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ABSTRACT

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INTRODUCTION

New technologies disrupt existing industries. They always have, and they probably always will. The printing press put quite a few monks out of the manuscript hand-lettering business.[2] Railroads displaced much (though by no means all) of the barge and shipping industry. Long-haul truck drivers in turn displaced railroads, and now self-driving trucks threaten to displace drivers. The Internet and smart phones disrupted any number of industries, from camera makers and travel agents to watchmakers and keychain-flashlight sellers. Solar panels are democratizing the production of electric power, much to the chagrin of electric utilities. The sharing economy is disrupting many service industries, from taxis to hotels. And new technologies like 3D printing, robotics, and artificial intelligence (AI) may soon displace a variety of occupations, including lawyers.

Incumbents don't like innovations disrupting their industries. As Niccolo Machiavelli wrote,

> [I]t ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things, because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may well do well under the new. This coolness arises partly from fear of the opponents, who have the laws in on their side, and partly from the incredulity of men, who do not readily believe in new things until they have had a long experience of them.[3]

Incumbents frequently want to stop, or at least limit the use of, new technologies.[4] And they often reach for intellectual property (IP), unfair competition, or related legal doctrines as tools to do so. The justification for stopping or limiting the use of new technologies follows a familiar pattern: incumbents claim that the new entrants undermine fundamental values of the

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2 For a fascinating discussion of how the printing press disrupted writing and the scientific process, see Jeremiah Dittmar & Skipper Seabold, *Gutenberg's Moving Type Propelled Europe Towards the Scientific Revolution*, LSE BUS. REV. (Mar. 19, 2019), https://blogs.lse.ac.uk/businessreview/2019/03/19/gutenbergs-moving-type-propelled-europe-towards-the-scientific-revolution/ [https://perma.cc/PLK3-JGDM] (last visited Oct. 29, 2019).

3 NICCOLO MACHIAVELLI, THE PRINCE 31 (W. K. Marriott trans., Lerner Publ'g Grp. 1987) (1532).

4 *See, e.g.*, CALESTOUS JUMA, INNOVATION AND ITS ENEMIES 95-120 (2016) (recounting history of strong lobby groups pressuring Congress to restrict the spread of margarine).

existing industry and make the world worse off.[5] If the new technology is allowed to proliferate, incumbents often argue, no one will ever make music (or movies, or any other creative or inventive output) again.

Those claims are almost always wrong. The process of what Joseph Schumpeter called "creative destruction"[6] is responsible for many of the most significant advances in the history of capitalism.[7] But even if the world usually benefits from disruptive new technologies, incumbents rarely do.[8] New technologies frequently shake up the market, and the winners of the resulting competition tend to be new companies, not old ones. At the least, the old ones must spend time and money rearranging their affairs to account for the new technological reality.

Many IP, unfair competition, and related cases, then, are really about whether competition from new players can force incumbents to change their business models, generally to the advantage of particular players and the detriment of others. These cases are, in an important sense, all unfair competition cases; they are about the ways in which the law permits new entrants to compete with incumbents.[9]

Unfortunately, we lack any comprehensive way of thinking about legal claims as a response to market disruption. As a result, courts react quite differently to disruptive technology or business models in different cases. As one example, consider IP cases brought against new technologies. Sometimes courts find the disruptive technology infringes existing IP rights. New technology might fit

5 *See, e.g.*, Mark A. Lemley, *Is the Sky Falling on the Content Industries?*, 9 J. TELECOMM. & HIGH TECH. L. 125 (2011) [hereinafter *Sky Falling*] (chronicling the continuous reinvention of the music business as the player piano, the gramophone, radio, home taping, and internet piracy developed; of the motion pictures business as television, the VCR, and DVRs developed; and of publishing when books first seemed threatened by the photocopier); Barry Ritholtz, *Uber is Blamed for the Mistakes of New York's Leaders*, BLOOMBERG (Aug. 6, 2018, 11:31 AM), https://www.bloomberg.com/opinion/articles/2018-08-06/uber-is-blamed-for-the-mistakes-of-new-york-s-leaders [https://perma.cc/F7FF-TDCH] (chronicling efforts to rebuff ride-hailing services disrupting the medallion-limited taxis in New York City by introducing, of all things, a fixed number of permitted Uber and Lyft vehicles).

6 JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM AND DEMOCRACY 81-86 (Harper & Row 1975) (1942) (defining creative destruction as the "process of industrial mutation . . . that incessantly revolutionizes the economic structure *from within*, incessantly destroying the old one, incessantly creating a new one" (footnote omitted)).

7 *See, e.g.*, *id.* at 83 (describing effect of creative destruction on farming, iron and steel industry, power production, and transportation).

8 *See, e.g.*, Reihan Salam, *Taxi-Driver Suicides Are a Warning*, ATLANTIC (Jun. 5, 2018), https://www.theatlantic.com/ideas/archive/2018/06/taxi-driver-suicides-are-a-warning/561926/ (reporting on taxi drivers committing suicide as Uber, Lyft, and other services threaten their livelihoods).

9 *Cf.* Sara K. Stadler, *Copyright as Trade Regulation*, 155 U. PA. L. REV. 899 (2007).

within the legal definition of a prior invention, appropriately construed.[10] Sometimes the technology itself doesn't infringe any prior invention, but enables third parties to more easily infringe IP rights and is deemed illegal for that reason.[11] One notable example in the copyright context involves digital media technology, much of which courts held illegal because early uses frequently infringed copyright.[12] In other cases, courts reject attempts to use IP or other rights to prevent market disruption, either by interpreting legal rights in ways that render the new technology non-infringing or by using doctrinal release valves like fair use.[13]

Other areas of law reflect similarly mixed feelings about market disruption. Business tort claims like unjust enrichment and unfair competition—and even nominally procompetitive laws like antitrust—are often asserted by companies with a vested interest in restricting a competitor's new technology.[14] New entrants bring antitrust and unfair competition cases against incumbents that try to prevent competition, but incumbents upset by market disruption also bring such cases against entrants. Whether antitrust or unfair competition laws

10 *E.g.*, Laser Alignment, Inc. v. Woodruff & Sons, Inc., 491 F.2d 866, 869-70, 873-74 (7th Cir. 1974) (holding contractors using a laser level for laying sewer pipe had infringed upon a patented method for using a collimated beam of light for laying sewer pipe).

11 *See, e.g.*, Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 200, 202, 223 (1980) (interpreting 35 U.S.C. § 271 as codifying common law compromise to enable "patentees to exercise control over nonstaple articles used in their inventions" but not over staple articles, and applying this rule to find no patent misuse where the holder of a patent for a weed-killing process brought suit against manufacturers of a chemical used therein having no other known use). *But see* Husky Injection Molding Sys. v. R & D Tool Eng'g, 291 F.3d 780, 782-83, 789 (Fed. Cir. 2002) (holding that maker of unpatented molds and carrier plates with no other use than serving as replacements in a patented apparatus had not contributorily infringed).

12 Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 919 (2005) (holding that "one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties"). Disclosure: Mark Lemley represented Grokster in that case. *But cf.* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 445, 456 (1984) ("Sony's sale of [the Betamax] to the general public does not constitute contributory infringement of respondent's copyrights" because it is "capable of substantial noninfringing uses," such as copying *Mr. Roger's Neighborhood* for later viewing).

13 *See, e.g.*, Sony Corp. of Am., 464 U.S. at 456 (refusing to find Sony secondarily liable for its sales of Betamax because it was capable of substantial non-infringing uses, including private time-shifting, which was fair use); Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008) (finding cable company's remote storage DVR system did not violate reproduction or public-performance rights of copyright owner).

14 *See infra* Section I.B, II.A (describing different types of business tort claims incumbents bring to insulate themselves from competition and how courts evaluate those claims).

encourage or inhibit market disruption depends critically on what kinds of competition courts deem "unfair."

Our goal in this article is to address the broader question of when competition by market disruption is "unfair" in a way the law should forbid. Sometimes the legal doctrine used to prevent market disruption is one like unjust enrichment, interference with economic advantage, or unfair competition that doesn't have a clear animating principle. We think courts should disfavor those doctrines and employ them only when they are tied to some independent metric for deciding whether the defendant's conduct is unfair or unjust. Other doctrines, like antitrust and IP, have clearer purposes. In antitrust and IP cases, we can evaluate legal challenges to market disruption by testing the fit between the goals of the statute and its use in a particular case.

Courts in tort and antitrust cases have recognized this problem and begun to develop tools for dealing with it. But IP law has lagged behind, rarely even recognizing that cases of alleged infringement are often really challenges to market disruption. We suggest a test that helps separate legitimate cases of IP infringement from cases of pure market disruption. Drawn from the antitrust-injury doctrine,[15] our test would treat market disruption as relevant to an IP case only if the disruption is traceable to the act of infringement itself. If the plaintiff would suffer the same injury from a non-infringing market intervention, that injury cannot be evidence of IP infringement.[16] Requiring a unique, causal

15 An antitrust injury is one that harms not merely the competitor but the competitive process. *See* Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 489 (1977) ("Plaintiffs must prove antitrust injury, which is to say injury of the type the antitrust laws were intended to prevent and that flows from that which makes defendants' acts unlawful."); Rambus Inc. v. FTC, 522 F.3d 456, 464 (D.C. Cir. 2008) ("Even an act of pure malice by one business competitor against another does not, without more, state a claim under the federal antitrust laws." (quoting Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 225 (1993))).

In *Rambus*, for example, a technology company participated in a standard-setting process while failing to disclose its IP interests in technologies that became the basis for a standard; this nondisclosure likely violated the organization's rules and enabled Rambus to later charge higher prices than it could have charged but for the deception. 522 F.3d at 463-64. Yet, the court held as it did because the facts showed that

> in the world that would have existed but for Rambus's deception, [the standard-setting organization] would have standardized the very same technologies, Rambus's alleged deception cannot be said to have had an effect on competition in violation of the antitrust laws; [and thus, the organization's] loss of an opportunity to seek favorable licensing terms is not as such an antitrust harm.

Id. at 466-67. We are skeptical that the court was right about its assessment of the facts in *Rambus*, see 1 HERBERT HOVENKAMP ET AL., IP AND ANTITRUST § 35.05 (3d ed. 2018) (criticizing the analysis in *Rambus*), but the principle that actionable harm must harm competition and not merely disadvantage a particular competitor is right.

16 Christina Bohannan and Herbert Hovenkamp have made a similar proposal, albeit for different reasons. *See* CHRISTINA BOHANNAN & HERBERT HOVENKAMP, CREATION WITHOUT

connection between the infringing nature of the defendant's work and the disruption of the market will allow us to separate cases in which infringement interferes with the purposes of the law from those in which the incumbent just uses IP as a tool to protect its market. It will, in other words, give us a metric by which to decide when disruption is unfair.

That metric will be hard to apply in practice,[17] particularly in cases in which resolution hinges on whether the relevant legal rights should be defined in a way that considers the defendant's conduct infringing. But focusing courts' attention on the connection between the disruption and fundamental policy concerns is better than not having a guiding principle at all.

In Part I we discuss the various ways IP and other tort cases are really about market disruption and the efforts of incumbents to prevent competition. In Part II we discuss how different legal doctrines have responded to those claims, while IP law has lagged behind. Finally, in Part III we offer some ideas for how to assess when disruption is unfair, and what to do if it is.

I. MARKET DISRUPTION

A. *Legal Regulation of Market Disruption*

1. Price and Entry Regulation

Incumbents often use regulation to insulate themselves from competition. A long literature discusses the history of how incumbents warp regulations originally intended to check the power of incumbents into a tool protecting those same incumbents against disruptive entry.[18] Sometimes that protection is

RESTRAINT, xiv (2012) (suggesting improving IP regimes through a judge-made IP injury requirement); Christina Bohannan & Herbert Hovenkamp, *IP and Antitrust: Reformation and Harm*, 51 B.C. L. REV. 905, 980 (2010) ("In IP law, provable harm should relate to the incentive to innovate, just as in antitrust provable harm relates to the incentive to compete."); Paul R. Gugliuzza, *IP Injury and the Institutions of Patent Law*, 98 IOWA L. REV. 747 (2013) (reviewing CHRISTINA BOHANNAN & HERBERT HOVENKAMP, CREATION WITHOUT RESTRAINT (2012)).

17 We discuss some applications *infra* Section III.B (describing how IP-injury doctrine might have been applied to lawsuits against Grokster, Google's use of Java for Android, and third-party use of Facebook data).

18 *See generally* David P. Baron, *Strategy Beyond Markets: A Step Back and a Look Forward*, *in* STRATEGY BEYOND MARKETS 1 (John M. de Figueiredo et al. eds., 2016) (summarizing state of literature on "nonmarket" business strategy that uses politics and policy for competitive advantage, and applying the literature's lessons to understand contemporary cases like Uber); ROBERT A. LEONE, WHO PROFITS: WINNERS, LOSERS, AND GOVERNMENT REGULATION 4 (1986) (explaining and illustrating nonmarket business strategies, including by recounting one regulatory waiver that created $5 billion of value for a single firm); G. RICHARD SHELL, MAKE THE RULES OR YOUR RIVALS WILL (2004) (collecting examples of businesses successfully using regulatory processes and legal actions to cut down their

explicit. Government prevented companies from entering the telephone business for most of the twentieth century, reasoning that because telephony was a network good[19] the market was most efficient as a regulated monopoly.[20] Many states still treat electric power[21] and natural gas the same way.[22] And various professional-licensing groups control entry into their fields.[23] Once the government controls entry, it generally also needs to control price. Ostensibly that's to prevent the monopoly from gouging its consumers, since the government has mandated the monopoly face no competition. But over time those price controls can easily become floors rather than ceilings, discouraging the incumbents from investing in cost-saving technology or from passing any savings from such investment on to customers.[24]

competition and entrench their own market positions); CHARLES E. LINDBLOM, POLITICS AND MARKETS: THE WORLD'S POLITICAL ECONOMIC SYSTEMS 170-188 (1977) (characterizing political and economic systems as symbiotic, and yet also as opposed, with business people opportunistically seeking to lobby politicians and regulators to extract rents).

19 *See* CARL SHAPIRO & HAL R. VARIAN, INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY 212-14 (1999) (describing AT&T's use of network effects to consolidate market, which regulators accepted in exchange for AT&T's provision of universal service); Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CALIF. L. REV. 479, 549-551 (1998) (describing FCC's goal of excluding competition in telephone market for most of 1900s).

20 *See* Lemley & McGowan, *supra* note 19, at 549 & nn.294-95 ("If done right, regulation would, in theory, set the minimum efficient price necessary for the monopolist to recover its operating costs and a reasonable return on its capital investment."); *see also In re* Policy and Rules Concerning Rates for Dominant Carriers, 4 FCC Rcd. 2873, 2882-88 (1989) (reviewing history of telephony regulation); JERRY KANG & ALAN BUTLER, COMMUNICATIONS LAW AND POLICY 290-97 (5th ed. 2016) (reviewing history of AT&T from inception to break-up); Glen O. Robinson, *The Titanic Remembered: AT&T and the Changing World of Telecommunications*, 5 YALE J. REG. 517, 517-32 (1988) (book review) (same).

21 *See, e.g.*, Severin Borenstein & James Bushnell, *The U.S. Electricity Industry After 20 Years of Restructuring*, 7 ANN. REV. ECON. 437, 443 & fig.2 (2015) (showing share of output provided by nonregulated electric companies versus public utilities in each state).

22 *See, e.g.*, Nicholas Apergis, et. al., *Downstream Integration of Natural Gas Prices Across U.S. States: Evidence from Deregulation Regime Shifts*, 49 ENERGY ECON. 82, 83 (2015) (discussing federal and state deregulation of natural gas, with over ten percent of U.S. customers now having multiple natural gas providers from which to choose).

23 *See, e.g.*, N.C. State Bd. of Dental Exam'rs v. FTC, 574 U.S. 494, 515-16 (2015) (holding state board comprising six state-certified dentists and two other members did not enjoy state-action immunity from antitrust violations when, without clear statutory or other state supervision, it acted to exclude non-dentists from practicing general trade of teeth-whitening); MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION 137 (rev. ed. 1971) ("Many organizations representing prosperous and prestigious professions like the law and medicine have also reached for the forbidden fruits of compulsory membership.").

24 *See, e.g.*, KANG & BUTLER, *supra* note 20, at 165-73 (discussing methods and unintended consequences of rate regulation in context of telephony); Harvey Averch &

Regulations in those industries and others prevented entry by innovative challengers for years. Telephone technology improved by leaps and bounds once competitors could challenge AT&T's monopoly.[25] The story for electric power is a bit more mixed, but allowing competitive electricity providers has spurred at least some innovation in the supply of electric power.[26]

More recently, disruptive entrants in the sharing or gig economies pose a variety of new challenges to entrenched industries. Cities and states that regulate hotels and taxis as quasi-public franchises resisted (and still resist!) the idea of opening those markets to competition by the likes of Uber, Lyft, and Airbnb.[27] Some countries still ban those services.[28] But as those once-closed markets have opened to competition, the resulting disruption has generally benefited consumers.[29] Uber, Lyft, and Airbnb present challenges for the larger economy

Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052, 1053 (1962) (noting that the rate-regulated firm can gold-plate its projects if regulators overestimate the cost of capital); Harvey Leibenstein, *Allocative Efficiency vs. "X-Efficiency"*, 56 AM. ECON. REV. 392 (1966) (showing that the rate-regulated firm lacks incentive to reduce costs).

25 *See* Rosemary Batt & Owen Darbishire, *Deregulation and Restructuring in Telecommunications Services in the United States and Germany*, *in* LABOR, BUSINESS, AND CHANGE IN GERMANY AND THE UNITED STATES 17, 18 (Kirsten S. Wever ed., 2001) (citing, in the United States, "significant cost reductions in equipment and long-distance service; dramatic improvements in response time, quality, and speed of transmission; and diversity of product offerings" following proliferation of low-cost competitors to AT&T).

26 *See* Borenstein & Bushnell, *supra* note 21, at 437 (describing mixed results). *But see* Marianna Marino, et. al., *Electricity (De)regulation and Innovation* 1 (Bureau d'Économie Théorique et Appliquée, Working Paper No. 33, 2017) (finding inverse correlation between deregulation and rate of patent filings in electricity sector in some cases).

27 *See, e.g.*, Aaron Short, *The Sharing Economy Is New York's Hottest Political War Right Now*, CITY & STATE N.Y. (May 15, 2018), https://www.cityandstateny.com/articles/policy/policy/sharing-economy-new-yorks-hottest-political-war-right-now.html [https://perma.cc/D7YS-VW33] (describing how, in "New York's economy, like much of the rest of the country's, [new services are] upending long-standing economic arrangements in housing, travel, transportation and recreation," and thereby "taking business away from politically-entrenched interests that enjoyed near-monopolies on the market for hotel rooms and taxis"—prompting a "fierce" reaction).

28 *See, e.g.*, Ryan Craggs, *Where Uber Is Banned Around the World*, CONDÉ NAST TRAVELER (Apr. 20, 2017), https://www.cntraveler.com/story/where-uber-is-banned-around-the-world [https://perma.cc/8B8E-4ECZ] (collecting articles on countries, provinces, and localities that, as of April 2017, banned or suspended transportation network companies like Uber); Katherine LaGrave, *13 Places Cracking Down on Airbnb*, CONDÉ NAST TRAVELER (Dec. 13, 2018), https://www.cntraveler.com/galleries/2016-06-22/places-with-strict-airbnb-laws [https://perma.cc/77XV-8GSK] (same for Airbnb at the local level).

29 *See* Brishen Rogers, *The Social Costs of Uber*, 82 U. CHI. L. REV. DIALOGUE 85, 86, 88 (2015-2016) (arguing Uber has improved consumer welfare by increasing efficiency of car-hire market, including by virtually eliminating search costs, while noting that this "[c]reative

and the legal system,[30] and they affect existing businesses and third parties in somewhat surprising ways, but it's hard to argue we would be better off returning to a regulated-taxi monopoly or forbidding owners from renting their homes. The same turns out to be true of other regulations that controlled entry and prices in markets ranging from optometry to title insurance to dentistry to civil engineering and even law.[31]

Many of the entry-preventing regulations seemed like a good idea when they were implemented. They served social goals. AT&T's monopoly stopped the development of incompatible telephone networks that couldn't communicate with each other.[32] Power company monopolies were thought necessary to spur investment in a wide electric grid.[33] And taxi regulations theoretically served public safety by preventing unscrupulous people from robbing customers—and unscrupulous customers from robbing cabbies.[34] But in each case they also reduced consumer choice, reduced the incentive to invest in quality, and prevented full price competition.[35] Worse, they discouraged innovations that would have (and eventually did) make those technologies cheaper and better.

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[d]estruction" has left legacy-taxi industry less-well off in immediate term and poses challenges for labor, public transportation, and other areas).

30 *See* Winnie Hu, *Your Uber Car Creates Congestion. Should You Pay a Fee to Ride?*, N.Y. TIMES, Dec. 26, 2017, at A1 (summarizing studies showing Uber increases congestion and discussing cities' responses).

31 *See, e.g.*, N.C. State Bd. of Dental Exam'rs v. FTC, 574 U.S. 494 (2015) (examining legality of state regulatory board for dentistry whose members are practicing dentists); FTC v. Ticor Title Ins. Co., 504 U.S. 621 (1992) (examining alleged price fixing by title insurance companies); Nat'l Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679 (1978) (examining whether engineers association's rule prohibiting competitive bidding by members violated Sherman Anti-Trust Act).

32 *See* KANG & BUTLER, *supra* note **Error! Bookmark not defined.**, at 293 (describing how even "customer premises equipment" makers, once they finally won the right to connect to AT&T's network with their own handheld phones, initially had to use a "Protective Connection Arrangement" device in order to ensure the network survived).

33 *See* Paul L. Joskow & Richard Schmalensee, *Incentive Regulation For Electric Utilities*, 4 YALE J. REG. 1, 3-5 (1986) (recounting traditional rationale for monopoly regulation).

34 *See* GRAHAM RUSSELL GAO HODGES, TAXI!: A SOCIAL HISTORY OF THE NEW YORK CITY CABDRIVER 130-35 (2007) (describing incremental increases in regulation to combat crime, discrimination, and other issues in New York City).

35 For telephony, see Nicholas Economides, Katja Seim, & V. Brian Viard, *Quantifying the Benefits of Entry into Local Phone Service*, 39 RAND J. ECONS. 699, 725 (2008) (finding welfare gains from firm differentiation and choice, though not from retail price). For taxis and Uber, theory strongly suggests Uber's entry would reduce cost, as foregone compliance costs and increased supply should act to reduce cost and price, but compare Vsevolod Salnikov et al., OpenStreetCab: Exploiting Taxi Mobility Patterns in New York City to Reduce Commuter Costs 2 (Mar. 10, 2015) (unpublished manuscript) (available at Cornell University's arXiv.org), https://arxiv.org/abs/1503.03021 [https://perma.cc/MR68-95P4]

If it wasn't possible to reap the benefits of entry and price regulations without incurring those costs, we would have a difficult policy dilemma. But experience has shown that there were ways to achieve those goals (interoperable standards in telephony, for instance) that didn't require the elimination of competition. We will likely find the same to be true in the markets where regulation still prevents entry (legal services, for instance). In evaluating entry regulation, society needs to consider the harm it does by preventing disruptive innovation.

2. Costs and Behavior Regulation

Regulation doesn't need to forbid entry—or even to focus on it—in order to discourage it. Many regulations that govern how companies operate, even if well-intentioned, raise the cost of participating in the market. And that cost burden falls disproportionately on small entrants rather than large incumbents. A requirement that Internet companies detect and block certain types of content automatically, for instance, might require the development and training of a complex AI system at a cost of over $100 million.[36] Google can afford to make that investment, but a mom-and-pop startup can't. Other regulations require cars to be sold through a network of independent dealers—no problem if you're an established car company who already has such a network, but not so great if you want to get into the car market.[37]

(suggesting Uber may only be cheaper in NYC for trips that would otherwise cost more than thirty-five dollars per cab). For electricity sectors, see Paul L. Joskow, *Deregulation and Regulatory Reform in the U.S. Electric Power Sector* 119, 121 (MIT Ctr. for Energy and Envtl. Pol'y Res., Working Paper No. 00-003, 2000), https://dspace.mit.edu/bitstream/handle/1721.1/44967/2000-003.pdf (finding deregulation led to "retail price reductions . . . in . . . states that have already implemented reforms," yet noting these price reductions so far have been achieved less by market forces than by regulators managing the transition towards competition—and enjoying a strong bargaining position as a result).

36 *See* Cedric Manara, *Protecting What We Love About the Internet: Our Efforts to Stop Online Piracy*, KEYWORD (Nov. 7, 2018), https://www.blog.google/outreach-initiatives/public-policy/protecting-what-we-love-about-internet-our-efforts-stop-online-piracy/ [https://perma.cc/5TSK-RYVW] (explaining how much Google pays for its advanced AI technology system.). The EU just imposed such a requirement on all but the smallest tech companies. EU Copyright Directive art. 13.

37 Laws prevent Tesla from selling directly to consumers in four states including Connecticut, Texas, and Utah. In Massachusetts, Tesla prevailed in a state court suit enjoining a similar law there; and in Michigan, it has filed a federal suit challenging a measure. *See* Ryan Felton, *Tesla Fights Back as Michigan Goes to New Lengths to Shut Company Out*, GUARDIAN (Oct. 9, 2016 6:00 AM), https://www.theguardian.com/us-news/2016/oct/09/tesla-michigan-ban-detroit-lawsuit [https://perma.cc/TLK3-H9CN] (describing legal actions taken by Tesla to fight back against states' prohibitions on Tesla sales); *see also* Complaint at 19-22, Tesla Motors, Inc. v. Johnson, No. 1:16-cv-01158 (W.D. Mich. Sept. 22, 2016) (asserting grounds for relief under Due Process, Equal Protection, and Dormant Commerce Clause principles).

As with more overt entry regulations like bans or licensing, these regulations are often set up with the best of intentions and can serve legitimate purposes. We want to keep bad stuff off the Internet. And car dealerships were designed to ensure that customers had a ready source of parts and service nearby. But they often outlive their usefulness, as the car dealership rule did once independent repair shops became common. And by imposing costs on new entrants that incumbents have already paid, they raise the cost of entry and therefore discourage disruptive innovation.

As with regulations that directly control entry, we need to weigh the costs of behavioral regulation alongside its benefits. But unlike entry bans, which are rarely good for society, behavioral regulation on entrants and incumbents can sometimes do good. The challenge is assessing which behavioral regulations serve a legitimate health and safety or market-enhancing purpose and which ones just raise rivals' costs and entrench incumbents. We shouldn't ban Lyft from running a ride-sharing service in order to protect taxi incumbents, for example, but it makes sense to impose some licensing and insurance requirements on Lyft drivers to protect passengers and to make sure they comply with antidiscrimination laws.[38] We also should consider the impact of ride-sharing services on overall driving and consider ways to encourage more widespread use of public transportation to combat climate change. By contrast, it makes little sense to ban Tesla from selling cars (or Diageo from selling alcohol) in a state because it wants to do so in a store it owns rather than through a multi-tier franchise system.[39]

B. *Litigation as Entry Regulation*

Regulation is not the only way incumbent businesses make it hard for entrants to disrupt their markets. Business litigation is also often about market disruption. Plaintiffs often bring business tort claims for interference with prospective economic advantage, unjust enrichment, unfair competition, or antitrust when the injury they are complaining of is not actually injury *to* competition but injury *from* competition. Taxi companies, for instance, have sued Uber and Lyft on the theory that their disruptive market entry was itself anticompetitive.[40] These suits

38 Nick Grossman envisions increasingly modest entry licenses, and increasingly robust data-driven supervision and penalties during operations. Nick Grossman, *White Paper: Regulation: The Internet Way* DATA-SMART CITY SOLUTIONS (Apr. 8, 2015), https://datasmart.ash.harvard.edu/news/article/white-paper-regulation-the-internet-way-660 [https://perma.cc/38KV-P54L] ("The big idea at the core of information-era regulation that data is a new regulatory tool, one that can replace permission-based systems (licensing, permitting, etc.)").

39 Tennessee Wine & Spirits Retailers Ass'n v. Thomas, 139 S. Ct. 2449, 2476 (2019) (invalidating strict regulations on sellers of alcohol in the state of Tennessee).

40 *See, e.g.*, Malden Transp. v. Uber Techs., Inc., 321 F. Supp. 3d 174, 180 (D. Mass. 2018).

are at base about feared market disruption. So too are many IP suits. As we will see, these anti-disruption claims don't always succeed. But when they don't, it's often because some – but not all – legal doctrines have recognized the use of tort law as a means to eliminate competition and have built safeguards against it.

1. Antitrust and Business Torts

Antitrust. Antitrust law is designed to protect competition, preventing both collusion among erstwhile competitors and efforts to monopolize a market.[41] So it seems like a tool that will encourage rather than impede market disruption. It should be, and often it is. Challengers can and do use antitrust to break open markets, expose cartels, block mergers that concentrate the industry, and challenge anticompetitive sales and licensing practices.

But incumbents have also used antitrust as a tool to target new entrants. Sometimes the complaint is that the entrant is too efficient and the existing market participants can't compete. That was the complaint mom-and-pop grocery stores lodged against fancy new supermarket chains from the late 1940s to the 1960s, for instance.[42] It was the challenge small banks brought against national banking chains.[43] It is why taxi companies brought antitrust claims against Uber and Lyft,[44] despite the fact that the taxi franchises, not the entrants,

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41 United States v. Trenton Potteries Co., 273 U.S. 392, 397 (1927) ("[T]he Sherman [Antitrust Act] and the judicial decisions interpreting it are based upon the assumption that the public interest is best protected . . . by the maintenance of competition."). Competition suffers when former competitors agree not to compete. *See id.* It also suffers when a dominant firm acts to impair a rival or exclude it from the market. *See* Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 605 n.32 (1985) (defining exclusionary behavior and its negative effects). Sherman Act § 1 bars agreements that unreasonably restrain trade, while § 2 bars single- or multi-firm conduct that seeks to gain or preserve monopoly power other than by competition on the merits. 15 U.S.C. §§ 1-2 (2004.

42 *E.g.*, United States v. Von's Grocery Co., 384 U.S. 270, 281 (1966) (White, J., concurring) (agreeing to enjoin merger between two grocery chains where their combined share would have been 8.9% of revenue, or just greater than largest chain's eight percent); United States v. N.Y. Great Atl. and Pac. Tea Co., 67 F. Supp. 626, 638-39 (E.D. Ill. 1946) (explaining how A&P supermarket system used horizontal and actual or threatened vertical integration to prompt suppliers to sell to it at lower prices). For a discussion of this era of grocery cases, see Timothy J. Muris & Jonathan E. Nuechterlein, *Antitrust in the Internet Era: The Legacy of United States v. A&P* 2-4 (Geo. Mason L. & Econ. Research Paper No. 18-15, 2018), http://ssrn.com/abstract=3186569 [https://perma.cc/E9M3-B2QH] (discussing antitrust law in the aftermath of *A&P* case.).

43 *E.g.*, United States v. Phila. Nat'l Bank, 374 U.S. 321, 325-26, 330-31 (1963) (citing concerns that the number of independent banks had decreased by 714 to reach 13,460 and enjoining merger between two of Philadelphia's largest banks).

44 *See, e.g.*, Malden Transp., 321 F. Supp. 3d at 180; MacCausland v. Uber Techs., Inc., 312 F. Supp. 3d 209, 214 (D. Mass. 2018).

are the ones restricting competition. It is what motivates some, though not all, claims of "predatory pricing"—an allegation that the defendant is charging customers too little.[45] It was used to justify Apple's collusion with book publishers to prevent Amazon from disrupting the publishing industry by lowering prices, for instance.[46] And it was the complaint makers of once-separate goods like car radios and spellcheck software made as new cars and word processing programs integrated those features into their products.[47] True, those don't fit the classic picture of big incumbents squashing little challengers; it is often the challengers that end up taking over the market, and the antitrust

45 The Supreme Court has repeatedly declared that "predatory pricing schemes are rarely tried, and even more rarely successful." Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 226 (1993) (quoting Matsushita Elec. Indus. Co. v. Zenith Radio Corp. 475 U.S. 574, 589 (1986)). In *Brooke Group*, the Court reasoned that a cigarette seller allegedly pricing its generics below even its own costs in order to force a rival to stop selling generics could not have had a reasonable prospect of recouping its profits, and so did not commit predatory pricing under the Robinson-Patman Act. *Id.* ("[T]he success of such schemes is inherently uncertain: the short-run loss is definite . . . ."). No court since has found a defendant guilty of predatory pricing under the Robinson-Patman Act or the Sherman Act. Aaron S. Edlin, *Stopping Above-Cost Predatory Pricing*, 111 YALE L.J. 941, 941-42 (2002). In recent years, however, economists and lawyers have argued that welfare-reducing predatory pricing might actually be attempted frequently, and even succeed—not least because a monopolizing firm could price below a rival's costs but above its own, drive the rival from the market, and then raise its prices to the monopoly price. *See, e.g.*, *id.* at 42; Christopher R. Leslie, *Predatory Pricing and Recoupment*, 113 COLUM. L. REV. 1695, 1741-44 (2013). For example, an airline facing a new entrant on one route might decide to undercut the entrant's prices in order to dissuade entry across all of its routes. *Cf.* United States v. AMR Corp., 335 F.3d 1109, 1111 (10th Cir. 2003). And others have sought to expand the law of predatory pricing by eliminating the recoupment requirement altogether. Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L.J. 524 (2017).

46 The Second Circuit correctly held Apple and the publishers' collusion illegal despite the argument that antitrust law should encourage efforts to prevent market disruption. United States v. Apple, Inc., 791 F.3d 290, 298 (2d Cir. 2015) ("[T]he dissent's theory—that the presence of a strong competitor [like Amazon] justifies a horizontal price-fixing conspiracy—endorses a concept of marketplace vigilantism that is wholly foreign to the antitrust laws.") For a discussion of using antitrust as an "anti-disruption" tool, see Salil K. Mehra, *Competition Law for a Post-Scarcity World*, 4 TEXAS A&M L. REV. 1, 15-21 (2016).

47 *See, e.g.*, Novell v. Microsoft Corp., 731 F.3d 1064, 1080-81 (10th Cir. 2013) (rejecting claim that Microsoft's sale of operating systems was anticompetitive); Town Sound and Custom Tops, Inc. v. Chrysler Motors Corp., 959 F.2d 468, 471-72 (10th Cir. 1992) (upholding Chrysler's joint sale of cars and car radios); Reiffin v. Microsoft Corp., 158 F. Supp. 2d 1016, 1033 (N.D. Cal. 2001) (involving sale of spell-check, although here finding the plaintiff's alleged tying claim—that Microsoft had "tied" spell check to its dominant word-processing software—was in fact merely a patent infringement claim "masquerade[ing]" as an antitrust injury claim); Aldridge v. Microsoft Corp., 995 F. Supp. 728, 756 (S.D. Tex. 1998) (finding that Microsoft did not violate Sherman Act with its sale of Windows95).

plaintiffs may be the "small dealers and worthy men" of a bygone era.[48] But those successful new entrants that take over markets are doing so by competing vigorously on the merits, something we want in a market economy. That's not to say that there aren't reasons to be concerned about some structural shifts in the economy towards greater concentration, or that we don't want policies to support local businesses. But giving individual companies the ability to thwart disruptive entry is precisely the wrong way to go about it. It will increase concentration by preventing or controlling disruptive startups.[49]

Unfair Competition. Most states have statutes or common law provisions forbidding unfair competition.[50] The Federal Trade Commission also has the power to address unfair competition under Section 5 of the FTC Act.[51] But those provisions are often quite vague about what exactly unfair competition is. The California statute, for instance, defines it as "any unlawful, unfair or fraudulent business act or practice . . . ."[52] Fraud is already illegal, of course, and making "unlawful" acts unlawful seems a tad redundant.[53] But what exactly is "unfair"? The statute doesn't say. And in the absence of a definition of what competition is "unfair," these laws are at particular risk of being used to prevent not unfairness, but competition itself. That was true in *MacCausland v. Uber Technologies*,[54] for instance, in which taxi drivers upset that Uber was competing with them sought (unsuccessfully) to have that competition declared

48 Fashion Originators' Guild of Am. v. Fed. Trade Comm'n, 312 U.S. 457, 467 (1941) ("Trade or commerce under [circumstances where prices ultimately fall despite anticompetitive conduct] may nevertheless be badly and unfortunately restrained by driving out of business the small dealers and worthy men whose lives have been spent therein, and who might be unable to readjust themselves to their altered surroundings. Mere reduction in the price of the commodity dealt in might be dearly paid for by the ruin of such a class, and the absorption of control over one commodity by an all-powerful combination of capital." (quoting United States v. Trans-Missouri Freight Ass'n, 166 U.S. 290, 323 (1897)).

49 For a discussion, see Mark A. Lemley & Andrew McCreary, *Exit Strategy* (working paper 2019).

50 *E.g.*, CAL. BUS. & PROF. CODE § 17200 (West 2018) ("[U]nfair competition shall mean and include any unlawful, unfair or fraudulent business act or practice and unfair, deceptive, untrue or misleading advertising . . . ."); *see generally* Alexander N. Cross, Comment, *Federalizing Unfair Business Practice Claims under California's Unfair Competition Law*, 1 U. CHI. LEGAL F. 489, 495-97 (2013) (surveying unfair competition laws adopted by the vast majority of states).

51 15 U.S.C. § 45 (2012).

52 CAL. BUS. & PROF. CODE § 17200 (West 2018).

53 The prohibition isn't wholly redundant; it serves the useful purpose of creating a private right of action to enforce laws that otherwise lack one. We are indebted to Rebecca Tushnet for this point.

54 312 F. Supp. 3d 209 (D. Mass. 2018).

unfair.[55] Something similar happened with the traditional doctrine of unfair competition in trademark law, which gave parties claims against certain conduct that did not involve use of another's trademark but put tight limits on the sorts of things viewed as unfair competition.[56] Over time, those limits went away, leaving an overly broad concept of unfairness that lacked limiting principles.[57]

Tortious Interference. The related torts of tortious interference with contract and intentional interference with prospective economic advantage suffer from a similar problem. By their literal terms, the act of competing with an incumbent for an existing or potential future customer would be unlawful. Even more than the tort of unfair competition, the tort of interference with economic advantage runs the risk of making market disruption unlawful.[58]

Unjust Enrichment. Unjust enrichment, properly understood, is a remedy for some independently wrongful conduct, not a cause of action in its own right.[59] As a remedy, it has value. It allows courts to require disgorgement of profits or tangible things held unjustly, but only if the defendant holds those things in violation of some substantive legal doctrine.[60] Nonetheless, some courts have

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55 *Id.* at 211 (considering unfair competition claims and antitrust claims and only explicitly dismissing the antitrust claims). We discussed this case before, *see supra* text accompanying note 44.

56 *See* Mark P. McKenna, *The Normative Foundations of Trademark Law*, 82 NOTRE DAME L. REV. 1839, 1862 (2007) (detailing legal evolution of term "unfair competition" in late nineteenth century).

57 *See* Mark P. McKenna, *Property & Equity in Trademark Law*, _ MARQ. L. REV. _ (forthcoming 2019); Mark P. McKenna, *A Consumer Decision-Making Theory of Trademark Law*, 98 VA. L. REV. 67, 70-72 (2012) (discussing lack of "meaningful limits" on trademark law).

58 Shyam Balganesh suggests that copyright law acts like the tort of interference with prospective economic advantage, giving plaintiffs control over market competition. *See* Shyamkrishna Balganesh, *Copyright as Market Prospect*, 166 U. PA. L. REV. 443, 443 (2018). While we agree that there are parallels between the two, we think Balganesh is too willing to accept the idea of control over market prospects in both doctrines.

59 *See* Joel Eichengrun, *Remedying the Remedy of Accounting*, 60 IND. L.J. 463, 467-68 (1985) (describing nature of unjust enrichment remedy); *see also* Grupo Mexicano de Desarrollo, S.A. v. All. Bond Fund, Inc., 527 U.S. 308, 318 (1999) (stating that equitable remedies, such as for unjust enrichment, are limited to the types of remedies available in equity courts in 1789); SEC v. Cavanagh, 445 F.3d 105, 120 (2d Cir. 2006) ("Because chancery courts possessed the power to order equitable disgorgement in the eighteenth century, we hold that contemporary federal courts are vested with the same authority by the Constitution and the Judiciary Act.").

60 *See* Douglas Laycock, *Restoring Restitution to the Canon*, 110 MICH. L. REV. 929, 932-34 (2012) (book review) (discussing hypotheticals where the law will not disgorge through "forced exchange" where no legal rule has been broken, as would be true in the case of an unrequested benefit such as the aesthetic value created for you by your neighbor's new fence). For a discussion of the circumstances in which courts allow unjust enrichment claims without

found liability for unjust enrichment as a tort in its own right.[61] The problem with treating unjust enrichment as a tort is similar to the problems with unfair competition and tortious interference: it unmoors the claim from any independent definition of a legal wrong, and therefore leaves to the complete discretion of the court the definition of "unjust."[62]

The Computer Fraud and Abuse Act (CFAA). Passed in the 1980s, the CFAA was an effort to target the then-new practice of computer hacking. It was originally directed at hacking that affected "federal interest computers." But because that term was defined to include any computer connected through a network to a federal computer, it accidentally grew to encompass any computer connected to the Internet – which is to say, almost every computer there is.[63]

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proof of harm to the plaintiffs, including some IP rights, see Lauren Henry Scholz, *Privacy Remedies*, 94 IND. L.J. 653, 654-56 (2019).

61 *See* Univ. of Colo. Found., Inc. v. Am. Cyanamid Co., 196 F.3d 1366, 1369 (Fed. Cir. 1999). Full disclosure: one of us (Lemley) represented the University of Colorado Foundation in that case. He won, so he can't be accused of sour grapes in criticizing it. *See also* Douglas Laycock, *Scope and Significance of Restitution*, 67 TEX. L. REV. 1277, 1284-85 (1989) ("Defendant may be unjustly enriched without having committed any other civil wrong . . . .[In these cases,] the law of restitution is substantive as distinguished from remedial."). The Third Restatement gives some cover to this position. *See* RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT § 51 cmt. e.1 (AM. LAW. INST. 2011) (suggesting courts ask "How far to follow a chain of causation before deciding that a particular element of profit is too remote from the underlying wrong to be subject to restitution?" and yet to also consider "the remedial alternatives available as a practical matter"). For discussion of the issue, see, for example, HANOCH DAGAN, UNJUST ENRICHMENT: A STUDY OF PRIVATE LAW AND PUBLIC VALUES 3 (1997); Christopher T. Wonnell, *Replacing the Unitary Principle of Unjust Enrichment*, 45 EMORY L.J. 153, 219-20 (1996).

62 *See, e.g.*, Iconco v. Jensen Const. Co., 622 F.2d 1291, 1302, 1304 (8th Cir. 1980) (affirming, under Iowa law, disgorgement of unjust enrichment where defendant had won a government contract set aside for small businesses without meeting the bidding criteria); Holmes v. Palo, No. A17-1187, 2018 WL 3213035, at *5 (Minn. Ct. App. July 2, 2018) (affirming unjust enrichment finding even though there was no obvious numeric relation between what the parties contributed in money or labor and what each unmarried life partner received upon dissolution of a business legally owned wholly by one partner); Nyberg v. Wettlaufer, No. A10-567, 2010 WL 4181505, at *2 (Minn. Ct. App. Oct. 26, 2010) (holding no abuse of discretion where trial court reached opposite result—no unjust enrichment—on similar facts as prior case). *Cf.* Laycock, *supra* note 61 at 1285 (asking rhetorically, "What is it that makes enrichment unjust in the absence of some wrong for which the law would impose damage liability?"); Saul Levmore, *Explaining Restitution*, 71 VA. L. REV. 65, 66-67 (1985) ("That [the seemingly open-ended] list of exceptions to the nonrecovery norm is itself qualified at virtually every point reflects the remarkably uneven terrain of restitution law," making it challenging to "generate confident predictions about [courts'] decisions.").

63 Cite statute. For discussion of this problem, *see* Orin S. Kerr, *Norms of Computer Trespass*, 116 COLUM. L. REV. 1143, 1153-54 (2016); Orin S. Kerr, *Vagueness Challenges to the Computer Fraud and Abuse Act*, 94 MINN. L. REV. 1561, 1563–65 (2010) (providing

And while the target of the law was computer hackers, liability extended to anyone who accessed a computer without authorization or "exceeded authorized access."[64] Coupled with the effective elimination of any manifestation of assent in contract law in the following decade,[65] that meant that anyone who visited a website and even current employees who did something their employer didn't like might be labeled computer hackers under the CFAA. And because the CFAA includes a private right of action, companies who didn't like what employees, competitors, or customers did online didn't have to wait for the government to prosecute.

The result has been a mess. Plaintiffs use the act to prevent competitors from coming to their web site at all or from collecting information from that site – even public information not subject to an IP claim.[66] Courts have issued conflicting interpretations of the statute – not just a circuit split but fundamental disagreements even within the same court.[67] A recent study of CFAA litigation found that the act was primarily used, not to target computer hacking, but to target competitors using a company's website in ways it didn't like.[68]

Noncompetition Agreements. A final category of business tort that is often aimed at preventing innovative competition is not really a tort at all, but (at least nominally) a breach of contract claim. Employers frequently require that their employees promise not to work for a competitor or start a competing business. Estimates are that eighteen percent of the U.S. workforce is bound not to take a competing job when they leave.[69] That includes not only inventive or management employees with possible access to trade secrets and business strategies but line workers at fast food restaurants and bakeries.[70] Employees are

historical and legislative background relevant to the CFAA); Jonathan Mayer *Cybercrime Litigation*, 164 U. PA. L. REV. 1453 (2016).

64 Cite statute. Orin Kerr, *The Troubling Trigger of Cybercrime*, cite. Kerr, *Vagueness Challenges to the Computer Fraud and Abuse Act*, *supra* note__. *But see* James Grimmelmann, *Consenting to Computer Use*, 84 GEO. WASH. L. REV. 1500 (2016) (defending the CFAA's definition of authorization).

65 ProCD v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996); Nancy Kim, WRAP CONTRACTS (2013); Mark A. Lemley, *Terms of Use*, 91 MINN. L. REV. 459 (2006).

66 Facebook, Inc. v. Power Ventures, Inc., 844 F.3d 1058, 1062 (9th Cir. 2016), other examples.

67 *Compare* United States v. Nosal, 676 F.3d 854 (9th Cir. 2012), *with* Facebook, Inc. v. Power Ventures, Inc., 844 F.3d 1058, 1062 (9th Cir. 2016), *and with* HiQ Labs v. LinkedIn, __ F.3d __ (9th Cir. Sept. 9, 2019).

68 Mayer, *supra* note __.

69 James Prescott, et. al., *Understanding Noncompetition Agreements: The 2014 Noncompete Survey Project*, 2016 MICH. ST. L. REV. 369, 461 (2016).

70 *See* Bimbo Bakeries USA, Inc. v. Botticella, 613 F.3d 102, 105 (3d Cir. 2010) (operations executive at muffin factory had noncompete); Uncle B's Bakery, Inc. v. O'Rourke, 920 F. Supp. 1405, 1414 (N.D. Iowa 1996) (all employees in bagel factory had noncompetes); Sarah Whitten, *Jimmy John's Drops Noncompete Clauses Following Settlement*, CNBC (June 22, 2016, 1:08 PM), https://www.cnbc.com/2016/06/22/jimmy-

generally given no choice but to agree to these noncompetes.[71] And while the risk of losing trade secrets may justify some restrictions on a particular employee's work for a competitor, noncompete agreements aren't limited to those circumstances.[72] They provide an effective way for incumbents to block the most logical source of disruption—existing industry employees—from competing with them at all.

2. IP as Market Regulator

Perhaps the most significant legal tool used to regulate disruptive entry is one not normally thought of as a business tort law at all: IP law. As with antitrust, this might seem ironic. After all, IP law is supposed to encourage innovation. But like other legal doctrines, IP can be and often is used, not to promote innovation, but to prevent disruptive innovation.

Copyright Law. The potential of IP to protect markets from disruption is most evident in copyright law. From the late 1990's through the Supreme Court's 2005 *Grokster* decision, music copyright owners brought a series of cases against technologies that enabled digital filesharing.[73] According to the labels, those technologies posed a mortal threat to the music industry.

The story is a familiar one.[74] Time and time again, content owners have insisted that, if some new technology was allowed to proliferate, no one would

johns-drops-non-compete-clauses-following-settlement.html [https://perma.cc/6UKU-T8YE] (reporting sandwich worker contracts will no longer include noncompete).

71 ORLY LOBEL, TALENT WANTS TO BE FREE 36 (2013) (noting a high percentage of employees feel compelled, or even coerced, into signing noncompetes, especially where they are asked to sign one after they have accepted the position and declined other job opportunities).

72 *E.g.*, James Crystal Licenses, LLC v. Infinity Radio Inc., 43 So. 3d 68, 69, 71 (Fla. Dist. Ct. App. 2010) (declining to invalidate noncompete for radio station host, but finding no actual damages in its breach, vacating lower court's award); JonJuan Salon, Inc. v. Acosta, 922 So. 2d 1081, 1083 (Fla. Dist. Ct. App. 2006) (enjoining stylist from working at competing salon). *See generally* Steven Greenhouse, *Noncompete Clauses Increasingly Pop Up in Array of Jobs*, N.Y. TIMES (June 8, 2014), https://www.nytimes.com/2014/06/09/business/noncompete-clauses-increasingly-pop-up-in-array-of-jobs.html (discussing silly examples).

73 *E.g.*, Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 913 (2005) ("Seeking damages and an injunction, a group of movie studios and other copyright holders . . . sued respondents for their users' copyright infringements, alleging that respondents knowingly and intentionally distributed their software to enable users to infringe copyrighted works in violation of the Copyright Act."); A&M Records, Inc. v. Napster, Inc., 284 F.3d 1091, 1093 (9th Cir. 2002) (suing Napster for facilitating the transmission and retention of digital audio files by its users); UMG Recordings, Inc. v. MP3.com, Inc., 92 F. Supp. 2d 349, 351 (S.D.N.Y. 2000) (finding conversion from CD to MP3 not transformative).

74 Portions of the following paragraphs are adapted from Lemley, *supra* note **Error! Bookmark not defined.**, at 125-35.

ever create new music, movies, portraits, or whatever content was at issue.[75] The threats in the first decades of the twentieth century were the player piano and the gramophone. John Philip Sousa wrote an article, *The Menace of Mechanical Music*,[76] in which he argued that those infernal devices were a "threat to his livelihood, to the entire body politic, and to 'musical taste' itself . . . . The player piano and the gramophone . . . strip . . . life from real, human, soulful live performances."[77] Sousa articulated an argument that is going to sound familiar to anyone in the copyright industry:

> Do they not realize that if the accredited composers, who have come into vogue by reason of merit and labor, are refused a just reward for their efforts, a condition is almost sure to arise where all incentive to further creative work is lacking, and compositions will no longer flow from their pens . . . ? What, then, of the playing and talking machines? [78]

In other words, without some way for musicians to continue to get paid as they had been paid before (by selling sheet music), no one would write music. Interestingly, Sousa's concern was not with professional content creators.[79] Notwithstanding the previous passage, his real concern was that amateur music-making was threatened by the rise of a professional musical class that could lead to the rampant destruction of the country.[80] He wrote,

> [u]nder such conditions the tide of amateurism cannot but recede, until there will be left only the mechanical device and the professional executant. Singing will no longer be a fine accomplishment; vocal exercises, so important a factor in the curriculum of physical culture, will be out of vogue! Then what of the national throat? Will it not weaken? What of the national chest? Will it not shrink? [81]

Later, it was the photocopier that threatened books and other print content.[82] Next, the VCR promised to destroy the movie and television industries. As Jack Valenti, head of the Motion Picture Association of America, told Congress, "the

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75 Painter Paul Delaroche reportedly declared, on seeing his first daguerreotype, "From today painting is dead." STEPHEN BANN, PAUL DELAROCHE: HISTORY PAINTED 9 (1997).

76 John Philip Sousa, *The Menace of Mechanical Music*, 8 APPLETON'S MAG. 278, 278-84 (1906) (discussing the negative effect that mechanical music will have on music itself).

77 Nate Anderson, *100 Years of Big Content Fearing Technology—In Its Own Words*, ARS TECHNICA (Oct. 11, 2009, 11:00 PM), https://arstechnica.com/tech-policy/2009/10/100-years-of-big-content-fearing-technologyin-its-own-words/ [https://perma.cc/Z5GZ-ZHZZ].

78 Sousa, *supra* note 76, at 284.

79 *Id.* at 281.

80 *Id.*

81 *Id.* at 280.

82 Melville Nimmer, the leading copyright scholar, wrote with respect to the photocopier that "the day may not be far off when no one need purchase books." *Copying v. Copyright*, TIME, May 1, 1972, at 62 (quoting Melville Nimmer).

VCR [was] to the American film producer and the American public as the Boston strangler is to the woman home alone."[83] DVRs were accused of being an even bigger threat to the advertising-supported TV model, because they would enable easy commercial skipping.[84] Digital audio tapes were such a threat to radio that the music industry persuaded Congress to create a compulsory licensing scheme that effectively scuttled DAT technology.[85] Then, it was MP3 players and, ultimately, filesharing technologies.[86] Even the internet itself has often been characterized as an existential threat.[87]

None of those predictions of doom came true. The VCR didn't destroy the television or movie industries—indeed, the movie industry in particular benefitted enormously from the VCR and its follow-on technologies, because the home rental market (a market it might have squelched had Sony been found contributorily liable for designing the Betamax with a record button) turned out to be incredibly lucrative.[88] And the same was true of digital devices for

83 *Home Recording of Copyrighted Works: Hearing on H.R. 4783, H.R. 4794, H.R. 4808, H.R. 5250, H.R. 5488, and H.R. 5705 Before the Subcomm. on Courts, Civil Liberties, & the Admin. of Justice of the H. Comm. on the Judiciary*, 97th Cong. 8 (1982) (statement of Jack Valenti, President, Motion Picture Association of America, Inc.). Valenti insisted that the film industry would "bleed and bleed and hemorrhage, unless this Congress at least protects one industry that is able to retrieve a surplus balance of trade and whose total future depends on its protection from the savagery and the ravages of this machine." *Id.; see also* Jessica Litman, *The Story of Sony v. Universal Studios: Mary Poppins Meets the Boston Strangler*, *in* INTELLECTUAL PROPERTY STORIES 358, 365 (Jane C. Ginsburg & Rochelle C. Dreyfuss, eds., 2006).

84 Thus, Jamie Kellner, the CEO of Turner Broadcasting, complained: "It's theft, . . . [y]our contract with the network when you get the show is you're going to watch the spots. Otherwise you couldn't get the show on an ad-supported basis. Any time you skip a commercial . . . you're actually stealing the programming." Anderson, *supra* note 77.

85 17 U.S.C. §§ 1001-1007 (2006) (codifying the prohibition on the importation, manufacture, and distribution of any digital audio recording device or digital audio interface device that does not conform to certain systems and requiring payment of applicable royalty payments).

86 *See* Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys. Inc., 180 F.3d 1072, 1072 (9th Cir. 1999). Ironically, the suit failed because the court concluded that MP3 players were immunized by a provision in the Copyright Act, 17 U.S.C. § 1008, passed in 1992 as part of an effort to regulate digital audio tape, which created a home taping exemption to copyright infringement. *Id.* at 1079.

87 So much so that the content industries have repeatedly tried to get Congress to give them extraordinary tools to hobble its use for infringing purposes. *See* Protect IP Act, S. 968, 112th Cong. § 103 (2011) (attempting to enhance enforcement against infringing rogue websites operating overseas under the same domain name); Stop Online Piracy Act, H.R. 3261, 112th Cong. § 103 (2011) (proposing system that denies United States financial support to websites dedicated to theft of United States property).

88 The VCR, and its successor, the DVD player, reportedly generated thirty billion dollars in revenues for the industry, through 2002. *See* Lemley, *supra* note **Error! Bookmark not**

recording and replaying television shows; rather than kill TV advertising, they actually increased the number of television commercials viewed.[89] The Internet hasn't killed the music industry, which, by most accounts, is as profitable now as it's ever been.[90] We're also getting more new music now than ever before.[91] And we have more video and book options than ever before by orders of magnitude.[92]

But while none of these new technologies killed content or the content industries, they often did disrupt existing arrangements and change the structure of industries involved in content creation and distribution—often to the detriment of established industry players. Digital music spelled doom for CD sales even as illegal music sites were shut down. iTunes replaced CD sales, changing how people bought music, away from CDs and toward singles, and also reinvigorating back catalogs. More recently, streaming services have dramatically affected purchasing of recorded music; people now buy music services rather than music itself.[93] That doesn't mean artists don't get paid, but it certainly changes which intermediaries get paid and how much.

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defined., at 129 (citing DIGITAL HOLLYWOOD, KEYNOTE SPEAKER BIO, WARREN LIEBFARB (2005), http://www.digitalhollywood.com/%231DHFall05/DVDOne.html [https://perma.cc/CV34-Q4F6] (last visited Oct. 27, 2019)).

89 *See* NIELSEN, *DVR USE IN THE U.S.* 3 (2010), https://www.nielsen.com/content/dam/corporate/us/en/newswire/uploads/2010/12/DVR-State-of-the-Media-Report.pdf [https://perma.cc/UNH3-J4U5] ("Contrary to fears that DVRs would wipe out the value of commercials because of viewers fast-forwarding through ads, DVRs actually contribute significantly to commercial viewing."). For a review of U.S., European, and Indian experiences with the introduction of digital TV time-shifting technology, as well as the sometimes contrary findings of different studies, see Shalini Kalia, *DVR and Its Impact on Indian Market: Now and in Future*, SAGE OPEN 1, 1-7 (Oct.-Dec. 2014).

90 *See* Timothy Geigner, *RIAA Reports Music Industry Is Making All The Money Just As New Study Says Piracy Has Never Been More Widespread*, TECHDIRT (Mar. 29, 2018 10:44 AM), https://www.techdirt.com/articles/20180323/14512839491/riaa-reports-music-industry-is-making-all-money-just-as-new-study-says-piracy-has-never-been-more-widespread.shtml [https://perma.cc/ABB4-QPT7] (noting revenues from recorded music in the United States increased over sixteen percent in 2017); Jesse Kirshbaum, *It's 2018 and the Music Business is Better than Ever*, ADAGE (Jan. 2, 2018), https://adage.com/article/agencies/2018-music-business/311771/ [https://perma.cc/29E6-TPD9] (noting double digit growth in the music industry after twenty-year decline).

91 Mark A. Lemley, *IP in a World Without Scarcity*, 90 N.Y.U. L. REV. 460, 489 (2015).

92 *Id.* at 485.

93 *See, e.g.*, Joshua Brustein, *Spotify Hits 10 Million Paid Users. Now Can It Make Money?*, BLOOMBERG (May 22, 2014, 1:56 PM), https://www.bloomberg.com/news/articles/2014-05-21/why-spotify-and-the-streaming-music-industry-cant-make-money; Jon Caramanica, *How a New Kind of Pop Star Stormed 2018*, N.Y. TIMES (Dec. 20, 2018), https://www.nytimes.com/interactive/2018/12/20/arts/music/new-pop-music.html

That same phenomenon holds across a variety of copyright contexts. Netflix didn't kill the at-home movie market, but it certainly disrupted Blockbuster's rental model. More recently, Netflix and Amazon have disrupted the vertically integrated structure that has tied video content and distribution together, delivering content directly to consumers without it being bundled with Internet service. Content owners get paid—and in many cases significantly more—but existing intermediaries might not.

Not surprisingly, parties with strong interests in existing arrangements have often invoked copyright law to protect against the effects of new technologies or business models. They do this because it works. As Mike Carrier has shown, copyright enforcement against disruptive innovation can create a "wasteland" of innovation in that space.[94]

Take, for example, *American Broadcasting Cos., Inc. v. Aereo*.[95] Once upon a time, consumers placed antennae on their own houses to receive local broadcast content without payment. When Congress became concerned that cable companies might cut broadcasters out, it required the cable companies to carry the broadcast channels and to pay for their content.[96] That resolution looked like a win for both parties—it provided a high-quality distribution pathway for television, and cable companies would both *pay* broadcasters for the privilege and *charge* customers for the service.[97] But the original model of free over-the-air content coexisted with paid cable services.

Aereo sold a service that allowed its subscribers to watch television programs over the Internet on a delay of just a few seconds from the time the programs were broadcast over the air.[98] When a subscriber wanted to watch a show that was currently airing, she would select "the show from a menu on Aereo's web site. Aereo's system, which consist[ed] of thousands of small antennas and other equipment housed in a centralized warehouse," responded by tuning a single dime-sized "antenna, which [was] dedicated to the use of one subscriber alone, to the broadcast of the selected show."[99] To convey the signal to the subscriber,

> [a] transcoder translate[d] the signals received by the antenna into data that [could] be transmitted over the Internet. A server save[d] the data in a subscriber-specific folder on Aereo's hard drive and beg[an] streaming the

(comparing purchases and plays on CD, download, paid streaming, and—by far the leader—free streaming).

94 Michael A. Carrier, *Copyright and Innovation: The Untold Story*, 2012 WIS. L. REV. 891, 895 (2012).

95 134 S. Ct. 2498 (2014).

96 *See* PATRICK R. PARSONS, BLUE SKIES: A HISTORY OF CABLE TELEVISION 349-52 (2008) (describing this sequence in the epic story of cable's rise and regulation).

97 The original promise to consumers was that because they paid for cable they would get content without commercials, though that proved to be illusory.

98 *Aereo*, 134 S. Ct. at 2498.

99 *Id.* Full disclosure: one of us (Lemley) represented Aereo in that case.

> show to the subscriber's screen once several seconds of programming ha[d] been saved. The streaming continue[d], a few seconds behind the over-the-air broadcast, until the subscriber ha[d] received the entire show.[100]

Subscribers were able to watch the streamed broadcast on any internet-connected device and from any location.[101] Streaming continued, on delay of a few seconds, until the subscriber received the entire show, after which the subscriber-specific copy was not retained.[102] Importantly (at least under copyright law as it existed when Aereo was created), every stream was from a dedicated copy; if multiple subscribers wanted to watch the same show, then Aereo used two separate antennas to save two distinct copies and stream the shows through two separate transmissions, each from the subscriber's personal copy.[103] The system was one-to-one, not one-to-many.

ABC and other television content owners sued Aereo, alleging the retransmissions of over-the-air broadcasts via the individual antennas were public performances of the broadcasts because they "communicate[d] [the broadcasts] by any device or process whereby images or sounds are received beyond the place from which they [were] sent."[104]

Aereo threatened the existing economic model because its system allowed consumers to receive high-quality broadcast content without paying the cable companies.[105] The case wasn't really about whether broadcasters would have the incentive to produce content, or whether consumers could get access to that content. It was about the fact that Aereo's model – actually allowing people to use the content owners' own free broadcasts – threatened the economic models of the very cable companies that Congress feared a generation ago would disrupt the broadcast companies' models.

Other copyright cases seek to prop up existing business models by using copyright in one work to preserve market dominance in a related market not protected by the copyrighted work. Many of these cases involve interoperability between components. In *Sega Enters. LTD. v. Accolade, Inc.*[106] and *Sony Comput. Entm't, Inc. v. Connectix Corp.*,[107] for example, the plaintiffs sought to use claims of copyright (and in *Sega* trademark as well) over interface components to prevent competitors from making compatible devices—either

100 *Id.*

101 *Id.* at 2503.

102 *Id.* at 2500.

103 *Id.* at 2503.

104 17 U.S.C. § 101 (2012) ("To perform . . . a work 'publicly' means . . . to transmit . . . a performance . . . of the work . . . to the public . . . .").

105 Perhaps ironically, digital antenna technology has improved sufficiently in recent years that consumers are increasingly able to receive that high-quality signal the (semi) old-fashioned way.

106 977 F.2d 1510 (9th Cir. 1992).

107 203 F.3d 596 (9th Cir. 2000).

video games that played on the Sega game console or compatible consoles that could play games designed for the Sony PlayStation.[108] The goal of those claims was not to protect the copyrighted work itself but to use the copyright in an interface component to keep control over other, more important parts of the work not protected by copyright. While the Ninth Circuit rejected those efforts, the Federal Circuit unfortunately allowed a similar overreach in *Oracle Am., Inc. v. Google Inc.*,[109] ironically while purporting to apply Ninth Circuit law.[110]

Other IP Doctrines. Patent and trademark law can also be used to target disruptive entry. Qualcomm, for instance, has aggressively asserted its portfolio of standard-essential patents and ignored its obligations to license those patents on reasonable terms in an effort to keep control over wireless telephone standards.[111] Qualcomm is arguably abusing patent rights to try to obtain market control that a proper understanding of those rights wouldn't provide. Pharmaceutical companies sometimes use "product lifecycle management" to extend the effective life of their patents, either by building a fence of weak follow-on patents that the regulatory system nonetheless privileges, or by making minor tweaks to their products in order to avoid generic competition.[112]

Another example of an IP doctrine that is often misused against competitors is the trademark doctrine of initial interest confusion. The point of trademark law is to prevent consumer confusion. We have argued elsewhere that that confusion must be about something that matters.[113] Attracting a consumer's attention by deceit can sometimes, if rarely, be the sort of confusion that matters. But the doctrine doesn't expressly require materiality, and a number of courts have found initial interest confusion in ordinary advertising designed merely to attract *attention* rather than to confuse.[114] That misunderstands the purpose of

108 *See Sony*, 203 F.3d at 598; *Sega*, 977 F.2d at 1514.

109 750 F.3d 1339 (Fed. Cir. 2014).

110 *Id.* at 1381.

111 Its behavior in this regard is the subject of a pending antitrust challenge. *See* FTC v. Qualcomm Inc., No. 17-CV-00220-LHK (N.D. Cal. Nov. 6, 2018) (holding that Qualcomm was obligated to license its standard-essential patents to competitors).

112 For discussion of these efforts, see Michael A. Carrier & Carl J. Minniti III, *Biologics: The New Antitrust Frontier*, 2018 U. ILL. L. REV. 1, 33 (2018) (explaining how biologic manufacturers are beginning to use "patent thickets and complex patent continuation practices to thwart biosimilar entrants"); Stacey L. Dogan & Mark A. Lemley, *Antitrust Law and Regulatory Gaming*, 87 TEX. L. REV. 685, 711-12 (2009) (noting how firms made "trivial changes to their product formulation" to delay generic competition in two ways).

113 *See* Mark A. Lemley & Mark McKenna, *Irrelevant Confusion*, 62 STAN. L. REV. 413, 450 (2010) ("Whether courts or Congress are the actors, the change we propose is straightforward: the law should require that trademark owners claiming infringement based on confusion regarding anything other than source or responsibility for quality must demonstrate the materiality of that confusion to consumer purchasing decisions.")

114 *See, e.g.*, Rosetta Stone Ltd. v. Google, Inc., 676 F.3d 144, 173 (4th Cir. 2012) (remanding for further discovery claims that Google directly or contributorily infringed

the confusion requirement in trademark law. As the Sixth Circuit explained in *Groeneveld Transp. Efficiency, Inc. v. Lubecore Int'l, Inc.*[115] when properly rejecting the doctrine:

> [W]hat appears to concern Groeneveld is not so much initial-interest *confusion*, but initial interest, period. Groeneveld, in other words, simply does not want its customers to become interested in Lubecore as a potential competitor and possibly switch over. We cannot ascribe any other interpretation to Groeneveld's rather startling claim that evidence of diverted sales and declining revenues, which are the normal signs of a market opening up to competition, create "a reasonable inference of confusion and its likelihood." Groeneveld's desire to be the only game in town is perfectly natural; most companies would hope for that status. But Groeneveld cannot get any help from trade-dress law in suppressing lawful competition.[116]

Other trademark and design patent cases are filed against producers of spare parts, independent repair service providers, and resellers of genuine trademarked parts.[117] The goal of these cases is to protect the IP owner's market against competition—in many cases competition from the IP owner's own goods. And trademark owners also sue competitors who run ads on Internet search engines targeted to customers who search for their products. The goals of those suits are generally not to prevent confusion itself but instead to prevent competitors from attracting the customer's attention to a competing product.[118]

Rosetta Stone's mark by selling search ads using "Rosetta Stone" keyword to its rivals and possible direct infringers of mark); Rescuecom Corp. v. Google Inc., 562 F.3d 123, 131 (2d Cir. 2009) (holding trial court erred by dismissing complaint against Google for selling search ads using "Rescuecom" keyword to Rescuecom's rivals); PETA v. Doughney, 263 F.3d 359, 366-67 (4th Cir. 2001) (affirming trial court's finding that parodic site registered as "peta.org" infringed PETA's service mark). *But see* Network Automation, Inc. v. Advanced Sys. Concepts, Inc., 638 F.3d 1137, 1154 (9th Cir. 2011) (holding trial court "fail[ed] to discern whether there is a likelihood of confusion in a keywords case"); Lamparello v. Falwell, 420 F.3d 309, 317 (4th Cir. 2005) (reversing trial court's finding of initial interest confusion where "[t]his critical element—use of another firm's mark to capture the markholder's customers and profits—simply does not exist[, such as with the www.fallwell.com site at issue,] when the alleged infringer establishes a gripe site that criticizes the markholder"). Full disclosure: one of us (Lemley) represented Google in *Rescuecom*.

115 730 F.3d 494 (6th Cir. 2013).

116 *Id.* at 519.

117 For discussion, see for example, Leah Chan Grinvald & Ofer Tur-Sinai, *Intellectual Property Law and the Right to Repair*, 88 FORDHAM L. REV. 63, 67 (2019) ("Some manufacturers also sue replacement parts manufacturers for patent infringement . . . .").

118 For a discussion of those suits, see Stacey L. Dogan & Mark A. Lemley, *Trademarks and Consumer Search Costs on the Internet*, 41 HOUS. L. REV. 777, 780 (2004) ("[C]ourts have increasingly shifted the focus of infringement analysis away from consumer confusion and toward a more generalized inquiry into whether a challenged use diverts attention away

II. THE LAW'S RESPONSE TO MARKET DISRUPTION CLAIMS

In this Part, we consider the various ways courts evaluate market disruption lawsuits. As we will see, business tort doctrines have largely evolved to be skeptical of those claims, while IP's treatment of market disruption has been much more uneven.

A. *Business Torts and Market Disruption*

Unfair Competition. As we noted in Part I, unfair competition doesn't have a standard definition of what is unfair, allowing plaintiffs to treat the very act of competition as unfair in many cases. Some courts have sought to address this problem by tying unfair competition to specific substantive standards. In California, for instance, an unfair competition claim brought by a competitor rather than a consumer must meet the substantive standards of antitrust law.[119] That leaves open some tricky definitional issues. And it may mean that, at least for competitor plaintiffs, the "unfair" prong of California's unfair competition law has no more independent force than the "unlawful" or "fraudulent" prongs.[120] But it is at least an effort to find substantive standards to define what is unfair, and therefore to reduce the risk that the law will be turned against disruptive technologies that aim to compete on the merits.

Tortious Interference. A similar problem bedevils tortious interference doctrine. Competition often interferes with a competitor's actual or prospective business advantage. The law itself doesn't explain when that competition qualifies as tortious. Fortunately, courts have often recognized this problem. As with unfair competition, courts in tortious interference cases generally require that the interfering conduct be "wrongful by some legal measure other than the

from the trademark holder."); Eric Goldman, *Deregulating Relevancy in Internet Trademark Law*, 54 EMORY L.J. 507, 562-65 (2005) (providing examples of cases addressing "diversion" when the customer's attention is attracted to a competing product).

119 *See* Cel-Tech Commc'ns, Inc. v. L.A. Cellular Tel. Co., 973 P.2d 527, 544 (Cal. 1990) ("When a plaintiff who claims to have suffered injury from a direct competitor's 'unfair' act or practice invokes section 17200, the word 'unfair' in that section means conduct that threatens an incipient violation of an antitrust law, or violates the policy or spirit of one of those laws because its effects are comparable to or the same as a violation of the law, or otherwise significantly threatens or harms competition."). *But cf.* Portney v. CIBA Vision Corp., 593 F. Supp. 2d 1120, 1129-30 (C.D. Cal. 2008) (allowing defendant's fraud-related counterclaims under California's Unfair Competition Law to proceed despite dismissing defendant's antitrust counterclaims).

120 Seen another way, courts have suggested the "fraudulent" or "unlawful" prongs may have broader content, but that *Cel-Tech*'s test for unfairness at least covers a set of antitrust-like "anticompetitive practices" at issue in the case. *See* Davis v. Ford Motor Credit Co., 101 Cal. Rptr. 3d 697, 707 (Cal. Ct. App. 2009) (summarizing the "split of authority on this question among the Courts of Appeal [in California]").

fact of interference itself."[121] As with antitrust, courts have sometimes created a zone of injury doctrine, requiring that the plaintiff show that it was an intended beneficiary of the substantive duty the defendant breached.[122] Courts also create a privilege of fair competition that the tort cannot abridge.[123] And they provide procedural protections by requiring the court to determine the wrongful conduct and scope of privilege as a matter of law, rather than giving the issue to the jury.[124] By contrast, interference with existing contracts is easier to prove than is interference with the mere prospect of a contract: "a broader range of privilege to interfere is recognized when the relationship or economic advantage interfered with is only prospective."[125] This makes sense—breach of contract is a legal wrong, and inducing it can also be wrongful conduct. By contrast, we shouldn't be upset if I interfere with your prospects of contracting with some third party unless I engaged in some independently wrongful conduct. After all, that third party is free to enter into a contract with you or not, and until they do I should be free to try to get their business instead.

Unjust Enrichment. Unjust enrichment (when conceived of as a tort rather than a remedy) has a similar problem: how do we know when enrichment is "unjust"? Here, too, courts sometimes reduce the risk of this free-ranging tort being used to block disruptive market entry by tying the "unjustness" of the enrichment to some preexisting category of legal wrong. In *Univ. of Colo. Found. v. Am. Cyanamid Co.*,[126] for instance, the court insisted that unjust enrichment based on theft of a patentable idea could be actionable as a state tort only if the state court applied federal standards for patent inventorship.[127] By so

121 Della Penna v. Toyota Motor Sales, U.S.A., Inc., 902 P.2d 740, 751 (Cal. 1995) (holding that plaintiff must prove that defendant "not only knowingly interfered with the plaintiff's expectancy, but engaged in conduct that was wrongful by some legal measure other than the fact of interference itself").

122 *See* Speakers of Sport, Inc. v. ProServ, Inc., 178 F.3d 862, 867-68 (7th Cir. 1999).

123 PMC, Inc. v. Saban Entm't, Inc., 52 Cal. Rptr. 2d 877, 891 (Cal. Ct. App. 1996) ("Plaintiff's cause of action for interference with prospective economic advantage is defeated by the competition privilege."), *disapproved on other grounds in* Korea Supply Co. v. Lockheed Martin Corp., 63 P.3d 937, 954 n.11 (Cal. 2003). Of course, that simply begs the question we discussed in the last subsection: what competition is "fair"?

124 *See* JUDICIAL COUNCIL CAL., *CACI No. 2202: Intentional Interference with Prospective Economic Relations*, *in* JUDICIAL COUNCIL OF CALIFORNIA CIVIL JURY INSTRUCTIONS (2017) ("Whether the conduct alleged qualifies as wrongful if proven or falls within the privilege of fair competition is resolved by the court as a matter of law.").

125 Pac. Gas & Elec. Co. v. Bear Stearns & Co., 791 P.2d 587, 590 (Cal. 1990).

126 196 F.3d 1366 (Fed. Cir. 1999).

127 *Id.* at 1372 (holding that upon remand, the lower court must "apply federal patent law principles to determine whether [plaintiffs] were inventors of the technology"). Upon remand, the district court found that the defendants committed fraud, a separate independent tort. *Univ. of Colo. Found. v. Am. Cyanamid Co.*, 105 F. Supp. 2d 1164, 1183 (D. Colo 2000) ("I also reiterate my finding that the conduct of [defendants] . . . was attended by circumstances of

doing, it grounded the unjust enrichment in a substantive legal wrong, albeit one that didn't specifically provide for a disgorgement remedy. We think this is a positive trend, one that courts and scholars should encourage.[128] But the more unjust enrichment is tied to independent substantive notions of wrongdoing, the more it looks like a remedy for that independent wrong rather than a freestanding cause of action.

Antitrust. The issue with antitrust is different. While the doctrines just discussed lack a normative core, that's not true of antitrust. Antitrust is designed to protect competition. The problem is that antitrust plaintiffs often conflate that with protection of individual competitors, even if the thing those competitors want protection from is really robust competition. Antitrust has effectively confronted these claims, developing tools[129] designed to make sure that antitrust claims protect competition, not competitors.[130] In particular, antitrust standing doctrines attempt to prevent plaintiffs from using antitrust as a competitive

fraud, malice, and willful and wanton misconduct."). The fraud damages were lower than the unjust enrichment award, but both awards were based on the same wrongful conduct and were eventually upheld on a subsequent appeal. Univ. of Colo. Found., Inc. v. Am. Cyanamid Co., 342 F.3d 1298, 1312 (Fed. Cir. 2003) (finding ample evidence in the record supports damages award).

128 The Restatement of Restitution and Unjust Enrichment goes some way toward setting standards for identifying wrongful acts as a basis for unjust enrichment, for instance.

129 Among the tools courts use to identify such conduct are presumptions informed by economic analysis. In § 1 analysis, courts may find conduct illegal *per se* when "the practice facially appears to be one that would always or almost always tend to restrict competition and decrease output," such as price-fixing. Broad. Music, Inc. v. Colum. Broad. Sys., Inc., 441 U.S. 1, 19-20 (1979). They may conduct a "quick look" analysis when there is a "close family resemblance between the suspect practice and another practice that already stands convicted in the court of consumer welfare." Polygram Holding, Inc. v. FTC, 416 F.3d 29, 37 (D.C. Cir. 2005) (noting that there is a presumption of illegality with this "close family resemblance"); *see also* Cal. Dental Ass'n v. FTC, 526 U.S. 756, 770 (1999)("In each of these cases, which have formed the basis for what has come to be called abbreviated or 'quick-look' analysis under the rule of reason, an observer with even a rudimentary understanding of economics could conclude that the arrangements in question would have an anticompetitive effect on customers and markets."). Finally, they may conduct a full-blown "rule of reason" analysis, which is far more defendant-friendly. *See* Matthew G. Sipe, *The Sherman Act and Avoiding Void-for-Vagueness*, 45 FLA. ST. U. L. REV. 709, 724 (2018) (noting that the "rule of reason" analysis makes it harder than *per se* analysis to hold defendants liable); Maurice E. Stucke, *Does the Rule of Reason Violate the Rule of Law?*, 42 U. C. DAVIS L. REV. 1375, 1423 (2009) ("The empirical evidence reflects that most rule-of-reason claims never reach juries; rather, most are decided on motions to dismiss or summary judgment, and most (and in some surveys nearly all) antitrust plaintiffs lose.").

130 *See* Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 458 (1993) ("The law directs itself not against conduct which is competitive, even severely so, but against conduct which unfairly tends to destroy competition itself.").

weapon by requiring that the injury the plaintiff suffers flows from the anticompetitive nature of defendant's conduct rather than from vigorous competition. We discuss those tools—and particularly the antitrust injury doctrine—in more detail later in this Part and in Part III.[131]

Noncompetition Agreements. As we discussed in Part I, companies often use noncompete agreements to make it harder for employees to start new companies that might compete with them and for existing companies to lure talent in a competitive market. States have been inconsistent in their treatment of noncompetes. A minority of states, most notably California, ban them altogether.[132] Most states impose some time and scope limitations on noncompetes but otherwise enforce them.[133] The economic evidence is quite strong that noncompetes restrict innovation and economic growth.[134] Indeed, the

131 *See infra* notes **Error! Bookmark not defined.-Error! Bookmark not defined.** and accompanying text.

132 Regarding California, see CAL. BUS. & PROF. CODE § 16600 (West 2019)("Except as provided in this chapter, every contract by which anyone is restrained from engaging in a lawful profession, trade, or business of any kind is to that extent void."); Edwards v. Arthur Andersen LLP, 189 P.3d 285, 288, 290-91 (Cal. 2008) (interpreting section 16600 to bar all noncompetes "unless the agreement falls within a statutory exception," with those exceptions pertaining to the sale of businesses). Other states that ban noncompetes include Alabama, Louisiana, Montana, and North Dakota. *See* 1 PETER S. MENELL, MARK A. LEMLEY, & ROBERT P. MERGES, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 121 (2017 ed.). States forbidding them for professionals but allowing them otherwise include Colorado, Delaware, Massachusetts, and Tennessee. *Id.*

133 This is true, for instance, of Idaho, IDAHO CODE ANN. § 44-2701 (West 2019) (limiting enforceability of noncompetes to those that are "reasonable as to . . . duration, geographical area, type of employment or line of business"); Michigan, MICH. COMP. LAWS ANN. § 445.774a (2019) (limiting similarly); and South Dakota, S.D. CODIFIED LAWS § 53-9-11 (2019) (limiting enforceability to two-year agreements related to like business in a specified area). *See* MENELL, LEMLEY, & MERGES *supra* note 132, at 119 (discussing majority rule).

134 *See, e.g.*, LOBEL, *supra* note **Error! Bookmark not defined.**, at 70-72 (collecting studies—including "natural" experiments following policy changes in Michigan, Florida, Texas, and Louisiana—and showing that more enforcement of noncompetes leads to less labor mobility and research productivity); Matt Marx, *Reforming Non-Competes to Support Workers*, *in* THE HAMILTON PROJECT, at 5 (Brookings Inst., Policy Proposal 2018-04, Feb. 2018), https://www.brookings.edu/wp-content/uploads/2018/02/es_2272018_reforming_noncompetes_support_workers_marx_policy_proposal.pdf [https://perma.cc/RG3X-XNPP] (collecting literature on "chilling effect" of noncompetes and proposing reforms); Prescott et al., *supra* note **Error! Bookmark not defined.**, at 377-78 (collecting literature on effects of noncompete on labor mobility and innovation, though qualifying this literature as lacking in quantitative rigor). *But see* Jonathan M. Barnett & Ted M. Sichelman, *Revisiting Labor Mobility in Innovation Markets* 1 (Univ. S. Calif. L. Sch., Legal Stud. Working Paper Series, Working Paper No. 207, 2016), (finding California's "non-enforcement" of noncompetes overstated because, through other

success of Silicon Valley has been traced to the ease of innovation that California's refusal to enforce noncompetes makes possible.[135] But in most states today they represent a significant barrier to disruptive competition. There are preliminary signs that might be changing. The Obama administration began the process of limiting noncompetes, though that, like much else, went out the window in the wake of the 2016 election.[136] And there may be a trend in the states toward restricting noncompetes.[137]

CFAA. We are less far along in reining in abuse of the CFAA to target competitors and departing employees. While some courts, including the 9th Circuit in 2019, have cut back on the breathtaking scope of the law,[138] it's still a mess, and the predominant use of the CFAA is still to target competitors, not hackers.[139] As one of us put it recently,

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contractual mechanisms, California employers achieved similar restrictions on labor mobility, and so arguing that other factors better explain Silicon Valley's rapid innovation).

135 *See, e.g.*, ALAN HYDE, WORKING IN SILICON VALLEY: ECONOMIC AND LEGAL ANALYSIS OF A HIGH-VELOCITY LABOR MARKET 33 (2003) (making this point); ANNA LEE SAXENIAN, REGIONAL ADVANTAGE: CULTURE AND COMPETITION IN SILICON VALLEY AND ROUTE 128, at 44-45 (1996) (attributing Silicon Valley's faster pace of innovation to itinerant engineers and entrepreneurs, who for cultural and legal reasons alike—those legal reasons including a propensity to deal without having yet signed contracts, though she did not call out noncompetes in particular—were able to iterate faster than their cloistered colleagues on the East Coast); 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, 591 (1999) (arguing California's refusal to enforce noncompetes explains why Silicon Valley innovation outpaced Massachusetts's Boston-based innovation, where noncompetes are enforced); Alan Hyde, *Should Noncompetes Be Enforced?: New Empirical Evidence Reveals the Economic Harm of Non-Compete Covenants*, 33 REGULATION 6, 8-9 (Winter 2010-2011) (summarizing early cultural and more recent legal and economic studies of Silicon Valley and the importance of non-enforcement of noncompetes to its success). *But see* Barnett & Sichelman, *supra* note 134, at 1 (arguing this case is overstated because California employers developed other mechanisms, including legal, to slow labor mobility).

136 Office of the Press Secretary, The White House, *FACT SHEET: The Obama Administration Announces New Steps to Spur Competition in the Labor Market and Accelerate Wage Growth* (Oct. 25, 2016), https://obamawhitehouse.archives.gov/the-press-office/2016/10/25/fact-sheet-obama-administration-announces-new-steps-spur-competition [https://perma.cc/TET9-HNQW] ("Today, the Administration put out a call to action and set of best practices for state policymakers to enact reforms to reduce the prevalence of non-compete agreements that are hurting workers and regional economies.").

137 *See* MASS. GEN. LAWS ch. 149, § 24L (2019) (newly limiting noncompetes in Massachusetts); Callum Borchers, *The Best State for Science and Tech? It's Massachusetts, Again*, WBUR 90.9: BOSTONOMIX (Dec. 18, 2018), https://www.wbur.org/bostonomix/2018/12/18/milken-institute-science-tech-rankings [https://perma.cc/5U8L-UJT2] (explaining high rating in science- and tech-friendliness is partly attributable to legislative change limiting noncompetes).

138 HiQ Labs v. LinkedIn, __ F.3d __ (9th Cir. Sept. 9, 2019).

139 Mayer, *supra* note __.

"The CFAA . . . attempts to define computer hacking and the universe of computers for which it matters, but has made a hash of it. One attempt at legislative reform, and numerous court interpretations, haven't been able to fix it in over thirty years.[140] As such, we're stuck with a law we just can't really understand.[141]

B. *IP and Market Disruption*

As we have just seen, courts in most business tort cases have developed rules to police the use of those laws to prevent disruption. The record in IP, by contrast, is more mixed. Sometimes courts reject market disruption arguments in IP cases, either because they see the value of the new technology or business model or because the harm claimed by the plaintiff seems remote. In other cases, courts are more receptive to claims of disruption—in the sense that they openly credit those arguments in doctrinal contexts in which they are directly relevant, or in the sense that those arguments indirectly shape the ways courts define the parties' rights and obligations. In part, we have this mixed record because IP law does intend to prevent some forms of disruption. But the confusion also stems from the fact that courts often act without thinking about how their IP decisions influence market competition.

1. Anti-Disruption Impulses in IP

IP rights can prevent market disruption in several ways. First, courts are sometimes persuaded to define legal rights in ways that are skewed by impulses about effects of new technologies on the particular parties to the case.[142] Those legal definitions are often justified in free riding and unfair competition terms, and sometimes they reflect courts' negative reactions to parties attempts to design their business models to technically comply with the law while violating its spirit. And even when the conduct falls far enough outside defined legal rights that courts cannot identify any clear violation, they sometimes recognize ill-defined penumbral claims relying on broad concepts of misappropriation or unfair competition.

There is perhaps no better example of a court's redefinition of legal rights to capture disruptive technology than *Aereo*, the case concerning the company that

140 *See id.* (recounting the rocky history of the CFAA); Kerr, *Norms of Computer Trespass*, *supra* note **Error! Bookmark not defined.** at 1153-58 (emphasizing the inconsistency with which courts interpret the language of the CFAA); Mayor, *supra* note **Error! Bookmark not defined.**. A second example is the Stored Communications Act, a law from the similar era that defines "electronic storage" of data in ways that don't map well to modern technology. *See* Orin Kerr, *A User's Guide to the Stored Communications Act, and a Legislator's Guide to Amending It*, 72 GEO. WASH. L. REV. 1208 (2004).

141 Bryan Casey & Mark A. Lemley, *You Might be a Robot*, __ CORNELL L. REV. __ (forthcoming 2020).

142 [FOOTNOTE]

made tiny broadcast antennae. According to the plaintiffs, Aereo's system was effectively a cable system, but Aereo was not paying any of the fees cable systems pay to broadcasters to carry their content.[143]

The Court agreed, concluding that "Aereo's activities [were] substantially similar to those of the CATV companies that Congress amended the Act to reach."[144] Aereo, not just its subscribers, "perform[ed]" the works "publicly" because it "[sold] a service that allow[ed] subscribers to watch television programs, many of which are copyrighted, almost as they are being broadcast. In providing this service, Aereo use[d] its own equipment, housed in a centralized warehouse, outside of its users' homes."[145] Aereo "'carrie[d] . . . whatever programs it receive[d]', and it offer[ed] 'all the programming' of each over-the-air station."[146] No matter that Aereo used equipment (antennas) that "emulate[d] equipment a viewer could use at home"—that was, according to the Court, also true of the equipment used by cable companies considered by the Court in *Fortnightly* and *Teleprompter*, to which Congress responded in the 1976 Act.[147]

What about the fact that, unlike cable systems, which transmit constantly without selection by the viewer, "Aereo's system remains inert until a subscriber indicates that she wants to watch a program"?[148] Doesn't that mean that the subscriber, and not Aereo, selected the content that was performed?[149] Not to

143 Of course, the content owners didn't *really* want Aereo to be considered a cable system, because then Aereo would have been able to rebroadcast by paying the statutory license fees, and that still would have upset the market. *See* Transcript of Oral Argument at 3-7, 28, Am. Broad. Cos., Inc. v. Aereo, Inc., 134 S. Ct. 2498 (2014) (No. 13-461) ("Now, we are not a cable service."). And indeed, they ultimately had it both ways. Fox Television Stations, Inc v. Aereokiller, LLC, 851 F.3d 1002, 1015 (9th Cir. 2017) ("FilmOn and other Internet-based retransmission services are neither clearly eligible nor clearly ineligible for the compulsory license . . . The Copyright Office says they are not eligible. Because the Office's views are persuasive, and because they are reasonable, we defer to them.").

144 *Aereo*, 134 S. Ct. at 2506.

145 *Id.*

146 *Id.* (quoting *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390, 392, 400 (1968)).

147 *Id.* at 2507 ("But the same was true of the equipment that was before the Court, and ultimately before Congress, in *Fortnightly* and *Teleprompter*.").

148 *Id.*

149 That was a critical difference for the dissent. *See id.* at 2513-14 (Scalia, J., dissenting) ("Aereo does not perform for the sole and simple reason that it does not make the choice of content."). And it informed the rejection of similar copyright claims made in another case. *See In re AutoHop Litig.*, No. 12 Civ. 4155(LTS)(KNF), 2013 WL 5477495 at *7 (S.D.N.Y. Oct. 1, 2013) ("ABC has failed to demonstrate likelihood of success on its direct copying cause of action because the evidentiary record indicates, and the Court finds, that the consumer makes the copy. There is thus no factual basis upon which DISH could be found liable for direct infringement of ABC's right of reproduction.").

the majority, because cable subscribers also could select which programs to view by changing the channel.[150] Changing the channel could not, of course, alter the behavior of the cable company (the television shows were being retransmitted regardless); all it did was determine whether the viewer could see that transmission. But, for the *Aereo* majority, that was a distinction without a difference. The *Aereo* majority couldn't see why this "single difference, invisible to subscriber and broadcaster alike, could transform a system that is for all practical purposes a traditional cable system into 'a copy shop that provides its patrons with a library card.'"[151]

In other words, it didn't matter that Aereo designed its system to be technically distinct from cable systems in at least two significant ways—by making it one-to-one (using different antennas to create unique copies for individual subscribers rather than grabbing the signal with one antenna and retransmitting it to all subscribers), and by capturing and retransmitting signals to subscribers only if or when those subscribers affirmatively selected a specific program.[152] These technological differences "concern[ed] the behind-the-scenes way in which Aereo deliver[ed] television programming to its viewers' screens. They d[id] not render Aereo's commercial objective any different from that of cable companies. Nor d[id] they significantly alter the viewing experience of Aereo's subscribers."[153]

Notably, the Court was not only receptive but indeed actively hostile toward Aereo's evident intent to design its system to comply with existing precedent. During oral argument at the Supreme Court, Justice Roberts asked Aereo's lawyer directly whether there was any explanation for Aereo's use of 10,000 dime-sized antennae, other than "to get around the copyright laws."[154] When Aereo's lawyer demurred, suggesting that copyright law shouldn't depend on the number of antennas, but on who is doing the performance, Justice Scalia drove the point home: "you're just saying that by doing it this way you don't violate the copyright laws. But his question is, is there any reason you did it other than not to violate the copyright laws?"[155] The sense that, in the end,

150 *Aereo*, 134 S. Ct. at 2507 ("The subscribers of the *Fortnightly* and *Teleprompter* cable systems also selected what programs to display on their receiving sets.").

151 *Id.* (quoting *Aereo*, 134 S. Ct. at 2514 (Scalia, J., dissenting)).

152 Nor did it matter that the Court's treatment of Aereo's system makes it nearly impossible to differentiate the use of an ordinary antenna on the roof of a viewer's home. That antenna also transmits broadcasts by communicating them in a way that "images or sounds are received beyond the place from which they [we]re sent." *Id.* at 2508 (quoting 17 U.S.C. § 101).

153 *Id*.

154 Transcript of Oral Argument, *supra* note 143, at 31 (Roberts, C.J.) ("But is there any reason you need 10,000 of them? Can't you just—if your model is correct, can't you just put your antenna up and then do it? I mean, there's no technological reason for you to have 10,000 dime-sized antenna, other than to get around the copyright laws.").

155 *Id.* at 32 (Scalia, J.).

Aereo's system was really just a Rube Goldberg machine designed technically to comply with previous cases, while operating functionally as a cable system, pervades the Court's opinion—and perhaps explains the opinion's failure to grapple with the potential implications of its holding. This kind of analogizing along functional lines is hardly foreign to copyright, and it isn't always done to find infringement.[156] But, ironically, the Court rejected the legal reasoning of *Cartoon Network*, and particularly its emphasis on volitional conduct, in reaching its conclusion in *Aereo*.[157] *Aereo* complied with the law but did so in a way that disrupted established markets. So, the Court simply changed the law.

Something similar could be said about *Grokster*.[158] In that case, the defendant carefully conformed its behavior to the rules of secondary liability set forth in *Sony* and various circuit court decisions, which prevented the facilitation of direct infringement by a centralized music streaming site but distinguished companies that just provided software that was capable of substantial noninfringing uses.[159] Grokster did just what the *Napster* court said it could do—just provide software that was capable of substantial noninfringing uses. But Grokster did so while still facilitating quite a lot of direct infringement, and apparently intentionally so. Just as in *Aereo*,[160] the lower courts held that Grokster's conduct was lawful because it complied with the rules in force at the time,[161] but the Supreme Court ultimately created a new legal doctrine to reach

156 In this respect, we might contrast *Aereo* with *Cartoon Network*, which analogized the remote DVR to the VCR in finding the remote DVR noninfringing. *See infra* notes 178-182 and accompanying text.

157 Cartoon Network LP, LLLP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008) (finding cable company's remote storage DVR system did not violate the reproduction or public performance rights of copyright owner).

158 Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 941 (2005) (creating new legal doctrine to reach defendant's conduct and applying that doctrine retroactively to find defendant liable).

159 In particular, the defendant conformed its behavior to the Ninth Circuit's decision in *Napster* and the Seventh Circuit's decision in *Aimster*. *In re* Aimster Copyright Litigation, 334 F.3d 643, 647 (7th Cir. 2003) ("The Supreme Court made clear in the *Sony* decision that the producer of a product that has substantial noninfringing uses is not a contributory infringer merely because some of the uses actually made of the product . . . are infringing."); A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1020 (9th Cir. 2001) ("The *Sony* Court declined to impute the requisite level of knowledge where the defendants made and sold equipment capable of both infringing and substantial noninfringing uses. . . . We are bound to follow *Sony* . . . .").

160 WNET, Thirteen v. Aereo, Inc., 712 F.3d 676, 680 (2d Cir. 2013), *rev'd sub nom. Aereo, Inc.*, 134 S. Ct. 2498.

161 Metro-Goldwyn-Mayer Studios, Inc. v. Grokster Ltd., 380 F.3d 1154, 1167 (9th Cir. 2004), *vacated and remanded*, 125 S. Ct. 2764 (2005) ("In this case, the district court correctly applied applicable law and properly declined the invitation to alter it.").

that conduct *and applied that doctrine retroactively to find Grokster liable*.[162] It did so because, as in *Aereo*, the defendant had found a way to comply with the law while disrupting the plaintiff's market. At the same time, it nominally limited its new legal rule to the specific facts of *Grokster* itself. The Court identified a number of factors that supported its finding of intentional inducement, but it was careful to note that none of those facts standing alone (except perhaps naming the company to be reminiscent of Napster) would give rise to liability.

2. Accommodating Disruption

To be sure, courts in IP cases sometimes reject market disruption arguments. The Supreme Court, for example, was unmoved by market disruption arguments in *Fortnightly Corp. v. United Artists Television, Inc.*,[163] which involved cable retransmissions of over-the-air television broadcasts at the dawn of the cable television industry.[164] According to the broadcasters, the retransmissions violated their public performance rights.[165] The Court rejected that claim, holding that retransmission was not infringing because it was more like passive "view[ing]" of the television broadcasts than active "perform[ance]" of the works.[166] That was true, the Court held in *Teleprompter Corp. v. CBS*,[167] even when viewers received retransmissions of distant signals that were not normally available in their areas.[168] Notably, the Court in *Teleprompter* concluded that broadcasters and content owners would not be harmed by retransmissions of distant signals because they could adjust their advertising rates (or change their business models) to account for the broader audiences made possible by the retransmissions.[169]

162 *Grokster*, 545 U.S. at 919 ("We hold that one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties.").

163 392 U.S. 390 (1968).

164 *Id.* at 400-401.

165 *Id.* at 390.

166 *Id.* at 399-401; *see also* Jane C. Ginsburg, *The Exclusive Right to Their Writings: Copyright and Control in the Digital Age*, 54 ME. L. REV. 195, 207-8 (2002) (characterizing *Fortnightly* and *Teleprompter* as "rather strained" and best understood "in the context of [the Court's] perception that the broadcast industry was endeavoring to kill off a new rival, cable").

167 415 U.S. 394 (1974)

168 *Id.* at 408-10 ("By importing signals that could not normally be received with current technology in the community it serves, a CATV system does not, for copyright purposes, alter the function it performs for its subscribers.").

169 *Id.* at 411-13 (suggesting broadcasters "whose reception ranges have been extended" will "merely have a different and larger viewer market"); *see also Fortnightly Corp.*, 392 U.S. at 403 (Fortas, J., dissenting) (rejecting majority's impulse to protect new technology and

Similarly, the Court in *Sony* rejected the motion picture industry's attempt to hold Sony secondarily liable for the copyright infringing activities by the users of its Betamax videotape recorder.[170] Acknowledging copyright's history of developing in response to significant technological change, the Court emphasized its "consistent deference to Congress when major technological innovations alter the market for copyrighted materials."[171] It then borrowed from patent law's staple article of commerce doctrine to set a high bar for holding the producer of the technological means of infringement liable when that producer is not in a position to control the use of copyrighted works by others: "The sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes. Indeed, it need merely be capable of substantial noninfringing uses."[172]

The Betamax had such substantial noninfringing uses because many copyright owners did not object to private copying of their works, and because the Court held private "time-shifting" was fair use.[173] The result in *Sony* was particularly notable since the industry was trying to shut down videotape recorders in favor of a different technology—videodisc players—which was non-recordable.[174] The case literally was about who got to determine the shape of the market. And though the Court did not address that background struggle directly, it rejected another form of market disruption argument, crediting the District Court's distinction between "adjustments in marketing strategy," which might have been necessary once the Betamax was on the market, and market *harm*, which the copyright owners could not establish.[175] Presciently, the Court even accepted the District Court's conclusion that time-shifting was more likely to aid the plaintiffs than hurt them,[176] which turned out to be not only true but enormously true.[177]

More recently, the Second Circuit rejected Cartoon Network's claim that Cablevision's remote storage DVR (RS-DVR) system infringed its reproduction

sarcastically noting that "it [was] darkly predicted that the imposition of full liability upon all CATV operations could result in the demise of this new, important instrument of mass communications; or in its becoming a tool of the powerful networks which hold a substantial number of copyrights on materials used in the television industry").

170 Sony Corp. v. Univ. City Studios, Inc., 464 U.S. 417, 420 (1984).

171 *Id.* at 431.

172 *Id.* at 442.

173 *Id.* at 454-55.

174 *See* Jane C. Ginsburg, *Copyright and Control over New Technologies of Dissemination*, 101 COLUM. L. REV. 1613, 1624 (2001) (citing JAMES LARDNER, FAST FORWARD: HOLLYWOOD, THE JAPANESE, AND THE ONSLAUGHT OF THE VCR (1987)).

175 *Sony*, 464 U.S. at 454.

176 *Id.* at 453.

177 Far from destroying the industry, the VCR ultimately drove more than $30 billion in new sales for Hollywood. *See supra*, note 85 and accompanying text.

and public performance rights.[178] In the court's view, the RS-DVR served the same function as the VCR, just using modern technology.[179] For instance, describing the RS-DVR's design, the court stated:

> [T]he RS-DVR allows Cablevision customers who do not have a stand-alone DVR to record cable programming on central hard drives housed and maintained by Cablevision at a "remote" location. RS-DVR customers may then receive playback of those programs through their home television sets, using only a remote control and a standard cable box equipped with the RS-DVR software.[180]

After describing the operation of Cablevision's system in significant technological detail, the court concluded that the temporary buffer data it created were not fixed "for a period of more than transitory duration," and the system therefore did not create copies of the copyrighted works.[181] It then held that the legally relevant conduct was the subscribers' conduct ordering the system to produce a copy of a specific program, and not Cablevision's conduct in designing, housing, and maintaining a system designed only to produce that copy.[182] Like the Supreme Court did in *Fortnightly* and *Teleprompter*, the Second Circuit emphasized active conduct in relation to particular copies and interpreted the plaintiff's legal rights narrowly in the face of arguments that the new technology fundamentally disrupted their exploitation of the broadcast programs.[183] The Ninth Circuit came to a similar conclusion in the DISH Autohop litigation, rejecting claims that DISH's "Hopper" DVR undermined copyright owners' business models by allowing viewers to skip commercials.[184]

In a different context, the Second Circuit also rejected the Authors Guild's claim against Google for its operation of the Google Books project. As the court described that project:

> [A]cting without permission of rights holders, Google has made digital copies of tens of millions of books, including Plaintiffs', that were

178 Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 133 (2d Cir. 2008).

179 *Id.* at 131. Of course, the movie industry did successfully scuttle the first such DVR technology. *See* Newmark v. Turner Broad. Network, 226 F. Supp. 2d 1215, 1223-24 (C.D. Cal. 2002). The case against SONICblue, the maker of the RePlayTV, settled without an opinion when the company was driven into bankruptcy. *See* Paramount Pictures Corp. v. RePlayTV, 298 F. Supp. 2d 921, 923 (C.D. Cal. 2004).

180 *Cartoon Network*, 536 F.3d at 124.

181 *Id.* at 130.

182 *Id.* at 132.

183 *See supra* notes **Error! Bookmark not defined.-Error! Bookmark not defined.** and accompanying text.

184 Fox Broad. Co. v. DISH Network L.L.C., 747 F.3d 1060, 1066 (9th Cir. 2014) (determining Fox failed to establish likely irreparable harm if Dish continued to utilize its ad-skipping technology), aff'g 905 F. Supp. 2d 1088 (C.D. Cal. 2012). Full disclosure: Lemley represented DISH in this litigation.

> submitted to it for that purpose by major libraries. Google has scanned the digital copies and established a publicly available search function. An Internet user can use this function to search without charge to determine whether the book contains a specified word or term and also see "snippets" of text containing the searched-for terms. In addition, Google has allowed the participating libraries to download and retain digital copies of the books they submit, under agreements which commit the libraries not to use their digital copies in violation of the copyright laws.[185]

The Second Circuit found this reproduction and (usually partial) public display of the copyrighted works to be fair use. According to the court, the scanning was transformative because it had a transformative purpose, even if it didn't transform the works themselves.[186] Quoting its previous decision in *Hathi Trust*, the court said "that the creation of a full-text searchable database is a quintessentially transformative use . . . [as] the result of a word search is different in purpose, character, expression, meaning, and message from the page (and the book) from which it is drawn."[187] Provision of the search function and of "snippets" of the scanned books were also transformative, because "[s]nippet view add[ed] important value to the basic transformative search function, which tells only whether and how often the searched term appears in the book."[188]

The snippet view was also unlikely to harm the authors, because the snippets were in most cases unlikely to satisfy demand for complete books.[189] Importantly, even the exceptions to that rule wouldn't justify a different conclusion regarding the effect on the market, because the loss associated with substitution of the snippet for a complete work will also "generally occur in relation to interests that are not protected by the copyright."[190] For example, the court noted, "[a] snippet's capacity to satisfy a searcher's need for access to a copyrighted book will at times be because the snippet conveys a historical fact that the searcher needs to ascertain," and obviously historical facts are not subject to copyright.[191]

In other words, the court didn't conclude that copying snippets would have no substitutionary effect, but rather that the substitutionary effect of the snippets wasn't necessarily traceable to acts of infringement. It is also notable that Google took steps to protect copyright owners in those cases in which the snippets might substitute because of their presentation of copyrighted content. Specifically, Google "disable[d] snippet view entirely for types of books for

185 Authors Guild v. Google, Inc., 804 F.3d 202, 207 (2d Cir. 2015).
186 *Id.* at 216-17.
187 *Id.* at 217 (quoting *Authors Guild*, 755 F.3d at 97).
188 *Id.* at 217-18.
189 *Id.* at 218.
190 *Id.* at 224.
191 *Id.*

which a single snippet is likely to satisfy the searcher's present need for the book, such as dictionaries, cookbooks, and books of short poems."[192]

Finally, the court rejected the "[p]laintiffs' contention that Google ha[d] usurped their opportunity to access paid and unpaid licensing markets for substantially the same functions that Google provides . . . ."[193] That argument failed "in part because the licensing markets in fact involve very different functions than those that Google provides, and in part because an author's derivative rights do not include an exclusive right to supply information (of the sort provided by Google) about her works."[194]

3. Where Does This Leave Us?

These cases don't mean that market disruptors have nothing to fear from IP. As we have seen, many cases go the other way.[195] Further, even when courts reject market disruption arguments, it's often after the issue has been litigated extensively, creating uncertainty, cost, and delay for the disruptors.

At the same time, some disruptors do threaten the goals of IP law. The *Grokster* Court may or may not have been right to target Grokster for obeying then-existing law, but it was reasonable to worry about the mass infringement Grokster was facilitating. Congress has at times responded to those judicial resolutions by imposing compulsory licensing schemes—allowing proliferation of the technology but demanding administratively-determined payment to the IP owners. That is the story of the mechanical license, which Congress crafted after the Court refused to enjoin player pianos in *White-Smith Music Publishing Co. v. Apollo Co.*[196] It's also the story of the compulsory license for cable retransmissions built into the Copyright Act of 1976 in response to *Fortnightly* and *Teleprompter*.[197] These responses regulate market disruption, but importantly, they do so deliberately, as a matter of copyright policy. And they regulate it by imposing costs and conditions on disruptive entry rather than prohibiting it entirely. That makes disruption harder, but it doesn't stop it altogether, allowing clearly superior business models to grow despite their legal disadvantage. Streaming music, for instance, is now the dominant form of music delivery despite a copyright compulsory license regime implemented in 2005 in

192 *Id.* at 210.

193 *Id.* at 207.

194 *Id.*

195 *See supra* Section II.B.1 (discussing *Aero* and *Grokster* as examples where Court accepts anti-disruption rationales).

196 17 U.S.C. § 115 (2012) ("[E]xclusive rights provided by clauses (1) and (3) of section 106, to make and to distribute phonorecords of such works, are subject to compulsory licensing under the conditions specified by this section."); 209 U.S. 1, 18 (1908).

197 17 U.S.C. § 111 (exempting certain secondary transmissions, including cable retransmissions, from copyright infringement); *see also id.* at § 1201(k) (requiring copy control devices for videotape recorders and prohibiting circumvention of those controls).

an effort to protect radio from online streaming competition.[198] Notably, however, those regulatory compromises happen only if the court allows the disruptive entrant. If the court shuts down the technology, there is no compromise.

One reason courts are all over the map in responding to disruptive technologies is that market disruption plays a very different role depending on the case. Sometimes market disruption is expressly entangled with doctrine. For example, courts deciding copyright fair use cases must consider the effect of the defendant's use on the plaintiff's market.[199] Trademark courts consider whether the plaintiff and defendant are actual or likely competitors when deciding whether consumers are likely to be confused.[200] Lost profit damages in patent cases may be calculated not only to account for lost sales, but also for the ways the defendant's conduct altered the market for the patented invention.[201] These

198 17 U.S.C. § 114(d) (providing interactive transmissions require a negotiated license from sound recording copyright owner). Congress responded in 2018 by further raising the compulsory license fee for streaming in the Music Modernization Act. *See* Music Modernization Act, Pub. L. No. 115-264, § 103, 132 Stat. 3676, 3723-26 (amending section 114(g) of the Copyright Act covering proceeds and corresponding rates from licensing of transmissions). But streaming is so well established that the goal of that Act seems to be simply to extract more money from companies like Spotify rather than to discourage streaming altogether.

199 17 U.S.C. § 107(4) ("In determining whether the use made of a work in a particular case is a fair use the factors to be considered shall include . . . the effect of the use upon the potential market for or value of the copyrighted work."); *see also* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 591 (1994) (reasoning that because "[a] parody and the original usually serve different market functions" the parody entailed a fair use); Harper & Row, Publishers, Inc. v. Nation Enterprises, 471 U.S. 539, 566 (1985) (calling the potential effect on the market for the original "undoubtedly the single most important element of fair use"); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 450-51 (1984) ("But a use that has no demonstrable effect upon the potential market for, or the value of, the copyrighted work need not be prohibited in order to protect the author's incentive to create. The prohibition of such noncommercial uses would merely inhibit access to ideas without any countervailing benefit.").

200 *See, e.g.*, AMF Inc. v. Sleekcraft Boats, 599 F.2d 341, 348-49 (9th Cir. 1979) (setting out eight factors for evaluating trademark infringement, including "proximity of the goods," "marketing channels used," and "likelihood of expansion of the product lines"); Hancock v. Am. Steel & Wire Co. of N.J., 203 F.2d 737, 741-42 (C.C.P.A. 1953) (holding the mark "Tornado" infringed upon "Cyclone," both for wire fencing, in a case where Tornado had "entered the field considerably later" and spent less than one-hundredth as much on advertising).

201 For example, patentees can recover lost profits due to price erosion if the presence of the infringing products lowered the price for the patented goods. We also allow for lost convoyed sales of unpatented goods. *See, e.g.*, King Instrument Corp. v. Perego, 72 F.3d 855, 856 (Fed. Cir. 1995) (upholding patentee may recover damages for an infringer's interference with the patentee's market in unpatented goods).

cases openly engage with the effects of the defendant's conduct because market disruption is relevant to the doctrinal rules.

In other cases, market disruption arguments shape results indirectly. Courts, for example, are sometimes persuaded to define legal rights in ways that are skewed by impulses about effects of new technologies on the parties to the case. Those legal definitions are often justified in "free riding" and "unfair competition" terms.[202] Some of those cases are characterized by courts' negative reactions to parties designing business models to formally comply with existing law while still disrupting the plaintiff's market. Because those attempts strike courts as evasive or somehow abusive, they redefine legal rights to capture the conduct.[203] And even when the conduct falls far enough outside defined legal rights that they cannot identify any clear violation, courts sometimes recognize ill-defined penumbral claims relying on broad concepts of misappropriation or unfair competition.

C. *Evaluating Challenges to Disruption*

How should courts assess incumbent legal challenges to disruptive innovation? We begin from the premise that the market generally is better suited than are courts to determining which industry structure will have greater social value. That doesn't mean courts should *never* intervene to prevent development or deployment of new technology, but it does mean that they should regard that intervention as extraordinary and requiring justification in the purpose of the law being employed. In our view, courts are often overly receptive to market disruption arguments because they have the opposite inclination—they tend to be concerned about upsetting the status quo and affecting the settled expectations of market players, particularly when presented with arguments that some new technology will radically alter the industry. Market disruption arguments may be particularly powerful in the IP context, because claims that the disruption will fundamentally affect innovative or creative output sound like they are connected to the central purposes of IP. Caution, to courts, counsels against change.

But long experience demonstrates that arguments about the costs of disruptive new technologies to innovation and creativity are nearly always wrong, or at

202 *Cf.* Mark A. Lemley & Mark P. McKenna, *Owning Mark(et)s*, 109 MICH. L. REV. 137, 141 (2010) ("The anti-free-riding impulse can corrupt even cases ostensibly decided on more traditional trademark grounds. As a result, courts must be particularly vigilant to avoid finding confusion in unlikely circumstances because of the pull of free-riding concerns.").

203 *See* Am. Broad. Co., Inc. v. Aereo, Inc., 134 S. Ct. 2498, 2507 (2014) (minimizing *Cartoon's Network's* emphasis on volitional conduct by stating "this sole technological difference between Aereo and traditional cable companies does not make a critical difference here."); Metro-Goldwyn-Mayer Studios Inc. v. Grokster Ltd., 545 U.S. 913, 934-35 (2005) (distinguishing *Sony* by stating it is not required to "ignore evidence of intent").

least overstated.[204] The VCR didn't kill the movie industry, and streaming is almost certainly not going to kill the music industry.[205] Further, as Macchiavelli taught, disruptive technologies are often undervalued until people gain experience with them.[206] If courts shut down a potentially disruptive technology before its potential becomes apparent, we may literally never know what we are missing.[207]

As Macchiavelli also noted, incumbents have more power in the political process than new entrants.[208] So there is a political economy reason for courts to err on the side of disruptive entrants rather than incumbents: if a court wrongly favors an entrant, incumbents have the power to reverse that decision in Congress. But the reverse is unlikely to be true. A decision that shuts down a politically weaker party in favor of a stronger incumbent won't be overturned in Congress. As a result, judicial errors favoring entrants are more likely to be corrected than judicial errors favoring incumbents.[209]

That doesn't mean disruptive technologies or business models won't significantly affect particular incumbents. Nor does it mean that all disruption is socially beneficial. Digital music technology might have significant social value and even grow the pie with respect to music generally while at the same time shuttering thousands of Virgin Records stores.[210] Uber may improve life significantly for consumers but ruin it for taxi drivers. But those broader social impacts are things to be dealt with in social policy, not by protecting incumbents from innovation. Rather than giving credence to claims that the sky is falling,

204 *See, e.g.*, Lemley, *Sky Falling*, *supra* note **Error! Bookmark not defined.**, at 129-30 (exemplifying overreactions concerning impact of new technologies on existing industries by discussing VCRs and audio cassettes, among others).

205 *See id.* ("In fact, it turns out that through the 1980s and 1990s it was the very VCR and its successor, the DVD player, which were going to destroy the broadcast and movie industries, that kept them alive, generating $30 billion in revenues by 2002 for the industries.").

206 MACHIAVELLI, *supra* note **Error! Bookmark not defined.**, at 52.

207 *See* Carrier, *supra* note **Error! Bookmark not defined.**, at 950-58 (discussing costs associated with ignoring innovation and overemphasizing harms of potential infringement, which include a chilling effect on innovation, lost venture capital, and lost markets); Mark A. Lemley & R. Anthony Reese, *Reducing Digital Copyright Infringement Without Restricting Innovation*, 56 STAN. L. REV. 1345, 1389 (2004) (noting new technologies are "much more vulnerable to legal challenge" in part "because their ultimate value may not yet be clear" and in part because it will prevent "disruption of settled expectations that rooting out an existing technology would").

208 MACHIAVELLI, *supra* note **Error! Bookmark not defined.**, at 52.

209 We're grateful to Mike Meurer for this point.

210 *See, e.g.*, Alana Semuels, *Virgin Megastore to Shut Doors*, L.A. TIMES (Dec. 27, 2007), http://articles.latimes.com/2007/dec/27/business/fi-virgin27 [https://perma.cc/T9XN-XAKH] ("Sales of compact discs were down 23% last week from the same period in 2006, Billboard reported, as people continue to turn to the Internet for music.").

courts need to understand market disruption arguments for what they are: claims about the effects of disruption on particular parties, not the world at large.

Those claims are profoundly anti-market and anti-innovation. They ask courts to circumvent market outcomes in order to protect the parties who benefit from the status quo. Courts should be reluctant to do so, particularly in the name of IP laws that are supposed to promote innovation. More specifically, courts should intervene to prevent market disruption only when they have very good reasons—reasons connected to the fundamental policy concerns of the legal systems called upon to prevent the disruption.

To achieve that goal, we must know what the legitimate ends of the asserted law are. Sometimes the legal doctrine used to prevent market disruption is one like unjust enrichment, interference with economic advantage, or unfair competition that doesn't have a clear animating principle. We think those doctrines should be disfavored, and courts should employ them only when they are tied to some independent metric for deciding whether the defendant's conduct is unfair or unjust. Other doctrines, like antitrust and IP, have clearer purposes. There, we can evaluate legal challenges to market disruption by testing the fit between the goals of the statute and its use in a particular case.[211]

IP is designed to encourage innovation. As a result, different kinds of disruption arguments matter in cases involving copyright and trademark claims than antitrust and unjust enrichment claims. Where IP is at stake, courts should focus on whether the disruption will do too much to undermine private incentives to invest in new creation. Making that determination requires some assumptions about the incentive effects of IP rights generally, and we acknowledge the uncertainty of those assumptions. But unless we think IP rights have *no* relation to incentives, we need to be sensitive to the fact that some risk of uncompensated disruption could hurt innovation.

At the same time, courts should not presume that private losses necessarily implicate broader policy concerns, and as a result, they should be wary of conflating the fact of disruption with the violation of a legal right. Absent legal constraint, a new technology or market entrant will often force incumbents to change their business models or fail in the marketplace. That's how markets work in a dynamic economy. That risk doesn't mean that no one invests or that market actors should be able to expect courts to protect them against having to adapt. Quite the contrary: the prospect of disrupting an inefficient industry often induces innovation by start-ups. Courts therefore need to differentiate cases in

211 *See supra* Section I.B.1 (discussing when various antirust and business tort claims align with their statutory purposes). We recognize that new technologies often raise legal questions beyond those on which we have focused. Some disruptive technologies, for example, thrive in the market because of the way they enable data collection, and those technologies can raise serious privacy concerns. We do not suggest that those concerns do not justify judicial or regulatory response, only that any such response should likewise be justified in terms of the goals of the legal regime invoked.

which disruption would actually interfere with the purposes of IP law from those involving simple harm to the plaintiff that does not interfere with incentives.

In some cases, the private costs of disruption are high and the social value of the new technology is relatively low—either because it's not a significantly improved technology or because it doesn't materially improve consumers' access to goods or services.[212]Those are the easy cases for IP, at least if we assume there was some social value to the incumbent's initial contribution. The private costs of disruption justify treating the entrant's conduct as infringing, and in fact we risk losing more social value by failing to prevent the disruption than we'd gain from availability of the new technology.[213] Many patent cases fall into this category, both because the way we define infringement makes it harder to use patent law to reach disruptive conduct that is truly different[214] and because patent law is more likely than copyright or trademark law to intend control over a market. Precisely because a patent may control a market-dominating technology, we make it harder to get a patent than we do a trademark or copyright.[215]

At the other end of the spectrum are cases in which the social value of the disruptive technology is high and the private costs of disruption are fairly low—perhaps because it wouldn't be difficult for the incumbent to change models, or because the disruptive technology doesn't really compete with the incumbent in any direct way.[216] The cases we are concerned with often involve the use of IP

212 Aereo's antennae may fit in this category. For a discussion of innovation designed to avoid infringing IP rights, see Dan L. Burk, *Perverse Innovation*, 58 WM. & MARY L. REV. 1, 6-13 (2016). Innovation designed only to avoid existing legal rules may indeed be "perverse," as Burk suggests, but it can sometimes also produce valuable new technologies, as with peer-to-peer file sharing. *See id.* at 5, 16-18. There is a parallel debate about the line between permissible "tax avoidance" and "tax shelter" schemes, on the one hand, and illegal "tax evasion" on the other. *See* Kay Blaufus et. al., *Does Legality Matter? The Case of Tax Avoidance and Evasion*, 127 J. ECON. BEHAV. & ORG. 182, 183-84 (2016) ("In general, tax avoidance and evasion are alternate methods of reducing taxes that differ in their lawfulness."). In both instances, the lines seem somewhat arbitrary.

213 *See* Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 1000-10 (detailing treatment of improvements to original's idea in patent law) (1997).

214 Harder, but not impossible. Patents on interfaces, like copyrights on interfaces, can be used to restrict competition in the unpatented components that need to use those interfaces. *See, e.g.*, C.R. Bard, Inc. v. M3 Sys., F.3d 1340, 1368 (Fed. Cir. 1998) ("It is not presumed that the patent-based right to exclude necessarily establishes market power in antitrust terms.").

215 *See* Lemley, *supra* note 213, at 1041-42 ("A final justification for treating improvements differently under copyright law than under patent law may stem from the belief that copyrights confer less market power than patents.").

216 The Google Book Search case might be an example of the latter. *See* Authors Guild v. Google, Inc., 804 F.3d 202, 207-08 (2d Cir. 2015) (finding Google's copies of books without permission of the rights holder constituted fair when used for Google to establish a

rights outside their core to try to control an adjacent market, to prevent competition from products that are not themselves infringing, or to stop the defendant from drawing attention to their product. Those claims aren't likely to be particularly important to protecting the incentive to create; they are much more likely to reflect efforts to head off competition by innovators than to be critical to innovation by incumbents. A well-designed system should treat these technologies as non-infringing. But parties often want to control new technologies and/or extract some of their value, so they argue that the technologies will disrupt *future* markets they "deserve" and/or hope to exploit.[217]

The hardest cases are those in which the social value of the new technology is high but the private costs of disruption are also high. The first challenge in these cases is to determine whether the private costs implicate broader policy concerns. In cases where disruption is likely to do so, an ideally-designed system would define the disruptive conduct as infringing, precisely because the disruption threatens the core concerns of the system. Still, the significant social value of the disruptive technology shouldn't be ignored, and courts should be conscious of that value in tailoring the remedies in these cases. Plaintiffs should generally not be entitled to have courts keep productive new technologies out of the market, whether by injunction or by ruinous penalties. Any remedy in market disruption cases should be limited to the plaintiff's losses and should interfere with market competition as little as possible.

In Part III, we offer some ideas about how to implement these principles in the law.

III. WHEN IS DISRUPTION UNFAIR?

Unfair competition shouldn't be redundant. The law of business torts, including IP, needs a metric to distinguish complaints that are really about competition per se from those that are really about conduct that is unfair independently of its competitive aspect. Right now, court responses to market disruption arguments seem to be ad hoc, particularly in IP cases.

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publicly available search function). Full disclosure: one of us (Lemley) represented Google in that case. Patent troll suits are another. *See* Robin C. Feldman & Mark A. Lemley, *Is Patent Litigation Efficient?*, 98 B.U. L. REV. 649, 666 (2018) (arguing that patent enforcement serves society only when the patentee has engaged in some form of direct or indirect technology transfer).

217 *See* Princeton Univ. Press v. Mich. Document Sers., 74 F.3d 1512, 1523 (6th Cir. 1996) ("It is circular to argue that a use is unfair, and a fee therefore required, on the basis that the publisher is otherwise deprived of a fee"), *vacated en banc*, 74 F.3d 1528 (6th Cir. 1996). On claims to own future markets, see Lemley & McKenna, *supra* note **Error! Bookmark not defined.** On the circularity of claims of harm based on the license fee one could obtain if the defendant's conduct were prohibited, see Am. Geophysical Union v. Texaco, Inc., 60 F.3d 913, 937 (2d Cir. 1994) (Jacobs, J., dissenting); Mark A. Lemley, *Should a Licensing Market Require Licensing?*, 70 L. & CONTEMP. PROBS. 185, 190-91 (2007).

At the same time, not all disruption is socially valuable. Just as regulation sometimes serves valuable purposes, IP and other legal doctrines are sometimes preventing unproductive efforts to capture value the law has properly assigned to plaintiffs. Some would put *Grokster* and *Aereo* in this category – efforts to take advantage of loopholes in copyright law to capture market share from incumbents. Others would point out that limits on copyright and other doctrines are not "loopholes" but serve important purposes, and that (as we have seen) the world benefited quite a bit from turning back prior efforts by copyright owners to control media technology.[218]

In this Part, we suggest two ways to distinguish those cases.[219] First, market harm standing alone should not be the basis for a cause of action. Legal doctrines need some independent substance besides the fact of competitive injury. Second, even if a doctrine has a normative core, we need a test that measures whether the plaintiff's interest in enforcing the law aligns with society's interest in having that law. We suggest adoption of "IP injury" and "business tort injury" doctrines that parallel the existing "antitrust injury doctrine."

A. *Doctrines Without Substance*

One of us has previously suggested a framework for IP liability that requires both technical similarity and market harm.[220] Fromer and Lemley worried about cases that find liability based on similarity without harm.[221] Many IP laws permit plaintiffs to sue for technical acts of infringement even though the plaintiff has suffered no real injury.[222] The problems of patent and copyright trolls both stem from the lack of an explicit market harm requirement.[223] So, too, do some of the

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218 For a thoughtful effort to parse this distinction, see Dan L. Burk, *Perverse Innovation*, 58 Wm. & Mary L. Rev. 1 (2016),

219 There is another, broader challenge to disruption, increasingly in vogue, that opposes change simply because it is change. If you think Lyft is a bad idea because you liked things the way they were, you might like legal efforts to stifle disruption precisely *because* they discourage innovation. We don't address that line of thought in this paper.

220 *See* Jeanne C. Fromer & Mark A. Lemley, *The Audience in Intellectual Property Infringement*, 112 MICH. L. REV. 1251, 1251 (2014).

221 *See id.* at 1262-67.

222 For instance, patent "[e]xperts are likely to find infringement when two items are technically similar, whether or not consumers would view them as market substitutes. *Id.* at 1254. However, a "use that does not interfere with the plaintiff's market in some way generally does no relevant harm." *Id.* at 1254-55; *see also id.* at 1262-67 (explaining how merely technical infringement might be found in the patent context).

223 *See, e.g.*, Jeanne C. Fromer, *Should the Law Care Why Intellectual Property Rights Have Been Asserted?*, 53 HOUS. L. REV. 549, 556-57 (2015) (arguing that assertions of patent

most worrisome lawsuits from a free speech standpoint, such as copyright, trademark, and right of publicity lawsuits against parodies, satires, and criticism.[224]

But we should worry as much or more about those cases that find the opposite, rooting liability in market harm in the absence of sufficient technical similarity. Business torts (including IP regimes) run the risk of treating market disruption itself as illegal unless they are cabined with a substantive requirement of wrongful behavior that is more than just the fact of market disruption itself. In IP regimes, that independent substantive element is most commonly some sort of technical similarity analysis.

In most IP cases, courts don't explicitly treat market substitution as actionable itself. But they have a strong tendency to define the violations in ways that are obviously dominated by (we would say skewed by) impulses about "free riding" or "unfair competition" that are divorced from the underlying theories of the causes of action. And this tendency to ignore the core doctrine is compounded in cases that expand the substantive boundaries of the law to reach defendants who disrupt the plaintiff's market without doing anything the law traditionally would have viewed as infringing.

Resisting the urge to treat market harm, standing alone, as the violation of a legal right means that courts should reject torts or doctrines that treat injury to

rights and copyrights not motivated by protecting the holder's market against infringing substitutes create problems for the rights regimes and should warrant closer scrutiny); Fromer & Lemley, *supra* note 222, at 1291-92 ("[P]roof of market harm should require both evidence that consumers actually find the goods to be substitutes and a conclusion those customers' beliefs are reasonable and therefore something the law wants to credit.").

224 For parodies, see, for example, Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 591 (1994) (discussing copyright suit against rap parody of "Pretty Woman") Mattel, Inc. v. Walking Mountain Prods., 353 F.3d 792, 796, 812 (9th Cir. 2003) (affirming summary judgment by finding Mattel's trademark suit against artist of "Barbie Enchiladas" and other works improper). For satires, see, for example, Dr. Seuss Enters., L.P. v. Penguin Books USA, Inc., 109 F.3d 1394, 1400-01, 1406 (9th Cir. 1997) (affirming district court's granting of preliminary injunction prohibiting publication in trademark suit against Dr. Seuss-styled retelling of O.J. Simpson murder case, "The Cat in the Hat"); MasterCard Int'l, Inc. v. Nader 2000 Primary Comm., Inc., No. 00 Civ.6068(GBD), 2004 WL 434404, at *16 (S.D.N.Y. Mar. 8, 2004) (affirming summary judgment in trademark suit against Nader Campaign's use of Mastercard's "Priceless" template in ad critiquing money in politics). For suits against even nominative uses that can be chilling, see, for example, New Kids on the Block v. News Am. Publ'g. Inc., 971 F.2d 302, 307 (9th Cir. 1992) (Kozinski, J.) ("Much useful social and commercial discourse would be all but impossible if speakers were under threat of an infringement lawsuit every time they made reference to a person, company or product by using its trademark."); Stacey L. Dogan & Mark A. Lemley, *Parody as Brand*, 47 U.C. DAVIS L. REV. 473, 492 (2013) In general, see James Gibson, *Risk Aversion and Rights Accretion in Intellectual Property Law*, 116 YALE L.J. 882, 884, 907-26 (2007) (examining how IP rights accrete beyond their policy-justified boundaries in the context of litigious rights holders, reasoning it's "[b]etter [to be] safe than sued").

the plaintiff as sufficient to create a cause of action. This is an issue that has divided courts considering both unfair competition and unjust enrichment.

Unjust enrichment, properly understood, is a remedy, not a cause of action. It allows courts to require disgorgement of profits or tangible things held unjustly, but—as a remedy—only if the defendant holds those things in violation of some legal rule.[225] The same is true of the torts of unfair competition and interference with economic advantage. These are properly torts in their own right. But without standards for defining unfairness, courts are free to define any conduct they like as "unfair," whether or not it is independently illegal or deceptive.

These freestanding torts can swallow other areas of law by creating liability even for acts that would not have violated substantive law. To avoid this, states like California require unfair competition to be tied to some independent standard of illegal or tortious conduct, such as antitrust.[226] They have done the same with intentional interference with economic advantage.[227] And some courts are careful to treat unjust enrichment as a remedy, not as an independent cause of action.[228] We endorse those limits and suggest they should be adopted uniformly.

The risk is not simply that these free-standing torts will supplant other, better-defined causes of action. They may create bad substantive law because to some plaintiffs (and some judges), the very act of competition can seem unfair. Antitrust spent decades weeding out cases brought by competitors whose

225 *See* Laycock, *supra* note **Error! Bookmark not defined.** at 933 (discussing hypotheticals where the law will not disgorge through "forced exchange" where no legal rule has been broken, as would be true in the case of an unrequested benefit such as the aesthetic value created for you by your neighbor's new fence). This is different from the question of whether plaintiffs who *have* shown violation of a legal right have standing to obtain restitution even though they cannot show injury that would give rise to a damages claim. For an argument that they should, see Lauren Scholz, *Privacy Remedies* 94 IND. L.J. at nn. 8-11 (forthcoming 2019).

226 *See* Cel-Tech Commc'ns., Inc. v. L.A. Cellular Tel. Co., 973 P.2d 527, 544 (Cal. 1999) ("When a plaintiff who claims to have suffered injury from a direct competitor's 'unfair' act or practice invokes section 17200, the word 'unfair' in that section means conduct that threatens an incipient violation of an antitrust law, or violates the policy or spirit of one of those laws because its effects are comparable to or the same as a violation of the law, or otherwise significantly threatens or harms competition.").

227 *See, e.g.*, Della Penna v. Toyota Motor Sales, U.S.A., Inc., 902 P.2d 740, 751 (Cal. 1995) (requiring that interfering conduct be "wrongful by some legal measure other than the fact of interference itself").

228 *See* Laycock, *supra* note **Error! Bookmark not defined.**, at 1286 ("If a state says that plaintiff may waive the tort and sue in quasi-contract, and if it treats quasi-contract as real contract for some purposes, or if quasi-contract has its own set of collateral rules, plaintiff may be able to choose between different statutes of limitation, survivor-ship rules, sovereign immunity rules, and rights to jury trial.").

complaint was that they were out-competed on the merits[229] or whose products were rendered irrelevant as companies integrated different products together.[230] Those who lost out in the marketplace often had an appealing emotional case to a jury that didn't want to deprive plaintiffs of their livelihood, even though it was competition itself—not unfair competition—that hurt them. From an economic perspective, competition is a good thing. But our human instinct often tells us that competition itself is unfair competition. Courts need tools to resist that instinct.

There is a similar problem in IP cases. As we have observed elsewhere, courts and juries have a very strong anti-free-riding impulse.[231] Even in the absence of an IP right, people have a strong instinct that copying is wrong.[232] And that

229 *E.g.*, United States v. Von's Grocery Co., 384 U.S. 270, 281 (1966) (White, J., concurring) (agreeing to enjoin merger between two grocery chains where their combined share would have been 8.9% of revenue, or just greater than the largest chain's eight percent); United States v. N.Y. Great Atl. & Pac. Tea Co., 67 F. Supp. 626, 638-39 (E.D. Ill. 1946) (explaining how the A&P supermarket system used horizontal and actual or threatened vertical integration to prompt suppliers to sell to it at lower prices). For a discussion of this era of grocery cases, see Muris & Nuechterlein, *supra* note **Error! Bookmark not defined.**, at 5-19.

230 *See supra* note __.

231 Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1043-46 & nn.48-56 (2005) (collecting and discussing examples); Mark P. McKenna, *The Right of Publicity and Autonomous Self-Definition*, 67 U. PITT. L. REV. 225, 247-250 (2005) (arguing similarly). Other authors have noted that courts use free-riding to justify IP rights enforcement. See, *e.g.*, Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809, 814-817 (1935) ("[L]egal reasoning on the subject of trade names is simply economic prejudice masquerading in the cloak of legal logic"); Rochelle Cooper Dreyfuss, *Expressive Genericity: Trademarks as Language in the Pepsi Generation*, 65 NOTRE DAME L. REV. 397, 399 (1990) ("[T]he justifications supporting other intellectual property rights, such as patents and copyrights, do not apply to expressive uses of trademarks because free ridership on the commercial aspect of the mark is not a problem"); David J. Franklyn, *Debunking Dilution Doctrine: Toward a Coherent Theory of the Anti-Free-Rider Principle in American Trademark Law*, 56 HASTINGS L.J. 117, 117, 140-42 (2004) (contending courts are animated in anti-dilution trademark cases by concern for free-riding); Wendy J. Gordon, *On Owning Information: Intellectual Property and the Restitutionary Impulse*, 78 VA. L. REV. 149, 178 & n.106 (1992) (deriding the tendency to conclude that "if value, then right").

232 *See, e.g.*, Mengfei Huang et al., *Human Cortical Activity Evoked by the Assignment of Authenticity when Viewing Works of Art*, 5 FRONTIERS HUM. NEUROSCIENCE, 1, 6 (2011) (finding that regions of the brain "associated with reward and monetary gain . . . , presumably reflecting the increase in the perceived value of the artwork," were activated when subjects were told the Rembrandt they were viewing was authentic but that regions of the brain associated with tasks requiring holding working memory to be activated when subjects were told the Rembrandt was a copy, presumably reflecting their effort to discover what made the painting unoriginal); Kristina R. Olson & Alex Shaw, *'No Fair, Copycat!': What Children's Response to Plagiarism Tells Us About their Understanding of Ideas*, 14:2 DEVELOPMENTAL

instinct extends to the use of someone else's "property" without paying.[233] Whatever the merits of that instinct in dealing with tangible things, it can mislead in IP. As Wendy Gordon puts it, "[a] culture could not exist if all free riding were prohibited within it."[234] When we expand the universe of things that are off limits from borrowing someone's car or their axe to "borrowing" their ideas, their words, or even talking about them, we put shackles not only on commerce but on intellectual discourse. IP law is supposed to be carefully calibrated to do this only when we conclude it is necessary. Allowing it to be supplemented with an amorphous unjust enrichment or unfair competition doctrine lets courts and juries give free rein to that impulse.

To prevent that risk, courts have refused to let state unfair competition laws step in where design and utility patents refuse protection.[235] And they have created various channeling doctrines that prevent one form of IP from overstepping its bounds and undoing the limits of another IP regime.[236] Those

SCI. 431, 431 (2011) (finding that "by age 5 years old, children understand that others have ideas and dislike the copying of these ideas"); F. Yang et al., *No One Likes a Copycat: A Cross-Cultural Investigation of Children's Response to Plagiarism*, 121 J. EXPERIMENTAL CHILD PSYCHOL. 111, 111 (2014) (finding "children from cultures that place different values on the protection of ideas[, specifically the United States, Mexico, and China,] nevertheless develop similar concerns with plagiarism by 5-year-olds").

233 *See, e.g.*, Alex Shaw, Vivian Li, Kristina R. Olson, *Children Apply Principles of Physical Ownership to Ideas*, 36 COGNITIVE SCI. 1383, 1384 (2012) (collecting literature discussing children's concepts of ownership).

234 Gordon, *supra* note 231, at 167.

235 *See* Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 168 (1989) (holding state statute protecting boat hull designs was invalid under the Supremacy Clause because, "[b]y offering patent-like protection for ideas deemed unprotected under the present federal scheme, the Florida statute conflicts with the 'strong federal policy favoring free competition in ideas which do not merit patent protection'" (quoting Lear, Inc. v. Adkins, 395 U.S. 653, 656 (1969))); Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 232-33 (1964) (holding that "because of the federal patent laws a State may not, when the article is unpatented and uncopyrighted, prohibit the copying of the article itself or award damages for such copying"); Compco Corp. v. Day-Brite Lighting, Inc., 376 U.S. 234, 238 (1964) (holding the same on the same day, even where identical copy of unpatented item caused consumer confusion).

236 *See, e.g.*, Dastar Corp. v. Twentieth Century Fox Film Corp., 539 U.S. 23, 25-26, 38 (2003) (barring recovery under trademark law where, besides questions of consumer confusion, plaintiff had declined what would have been adequate protection under copyright law, as defendant's "World War II Campaigns in Europe" video set was sufficiently similar to plaintiff's once-copyrighted, now expired "Crusade in Europe" television series); Christopher Buccafusco & Mark A. Lemley, *Functionality Screens*, 103 VA. L. REV. 1293, 1365-77 (2017) (evaluating and proposing reforms to functionality-related screens in IP regimes); Christopher Buccafusco, Mark A. Lemley, & Jonathan S. Masur, *Intelligent Design*, 68 DUKE L.J. 75, 78-82 (2018) (evaluating and proposing reforms to doctrinal screens, or rules and tests built into each IP regime's doctrine that bar from protection works better suited to other regimes, and costly screens, which raise a cost barrier to bar as a practical matter

doctrines don't always work,[237] but they exist. Copyright and trademark have been less consistent in their preemption of state unfair competition laws. But we think courts need to cabin IP-based unjust enrichment and unfair competition arguments, taking care to apply the same substantive standards IP law would.[238] The "unjust" component of any enrichment is not the defendant's profit per se, but "what advantage . . . the defendant derive[s] from using the complainant's invention over what he had in using other processes then open to the public and adequate to enable him to obtain an equally beneficial result."[239]

Even if a law serves a valid purpose, as IP laws do, courts need to be careful that individual doctrines stay moored to the purposes and limits that animate those IP laws. When they don't, the risk is that those doctrines will be used to prevent, not unfair competition, but competition itself.

B. *An IP Injury Doctrine*

While the risk of falling back on an unarticulated instinct against disruptive competition is greatest when the law provides little or no doctrinal guidance limiting the scope of the right, the strength of the anti-free-riding impulse means that even laws with a normative core can be expanded or distorted to prevent legitimate competition.

Copyright fair use cases, for instance, ask whether the plaintiff would suffer market harm if the defendant's use became widespread, but do not generally require that that market harm flow from the act of infringement itself.[240] Similarly, courts do not require that the market harm affect a plaintiff's current

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protection for certain works for which the cost would not be justified); Mark P. McKenna, Dastar*'s Next Stand*, 19 J. INTELL. PROP. L. 357, 364-373, 387 (2012) (detailing *Dastar* decision and arguing that it should be understood as, or extended to mean that, *Dastar* "reserve[s] to copyright law the rules for use of creative material, much as *TrafFix* reserves to patent law rules for control of useful features").

[237] Buccafusco, Lemley, & Masur, *supra* note 236, at 109-123 (analyzing the failure of doctrinal and cost-driven IP screening, particularly the demise of copyright's useful article doctrine in the wake of the Supreme Court's decision in *Star Athletica*, the "toothless[ness]" of design patent's creativity screen, and the weakness of trade dress's functionality screen).

[238] At least one court already has done so. *See* Univ. of Colo. Found., Inc. v. Am. Cyanamid Co., 196 F.3d 1366, 1372 (Fed. Cir. 1999) (holding unjust enrichment based on theft of a patentable idea actionable as a state tort only if the state court applied federal standards for patent inventorship).

[239] Mowry v. Whitney, 81 U.S. 620, 651 (1872). For a detailed discussion of the history of unjust enrichment as a remedy in IP cases, see George P. Roach, *Counting the Beans: Unjust Enrichment and the Defendant's Overhead*, 16 TEX. INTELL. PROP. L.J. 483, 483-88 (2008).

[240] *See* SunTrust Bank v. Houghton Mifflin Co., 268 F.3d 1257, 1281 (11th Cir. 2001) ("[T]he market harm factor requires proof that [the allegedly infringing work] has usurped demand for [the original], or that widespread conduct of the sort engaged in by [defendant] would harm [plaintiff's] derivative markets." (citations omitted)).

market, allowing instead a showing of merely hypothetical harm to an unrelated market that a plaintiff may never exploit.[241] And indeed courts have sometimes been willing to find market harm based solely on the fact that the plaintiff could have collected a royalty for a use that would otherwise be fair.[242] A particularly dramatic example is *Oracle v. Google*,[243] where the Federal Circuit ignored controlling Ninth Circuit law in order to find that Oracle suffered market harm in a market it was unlikely to enter even though Google copied only a tiny fraction of Oracle's code in order to render its Android operating system compatible with Java.[244] Other cases have found it unfair to reproduce laws that have been adopted from privately-written standards because it harms the market for the privately-written standard.[245]

241 *See* Am. Geophysical Union v. Texaco, Inc., 60 F.3d 913, 937 (2d Cir. 1994) (Jacobs, J., dissenting) (pointing out that majority held the market factor weighed in favor of plaintiff even though "there [was] no normal market in photocopy licenses, and no real consensus among publishers that there ought to be one"); Fox News Network v. TVEyes, __ F.3d __ (2d Cir. 2018) (finding market harm in a market plaintiff showed no inclination to enter); *cf.* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 577 (1994) (requiring consideration of the effect on the market for rap derivatives of a Roy Orbison song, even though he had shown no inclination to enter such a market). For a discussion of how to define markets when considering market harm in fair use, see Xiyin Tang, *Defining the Relevant Market in Fair Use Determinations*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3264238 (working paper 2018).

242 *See Texaco, Inc.*, 60 F.3d at 937 (Jacobs, J., dissenting) (pointing out that majority held the market factor weighed in favor of plaintiff even though "there [was] no normal market in photocopy licenses, and no real consensus among publishers that there ought to be one"). *But see* Bill Graham Archives v. Dorling Kindersley Ltd., 448 F.3d 605, 615 (2d Cir. 2006) ("Since DK's use of BGA's images falls within a transformative market, BGA does not suffer market harm due to the loss of license fees.").

243 750 F.3d 1376 (Fed. Cir. 2017).

244 *Id.* at 1379 ("[W]e conclude that . . . the jury reasonably found that Google's copying of the rangeCheck files was more than de minimis."). For detailed discussions of the case and its shortcomings, see Joseph Gratz & Mark A. Lemley, *Platforms and Interoperability in* Google v. Oracle, 31 HARV. J.L. & TECH. 603, 613-14 (2018); Peter S. Menell, *Rise of the API Copyright Dead?: An Updated Epitaph for Copyright Protection of Network and Functional Features of Computer Software*, 31 HARV. J.L. & TECH. 305, 375-414 (2018); and Pamela Samuelson & Clark D. Asay, *Saving Software's Fair Use Future*, 31 HARV. J.L. & TECH. 535, 535-540 (2018).

245 Fortunately, that view has not prevailed. One trial court found as much. *See* Am. Soc'y for Testing & Materials v. Public.Resource.org, Inc., No. 13-CV-1215 (TSC), 2017 WL 473822, at *18 (D.D.C. Feb. 2, 2017) ("Whatever merit there may be in Defendant's goal of furthering access to documents incorporated into regulations, there is nothing in the Copyright Act or in court precedent to suggest that distribution of identical copies of copyrighted works for the direct purpose of undermining Plaintiffs' ability to raise revenue can ever be a fair use."). However, the trial court was reversed on this point. *See* Am. Soc'y for Testing & Materials, et al. v. Public.Resource.Org, Inc., 896 F.3d 437, 449 (D.C. Cir. 2018) ("PRO's

As we described above, especially in copyright cases the Supreme Court has shown itself willing to change the substantive law to cover the defendant when the defendant seems like a bad actor, even though its acts didn't violate preexisting law. In *Grokster*, the defendant carefully conformed its behavior to the rules of secondary liability set forth in *Sony* and various circuit court decisions.[246] And in *Aereo*, the defendant followed existing precedent defining public performance and distinguishing remote control by users from centralized operation of a broadcast system.[247] In both cases, the lower courts held the defendants' conduct lawful because it complied with the rules in force at the time.[248] And in both cases the Supreme Court blithely created a new legal doctrine to reach that conduct and applied that doctrine retroactively to find the defendants liable.[249] Whatever one thinks of the substantive results of those cases, the idea that we will just redefine what constitutes infringement after the fact to outlaw conduct that was legal when entered into is troubling.[250]

attempt to freely distribute standards incorporated by reference into law qualified as a use that furthered the purposes of the fair use defense."). Disclosure: Lemley represents Public Resource in this matter. For a similar trial court finding and appellate court reversal (there invalidating the copyright of plaintiff) involving the same defendant, see Code Revision Comm'n v. Public.Resource.Org, Inc., 244 F. Supp. 3d 1350, 1360 (N.D. Ga. 2017), *rev'd and remanded sub nom.* Code Revision Comm'n. for Gen. Assembly of Georgia v. Public.Resource.Org, Inc., 906 F.3d 1229, 1255 (11th Cir. 2018), *cert.granted* __ S.Ct. __ (2019). As yet another example, the Fifth Circuit initially held that private model codes retained their copyright even following enactment as law so "long as the citizenry has reasonable access to such publications cum law." Veeck v. S. Bldg. Code Cong. Int'l Inc., 241 F.3d 398, 411 (5th Cir. 2001). But upon rehearing that holding was effectively reversed, with the *en banc* Fifth Circuit considering that, while the model codes themselves were copyrightable works, the enacted laws were facts, and the model code organization could not enforce its copyrights against an entity republishing those facts. *See* Veeck v. S. Bldg. Code Cong. Int'l, Inc., 293 F.3d 791, 802 (5th Cir. 2002) (en banc) ("When those codes are enacted into law, however, they become to the extent 'the law' of governmental entities and may be reproduced or distributed as 'the law' of those jurisdictions.").

246 Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 927 (2005).

247 American Broadcasting Cos., Inc. v. Aereo, Inc., 134 S. Ct. 2498, 2504 (2014).

248 *Id.*; *Grokster*, 545 U.S., at 927.

249 *Aereo*, 134 S. Ct., at 2503 ("Aereo, Inc., infringes this exclusive right by selling its subscribers a technology complex service that allows them to watch television programs over the Internet at about the same time as the programs are broadcast over the air."); *Grokster*, 545 U.S., at 919 ("We hold that one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties.").

250 For a discussion of when new legal rules should be retroactive in IP law, see Jonathan Masur & Adam Mortara, *Patents, Property, and Prospectivity*, 71 STAN. L. REV. 963 (2019).

Trademark cases have also sometimes focused on market harm to the exclusion of the substantive requirement of consumer confusion. Courts considering the so-called "merchandising right" have allowed plaintiffs to prevail simply because the defendants used their mark on goods such as T-shirts, without distinguishing between confusing and non-confusing uses of the mark that might have caused the same harm.[251] And courts have been willing to presume harm to a brand even from uses in markets a plaintiff would never enter.[252]

Not all these cases involve efforts to stop competition itself, but some do. And the doctrines open the door to abusive claims like those made in *Oracle*, *Star Athletica*, and *Smack Apparel*.

For the past four decades, antitrust law has fought similar abuses by carefully limiting who has standing to bring antitrust cases. The "antitrust injury" doctrine requires that a plaintiff show at the outset that they suffered "injury of the type the antitrust laws were intended to prevent and that flows from that which makes defendants' acts unlawful."[253] The doctrine is designed to prevent precisely the

251 *See, e.g.*, Fifty-Six Hope Music Rd. v. A.V.E.L.A., Inc., 778 F.3d 1059, 1070 (9th Cir. 2015) (holding that the use of Bob Marley's image constitutes confusing use in and of itself because plaintiff owns Bob Marley merchandising rights); Bd. of Supervisors for La. State Univ. Agric. & Mech. Coll. v. Smack Apparel Co., 550 F.3d 465, 480-81 n.54 (5th Cir. 2008) (holding apparel with school colors and slogans infringed university trademarks even though parties stipulated no consumer was confused about origin or licensure); Coca-Cola Co. v. Gemini Rising, Inc., 346 F. Supp. 1183, 1191 (E.D.N.Y. 1972) (enjoining "Enjoy Cocaine" poster stylized like "Enjoy Coca-Cola" poster because, "[e]ven though in this case there is no confusion of goods or passing off in the strict trademark sense, there is a sufficiently clear showing of the impairment of plaintiff's mark as a selling device because of defendant's use"). For an argument that trademark law properly contains no such right to control the sale of merchandise merely because it contains a mark, see Stacey L. Dogan & Mark A. Lemley, *The Merchandising Right: Fragile Theory or Fait Accompli?*, 54 EMORY L.J. 461, 506 (2005). For a discussion on whether post-sale confusion generates harms about which trademark law should care, see Jeremy N. Sheff, *Veblen Brands*, 96 MINN. L. REV. 769, 780-83, 793 (2012).

252 *See, e.g.*, Scarves by Vera, Inc., v. Todo Imps. Ltd., 544 F.2d 1167, 1172 (2d Cir. 1976) (holding defendant scarf maker infringed on plaintiff cosmetics maker because plaintiff might seek to sell scarves with its "Vera" mark in the future); Precision Tune Inc. v. Tune-A-Car, Inc., 611 F. Supp. 360, 368 (W.D. La. 1984) (enjoining defendant's use of confusingly similar mark in a distant geography where, hypothetically plaintiff might seek to expand); Lemley & McKenna, *supra* note **Error! Bookmark not defined.**, at 146-47 (analyzing trend of courts to find trademark infringement where plaintiff and defendant are in different markets). The Lanham Act § 43 protects famous brands from "dilution" by blurring or tarnishment, including uses outside the market where the mark is currently used. 15 U.S.C. § 1125 (2012). But courts have extended trademark law to cover such uses even when the mark is not famous enough to qualify for antidilution protection.

253 Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 489 (1977); *see also* Cargill, Inc. v. Monfort of Colo., Inc., 479 U.S. 104, 109-114, 122 (1986) (discussing history of doctrine and extending it to Clayton Act § 16).

sort of unfair disruption claims we discuss in this article: suits by plaintiffs who lost in the marketplace because of competition on the merits, not because of its absence.[254] A plaintiff driven out of the market by a more efficient competitor, for instance, has suffered market harm, but hasn't suffered the kind of harm about which antitrust law cares. To the contrary, antitrust law is supposed to encourage rather than punish such competition.[255] The antitrust injury doctrine is effective in weeding out many suits by disgruntled competitors upset by competition rather than its absence.[256] The doctrine isn't perfect; it can be

254 *See Cargill, Inc.*, 479 U.S. at 122 ("[A] plaintiff . . . must show a threat of antitrust injury, [and a] showing of loss or damage due merely to increased competition does not constitute such injury.").

255 By contrast, when competition *is* threatened, as by cartels, courts allow even participants in the illegal agreement to challenge it, rejecting a defense of unclean hands. *See* Perma Life Mufflers, Inc. v. Int'l Parts Corp., 392 U.S. 134, 138 (1968). This is part of antitrust's effort to undermine anticompetitive agreements by sowing discord among co-conspirators. *See* Christopher R. Leslie, *Trust, Distrust, and Antitrust*, 82 TEX. L. REV. 515, 519 (2004) ("[A]ntitrust law gives cartelists a second dilemma: whether their co-conspirators will defect by exposing the cartel to federal antitrust enforcers . . . .").

256 For cases exemplifying the antitrust injury screen in practice, see, for example, CBC Cos., Inc. v. Equifax, Inc., 561 F.3d 569, 573 (6th Cir. 2009) ("Essentially, CBC disagrees with the price terms of the contract that Equifax proposed and CBC later signed. But even where a business carries a significant portion of the market share, antitrust law is not a negotiating tool for a plaintiff seeking better contract terms."); Port Dock & Stone Corp. v. Oldcastle Ne., Inc., 507 F.3d 117, 123 (2d Cir. 2007) ("Where a defendant is alleged to have acquired other firms in order to achieve monopoly power at the manufacturing level of a product market, dealers or distributors terminated in the aftermath do not have standing to assert claims . . . for monopolization at the manufacturing level . . . [because such a] dealer's injury was caused by the manufacturer's decision to terminate their relationship, something the manufacturer could have just as well done without having monopoly power."); Norris v. Hearst Tr., 500 F.3d 454, 468 (5th Cir. 2007) (holding no antitrust injury where newspaper distributor was displaced by monopolist newspaper as it vertically integrated into distribution); SmithKline Beecham Corp. v. Apotex Corp., 383 F. Supp. 2d 686, 698 (E.D. Pa. 2004) (settlement between brand-name and generic drug maker increased competition against plaintiff generic drug maker, and did not cause antitrust injury). Several studies have charted the effect of the 1977 *Brunswick Corp.* decision recognizing the "antitrust injury" doctrine. *See* Ronald W. Davis, *Standing on Shaky Ground: The Strangely Elusive Doctrine of Antitrust Injury*, 70 ANTITRUST L. J. 697, 775 (2003) (arguing that the screen enables courts to dismiss cases *too* easily and that courts should instead dismiss more cases on the merits); Jonathan M. Jacobson & Tracy Greer, *Twenty-One Years of Antitrust Injury: Down the Alley with Brunswick v. Pueblo Bowl-O-Mat*, 66 ANTITRUST L. J. 273, 273 (1998) ("The Court's opinion put a halt to what had been a persistent expansion of the private treble damage remedy."). *But cf.* Edward A. Snyder & Thomas E. Kauper, *Misuse of the Antitrust Laws: The Competitor Plaintiff*, 90 MICH. L. REV. 551, 576-81 (1991) (finding no clear pattern pre- and post-*Brunswick* in dismissal decisions regarding plaintiff competitors, though the authors recognize that isolating effect of the decision is difficult and that their results lack statistical significance).

abused by antitrust defendants challenging legitimate antitrust complaints.[257] But it provides a way for courts to identify very early in the process cases that aren't really serving the goals of antitrust law.

Extending the antitrust injury doctrine to unfair competition and other tort claims based on allegedly anticompetitive conduct would help screen out claims of unfair competition or unjust enrichment that are in truth merely claims of "unfair" disruption. Indeed, some courts have already taken that step.[258] We applaud that move, and think the principle needs to be recognized more generally in business tort cases.

We also need a similar doctrine for IP cases. We argued for an "IP injury" doctrine modeled on the antitrust injury requirement in the trademark context back in 2010.[259] Christina Bohannan and Herb Hovenkamp have suggested adopting such an IP injury doctrine more broadly .[260] As they explain it:

> We propose a concept of "IP injury" that limits IP remedies to situations in which the IP holder has suffered or is likely to suffer harm sufficiently linked to the purpose of IP law, which is to incentivize innovation. Indeed, if an act of infringement does no harm to the rights owner but benefits either the infringer or its customers and does not affect anyone else, then that act is a pure Pareto improvement—an economic ideal that is true of very few involuntary transactions.
>
> The challenge for legal policy is to determine when the IP holder has not suffered any cognizable harm. This analysis requires a re-examination of IP externalities, or spillovers, where IP should follow the antitrust lead in permitting the market to correct for them, intervening only where the

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257 For discussion of how antitrust injury was used by some courts to change substantive antitrust law, see C. Scott Hemphill, *Posner on Vertical Restraints*, 86 U. CHI. L. REV. 1057, 1062-71 (2019).

258 *See* Cel-Tech Commc'ns., Inc. v. L.A. Cellular Tel. Co., 973 P.2d 527, 544 (Cal. 1999) (holding that "unfair" prong of California's unfair competition law is limited to "conduct that threatens an incipient violation of an antitrust law, or violates the policy or spirit of one of those laws because its effects are comparable to or the same as a violation of the law, or otherwise significantly threatens or harms competition").

259 Mark A. Lemley & Mark P. McKenna, *Owning Mark(et)s*, 109 MICH. L. REV. 137 (2010).

260 BOHANNAN & HOVENKAMP, *supra* note **Error! Bookmark not defined.**, at 48 ("A conception of IP harm borrowed from the 'antitrust injury' doctrine could go far to realign IP law with the incentive to innovate."); Bohannan & Hovenkamp, *supra* note **Error! Bookmark not defined.**, at 979-80 ("[W]e propose a requirement of IP harm in infringement actions that would borrow from the 'antitrust injury' doctrine and antitrust's strict, common law-driven requirements that the right kind of harm and damages be proven."); *see also* Gugliuzza, *supra* note **Error! Bookmark not defined.**, at 750-53 (discussing IP injury proposal).

inability to recover for an external benefit has a material impact on ex ante incentives to innovate.[261]

We think this is a good idea, but fully operationalizing it is hard because it requires a court to identify what constitutes cognizable IP harm. As one of us has argued before, that harm is often circular: I have suffered an injury if the law gives me a right to collect money from your use, and often I have a right to collect money from your use if we view that use as injuring me.[262] There are

261 Bohannan & Hovenkamp, *supra* note **Error! Bookmark not defined.** at 905, 989; *see also* BOHANNAN & HOVENKAMP, *supra* note **Error! Bookmark not defined.** at 56 (making similar point); Thomas F. Cotter, *Transformative Use and Cognizable Harm*, 12 VAND. J. ENT. & TECH. L. (2010) (noting that we need to limit the sorts of harm we permit in copyright fair use cases). Judge Posner came closest to adopting such a rule, sitting as a district judge in *SmithKline Beecham Corp. v. Apotex Corp.*, 247 F. Supp. 2d 1011, 1048 (N.D. Ill. 2003). The Federal Circuit affirmed on other grounds and did not reach the question. 403 F.3d 1331 (Fed. Cir. 2005).

262 *See* Mark A. Lemley, *Should a Licensing Market Require Licensing?*, 70 L. & CONTEMP. PROBS. 185, 190 (2007) ("Whether a use is fair depends on whether the copyright owner loses anything from the use, but under *Texaco*, whether the copyright owner loses anything from the use depends on whether the use is deemed fair; only if it is not a fair use would there be licensing revenue to lose."); *see also* Am. Geophysical Union v. Texaco, Inc., 60 F.3d 913, 930-31 (2d Cir. 1994) (holding scientific journals could prevail on copyright infringement claims because Texaco, already paying some institutional licensing fees but unwilling to pay individual licensing fees (hence in court), might have been willing to pay licensing fees); *id.* at 937 (Jacobs, J., dissenting) (pointing out circularity of majority's reasoning). A similar circularity infects reasonable royalties in patent law because they are calculated based on what the parties would agree to, but what the parties would agree to is determined by what a court would award if they didn't agree. *See* Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 2021 (2007). Indeed, the circularity propagates and creates additional problems as patent licensers decide whether to forge licensing agreements while anticipating that courts may use these market-achieved agreements as benchmarks for remediation in future cases. *Id.* at 2021-22. Accordingly,

> licensing terms are not actually a good measure of damages because they are distorted by the courts' remedial standards. An ironic corollary is that licensing terms are actually less reliable as a proxy for harm than they would be if the licensing-based damages standard did not exist. If courts persist in using this inaccurate measure, patent owners will respond by reducing the number of licenses they grant.

Erik Hovenkamp & Jonathan Masur, *How Patent Damages Skew Licensing Markets*, 36 REV. LITIG. 379, 384 (2017).

ways to break that circularity,[263] but the notion of harm from IP infringement is a notoriously malleable one.[264]

We propose one specific implementation of the IP injury idea that will target claims of unfair disruption. If a plaintiff claims market harm, either in proving substantive IP infringement (such as by showing that the parties compete in trademark law, or using market effect to defeat a copyright fair use defense) or in assessing damages, courts should ask the following question: Would the plaintiff suffer the same injury from a market intervention that is not infringing? If so, the injury the plaintiff suffers is attributable to the defendant's competition generally and does not flow specifically from infringement.[265] For example, if Grokster could lawfully have provided software that people use to download copyrighted files had it done so under a different name,[266] the fact that it chose the name in order to induce infringement, even if unlawful, hasn't caused the copyright owner's injury. The injury would come from the legality of the software itself.[267] Similarly, if Google could lawfully reimplement Java's application programming interfaces (APIs) in its Android operating system without using the same names as Java's APIs, any injury to Oracle must be limited to market harm caused by the use of those names, not the use of the APIs themselves or the value of Android as a whole.

While many of our examples involve copyright incumbents trying to restrict technology company competitors, the IP injury doctrine we propose isn't a "pro-

263 *See, e.g.*, Bill Graham Archives v. Dorling-Kindersley, Ltd., 448 F.3d 605, 614 (2d Cir. 2006) (refusing to apply *Texaco*'s circular reasoning to transformative uses); Hovenkamp & Masur, *supra* note 262, at 413 (proposing that, whatever method courts use to calculate reasonable royalties, they do so without referencing to existing licensing fees for the same patent in the market); Lemley & Shapiro, *supra* note 262, at 2035-39 (suggesting that courts restrict injunctions and award damages with sensitivity to upward spiral of royalty rates).

264 For an innovative set of ideas for distinguishing true instances of copyright harm from cases without it, see Xiyin Tang, Defining the Relevant Market in Fair Use Determinations 2-3 (Aug. 2018) (working paper) (on file with author).

265 *See* Cotter, *supra* note 261, at 723-25 (arguing that harm which counts as "market harm" under fourth factor should be limited). Wendy Gordon has proposed a similar inquiry under the guise of proximate cause: if an injury would have happened whether or not the defendant's conduct was infringing, the infringement isn't the proximate cause of that injury. Wendy J. Gordon, *Proximate Cause in the Law of Copyright: Linking Liability to Incentives* (working paper 2019).

266 The choice of the name "Grokster" to capitalize on "Napster" was one of the primary pieces of evidence the Court used to find an intent to induce infringement. Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 925 (2005). The Court suggested it wanted its opinion to be read narrowly, to cover only the particular confluence of circumstances in that case, *id*., though that is certainly not the only possible reading of the opinion.

267 That might or might not be true. Two concurring opinions, each signed by three justices, in fact disagreed on whether the provision of that software was lawful. *Id.* at 942 (Ginsburg, J., concurring) (rejecting Court's finding that provision of software was unlawful); *id.* at 948 (Breyer, J., concurring) (arguing opposite).

Internet company" doctrine. It can also be used to limit claims by incumbent technology platforms against start-ups that threaten their business model. Indeed, we see that as its primary virtue: it doesn't protect technology companies per se, but anyone who challenges the power of incumbents – including incumbent technology companies. A possible example is *Facebook, Inc. v. Power Ventures, Inc.*,[268] where Facebook asserted copyright in user-posted content on its site to stop a company that wanted to allow willing users to take their Facebook data to a third-party site and integrate it with other social media platforms.[269] That IP claim seems weak and is clearly designed, not to protect Facebook's incentives to create (much less its users' incentives), but to protect their business model against disruptive competition. Facebook ultimately shut down the site using other tort claims, including the Computer Fraud and Abuse Act.[270]

An IP injury doctrine will help separate injury actually caused by infringement from claims in which IP is being used as a tool to serve other ends. There are elements of such a doctrine in disparate parts of the law already. For example, patent law requires a plaintiff who wants to recover lost profits to show that the defendant didn't have noninfringing alternatives available.[271] And that rule might extend to the calculation of reasonable royalties, though the law is less clear.[272] A patentee who wants an injunction might—or might not—have to

268 No. 08-CV-05780, 2017 WL 3394754 (N.D. Cal. Aug. 8, 2017).

269 *Id.* at *1 ("Facebook complained that Defendants employed Facebook's proprietary data without its permission by inducing Facebook users to provide their login information and then using that information to 'scrape' Facebook's proprietary material.").

270 Those claims were based on accessing Facebook to download the data. *See* Facebook, Inc. v. Power Ventures, Inc., 844 F.3d 1058, 1062 (9th Cir. 2016). The Ninth Circuit has since reversed course on the CFAA issue at least. HiQ Labs v. LinkedIn, __ F.3d __ (9th Cir. Sept. 9, 2019).

271 Grain Processing Corp. v. Am. Maize-Prod. Co., 185 F.3d 1341, 1351 (Fed. Cir. 1999) ("[O]nly by comparing the patented invention to its next-best available alternative(s)—regardless of whether the alternative(s) were actually produced and sold during the infringement—can the court discern the market value of the patent owner's exclusive right, and therefore his expected profit or reward, had the infringer's activities not prevented him from taking full economic advantage of this right.").

272 *See, e.g.*, Mentor Graphics Corp. v. EVE-USA, Inc., 851 F.3d 1275, 1287 (Fed. Cir. 2017), *cert. dismissed*, 139 S. Ct. 44 (2018) ("We agree . . . apportionment is an important component of damages law generally, and we believe it is necessary in both reasonable royalty and lost profits analysis."); AstraZeneca AB v. Apotex Corp., 782 F.3d 1324, 1335 (Fed. Cir. 2015) ("[I]t was proper for the [district] court to hold that the difficulties Apotex would have encountered upon attempting to enter [defendant's] market with a non-infringing product are relevant to the royalty rate . . . ."). *But cf.* Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1549 (Fed. Cir. 1995) (en banc) (endorsing plaintiffs use of "entire market rule"—that is, plaintiffs may attribute all the value of an apparatus to the patented infringed components therein); Bose Corp. v. JBL, Inc., 274 F.3d 1354, 1361 (Fed. Cir. 2001) (endorsing same). For more background, see generally Mark A. Lemley, *Distinguishing Lost Profits from Reasonable*

show that customers wanted the patented feature in order to show irreparable harm from infringement.[273] And a patentee who wants to use its success in the marketplace as evidence to show its invention was nonobvious must show some sort of nexus between the invention and that market demand.[274]

Royalties, 51 WM. & MARY L. REV. 655, 664-65 (2009) (discussing failure of patent remedies to appropriately differentiate the value defendant obtained through its efforts from those obtained through infringement).

273 In the Apple-Samsung saga, the Federal Circuit at first demanded that Apple show that consumers would not purchase defendant's product without the infringing feature in order to establish irreparable harm and warrant preliminary injunction. *See* Apple Inc. v. Samsung Elecs. Co. (*Apple II*), 695 F.3d 1370, 1374-75 (Fed. Cir. 2012) ("The patentee must . . . show that the infringing feature *drives* consumer demand for the accused product." (emphasis added)); Apple, Inc. v. Samsung Elecs. Co. (*Apple I*), 678 F.3d 1314, 1324 (Fed. Cir. 2012) ("Sales lost to an infringing product cannot irreparably harm a patentee if consumers buy that product for *reasons other* than the patented feature," and "a likelihood of irreparable harm cannot be shown if sales would be lost regardless of the infringing conduct." (emphasis added)). Later, the Federal Circuit appeared to soften this "causal nexus" requirement, acknowledging a plaintiff could still show irreparable harm warranting a permanent injunction even if other features also drove consumer demand. *See* Apple Inc. v. Samsung Elecs. Co. (*Apple IV*), 809 F.3d 633, 640 (Fed. Cir. 2015) ("The purpose of the causal nexus requirement is to establish the link between the infringement and the harm, to ensure that there is '*some* connection' between the harm alleged and the infringing acts . . . regardless of whether the injunction is sought for an entire product or is narrowly limited to particular features." (emphasis added)); Apple Inc. v. Samsung Elecs. Co. (*Apple III*), 735 F.3d 1352, 1364 (Fed. Cir. 2013) (holding that plaintiffs seeking permanent injunctions do not need to "show that a patented feature is the exclusive reason for consumer demand, [but rather] must show some connection between the patented feature and demand for [defendant's] products."). A recent case cited to these apparently differing *Apple* standards with seemingly equal approval, and yet required a seemingly lower bar than all of them. Macom Tech. Sols. Holdings, Inc. v. Infineon Techs. AG, 881 F.3d 1323, 1330 (Fed. Cir. 2018) (holding the district court did not clearly err in finding a "causal nexus" between infringed patent and resulting sales of product even where the product "might have [contained] non-infringing design-arounds" of the allegedly infringing features).

274 *See, e.g.*, Diamond Rubber Co. v. Consol. Rubber Tire Co., 220 U.S. 428, 441 (1911) (noting approvingly that a tire was "commercially successful" when upholding patent as a nonobvious improvement over prior art); Alco Standard Corp. v. Tenn. Valley Auth., 808 F.2d 1490, 1501 (Fed. Cir. 1986) ("This is one of those cases where evidence of secondary considerations[, especially commercial success,] 'may . . . establish that an invention appearing to have been obvious in light of the prior art was not.'" (quoting Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1538 (Fed. Cir. 1983)); Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 9-10 (1989) (discussing use of commercial success in the Federal Circuit's nonobviousness inquiry, and collecting cases); Robert P. Merges, *Commercial Success and Patent Standards: Economic Perspectives on Innovation*, 76 CALIF. L. REV. 803, 820, 826-27 (1988) (discussing history of courts' favor, disfavor, and favor once again for commercial success as factor in nonobviousness inquiry, and collecting cases).

We suggest generalizing those cases into an IP injury doctrine. A general requirement that the plaintiff's injury be traceable to infringement, not merely to the act of competition or disruption itself, will help courts weed out cases not motivated by IP infringement but by market disruption.

C. *Paying Off the Incumbents?*

We have offered reasons to worry about IP and tort suits that are really efforts to prevent market disruption, and tools to control those suits.[275] But even with those tools, sometimes IP and tort suits against market disruption will win. Maybe the entrant engaged in disruption in a way that really did constitute some independent legal wrong. Maybe courts didn't listen to us, and their intuition against free riding proved too strong to ignore. Or maybe, in rare cases, the incumbents had legitimate settled expectations to some form of market exclusivity that were necessary to induce them to invest in the first place. We explicitly offer such exclusivity to pharmaceutical and biotechnology patent owners, for instance.[276] And some might worry about the distributional consequences of disruptive innovation.[277]

Still, even in these cases, there is room for courts to adhere to and improve the doctrine to reduce abuse of IP rights. That's because even when the law does protect incumbents against disruptive innovation, rightly or wrongly, *how* it does so is critically important. While the normal remedy in IP cases has traditionally been an injunction, injunctive relief is often a bad idea when it is directed against a disruptive innovation. Granting an injunction means that society loses the value of the disruptive technology. So, even if that innovation disrupts the plaintiff's market in a way that causes it injury for which the law should compensate, the plaintiff's remedy should be compensation, not control.[278] A

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275 *See supra* notes 105-141 and accompanying text.

276 Hatch-Waxman Act, 21 U.S.C. §§ 355-60 (2012) (detailing process of filing application for FDA drug approval and bringing enforcement actions against those who infringe on a drug maker's market exclusivity).

277 *See, e.g.*, Lemley, *Scarcity*, *supra* note **Error! Bookmark not defined.**, at 471-81 (discussing disruption likely to be associated with technologies like 3D printing and how society might respond). We're not generally too concerned about those distributional consequences in the context of the lawsuits we consider here. Incumbents, not the public at large, are likely to bear the burden. Most of them are large, well-funded legacy companies, and if they can't make it in a new competition, well, that's the way a market economy works. But even if you believe incumbents deserve special consideration in some circumstances (say, taxi drivers whose market has been disrupted by ride-sharing), compensating them for innovative disruption is preferable to depriving the world of the benefits of that disruption.

278 *See* Mark A. Lemley & Philip J. Weiser, *Should Property or Liability Rules Govern Information*, 85 TEX. L. REV. 783, 784 (2007) ("[W]here injunctions cannot be well tailored to the scope of the property right at issue but necessarily restrain the use of property not owned by the plaintiff, those consequences can overwhelm the benefits of property rules in enforcing legal rights."); Jacob Victor, *Beyond Fair Use* (working paper 2019).

sufficiently punitive damages award[279] or disgorgement of the defendant's profits from disruptive entry could stop the socially desirable disruption of a defendant just as easily as an injunction.[280] Even if we want to compensate incumbents because their market is disrupted, their remedy should be limited to the reasonable, expectation-backed, investment harm they suffered. That means no injunction and no punitive statutory damages awards.

CONCLUSION

The law shouldn't prevent new entrants from disrupting existing incumbents without good reason. A variety of legal doctrines allow plaintiffs to sue for market disruption, either by making it a part of the cause of action or, more indirectly, by having the outcome influenced by the perception of free riding. We think those legal doctrines need some discipline, tying claims of market disruption to the actual purposes of the laws. Unfair competition is too often viewed as redundant. It shouldn't be.

279 Recent cases have seen minimum statutory damages in the hundreds of millions and even billions of dollars in cases like *Viacom v. YouTube* and *Authors Guild v. Google*. *See* First Amended Complaint at ¶¶ 3, 10, Viacom Int'l. Inc. v. YouTube, Inc., 940 F.Supp.2d 110 (S.D.N.Y. 2013) (No. 1:07-cv-02103) (seeking actual damages of "at least one billion dollars" or statutory damages for an alleged 150,000 infringing video clips watched over 1.5 billion times); Pamela Samuelson, *The Google Book Settlement as Copyright Reform*, 2011 WIS. L. REV. 479, 507 n.136 (2011) (reporting estimate of minimum statutory damages of $3.6 trillion at stake in *Authors Guild, Inc. v. Google, Inc.*); Alison Flood, *Authors Seek Damages in Google Books Copyright Row*, GUARDIAN (Aug. 7, 2012 13:05 EDT), https://www.theguardian.com/books/2012/aug/07/authors-damages-google-book-copyright (reporting plaintiffs seeking minimum statutory damages of $750 per work for 12 million copied works, which multiplies to $9 billion dollars); Peter S. Menell, *Assessing the DMCA Safe Harbors: The Good, the Bad, and the Ugly*, MEDIA INST. (Aug. 31, 2010), https://www.mediainstitute.org/2010/08/18/assessing-the-dmca-safe-harbors-the-good-the-bad-and-the-ugly/ (opining that "billion-dollar statutory remedies—as alleged in the YouTube case—makes little sense in absence of billion-dollar harms").

280 *See* Ian Ayres & Eric Talley, *Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade*, 104 Yale L. J. 1027, 1047-53 (1995) (describing continuum between liability and property rules); Louis Kaplow & Steven Shavell, *Do Liability Rules Facilitate Bargaining: A Reply to Ayres & Talley* 105 YALE L. J. 221, 221 (1996) ("In this case, the Coase Theorem informs us that when bargaining functions perfectly, the efficient result will be achieved regardless of the legal rule.").