The Trade Secret-Contract Interface

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ABSTRACT: Contracts play a dual—and dueling—role in trade secret law. On the one hand, non-disclosure contracts serve an important evidentiary role, helping owners prove key elements of a trade secret claim (e.g., reasonable secrecy efforts). Because of this evidentiary role, trade secret owners routinely use confidentiality contracts when sharing information with employees, business collaborators, and consumers. This Article suggests that contracts have a pivotal evidentiary role in trade secret cases because of their notice function. Unlike patent law, trade secret law does not impose formal application or disclosure requirements on putative owners. Thus, nondisclosure contracts are one of the few ways to notify recipients of information about the existence and scope of claimed trade secrets.

Contracts' centrality to trade secret law can create doctrinal tension, however, when owners draft provisions to evade trade secret law's requirements and limitations. For example, trade secret owners impose contract provisions that prohibit reverse engineering, avoid ongoing secrecy precautions, prevent the use of non-secret or publicly available information, and incorporate employee non-compete clauses. Such provisions conflict with trade secret law, but owners can nonetheless enforce them through breach of contract claims. The pervasive use of contract law to evade trade secret limitations can undermine important policy concerns, such as promoting cumulative innovation and protecting employee mobility. This Article offers the first comprehensive account of trade secret law's uniquely co-dependent yet complicated relationship with contract law. I consider various legal mechanisms to strengthen the ex ante notice function of contracts and deter uses of contract that pose particular risks to trade secret law's underlying policy concerns.

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I. INTRODUCTION

Contract law and intellectual property law have a complicated relationship. On the one hand, intellectual property owners use contract law to share proprietary technologies, creative works, and information in efficient ways. On the other hand, intellectual property owners can dictate contract terms that deviate from intellectual property law's default rules. Laws governing patents, copyrights, and trade secrets impose eligibility requirements and limitations to balance the interests of intellectual property owners against users, follow-on innovators who build on existing works, and the public.¹ These legislatively calibrated balances can be undermined when firms employ contract terms to restrict information uses that intellectual property laws permit.

The question of whether intellectual property laws are just default rules that parties can contract around or fixed policy judgments has generated significant scholarly debate.² Much of it has analyzed (and criticized) copyright owners' imposition of non-negotiable licenses (e.g., "clickwraps" and "shrinkwraps") when selling access to mass-market software.³ These pervasive licenses, which often condition user access on contract terms that eliminate various limits built into copyright law (like fair use), threaten to become a form of "privately legislated intellectual property."⁴

Such licenses come in various forms, including "shrinkwrap" licenses, which are 2. wrapped in plastic and accompany software, "clickwrap" licenses, which are electronically transmitted and require a party to click "I agree" before downloading software or accessing a site, and "browsewrap" licenses, which condition use of a website on terms that are typically accessed via hyperlink. Collectively, these types of restrictive agreements have been referred to as "terms of use" licenses. See Mark Lemley, Terms of Use, 91 MINN. L. REV. 459, 459-60 (2006) [hereinafter Lemley, Terms of Use]. A voluminous body of intellectual property law scholarship addresses the impact of such adhesive consumer licenses on policy concerns underlying intellectual property laws. See generally Julie E. Cohen, Copyright and the Jurisprudence of Self-Help, 13 BERKELEY TECH. L.J. 1089 (1998); Niva Elkin-Koren, Copyright Policy and the Limits of Freedom of Contract, 12 BERKELEY TECH. L.J. 93 (1997); Mark A. Lemley, Intellectual Property and Shrinkwrap Licenses, 68 S. CAL. L. REV. 1239 (1995) [hereinafter Lemley, Intellectual Property]; Maureen A. O'Rourke, Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software License Terms, 45 DUKE L.J. 479 (1995). In addition, a voluminous body of contract law scholarship critiques adhesive consumer licenses, focusing less on their threat to underlying IP policies and more on their broader threat to traditional notions of assent and salience that undergird and legitimize private contracting. See generally NANCY S. KIM, WRAP CONTRACTS: FOUNDATIONS AND RAMIFICATIONS (2013); MARGARET JANE RADIN, BOILERPLATE: THE FINE PRINT, VANISHING RIGHTS, AND THE RULE OF LAW (2012); James Gibson, Boilerplate's False Dichotomy, 106 GEO. L.J. 249 (2018).

4. Reichman & Franklin, *supra* note 2, at 882. Intellectual property law scholars have also raised concerns about copyright and patent owners' use of contract law to evade the first-sale or exhaustion limitation that applies to sales of informational goods. *See* Ariel Katz, *The First Sale Doctrine and the Economics of Post-Sale Restraints*, 2014 BYU L. REV. 55, 141 (suggesting that IP owners' ability to contract around the first sale doctrine should be permitted only in "limited circumstances"); Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889, 892 (2011) (describing "first sale's practical benefits and the problem of its increasing marginalization"); Guy A. Rub, *Rebalancing Copyright Exhaustion*, 64 EMORY L.J. 741, 748–49 (2015) (arguing for certain restrictions on copyright owners' ability to contract around the exhaustion limitation).

^{1.} See infra Part II.C.

^{2.} See, e.g., Jonathan M. Barnett, Why is Everyone Afraid of IP Licensing?, 30 HARV. J.L. & TECH. 123, 124–25 (2017); Mark A. Lemley, Beyond Preemption: The Law and Policy of Intellectual Property Licensing, 87 CALIF. L. REV. 111, 118–33 (1999); J.H. Reichman & Jonathan A. Franklin, Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contact with Public Good Uses of Information, 147 U. PA. L. REV. 875, 876–83 (1999).

Largely absent from this voluminous literature is a comprehensive treatment of trade secret law's complicated interaction with contract law.⁵ Such an analysis is warranted, for firms routinely rely on a combination of trade secret law and contract law to protect technical innovations and business information.⁶ Compared to other forms of intellectual property, trade secret law has received comparatively less scholarly attention. Yet, in recent years, trade secrets have become more significant—both in economic and legal terms.⁷ Just two years ago, Congress expanded the legal rights of trade secret owners by introducing a new federal civil claim for trade secret misappropriation—the Defend Trade Secret Acts ("DTSA").⁸ The growing importance of trade secrecy invites fresh examination of how firms' contractual practices impact the underlying policy goals of trade secret law.

Moreover, while insights from the copyright literature analyzing mass software licenses are relevant to the trade secret context,⁹ certain aspects of

6. See Orly Lobel, *The DTSA and the New Secrecy Ecology* 12 (Bus., Entrepreneurship, & Tax Law Review, Research Paper No. 17-317, 2017), https://papers.srn.com/sol3/papers.cfm? abstract_id=3083744 (observing that firms routinely rely on employment contracts with non-disclosure provisions, "adding a contractual layer on top of [the] statutory protections" of trade secret law).

7. See, e.g., Michael Risch, Empirical Methods in Trade Secret Research, in RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (VOL. II – ANALYTICAL METHODS) (Peter S. Menell & David L. Schwartz eds.) (forthcoming 2018) (observing that "most surveys report trade secrets as more prevalent and valuable than any other type of intellectual property," but noting potential drawbacks of survey data); James Pooley, *The Myth of the Trade Secret Troll: Why the Defend Trade Secrets Act Improves the Protection of Commercial Information*, 23 GEO. MASON L. REV. 1045, 1067 (2016) (noting that "R&D-intensive' firms" are increasingly "mov[ing] away from a concentration on patenting and towards trade secrets").

8. The Defend Trade Secrets Act of 2016 ("DTSA") was signed into law by President Obama on May 11, 2016. Defend Trade Secrets Act of 2016, Pub. L. No. 114-153, 130 Stat. 376 (2016). The DTSA amends the Economic Espionage Act of 1996 to provide a federal cause of action for trade secret misappropriation. 18 U.S.C. § 1836(b) (2012). Prior to the DTSA, civil trade secret claims were the exclusive province of state laws. *See* David Enzminger & Daniel Fazio, *President Obama Signs Federal Trade Secrets Act*, IPWATCHDOG (May 13, 2016), http://www.ipwatch dog.com/2016/05/13/obama-signs-defend-trade-secrets-act/id=69102 ("Before the DTSA, companies seeking civil remedies for misappropriation of their trade secrets were generally limited to state law enforcement.").

9. See supra note 3 and accompanying text.

^{5.} A few scholars have addressed specific tensions between trade secret and contract law. See Charles Tait Graves, *Trade Secrecy and Common Law Confidentiality: The Problem of Multiple Regimes, in* THE LAW AND THEORY OF TRADE SECRECY: A HANDBOOK OF CONTEMPORARY RESEARCH 77, 88–91 (Rochelle C. Dreyfuss & Katherine J. Strandburg eds., 2011) [hereinafter TRADE SECRECY] (describing potential conflicts between trade secret law and employee confidentiality contracts); David A. Rice, *Public Goods, Private Contract and Public Policy: Federal Preemption of Software License Prohibitions Against Reverse Engineering*, 53 U. PITT. L. REV. 543, 547–48 (1992) (critiquing the "augmentation" of trade secret protection through reverse engineering restrictions in software licenses); Sharon K. Sandeen, *A Contract by Any Other Name Is Still a Contract: Examining the Effectiveness of Trade Secret Clauses to Protect Databases*, 45 IDEA 119, 123 (2005) (describing potential conflicts between trade secret law and contract law when database owners use rights definition clauses to "assert that all or a portion" of their publicly available factual compilations are trade secrets).

the trade secret–contract relationship are unique and merit specific focus. For instance, contracts play a distinctive evidentiary role in trade secret law. To obtain the protections of trade secret law and prove a valid trade secret exists, putative owners often have to impose non-disclosure contracts on recipients of information.¹⁰ By contrast, contracts are largely irrelevant to proving the validity of patents or copyrights.¹¹ Contracts' centrality to trade secret law provides putative owners ample opportunity to define—and overstate—the boundaries of their trade secret rights, particularly to employees. Trade secret's intersection with contract law poses particular threats to employee mobility—as employee non-competes and non-disclosure provisions can deter employees from starting new jobs and competing enterprises.¹²

This Article provides a framework for understanding and critiquing these unique features of trade secret-contract interface. Part II outlines trade secret doctrine, situates its policy goals within the broader intellectual property landscape, and explains how intellectual property law's eligibility requirements and limitations address cumulative innovation and other important concerns.

Parts III and IV analyze the dual—and dueling—roles that contracts play in trade secret law. Part III demonstrates how, on the one hand, nondisclosure contracts serve a critical evidentiary role, helping trade secret owners prove two essential elements of a trade secret claim: (1) reasonable secrecy efforts, and (2) the existence of a confidentiality duty. I argue that contracts' key evidentiary role in trade secret cases stems from their notice function. Trade secret law has no formal application and disclosure requirements akin to patent law.¹³ Non-disclosure contracts are one of the few ways that information recipients are alerted to the existence and scope of trade secrets. The notice function of contracts is an important and underappreciated aspect of the trade secret-contract relationship. When assessing trade secret validity, courts should explicitly recognize and reinforce the notice function of contracts.

^{10.} See infra Part III.A. The terms "confidentiality contract," "non-disclosure agreement," "confidentiality provision," and "non-disclosure provision" are used interchangeably in this Article.

^{11.} See infra Part III.A.

^{12.} See, e.g., ORLY LOBEL, TALENT WANTS TO BE FREE: WHY WE SHOULD LEARN TO LOVE LEAKS, RAIDS, AND FREE RIDING 51–52 (2013) ("Because employers cannot require their employees to stay in their current position, they must find other ways to prevent their exemployees from competing with them"); Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete,* 74 N.Y.U. L. REV. 575, 578 (1999) ("[C]ovenants not to compete have the potential to restrict seriously the movement of employees between existing firms and to start-ups and, hence, to restrict seriously employee-transmitted knowledge spillovers"); Viva R. Moffat, *The Wrong Tool for the Job: The IP Problem with Noncompetition Agreements,* 52 WM. & MARY L. REV. 873, 893 (2010) ("[N]oncompetes are problematic because they restrict employee mobility, both in theory and in practice."); *infra* note 161 and accompanying text.

^{13.} See infra notes 52, 90 and accompanying text.

While non-disclosure contracts can serve an important notice function for recipients of trade secret information, the centrality of contracts to trade secret law also creates doctrinal tension. This tension occurs when trade secret owners draft contract provisions to evade trade secret law's requirements and limitations. As Part IV demonstrates, firms use contracts to: (1) enlarge protectable subject matter; (2) avoid ongoing reasonable secrecy precautions; (3) eliminate the reverse engineering defense; and (4) impose non-compete provisions that completely bypass trade secret requirements and limits. The pervasive use of contract law to subvert the limitations and requirements of trade secret law can inhibit cumulative innovation and employee mobility. Part IV also considers how differences in the contracting process impact the substance of trade secret-related provisions. Firms' trade secret-evasive uses of contract tend to occur in the context of employee contracts and mass-market consumer licenses, where parties often lack the ability to understand, negotiate and alter terms.

Finally, Part V considers various doctrinal tools that courts can use to scrutinize contractual provisions that conflict with trade secret law—and determine when they should not be enforced. These doctrines include preemption, misuse, and contract non-enforcement doctrines. Federal preemption doctrine is likely too blunt an instrument to be effective in this arena. Misuse doctrine, which polices certain kinds of contractual overreach by patent and copyright owners, has never been applied to trade secret law. Of existing mechanisms, contract non-enforcement doctrines seem to offer the most promise, as they allow nuanced consideration of both contracting process and substance. When it comes to trade secret-related provisions, however, courts have hesitated to apply contract non-enforcement doctrines outside of the employee non-compete context.

II. UNDERSTANDING TRADE SECRETS AS INTELLECTUAL PROPERTY

A. ORIGINS OF TRADE SECRET LAW

Like patent and copyright, trade secret law protects intangible information. Trade secret law protects valuable information that companies take reasonable steps to keep secret, including both technical information (e.g., mechanical processes and chemical formulas) and business information (e.g., customer lists, marketing plans and pricing data). Trade secret subject matter can overlap with patent, and to a lesser degree, copyright.¹⁴

Congressional authority to enact patent and copyright legislation is enshrined in the Constitution,¹⁵ and federal patent and copyright statutes

^{14.} JAMES POOLEY, TRADE SECRETS § 1.01 (1997). Software, for example, consists of overlapping copyright and trade secret subject matter. *See infra* note 148 and accompanying text.

^{15.} See U.S. CONST. art. 1, § 8, cl. 8 ("Congress shall have Power ... [t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries").

emerged shortly after the nation's birth.¹⁶ A straightforward economic rationale underlies patent and copyright laws: preventing the underproduction of information-based goods.¹⁷ By affording inventors and creators a period of exclusivity, patents and copyrights provide incentives to create, innovate, and disclose information.¹⁸

By contrast, trade secret law has no constitutional provenance—and until quite recently, there was no federal statute governing civil trade secret misappropriation. Instead, trade secret principles originated in midnineteenth century common law¹⁹ and evolved largely from individual cases.²⁰ Not only are trade secret law's origins different, but its policy goals have been more varied than those of patent or copyright. Early trade secret cases emphasized the importance of protecting confidential relationships, as well as an inventor's property interest in secret inventions and discoveries.²¹ This led trade secrets to be categorized as a branch of tort law in the early twentieth century.²² That view has waned over time.²³

18. See MERGES ET AL., supra note 17, at 11–17.

19. See, e.g., Pooley, *supra* note 7, at 1048. For a detailed history of the evolution of trade secret law in the United States, see generally Sharon K. Sandeen, *The Evolution of Trade Secret Law* and Why Courts Commit Error When They Do Not Follow the Uniform Trade Secrets Act, 33 HAMLINE L. REV. 493 (2010).

21. See, e.g., Peabody v. Norfolk, 98 Mass. 452, 452 (1868) ("One who invents or discovers, and keeps secret, a process of manufacture, whether proper for a patent or not, has a property therein which a court of chancery will protect against one who in violation of contract and breach of confidence undertakes to apply it to his own use or disclose it to third persons."); *cf.* Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311, 324 (2008) (suggesting that in these early American trade secret cases, the label "property" likely "meant something rather different than it means to many people today, and often little more than that the right was to be protected by the injunctive power of courts in equity").

22. The 1939 Restatement of Torts described the basic principles of trade secret, which most states then adopted. RESTATEMENT (FIRST) OF TORTS §§ 757–59, § 757 cmt. a (AM. LAW INST. 1939) (noting that trade secret law is different from patent and copyright because "[i]t is the employment of improper means to procure the trade secret, rather than the mere copying or use, which is the basis of the liability under the rule stated in this Section").

23. See RESTATEMENT (SECOND) OF TORTS div. 9, intro. note (AM. LAW INST. 1979) ("[T]he influence of Tort law has continued to decrease, so that it is now largely of historical interest"); see also MERGES ET AL., supra note 17, at 35-36 (explaining that the authors of the Restatement (Second) of Torts omitted discussion of trade secret law "on the grounds that the law of trade secrets had developed into an independent body of law that no longer relied on general principles of tort law").

^{17.} Information exhibits public goods characteristics; it "can be copied freely and used by anyone who is aware of [it] without depriving others of [its] use." Mark A. Lemley, *Ex Ante Versus Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129, 129 (2004). The primary justification for patents and copyrights in the United States is to correct for this public goods problem by granting inventors and creators limited rights to exclude. For a general discussion of the public goods characteristics of intellectual property, see ROBERT P. MERGES ET AL., INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 12–13 (6th ed. 2012).

^{20.} Pooley, *supra* note 7, at 1048-49.

In recent decades, trade secrets have come to be seen as a species of intellectual property—with policy goals largely similar to patent and copyright law.²⁴ In *Kewanee Oil Co. v. Bicron Corp.*, for example, the Supreme Court cited similar economic rationales for trade secret law that underlie patent and copyright, such as promoting innovation²⁵ and encouraging information disclosure.²⁶ But unlike other forms of intellectual property, morality-based rationales such as "maint[aining] . . . standards of commercial ethics" have also influenced trade secret law.²⁷

B. CENTRAL FEATURES OF TRADE SECRET LAW

The basic features of state trade secret laws are fairly uniform. This consistency is due to wide-scale adoption of the Uniform Trade Secret Act ("UTSA").²⁸ A model state statute issued in 1979 by the National Conference of Commissioners, the UTSA has been enacted by 47 states and the District of Columbia.²⁹ In 2016, Congress passed the Defend Trade Secret Acts

26. *Kewanee Oil Co.*, 416 U.S. at 486 (explaining that absent trade secret protection "[t]he holder of a trade secret would . . . hoard rather than disseminate knowledge," and "[i]nstead . . . of licensing others to use his invention and making the most efficient use of existing manufacturing and marketing structures within the industry, the trade secret holder would tend either to limit his utilization of the invention, thereby depriving the public of the maximum benefit of its use").

27. *Id.* at 481–82 (observing that "[t]he maintenance of standards of commercial ethics" is a "broadly stated polic[y] behind trade secret law" and "[t]he necessity of good faith and honest, fair dealing, is the very life and spirit of the commercial world" (quoting Nat'l Tube Co. v. E. Tube Co., 13-23 Ohio C.C. Dec. 468, 470 (1902))); *see also* E.I. duPont deNemours & Co. v. Rolfe Christopher, 431 F.2d 1012, 1016 (5th Cir. 1970) ("[O]ur devotion to free wheeling industrial competition must not force us into accepting the law of the jungle as the standard of morality expected in our commercial relations.").

28. Compare Christopher B. Seaman, *The Case Against Federalizing Trade Secrecy*, 101 VA. L. REV. 317, 353 (2015) (arguing that UTSA makes trade secret laws uniform), *with* Pooley, *supra* note 7, at 1059 (arguing that the uniformity has been overstated).

29. According to the Uniform Law Commission, all states except for Massachusetts, New York, and North Carolina have adopted the UTSA. The UTSA has been introduced during the 2018 legislative sessions in Massachusetts and New York. *See Trade Secrets Act*, UNIF. LAW COMM'N, http://www.uniformlaws.org/Act.aspx?title=Trade%20Secrets%20Act (last visited Feb. 23, 2018).

^{24.} See, e.g., Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1004 (1984) ("[The] perception of trade secrets as property is consonant with a notion of 'property' that extends beyond land and tangible goods and includes the products of an individual's 'labour and invention.'"); 1 ROGER M. MILGRIM & ERIC E. BENSEN, MILGRIM ON TRADE SECRETS 73–98 (2017) (listing cases in the footnotes describing trade secrets as property and intellectual property); Lemley, *supra* note 21, at 329 (arguing that trade secrets are best conceptualized as intellectual property).

^{25.} Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 484–85 (1974) (*Kewanee Oil Co.* holds that federal patent law did not preempt state trade secret laws and explaining that "the patent policy of encouraging invention is not disturbed by the existence of another form of incentive to invention" and "[t]rade secret law will encourage invention in areas where patent law does not reach, and will prompt the independent innovator to proceed with the discovery and exploitation of his invention. Competition is fostered and the public is not deprived of the use of valuable, if not quite patentable, invention." (citing Gordon L. Doerfer, *The Limits on Trade Secret Law Imposed by Federal Patent and Antitrust Supremacy*, 80 HARV. L. REV. 1432, 1454 (1967))).

("DTSA"), which introduced a new federal civil claim for trade secret misappropriation that mirrors the UTSA in many respects.³⁰

Under federal or state law, three basic elements are required for a successful trade secret claim. First, the plaintiff must show that information for which protection is claimed falls within the subject matter of trade secret law. Trade secret subject matter is quite broad, encompassing "[v]irtually any useful information."³¹ However, the information must have "independent economic value, actual or potential," and it cannot be "generally known" or "readily ascertainable" by those in the relevant industry.³² The latter exclusions prevent firms from restricting the use of published or well-known industry information—which any industry competitor should be able to use in its innovation process.³³

Second, the plaintiff must have subjected the information to reasonable secrecy precautions ("RSP") preventing its disclosure.³⁴ Depending on the factual context, precautions can take various forms—including the imposition of non-disclosure contracts, discussed in further depth below.³⁵ If the subject matter or RSP elements are unsatisfied, the plaintiff has no trade secret.

32. UNIF. TRADE SECRETS ACT § 1 (4) (i) (UNIF. LAW COMM'N 1979) (amended 1985). UTSA § 1 (4) defines "trade secret" as:

[I]nformation, including a formula, pattern . . . or process, that:

(i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and(ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Id. § 1(4). Similarly, under federal law "trade secret" is defined as:

[A]ll forms and types of financial, business, scientific, technical, economic, or engineering information . . . if—

(A) the owner thereof has taken reasonable measures to keep such information secret; and

(B) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information

18 U.S.C. § 1839(3) (2012).

34. See 18 U.S.C. § 1839(3); UNIF. TRADE SECRETS ACT § 1(4).

35. See generally Deepa Varadarajan, Trade Secret Precautions, Possession, and Notice, 68 HASTINGS L.J. 357 (2017) (discussing various aspects of the RSP requirement).

More recently, the 1995 Restatement (Third) of Unfair Competition describes the principles of trade secret law. *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 39–45 (AM. LAW. INST. 1995). It is largely consistent with the UTSA. *See, e.g.*, Pooley, *supra* note 7, at 1051.

^{30.} See supra note 8 and accompanying text. For a discussion of similarities and differences between the DTSA and UTSA, see Sharon K. Sandeen & Christopher B. Seaman, *Toward a Federal Jurisprudence of Trade Secret Law*, 32 BERKELEY TECH. L.J. (forthcoming 2018) (manuscript at 847–49), https://ssrn.com/abstract=2958042; Lobel, *supra* note 6, at 4–5, 18–19.

^{31.} POOLEY, *supra* note 14, § 1.01.

^{33.} See Lemley, supra note 21, at 317.

Unlike patent law, a putative trade secret owner does not have to apply for trade secret protection with any federal (or state) agency.³⁶ Instead, the validity and scope of trade secrets are often worked out ex post, in the context of litigation.³⁷ Nor does a trade secret have a fixed term; instead, protection expires once the secret information is publicly disclosed (e.g., in a patent), becomes known within an industry, or is readily ascertainable from a commercial product.³⁸

Finally, to succeed on a trade secret claim, the plaintiff must prove the defendant "misappropriated" the confidential information. That is, the defendant must have acquired, used or disclosed the information by breaching a duty of confidence or by using "improper means."³⁹ "Improper means" cases are unusual. They tend to involve persons unknown to the plaintiff engaged in unlawful acts like wiretapping, or acts that fall below "generally accepted standards of commercial morality and reasonable conduct," like aerial spying.⁴⁰ Instead, the majority of trade secret cases involve departing employees accused of violating an express confidentiality

- 38. See, e.g., MERGES ET AL., supra note 17, at 58, 60–61.
- 39. UTSA § 1(2) defines "misappropriation" as:
 - (i) acquisition of a trade secret of another by a person who knows or has reason to know that the trade secret was acquired by improper means; or
 - (ii) disclosure or use of a trade secret of another without express or implied consent by a person who
 - (A) used improper means to acquire knowledge of the trade secret; or
 - (B) at the time of disclosure or use, knew or had reason to know that his knowledge of the trade secret was
 - (I) derived from or through a person who had utilized improper means to acquire it;
 - (II) acquired under circumstances giving rise to a duty to maintain its secrecy or limit its use; or
 - (III) derived from or through a person who owed a duty to the person seeking relief to maintain its secrecy or limit its use; or
 - (C) before a material change of his [or her] position, knew or had reason to know that it was a trade secret and that knowledge of it had been acquired by accident or mistake.

UNIF. TRADE SECRETS ACT § 1(2) (alteration in original); see also 18 U.S.C. § 1839 (defining misappropriation similarly).

40. E.I. duPont deNemours & Co. v. Christopher, 431 F.2d 1012, 1016 (5th Cir. 1970) (quoting RESTATEMENT (FIRST) OF TORTS § 757 cmt. f (1939)).

^{36.} To obtain a patent, an inventor must apply to the Patent & Trademark Office ("PTO"), demonstrating that her invention is patentable subject matter, useful, novel, nonobvious, and sufficiently disclosed so that others in the relevant art can understand, make and use it. *See* 35 U.S.C. §§ 101–03, 112 (2012). For a discussion of this and other differences between patent and trade secret law, see Deepa Varadarajan, *Trade Secret Fair Use*, 83 FORDHAM L. REV. 1401, 1409–11 (2014).

^{37.} Varadarajan, supra note 36, at 1411.

duty—imposed via contract.⁴¹ In addition to employees, other business associates, like joint venture collaborators, distributors, and suppliers, can be subject to confidentiality duties.⁴² Trade secret liability also applies to third parties who use or disclose information so long as they "knew or had reason to know" the information was obtained improperly.⁴³ So for example, if a departing employee shares trade secrets with a new employer, that new employer may be liable for trade secret misappropriation.⁴⁴

The requirement of misappropriation means that various "proper" means of obtaining information are insulated from liability. Notably, if confidential information is discovered through independent research or by "reverse engineering" a lawfully-acquired product, no liability attaches.⁴⁵ A successful trade secret plaintiff can obtain various remedies, including injunctive relief and monetary damages, which go beyond typical contract law remedies.⁴⁶

C. Information's "Dual Function" and Intellectual Property Laws' Balancing Act

Information has a "dual function": It is a "potential object of protection" but also the "building block" of future innovations and knowledge.⁴⁷ In recognition of the cumulative nature of innovation, intellectual property laws—patent, copyright, and trade secret—allocate rights with an eye towards

42. *See* Almeling et al., *Litigation in State Courts, supra* note 41, at 68 (describing various types of business partners).

43. See UNIF. TRADE SECRETS ACT § 1.

44. See Alan J. Tracey, The Contract in the Trade Secret Ballroom—A Forgotten Dance Partner?, 16 TEX. INTELL. PROP. L.J. 47, 78 (2007).

45. See Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 476 (1974) ("[T] rade secret law . . . does not offer protection against discovery by fair and honest means, such as by independent invention, accidental disclosure, or by so-called reverse engineering, that is by starting with the known product and working backward to divine the process which aided in its development or manufacture."); UNIF. TRADE SECRETS ACT § 1 cmt. 2.

46. See 18 U.S.C. § 1836(b) (2012); UNIF. TRADE SECRETS ACT §§ 2–3; see also Lemley, supra note 21, at 319 ("[T]rade secret misappropriation gives rise to a panoply of remedies . . . [including] an injunction[,] . . . damages measured by the greater of the owner's loss or the defendant's gain[,] . . . or a limited 'head start' injunction designed to put the parties back in the same situation they would have been in had the misappropriation not occurred" (footnote omitted)).

47. Reichman & Franklin, *supra* note 2, at 884.

^{41.} See e.g., David S. Almeling et al., A Statistical Analysis of Trade Secret Litigation in State Courts, 46 GONZ. L. REV. 57, 69 (2011) [hereinafter Almeling et al., Litigation in State Courts] (conducting an empirical study of state appellate decisions between 1995 and 2009 and concluding that in 77% of cases, the alleged misappropriator was an employee or former employee); David S. Almeling et al., A Statistical Analysis of Trade Secret Litigation in Federal Courts, 45 GONZ. L. REV. 291, 303 (2010) (conducting an empirical study of federal district court decisions between 1950 and 2008 and concluding that in over half the cases, the alleged misappropriator was an employee or former employee); Lobel, *supra* note 6, at 12 ("Both in civil litigation and criminal prosecution, the majority of [trade secret] cases have involved disputes between employers and their current or former employees.").

balancing the interests of current creators with those of future innovators and the public.⁴⁸ Finding the right balance is the ongoing (albeit empirically elusive) objective of intellectual property laws.⁴⁹ Patent, copyright, and trade secret laws each impose ex ante eligibility requirements, as well as ex post limitations on owners' rights to serve this critical balancing function.⁵⁰ Together, the various requirements and limitations of intellectual property laws help "promote cumulative and sequential innovation as well as the public interest in education, science, research, competition, and freedom of expression."⁵¹

Among intellectual property doctrines, the ex ante requirements of patent are most stringent. To acquire a patent, an inventor must submit an application to the Patent & Trademark Office ("PTO") that demonstrates her invention is patentable subject matter, useful, novel (i.e., different from the prior art), nonobvious (i.e., more than a trivial step beyond the prior art), and sufficiently claimed, described and enabled in the application so that others skilled in the relevant art can understand, make and use it.⁵² These statutory requirements are meant to assess whether the public will benefit from the disclosure and dissemination of the patented technology—such that the social costs of exclusivity are warranted. Moreover, requiring a patentee to "claim" the outer boundaries of her invention provides some degree of ex ante notice to competitors and the public about how far a patentee's exclusive right extends.⁵³

^{48.} See Kewanee Oil Co., 416 U.S. at 490 ("Nor does society face much risk that scientific or technological progress will be impeded by the rare inventor with a patentable invention who chooses trade secret protection over patent protection."); Maureen A. O'Rourke, *Toward a Doctrine of Fair Use in Patent Law*, 100 COLUM. L. REV. 1177, 1180 (2000) ("Virtually since their inception, both the copyright and patent laws have grappled with the question of how to safeguard the incentive inherent in the grant of exclusive rights while at the same time allowing second-comers to build on prior works.").

^{49.} See MERGES ET AL., supra note 17, at 17 (explaining that economic models have "enriched our understanding of the innovative process and the implications for public policy," but "cast doubt on the notion that society can perfectly calibrate intellectual property rewards for each innovation").

^{50.} For a discussion and comparison of the different IP doctrines, see MERGES ET AL., *supra* note 17, at 24–31; William Fisher, *Theories of Intellectual Property*, *in* NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY 168, 168–99 (Stephen R. Munzer ed., 2001).

^{51.} Reichman & Franklin, supra note 2, at 882.

^{52. 35} U.S.C. §§ 101–03, 112 (2012).

^{53. 35} U.S.C. § 112. The question of how well patent claims perform their important notice function is, however, a topic of scholarly debate. *See, e.g.*, JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 236–53 (2008); Dan L. Burk & Mark A. Lemley, *Fence Posts or Sign Posts? Rethinking Patent Claim Construction*, 157 U. PA. L. REV. 1743, 1744 (2009) (arguing that the modern claiming system "isn't working"); Tun-Jen Chiang, *Forcing Patent Claims*, 113 MICH. L. REV. 513, 514–15 (2015) (assessing the various critiques of claim ambiguity).

By contrast, copyright law imposes few ex ante requirements. There is no application or claiming requirement to obtain copyright protection.⁵⁴ Instead, for a work to be copyrightable, it need only satisfy a low threshold of originality (i.e., be independently created and exhibit a "modicum of creativity") and be fixed in a tangible medium of expression.⁵⁵ But copyright imposes significant limitations on the scope of exclusive rights—which are usually worked out ex post, in the context of infringement litigation. For example, copyright protection extends only to the author's original expression of a work, not its underlying ideas.⁵⁶ Moreover, the robust "fair use" defense permits certain unauthorized but socially valuable uses of copyrighted works.⁵⁷ These limitations arose, in large part, to promote cumulative creativity.

Like other forms of intellectual property, innovation incentives help justify trade secret protection.⁵⁸ To address cumulative innovation concerns, trade secret law imposes certain requirements and limitations: that protectable information be secret and not generally known or readily ascertainable; that putative owners engage in reasonable secrecy precautions; and that reverse engineering is permissible.⁵⁹ These requirements and limitations take on particular importance in trade secret law, which lacks the durational limits of patent and copyright.⁶⁰ They act as a check on owners' ability to restrain employees, business associates, and other information recipients from engaging in a wide array of innovative activity.⁶¹

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit education purposes;

(2) the nature of the copyrighted work;

 (\mathfrak{Z}) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4) the effect of the use upon the potential market for or value of the copyrighted work.

Id.; see also Barton Beebe, *An Empirical Study of U.S. Copyright Fair Use Opinions, 1978–2005,* 156 U. PA. L. REV. 549, 551 (2008) (describing fair use as "the most important—and amorphous—limitation on the otherwise extraordinarily broad rights granted to copyright owners").

58. See supra notes 24-25 and accompanying text.

59. Varadarajan, *supra* note 36, at 1445 (arguing that trade secret limitations should go further in addressing "cumulative innovation and First Amendment concerns").

60. *See id.* at 1408–12 (discussing similarities and differences between trade secret law and patent and copyright laws).

61. *See, e.g.*, Dynamics Research Corp. v. Analytic Scis. Corp., 400 N.E.2d 1274, 1282 (Mass. App. Ct. 1980) (discussing these concerns in conjunction with employer's attempt to use trade

^{54.} Copyright registration is, however, usually required to bring an infringement action. *See* 17 U.S.C. § 411 (2012).

^{55.} See 17 U.S.C. § 102(a); Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., Inc., 499 U.S. 340, 346 (1991).

^{56.} See 17 U.S.C. § 102(b).

^{57.~17} U.S.C. \S 107. In any case where fair use is asserted, courts must consider the following four nonexclusive factors:

III. THE EVIDENTIARY ROLE OF CONTRACTS IN TRADE SECRET LAW

Firms share confidential information with various parties, including employees, joint venture collaborators, consultants, contractors, and customers. Although trade secret law and contract law are theoretically distinct,⁶² firms routinely use confidentiality contracts to help protect trade secrets in the context of: (1) licensing trade secrets to other businesses;⁶³ (2) employment contracts;⁶⁴ and (3) licensing mass-market software and database access to consumers.⁶⁵

Firms have strategic reasons to impose non-disclosure provisions in each of these contexts—and indeed, on any party with whom confidential information is shared. Since there is no formal granting mechanism for trade secret protection (e.g., akin to the PTO), trade secret owners have less ex ante certainty about the existence and scope of trade secret rights. Some trade secret owners may view contractual restrictions as a substitute for less certain trade secrecy rights.⁶⁶ Moreover, trade secret law itself encourages—and in many cases, seems to require—non-disclosure contracts as a condition of obtaining protection.

As discussed below, courts consider non-disclosure contracts to be important evidence in trade secret cases. Specifically, non-disclosure contracts help prove reasonable secrecy precautions by the plaintiff and misappropriation by the defendant—both required elements of a successful trade secret claim. Thus, unlike other forms of intellectual property, contracts play a critical evidentiary role in establishing the existence and scope of protectable trade secrets.⁶⁷

secret law and a broad non-disclosure agreement to prevent a former employee from using his knowledge and skill in the area of inertial guidance engineering).

^{62.} See Lemley, supra note 21, at 323–24 (describing various ways that trade secret law departs from contract law); cf. Robert G. Bone, A New Look at Trade Secret Law: Doctrine in Search of Justification, 86 CALIF. L. REV. 241, 243 (1998) (arguing that "trade secret liability should be governed mainly by contract principles").

^{63.} See Rice, supra note 5, at 622 ("[I]nformation sharing is essential in program design, development, testing, marketing and maintenance ").

^{64.} See, e.g., Orly Lobel, Enforceability TBD: From Status to Contract in Intellectual Property Law, 96 B.U. L. REV. 869, 874–76 (2016); Peter S. Menell, Tailoring a Public Policy Exception to Trade Secret Protection, 105 CALIF. L. REV. 1, 3 (2017).

^{65.} See, e.g., Data Gen. Corp. v. Dig. Comput. Controls, Inc., 357 A.2d 105, 109 (Del. Ch. 1975); Lemley, Intellectual Property, supra note 3, at 1268–69; Rice, supra note 5, at 623.

^{66.} *Cf.* O'Rourke, *supra* note 3, at 488–89 (suggesting similar motivations spurred software providers to use license agreements where it was not clear the extent to which copyright law would protect software).

^{67.} See, e.g., Rochelle Cooper Dreyfuss, Do You Want to Know a Trade Secret? How Article 2B Will Make Licensing Trade Secrets Easier (But Innovation More Difficult), 87 CALIF. L. REV. 191, 208–09 (1999) ("Trade secrets are ... creatures of the contract—that is, but for the promise of confidentiality entered into at the time the knowledge was transferred, there would be no 'right' that could be licensed because there would be no information that was valuable by virtue of being secret."); Rice, supra note 5, at 622 ("Contract plays a critical role in trade secret protection. Although neither

A. EVIDENCE OF PLAINTIFF'S REASONABLE SECRECY PRECAUTIONS

The UTSA (and the DTSA) make reasonable secrecy precautions ("RSP") an independent requirement for trade secret protection.⁶⁸ The plaintiff's secrecy efforts are part of the proof for establishing a valid trade secret.⁶⁹ In assessing the RSP requirement, courts scrutinize the affirmative acts taken by a plaintiff to keep putative trade secrets confidential.⁷⁰ Examples of such acts include imposing non-disclosure agreements on employees and other business partners, using password protections, and restricting access to certain areas of the facility.⁷¹ Satisfaction of the RSP requirement is a question of fact, based on the circumstances.⁷²

Although in theory, no single type of precautionary measure is dispositive, recent empirical work suggests that courts give non-disclosure contracts particular importance. In their examination of state and federal trade secret litigation, David Almeling and his colleagues observe that "confidentiality agreements with employees and business partners are the most important factors in the courts' analysis of reasonable measures."⁷³ Disputes involving employees or former employees comprise the vast majority of trade secret cases.⁷⁴

Even in the mass consumer context, contracts play an important role in establishing RSP. Notably, controversial "shrinkwrap" licenses originated as a

the fountain nor foundation of trade secret law, it is an important instrument in defining and securing protection of closely held information.").

^{68.} See UNIF. TRADE SECRETS ACT § 1(4) (UNIF. LAW COMM'N 1979) (amended 1985) ("'Trade secret' means information . . . that . . . is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.").

^{69.} See supra notes 34-35 and accompanying text. Interestingly, the UTSA's drafters departed from the common law when it established RSP as an independent trade secret requirement. The Restatement (First) of Torts, which reflected common law, listed secrecy efforts as one of many factors to consider in determining whether the plaintiff has a protectable trade secret. RESTATEMENT (FIRST) OF TORTS § 757 cmt. b (AM. LAW INST. 1939) ("Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others." (emphasis added)).

^{70.} *See, e.g.*, Electro-Craft Corp. v. Controlled Motion, Inc., 332 N.W.2d 890, 901 (Minn. 1983) ("[M]ore than an 'intention' was required—the plaintiff was required to show that it had manifested that intention by making some effort to keep the information secret.").

^{71.} See POOLEY, supra note 14, \$ 4.04(2)(b) nn.14–15 (listing cases).

^{72.} See, e.g., Rockwell Graphic Sys., Inc. v. DEV Indus., Inc., 925 F.2d 174, 176–77 (7th Cir. 1991).

^{73.} Almeling et al., *Litigation in State Courts, supra* note 41, at 82–83; *see also* Tracey, *supra* note 44, at 63 ("One of the most commonly used and well-recognized approaches to safeguarding the access of trade secret information is a confidentiality agreement.").

^{74.} See supra note 41 and accompanying text.

way to satisfy trade secret law's RSP requirement.⁷⁵ Software vendors in the late 1970s and early 1980s relied largely on trade secret protection for software programs because copyright and patent protection of software was still uncertain.⁷⁶ But "[s]oftware vendors needed proof that they were not in fact disclosing their trade secrets by selling copies to whomever wanted them."⁷⁷ As a result, "they created the legal fiction that they were really licensing rather than selling their software."⁷⁸ Since these license agreements "required customers to keep the software confidential, the trade secrets contained therein could be protected."⁷⁹

The centrality of nondisclosure agreements in proving that the plaintiff has a valid trade secret makes the trade secret-contract relationship unique. Patent and copyright owners certainly license protected subject matter, but those contracts do not help establish the validity of the underlying intellectual property right. For example, courts do not consider contract language when assessing patent validity—i.e., whether the claimed invention satisfies the substantive requirements of patentability.⁸⁰ Similarly, in copyright law, the owner's contracts do not establish that contested subject matter is protectable expression versus an unprotectable idea.⁸¹ By contrast, a putative trade secret owner would be hard pressed to satisfy the RSP requirement—and thus prove a valid trade secret—without pointing to non-disclosure contracts as evidence.⁸²

B. EVIDENCE OF DEFENDANT'S "MISAPPROPRIATION"

Also unlike patent and copyright, trade secret law only constrains "misappropriators"—that is, those who acquire, use, or disclose the information in breach of a confidentiality duty or through "improper means."⁸³ The vast majority of civil trade secret cases involve defendants who are accused of violating a "confidentiality duty"—for example, cases involving employees and other known business collaborators. Cases involving unknown persons who used improper means to acquire information are far rarer.⁸⁴

The existence of a confidentiality duty can, however, be a point of contention in trade secret cases. The clearest way to establish a confidentiality

81. See supra note 56 and accompanying text.

82. See Tracey, supra note 44, at 80-81 (observing that "without the contract, the information at issue may not qualify as trade secret information under the UTSA" and that "the contract is needed by the plaintiff in order to establish the trade secret").

83. See supra notes 39-44 and accompanying text.

84. See Ameling et al., Litigation in State Courts, supra note 41, at 68-70.

^{75.} See Lemley, Intellectual Property, supra note 3, at 1243-44.

^{76.} See id.

^{77.} Id. at 1244.

^{78.} Id.

^{79.} Id. at 1245.

^{80.} See supra note 52 and accompanying text.

duty is by imposing confidentiality contracts on those with whom information is shared—e.g., employees, business partners, and customers. Absent such contracts, the issue of whether the defendant owes a confidentiality duty that is, whether it can be implied from the circumstances—is more complicated.⁸⁵

The employee context is regarded as the "classic example" of an implied confidentiality duty.⁸⁶ In general, employees have a duty to protect their employers' secret information—even in the absence of an express contract.⁸⁷ However, some courts are unwilling to find an implied confidentiality duty where an employee did not otherwise receive "fair notice of the confidential nature of the relationship and what material is to be kept confidential."⁸⁸ Outside of the employee context, courts are even more "wary" of trade secret claims based on implied confidentiality duties—especially where the putative owner otherwise failed to "[make] it clear to the parties involved that there was an expectation and obligation of confidentiality."⁸⁹

(a) the person made an express promise of confidentiality prior to the disclosure of the trade secret; or

(b) the trade secret was disclosed to the person under circumstances in which the relationship between the parties to the disclosure or the other facts surrounding the disclosure justify the conclusions that, at the time of the disclosure,

(1) the person knew or had reason to know that the disclosure was intended to be in confidence, and

(2) the other party to the disclosure was reasonable in inferring that the person consented to an obligation of confidentiality.

RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 41 (AM. LAW INST. 1995).

86. Lemley, supra note 21, at 318.

87. See MILGRIM & BENSEN, supra note 24, § 3.02 (listing cases where an employee was found to have violated an implied duty of confidentiality).

88. Electro-Craft Corp. v. Controlled Motion, Inc., 332 N.W.2d 890, 903 (Minn. 1983) (quoting Jostens Inc. v. Nat'l Comput. Sys. Inc., 318 N.W. 2d 691, 702 (Minn. 1982)) (reasoning that "ECC's failure to make reasonable efforts to maintain secrecy . . . was fatal to its claim of a confidential relationship").

89. *Bateman*, 79 F.3d at 1550 (rejecting implied confidentiality duty where defendant was not "made aware of any obligation of confidentiality to [plaintiffs] regarding the engineering materials at issue"); *see also* Flotec, Inc. v. S. Research, Inc., 16 F. Supp. 2d 992, 1004–07 (S.D. Ind. 1998) (finding that plaintiffs failed to create a confidential relationship where it delivered plans and drawings to a defendant without contractual restrictions or any other reasonable notice that information was considered a trade secret); Baystate Techs., Inc. v. Bentley Sys., Inc., 946 F. Supp. 1079, 1091–93 (D. Mass. 1996) (holding that plaintiff's failure to expressly notify third party developers of the information's trade secret status resulted in no implied duty of secrecy). *But see* Phillips v. Frey, 20 F.3d 623, 631–32 (5th Cir. 1994) (finding implied confidentiality

^{85.} See MERGES ET AL., supra note 17, at 70 ("[T]he easiest way to create a confidential relationship is to sign a contract to that effect."); see also Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1549 (11th Cir. 1996) (refusing to find an implied confidential relationship); Smith v. Dravo Corp., 203 F.2d 369, 376–77 (7th Cir. 1953) (finding an implied confidential relationship between negotiating parties absent confidentiality contract). The Restatement (Third) of Unfair Competition § 41 provides that a confidential relationship is established in one of two circumstances:

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C. VIEWING THE EVIDENTIARY ROLE OF CONTRACTS THROUGH THE LENS OF NOTICE

As discussed above, confidentiality contracts help putative owners demonstrate two critical elements of a trade secret claim: (1) reasonable secrecy precautions, and (2) the existence of a confidentiality duty. The pivotal evidentiary role of contracts in trade secret cases stems largely from their notice function. The notice function of confidentiality contracts is an important and underappreciated aspect of the trade secret-contract relationship.

Unlike patent law, trade secret law does not require putative trade secret owners to formally apply for or describe the boundaries of asserted trade secrets.⁹⁰ In many cases, a trade secret defendant does not even learn of the existence or precise boundaries of the trade secret she is alleged to have violated until she becomes the subject of litigation.⁹¹ In the absence of other ex ante notice requirements, non-disclosure contracts can help alert recipients of information about the existence and scope of claimed trade secrets.

Notifying others about the scope of intellectual property rights has important consequences for cumulative innovation.⁹² Tangible property (e.g., land) has observable dimensions and boundaries. Informational goods (e.g., a new mechanical process) often do not. If observers cannot discern the

relationship during negotiations over the sale of a business, despite failure to notify that the information was confidential).

^{90.} *See supra* note 36 and accompanying text. Patent "claims" are numbered sentences that distinctly set out the boundaries of the invention—the "metes and bounds" of the inventor's right to exclude if the patent issues. 35 U.S.C. § 112 (2012).

^{91.} See, e.g., Charles Tait Graves & James A. DiBoise, Do Strict Trade Secret and Non-Competition Laws Obstruct Innovation?, 1 ENTREPRENEURIAL BUS. L.J. 323, 339 (2006) ("[C]ourts do not recognize that plaintiff's trade secret claims are too often created after the fact by attorneys to try to trap a former employee, and not so valuable that the plaintiff had previously recorded them as company intellectual property and guarded them as secret before the employee departed."). Even in litigation, a trade secret plaintiff may not have to specify the precise boundaries of an asserted trade secret, depending on the jurisdiction. See Lobel, supra note 6, at 18 (describing these state variations and critiquing the DTSA for failing to incorporate an "identify with particularity" litigation requirement akin to California's). Compare Loop AI Labs Inc. v. Gatti, 195 F. Supp. 3d 1107, 1110 (N.D. Cal. 2016) (describing California's statutory requirement that a plaintiff identify the trade secrets at issue with "reasonable particularity" before discovery (quoting CAL. CIV. PROC. CODE § 2019.210 (West 2007))), with Mission Measurement Corp. v. Blackbaud, Inc., 216 F. Supp. 3d 915, 920 (N.D. Ill. 2016) (describing Illinois courts as finding "allegations to be adequate in instances where the information and the efforts to maintain its confidentiality are described in general terms" (quoting Covenant Aviation Sec., LLC v. Berry, 15 F. Supp. 3d 813, 818 (N.D. Ill. 2014))).

^{92.} See Jeanne C. Fromer, *Claiming Intellectual Property*, 76 U. CHI. L. REV. 719, 760–61 (2009) ("Clear content notice" about "the set of embodiments protected by the intellectual property right . . . is valuable so that the public can avoid improper use of the set's members without permission and can, concomitantly, understand what is free for the taking, thereby furthering innovation.").

boundaries of patented inventions, copyrighted works, and trade secretprotected information, then they may be overly cautious in their inventive and creative endeavors for fear of inviting litigation. Thus, the extent to which intellectual property laws impose ex ante notice obligations on owners impacts observers' incentives to engage in follow-on innovation.⁹³ In trade secret law, these concerns take on an additional dimension because insufficient notice about the boundaries of trade secrets can negatively impact employee mobility.⁹⁴ If employees cannot discern the boundaries of trade secret-protected information ex ante, they may be overly cautious in changing jobs, starting new entrepreneurial endeavors, or otherwise making productive use of their skills and knowledge.⁹⁵

Although non-disclosure contracts can help notify employees about the scope of claimed trade secrets, the mere existence of such contracts should not be equated with meaningful notice.⁹⁶ Many trade secret owners do not provide meaningful notice about specific trade secrets in non-disclosure agreements—instead, preferring to "be ambiguous about the kinds of information that the departing employees are allowed to take with them."⁹⁷ To be sure, the employer–employee relationship is a dynamic one, requiring

95. See Lobel, *supra* note 6, at 12–13. While an employee cannot divulge protected trade secrets, she is free to take her "general skills and knowledge," as well as her industry-specific knowledge from one employer to another. AMP Inc. v. Fleischhacker, 823 F.2d 1199, 1205 (7th Cir. 1987) ("[S]uch information comprises general skills and knowledge acquired in the course of employment" (quoting Fleming Sales Co. v. Bailey, 611 F. Supp. 507, 514 (N.D. Ill. 1985))), *superseded by statute*, 765 Ill. Comp. Stat. 1065/3 (2016) (holding of case has not been disturbed by codification in statute). However, the line between these categories and an employer's protected trade secrets is blurry. *See, e.g., Fleischhacker*, 823 F.2d at 1205. This line is particularly blurry in cases where employees rely on memorized information rather than tangible records taken from their former employee. *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42 cmt. d (AM. LAW INST. 1995) ("When a former employee uses information from memory rather than from physical records taken from the former employee, courts may be more likely to regard the information as part of the employee's general knowledge and experience.").

96. See generally Varadarajan, supra note 35 (arguing that putative trade secret owners' ex ante notice obligations should be strengthened).

97. See Yuval Feldman, Experimental Approach to the Study of Normative Failures: Divulging of Trade Secrets by Silicon Valley Employees, 2003 U. ILL. J.L. TECH. & POL'Y 105, 131 (observing that "popular legal guides for employers suggest that it is in the best interest of the employer not to create a list of projects that the employee should avoid upon leaving the company"); see also Graves & DiBoise, supra note 91, at 339.

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^{93.} See id. at 731 (describing the relationship between patent's ex ante claiming requirements and the goal of stimulating innovation).

^{94.} See, e.g., Dynamics Research Corp. v. Analytic Sci. Corp., 400 N.E. 2d 1274, 1282–83 (Mass. App. Ct. 1980) ("[T]he loss to the individual and the economic loss to society are both greatest when a highly trained and specialized person is prevented from employing his special abilities." (quoting Harlan M. Blake, *Employee Agreements Not to Compete*, 73 HARV. L. REV. 625, 684–85 (1960))).

flexibility.⁹⁸ At the time an employee is hired, the employer may not have a clear sense of the specific trade secrets the employee will access, or the employee's assignment may change over time. Thus, some degree of ambiguity in a non-disclosure provision may be unavoidable. But notice obligations ought to be dynamic too.⁹⁹ Where the non-disclosure agreement is overly vague about the boundaries of proprietary information, the employer should be required to provide supplementary notice or risk losing trade secret protection. When assessing the RSP and confidentiality duty requirements, courts should scrutinize non-disclosure contracts to ensure they provide meaningful notice about the specific trade secrets at issue. If they do not, courts should deny protection unless some other form of explicit ex ante notice was provided during the employment relationship—and well before the initiation of trade secret litigation.¹⁰⁰

In some cases, courts have not given notice issues their due—merely nodding to the existence of a non-disclosure agreement.¹⁰¹ Other courts have looked beyond the mere existence of a non-disclosure agreement to scrutinize its contents and the sufficiency of ex ante notice provided. Such cases seem to be on the right track and offer a useful model for other courts to follow. In *Electro-Craft Corp. v. Controlled Motion, Inc.*, for example, the court found ECC's reasonable secrecy precautions lacking because of its "fatally lax" procedures for "signal[ing] to its employees and to others that certain information is secret and should not be disclosed."¹⁰² Even though the employee-defendants in *Electro-Craft Corp.* signed non-disclosure agreements at the time of their hiring, the court deemed the agreements "too vague to apprise the employees of [the] specific 'secrets'" that later became the subject of the lawsuit.¹⁰³ Nor had Electro-Craft Corp. undertaken other notice efforts to compensate for this deficiency.¹⁰⁴ The court found these same notice deficiencies "fatal to

^{98.} See Rachel Arnow-Richman, *Modifying At-Will Employment Contracts*, 57 B.C. L. REV. 427, 429 (2016) ("Employers genuinely require flexibility to deal with changes in personnel matters and external economic circumstances.").

^{99.} *Cf.* Jeanne C. Fromer, *Dynamic Patent Disclosure*, 69 VAND. L. REV. 1715, 1715–16 (2016) (recognizing certain deficiencies of patent disclosure, given its timing "so early in the process of innovation," and proposing the requirement of "more dynamic patent disclosure of important information generated post-patent filing" to help "communicat[e] clearer notice of patent scope").

^{100.} See generally Varadarajan, supra note 35 (discussing the notice function of the RSP requirement).

^{101.} See, e.g., MAI Sys. Corp. v. Peak Comput., Inc., 991 F.2d 511, 521 (9th Cir. 1993) (concluding that MAI satisfied the RSP requirement simply because it "required its employees to sign confidentiality agreements respecting its trade secrets").

^{102.} Electro-Craft Corp. v. Controlled Motion, Inc., 332 N.W.2d 890, 902 (Minn. 1983).

^{103.} *Id.* at 903. Electro-Craft Corp. alleged that four former employees misappropriated designs and processes related to moving coil motors, which are used in high technology applications. *Id.* at 895–98.

^{104.} Id. at 902–03 ("ECC should have let its employees know in no uncertain terms that those [later claimed trade secrets] were secret. Instead, ECC treated its information as if it were not

[Electro-Craft Corp.'s] claim of a confidential relationship"—necessary to prove the misappropriation element.¹⁰⁵

Similarly, in *Dynamics Research Corp. v. Analytic Sciences Corp.*, the court scrutinized the non-disclosure agreement signed by the defendant and found insufficient reasonable secrecy precautions.¹⁰⁶ In this case, the alleged trade secret was a business method for providing information and advice, primarily to government agencies, regarding the inertial guidance and navigation systems of various missiles.¹⁰⁷ The defendant, a highly accomplished inertial guidance engineer, left the plaintiff's employ to work for a competitor.¹⁰⁸ The court determined that the confidentiality agreement, signed by the defendant at the time of his initial hiring, did not "put [him] on notice, either when he signed it or at any time thereafter, that the obvious notions with which he was working were trade secrets.¹⁰⁹ Nor did the employee" that this information service for inertial guidance systems was considered a trade secret.¹¹⁰

In sum, contracts play a central evidentiary role in proving key aspects of a trade secret claim, largely due to their notice function. This notice function helps address cumulative innovation and employee mobility concerns and thus ought to be reinforced in courts' analyses of trade secret claims.

IV. THE EVASIVE ROLE OF CONTRACTS IN TRADE SECRET LAW

While contracts can perform a valuable notice function in trade secret law, firms also use contracts strategically to evade trade secret law's requirements and limitations. This creates doctrinal tension between contract law and trade secret law. As this Part demonstrates, firms use contracts to evade trade secret law in four main ways: (1) to enlarge protectable subject matter; (2) to avoid ongoing reasonable secrecy precautions; (3) to eliminate

106. Dynamics Research Corp. v. Analytic Scis. Corp., 400 N.E.2d 1274 (Mass. App. Ct. 1980).

108. *Id.*

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secret. None of its technical documents were marked 'Confidential[,]' and ECC never issued a policy statement outlining what it considered to be secret.").

^{105.} *Id.* at 903 ("The employees were never put on notice of any duty of confidentiality. The employee agreements do not help ECC's claim for the same reason—ECC never treated specific information as secret. Therefore, the agreements' vague language prohibiting the employee from taking 'secrets' did not create a duty of confidentiality in the employee, and no misappropriation occurred."); *see also* Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1550 (11th Cir. 1996) (declining to find an implied confidentiality duty where the plaintiffs had failed to notify the defendant about the "obligation of confidentiality ... regarding the engineering materials at issue").

^{107.} Id. at 1279.

^{109.} Id. at 1287.

^{110.} *Id.* at 1283, 1287 (observing that the plaintiff employer failed to meet his "heavy burden of isolating the secret for which he claims protection and of demonstrating that the employee is left free—questions of good faith and reasonable contract restrictions apart—to use the knowledge and skill [that] he brought to the job as well as 'what he has learned during the employment'" (quoting 2 RUDOLF CALLMANN, UNFAIR COMPETITION, TRADEMARKS, AND MONOPOLIES § 54.2 (1965))).

the reverse engineering defense; and (4) to impose non-compete clauses that circumvent trade secret requirements and limits altogether. The pervasive use of contract law to subvert the limitations and requirements of trade secret law can negatively impact innovation, as well as employee mobility. Trade secret owners often include such provisions in contexts where the restricted party lacks legal representation, negotiating power, and the ability to understand their meaning¹¹¹—for example, in employee agreements and mass consumer licenses for software and database access.

In analyzing these patterns and their potential impact on policies underlying trade secret law, this Article draws from case law and anecdotal evidence. Where available, this Article also draws from the empirical literature. In general, empirical studies concerning trade secrets are quite limited, especially compared to other areas of intellectual property.¹¹² Recent empirical work on non-compete clauses and reverse engineering restrictions provides useful insights about the pervasiveness of such provisions, their enforcement by courts, and their potential impact on innovation.¹¹³ However, empirical studies have yet to address other trade secret-evasive uses of contract. More analysis is needed to illuminate the full extent and aggregate impact of contract provisions that depart from trade secret law's calibrated default rules. The Parts that follow provide an initial framework for understanding the doctrinal tensions and underlying policy concerns.

A. ENLARGING TRADE SECRET SUBJECT MATTER

Trade secret's subject matter requirement serves an important purpose. By requiring protectable information to be "secret"—i.e., not generally known or readily ascertainable by others within the industry¹¹⁴—trade secret law preserves certain building blocks for others' innovative efforts in a manner analogous to copyright law's "idea/expression" dichotomy or patent law's

^{111.} For an in-depth discussion of notice and salience issues in boilerplate contracts more generally, see, e.g., RADIN, *supra* note 3; Gibson, *supra* note 3.

^{112.} See Lobel, *supra* note 6, at 11 ("Because they are secret in nature, empirical research on trade secrets has been inherently difficult to conduct."); Risch, *supra* note 7 (surveying the empirical work on trade secrets and suggesting reasons for the relative lack of empirical trade secret studies, such as the difficulty of accessing state court data).

^{113.} See infra notes 151-61 and accompanying text.

^{114.} As explained in the comments to the UTSA:

The language "not being generally known to and not being readily ascertainable by proper means by other persons" does not require that information be generally known to the public for trade secret rights to be lost. If the principal persons who can obtain economic benefit from [the] information are aware of it, there is no trade secret.

UNIF. TRADE SECRETS ACT § 1 cmt. 5 (UNIF. LAW COMM'N 1979) (amended 1985). Also, "[i]nformation is readily ascertainable if it is available in trade journals, reference books, or published materials," *id.*, and "if the alleged secrets can be easily gleaned from products that are on the market through reverse engineering or simple observation." Sandeen, *supra* note 19, at 524.

subject matter restrictions.¹¹⁵ Unlike patents and copyrights, however, which have set terms of protection, trade secret protection is indefinite.¹¹⁶ A trade secret lasts as long as the requirements of secrecy and reasonable secrecy precautions are met. Thus, trade secret law's subject matter requirement has a temporal dimension; protection is lost if, at any point, the information becomes published or known within the industry.¹¹⁷

Putative trade secret owners use contract law to evade this ongoing "secrecy" requirement and chill uses of non-secret information—in effect, enlarging the scope of protectable information. In the employee context for example, non-disclosure provisions broadly restrict employees' use of information learned during their employment—even if the information later loses its secret status and becomes well-known within an industry.¹¹⁸ As Orly Lobel observes: "Contractually, it has become standard to include broad and open-ended lists of confidential information that goes beyond the statutory definition of trade secrets."¹¹⁹ Rather than reference specific information the employer regards as trade secrets, employers often "include a catch-all category of any information deemed proprietary by the employer."¹²⁰

Outside of the employee context, firms use mass-market license agreements to enlarge the scope of trade secret-protected subject matter. Software licenses, for example, contain provisions preventing users "from challenging the status of software as a trade secret," whether it satisfies the element of secrecy or not.¹²¹ Similarly, owners of electronic databases, whose trade secret rights may be narrow in scope—for example, extending only to

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^{115.} See supra notes 52, 56 and accompanying text. Patent law's subject matter excludes "laws of nature, natural phenomena, and abstract ideas." Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 70 (2012). "'[T]hey are the basic tools of scientific and technological work.' And monopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it." *Id.* at 71 (citation omitted) (quoting Gottschalk v. Benson, 409 U.S. 63, 67 (1972)).

^{116.} The patent term generally lasts 20 years from the date of filing. 35 U.S.C. § 154(a) (2012). Copyright protection lasts much longer—usually, the author's life plus 70 years. 17 U.S.C. § 302 (2012); *see also* Andrew A. Schwartz, *The Corporate Preference for Trade Secret*, 74 OHIO ST. L.J. 623, 648 (2013) (arguing that trade secret's perpetual nature makes it a preferable form of protection for corporations, which are also perpetual in nature).

^{117.} See supra note 38 and accompanying text; see also Sandeen, supra note 5, at 132–33 ("[T]he modern view of trade secret law, as expressed in the UTSA's definition of a trade secret, highlights the fact that there are at least two points in time when secrecy is important: at the beginning of the relationship between the purported trade secret owner and the person to whom he wishes to disclose the secret and later, when infringement is alleged to have occurred.").

^{118.} See Lemley, supra note 21, at 350.

^{119.} Orly Lobel, The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property, 93 TEX. L. REV. 789, 810 (2015).

^{120.} Menell, *supra* note 64, at 39; *see also* Graves, *supra* note 5, at 88 ("[E]mployee confidentiality contracts . . . are often more broadly worded and less likely to include express exceptions for non-secret information.").

^{121.} Lemley, *supra* note 2, at 133 (observing that such provisions "conflict[s] with the legal requirement that a trade secret must in fact be secret to be protectable").

the "unique compilation" of otherwise publicly available facts¹²²—nonetheless expand scope through contractual restrictions on database users.¹²³

Contractual expansions of trade secret subject matter have received a mixed judicial reception. In the departing employee context, some courts have interpreted confidentiality provisions consistently with trade secret's subject matter requirement.¹²⁴ Other courts have enforced contracts covering an "additional, poorly-defined body of 'confidential' information that is not a trade secret" against departing employees.¹²⁵ In other business contexts, where trade secret owners share information with potential collaborators, courts have enforced non-disclosure provisions against defendant's use of publicly available information.¹²⁶

B. AVOIDING ONGOING REASONABLE SECRECY PRECAUTIONS

Trade secret law's requirement that information be "secret" has a temporal dimension; so does the additional requirement of reasonable

124. See, e.g., Dynamics Research Corp. v. Analytic Scis. Corp., 400 N.E.2d 1274, 1288 (Mass. App. Ct. 1980); Int'l Settlement Design, Inc. v. Hickey, 25 Pa. D. & C.4th 506, 513–14 (Pa. Ct. Com. Pl. 1995) ("Since we have already concluded that the information here does not rise to the level of a 'trade secret' as defined in Pennsylvania law, it cannot be contractually protected.").

125. Graves, *supra* note 5, at 89 (observing also that "[s]ome courts seem to condition such rulings on whether the departing employees consulted public domain sources or instead relied on non-secret information learned on the job without first consulting outside materials"); *see, e.g.*, Bernier v. Merrill Air Eng'rs, 770 A.2d 97, 104 (Me. 2001) (enforcing non-disclosure agreement that prohibited "use of information that does not rise to the level of a trade secret but is more than general skill"); Eng'g Excellence, Inc. v. Meola, No. 01AP-1342, 2002 WL 31248192, at *5 (Ohio Ct. App. Oct. 8, 2002) (finding that "confidential information does not have to rise to the level of a trade secret in order to be the subject of a valid non-disclosure agreement between employer and employee" and concluding that it could extend to any business information "not publicly disseminated" by the employer (quoting Procter & Gamble Co. v. Stoneham, 747 N.E.2d 268, 277 (Ohio Ct. App. 2000))).

126. See, e.g., Celeritas Techs., Ltd. v. Rockwell Int'l Corp., 150 F.3d 1354, 1358 (Fed. Cir. 1998) (upholding jury's conclusion that defendant breached non-disclosure agreement when using information, despite evidence that the information was ascertainable from commercial products and largely disclosed in patents); see also RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 39 cmt. d, 41 cmt. d (AM. LAW INST. 1995) (observing cases where "courts have enforced nondisclosure agreements directed at information found ineligible for protection as a trade secret," but suggesting that public policy may render agreements purporting to protect information in the public domain unenforceable).

^{122.} See Penalty Kick Mgmt. Ltd. v. Coca Cola Co., 318 F.3d 1284, 1291 (11th Cir. 2003) (observing that "a unique combination" or compilation of publicly available information "may qualify as a trade secret"); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39(f) (AM. LAW INST. 1995) ("The fact that some or all of the components of the trade secret are well-known does not preclude protection for a secret combination, compilation, or integration of the individual elements."). Copyright law similarly restricts the protection of factual compilations to the unique "selection and arrangement" of those facts. *See* Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991).

^{123.} Sandeen, *supra* note 5, at 123 (describing database owners' use of "trade secret clauses" to "assert that all or a portion of their compilations are trade secrets," even the aspects that are generally known and can be obtained from other sources).

secrecy precautions. If a putative owner stops taking precautions with respect to claimed information—for example, if the owner begins to share it freely without notifying recipients of its confidentiality—then that information loses its trade secret status.¹²⁷ Again, the lens of notice helps explain the RSP requirement's temporal dimension. As I have argued here and in prior work, the RSP requirement is best understood as promoting notice¹²⁸: A plaintiff's secrecy efforts should notify employees and other business collaborators that certain information is being claimed as a trade secret.¹²⁹

Meaningful ex ante notice about the existence and scope of intellectual property rights has important consequences for follow-on innovation and employee mobility.¹³⁰ When a firm stops taking confidentiality measures with respect to certain information, that sends a message to observers: The firm no longer regards that information as proprietary. Yet, despite the important role that the RSP requirement plays in trade secret law, trade secret owners may elide it through strategic use of contract law.

For example, in *Loftness Specialized Farm Equipment, Inc. v Twiestmeyer*, the Eighth Circuit applied Minnesota contract law to conclude that a broad nondisclosure agreement could be enforced, even with respect to information that had not been subjected to reasonable secrecy efforts.¹³¹ Loftness, a corporation exploring a manufacturing venture with Twiestmeyer, agreed to "keep in confidence all [c]onfidential [i]nformation" and not to use Twiestmeyer's "confidential information in any way that could be construed as being competitive of [Twiestmeyer's] business."¹³² The non-disclosure agreement broadly defined "[c]onfidential [i]nformation as [s]uch information that [Twiestmeyer] considers to be proprietary and/or

^{127.} See, e.g., Electro-Craft Corp. v. Controlled Motion, Inc., 332 N.W.2d 890, 902–03 (Minn. 1983) (concluding that ongoing secrecy precautions were not taken by plaintiff, even though defendants were made to sign confidentiality agreements at the time of hiring).

^{128.} *See supra* Part III.C; *see also generally* Varadarajan, *supra* note 35 (using the insights of property law's possession doctrine to argue that the primary purpose of the RSP requirement is to notify a relevant audience about the existence and boundaries of purported trade secrets).

^{129.} Courts and commentators have exhibited confusion about the purpose underlying the RSP requirement. *See* Robert G. Bone, *Trade Secrecy, Innovation and the Requirement of Reasonable Secrecy Precautions, in* THE LAW AND THEORY OF TRADE SECRECY: A HANDBOOK OF CONTEMPORARY RESEARCH, *supra* note 5, at 46, 58–59 ("Most judges simply apply the RSP requirement without making any effort to justify it on general grounds."). Some commentators suggest secrecy precautions are circumstantial evidence of other elements of a trade secret claim—like the information's economic value, or the information's secrecy, or the defendant's wrongful acquisition of the information. *See, e.g.*, Rockwell Graphics Sys., Inc. v. DEV Indus., Inc., 925 F.2d 174, 179 (7th Cir. 1991) (observing that "[t]he information ... cannot have been worth much if [the plaintiff] did not think it worthwhile to make serious efforts to keep the information secret" and "[t]he greater the precautions" the trade secret owner took, "the higher the probability that [the defendant] obtained [the information] through a wrongful act").

^{130.} See supra notes 92-95 and accompanying text.

^{131.} Loftness Specialized Farm Equip., Inc. v. Twiestmeyer, 742 F.3d 845, 850 (8th Cir. 2014).

^{132.} Id. at 848.

confidential."¹³³ Although the district court had rejected the plaintiff's breach of contract claim on the ground that the plaintiff "made no effort to keep their ideas and information confidential,"¹³⁴ the Eighth Circuit reversed.¹³⁵ The Eighth Circuit regarded the relevant clause to be a "non-compete provision" requiring a different analysis, and held that the district court should have "interpreted and applied the terms of the NDA [non-disclosure agreement]" without requiring reasonable secrecy efforts.¹³⁶

By contrast, in another recent case, the Seventh Circuit preserved the RSP requirement in a contractual dispute over confidential information. In *nClosures, Inc. v. Block & Co., Inc.*, the Seventh Circuit concluded that nClosures could not use a breach of contract claim to prevent its former collaborator, Block, from using certain information to develop a competing device¹³⁷ because "nClosures did not engage in reasonable steps to protect the confidentiality of" that information.¹³⁸ The parties had "sign[ed] a confidentiality agreement at the outset of their business relationship, [but] no additional confidentiality agreements were required of individuals who accessed the design files" at later points in the collaboration, and the design drawings were not labeled as confidential.¹³⁹ The Seventh Circuit concluded that since "nClosures did not engage in reasonable steps to protect the confidentiality of its proprietary information, . . . the confidentiality agreement with Block [was] unenforceable."¹⁴⁰

C. ELIMINATING THE REVERSE ENGINEERING DEFENSE

Another common conflict between contract law and trade secret law involves terms prohibiting the reverse engineering of licensed products.¹⁴¹ One of the most significant limitations on the scope of trade secret rights is

^{133.} Id.

^{134.} Id. at 850.

^{135.} Id.

^{136.} *Id.* (reversing the district court's grant of summary judgment and remanding for further consideration whether Loftness's actions constituted a breach of the NDA's non-compete language). For a discussion of how non-compete provisions are used to circumvent trade secret law's requirements and limitations, see *infra* Part IV.D.

^{137.} nClosures, Inc. v. Block & Co., Inc., 770 F.3d 598, 602 (7th Cir. 2014).

^{138.} Id.

^{139.} Id.

^{140.} *Id.* ("[A] federal court applying Illinois law 'will enforce [confidentiality] agreements only when the information sought to be protected is actually confidential and reasonable efforts were made to keep it confidential.' Thus, in order to enforce the confidentiality agreement between nClosures and Block, we must find that nClosures took reasonable steps to keep its propriety information confidential." (alteration in original) (quoting Tax Track Sys. Corp. v. New Investor World, Inc., 478 F.3d 783, 787 (7th Cir. 2007))); *see also* Electro-Craft Corp. v. Controlled Motion, Inc., 332 N.W.2d 890, 901–03 (Minn. 1983) (concluding that ongoing secrecy precautions were not taken by plaintiff, even though defendants were made to sign confidentiality agreements at the time of hiring).

^{141.} See Lemley, supra note 2, at 133.

the reverse engineering defense. Reverse engineering a product to discover how it works has long been a permissible way to obtain trade secret information—provided the "acquisition . . . [is] by . . . fair and honest means, such as purchase of the item on the open market."¹⁴²

The Supreme Court has repeatedly emphasized trade secrecy's reverse engineering limitation as "an essential part of innovation" that "may lead to significant advances in the field."¹⁴³ In holding that federal patent law did not preempt state trade secrecy laws, the Supreme Court highlighted the reverse engineering limitation—as it rendered trade secrecy "far weaker" than patent law.¹⁴⁴ Other courts have also expressed concern that absent a reverse engineering limitation, trade secret law interferes with federal patent policy because it "convert[s] the . . . trade secret into a state-conferred monopoly akin to the absolute protection that a federal patent affords."¹⁴⁵ The reverse engineering defense is thus an important limitation on the rights of trade secret owners—one that addresses cumulative innovation concerns.

Consumer software licenses often contain broad prohibitions against product disassembly, decompiling, and other forms of reverse engineering.¹⁴⁶ Firms distribute software in non-human-readable object code partly "to "maintain source code forms of their products and other human-readable documentation as trade secrets."¹⁴⁷ By decompiling or disassembling object code, reverse engineers can work backwards to approximate the source code, and glean the "information necessary to develop a program that will interoperate with the decompiled or disassembled program."¹⁴⁸

A number of scholars have critiqued the pervasive incorporation of reverse engineering prohibitions in software licenses, highlighting their

144. Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 489–90 (1974).

147. Samuelson & Scotchmer, *supra* note 143, at 1608. Programmers write software in a human-readable form called "source code." In order for a computer to understand the instructions embodied in the source code, the source code is "compiled" into a non-human readable format called "object code." *See id.*

148. Id. at 1609; see also Jacqueline D. Lipton, IP's Problem Child: Shifting the Paradigms for Software Protection, 58 HASTINGS L.J. 205, 241–43 (2006) (discussing the protection of software code under trade secret law); Michael Risch, Hidden in Plain Sight, 31 BERKELEY TECH. L.J. 1635, 1646–49 (2016) (discussing the use of trade secret law to protect software).

^{142.} UNIF. TRADE SECRETS ACT § 1 cmt. (UNIF. LAW COMM'N 1979) (amended 1985).

^{143.} Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 160 (1989) ("[A]s we noted in *Kewanee*, the competitive reality of reverse engineering may act as a spur to the inventor, creating an incentive to develop inventions that meet the rigorous requirements of patentability."); *see also* Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L.J. 1575, 1582–84 (2002) (describing various justifications for the right to reverse engineer).

^{145.} Chi. Lock Co. v. Fanberg, 676 F.2d 400, 405 (9th Cir. 1982).

^{146.} See, e.g., Aqua Connect, Inc. v. Code Rebel, LLC, 2012 WL 469737, at *2 (C.D. Cal. Feb. 13, 2012); Davidson & Assocs. v. Internet Gateway, 334 F. Supp. 2d 1164, 1170 (E.D. Mo. 2004) (considering a software license agreement that prohibited users from "reverse engineer[ing], deriv[ing] source code, modify[ing], disassembl[ing or] decompil[ing]" the program (citations omitted)).

negative impacts on innovation and competition.¹⁴⁹ David Rice, for example, argues that such restrictions amount to "foreclosure of competition" and "create[] a competitive restraint by barring the conduct which was absolutely critical to the upholding of trade secret law in *Kewanee*: use of a product for the purpose of reverse engineering it."¹⁵⁰

Despite these critiques, courts have become increasingly accepting of reverse engineering restrictions, which in turn, encourages firms to use them.¹⁵¹ In their recent empirical work analyzing mass-market consumer software license agreements, Florencia Marotta-Wurgler and Robert Taylor demonstrate that reverse engineering restrictions have become more common over time.¹⁵² They posit this increase is linked to greater judicial enforcement of such restrictions, reflected primarily by *Bowers v. Baystate Technologies Inc.*,¹⁵³ which "marked a change in the perception of enforcement probabilities" by software firms.¹⁵⁴

150. Rice, *supra* note 5, at 623.

151. See Florencia Marotta-Wurgler & Robert Taylor, Set in Stone? Change and Innovation in Consumer Standard-Form Contracts, 88 N.Y.U. L. REV. 240, 269–70 (2013) (using empirical methods to demonstrate that courts' propensity to enforce reverse engineering restrictions in software licenses has increased over time).

152. *Id.* at 243–45 (data gathered by analyzing "a sample of [end user license agreements] from 264 mass-market software firms between 2003 and 2010 to track changes to thirty-two common contractual terms" including reverse engineering restrictions).

153. Bowers v. Baystate Techs., Inc., 320 F.3d 1317 (Fed. Cir. 2003) (enforcing a prohibition on reverse engineering in mass-market software license agreement). The authors focus on *Bowers* in their study, but also note a subsequent decision that followed its reasoning. *See* Davidson & Assocs., Inc. v. Internet Gateway, 334 F. Supp. 2d 1164 (E.D. Mo. 2004), *aff d sub nom*. Davidson & Assocs., Inc. v. Jung, 422 F.3d 630 (8th Cir. 2005) (following the reasoning in *Bowers* and enforcing a similar reverse engineering restriction in a case where users of a popular game violated the reverse engineering restriction to create their own free servers to eliminate various interferences and problems with the original software).

154. Marotta-Wurgler & Taylor, *supra* note 151, at 273–74 ("[C]hanges in the enforceability of some terms, such as . . . restrictions on modification or reverse-engineering clauses, generate commentary in specialized periodicals that is noticed by drafters.").

^{149.} See Dreyfuss, supra note 67, at 263 (observing that "there may be a few [trade secret licensing] restrictions that are so inhibiting of innovation that they should be considered per se unlawful (a ban of reverse engineering may be one)"); Lemley, supra note 21, at 350-51 (suggesting that trade secret owners should not be able to "ban reverse engineering by contract" and observing that "[t]here is a similar debate in copyright law, where courts have split on the question of whether parties can contract to prevent reverse engineering of software despite copyright rules that make reverse engineering legal under most circumstances"); Rice, supra note 5, at 622–23; Samuelson & Scotchmer, supra note 143, at 1629–30 ("[R]everse engineering and interoperability are important because they likely promote development of a wider range of software from a broader array of developers than a market in which platform developers are insulated from reverse engineering. To the extent that enforcement of anti-reverse engineering clauses would have a detrimental effect on competitive development and innovation, legal decisionmakers may be justified in not enforcing them.").

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D. USING NON-COMPETE CLAUSES TO CIRCUMVENT TRADE SECRET REQUIREMENTS AND LIMITATIONS

Finally, by including non-competition provisions ("non-competes") in employment contracts, firms circumvent the requirements and limitations of trade secret law altogether. Non-competes prevent departing employees from competing with the employer or working for a competitor for a period of time.¹⁵⁵ Non-competes have become a "surprisingly common part of the employment relationship"; one empirical study estimates "that 38.1% of employees ha[ve] signed a noncompete at some point in their lives."¹⁵⁶ They "are often drafted in an attempt to prevent all possible forms of competition, or indeed departure, of employees."¹⁵⁷ While most states impose a "reasonableness" standard on non-competes, requiring them to be limited in scope and duration, "these controls are largely case by case and unpredictable."¹⁵⁸ Only a few states—most notably California—ban the enforcement of non-competes.¹⁵⁹

Numerous commentators have criticized non-competes on fairness grounds.¹⁶⁰ Others have demonstrated non-competes' negative effects on employee mobility and innovation.¹⁶¹ The goal here is not to rehash these

158. Id.

160. See, e.g., Rachel Arnow-Richman, Cubewrap Contracts: The Rise of Delayed Term, Standard Form Employment Agreements, 49 ARIZ. L. REV. 637, 660 (2007); Moffat, supra note 12, at 884–92.

^{155.} These types of agreements may be stand-alone or specific provisions in employment agreements, and "are variously referred to as non-competes, noncompetes, noncompetition agreements, and covenants not to compete." Moffat, *supra* note 12, at 876 n.1. I use the various terms interchangeably in this Part.

^{156.} Evan Starr et al., Noncompetes in the US Labor Force 3 (Dec. 24, 2017) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2625714; *see also* Matt Marx et al., *Mobility, Skills, and the Michigan Non-Compete Experiment*, 55 MGMT. SCI. 875, 876 (2009) (citing studies for the proposition that "[n]on-competes appear to be nearly universal in employment contracts").

^{157.} Lobel, *supra* note 64, at 826.

^{159.} See CAL. BUS. & PROF. CODE § 16600 (West 2017) (voiding "every contract by which anyone is restrained from engaging in a lawful profession, trade, or business"); N.D. CENT. CODE ANN. § 9-08-06 (West 2017); OK. STAT. ANN. § 15-219A (West 2018). See generally Viva Moffat, *Making Non-Competes Unenforceable*, 54 ARIZ. L. REV. 939 (2012) (describing the different state approaches to the enforceability of non-competes and suggesting a uniform rule of unenforceability).

^{161.} See LOBEL, supra note 12, at 9–10 (describing the connection between job mobility and innovation); ANNALEE SAXENIAN, REGIONAL ADVANTAGE: CULTURE AND COMPETITION IN SILICON VALLEY AND ROUTE 128 (1996); On Amir & Orly Lobel, *How Noncompetes Stifle Performance*, HARV. BUS. REV., Jan.–Feb. 2014, at 26 (describing how participants' bound by non-competes performed less ably than those not subjected to such restrictions); Bruce Fallick et al., *Job-Hopping in Silicon Valley: Some Evidence Concerning the Microfoundations of a High-Technology Cluster*, 88 REV. ECON. & STAT. 472, 473 (2006); Gilson, *supra* note 12, at 590–92 (describing high employee mobility as helping to explain Silicon Valley's innovation); Matt Marx, *The Firm Strikes Back: Non-Compete Agreements and the Mobility of Technical Professionals*, 76 AM. SOC. REV. 695, 696 (2011); Marx et al., *supra* note 156, at 875–76 (demonstrating that Michigan's reversal in non-compete enforcement led to a decrease in job mobility); Matt Marx et al., *Regional Disadvantage? Employee*

potent criticisms. Instead, I highlight how firms try to legitimize non-competes by invoking their connection to trade secret law—yet ironically, non-competes enable firms to bypass trade secret law's requirements and limitations altogether.

At first blush perhaps, non-competes seem unrelated to trade secret law. After all, non-competes constrain post-employment activity "whether or not the employer has any trade secrets, and whether or not the employee would have misused such information."¹⁶² However, courts and legislatures have countenanced the use of these controversial provisions based on their supposed relationship to trade secret protection.¹⁶³ Indeed, "courts across the country point to the protection of trade secrets as the primary justification for enforcing non-competition covenants."¹⁶⁴

Despite their trade secret-protection justification, however, noncompetes allow firms to restrain employees without proving any element of a trade secret claim.¹⁶⁵ Instead, firms use non-competes as "a pre-emptive strike against the risk that an employee might misuse trade secrets in the future, without evidence of wrongdoing, and by restraining a wide class of employees rather than just individual wrongdoers."¹⁶⁶ And as recent empirical work demonstrates, many workers who do not even have access to trade secrets are covered by non-competes—further undermining the link between noncompetes and their trade secret-protection justification.¹⁶⁷

162. Graves, *supra* note 5, at 83.

163. See Certainteed Corp. v. Williams, 481 F.3d 528, 529–30 (7th Cir. 2007); MacDermid, Inc. v. Selle, 535 F. Supp. 2d 308, 316–18 (D. Conn. 2008); SD Protection, Inc. v. Del Rio, 498 F. Supp. 2d 576, 585 (E.D.N.Y. 2007).

164. Graves, *supra* note 5, at 83 (observing that while courts and legislatures "express aversion and even hostility to the concept of the non-competition covenant and its effect on the mobile employee, they just as frequently justify the practice (and thus overcome the supposed aversion) by reference to trade secret protection" (footnote omitted)); *see also* Moffat, *supra* note 12, at 878 ("[T]he primary argument put forth in favor of noncompetes—the IP justification . . . proceeds as follows: noncompetes are necessary to protect trade secrets or other IP assets, or they are necessary to provide an incentive for firms to invent and invest. The main thrust of the justification is that other forms of protection, primarily trade secret law, are too weak and that noncompetes are necessary to supplement IP rights, or as an alternative to these rights." (footnotes omitted)).

165. Graves, *supra* note 5, at 84 (observing that a "non-competition covenant prevents the use of even non-secret information for the duration of the covenant. It encompasses a wide range of information, applies to probably hundreds of thousands of employees around the country (if not more), and does not require initiating a lawsuit or establishing wrongdoing to bar competition").

166. Id. at 85.

167. See Starr et al., supra note 156, at 15 (finding that less than half of all workers subject to non-competes report possessing trade secrets); see also OFFICE OF ECON. POLICY, U.S. DEP'T OF

Non-Compete Agreements and Brain Drain, 44 RES. POL'Y 394, 395–96 (2015) (showing that noncompetes lead to "brain drain" of knowledge workers out of states that enforce such contracts to where they are unenforceable). But see Jonathan M. Barnett & Ted Sichelman, Revisiting Labor Mobility in Innovation Markets 4–5 (Univ. of S. Cal. Law Sch. Legal Studies Research Paper Series, Paper No. 207, 2016), https://papers.srn.com/sol3/papers.cfm?abstract_id=2758854 (challenging some of this empirical work on various methodological grounds).

Non-competes cannot be justified as an alternative or supplement to the perceived weaknesses of trade secret law because those weaknesses—i.e., the requirements and limitations of trade secret law—are intentional and "part of the larger regime for protecting, or not protecting, IP."¹⁶⁸ The weakness or "leakiness" of trade secret protection is a feature, not a bug—one that balances the tradeoffs between protection and innovation.¹⁶⁹ And given the weight of empirical evidence suggesting non-competes' negative impact on innovation and employee mobility, they are deeply problematic tools for remedying any unintended weaknesses of trade secret law.¹⁷⁰

E. THE RELATIONSHIP BETWEEN CONTRACTUAL PROCESS AND SUBSTANCE

A firm's propensity to impose contractual provisions that depart from trade secret law's default rules depends on context—for example, whether the party being restricted is another business, an employee, or a mass-market consumer. The contractual process varies across these settings, and differences in process impact the substance and breadth of non-disclosure obligations and other trade secret-related restrictions. Firms' trade secretevasive uses of contract often occur in employee agreements and mass-market consumer licenses—contexts where the restricted party often lacks the capacity to understand, negotiate, and alter terms.

At one end of the spectrum, contracts may be the product of individually negotiated transactions between two competent, informed parties with legal representation. Say a firm licenses trade secret-protected technology to a specific competitor, subcontractor, or joint-venture collaborator. Both parties typically have attorneys review the document "to be sure that each side is protected against overbroad interpretations."¹⁷¹ Consequently, the substance

TREASURY, NON-COMPETE CONTRACTS: ECONOMIC EFFECTS AND POLICY IMPLICATIONS 4 (2016) (observing that when "less than half of workers who have non-competes also report possessing trade secrets, . . . trade secrets cannot explain the majority of non-compete activity").

^{168.} Moffat, *supra* note 12, at 920 ("Understood as an IP tool, noncompetes are a failure. Some of the perceived flaws in trade secret law are not mistakes; they are instead part of the larger regime for protecting, or not protecting, IP. To the extent this is the case, the 'weakness' of trade secret law simply does not justify the imposition of noncompetes.").

^{169.} See Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 490 (1974) ("Where patent law acts as a barrier, trade secret law functions relatively as a sieve."); Dreyfuss, *supra* note 67, at 244 (observing that "federal innovation policy is premised on leaks, and that trade secrecy law is federally acceptable because it too is leaky").

^{170.} See supra note 161 and accompanying text; see also Moffat, supra note 12, at 920–22 (arguing that noncompetes should be unenforceable and that "[t] o the extent that trade secret and other IP rules provide unintentionally insufficient protection, noncompetes are not the solution"). But cf. Robert W. Gomulkiewicz, Leaky Covenants-Not-to-Compete as the Legal Infrastructure for Innovation, 49 U.C. DAVIS L. REV. 251, 272–73, 280–86 (2015) (arguing that technology firms in Washington state rarely enforce non-competes, and suggesting that "leaky" enforcement of non-competes is preferable to an outright ban on non-competes).

^{171.} Graves, *supra* note 5, at 88.

of non-disclosure provisions often "mirror official trade secret law."¹⁷² In these business-to-business transactions, non-disclosure provisions "almost always include exceptions [for] public domain information, pre-existing information and information released by the other party."¹⁷³ Moreover, if deviations from trade secret default rules do occur, they tend to be the result of deliberation and cost-benefit analysis.¹⁷⁴

Much further down the negotiability spectrum are employee contracts. In theory, these too are individually negotiated transactions. In practice, however, many prospective or newly hired employees lack bargaining power, legal representation, and the capacity to understand or alter the scope of trade secret-related provisions. Employment contracts are often "drafted under conditions of information asymmetry and characterized by a lack of bargaining."¹⁷⁵ As Peter Menell observes, employee non-disclosure agreements "can be confusing, intimidating documents, and employees who sign them often lack any leverage to negotiate terms."¹⁷⁶

Recent empirical studies underscore these procedural dimensions of contract formation in the employment context. They suggest that for many prospective employees, the ability to bargain over one-sided terms is more a theoretical than practical reality.¹⁷⁷ Notably, firms increasingly impose contractual restrictions after a prospective employee accepts or begins employment—when employee leverage or bargaining power is especially low.¹⁷⁸ These procedural aspects impact the substance of trade secret-related

175. Lobel, *supra* note 64, at 871 ("The contract is unilaterally drafted at a point in time when many variables are yet unknown and is often introduced after the employee has accepted the job offer and has already begun working.").

176. Menell, *supra* note 64, at 38; *see also* Graves, *supra* note 5, at 88 (reflecting that prospective employees "generally lack negotiating power or legal advice").

177. See, e.g., Starr et al., supra note 156, at 3, 19 ("[O]nly 10% of individuals report negotiating over noncompetes, and that most individuals simply agree to sign without consulting friends, family, or legal counsel... Roughly 20% of the sample was also concerned that they would create tension with their employer or that they would be fired if they refused to sign."). Executives and other high level workers are, however, more likely to negotiate over terms. See Arnow-Richman, supra note 160, at 661.

178. See, e.g., Lobel, supra note 64, at 876 & n.44 (noting that "[f]requently, the contractual terms are introduced well after the employee has started working at the firm" and listing cases involving agreements signed after employee started working); OFFICE OF ECON. POLICY, supra note 167, at 4 ("Many workers are asked to sign a non-compete only after accepting a job offer. One lower-bound estimate is that 37 percent of workers are in this position.").

^{172.} Id.

^{173.} Id.

^{174.} *Cf.* O'Rourke, *supra* note 3, at 493, 525–26 (For example, a customized software license agreement "individually negotiated" between two "competent informed parties" that contains a reverse engineering prohibition, and observing: "Given the level of sophistication of the parties involved, it is reasonable to conclude that the rights the licensee receives are closely connected to the price it pays.").

provisions in employee contracts.¹⁷⁹ For example, instead of echoing the builtin limits of trade secret law, employee non-disclosure provisions "are often more broadly worded and less likely to include express exceptions for nonsecret information."¹⁸⁰

Finally, at the furthest end of the negotiability spectrum are "shrinkwrap," "clickwrap," and other "terms of use" licenses,¹⁸¹ which firms use to distribute mass-market software and electronic database access. These license agreements impose restrictions on customers (e.g., non-disclosure and reverse-engineering restrictions) that cannot be altered.¹⁸² In fact, customers do not even see "shrinkwrap" license terms until after they purchase and open a product.¹⁸³

In recent years, the distinction between non-negotiable consumer licenses and theoretically negotiable employment agreements has lessened. Scholars highlight the procedural similarities between restrictive employee agreements and "shrinkwrap" software licenses. Orly Lobel observes, for example, that "[i]t is increasingly common for firms to include the restrictive covenants in an electronic version sent to the employee after the commencement of work."184 Similarly, Rachel Arrow-Richman critiques the "new model of private ordering in employment [that] relies on boilerplate documents, unilaterally drafted by the employer and presented as a condition of employment, often subsequent to the start of work."185 Analogizing this "agreement-now-terms-later model of contracting" to "shrinkwrap" licenses, she uses the term "cubewrap" to describe these employment contracts.¹⁸⁶ Just as consumers discover the terms of a "shrinkwrap" license only after purchasing the product, employees only discover the restrictive terms of employment contracts after they start work—in documents "left in [a] cubicle or workspace."¹⁸⁷ At that point, it is often too late to reject restrictive terms,

183. See, e.g., Lemley, Terms of Use, supra note 3, at 467-68.

185. Arnow-Richman, *supra* note 160, at 639.

^{179.} Of course, these procedural dimensions also impact the substance of non-trade-secret-related provisions, such as arbitration provisions. *See, e.g.*, Arnow-Richman, *supra* note 160, at 658–59.

^{180.} Graves, *supra* note 5, at 88.

^{181.} *See* Lemley, *Terms of Use, supra* note 3, at 459–60 (describing these terms and comparing the process of assenting to such contracts).

^{182.} *See, e.g.*, Dreyfuss, *supra* note 67, at 197, 201 (observing that "computer programs are often protected by both copyright and trade secrecy" and describing the "mass market" nature of the computer-software sector, where there is "no possibility of individualized negotiation and little expertise [by consumers] in the technology underlying the product they are purchasing"); Rice, *supra* note 5, at 553–56; Sandeen, *supra* note 5, at 120 n.6.

^{184.} Lobel, *supra* note 64, at 880.

^{186.} Id. at 640–41; see Rachel Arnow-Richman, Cubewrap Contracts and Worker Mobility: The Dilution of Employee Bargaining Power via Standard Form Noncompetes, 2006 MICH. ST. L. REV. 963, 978 (2006).

^{187.} Arnow-Richman, *supra* note 160, at 640–41 ("While employers and employees dicker over such things as salary, duties, and title, they generally do not discuss matters like post-termination competition and the method of resolving future disputes. Documents governing

including non-competes and non-disclosure provisions that deviate from the balance of owners' rights and users' privileges established by trade secret law.

V. DOCTRINAL MECHANISMS TO SCRUTINIZE TRADE SECRET-EVASIVE USES OF CONTRACT LAW

On the one hand, contracts play an important notice function in trade secret law that courts should explicitly acknowledge and reinforce.¹⁸⁸ Yet, at the same time, firms' pervasive use of contracts to subvert trade secret law's requirements and limitations can negatively impact cumulative innovation and employee mobility. The latter feature of the trade secret-contract interface begs the question: When should contractual provisions that conflict with trade secret law be enforced?

For strong proponents of freedom of contract, the answer to this question is essentially "always"—constrained perhaps only by antitrust law. Scholars in this vein argue that private contracting around the default rules of IP is usually efficiency-maximizing.¹⁸⁹ Yet this hands-off approach ignores the realities of the contracting process in the employee and consumer contexts and minimizes potential third party effects.¹⁹⁰ While antitrust law can police some egregious forms of anticompetitive conduct, it is not designed to address other IP policy concerns—for example, promoting innovation or protecting the public domain.¹⁹¹ Recognizing some of these concerns, recent Supreme Court patent decisions seem to reflect an increased "skepticism" toward patent licenses that depart from legislatively calibrated default rules.¹⁹²

such matters are usually provided to an employee—or left in his or her cubicle or workspace after the individual not only accepts the company's offer of employment but also actually begins work." (footnote omitted)).

^{188.} See supra Part III.C.

^{189.} See, e.g., Barnett, supra note 2, at 124–25; cf. Viva R. Moffat, Super-Copyright: Contracts, Preemption, and the Structure of Copyright Policymaking, 41 U.C. DAVIS L. REV. 45, 48–49 (2007) (describing and challenging this view).

^{190.} *Cf.* Lemley, *Intellectual Property, supra* note 3, at 1286 ("Contracts involving intellectual property ... affect[] not only the immediate parties, but also a host of potential third parties—users, subsequent inventors, and the general public. In other words, agreements to vary intellectual property law create externalities. Enforcing such contracts is inefficient because the contracts do not take into account the full social costs and benefits of the agreement between two parties." (footnote omitted)).

^{191.} See, e.g., Christina Bohannan, *IP Misuse as Foreclosure*, 96 IOWA L. REV. 475, 526 (2011) (demonstrating the deficiencies of antitrust law's "rule of reason" standard for assessing IP licensing practices).

^{192.} Barnett, *supra* note 2, at 124 (describing recent "Supreme Court decisions pertaining to licensing since 2006... that bolster constraints on licensing" and critiquing this "skepticism" towards IP licensing); *see, e.g.,* Kimble v. Marvel Entm't, LLC, 135 S. Ct. 2401, 2415 (2015) (holding that a patent license requiring royalty payments past the patent term is unenforceable); Quanta Comput., Inc. v. LG Elecs., Inc., 553 U.S. 617, 630 (2008) (holding that patent exhaustion doctrine applies, even though sale of patented technology was subject to certain contractual restrictions); Medimmune, Inc. v. Genentech, Inc., 549 U.S. 118, 137 (2007)

At the same time, the other extreme—that contractual provisions altering trade secret law's contours should never (or almost never) be enforced—is also problematic. In particular, when trade secrets are licensed to other businesses (e.g., joint venture partners, subcontractors, competitors), departures from trade secret default rules are often the product of negotiation, and thus more likely to generate compensating efficiencies.¹⁹³ In the limited context of employee non-competes, where a large body of empirical evidence has shown negative effects on innovation and employee mobility, a blanket non-enforcement rule may make more sense.¹⁹⁴ That is certainly the view of California and the few other states that have enacted legislation to such effect.¹⁹⁵ With other kinds of provisions that conflict with trade secret law, however, blanket non-enforcement rules are harder to defend—at least, in the absence of further empirical research and analysis, demonstrating similar negative effects on innovation.

A more nuanced approach seems preferable for now—one that recognizes the realities of the contracting process and the status of the parties. Business-to-business licensing transactions are more likely to adhere to "the ideal assumptions behind a 'bargained contract'"—namely, "relatively equal bargaining power, actual discussion and agreement as to individual terms, and joint drafting."¹⁹⁶ In these transactions, departures from trade secret default rules are less concerning because the compensating efficiencies of private contracting are more likely to be realized. Thus courts should be more willing to enforce the terms of these contracts.¹⁹⁷ By contrast, courts should be more skeptical of employee and consumer contracts that depart from trade secret default rules.¹⁹⁸

⁽holding that a patent licensee is not required to terminate or materially breach the license in order to challenge patent's validity).

^{193.} *See supra* note 174 and accompanying text; *cf.* Moffat, *supra* note 189, at 92 (making similar observations about "individually negotiated departures" from copyright fair use and contrasting them with pervasive adhesion contracts).

^{194.} See supra note 161 and accompanying text.

^{195.} See supra note 159 and accompanying text. Even at the federal level, there have been efforts to introduce legislation banning non-competes for low-wage workers. See Mobility and Opportunity for Vulnerable Employees Act, S. 1504, 114th Cong. (2015) (stating that one of the purposes of the bill introduced by Senate Democrats is "[t]o prohibit employers from requiring low-wage employees to enter into covenants not to compete").

^{196.} Lemley, Intellectual Property, supra note 3, at 1286.

^{197.} See id. at 1285 (observing that "enforcement of contracts that alter federal intellectual property rights is based on three core arguments: that there is intrinsic value to letting people agree to do whatever they want, that bargaining is the most efficient way to allocate rights, and that refusing to enforce such contracts would upset the settled expectations of the parties").

^{198.} See, e.g., Michael E. Kenneally, Commandeering Copyright, 87 NOTRE DAME L. REV. 1179, 1229 (2012) (explaining that copyright "[c]ommandeering . . . is most troubling when it is committed against those who have not consented"); Reichman & Franklin, *supra* note 2, at 956 (suggesting a doctrine that "require[s] real assent to substantial incursions on established intellectual property policies that favor public good uses of information").

In the following Parts, I consider various mechanisms—preemption, misuse, and contract non-enforcement doctrines—for courts to scrutinize trade-secret evasive uses of contract, particularly in the employee and consumer contexts. Although federal preemption doctrine may be worth reexamining in the aftermath of the DTSA, it is likely too blunt an instrument for courts to embrace. Misuse doctrine, while useful for policing certain kinds of contractual overreach by patent and copyright owners, has never been applied to trade secrets. Contract non-enforcement doctrines appear most promising in theory, though courts are reluctant to apply them in practice.

A. THE LIMITS OF PREEMPTION

Federal preemption doctrine guards the boundary between federal and state laws. Under the Supremacy Clause of the Constitution,¹⁹⁹ a state law that conflicts with federal law is preempted and "without effect."²⁰⁰ Federal preemption can be express or implied. If a federal statute declares that only federal law governs a particular field, the preemption is express.²⁰¹ Absent express preemptive language, courts have also recognized two forms of implied preemption. The first is "field pre-emption, where the scheme of federal regulation is 'so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it."²⁰² And the second is "conflict pre-emption, where 'compliance with both federal and state regulations is a physical impossibility,' or where state law 'stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."²⁰³

1. Preemption Arguments Pre-DTSA

Federal preemption is limited to federal law; it does "not protect state intellectual property rules against" contractual disruption.²⁰⁴ Before Congress

^{199.} *See* U.S. CONST. art. VI, cl. 2 ("This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; . . . shall be the supreme Law of the Land; . . . any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.").

^{200.} Maryland v. Louisiana, 451 U.S. 725, 746 (1981) (citing McCulloch v. Maryland, 17 U.S. (4 Wheat.) 316, 427 (1819)).

^{201.} For example, the federal copyright statute provides that "all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright ... are governed exclusively" by federal copyright law. 17 U.S.C. § 301 (2012); *see* Guy A. Rub, *Copyright Survives: Rethinking the Copyright-Contract Conflict*, 103 VA. L. REV. 1141, 1159–69 (2017) (analyzing how courts assess express copyright preemption arguments when contractual provisions conflict with copyright default rules).

^{202.} Gade v. Nat'l Solid Wastes Mgmt. Ass'n, 505 U.S. 88, 98 (1992) (quoting Fidelity Fed. Sav. & Loan Ass'n v. De la Cuesta, 458 U.S. 141, 153 (1982)).

^{203.} *Id.* (citations omitted) (first quoting Fla. Lime & Avocado Growers, Inc., v. Paul, 373 U.S. 132, 142–43 (1963); then quoting Hines v. Davidowitz, 312 U.S. 52, 67 (1941)).

^{204.} See Lemley, supra note 2, at 146 (emphasis omitted).

enacted the DTSA, no federal civil trade secret law existed.²⁰⁵ The UTSA, the widely adopted model state statute, contains a "preemption" provision "displac[ing] conflicting tort, restitutionary, and other . . . [state laws] providing civil remedies for misappropriation of a trade secret.²⁰⁶ However, this provision explicitly excludes "contractual" claims.²⁰⁷ Thus, nothing in the UTSA precludes overlapping claims for trade secret misappropriation and breach of contract,²⁰⁸ and the UTSA offers no guidance on resolving conflicts between state trade secret law and contract law.²⁰⁹

Prior to the DTSA's enactment, discussions of federal preemption in the trade secret context focused largely on conflicts with federal patent law.²¹⁰ In *Kewanee*, for example, the Supreme Court held that state trade secret laws were not preempted by federal patent law, but warned "[i]f a State, through a system of protection, were to cause a substantial risk that holders of patentable inventions would not seek patents, but rather would rely on the state protection, we would be compelled to hold that such a system could not constitutionally continue to exist."²¹¹

Focusing on this language in *Kewanee*, some commentators have argued that permitting trade secret owners to augment their rights with contract law "enhance[s] the desirability of keeping trade secrets relative to applying for

^{205.} See supra note 30 and accompanying text.

^{206.} UNIF. TRADE SECRETS ACT § 7 (UNIF. LAW COMM'N 1979) (amended 1985). The UTSA's preemption provision was intended to limit plaintiffs' ability to bring overlapping tort claims under state law—"such as unfair competition, conversion, common law misappropriation, breach of trust and unjust enrichment." Charles Tait Graves & Elizabeth Tippett, *UTSA Preemption and the Public Domain: How Courts Have Overlooked Patent Preemption of State Law Claims Alleging Employee Wrongdoing*, 65 RUTGERS L. REV. 59, 66 (2012). The majority of states enacting the UTSA have adopted this view of trade secret misappropriation as the exclusive vehicle for protecting trade secrets. *See, e.g.,* Graves, *supra* note 5, at 93 n.39 (Listing cases and stating that "[f]ive state Supreme Courts, for example, have issued rulings in favor of UTSA pre-emption over common law trade secret-type claims."); Sandeen, *supra* note 5, at 143 ("The drafting history . . . reveals that section $7 \dots$ was intended to restrict the nature and number of claims that could be brought for trade secret infringement."); *cf.* Graves & Tippett, *supra*, at 65–66 (critiquing the minority of jurisdictions that allow plaintiffs to bring overlapping state tort causes of action to protect "proprietary" or "confidential" information that does not rise to the level of a UTSA secret).

^{207.} UNIF. TRADE SECRETS ACT § 7; *see also id.* § 7 cmt. ("[The UTSA] does not apply to a duty voluntarily assumed through an express or an implied-in-fact contract. The enforceability of covenants not to disclose trade secrets and covenants not to compete that are intended to protect trade secrets, for example, is governed by other law.").

^{208.} *See* Sandeen, *supra* note 5, at 144 (describing plaintiffs' attempts to "'bootstrap' trade secret remedies onto the limited remedies available for breach of contract").

^{209.} *See* Graves, *supra* note 5, at 91 (observing the UTSA's drafters "did not take a stand one way or the other on interpretation of confidentiality contracts.... [which] may reflect a failure to recognize the problem, a wait-and-see approach, or a general reluctance to limit freedom of contract").

^{210.} *See, e.g.*, Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 483–92 (1974) (holding that federal patent law does not preempt state trade secret laws).

^{211.} Id. at 489.

patents," and thus violates federal patent policy.²¹² However, such patentbased preemption arguments for curtailing trade secret owners' contract claims have typically been unsuccessful.²¹³

2. Preemption Arguments Post-DTSA

Are federal preemption arguments more viable now that the DTSA has been enacted? In short: probably not. The DTSA expressly disclaims any intent to "preempt or displace" state laws "for the misappropriation of a trade secret."²¹⁴ Thus, the DTSA explicitly sanctions the coexistence of state and federal trade secret laws.²¹⁵ Moreover, the DTSA makes no specific reference to preemption (or non-preemption) of state contract law. By contrast, the UTSA's preemption provision explicitly excludes contractual claims from its purview.²¹⁶ At least one commentator has pointed to this difference as raising "a question of whether the DTSA would preempt" an overlapping breach of contract action.²¹⁷

214. 18 U.S.C.A. § 1838 (West 2016); *see* Seaman, *supra* note 28, at 360. Titled "Construction with other laws," § 1838 states:

18 U.S.C.A. § 1838 (emphasis added).

216. See supra notes 206-10 and accompanying text.

217. See Stephen Y. Chow, DTSA: A Federal Tort of Unfair Competition in Aerial Reconnaissance, Broken Deals, and Employment, 72 WASH. & LEE L. REV. ONLINE 344, 360 (2015).

^{212.} See Dreyfuss, supra note 67, at 248-49 ("Patents are of limited duration, and are much costlier to obtain than trade secrets. In the past, patents have nonetheless been desirable because they obviate the risk of disclosure. . . . [H] owever, a well-drafted license—one that survives even if the trade secret is revealed—can duplicate the benefits of patenting. With lower up-front costs, and a possibly infinite duration, the frequency of patenting will decrease as reliance on trade secrecy protection increases."); *cf.* Graves & Tippett, *supra* note 206, at 85 (highlighting that federal patent law preempts state tort law claims "that encroach[] on the public domain by offering 'patent-like' protection to unpatented, nonsecret information").

^{213.} See generally Aronson v. Quick Point Pencil Co., 440 U.S. 257 (1979) (rejecting patent preemption argument to preclude enforcement of a contract to pay ongoing royalties to the inventor of a keyholder design, even after the inventor's patent application was rejected, and the design was readily ascertainable from marketed products). Patent preemption arguments seem to be more successful when challenging "more-protectionist state initiatives," such as state statutes preventing imitation of subpatentable innovations. Reichman & Franklin, *supra* note 2, at 921; *see, e.g.*, Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 167–68 (1989) (striking down a Florida law that sought to protect subpatentable boat hull designs, as it "represent[ed] a break with the tradition of peaceful co-existence between state market regulation and federal patent policy").

Except as provided in section 1833(b), *this chapter shall not be construed to preempt or displace any other remedies*, whether civil or criminal, provided by United States Federal, State, commonwealth, possession, or territory law *for the misappropriation of a trade secret*, or to affect the otherwise lawful disclosure of information by any Government employee under section 552 of title 5 (commonly known as the Freedom of Information Act).

^{215.} The DTSA does include enhanced whistleblower protections that supplant conflicting state trade secret law. Section 1833(b) immunizes whistleblowers from liability "under any Federal or State trade secret law for" reporting trade secrets in confidence to government officials. 18 U.S.C.A. § 1833(b). For a general discussion of this provision, see Menell, *supra* note 64.

Using patent and copyright preemption caselaw as a source of comparison, however, courts are unlikely to interpret the DTSA as preempting state contract law claims.²¹⁸ Indeed, preemption gets criticized for being a "blunt" instrument.²¹⁹ This characteristic can lead courts to shy away from using it to police the boundary between contract law and intellectual property more generally.²²⁰ An additional cause for courts' wariness is that "the issue is not the relatively simple one of whether to preempt a particular state statute, but the more complex one of whether and how to preempt certain parts of contract law without bringing down the whole edifice."²²¹ Consequently, the contours of preemption have been notoriously unpredictable and inconsistent in the intellectual property context.²²²

In the short time since the DTSA has been enacted, no published decision squarely addresses DTSA-based preemption arguments. As more claims are brought under DTSA, courts' responsiveness to DTSA-based preemption arguments may be more accurately assessed. One potential area where such arguments may hold sway concerns the controversial "inevitable disclosure" doctrine. Under the inevitable disclosure doctrine, which only some jurisdictions recognize, a court can enjoin an employee from accepting a position with a new employer if persuaded that disclosure of trade secrets from the previous employer would be "inevitable"—even if there is no evidence of actual disclosure.²²³ It has the effect of a non-compete, even in

^{218.} See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1454 (7th Cir. 1996) ("[C] ourts usually read preemption clauses to leave private contracts unaffected."); see also Lemley, supra note 2, at 144 (With respect to intellectual property preemption more generally, Lemley states that "[i]t is extremely unlikely that any court will ever hold that the 'field' of contract law—or even the slightly more manageable 'field' of contracts governing intellectual property rights—is entirely preempted by federal intellectual property law. The field is too broad, and the role of state contract law in interpreting licensing agreements is too well accepted." (footnote omitted)).

^{219.} Lemley, *supra* note 2, at 145 ("[I]ndeed there are courts that have refused to apply preemption at all to contract law for this reason, even when the federal policies seem to point strongly in favor of preemption. This lack of nuance will render preemption ineffective if it causes courts to shy away from applying it altogether." (footnote omitted)); *see also* Reichman & Franklin, *supra* note 2, at 939 (expressing similar concerns of "overusing" preemption).

^{220.} Lemley, *supra* note 2, at 145.

^{221.} Id. at 137.

^{222.} In some cases, courts have conducted an implied preemption analysis to reject enforcement of certain contractual provisions that conflict with federal patent or copyright policy. *See, e.g.*, Lear, Inc. v. Adkins, 395 U.S. 653, 674 (1969). But in other cases, contractual restrictions that conflict with patent and copyright principles have been upheld despite preemption challenges. *See, e.g.*, Aronson v. Quick Point Pencil Co., 440 U.S. 257, 266 (1979); Studiengesellschaft Kohle, M.B.H. v. Shell Oil Co., 112 F.3d 1561, 1568 (Fed. Cir. 1997); *see also* Moffat, *supra* note 189, at 71 (critiquing courts' unwillingness to apply preemption doctrine to contractual restrictions of fair use).

^{223.} See PepsiCo, Inc. v. Redmond, 54 F.3d 1262, 1269 (7th Cir. 1995) ("[A] plaintiff may prove a claim of trade secret misappropriation by demonstrating that defendant's new employment will inevitably lead him to rely on the plaintiff's trade secrets.").

the absence of one—and triggers similar concerns of constraining employee mobility and cumulative innovation.²²⁴

The DTSA's remedies provision restricts the issuance of injunctions that would "prevent a person from accepting an offer of employment under conditions that avoid actual or threatened misappropriation."²²⁵ Legislative history suggests this language was included to allay concerns that the DTSA would "restrict employee mobility."²²⁶ Some commentators view this language as precluding injunctions based on an inevitable disclosure theory—though recent caselaw casts doubt on that interpretation.²²⁷ At least one commentator has questioned whether the DTSA's remedies language and its underlying employee mobility concerns could be interpreted to "preempt an employee non-compete agreement premised on an employee's 'prior exposure to trade secrets."²²⁸ That courts would interpret the DTSA to preempt non-compete

225. The statute states:

(b) Private Civil Actions. . . .

(3) REMEDIES.—In a civil action brought under this subsection with respect to the misappropriation of a trade secret, a court may—

(A) grant an injunction—

(i) to prevent any actual or threatened misappropriation . . . provided the order does not—

(I) prevent a person from entering into an employment relationship, and that conditions placed on such employment shall be based on evidence of threatened misappropriation and not merely on the information the person knows; or

(II) otherwise conflict with an applicable State law prohibiting restraints on the practice of a lawful profession, trade, or business

18 U.S.C.A. § 1836(b) (3) (A) (i) (West 2016).

226. 161 CONG. REC. S7252 (daily ed. Oct. 8, 2015) (statement of Sen. Coons).

227. See Maxwell Goss, The Defend Trade Secrets Act and Inevitable Disclosure, PATENTLYO (May 17, 2017), https://patentlyo.com/patent/2017/05/secrets-inevitable-disclosure.html (observing that "some have concluded that the inevitable disclosure doctrine is a dead letter under the" DTSA's remedy provision). Two recent DTSA decisions seem to cast some doubt on this interpretation, however. See Fres-co Sys., USA, Inc. v. Hawkins, 690 F. App'x 72, 80 (3d Cir. 2017); Molon Motor & Coil Corp. v. Nidec Motor Corp., No. 16-C-03545, 2017 U.S. Dist. LEXIS 71700, at *18 (N.D. Ill. May 11, 2017).

228. Chow, *supra* note 217, at 358.

^{224.} See Lobel, supra note 6, at 14 ("The doctrine is controversial because it creates an expost de facto non-compete action against a former employee, even in the absence of neither actual trade secret misappropriation, nor a non-compete clause in the employee's contract."); see also Andrea Contigiani et al., Trade Secrets and Innovation: Evidence from the "Inevitable Disclosure" Doctrine 5–7 (Oct. 2017) (unpublished manuscript), http://www.management. wharton.upenn.edu/hsu/inc/doc/2017/IDD-Oct2017.pdf (examining Illinois's adoption of the inevitable disclosure doctrine and finding that the doctrine adversely affects innovation); I.P.L. Png & Sampsa Samila, Trade Secrets Law and Mobility: Evidence from "Inevitable Disclosure" 3 (Feb. 2015) (unpublished manuscript), https://papers.ssrn.com/sol3/papers. cfm?abstract_id=1986775 (finding that state court rulings against the inevitable disclosure doctrine are associated with a 9.7% increase in probability that a university-educated worker changes employer).

provisions seems unlikely. Ultimately, preemption doctrine is a limited tool for evaluating contractual provisions that conflict with trade secret law.

B. MISUSE DOCTRINE AND TRADE SECRET LAW

Courts developed the equitable doctrine of misuse—first in patent law and then in copyright—to scrutinize owners' contracting practices that expanded the scope of intellectual property rights in problematic ways.²²⁹ In *Morton Salt Co.*, the Supreme Court first articulated the patent misuse doctrine.²³⁰ The patent holder on a machine for depositing salt tablets had required licensees to use the patented machines only with salt tablets (an unpatented product) purchased from the patent holder.²³¹ The Court held that the patent holder had exceeded its patent right—"misused" it—by tying it to an unpatented good. As a result, the patent holder could not enforce its patent against anyone until "the improper practice ha[d] been abandoned."²³² In recent decades, however, courts have applied patent misuse doctrine sparingly, primarily focusing on competitive harms and echoing antitrust's "rule of reason" standard.²³³

230. Morton Salt Co., 314 U.S. at 490–91. Even before Morton Salt's formal articulation of "patent misuse," the Supreme Court had refused to find contributory patent infringement in cases involving patent-holders' tying of patented inventions to unpatented goods. See generally Carbice Corp. of Am. v. Am. Patents Dev. Corp., 283 U.S. 27 (1931); Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502 (1917). For a discussion of these cases, see Bohannan, *supra* note 191, at 479–86.

^{229.} See, e.g., Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488, 490–91 (1942) (originating the modern misuse doctrine and applying it to a patentee's tie of a patented salt-injection machine to unpatented salt), *abrogated by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006); Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 973, 979 (4th Cir. 1990) (applying copyright misuse to copyright owner's restriction forbidding software licensee from developing any similar program). Misuse doctrine focuses on the intellectual property owner's problematic acts—in contrast to doctrines like fair use, which focus on the laudable acts of the defendant. See Dan L. Burk, Anticircumvention Misuse, 50 UCLA L. REV. 1095, 1129–30 (2003) (observing that while fair use and misuse both have "roots in equity . . . misuse analysis focuses exclusively upon the conduct of the [IP] holder").

^{231.} Morton Salt Co., 314 U.S. at 490-91.

^{232.} Id. at 493.

^{233.} See, e.g., Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 708–09 (Fed. Cir. 1992) (assessing whether the licensing restriction has "an anticompetitive effect not justifiable under the rule of reason"), *abrogated by* Impression Prod., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523 (2017); Windsurfing Intern. Inc. v. AMF Inc., 782 F.2d 995, 1001–02 (Fed. Cir. 1986); Thomas F. Cotter, *Misuse*, 44 HOUS. L. REV. 901, 912 (2007) (describing how outside of a few practices deemed per se misuse or per se lawful, courts analyze a challenged practice in accordance with antitrust's rule of reason). Congress seemed implicitly to endorse the antitrust-influenced model for patent misuse when passing the Patent Misuse Reform Act of 1988. Among other things, the Act provides that tying an unpatented product to a patented product (i.e., the *Morton Salt* scenario) is not misuse unless market power in the patented product can be proven. 35 U.S.C. § 271(d) (2012) (listing patent-related activities that may have been considered misuse at one time, but are no longer misuse).

By contrast, courts applying copyright misuse have broken from antitrust principles and invoked broader copyright policy concerns.²³⁴ For example, courts have invoked copyright misuse doctrine to scrutinize licensing practices that suppress fair uses like critical speech.²³⁵ Thus, while the "misuse defense has waned in patent law, it has experienced a somewhat surprising renaissance within the law of copyright."²³⁶ Ushering in this "renaissance" was *Lasercomb America, Inc. v. Reynolds*, the first federal appellate case to apply copyright misuse.²³⁷

Lasercomb also involved restrictive contract terms. The defendant had licensed die-making software from Lasercomb under a standard agreement barring licensees "from participating in any manner in the creation of computer-assisted die-making software" for a term of "ninety-nine years."²³⁸ Relying on the reasoning of early patent misuse cases like *Morton Salt*, the Fourth Circuit deemed Lasercomb's license restriction to be copyright misuse because the copyright was "being used in a manner violative of the public policy embodied in the grant of a copyright."²³⁹ Misuse arose from "Lasercomb's attempt to use its copyright in a particular expression . . . to control competition in an area outside the copyright, *i.e.*, the idea of computer-assisted die manufacture."²⁴⁰ Following the Fourth Circuit's lead, a number of other circuit courts have recognized copyright misuse.²⁴¹

241. Copyright misuse doctrine has been recognized in most (though not all) circuits. *See*, *e.g.*, Chamberlain Grp., Inc. v. Skylink Techs., Inc., 381 F.3d 1178, 1201 (Fed. Cir. 2004); Video Pipeline, Inc. v. Buena Vista Home Entm't, Inc., 342 F.3d 191, 204–06 (3d Cir. 2003); Alcatel USA, Inc. v. DGI Techs., Inc., 166 F.3d 772, 788–89 (5th Cir. 1999); Practice Mgmt. Info. Corp. v. Am. Med. Assoc., 121 F.3d 516, 521 (9th Cir. 1997); DSC Comme'ns. Corp. v. DGI Techs., Inc., 81 F.3d 597, 601 (5th Cir. 1996); qad. inc. v. ALN Assocs., Inc., 974 F.2d 834, 837 (7th Cir. 1992); Saks Inc. v. Attachmate Corp., 2015 WL 1841136, at *12 (S.D.N.Y. 2015) ("While the Second Circuit Court of Appeals has never formally endorsed the affirmative defense of copyright

^{234.} See, e.g., Lasercomb, 911 F.2d at 977.

^{235.} See Video Pipeline, Inc. v. Buena Vista Home Entm't, Inc., 342 F.3d 191, 205–06 (3d Cir. 2003) (ultimately finding no misuse but acknowledging that "[a] copyright holder's attempt to restrict expression that is critical of it" could be misuse as it "may, in context, subvert ... copyright's policy goal to encourage the creation and dissemination to the public of creative activity"); see also Brett Frischmann & Dan Moylan, *The Evolving Common Law Doctrine of Copyright Misuse: A Unified Theory and Its Application to Software*, 15 BERKELEY TECH. LJ. 865, 902–03 (2000) (arguing in favor of a narrow "per se [copyright] misuse rule against reverse engineering licensing restrictions" to supplement copyright fair use).

^{236.} Burk, *supra* note 229, at 1124.

^{237.} See Lasercomb, 911 F.2d at 971.

^{238.} Id. at 972-73.

^{239.} Id. at 978.

^{240.} *Id.* at 978–79 (emphasis omitted) ("Lasercomb undoubtedly has the right to protect against copying of [its software] code. Its standard licensing agreement, however, goes much further and essentially attempts to suppress any attempt by the licensee to independently implement the idea which [the software] expresses.... Although one or another licensee might succeed in negotiating out the noncompete provisions, this does not negate the fact that Lasercomb is attempting to use its copyright in a manner adverse to the public policy embodied in copyright law, and that it has succeeded in doing so with at least one licensee.").

More recently, the Seventh Circuit invoked a broad view of copyright misuse in Assessment Technologies of WI, LLC.²⁴² Assessment Technologies ("AT") owned copyrighted software used by various municipalities to compile and store real estate tax assessment data. AT brought a copyright infringement suit against WIREdata, a company seeking to access the tax assessment data. The municipalities had refused WIREdata's request to obtain the data because the municipalities were subject to restrictive license agreements and feared infringing AT's copyright in the software.²⁴³ The Seventh Circuit, in an opinion authored by Judge Posner, held that AT's copyright did not extend to the raw data collected by the municipalities, and therefore, the municipalities could share the raw data.²⁴⁴ Although the Seventh Circuit did not need to address the issue of copyright misuse, Judge Posner gave it a lengthy treatment, observing that if AT tried "by contract or otherwise to prevent the municipalities from revealing [the raw] data"which was "beyond the scope of AT's copyright"—then that "might constitute copyright misuse."245

Recent copyright misuse cases (and early patent misuse cases on which they rely) suggest "the unique role of misuse is to police the constitutional and statutory limitations on exclusive rights."²⁴⁶ Thus, the importance of misuse doctrine is not "to ward off antitrust violations, or even to prevent

242. Assessment Techs. of WI, LLC v. Wiredata, Inc., 350 F.3d 640, 647 (7th Cir. 2003). Interestingly, Judge Posner, the opinion's author, had previously criticized misuse interpretations that veered from antitrust. *See, e.g.*, USM Corp. v. SPS Techs., Inc., 694 F.2d 505, 512 (7th Cir. 1982) ("If misuse claims are not tested by conventional antitrust principles, by what principles shall they be tested?").

245. *Id.* at 646–47 ("The argument for applying copyright misuse beyond the bounds of antitrust, besides the fact that confined to antitrust the doctrine would be redundant, is that for a copyright owner to use an infringement suit to obtain property protection, here in data, that copyright law clearly does not confer, hoping to force a settlement or even achieve an outright victory over an opponent that may lack the resources or the legal sophistication to resist effectively, is an abuse of process."); *see also* William F. Patry & Richard A. Posner, *Fair Use and Statutory Reform in the Wake of* Eldred, 92 CALIF. L. REV. 1639, 1658 (2004) ("To deal with overclaiming of copyright, there is fortunately at hand the doctrine of copyright misuse").

246. Burk, *supra* note 229, at 1133.

misuse, a number of district courts in this circuit have refused to strike such a defense, so it is incorrect to suggest that this defense is not recognized in this Circuit."); National Cable Television Ass'n, Inc. v. Broadcast Music, Inc., 772 F. Supp. 614, 752 (D.D.C. 1991). *But see* Soc'y of the Holy Transfiguration Monastery, Inc. v. Gregory, 689 F.3d 29, 65 (1st Cir. 2012) ("This court has not yet recognized misuse of a copyright as a defense to infringement." (quoting García–Goyco v. Law Envtl. Consultants, Inc., 428 F.3d 14, 21 n.7 (1st Cir. 2005))); Telecom Tech. Servs., Inc. v. Rolm Co., 388 F.3d 820, 831 (11th Cir. 2004) (avoiding decision to recognize copyright misuse); Design Basics, LLC v. Petros Homes, Inc., 240 F. Supp. 3d 712, 720 (N.D. Ohio 2017) (recognizing copyright misuse but acknowledging that "the Sixth Circuit has not addressed the topic" of copyright misuse).

^{243.} Assessment Techs. of WI, LLC, 350 F.3d at 642-44.

^{244.} *Id.* at 644 (explaining that AT's software arranges the data by the municipalities into various categories; while the compilation scheme is sufficiently original under copyright law, the raw data that municipal assessors collected and inputted is "in the public domain").

economically anticompetitive activity," but rather to "modulat[e] the reach of intellectual property rights" by "refus[ing] to reward private extension of intellectual property rights contrary to public policy."²⁴⁷ Mark Lemley has suggested that copyright misuse can be a useful tool in resolving conflicts between copyright and contract law because it is a "fact-specific doctrine tailored to the circumstances of individual cases," and thus "may prove a better tool both for tailoring copyright incentives and for avoiding the [judicial] reticence that surrounds coarser tools such as preemption."²⁴⁸

The contractual restrictions characterized as copyright misuse in *Lasercomb* and *WIREdata* can be analogized to the contractual expansions of trade secret rights described in Part IV. Yet curiously, a misuse doctrine never emerged in trade secret law. To date, no court has recognized a trade secret misuse doctrine akin to copyright (or patent) misuse.²⁴⁹ It is worth considering whether courts should apply a misuse-type doctrine when confronted with owners' attempts to broaden trade secret rights though contractual fiat—though a comprehensive analysis is beyond the scope of this Article.²⁵⁰ Misuse doctrine is a potentially potent deterrent, both because of the severity of the penalty (i.e., unenforceability of the IP right until the offending practice ends),²⁵¹ and because even non-victims of misuse can raise misuse arguments based on an IP owner's overreaching acts towards others.²⁵²

Even if courts imported a misuse doctrine into trade secret, however, its capacity to police conflicts between trade secret law and contract law may be limited, since misuse is typically an infringement defense.²⁵³ In some notable patent misuse cases, a licensee has successfully sought a declaratory judgment that an intellectual property owner has committed misuse²⁵⁴ or has raised

^{247.} Id.

^{248.} Lemley, *supra* note 2, at 157-58.

^{249.} See Ass'n of Am. Med. Colls. v. Princeton Review, Inc., 332 F. Supp. 2d 11, 25 (D.D.C. 2004) (finding "no legal authority that has applied copyright misuse or an unclean hands defense to a trade secrets misappropriation claim"); see also Frischmann & Moylan, supra note 235, at 867 ("Both trademark and trade secret misuse remain subjects for academic discussion without practical force in the courts.").

^{250.} In future work, I address this topic in greater depth. Deepa Varadarajan, The Uses of IP Misuse (March 5, 2018) (unpublished manuscript) (on file with author).

^{251.} *See, e.g.*, Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516, 520 n.9 (9th Cir. 1997) ("Copyright misuse does not invalidate a copyright, but precludes its enforcement during the period of misuse." (citing Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 979 n.22 (4th Cir. 1990))).

^{252.} See, e.g., Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488, 494 (1942) (infringing defendant was a competitor that was not injured by misuse), *abrogated by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006); *see also* Cotter, *supra* note 233 (critiquing these aspects of misuse doctrine).

^{253.} See Princo Corp. v. Int'l Trade Comm'n, 616 F.3d 1318, 1321 (Fed. Cir. 2010) ("Patent misuse developed as a nonstatutory defense to claims of patent infringement."); Bohannan, *supra* note 191, at 477 ("Misuse is not an affirmative cause of action but, subject to a few exceptions, is raised as a defense in an IP-infringement claim.").

^{254.} See, e.g., Kimble v. Marvel Entm't, LLC, 135 S. Ct. 2401, 2403 (2015) (describing how Marvel "sought a declaratory judgment in federal district court confirming that it could stop

misuse arguments in response to a contract breach claim.²⁵⁵ But these other procedural avenues are relatively rare—and some courts do not permit them.²⁵⁶

C. REINVIGORATING CONTRACT LAW'S NON-ENFORCEMENT DOCTRINES

State contract law itself imposes certain limits on enforceability. For example, courts will not enforce unconscionable terms.²⁵⁷ To demonstrate unconscionability, a party must show both the lack of a "meaningful choice" when assenting to the contract (i.e., procedural unconscionability), as well as contract terms that "are unreasonably favorable to the other party" (i.e., substantive unconscionability).²⁵⁸

In theory, the unconscionability doctrine can offer a nuanced approach that considers both procedural and substantive aspects of a contested contract. Despite the availability of this doctrine, however, courts rarely apply it to strike contract terms—reserving this option for only the most "egregious" cases.²⁵⁹ Various "terms of use" contracts that impose restrictive terms on

256. See, e.g., Ass'n of Am. Med. Colls., 332 F. Supp. 2d at 18–20 (holding that copyright misuse is recognized as a defense to copyright infringement but not as an affirmative claim).

257. See U.C.C. § 2-302 (AM. LAW INST. & UNIF. LAW COMM'N 1977) ("If the court as a matter of law finds the contract or any clause of the contract to have been unconscionable at the time it was made the court may refuse to enforce the contract, or it may enforce the remainder of the contract without the unconscionable clause, or it may so limit the application of any unconscionable clause as to avoid any unconscionable result."). For a general discussion of the economics of the unconscionability doctrine, see Richard Craswell, *Property Rules and Liability Rules in Unconscionability and Related Doctrines*, 60 U. CHI. L. REV. 1, 17–20 (1993).

258. Brower v. Gateway 2000, Inc., 676 N.Y.S.2d 569, 574 (1998) (quoting *In re* New York v. Avco Fin. Serv. of N.Y., Inc., 406 N.E.2d 1075, 1078 (N.Y. 1980)).

259. See, e.g., Forsythe v. BancBoston Mortg. Corp., 135 F.3d 1069, 1074 (6th Cir. 1997) ("The doctrine of unconscionability is only used in rare instances, such as when a party abuses its right to contract freely." (citing Louisville Bear Safety Serv., Inc. v. S. Cent. Bell Tel. Co., 571 S.W.2d 438, 439 (Ky. Ct. App. 1978))); Arnow-Richman, *supra* note 160, at 644. Challenges based on contract law formation doctrines, which focus exclusively on the nature of the bargaining process rather than substantive terms, have also faced an uphill climb. *See, e.g.*, ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1452–53 (7th Cir. 1996) (finding acceptance of a shrink-wrap license based on the user's opening the package, loading software onto a computer, and not returning the software after learning of the license terms); *see also* Lemley, *Terms of Use, supra* note 3, at 465 ("[I]n today's electronic environment, the requirement of assent has withered away to the point where a majority of courts now reject any requirement that a party take any action at all demonstrating agreement to or even awareness of terms in order to be bound by those terms.").

paying Kimble [post-term] royalties"); Allan Block Corp. v. Cty. Materials Corp., 512 F.3d 912, 916–17 (7th Cir. 2008) (recognizing declaratory-judgment action claiming that licensor's conduct constituted misuse); Elec. Data Sys. Corp. v. Comput. Assocs. Int'l, Inc., 802 F. Supp. 1463, 1466 (N.D. Tex. 1992) (permitting copyright misuse to be raised as both a defense to copyright infringement and as an independently actionable claim).

^{255.} In *Brulotte v. Thys, Co.*, the patent misuse-like argument was raised as a defense to a statelaw breach of contract claim when the licensee stopped paying royalties on the contract both before and after expiration of the patent. Brulotte v. Thys Co., 379 U.S. 29 (1964).

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consumers have, for example, withstood unconscionability challenges.²⁶⁰ Even in the employment context, where employees often assent under conditions of information asymmetry and disparate bargaining power, unconscionability arguments have held little sway.²⁶¹

For example, recently in *Newell Rubbermaid Inc. v. Storm*, the court rejected an employee's unconscionability argument where the employer inserted nondisclosure provisions and other post-employment restrictions into a seemingly unrelated "clickwrap" agreement concerning stock options, well after the employee began employment.²⁶² Although the court acknowledged that the employer's method was "certainly not the model of transparency and openness with its employees," it nonetheless enforced the provisions.²⁶³ In light of such cases, scholarly calls to strengthen unconscionability doctrine's role in scrutinizing boilerplate contracts resonate in the trade secret context.²⁶⁴

Courts can also police contract terms that contradict public policy—the so-called public-policy exception to contract enforcement. This long-standing and open-ended power allows courts to deny enforcement of a contract term where "enforcement is clearly outweighed in the circumstances by a public policy against the enforcement of such terms."²⁶⁵ The open-endedness of the inquiry allows courts flexibility in assessing "other laws as well as their own sense of what restrictions are needed to protect the public welfare."²⁶⁶

^{260.} See, e.g., Meridian Project Sys., Inc. v. Hardin Constr. Co., 426 F. Supp. 2d 1101, 1107 (E.D. Cal. 2006) (rejecting unconscionability argument); see also Lemley, Terms of Use, supra note 3, at 459–60 ("A majority of courts in the last ten years have enforced shrinkwrap licenses and more recently, an increasing number of courts have enforced 'browsewrap' licenses").

^{261.} See, e.g., Arnow-Richman, *supra* note 160, at 654–55 ("Contract law routinely binds employees to all sorts of adhesive terms."); *cf.* Alan E. Garfield, *Promises of Silence: Contract Law and Freedom of Speech*, 83 CORNELL L. REV. 261, 285 (1998) ("Employment contracts, particularly ones with lower level employees, tend to give rise to concerns regarding unconscionability.").

^{262.} Newell Rubbermaid Inc. v. Storm, 2014 WL 1266827, at *2 (Del. Ch. Mar. 27, 2014). The defendant "clicked the 'accept' button" after a hyperlink to a lengthy PDF popped up on the Fidelity website. *Id.* at *1. However, she "thought that she was only agreeing to terms relating directly to the [stock options] and that her agreement would not impact her post-employment obligations to Newell." *Id.* at *2.

^{263.} *Id.* at *7. The court was particularly unconvinced by the defendant's substantive unconscionability argument, noting: "Here, the contractual terms did not unreasonably favor Newell. Rational parties could conclude that accepting the RSUs [restricted stock units] in exchange for assenting to certain post-employment restrictions was reasonable." *Id.* at *6 n.44. The court also rejected the defendant's contract formation arguments. *Id.* at *7.

^{264.} See, e.g., KIM, supra note 3, at 207 (suggesting that "[a] more welfare-maximizing alternative is to redefine unconscionability so that it reflects the reality of a coercive contracting environment"); see also Russell Korobkin, Bounded Rationality, Standard Form Contracts, and Unconscionability, 70 U. CHI. L. REV. 1203, 1279 (2003) (arguing for various judicial "modif[ications to] the unconscionability doctrine to create the closest possible fit between the doctrine and either social welfare or buyer welfare").

^{265.} RESTATEMENT (SECOND) OF CONTRACTS § 178(1) (AM. LAW INST. 1981) (amended 2017).

^{266.} Garfield, *supra* note 261, at 295; *see* RESTATEMENT (SECOND) OF CONTRACTS § 179 cmt. a (stating that the rule for deriving public policies against the enforcement of a contract is "an

Courts can limit enforcement of non-disclosure, non-compete, and other trade secret-related contract provisions in light of "public policies that operate to restrict the scope of trade secret protection."²⁶⁷ Depending on the circumstances, the "evasive" uses of contract described in Part IV—enlarging protectable subject matter, avoiding ongoing RSP obligations, eliminating the reverse engineering defense, and imposing non-compete clauses—conflict with underlying trade secret policies, such as promoting innovation.²⁶⁸ To some degree, courts have applied the public policy exception to deny enforcement of non-competes—or at least, "unreasonably" broad non-competes.²⁶⁹ A few courts have cited this doctrine when refusing to enforce contract provisions that preclude disclosure of non-secret information.²⁷⁰

Some commentators warn that greater reliance on the public policy doctrine invites "courts to overstep their limits and to superimpose their views of statutory policies on those of the legislatures, at the expense of freedom of contract."²⁷¹ To be sure, any open-ended and flexible judicial tool invites concerns of unpredictability and overreach.²⁷² However, such concerns may be minimized by focusing the inquiry on specific terms (e.g., restrictions on reverse engineering restrictions or use of publicly available information) that arise out of a flawed contracting process (e.g., mass consumer licenses or "boilerplate" employment contracts).²⁷³

One promising approach advanced in earlier work by Jerome Reichman and Jonathan Franklin combines elements of both the unconscionability and public policy doctrines.²⁷⁴ They suggest a "public-interest unconscionability" rubric, incorporating presumptions and burden-shifting to help identify

open-ended one that does not purport to exhaust the categories of recognized public policies"); *cf.* David Adam Friedman, *Bringing Order to Contracts Against Public Policy*, 39 FLA. ST. U. L. REV. 563, 566–67 (2012) (examining a sample of cases from 2009 involving the public policy defense and concluding that courts' application of this doctrine is not as "unruly" as critics contend, for courts are twice as likely to apply it when based on a specific statute or regulation instead of "a broad, general appeal to public policy").

^{267.} RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 41 reporters' note on cmt. d (AM. LAW INST. 1995) ("[T]he public policies that operate to restrict the scope of trade secret protection are also relevant to the enforcement of confidentiality agreements.").

^{268.} See supra Part IV.

^{269.} See supra notes 158-59 and accompanying text.

^{270.} *See, e.g.*, Dynamics Research Corp. v. Analytic Scis. Corp., 400 N.E.2d 1274, 1288 (1980) ("[A] non-disclosure agreement which seeks to restrict the employee's right to use an alleged trade secret which is not such in fact or in law is unenforceable as against public policy.").

^{271.} Reichman & Franklin, *supra* note 2, at 926 ("Even when courts correctly apply the public policy doctrine, they can logically invalidate whole swaths of contracts or classes of contractual terms in a quasi-legislative manner.").

^{272.} Uncertainty is often a feature of flexible legal "standards" as opposed to more rigid "rules." For an overview of the rule-standard distinction, see Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557 (1992); Cass R. Sunstein, *Problems with Rules*, 83 CALIF. L. REV. 953 (1995).

^{273.} See supra notes 175-87 and accompanying text.

^{274.} See Reichman & Franklin, supra note 2, at 929.

efficiency-generating deviations from IP default rules.²⁷⁵ Under their approach, "[a]ffirmatively negotiated terms," reflecting a "relatively high quantum of mutual assent" have a "presumption of validity."²⁷⁶ Many business-to-business transactions would likely fall under this category. Reichman and Franklin suggest that such affirmatively negotiated terms should not be set aside by courts absent "a positive showing of real antisocial or anticompetitive effects."²⁷⁷ For non-negotiated terms that deviate from IP default rules, those presumptions and burdens would be switched. That is, the enforceability of such terms would require IP owners to demonstrate specific benefits that "do not radically undermine the existing balance of intellectual property."²⁷⁸ By incorporating presumptions and a burden-shifting mechanism, concerns of judicial unpredictability and overreach may be further minimized.²⁷⁹ Ultimately, courts' more robust engagement with contract non-enforcement doctrines seems to offer the most promising path for policing conflicts between contract law and trade secret law.

VI. CONCLUSION

Trade secret law is dependent on, but also potentially undermined by, contract law. On the one hand, confidentiality contracts serve a significant evidentiary function, helping putative trade secret owners demonstrate two key elements of a trade secret claim: (1) reasonable secrecy efforts, and (2) the existence of a confidentiality duty. This outsized evidentiary role stems from the notice function of contracts. That is, non-disclosure contracts are one of the few ways to notify recipients of information (e.g., employees) about the existence and scope of claimed trade secrets. Courts should reinforce this notice function by scrutinizing confidentiality contracts to ensure that meaningful ex ante notice was provided.

Yet, in addition to their evidentiary role, contracts play an evasive role in trade secret law. That is, firms use contract law to evade trade secret requirements and limitations by: (1) enlarging protectable subject matter; (2) avoiding ongoing RSP obligations; (3) eliminating the reverse engineering defense; and (4) imposing non-compete clauses. Such contractual provisions that conflict with trade secret policies seem to occur

278. Id. at 937.

^{275.} Id. at 931-32.

^{276.} Id. at 931, 933.

^{277.} *Id.* at 931, 935 (explaining that the presumption of validity can be rebutted where "cumulative harm to the public interest from use, including repeated use, of the term or terms in question seems likely to outweigh the private and public benefits flowing from the specific transaction" (emphasis omitted)).

^{279.} *Id.* at 960 ("[T]he unpredictability of any new legal doctrine remains a substantial enforcement challenge. . . . [However, the] burden shifting mechanism for negotiable terms, and narrowly tailored effect make it a far more precise tool . . . than do older doctrines sounding in preemption, misuse, or public policy.").

more often—and are most problematic—in the context of employee contracts and mass-market consumer licenses, where parties are less likely to understand, negotiate, and alter one-sided terms. The pervasive use of contract law to evade the legislatively-calibrated requirements and limitations of trade secret law poses risks to cumulative innovation and employee mobility.

Finally, this Article considered legal mechanisms to scrutinize and deter problematic trade secret-evasive uses of contract law. Contract nonenforcement doctrines, such as unconscionability and the public policy doctrine, offer a nuanced approach that allows courts to consider both the procedural and substantive aspects of a contested contract. Thus, they seem to offer the most promising path for mediating the trade secret-contract interface—particularly in the procedurally-deficient employment and consumer contracting contexts.