceedings before the Trademark Trial and Appeal Board (TTAB)⁷⁴ and proceedings before the Patent Trial and Appeal Board (PTAB) in *inter partes*⁷⁵ and post-grant reviews of patents.⁷⁶ One could even include mandatory domain-name arbitration under the Uniform Domain Name Dispute Resolution Policy, which provides for extensive procedures involving trademark disputes over domain names.⁷⁷

I find it fascinating that so much of procedural law is IP-specific. And the procedures noted above are exactly the kinds of “procedures” that most people think of when they talk about procedure: procedures used in a court or some other quasi-judicial tribunal. But the reality of IP practice is that most enforcement is not done in court, but out of court. The next section addresses such out-of-court procedures.

2. *Extra-Legal (Out-of-Court) IP Procedure*

Despite all the previous discussion in this Article about IP court procedures, the real action takes place out of court. As I’ve argued previously, some of the most important procedures are those used *out of court* in private, extra-legal proceedings, such as cease-and-desist letters, DMCA takedowns, and algorithmic enforcement.⁷⁸ Today, such procedures are more than an accessory to IP rights. Practically speaking, they are the *main* vehicles used for enforcement of IP rights, and misuse of those procedures can lead to disturbing over-extensions of those rights.

a. *Direct IP Enforcement*

Historically, the most common form of extra-legal (out-of-court) IP rights enforcement is *direct* enforcement, typically lawyers or others sending cease-and-desist

⁷³ Rule 84 and the appendix of forms remained in the FRCP until 2015: “Rule 84 and the Appendix of Forms are no longer necessary and have been abrogated. The abrogation of Rule 84 does not alter existing pleading standards or otherwise change the requirements of Civil Rule 8.” FED. R. CIV. P. 84 advisory committee’s note to 2015 amendment.

⁷⁴ 15 U.S.C. §§ 1063–1064 (2012).

⁷⁵ 35 U.S.C. §§ 311–319 (2012).

⁷⁶ *Id.* §§ 321–329.

⁷⁷ *Uniform Domain Name Dispute Resolution Policy*, ICANN (Aug. 26, 1999), <https://www.icann.org/resources/pages/policy-2012-02-25-en>; see also *Rules for Uniform Domain Name Dispute Resolution Policy*, ICANN (Sept. 28, 2013), <https://www.icann.org/resources/pages/udrp-rules-2015-03-11-en>.

⁷⁸ See Nathenson, *Civil Procedures*, *supra* note 7, at 914.

(C&D) letters directly to alleged wrongdoers.⁷⁹ One might ask, “how is this procedural?” But if one accepts (as I think one should) my definition of IP procedure as “actions taken, or a series of steps done, to achieve some sort of goal or result relating to IP,” then cease-and-desist practice falls well within the boundaries of IP procedure.

The essence of C&D practice involves a common series of steps akin to a human algorithm:

- Investigate the infringement and determine the viability of any claims and defenses;⁸⁰
- Draft and transmit a letter that asserts IP rights, infringing conduct, notes possible remedies, and includes demands;
- Negotiate; and
- Follow-up as necessary such as monitoring for compliance, or in serious cases of infringement, file suit.⁸¹

⁷⁹ See, e.g., Stacey Dogan, *Bullying and Opportunism in Trademark and Right-of-Publicity Law*, 96 B.U. L. REV. 1293, 1312–13 (2016) (“While statistics are hard to come by, commentators agree that the vast majority of trademark enforcement happens through cease-and-desist letters sent to parties that have used marks or applied to register them.”); William T. Gallagher, *Trademark and Copyright Enforcement in the Shadow of IP Law*, 28 SANTA CLARA COMPUTER & HIGH TECH. L.J. 453, 456 (2012) (“‘Cease and desist’ letters, phone calls, and negotiations with alleged infringers constitute the bulk of IP enforcement efforts in trademark and copyright practice.”); James Gibson, *Risk Aversion and Rights Accretion in Intellectual Property Law*, 116 YALE L.J. 882, 900 (2007) (“[C]ourts and legislatures—play at best a secondary role in this insidious means of expansion” of copyright law).

⁸⁰ The Ninth Circuit has held that a person sending a DMCA takedown notice to an internet service provider has an affirmative obligation to consider fair use before deciding to send a C&D letter. *Lenz v. Universal Music Corp.*, 815 F.3d 1145, 1154 (9th Cir. 2016). It is likely that this requirement applies also to those sending C&D letters directly to alleged infringers outside the scope of the DMCA. See 17 U.S.C. § 107 (2012) (noting that fair use is not an infringement of copyright); Nathenson, *Civil Procedures*, *supra* note 7, at 932–34 (discussing the district court opinion in *Lenz* as well as sections 106 and 107 of the Copyright Act).

⁸¹ The former version of the *Chilling Effects* website used to include a tongue-in-cheek listing of the elements of a typical C&D letter, which I’ve memorialized on my own website:

- (1) Gorilla chest thumping.
- (2) Recitation of facts.
- (3) Citation to cases and statutes.
- (4) A laundry list of potential remedies.
- (5) Demands.
- (6) Reservation of rights.

Ira Steven Nathenson, *Elements of a Cease-and-Desist Letter A/K/A How Not to Be an IP Gorilla*, NATHENSON.ORG (Mar. 11, 2015), <https://www.nathenson.org/courses/ip/resources/elements-cease-desist/>.

In terms of a series of actions taken to enforce rights, this is functionally analogous to a Rule 11 investigation into the facts and law;⁸² drafting, filing, and serving a complaint;⁸³ and later negotiating with an eye towards hopeful settlement. C&D practice is a process, and as such, it is an IP procedure.

And as an IP procedure, it is rife with danger for those who abuse the power of the lawyer's pen. I and others have written previously about the danger of abuse of private copyright enforcement, and I have suggested previously that IP bullies may obtain broader *de facto* IP rights over opponents through overreaching C&D letters.⁸⁴ Put differently, most recipients of C&D letters would rather give in to a bullying IP C&D letter than they would risk going to court and potentially losing. As a result, lawyers have systemic incentives to demand things in C&D letters that they could never get in court.

Of course, there is little new here in me pointing out, yet again, that C&D letters can be abused for overreaching IP rights. The point I'm hoping to make here, however, is that because C&D work is *procedural* in nature. It is important for us to pay closer attention to this and other IP-related procedures, as badly designed procedures and bad use of otherwise innocuous procedures, have real-world substantive impact.

b. Indirect Enforcement

Indirect enforcement is enforcement sent to an intermediary such as an internet service provider (ISP) like Verizon, or to some other online service provider (OSP) like YouTube or Facebook. In theory, such letters are akin to C&D letters; however, they are not sent to directly accuse ISPs and OSPs of IP infringement. Instead, the

⁸² FED. R. CIV. P. 11.

⁸³ FED. R. CIV. P. 4.

⁸⁴ Professor Leah Chan Grinvald notes that “[m]uch, if not most, of this bullying occurs extra-judicially, as many of these enforcement actions take place through cease-and-desist letters and never make it to the litigation stage.” Leah Chan Grinvald, *Charitable Trademarks*, 50 AKRON L. REV. 817, 830 (2016). And as Professor Irina Manta aptly puts it:

[A] trademark bully is usually a large company that seeks to put an end to behavior by individuals and small businesses that it perceives as a danger to its own intellectual property even though its legal claims against these other parties are spurious or non-existent. The bully puts its opponents under pressure through “cease and desist” (C & D) letters in which it demands that the opponent stop using a certain trademark that it believes resembles its own and threatens legal sanctions if the C & D demands are not met. These letters frequently do not contain detailed explanations of the alleged infringement but instead are intended to intimidate recipients into submission through the use of vague claims masked in legalese and are sent by lawyers who pressure recipients into providing a fast response. Individuals and small businesses often capitulate rather than face a harrowing legal battle that could bring them to the brink of financial destruction.

Irina D. Manta, *Bearing Down on Trademark Bullies*, 22 FORDHAM INTELL. PROP., MEDIA & ENT. L.J. 853, 854–55 (2012) (footnote omitted).

letters are “takedown notices,” sent to the service providers to ask them to take down or disable content posted by their subscribers.

Under Copyright law, the Digital Millennium Copyright Act (DMCA) contains safe harbors that immunize ISPs and OSPs from monetary liability so long as they expeditiously remove content upon receipt of a substantially compliant takedown notice. The steps involved in the DMCA procedure are as complex as any in-court procedure, involving a takedown notice that must have specified content and language, including that the online content is not authorized by the copyright “owner, its agent, or the law.”⁸⁵ The service provider must expeditiously remove content and forward the takedown to its subscriber, who in turn, has the right to submit a counternotification seeking putback based on mistake or misidentification.⁸⁶ The provider must also take a number of additional actions, such as posting its copyright termination policy on its website, naming a “designated agent” on its website and the Copyright Office website, and more.⁸⁷ If and only if all these steps and more are taken, the service provider cannot be sued under copyright law for money.

To say that the DMCA safe harbors are complex is an understatement, but this is a terrific and twisty example of IP procedure. Although the procedural framework was created by positive law, it is intended for private use, reciting a series of statutory actions, of steps, to be taken; as I’ve put it elsewhere, this amounts to a procedural “safety dance” that, if successful, gives copyright owners an easy way to remove online infringement and provides ISPs and OSPs a strong incentive to comply in order to remain within the safe harbor.⁸⁸

Other areas of IP law don’t have a similar statutory safe harbor, but the influence of the DMCA has been broad, leading service providers to implement or agree to “quasi” DMCA policies that provide IP rights owners with the ability to send

⁸⁵ 17 U.S.C. § 512 (2012). The statute is detailed in what is required. The party claiming infringement must provide written notice that includes: a signature “of a person authorized to act on behalf of the owner of an exclusive right that is allegedly infringed”; “[i]dentification of the copyrighted work”; identification of the infringing material; contact information for the complaining party; “[a] statement that the complaining party has a good faith belief that use of the material in the manner complained of is not authorized by the copyright owner, its agent, or the law”; and “[a] statement that the information in the notification is accurate, and under penalty of perjury, that the complaining party is authorized to act on behalf of the owner of an exclusive right that is allegedly infringed.” *Id.* § 512(c)(3)(A).

⁸⁶ *Id.* § 512. The counternotification has a number of requirements as well. It must include: the subscriber’s signature; identification of the removed material and its pre-removal location; a statement by the subscriber “under penalty of perjury [of] a good faith belief” that material was removed “as a result of mistake or misidentification”; the subscriber’s contact information; and consent to federal jurisdiction and service of process. *Id.* § 512(g)(3).

⁸⁷ *Id.* § 512(c)(2).

⁸⁸ See Nathenson, *supra* note 21, at 123.

“notices of claimed infringement,” or NOCIs. For example, in *Tiffany (NJ) Inc. v. eBay Inc.*, eBay was sued for its role in hosting products labeled “Tiffany,” some of which were counterfeit.⁸⁹ The Second Circuit noted that eBay allowed trademark owners to send NOCIs through eBay’s Verified Rights Owner (VeRO) Program:

[T]he NOCIs and buyer complaints gave eBay reason to know that certain sellers had been selling counterfeits, those sellers’ listings were removed and repeat offenders were suspended from the eBay site. Thus Tiffany failed to demonstrate that eBay was supplying its service to individuals who it knew or had reason to know were selling counterfeit Tiffany goods.⁹⁰

Thus, eBay successfully used a quasi-DMCA program, a procedure not found in positive law but modeled on such laws, to create private trademark-enforcement procedures. And the court liked them.

The efficiencies obtained through the use of DMCA and quasi-DMCA takedown notices likely also encouraged content owners and service providers to agree to a Memorandum of Understanding (MoU) administered by the Center for Copyright Information.⁹¹ Under the MoU, service providers whose subscribers were engaging in illegal file-sharing would receive “copyright alerts”; at first, the notices would seek to educate users as to the illegality of file-sharing, with heightened reactions by the ISPs if the file-sharing continued, such as throttling of internet speed, and eventually, possible suspension of internet access.⁹² The MoU envisioned a process of tiered alerts, each potentially more threatening, with a purported safety valve or “Independent Review Program” thrown in the mix to provide some semblance of due process, allowing subscribers to challenge copyright alerts.⁹³

There can be little doubt: each of these are *IP* procedures—the DMCA *created* by positive copyright law (but implemented privately) and the others created by private entities themselves, using IP law as a backdrop. Moreover, just as *direct* C&D

⁸⁹ *Tiffany (NJ) Inc. v. eBay Inc.*, 600 F.3d 93, 96 (2d Cir. 2010). eBay utilized extensive additional procedures to limit the presence of counterfeit products on its website, including a “fraud engine,” human moderators, permitting IP owners to establish “About Me” pages, and more. *Id.* at 98–100.

⁹⁰ *Id.* at 109.

⁹¹ See *Center for Copyright Information ISP Copyright Alert System Memorandum of Understanding*, PUB. INTELLIGENCE (July 8, 2011), <https://publicintelligence.net/center-for-copyright-information-isp-copyright-alert-system-memorandum-of-understanding/>. Copyright owners and ISPS “pulled the plug” on the Copyright Alert System in 2017. John Eggerton, *Center for Copyright Information Sunsets Copyright Alert System*, BROADCASTING+CABLE, <https://www.broadcastingcable.com/news/center-copyright-information-sunsets-copyright-alert-system-162867> (updated Mar. 16, 2018).

⁹² *Memorandum of Understanding*, PUB. INTELLIGENCE (July 6, 2011), <https://info.publicintelligence.net/CCI-MOU.pdf>.

⁹³ *Id.* at 9.

letters pose risks of overreaching and bullying, so do indirect enforcement procedures. In fact, indirect enforcement procedures are even more fraught with due process problems as takedown notices often result in *ex parte* takedowns of content prior to any notice to the affected subscriber.⁹⁴

c. Algorithmic Enforcement

Perhaps the most important new development in IP procedure is algorithmic enforcement, which is done most notoriously by YouTube, using its Content ID filtering system. Here, copyright owners upload their audio and video and can instruct YouTube on whether to block, track, or monetize subscriber videos that incorporate the owners' copyrighted works in full or in part.⁹⁵ Users whose content is blocked or otherwise affected by the algorithm have the right to dispute the blockage,⁹⁶ though YouTube has faced many criticisms for poorly implementing its dispute policy and for other abuses of the system.⁹⁷

Whole books can, have, and will yet be written on the problems of algorithmic enforcement.⁹⁸ For brevity, just a few points should be mentioned here. Most importantly, IP algorithms *are* IP procedures. Even though they are mediated by computer code, they doubtlessly fit into my definition of IP procedure as “*actions taken, or a series of steps done, to achieve some sort of goal or result relating to IP.*” The fact that they are not done by a judge or within the bounds of a courtroom is utterly beside the point: they are actions taken to adjudicate IP rights.

Once we accept that IP algorithms are IP *procedures*, fairness problems become easier to identify. First, IP algorithms may often suffer from a lack of due process, making substantive determinations without any involvement of the affected stakeholder, amounting to *ex parte* seizures or prior restraints. Second, they suffer from a lack of transparency and accountability that is potentially even worse than what

⁹⁴ See Nathenson, *supra* note 21, at 143–47.

⁹⁵ YOUTUBE HELP, *Using Content ID*, YOUTUBE, <https://support.google.com/youtube/answer/3244015?hl=en> (last visited Feb. 5, 2020).

⁹⁶ *Dispute a Content ID Claim*, YOUTUBE, <https://support.google.com/youtube/answer/2797454?hl=en> (last visited Feb. 5, 2020).

⁹⁷ See, e.g., Vi Mai, *YouTube's Content ID System and Its Criticisms*, IPBRIEF (Dec. 30, 2013), <http://www.ipbrief.net/2013/12/30/youtubes-content-id-system-and-its-criticisms/>; Geoff Weiss, *YouTube's Content ID Update Enabling Creators to Profit from Disputed Videos Is Now Live*, TUBEFILTER (Nov. 1, 2016), <https://www.tubefilter.com/2016/11/01/content-id-update-disputed-videos-live/>; Chris Welch, *YouTube Bows to Criticism, Extends Options for Appealing False Content ID Copyright Claims*, VERGE (Oct. 3, 2012), <https://www.theverge.com/2012/10/3/3450876/youtube-content-id-appeals-copyright-dmca>.

⁹⁸ See, e.g., VIRGINIA EUBANKS, *AUTOMATING INEQUALITY: HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR* (2018); CATHY O'NEIL, *WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY* (1st ed. 2016); FRANK PASQUALE, *THE BLACK BOX SOCIETY* (2015).

occurs with private C&D and DMCA letters. As Frank Pasquale points out, algorithms are prone to the “black box” problem, meaning that people don’t know how the code works or what it does:

The term “black box” is a useful metaphor . . . given its own dual meaning. It can refer to a recording device like the data-monitoring systems in planes, trains, and cars. Or it can mean a system whose workings are mysterious; we can observe its inputs and outputs, but we cannot tell how one becomes the other.⁹⁹

Problems with notice, transparency, and accountability are problems rooted in *procedural justice*. Further, the problems of such algorithms go far beyond IP, because black-box algorithms are increasingly used to analyze other types of information, such as loan applications, online pornography, hate speech, and more. Thus, we need to recognize that such algorithms are not just *IP* procedures. They are also procedures that may apply more broadly to the regulation of other types of information.¹⁰⁰

B. *IP’s Inherent Procedural Structure Illustrated*

The previous sections have shown that IP and procedure are inextricably linked. This section is focused on showing how far down the rabbit hole we can go. When we take a close look at the nature of IP subject matter, IP rights, and IP defenses, we soon see that in large part, each of them is procedurally rooted. Accordingly, we speak not just of “IP *and* procedure” but also of “IP *as* procedure.” Despite the fact that the United States has worked to reduce the “formalities” in some areas of IP law (copyrights and trademarks),¹⁰¹ IP law was and remains about procedure.

1. *Patents*

Patents may protect your ideas, but merely having an idea doesn’t protect it. You have to *do* things. Patents are all about procedures, which abound. Regarding patent subject matter, patents include products and *processes*.¹⁰² And products themselves are machines, manufactures, or compositions of matter.¹⁰³ But somebody’s got to *make* the machines, manufacture the manufactures, or compose the matter. As the Supreme Court has infamously said about patent law: “Congress intended

⁹⁹ PASQUALE, *supra* note 98, at 3.

¹⁰⁰ That, in turn, suggests that we might be better off thinking about IP procedures in terms of information regulation rather than IP regulation. I’ll return to this idea in Part IV.B.

¹⁰¹ See Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853; Trademark Law Revision Act of 1988, Pub. L. No. 100-667, 102 Stat. 3935.

¹⁰² See 35 U.S.C. § 101 (2012).

¹⁰³ *Id.*

statutory subject matter to ‘include *anything* under the sun that is *made* by man.’”¹⁰⁴ Products are *things*, but they are *made*. Making these things requires procedures.

The requirement that something have utility, i.e., that it is “useful,” presumes that somebody will be *using* the product or process. An invention can be barred from patentability by other *actions*, such as prior inventions, publications, sale, and public use, even if done by the inventor.¹⁰⁵

Regarding registration, talk about procedure! A patent does not exist unless the inventor follows extensive procedures. He or she must *file* an application with extensive information: a specification with a *written* description of the invention, sufficient to *enable* the reasonable inventor in that field (the PHOSITA) to *make* it and *use* it.¹⁰⁶ The specification also needs to include “one or more claims particularly *pointing out* and *distinctly claiming* the subject matter which the inventor or a joint inventor regards as the invention.”¹⁰⁷ Patent applicants also have a duty to *disclose* any prior art they know of that may be material to the patentability of their claimed invention.¹⁰⁸

That the patent prosecution (and maintenance) process is deeply *procedural* may be taken as “obvious.”¹⁰⁹ And the procedural nature of patent law does not end there. Patent *rights* themselves all concern acts taken by possible infringers, such as *making, using, selling, or importing* the invention into the United States.¹¹⁰ And other acts or processes *do not* constitute infringement or are themselves affirmative patent *defenses*, such as “inventing around” an existing patent, creating blocking patents, engaging in experimental use, and many extra-territorial uses such as making, using, or selling the invention abroad in a country where it is not protected by a United States patent.

2. Copyrights

Like patents, copyrights too are procedurally rooted. To obtain a copyright, it is not enough to come up with something new and creative. You must write it down, or in copyright terms, you must *fix it* in a tangible medium of expression, such as writing it down on paper.¹¹¹ Copyright protection exists even if the work can’t be read directly by the eyes or heard directly by the ears, so long as it “can be perceived,

¹⁰⁴ *Diamond v. Diehr*, 450 U.S. 175, 182 (1981) (quoting S. REP. NO. 1979, 82d Cong., 2d Sess., at 5 (1952) & H.R. REP. NO. 1923, 82d Cong., 2d Sess., at 6 (1952)) (emphasis added).

¹⁰⁵ 35 U.S.C. § 102.

¹⁰⁶ *Id.* § 112. The Patent Office also provides a detailed manual of patent office procedure. See U.S. PATENT & TRADEMARK OFF., MANUAL OF PATENT EXAMINING PROCEDURE, <https://mpep.uspto.gov/RDMS/MPEP/current> (last updated Jan. 2018).

¹⁰⁷ 35 U.S.C. § 112.

¹⁰⁸ 37 C.F.R. § 1.56 (2019).

¹⁰⁹ Reference to Section 103 is quite intentional.

¹¹⁰ 35 U.S.C. § 271.

¹¹¹ 17 U.S.C. § 102 (2012).

reproduced, or otherwise communicated, either directly or with the aid of a machine or device” such as a player piano, a microfiche reader, or a hard drive.¹¹²

Under section 102(b) of the Copyright Act, some things are *not* protected by copyright: procedural things such as “any idea, *procedure, process*, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.”¹¹³ But saying that copyright does not protect *procedures* is not the same thing as saying that copyright *itself* is not procedural in nature. Instead, Section 102(b)—derived from the idea-expression doctrine—serves as a dividing line between the subject matter of copyright and patent law. Patents protect ideas embodied in inventions; copyrights protect expressions of ideas.¹¹⁴ But both are rooted in procedure.

And the procedural roots of copyright go deeper. Copyright rights can be indicated by *use* of statutory notice.¹¹⁵ Regarding the *rights* of a copyright owner, each of them are acts and procedures: *reproducing, adapting, and publicly distributing, displaying, and performing*.¹¹⁶ Put differently, copyrights as things mean little except for what you or others might *do* with them. And even though copyright formalities have been reduced—it’s no longer necessary to register your work or use notice of copyright¹¹⁷—the filing of a copyright suit still generally requires registration of the work with the Copyright Office.¹¹⁸

Defenses to copyright infringement are also highly procedural. For instance, under the first sale doctrine, third persons who buy lawful copies of certain types of copyrighted works can *resell* or publicly *display* certain types of works without being found liable as infringers.¹¹⁹ Analysis of fair use requires the court to consider how and why the defendant *used* the work and *how much they took* from the original. And

¹¹² *Id.*

¹¹³ *Id.* § 102(b) (emphasis added).

¹¹⁴ *Cf.* *Baker v. Selden*, 101 U.S. 99, 102–03 (1879).

¹¹⁵ 17 U.S.C. § 401.

¹¹⁶ *Id.* § 106.

¹¹⁷ See Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853; 17 U.S.C. § 401 (notice of copyright “may” be used); *id.* § 408(a) (copyright registration “may” be made).

¹¹⁸ *Id.* § 411 (stating that generally, “no civil action for infringement of the copyright in any United States work shall be instituted until preregistration or registration of the copyright claim has been made”); *Fourth Estate Pub. Benefit Corp. v. Wall-Street.com, LLC*, 139 S. Ct. 881, 886–87 (2019) (holding that “registration occurs, and a copyright claimant may commence an infringement suit, when the Copyright Office registers a copyright”). The Copyright Office also provides detailed information on copyright registration procedures through circulars and The Copyright Office Compendium. See United States Copyright Office, *Compendium of Copyright Office Practices*, U.S. COPYRIGHT OFF. (Sept. 29, 2017), <https://www.copyright.gov/comp3/>.

¹¹⁹ 17 U.S.C. § 109.

in a prior section, we discussed at some length the procedures used to insulate service providers from copyright damages under the DMCA.¹²⁰

3. Trademarks

Trademarks too are procedurally founded. To have trademark rights in the United States, you must *use the mark* in connection with the goods or services.¹²¹ Further, you must use the mark in specified ways, depending on whether the mark is used in connection with goods or services.¹²² And a trademark owner can also, as with copyrights, optionally *register* their marks to obtain additional rights,¹²³ gaining additional trademark rights such as nationwide constructive use, presumptions of ownership and validity,¹²⁴ and later on, so-called incontestability.¹²⁵ Persons who want to obtain trademark rights but have not yet started use can also file intent-to-use applications, so long as they verify their bona fide intention to use the mark in commerce and later file proof that they have subsequently begun to use the mark in commerce.¹²⁶ Procedures.

Other aspects of substantive trademark rights are procedurally rooted. A prudent trademark owner will also engage in a trademark *search* before adopting a new mark. They will use trademark notice, including statutory notice if the mark is registered.¹²⁷ For registered marks, the owner who wants to maintain his or her registration must file proof of continuing use and registration renewals on a regular basis.¹²⁸

Just as trademark rights are rooted in use, so too is trademark infringement: anyone who *uses* a similar mark in commerce that is likely to cause confusion is an infringer.¹²⁹ And typical trademark defenses also concern certain types of acts, such as parodying, criticizing, or otherwise fairly using a mark.¹³⁰

¹²⁰ See *supra* Part III.A.2.b.

¹²¹ Trademark rights in the United States are *use*-based rather than *registration*-based. 15 U.S.C. § 1051 (2012) (stating registration requires “use[] in commerce”).

¹²² *Id.* § 1127 (definition of “use in commerce”).

¹²³ *Id.* § 1051(a). The Trademark Office provides yet another example of an extensive manual of procedure. See U.S. PATENT & TRADEMARK OFF., TRADEMARK MANUAL OF EXAMINING PROCEDURE (2018), <https://tmep.uspto.gov/RDMS/TMEP/current>.

¹²⁴ 15 U.S.C. § 1057(b).

¹²⁵ *Id.* § 1065.

¹²⁶ *Id.* § 1051(a).

¹²⁷ *Id.* § 1111.

¹²⁸ *Id.* §§ 1058(a), 1059(a).

¹²⁹ *Id.* §§ 1114(1)(a), 1125(a)(1). Other trademark rights include the right to stop others who are diluting the mark through blurring or tarnishment, *id.* § 1125(c), or who are cybersquatting the mark through bad faith registering, trafficking in, or using a domain name that is confusingly similar to or dilutive of the plaintiff’s mark. *Id.* § 1125(d).

¹³⁰ Most defenses to trademark infringement are judge-made, but the dilution statute contains a number of statutory defenses that aptly recite acts that don’t lead to liability:

4. *Trade Secrets*

Finally, even trade secrets are procedurally rooted. Under the Uniform Trade Secrets Act, a trade secret “means information, including a formula, pattern, compilation, program, device, method, technique, or process.”¹³¹ Trade secrets are akin to patents, since they can involve methods, techniques, and processes. But they can be broader as well, covering mere information. But even if a trade secret is protecting information rather than a process, procedures are still required: the purported trade secret owner further needs to make “efforts that are reasonable under the circumstances to maintain its secrecy.”¹³² Reasonable efforts will vary with the nature of the secret and its value, but reasonable steps might include regular use of confidentiality legends, having employees and third parties sign NDAs, training employees on confidentiality, posting guards, and locking up sensitive information.¹³³ Such measures are inherently *procedures*.

Trade secret infringement is also a fundamentally procedural act: only a person who *misappropriates* a trade secret is liable. Misappropriation, in turn, requires various acts that constitute improper *acquisition, use, or disclosure* of the trade secret.¹³⁴ Regarding defenses, some acts that lead to the acquisition, use, or disclosure of a secret do not constitute misappropriation, such as use of information that is generally known,¹³⁵ or acquiring the trade secret through lawful means such as reverse engineering.¹³⁶

IV. IMPLICATIONS FOR A LAW OF INFORMATION REGULATION

The previous parts of this Article have explored the claim that IP is so inextricably intertwined with procedure that IP procedures may be the foundation to the very existence of IP itself. Returning to *The Matrix*, one might recall of Morpheus’ question to Neo: “I imagine that right now, you’re feeling a bit like Alice. Hm?”

(A) Any fair use, including a nominative or descriptive fair use, or facilitation of such fair use, of a famous mark by another person other than as a designation of source for the person’s own goods or services, including use in connection with—

- (i) advertising or promotion that permits consumers to compare goods or services; or
- (ii) identifying and parodying, criticizing, or commenting upon the famous mark owner or the goods or services of the famous mark owner.

(B) All forms of news reporting and news commentary.

(C) Any noncommercial use of a mark.

Id. § 1125(a)(1). All of these defenses? Procedures!

¹³¹ Uniform Trade Secrets Act § 1(4) (1985).

¹³² *Id.* § 1(4)(ii).

¹³³ Robert Kantner, *Protecting Trade Secrets Internationally Through a Comprehensive Trade Secret Policy*, 59 PRACTICAL LAW., Feb. 2013, at 17, 21–23.

¹³⁴ Uniform Trade Secrets Act § 1(1), (2).

¹³⁵ *Id.* § 1(4)(i).

¹³⁶ *Id.* § 1 cmt. 2.

Tumbling down the rabbit hole?”¹³⁷ This last section asks how far we might go down the hole of IP and procedure and whether or not this journey gives us useful guidance on IP law and policy. I would suggest that we take the red pill, not the blue, and see just how far down the rabbit hole goes.¹³⁸ As suggested below, treating IP as a fundamentally procedural mechanism might further suggest that we consider IP and its attendant procedures as part of a larger body of the law of *information regulation*.

This Part first looks at the implications of this Article’s core thesis: that procedures constitute the all-too-ignored foundations of IP.¹³⁹ It then uses these observations to suggest that IP itself ought to be considered a subset of information regulation law.¹⁴⁰ Finally, this Part addresses potential counterarguments and areas for future research.¹⁴¹

A. *The Procedural Foundations of Intellectual Property*

To some extent, the conclusions reached here may be shaped by my analytic perspective. I admittedly prefer a phenomenological approach to IP to an ontological one. Phenomenology looks to how people perceive and experience things, whereas ontology focuses on existence and things themselves.¹⁴² Thus, just as Neo took the red pill to see the real world, perhaps if we take that pill here, we might conclude that IP is really just procedure, practices, and actions taken to regulate certain kinds of informational activities, a subset of which we have come to call “intellectual property.” But veil lifted, what we see, primarily if not exclusively, are

¹³⁷ *The Matrix*, *supra* note 3. The reference to “Alice,” of course, is to Lewis Carroll’s *Alice in Wonderland*. See LEWIS CARROLL, *ALICE’S ADVENTURES IN WONDERLAND* (2d ed. 1866).

¹³⁸ In the key scene of *The Matrix*, Morpheus convinces Neo to see the real world for himself and to escape the virtual construct of The Matrix. He does this by offering Neo the opportunity to take a red pill (view reality) or a blue pill (remain in The Matrix):

Morpheus: Unfortunately, no one can be . . . told what the Matrix is. You have to see it for yourself. [opens pillbox, empties contents into his palms, outstretches his hands] This is your last chance. After this, there is no turning back. You take the blue pill [opens his right hand revealing blue pill], the story ends, you wake up in your bed and believe whatever you want to believe. You take the red pill [opens his left hand revealing red pill], you stay in Wonderland, and I show you how deep the rabbit hole goes. [Neo, after a pause, reaches for the red pill] Remember: all I’m offering is the truth. Nothing more. [Neo takes the red pill] . . . Follow me.

The Matrix, *supra* note 3 (as characterized by Wikiquote). Of course, Neo takes the red pill. The irony in *The Matrix* and in this Article is that the “rabbit hole” and “Wonderland” represent reality. At least I hope the reader is so persuaded.

¹³⁹ See *infra* Part IV.A.

¹⁴⁰ See *infra* Part IV.B.

¹⁴¹ See *infra* Part IV.C.

¹⁴² See WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY 1577, 1696 (Philip Babcock Gove ed., 2002).

procedures used to fence off information. Perhaps then, the “thing” we call “intellectual property” is better considered as part of a broader set of practices regarding *information regulation*.

Consider some of the key theories underlying IP. One is labor, as most famously espoused by John Locke in his *Second Treatise of Government*.¹⁴³ Looking to the example of an apple plucked from a tree, Locke asked, at what point did the apple become property: “When he digested? or when he eat? Or when he boiled? Or when he brought them home? Or when he pickt them up?”¹⁴⁴ Locke concluded it was the *gathering* of the apple that made it property, i.e., the “labor” of the person: whatever a person removes out of nature and “mixed his *Labour* with, and joynd to it something that is his own, and thereby makes it his *Property*.”¹⁴⁵ If I understand Locke well or at least plausibly, I understand him to say that it is not the apple that is the property in isolation (as a thing); the labor *itself* is the propertizing act, and when the labor is mixed with the apple, the apple then becomes property.¹⁴⁶ Any “property” thus hinges on the propertizing act of the fencing and not on the thing to be propertized.¹⁴⁷

Putting personal property and real property to the side (a consideration well beyond the present project), there can be little doubt that IP “things” do not, in isolation, merit IP protection. Just as Locke’s apple needs labor to become the subject of property, so too with the subjects of IP. Ideas and inventions don’t get copyrights; the “invention” is what is described in the claims and written specification of an approved patent, the subject of extensive *procedure*.¹⁴⁸ Copyrights don’t exist in “things” at all; the Copyright Act is express in pointing out that copyright is what is “fixed” in the material object; ownership of the material object (such as a canvas

¹⁴³ JOHN LOCKE, *TWO TREATISES OF GOVERNMENT* 305–06 (Peter Laslett ed., Cambridge Univ. Press 1967) (1698).

¹⁴⁴ *Id.* at 306.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* (“Whatsoever then he removes out of the State that Nature hath provided, and left it in, *he hath mixed his Labour with, and joynd to it something that is his own, and thereby makes it his Property*. It being by him removed from the common state nature hath placed it in, it hath by this *labour* something annexed to it, that excludes the common right of other Men. For *this Labour being the unquestionable Property of the Labourer, no Man but he can have a right to what that is once joynd to*, at least where there is enough, and as good left in common for others.” (emphasis added)).

¹⁴⁷ Steven Menashi, *Cain as His Brother’s Keeper: Property Rights and Christian Doctrine in Locke’s Two Treatises of Government*, 42 SETON HALL L. REV. 185, 238 (2012).

¹⁴⁸ 35 U.S.C. § 112(a) (2012) (“The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.”).

with paint) is separate from ownership of the copyright affixed in the object (the copyright in the painting).¹⁴⁹

Of course, American IP law is not rooted in labor theory but more in economic and utilitarian terms.¹⁵⁰ Yet it makes sense that IP things in isolation should not be property barring some appropriative or fence-building actions or processes. If IP protects works of the mind, then those who would propertize such works need methods of circumscribing and fencing things, and being able to prove the metes and bounds of the claimed rights.¹⁵¹ IP procedures are those methods, and without them, there are no IP rights to protect. Put differently, IP isn't about the information, invention, and creations made by people; it's about the acts they take that allow them to say: *that's mine*.

This observation is important: *actions matter, and without them, there is no "intellectual property."* Some of those actions may be very noticeable, such as the hoops and ladders that must be jumped to protect patents and trade secrets. But for some types of IP, the steps may have become so ubiquitous as to become transparent and unnoticed, but they still occur, and they are still necessary. Come up with a cool new song in your head? Pull out your iPhone and record, or "fix" it. You've got a copyright. Sell a product "using" a new and distinctive name "in commerce"? You've got a trademark. But merely come up with a cool song or brand name in your head and you've got nothing, at least in IP terms.

But suppose you do take the requisite acts (fixing and selling in commerce) and you do get that copyright and trademark. Assume that some miscreant afterward decides to sing your song to their family at a birthday party. You still have your copyright, but you don't have any rights to stop them (even if you know about it) because the copyright "performance" right is limited to "public" performances, and a private performance doesn't infringe.¹⁵² Assume that person also refers to your trademarked brand to talk about your product, such as purely nominative uses or in

¹⁴⁹ 17 U.S.C. § 202 (2012) ("Ownership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object.").

¹⁵⁰ See U.S. CONST. art. I, § 8, cl. 8 (textually tying protection for authors and inventors to "progress" of "Science and the Useful Arts").

¹⁵¹ See, e.g., Paul J. Heald, *A Transaction Costs Theory of Patent Law*, 66 OHIO ST. L.J. 473, 489 (2005) ("Negotiating is also facilitated by the fact that the 'metes and bounds' of the patented invention are delineated with relative clarity because of patent law's written description and enablement requirements.").

¹⁵² See 17 U.S.C. § 101 (definitions of "performance" and "public").

fair comparative advertising.¹⁵³ You have no claim. But if the miscreant *publicly* sings your song or *uses* the mark in a way that is likely to confuse consumers, then you may have a claim. Actions count, procedures count.¹⁵⁴

Table 1, below, gives a birds-eye view with key examples of how we use procedures to create, patrol, and when justified, breach IP rights. One fences, or creates, IP through actions such as writing things down (fixing), selling branded goods (trademark use), and filing a patent application that is later approved (registering). All IP regimes also include examples of rights-patrolling procedures by owners and breaching procedures for privileges or defenses by third parties. *Thus, without procedures, you can't get IP, you can't enforce IP, and you can't delimit the outer bounds of IP. It's all in the procedures.*

Action	Copyright	Trademark	Patent	Trade Secret
Fencing (vesting IP)	Fixing	Using mark in connection with goods	Registering	Taking reasonable steps to maintain secrecy
Patrolling fences (enforcing IP)	Rights such as reproducing, publicly performing	Using mark in way that is likely to confuse	Making, using, selling	Misappropriating via acquisition, disclosure, or use
Breaching (limitations and defenses to IP)	Fair use, first sale	Nominative and descriptive fair uses	Inventing around, experimental use	Reverse engineering

TABLE 1: Examples of IP Procedures

B. Information Regulation Procedure

Exploring the ubiquitous procedural nature of intellectual property leads me to wonder: *why stop with IP?* Can't much of the same observation—that procedure

¹⁵³ See *New Kids on the Block v. News America Pub., Inc.*, 971 F.2d 302, 306–08 (9th Cir. 1992).

¹⁵⁴ By comparison, one could imagine examples of rights without strong ties to procedure, such as Article 19 of the ICCPR, an international treaty that guarantees freedom of expression. See International Covenant on Civil and Political Rights, art. 9 (Dec. 16, 1966), <https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx>; see also Ira Steven Nathenson, *Super-Intermediaries, Code, Human Rights*, 8 INTERCULTURAL HUM. RTS. L. REV. 19, 87–88, 90 (2013) (discussing Article 19). But many countries do not consider Article 19 to be self-executing, making the provision essentially a toothless right. See Molly Land, *Toward an International Law of the Internet*, 54 HARV. INT'L L.J. 393, 395 (2013) (“Direct, “top down” enforcement of these norms by courts is unlikely, particularly in jurisdictions in which Article 19 would be considered non-self-executing.”). A right without procedures to enforce such a right is no right at all. “It is a settled and invariable principle, that every right, when withheld, must have a remedy, and every injury its proper redress.” *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 147 (1803) (citing 3 WILLIAM BLACKSTONE, COMMENTARIES *109); see also Nathenson, *Civil Procedures*, *supra* note 7, at 912–13.

is fundamental to protecting IP—also be made regarding other types of information? It is beyond the purpose and scope of this Article to build a general theory of information law and regulation, but *if* procedure is foundational to IP, and *if* IP law is just another form of information regulation, then perhaps the observations made here may have broader applicability in the development of a law of information.¹⁵⁵

I suspect I've already gone far enough for now, but I'll briefly note two areas that fall *outside* of IP, but like IP, are inextricably bound up with procedure. The first is the service-provider immunity provided by Section 230 of the Communications Decency Act (CDA 230),¹⁵⁶ which immunizes service providers from liability for defamation and many other claims, to the extent they engage in service-provider functions (i.e., procedures) and not content-development procedures.¹⁵⁷ Put differently, so long as service providers (such as Facebook or Verizon) are not responsible for developing the content posted through their services, you cannot successfully sue them for defamation.¹⁵⁸ At its core, CDA 230 is about *information regulation*, just like IP. So long as service providers *function* as service providers and post the *content* (information) of others, they have immunity. Section 230 is thus a generalized internet-information regulation tool. It also expressly carves out exceptions from immunity for certain categories of information, such as intellectual property, child pornography, and sex trafficking.¹⁵⁹ Put differently, the CDA immunizes certain

¹⁵⁵ Other scholars have made similar claims. See, e.g., Jacqueline Lipton, *A Framework for Information Law and Policy*, 82 OR. L. REV. 695, 719 (2003). I suspect that Professors David Levine and Sharon Sandeen—who are writing an information law casebook, the first of its kind—would concur.

¹⁵⁶ 47 U.S.C. § 230 (2012).

¹⁵⁷ Whether one is a service provider or a content provider depends on actions taken by the defendant claiming the immunity:

(2) Interactive computer service. The term “interactive computer service” means any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically a service or system that provides access to the Internet and such systems operated or services offered by libraries or educational institutions.

(3) Information content provider. The term “information content provider” means any person or entity that is responsible, in whole or in part, for the creation or development of information provided through the Internet or any other interactive computer service.

Id. § 230(f)(2)–(3).

¹⁵⁸ See, e.g., *Zeran v. Am. Online, Inc.*, 129 F.3d 327, 332–33 (4th Cir. 1997) (AOL immunized from defamation posted on its service by a subscriber even though AOL knew the information was on its service and did not expeditiously remove it).

¹⁵⁹ See 47 U.S.C. § 230 (e)(1) (no immunity for child pornography); *id.* § 230(e)(2) (immunity has no effect on IP laws). In 2018, Congress amended Section 230 to further remove immunity for claims regarding sex trafficking. See *id.* § 230(e)(5); see also Eric Goldman, *The Complicated Story of FOSTA and Section 230*, 17 FIRST AMEND. L. REV. 279, 280 (2018); Aja Romano, *A New Law Intended to Curb Sex Trafficking Threatens the Future of the Internet as We*

procedures (ISP functions) from some types of *substantive information* (such as defamatory content) but provides no such immunity to other types of information (such as IP violations, child pornography, and websites with information fostering sex trafficking). For non-immunized content, ISPs will need to take additional procedural steps to avoid liability, such as blocking, removing, and/or reporting unlawful content. Thus, by specifying which types of activities get immunity and which types do not, CDA 230 is another form of information regulation.

A second form of information-regulation procedure would be the practices attendant to plagiarism. For example, while researching this Article, I found a summary of Professor Rosenblatt's presentation on verb-ifying IP and several of her abstracts. I've cited to them, and I have even leaned into giving her credit. I *think* that most of the ideas here are mine, though considering the arguable closeness of our ideas, I cannot be sure where mine end and hers start. I suppose I might have reached out to her to ask for a draft, but first, I'm kind of shy, and second, I did not want to risk further contamination.¹⁶⁰

Of course, while legal scholarship is protected by copyright, scholarship serves a very different purpose: disseminating ideas. Thus, what matters in academia is not whether you copied, it's whether you *gave credit*. Borrow the words of somebody else? Then use quote marks and drop a footnote (or better yet, discuss them by name in footnote or main text.) Borrow someone else's cool idea but not their words? Then still drop a footnote, and where the idea is exceptional, discuss them by name in main text. These academic practices are, once again, information-regulation procedures.¹⁶¹ There can be no doubt that academic scholarship is fundamentally an *informational* good, and that plagiarism norms include *procedures* for avoiding charges of malfeasance, which if not followed can lead to shame, ostracization, and even loss of position. Plagiarism norms share some overlap with IP and significant differences; at their core, however, IP exists to *fence and protect* intangibles while giving breathing room for further use and development of information; analogously,

Know It, VOX (July 2, 2018), <https://www.vox.com/culture/2018/4/13/17172762/fosta-sesta-backpage-230-internet-freedom>.

¹⁶⁰ I also, like all academics, fear that some of the things I have said here have been said elsewhere before. Considering the huge amount of scholarship out there and considering that most things worth saying have probably been said before, I admit this possibility as well. In light of my life after the events detailed in the star footnote, this Article is the best that I can currently present, and I embrace it, whatever shortcomings it may have.

¹⁶¹ As Professor Lawrence Lessig reminds us, law is only one regulator of human conduct, and markets, architecture, and norms provide additional (and sometimes overlapping) forms of regulation. See LAWRENCE LESSIG, CODE: VERSION 2.0 122–23 (2006).

plagiarism-prevention norms exist to *encourage* the credited *dissemination* of intangibles, and to *punish* violations of procedures.¹⁶² Regardless of these significant differences, both *regulate information* and both employ *procedures* as fundamental components.

In summary, I think that IP is really just a subset of information regulation, and that information regulation is all about the procedure. IP should not be the tail that wags the dog of information regulation. As scholars in the fields of IP, cyberlaw, and related doctrines, we must look carefully at the procedures used to regulate information. Considering recent problems with algorithmic accountability,¹⁶³ reputation management,¹⁶⁴ data breaches,¹⁶⁵ revenge porn,¹⁶⁶ and hate-speech moderation,¹⁶⁷ scholars, politicians, legislators, and technology companies have much bigger fish to fry.

C. *Countervailing Considerations*

Because I am passionate about my thesis, I think it important to consider counterarguments. My first consideration is whether I am overstating my case. By experience, my inclination is that of a proceduralist. I might therefore be like the proverbial blind person who touches an elephant's leg and thinks they are touching a tree trunk. Am I so blinded by my perspective that everything, including my theory,

¹⁶² Just as plagiarism norms provide information-regulation procedures, we can also see how they overlap with and differ from traditional vehicles of IP. Copyright protects expression but not ideas; plagiarism protects expressions *and* ideas. Trademark protects words used as indications of source or origin, but only if used in commerce; plagiarism protects ideas and words regardless of their use to hawk products. Patent protects inventions, but only as claimed in a written specification; plagiarism protection is probably the strongest for published works, but scholars should also take care to credit new ideas obtained at conferences or from unpublished sources as well.

¹⁶³ See Adi Robertson, *A New Bill Would Force Companies to Check Their Algorithms for Bias*, VERGE (Apr. 10, 2019), <https://www.theverge.com/2019/4/10/18304960/congress-algorithmic-accountability-act-wyden-clarke-booker-bill-introduced-house-senate>.

¹⁶⁴ See Alexandra Ma, *China Has Started Ranking Citizens with a Creepy 'Social Credit' System — Here's What You Can Do Wrong, and the Embarrassing, Demeaning Ways They Can Punish You*, BUS. INSIDER (Oct. 29, 2018), <https://www.businessinsider.com/china-social-credit-system-punishments-and-rewards-explained-2018-4>.

¹⁶⁵ See Bourree Lam & Julia Carpenter, *The Capital One Data Breach: What It Means for You*, WALL STREET J. (July 30, 2019), <https://www.wsj.com/articles/the-capital-one-breach-what-it-means-for-you-11564500086>.

¹⁶⁶ See Rebekah Wells, *The Trauma of Revenge Porn*, N.Y. TIMES (Aug. 4, 2019), <https://www.nytimes.com/2019/08/04/opinion/revenge-porn-privacy.html>.

¹⁶⁷ See Emily Stewart, *8chan, a Nexus of Radicalization, Explained*, VOX (Aug. 5, 2019), <https://www.vox.com/recode/2019/5/3/18527214/8chan-walmart-el-paso-shooting-cloudflare-white-nationalism> (noting that Cloudflare, a security service provider, revoked access to the website 8chan for its fostering of white nationalism, leading to shootings in August 2019).

flows from a view infected by perspective bias?¹⁶⁸ As noted above, my approach is phenomenological, meaning that I am more concerned with the world as people experience it rather than things in and of themselves.¹⁶⁹ Put differently, perhaps I am assuming the very thing I want to conclude.

And there is authority for the proposition that actions do *not* have relevance to determining the availability of IP subject matter. In *Feist Publications, Inc. v. Rural Telephone Service Company, Inc.*, the Supreme Court rejected “labor” and “sweat of the brow” as bases for copyright, holding “[t]he primary objective of copyright is not to reward the *labor* of authors, but ‘[t]o promote the Progress of Science and useful Arts.’”¹⁷⁰ Somewhat similarly, the 1952 Patent Act overruled earlier court precedent that required a “flash of creative genius,” amending patent law to state that “Patentability shall not be negated by *the manner in which the invention was made.*”¹⁷¹

Such pronouncements of law might suggest that the *things you do*—such as labor, “sweat of the brow,” or how you create an invention—are irrelevant to IP, thus undercutting the central thesis of this Article. However, I think such statements cut in the other direction *in support* of this Article’s thesis. These pronouncements do not tell us that procedures and actions are *entirely* irrelevant to securing IP rights; instead, they tell us that *some* actions do not count. That does not preclude *other* actions from *mattering* and being *crucial* to IP rights vesting. For example, in copyright, labor or “sweat of the brow” may not get you a copyright, but fixation is required. In patent, the manner in which you create an invention may not count, but you still have to take extensive steps to register it.

Indeed, as noted throughout this Article, procedures are so intertwined with IP subject matter, rights, and limitations that it is absurd to think of IP absent those procedures. We could, I suppose, posit bare ideas, information, creations, and words as Platonic forms of subject matter, absent any procedural structure, but that would be silly. Inventive ideas without registration cannot be patented. Information without actions taken to keep the information secret cannot be trade secreted. Poems in

¹⁶⁸ See Kerr, *supra* note 17, at 360–61 (discussing how perspective may fuel outcome).

¹⁶⁹ See *supra* Part IV.A.

¹⁷⁰ *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349 (1991) (quoting U.S. CONST. art. I, § 8, cl. 8.) (emphasis added). The Court also held that “[s]weat of the brow” courts . . . eschewed the most fundamental axiom of copyright law—that no one may copyright facts or ideas.” *Id.* at 353 (citing *Miller v. Universal City Studios, Inc.*, 650 F.2d 1365, 1372 (5th Cir. 1981)).

¹⁷¹ 35 U.S.C. § 103 (1952) (emphasis added), *legislatively overruling* *Cuno Engineering Corp. v. Automatic Devices Corp.*, 314 U.S. 84 (1941); see also Amy L. Landers, *Patent Claim Apportionment, Patentee Injury, and Sequential Invention*, 19 GEO. MASON L. REV. 471, 492–93 (2012). The current version after the America Invents Act of 2011 is essentially the same. See 35 U.S.C. § 103 (2012) (“Patentability shall not be negated by the manner in which the invention was made.”).

your head cannot be copyrighted until you affix them into a material object. Creating a word does not create trademarks until you use that word in commerce in connection with something you sell. No actions, no IP.

A second and related concern is that my argument may be reductive. If IP and information regulation are primarily procedural, where does one stop? Might one argue that *all* law is nothing more than acts, practices, and procedures?¹⁷² I suppose one could. Justice Holmes famously said, “[t]he life of the law has not been logic: it has been *experience*.”¹⁷³ Law is not an abstract thing; it is something that concerns humans, human experience, and human *acts*. The only reason we care about contract, property, and tort law is because people engage in steps to *memorialize* their agreements; because people need to know what to *do* to claim and protect things, whether real, personal, or tangible; and because we don’t want others to take *actions*, intentional or otherwise, that will lead to harm. By this viewpoint, my argument would reduce all law to acts.

To be frank, I’m not sure whether any such reductiveness is a flaw or a feature of my thesis. Perhaps all law is (in Betsy Rosenblatt’s terms) *verbial*. So what? Perhaps that is an important observation. But I need not resolve that matter here, because I strongly suspect that IP and other forms of information regulation require procedures more *pervasively* than other areas of the law. Bodies, plots of land, and apple trees don’t require procedural intervention in order for them to exist. But IP does. What about contracts? Perhaps contract law should fall under an information-law rubric because all contracts (written, oral, or implied) serve as ways of signifying the intentions of the parties.¹⁷⁴ And to “lean in” to the argument further, perhaps law itself is a form of information technology, itself inseparable from its procedures. But that’s another paper.

V. CONCLUSION

The central idea of this Article—that procedures are primary and even foundational to IP law—may have important consequences for those making normative claims about what IP law should protect and how. First, *procedure matters*. Although scholarship on the substance of IP remains important, we also need to pay more

¹⁷² Certainly, other areas of the law have extensive procedures, such as bankruptcy and securities regulation. See FED. R. BANKR. P. (2001); see also Private Securities Litigation Reform Act, Pub. L. 104-67, 109 Stat. 737 (1995).

¹⁷³ OLIVER WENDELL HOLMES, JR., THE COMMON LAW 1 (1882) (emphasis added).

¹⁷⁴ Indeed, as issues of shrinkwraps, software licensing, and electronic contracts become more important, it is increasingly difficult to separate issues of contract law from those of IP. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1453–55 (7th Cir. 1996). Perhaps that is because IP and contracts both service overlapping purposes: information regulation. One is a public, positive-law default (IP) and the other a form of private law (contract).

attention to procedures, in-court and out-of-court, human and algorithmic, and especially those foundational procedures that underlie IP. Second, shifting the focus away from IP rights to IP's attendant procedures may lead to an important observation: that we would benefit from viewing IP as a subset of *information regulation* rather than something separate and apart from other information-regulation regimes. That is why the title of this Article posits and then strikes out the words "Intellectual Property," leaving the redlined, actual title as *The Procedural Foundations of Information Regulation*.