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. Railroads displaced much (though by no means all) of the barge and shipping industry. They were in turn displaced by long-haul truck drivers, who are now at risk of being displaced by self-driving trucks. The Internet and smart phones disrupted any number of industries, from camera makers to travel agents to watchmakers to sellers of keychain flashlights. The sharing economy is disrupting many service industries, from taxis to hotels. And new technologies like 3D printing, robotics, and artificial intelligence (AI) threaten to displace many different workers, including lawyers.

Incumbents don’t like for their industries to be disrupted. As Niccolo Machiavelli wrote,

It must be considered that there is nothing more difficult to carry out, more perilous to conduct, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the [innovator] has enemies in all those who profit by the old order, and only lukewarm defenders in all those who would profit by the new order, this lukewarmness arising partly from fear of their adversaries, who have the laws in their favour; and partly from the
incredulity of [hu]mankind, who do not truly believe in anything new until they have had actual experience of it.⁴

Those incumbents frequently want to stop, or at least limit the use of, new technologies, which they often claim will make the world worse off.⁵ They are usually wrong about the social value of those technologies. And the process of what Joseph Schumpeter called “creative destruction”⁶ has been responsible for many of the most significant advances in the history of capitalism. But even if the world benefits from a disruptive new technology, the incumbents often don’t.⁷ The new technology frequently shakes up the market, and the winners of the 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.

Incumbents, then, have a strong incentive to stop the disruption that accompanies new technology. And they often rely on intellectual property (IP), unfair competition, or related legal doctrines as tools to do so. What that means is that many of the cases in these areas are

---


⁵ See, e.g., Mark A. Lemley, IS THE SKY FALLING ON THE CONTENT INDUSTRIES?, 9 J. TELECOMMS. & 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 8:31 AM PDT), https://www.bloomberg.com/opinion/articles/2018-08-06/uber-is-blamed-for-the-mistakes-of-new-york-s-leaders (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 82-85 (1975).

really about whether new players can force incumbents (and sometimes even industries) 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.

Unfortunately, we lack any comprehensive way of thinking about market disruption in these settings, and as a result, courts react quite differently to disruptive technology or business models in different cases. Sometimes they find the disruptive technology infringing of existing legal rights. New technology might fit within the legal definition of a prior invention, appropriately construed.\(^8\) Or the technology might not itself infringe any prior invention, but it makes it easier for third parties to infringe IP rights and is deemed illegal for that reason.\(^9\) One notable example in the copyright context involves digital media technology, much of which was held illegal because early uses frequently infringed copyright.\(^10\) In other cases, courts reject

---

\(^8\) 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).

\(^9\) 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 a 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 Syst. v. R & D Tool Eng’g, 291 F.3d 780, 782-83, 789 (Fed. Cir. 2002) (holding that the maker of unpatented molds and carrier plates with no other use than serving as replacements in a patented apparatus had not contributorily infringed).

\(^10\) 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”). But cf. Sony Corp. v. Univ. 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). Disclosure: Mark Lemley represented Grokster.
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.\textsuperscript{11}

One reason courts’ concerns about market disruption can be highly variable is that market disruption plays a very different role in different cases. Sometimes the competitive context lurks below the surface of cases that seem to focus on specific legal questions or even straightforward application of doctrine. That shouldn’t be terribly surprising – IP rights are meant to prevent at least some kinds of disruption, so the fact that rights are being used that way may in many cases seem unremarkable.

In other cases, market disruption surfaces more specifically, but in ways that are 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.\textsuperscript{12} Trademark courts consider whether the plaintiff and defendant are actual or likely competitors when deciding whether consumers are likely to be confused.\textsuperscript{13} Lost profit damages in patent cases may be calculated

\begin{itemize}
\item \textsuperscript{11} See, e.g., \textit{Sony Corp. of Am. v. Universal City Studios, Inc.}, 464 U.S. 417 (1984) (refusing to find Sony secondarily liable for its sales of the Betamax because of it was capable of substantial non-infringing uses, including private time-shifting, which was fair use); \textit{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).
\item \textsuperscript{12} 17 U.S.C. § 107(4); \textit{Sony Corp.}, 464 U.S. at 450–51. See also \textit{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); \textit{Harper & Row Publishers, Inc. v. Nation Enterprises}, 471 U.S. 539, 549, 566 (1985) (calling the potential effect on the market for the original the “single most important element of fair use”).
\item \textsuperscript{13} See, e.g. \textit{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 good,” “marketing channels,” and “likelihood of expansion of the product lines”); \textit{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
not only to account for lost sales, but for the ways the defendant’s conduct altered the market for the patented invention. These cases openly engage with the effects of the defendant’s conduct because market disruption is relevant to the doctrinal rules.

In still 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. 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. 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. Other areas of law reflect similarly mixed feelings about market disruption. Business tort claims like unjust enrichment – and even nominally procompetitive laws like antitrust – are often asserted by companies with a vested interest in restricting a competitor’s new technology.

---

14 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.


17 See infra sections __.
All of these cases really involve disputes about whether and when a new technology or market entrant should be able to force incumbents to change their business models. They are all, in an important sense, unfair competition cases. Our goal in this paper is to address the broader question of when competition by market disruption is “unfair.”

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, and not disruption of the status quo, as extraordinary. 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 even 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 counsels against change.

But long experience demonstrates that arguments about the costs of disruptive new technologies are nearly always wrong, or at least overstated, in terms of overall effects on innovation or creativity. The VCR didn’t kill the movie industry, and streaming is almost certainly not going to kill the music industry. That doesn’t mean disruptive technologies or business models won’t significantly effect particular incumbents. Digital music technology

---

18 Cf. Sara K. Stadler, Copyright as Trade Regulation, 155 U. Penn. L. Rev. 899 (2007).
19 See, e.g., Lemley, Sky Falling, supra note __.
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. What that means is that, rather than accepting attempts to generalize, courts need to understand market disruption arguments for what they are: claims about the effects of disruption on particular parties.

Those claims are profoundly anti-market in the sense that 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. 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.

Those concerns differ across systems, and as a result, different kinds of disruptions would be relevant in cases involving patent and trademark claims than antitrust and unjust enrichment claims. Where, for example, the plaintiff invokes a system in which ex ante incentives to invest are relevant considerations (like, for example, patent law), courts should focus on whether the disruption is likely to undermine private incentives to invest. Making that determination in any context of course requires some assumptions about the incentive effects of IP rights generally, and we acknowledge the uncertainty of those assumptions. But if we are not to assume that IP rights have *no* relation to incentives, then we need to be sensitive to the fact that some risk of uncompensated disruption could have negative dynamic effects.

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

---

20 See, e.g., Alana Semuels, Virgin Megastore to Shut Doors, L.A. TIMES (Dec. 27, 2007) (“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.”).
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. Courts therefore need to differentiate cases in which disruption would actually implicate broader policy concerns from those of simple harm to the plaintiff.

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. 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.

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.\footnote{The Google Book Search case might be an example of the latter. Authors Guild v. Google, Inc., 804 F.3d 202 (2d Cir. 2015). 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 (2018) (arguing that patent enforcement serves society only when the patentee has engaged in some form of direct or indirect technology transfer).} A well-designed system should define rights in a way that treats these technologies 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.\textsuperscript{22}

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 others 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.

As a partial operationalization of these distinctions in the context of IP, we suggest a test that helps separate legitimate cases of infringement from cases of pure market disruption. Drawn from the antitrust injury doctrine,\textsuperscript{23} our test would treat market disruption as relevant to

\textsuperscript{22} See Michigan Document Services v. Princeton University Press, 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 therefore deprived of a fee”), vacated en banc, 74 F.3d 1528 (6th Cir. 1996).

\textsuperscript{23} 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. F.T.C., 522 F.3d 456, 464 (D.C. Cir. 2008) (citations omitted) (“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, 213 (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
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 market intervention that is not infringing, that injury cannot be evidence of IP infringement.24 Requiring a unique causal 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, of course.25 And it will be particularly difficult in cases in which the issue in the case is precisely whether the relevant legal rights should be defined in a way that considers the defendant’s conduct infringing. But we think

likely violated the organization’s rules and enabled Rambus to later charge higher prices than it could have charged but for the deception. *Id.* at 463-64. Yet, the court held, given that 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 Herbert Hovenkamp et al., *IP and Antitrust* sec. 35.__, but the principle that actionable harm must be harm to competition and not merely disadvantage to a particular competitor is right.


25 We discuss some applications *infra* sections __.
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. 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

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.\(^26\) According to the labels, those technologies posed a mortal threat to the music industry.

The story is a familiar one.\(^27\) Time and time again, content owners have insisted that, if some new technology were allowed to proliferate, no one would ever create new music, movies, portraits, or whatever content was at issue.\(^28\) The threats in the first decades of the 20th century were the player piano and the gramophone. John Philip Sousa wrote an article, *The Menace of Mechanical Music*,\(^29\) in which he argued that those infernal devices were a

---

\(^{26}\) E.g., Grokster, Ltd., 545 U.S. at 913; A&M Records, Inc. v. Napster, Inc., 284 F.3d 1091 (9th Cir. 2002); UMG Recordings, Inc. v. MP3.com, Inc., 92 F. Supp. 2d 349, 351 (S.D.N.Y.) (finding conversion from CD to MP3 not transformative).

\(^{27}\) Portions of the following paragraph are adapted from Lemley, *Sky Falling*, supra note __.

\(^{28}\) Painter Paul Delaroche reportedly declared, on seeing his first daguerreotype, “From today painting is dead.” STEPHEN BANN, PAUL DELAROCHE: HISTORY PAINTED 9 (1997).

“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.”30 And he 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? 31

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. 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. 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?” 32

Later it was the photocopier that threatened books and other print content.33 The VCR promised to destroy the movie and television industries. As Jack Valenti, head of the Motion

---

30 Nate Anderson, 100 Years of Big Content Fearing Technology—In Its Own Words, ARS TECHNICA (Oct. 11, 2009 8:00 PM), https://arstechnica.com/tech-policy/2009/10/100-years-of-big-content-fearing-technologyin-its-own-words/.
31 Sousa, supra note 29, at 284.
32 Id. at 284.
33 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).
Picture Association of America told Congress, “the VCR [was] to the American film producer and the American public as the Boston strangler is to the woman home alone.”34 DVRs were accused of being an even bigger threat to the advertising-supported TV model, because they would enable easy commercial skipping.35 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.36 Then it was MP3 players and ultimately filesharing technologies.37 Even the internet itself has often been characterized as an existential threat.38

None of those predictions of doom have come 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

34 Home Recording of Copyrighted Works: Hearings 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, and the Admin. of Justice of the H. Comm. on the Judiciary, 97th Cong. 8 (1982) (testimony 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 See Jessica Litman, The Story of Sony v. Universal Studios: Mary Poppins Meets the Boston Strangler, in INTELLECTUAL PROPERTY STORIES 358 (Jane C. Ginsburg & Rochelle C. Dreyfuss, eds., 2006).

35 “It’s theft. Your 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.” Nate Anderson, 100 Years of Big Content Fearing Technology – In Its Own Words, ARS TECHNICA, Oct. 11, 2009, http://arstechnica.com/tech-policy/news/2009/10/100-years-ofbig-content-fearing-technologyin-its-own-words.ars. (quoting Staci D. Kramer, Content’s King, CABLEWORLD, Apr. 29, 2002).


37 Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 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.

38 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 See Stop Online Piracy Act, H.R. 3261, 112th Cong. § 103 (2011); Protect IP Act, S. 968, 112th Cong. § 103 (2011).
might have squelched had Sony been found contributorily liable for designing the Betamax with a record button) turned out to be incredibly lucrative.39 And the same was true of digital devices for recording and replaying television shows: rather than kill TV advertising, they actually increased the number of television commercials viewed.40 The Internet hasn’t killed the music industry, which, by most accounts, is as profitable now as it’s ever been.41 We’re also getting more new music now than ever before.42

But even if 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 some certain industry players. Napster pushed iTunes, which spelled doom for CD sales; streaming services have dramatically affected purchasing of recorded music.43 That same phenomenon holds across a variety of


42 Lemley, IP in a World Without Scarcity

contexts. Netflix didn’t kill the at-home movie market, but it certainly disrupted Blockbuster’s rental model.

Not surprisingly, parties with strong interests in existing arrangements have often invoked IP or related doctrines to protect against the effects of new technologies or business models. Take, for example, Aereo.\footnote{American Broadcasting Cos., Inc. v. Aereo, Inc., 134 S.Ct. 2498 (2014).} In that case, the upstart technology company used tiny antennae, each dedicated to a single subscriber, to capture broadcast content that was \textit{freely available} over-the-air and retransmit it for a fee over the internet.\footnote{Aereo, 134 S.Ct. at 2503.} Aereo’s model threatened to disrupt the business arrangement cable companies and broadcast networks had developed around previously-available technologies, so ABC sued for copyright infringement.

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.\footnote{See Patrick R. Parsons, \textit{Blue Skies: A History of Cable Television} 349-52 (2008) (describing this sequence in the epic story of cable’s rise and regulation).} That resolution looked like a win for both parties—it provided a high-quality distribution pathway for television, and cable companies would both \textit{pay} broadcasters for the privilege and \textit{charge} customers for the service. Aereo threatened that model because its system allowed consumers to receive high-quality broadcast content without

paying the cable companies. 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 threatened the economic models of the very cable companies that Congress feared would disrupt the broadcast companies’ models.

In our view, a number of other cases across different areas of IP fit this description—from initial interest confusion cases in trademark law (particularly those involving competitive keyword advertising) to cases alleging that platforms are secondarily liable for copyright infringement, anti-compatibility cases, and trademark and design patent cases against producers of spare parts and independent repair service providers. In all of these contexts, parties invoke IP or related areas of law where the concern is about disruptive competition.

II. The Law As Regulator of Market Disruption

As the previous section described, IP owners commonly claim that new technology will destroy creative or innovative output, at least if not under the control and direction of the IP owner. In reality, however, those claims often are really about the impact of the new technology on the business models of particular parties, and about whether new entrants should be able to disrupt those models and force incumbents to adjust or leave the market. Similar patterns emerge in a variety of adjacent area of law, which similarly deal with incumbents’ desire to prevent disruption.

A. IP and Market Disruption

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.
As we noted above, courts have a variety of impulses about these arguments, which arise in many contexts. Sometimes courts reject market disruption arguments, 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.

1. Accommodating Disruption

Courts in IP cases sometimes reject market disruption arguments, including with respect to several of the technologies we mentioned above. The Supreme Court, for example, was unmoved by market disruption arguments in *Fortnightly Corp. v. United Artists Television, Inc.*, which involved cable retransmissions of over-the-air television broadcasts.\(^{48}\) According to the broadcasters, the retransmissions violated their public performance rights.\(^{49}\) The Court rejected that claim, holding that retransmission was not infringing because it was more like passive “viewing” of the television broadcasts than active “performance” of the works.\(^{50}\) That was true, the Court held in *Teleprompter Corp. v. CBS*, even when viewers received retransmissions of distant signals that were not normally available in their areas.\(^{51}\) Notably, the Court in *Teleprompter* concluded that broadcasters and content owners would not be harmed by

\(^{48}\) 392 U.S. 390 (1968).

\(^{49}\) *Id.*

\(^{50}\) *Id.* at 399-401. Ginsburg, *supra* note _ at 1623 (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 of a new rival, cable.”).

retransmissions of distant signals because they could adjust their advertising rates (change their models) to account for the broader audiences made possible by the retransmissions.\textsuperscript{52}

Similarly, the Court 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.\textsuperscript{53} 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.”\textsuperscript{54} It then borrowed from patent law’s staple article 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 capable of substantial noninfringing uses.”\textsuperscript{55}

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.\textsuperscript{56} The result in \textit{Sony} was particularly notable, since it has been widely

\textsuperscript{52} \textit{Id.} at 411-13. \textit{See also id.} at 403 (Fortas, J., dissenting) (rejecting the majority’s impulse to protect the new technology and 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 it its becoming a tool of the powerful networks which hold a substantial number of copyrights used in the television industry”).

\textsuperscript{53} \textit{Sony}, 464 U.S. at 420.

\textsuperscript{54} \textit{Id.} at 431.

\textsuperscript{55} \textit{Id.} at 442.

\textsuperscript{56} \textit{Id.} at 454-55.
reported that the industry was trying to shut down videotape recorders in favor of a different technology – videodisc players – which was non-recordable.\textsuperscript{57} 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 \textit{harm}, which the copyright owners could not establish.\textsuperscript{58} Presciently, the Court even accepted the District Court’s conclusion that time-shifting was more likely to aid the plaintiffs than hurt them.\textsuperscript{59}

More recently, the Second Circuit rejected Cartoon Networks’s claim that Cablevision’s remote DVR (RS-DVR) system infringed its reproduction and public performance rights.\textsuperscript{60} In the court’s view, the remote DVR served the same function as the VCR, just using modern technology.\textsuperscript{61} “[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


\textsuperscript{58} \textit{Sony}, 464 U.S. at 454.

\textsuperscript{59} \textit{Id.} at 453.

\textsuperscript{60} Cartoon Network LP, LLLP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008).

\textsuperscript{61} Of course, the movie industry did successfully scuttle the first such technology. \textit{See} Newmark v. Turner Broad. Network, 226 F. Supp. 2d 1215 (C.D. Cal. 2002). The case against SONICBlue, the maker of the RePlayTV, settled without an opinion when the company was driven into bankruptcy. \textit{See} Paramount Pictures Corp. v. RePlayTV, 298 F. Supp. 2d 921 (C.D. Cal. 2004).
their home television sets, using only a remote control and a standard cable box equipped with the RS–DVR software.”

After describing the operation of Cablevision’s system in significant technological detail, the court concluded that the temporary “buffer copies” 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. 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. 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.

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:

acting without permission of rights holders, Google has made digital copies of tens of millions of books, including Plaintiffs', that were 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.

62 *Cartoon Network*, 536 F.3d at 124.
63 Id. at 130.
64 Id.
65 *Authors Guild v. Google, Inc.*, 804 F.3d 202, 207 (2d Cir. 2015).
The Second Circuit found the 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.\textsuperscript{66} Quoting its previous decision in \textit{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.”\textsuperscript{67} 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.”\textsuperscript{68}

The snippet view was also unlikely to harm the authors, because the snippets were in most cases unlikely to satisfy demand for complete books.\textsuperscript{69} 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.”\textsuperscript{70} For example, the court noted, “[a] snippet's capacity to satisfy a searcher's need for access to a copyrighted book will

\begin{itemize}
\item \textsuperscript{66} Id. at _.
\item \textsuperscript{67} Id. at 217.
\item \textsuperscript{68} Id.
\item \textsuperscript{69} Id.
\item \textsuperscript{70} Id.
\end{itemize}
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.\textsuperscript{71}

That means the substitutionary effect of the snippets wasn’t necessarily traceable to acts of infringement. And 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 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.”\textsuperscript{72}

Finally, the court rejected the plaintiffs’ “contention that Google ha[d] usurped their opportunity to access paid and unpaid licensing markets for substantially the same functions that Google provides ...”\textsuperscript{73} 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.”\textsuperscript{74}

Of course, even when Courts reject market disruption arguments, it’s often after the issue has been litigated extensively. And 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*. It’s also the story of the compulsory license for cable retransmissions built into the 1976 Act in response to *Fortnightly* and *Teleprompter*.

2. Anti-Disruption Impulses in IP

Concerns about market disruption sometimes do affect outcomes in cases, however. As we noted above, those concerns manifest 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. 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 they cannot identify any clear violation, courts 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*. 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. When a subscriber wanted to watch a show that was currently airing, she would “select that 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

---


76 *Id.* at § 111. See also *id.* at § 1201(k) (requiring copy control devices for videotape recorders and prohibiting circumvention of those controls).
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.” 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 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.

Subscribers were able to watch the streamed broadcast on any internet-connected device and from any location. Streaming continued, on delay of a few seconds, until the subscriber received the entire show, after which the subscriber-specific copy was not retained. Importantly (at least to Aereo), 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. The system was 1 to 1, not 1 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. According to the

78 Aereo, 134 S.Ct. at 2500.
79 Id.
80 Id.
81 Id. at 2503.
82 17 U.S.C. § 101 (“To perform ... a work ‘publicly’ means ... to transmit ... a performance ... of the work ... to the public ...”).
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. 83

The Court agreed—“Aereo’s activities were substantially similar to those of the CATV companies that Congress amended the Act to reach.” 84 Aereo, and not just its subscribers, “performed” the works 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.” 85 Aereo “carrie[d] ... whatever programs it receive[d], and it offer[ed] all the programming of each over the air station.” 86 No matter that Aereo used equipment (antennas) that “emulate[d] equipment a view 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. 87

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”? 88 Doesn’t that mean that the subscriber, and not Aereo, selected

83 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 Oral Argument Transcript at 3-7, 28 (https://www.supremecourt.gov/oral_arguments/argument_transcripts/2013/13-461_97l5.pdf).

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

85 *Id.*

86 *Id.*

87 *Id.* at 2507.

88 *Id.*
the content that was performed?\textsuperscript{89} Not to the majority, because cable subscribers also could select which programs to view by turning the channel.\textsuperscript{90} Turning the channel could not, of course, change 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. It could not see why this “single difference, invisible to the 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.’”\textsuperscript{91}

In other words, it did not matter that Aereo designed its system to be technically distinct from cable systems in at least two significant ways – by making it 1:1 (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/when those subscribers affirmatively selected a specific program.\textsuperscript{92} 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

\begin{itemize}
\item \textsuperscript{89} That was a critical difference for the dissent. See Aereo, 134 S.Ct. at 2513-14.
\item \textsuperscript{90} Id. at 2507.
\item \textsuperscript{91} Id.
\item \textsuperscript{92} 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 and sounds are received beyond the place from where they were sent.
\end{itemize}
commercial objective any different from that of cable companies. Nor d[id] they significantly alter the viewing experience of Aereo’s subscribers.”\textsuperscript{93}

This kind of analogizing along functional lines is hardly foreign to copyright, and it isn’t always done to find infringement. In this respect, we might contrast Aereo with Cartoon Network, which analogized the remote DVR to the VCR in finding the remote DVR noninfringing. But, ironically, Aereo rejected the legal reasoning of Cartoon Network, and particularly its emphasis on volitional conduct, in reaching its conclusion in Aereo.

Aereo is notable for another reason, namely the Court’s hostility toward Aereo’s evident intent to design its system to comply with existing precedent defining public performance and distinguishing remote control by users from centralized operation of a broadcast system. At the 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 antenna, other than “to get around the copyright laws.”\textsuperscript{94} When Aereo’s lawyer demurred, suggesting that copyright law shouldn’t depend on the number of antenna, 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?”\textsuperscript{95} That sense that, in the end, Aereo’s system was really just a Rube Goldberg device designed technically to comply with previous cases, but meant to operate functionally as

\textsuperscript{93} Id. at 2508.  
\textsuperscript{94} Oral argument transcript at 31 (“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.”).  
\textsuperscript{95} Id. at 32.
a cable system, pervades the Court’s opinion—and perhaps explains the opinion’s failure to grapple with the potential implications of its holding.

Something similar could be said about Grokster. In that case, the defendant carefully conformed its behavior to the rules of secondary liability set forth in Sony and various circuit court decisions. But it did so while still facilitating quite a lot of direct infringement. Just as in Aereo, the lower courts held that Grokster’s conduct was lawful because it complied with the rules in force at the time, but the Supreme Court ultimately created a new legal doctrine to reach that conduct and applied that doctrine retroactively to find Grokster liable.

B. Market Disruption in other Regulatory Contexts

1. Price and Entry Regulation

Regulation is a primary legal tool incumbents use to insulate themselves from competition. A long literature discusses the history of how regulation, often originally intended to check the power of incumbents, may be turned into a tool protecting those incumbents against disruptive entry. Sometimes that protection is explicit. We prevented companies

---

96 In particular, the Ninth Circuit’s decision in Napster and the Seventh Circuit’s decision in Aimster.
98 Metro-Goldwyn-Mayer Studios, Inc. v. Grokster Ltd., 380 F.3d 1154, 1167 (9th Cir. 2004) (“In this case, the district court correctly applied applicable law and properly declined the invitation to alter it.”).
99 Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 919 (2005) (“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.”). Full disclosure: one of us (Lemley) represented Grokster in that case.
100 See generally David P. Baron, Strategy Beyond Markets: A Step Back and a Look Forward, in STRATEGY BEYOND MARKETS 1 (John M. 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 REGULATIONS 4 (1986) (explaining and illustrating nonmarket business strategies, including
from entering the telephone business for most of the 20th century, reasoning that because telephony was a network good101 the market was most efficient as a regulated monopoly.102 Many places still treat electric power103 and natural gas the same way.104 And various professional licensing groups control entry into their fields.105 And once the government controls entry, it generally also needs to control price. Ostensibly that’s to prevent the

by recounting one regulatory waiver that created $5 billion of value for a single firm); 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); G. RICHARD SHELL, MAKE THE RULES OR YOUR RIVALS WILL (2004) (collecting for a business audience examples of businesses successfully using regulatory processes and legal actions to cut down their competition and entrench their own market positions).


103 See, e.g., Severin Borenstein & James Bushnell, Restructuring, 7 ANN. REV. ECON. 437, 443 & fig.2 (2015) (showing states by share of output provided by nonregulated electric companies versus public utilities).

104 See, e.g., Nicholas Apergis, Nicholas Bowden, & James E. Payne, Downstream Integration of Natural Gas Prices Across U.S. States: Evidence from Deregulation Regime Shifts, 49 ENERGY ECONS. 82, 83 (2015) (discussing federal and state deregulation of natural gas, with over 10% of U.S. customers now having multiple natural gas providers to choose from).

105 See, e.g., State Bd. of Dental Examiners v. F.T.C., 135 S. Ct. 1101, 1107-8, 1117 (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 the general trade of teeth-whitening). See generally MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS 137 (1965) ("Many organizations representing prosperous and prestigious professions like the law and medicine have also reached for the forbidden fruits of compulsory membership.").
monopoly from gouging its consumers, since the government has mandated that it 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 those
savings on to customers if they do.106

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.107 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.108

More recently, the sharing economy has offered a variety of new challenges by
disruptive incumbents to entrenched industries. Cities and states that regulated hotels and
taxi as quasi-public franchises resisted (and still resist!) the idea of opening those markets to
competition by the likes of Uber, Lyft, and Airbnb.109 In some countries those services are still

106 See, e.g., KANG & BUTLER, supra note 102, at 165-73 (discussing methods and unintended
consequences of rate regulation in the context of telephony); Harvey Averch & Leland L. Johnson,
Behavior of the Firm Under Regulatory Constraints, 52 AM. ECON. REV. 1052 (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).

107 See Rosemary Batt & Owen Darbishire, Reregulation 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”).

108 See Borenstein & Bushnell, supra note 103, at 437 (describing mixed results). But see Marianna
Marino, Pierpaolo Parrotta, & Giacomo Valletta, Electricity (De)regulation and Innovation 1 (BETA
Woking Paper No. 2017-33. 2017) (finding in some cases inverse correlation between deregulation and
rate of patent filings in electricity sector).

109 See, e.g., Aaron Short, The Sharing Economy Is New York’s Hottest Political War Right Now:
City And State Officials Are Duking It Out Over Uber And Airbnb, CITY & STATE N.Y. (May 15, 2018),
https://www.cityandstateny.com/articles/policy/policy/sharing-economy-new-yorks-hottest-political-
war-right-now.html (describing how, in “New York’s economy, like much of the rest of the country’s,
banned. But as those once-closed markets have opened to competition, the result has been disruption, but generally disruption in a positive direction for consumers. Uber, Lyft, and Airbnb present challenges for the larger economy and the legal system, 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 optometrists to civil engineers.

These entry-preventing regulations seemed like a good idea at the time. They served social goals. AT&T’s monopoly stopped the development of incompatible telephone networks that couldn’t communicate with each other. Power company monopolies were thought

[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).]


111 See Brishen Rogers, The Social Costs of Uber, 82 UNIV. CHI. L. REV. DIAG. 85, 86, 88 (2015) (arguing Uber has improved consumer welfare by increasing the efficiency of the car-hire market, including by virtually eliminating search costs, while noting that this “[c]reative [d]estruction” has left the legacy taxi industry less-well off in the immediate term and poses challenges for labor, public transportation, and other areas).


113 Cite antitrust cases involving both

114 See KANG & BUTLER, supra note 102, 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).
necessary to spur investment in a wide electric grid.\textsuperscript{115} And taxi regulations theoretically served public safety by preventing unscrupulous people from robbing customers—and unscrupulous customers from robbing cabbies.\textsuperscript{116} But in each case they also reduced consumer choice, reduced the incentive to invest in quality, and prevented full price competition. \textsuperscript{117} Worse, they discouraged innovations that would have (and eventually did) make those technologies cheaper and better. The arguments supporting these entry and price regulations weren’t wrong. But it turned out 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 and pharmaceuticals, for instance). In evaluating entry regulation, society needs to consider the harm it does by preventing disruptive innovation.


\textsuperscript{116} See Graham Russell Gao Hodges, \textit{Taxi!: A Social History of the New York City Cab Driver} 130-35 (2007) (describing incremental increases in regulation to combat crime, discrimination, and other issues in New York City).

\textsuperscript{117} For telephony, see Nicholas Economides, Katja Seim, & V. Brian Viard, \textit{Quantifying the Benefits of Entry into Local Phone Service}, \textit{39 RAND J. Econ.} 699 (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 \textit{cf. Vsevolod Salnikov et al., OpenStreetCab: Exploiting Taxi Mobility Patterns in New York City to Reduce Commuter Costs} (Mar. 10, 2015) (unpublished manuscript) (available at Cornell University’s arXiv.org), https://arxiv.org/abs/1503.03021 (suggesting Uber may only be cheaper in NYC for trips that would otherwise cost more than $35 by cab). For electricity sectors, see Paul L. Joskow, \textit{Deregulation and Regulatory Reform in the U.S. Electric Power Sector} 119, 121 (MIT Center for Energy and Environmental Policy Research, Working Paper 00-003, Feb. 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).
2. Costs and Behavior Regulation

Regulation doesn’t need to forbid entry—or even to focus on it—in order to discourage it. Many operating regulations—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.\footnote{See Cedric Manara, Head of Copyright, Google, Protecting What We Love About the Internet: Our Efforts to Stop Online Piracy (Nov. 7, 2018), https://www.blog.google/outreach-initiatives/public-policy/protecting-what-we-love-about-internet-our-efforts-stop-online-piracy/.} 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—fine 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.\footnote{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 06:00 EDT), https://www.theguardian.com/us-news/2016/oct/09/tesla-michigan-ban-detroit-lawsuit; see also Complaint, Tesla Motors, Inc. v. Johnson et al, No. 1:16-cv-01158, at 19-22 (W.D. Mich. filed 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. We shouldn’t ban Lyft from running a ride-sharing service, 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. 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. 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.

B. Litigation as Entry Regulation

Regulation is not the only way incumbent businesses make it hard for entrants to disrupt their markets. A variety of tort laws also turn out to be effective means of preventing disruptive entry.

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.\textsuperscript{121} So it seems like a tool that will encourage rather than impede market disruption. So it should be, and so it often is. But not always. 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.\textsuperscript{122} It was the challenge small banks brought against national banking chains.\textsuperscript{123} It is why taxi companies brought antitrust

\textsuperscript{121} “[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.” United States v. Trenton Potteries Co., 273 U.S. 392, 397 (1927). Competition suffers when former competitors agree not to compete, \textit{id.}, or when a dominant firm acts to impair a rival or exclude it from the market, Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 604 n.32 (1985). Sherman Act § 1 bars agreements that unreasonably restrain trade, while its § 2 bars single- or multi-firm conduct that seeks to gain or preserve monopoly power other than by competition on the merits. See 15 U.S.C. §§ 1-2 (2004).

\textsuperscript{122} \textit{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 8%); United States v. N.Y. Great Atl. and Pac. Tea Co., 67 F. Supp. 626, 638-39 (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 Timothy J. Muris & Jonathan E. Nuechterlein, Antitrust in the Internet Era: The Legacy of United States v. A&P (George Mason Law & Economics Research Paper No. 18-15, 2018), \url{http://ssrn.com/abstract=3186569}.

\textsuperscript{123} \textit{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).
claims against Uber and Lyft,\textsuperscript{124} despite the fact that the taxi franchises, not the entrants, 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.\textsuperscript{125} It was used to justify Apple’s collusion with book publishers to prevent Amazon from disrupting the publishing industry by lowering prices, for instance.\textsuperscript{126} 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.\textsuperscript{127} True, those don’t fit the


\textsuperscript{125} 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 \textit{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. \textit{Id}. No court since has found a defendant guilty of predatory pricing under the Robinson-Patman Act or the Sherman Act. Aaron S. Edlin, \textit{Stopping Above-Cost Predatory Pricing}, 111 \textit{YALE L.J.} 941, 942 (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, \textit{e.g.}, \textit{id.}; Christopher R. Leslie, \textit{Predatory Pricing and Recoupment}, 113 \textit{COLUM. L. REV.} 1695 (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. \textit{Cf}. United States v. AMR Corp., 335 F.3d 1109, 1111 (10th Cir. 2003).

\textsuperscript{126} 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, \textit{Competition Law for a Post-Scarcity World}, 4 \textit{TEXAS A&M L. REV.} 1, 15-21 (2016).

\textsuperscript{127} \textit{E.g.}, Town Sound and Custom Tops, Inc. v. Chrysler Motors Corp., 959 F.2d 468, 471-72 (10th Cir. 1992) (cars and car radios); Reiffin v. Microsoft Corp., 158 F.Supp.2d 1016, 1033 (N.D. Cal. 2001) (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
classic picture of big incumbents squashing little challengers; it is often the challengers that end up taking over the market, and the antitrust plaintiffs may be the “small dealers and worthy men” of a bygone era. 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.

Antitrust has effectively confronted these claims, developing tools designed to make sure that antitrust claims “protection competition, not competitors.” In particular, antitrust standing doctrines attempt to prevent plaintiffs from using antitrust as a competitive weapon by requiring that the injury the plaintiff suffers flow from the anticompetitive nature of

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 allpowerful combination of capital.

Fashion Originators’ Guild of Am. v. Fed. Trade Comm’n, 312 U.S. 457, 467 (1941) (quoting United States v. Trans-Missouri Freight Ass’n, 166 U.S. 290, 323 (1897)).

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. Syst, Inc., 441 U.S. 1, 19–20, (1979). They may conduct a “quick look” analysis under the rule of reason 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. F.T.C., 416 F.3d 29, 37 (D.C. Cir. 2005); see also California Dental Ass’n v. F.T.C., 526 U.S. 756, 770 (1999). Finally, they may conduct a full-blown “rule of reason” analysis otherwise, which is far more defendant-friendly. [cite on how plaintiffs rarely win RoR cases]

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.").
defendant’s conduct rather than from vigorous competition. We discuss those tools – and in particular the antitrust injury doctrine – in more detail in Part III.  

Unfair Competition. Most states have statutes or common law provisions forbidding unfair competition.  The Federal Trade Commission also has the power to address unfair competition under section 5 of the FTC Act.  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 . . .” Fraud is already illegal, of course, and making “unlawful” acts unlawful seems a tad redundant, if unexceptionable. 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, for instance, in which taxi drivers upset that Uber was competing with them sought (unsuccessfully) to have that competition declared unfair.

Some courts have sought to address this problem. In California, for instance, an unfair competition claim that is at base an antitrust-type claim must meet the substantive standards of antitrust law. That leaves open some tricky definitional issues. And it may mean that, at

---

131 See infra notes __-__ and accompanying text.
132 E.g., CAL. BUS. & PROF. CODE § 17200 (West 2018); see generally Alexander N. Cross, Comment, Federalizing Unfair Business Practice Claims under California’s Unfair Competition Law, 1 U. Chi. Legal Forum 489, 495-97 (surveying unfair competition laws adopted by the vast majority of states).
134 CAL. BUS. & PROF. CODE §17200 (West 2018).
135 312 F.Supp.3d 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 __.
136 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
least in the cases in which *Cel-Tech* applies, the “unfair” prong of California’s unfair competition law has no more independent force than the “unlawful” or “fraudulent” prongs. But it is at least an effort to find substantive standards to define what is unfair, and so reduce the risk that the law will be turned against disruptive technologies that aim to compete on the merits.

*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.

Fortunately, courts have recognized this problem. As with unfair competition, they generally require that the interfering conduct be “wrongful by some legal measure other than the fact of the interference itself.” They create a privilege of fair competition that the tort

---

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 (C.D. Cal. 2008) (allowing defendant’s fraud-related counterclaims under California’s Unfair Competition Law to proceed despite dismissing defendant’s antitrust counterclaims).

137 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 (2009) (summarizing the “split of authority on this question among the Courts of Appeal [in California]”).

138 Shyam Balganesh suggests that copyright law acts like the tort of interference with prospective economic advantage, giving plaintiffs control over market competition. 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.

cannot abridge.\textsuperscript{140} 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.\textsuperscript{141} 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.”\textsuperscript{142} 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.

\textit{Unjust enrichment}. Unjust enrichment, properly understood, is a remedy, not a cause of action.\textsuperscript{143} 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 substantive legal doctrine.\textsuperscript{144} Nonetheless, some courts have found liability for unjust enrichment as a tort

\textsuperscript{140} PMC, Inc. v. Saban Enter., Inc. (1996) 45 Cal. App. 4th 579, 603, \textit{disapproved on other grounds in} Korea Supply Co. v. Lockheed Martin Corp., 63 P.3d 954 n.11 (Cal. 2003). Of course, that simply begs the question we discussed in the last subsection: what competition is “fair”?\textsuperscript{141} \textsc{judicial council of california civil jury instructions} (2017),\texttt{https://www.justia.com/trials-litigation/docs/caci/2200/2202/}.


\textsuperscript{143} Joel Eichengrun, \textit{Remedying the Remedy of Accounting}, 60 \textsc{ind. l.j.} 463, 467-68 (1985); cf. Grupo Mexicano de Desarrollo, S.A. v. Alliance 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).

\textsuperscript{144} \textit{See} Douglas Laycock, \textit{Restoring Restitution to the Canon}, 110 \textsc{mich. l. rev.} 932-34 (2012) (book review) (discussing hypotheticals where the law will not disgorge through “forced exchange” where no
in its own right.\textsuperscript{145} 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.”\textsuperscript{146}

Here, too, we can 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 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).

\textsuperscript{145} Univ. of Colo. Found., Inc. v. Am. Cyanamid Co., 196 F.3d 1366, 1369 (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. \textit{See also} Douglas Laycock, \textit{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. \textit{Restatement (Third) of Restitution and Unjust Enrichment} § 51 cmt. e.1 (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, e.g., HANOCH DAGAN, UNJUST ENRICHMENT: A STUDY OF PRIVATE LAW AND PUBLIC VALUES (1997); Christopher T. Wonnell, \textit{Replacing the Unitary Principle of Unjust Enrichment}, 45 Emory L.J. 153 (1996).

\textsuperscript{146} \textit{E.g.}, Iconco v. Jensen Const. Co., 622 F.2d 1291, 1302, 1304 (8th Cir. 1980) (affirming, under Iowa law, disgorgement of unjust enrichment from defendant contractor to plaintiff contractor where defendant had won a government contract set aside for small businesses without meeting the bidding criteria but also without fraudulent intent that plaintiff argued it would have won otherwise); Holmes v. Palo, No. A17-1187, 2018 WL 3213035, at *5 (Minn. Ct. App. July 2, 2018) (holding trial court did not abuse discretion in permitting an unjust enrichment claim “[b]ecause the district court carefully reviewed all of the assets between the parties and meticulously determined which party should receive what,” 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 the 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, \textit{supra} note 81 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, \textit{Explaining Restitution}, 71 Va. L. Rev. 65, (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.”).
wrong. In *University of Colorado Foundation v. American Cyanamid*, 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.\(^{147}\) By so doing, it grounded the unjust enrichment in a substantive legal wrong, albeit one that didn’t specifically provide for a disgorgement remedy.

**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 18% of the U.S. workforce is bound not to take a competing job when they leave.\(^{148}\) 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.\(^{149}\) Employees are generally given no choice but to agree to these noncompetes.\(^{150}\) 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

---

\(^{147}\) *Univ. of Colo. Found.,* 196 F.3d at 1372. The court also found that the defendants committed fraud, a separate independent tort. *Id.* at 1374. The fraud damages were lower than the unjust enrichment award, but both awards were based on the same wrongful conduct and were eventually upheld. *Univ. of Colo. Found., Inc. v. Am. Cyanamid Co.,* 2003 Fed Cir decision.


\(^{149}\) 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 ET updated 1:38 PM ET), https://www.cnbc.com/2016/06/22/jimmy-johns-drops-non-compete-clauses-following-settlement.html (reporting sandwich worker contracts will no longer include noncompete).

limited to those circumstances.\textsuperscript{151} They provide an effective way for incumbents to block the most logical source of disruption – existing industry employees – from competing with them at all.

States have been inconsistent in their treatment of noncompetes. A minority of states, most notably California, ban them altogether.\textsuperscript{152} Most states impose some time and scope limitations on noncompetes but otherwise enforce them.\textsuperscript{153} The economic evidence is quite strong that noncompetes restrict innovation and economic growth.\textsuperscript{154} Indeed, the success of

\begin{footnotesize}

\textsuperscript{152} Regarding California, see \textsc{Cal. Bus. & Prof. Code} § 16600 (West 2018); Edwards v. Arthur Andersen LLP, 189 P.3d 285, 288 (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, \textit{Intellectual Property in the New Technological Age} 121 (2017). States forbidding them for professionals but allowing them otherwise include Colorado, Delaware, Massachusetts, and Tennessee. Id.

\textsuperscript{153} This is true, for instance, of Idaho, \textsc{Idaho Code Ann.} § 44-2701 (West 2018) (limiting enforceability of noncompetes that are “reasonable as to its duration, geographical area, type of employment or line of business”), Michigan, \textsc{Mich. Comp. Laws} § 445.774a (2018) (limiting similarly), and South Dakota, S.D. \textsc{Codified Laws} § 53-9-11 (limiting enforceability to two-year agreements related to like business in a specified area). See generally 1 Peter S. Menell, Mark A. Lemley, & Robert P. Merges, \textit{Intellectual Property in the New Technological Age} 119 (2017) (discussing majority rule).

\end{footnotesize}
Silicon Valley has been traced to ease of innovation that California’s refusal to enforce noncompetes makes possible. And there may be a trend in the states toward restricting them. But in most states today they represent a significant barrier to disruptive competition.

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.

---

See Jonathan M. Barnett & Ted M. Sichelman, Revisiting Labor Mobility in Innovation Markets 1 (Univ. S. Calif. L. Sch., Legal Stud. Working Paper Series, 2016-207, 2016), (finding California’s “non-enforcement” of noncompetes overstated because, through other contractual mechanisms, California employers achieved similar restrictions on labor mobility, and so arguing that other factors better explain Silicon Valley’s rapid innovation).

155 See, e.g., Alan Hyde, Working in Silicon Valley: Economic and Legal Analysis of a High-Velocity Labor Market (2003) (making this point); AnnaLee Saxenian, Regional Advantage: Culture and Competition in Silicon Valley and Route 128, 44 (1994) (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 (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, 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 _, at 1 (arguing this case is overstated because California employers developed other mechanisms, including legal, to slow labor mobility).

In this section, we suggest two ways to distinguish those cases. 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, we need “IP injury” and “business tort injury” doctrines that parallel the existing “antitrust injury doctrine” and test whether the plaintiff’s interest in enforcing the law aligns with society’s interest in having that law.

A. Doctrines Without Substance

One of us has previously suggested a framework for IP liability that requires both technical similarity and market harm.157 Fromer and Lemley worried about cases that find liability based on similarity without harm.158 Many IP laws permit plaintiffs to sue for technical acts of infringement even though the plaintiff has suffered no real injury.159 The problems of patent and copyright trolls both stem from the lack of an explicit market harm requirement.160


158 See Fromer & Lemley, supra note __, at 1262-67.

159 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”; however, a “use that does not interfere with the plaintiff’s market in some way generally does no relevant harm.” Fromer & Lemley, supra note 157, 1254, 1255; see also id. at 1262-67 (further explaining how merely technical infringement might be found in the patent context).

160 See, e.g., id. at 1291-92; 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 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).
So too do some of the most worrisome lawsuits from a free speech standpoint, such as copyright, trademark, and right of publicity lawsuits against parodies, satires, and criticism. 161

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


46
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 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 only if the defendant holds those things in violation of some legal rule. Nonetheless, some courts treat unjust enrichment as an independent tort as well as a remedy. The problem with doing so is that 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.”

Something similar happens with the tort of unfair competition. Unlike unjust enrichment, unfair competition is properly a tort in its own right. But without standards for defining unfairness, courts are free to define any conduct they like as “unfair,” whether or not it is

162 See Douglas Laycock, Restoring Restitution to the Canon, 110 Mich. L. Rev. 932-34 (2012) (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).

163 See supra note __.

164 E.g., Iconco v. Jensen Const. Co., 622 F.2d 1291, 1302, 1304 (8th Cir. 1980) (affirming, under Iowa law, disgorgement of unjust enrichment from defendant contractor to plaintiff contractor where defendant, without meeting criteria but also without fraudulent intent, had won a government contract set aside for small businesses that plaintiff argued it would have won otherwise); cf. Laycock, supra note 81 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, (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.”).
independently illegal or deceptive. [McKenna: Contrast old trademark doctrine of unfair competition, in which there were tight limits. We lost those, and lost content to “unfair”]

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.\textsuperscript{165} They have done the same with intentional interference with economic advantage.\textsuperscript{166} And some courts are careful to treat unjust enrichment as a remedy, not as an independent cause of action.\textsuperscript{167}

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, the very act of competition can seem unfair. Antitrust spent decades weeding out cases brought by competitors whose complaint was that they were out-competed on the merits\textsuperscript{168} or whose

\textsuperscript{165} 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.”).

\textsuperscript{166} See, e.g., Della Penna v. Toyota Motor Sales, U.S.A., Inc., 902 P.2d 740, 751 (Cal. 1995) (requiring that the interfering conduct be “wrongful by some legal measure other than the fact of the interference itself”).

\textsuperscript{167} See Douglas Laycock, \textit{Scope and Significance of Restitution}, 67 TEX. L. REV. 1277, 1286 (1989) (“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.”).

\textsuperscript{168} 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 8%); United States v. N.Y. Great Atl. and Pac. Tea Co., 67 F. Supp. 626, 638-39 (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 Timothy J. Muris & Jonathan E. Nuechterlein, \textit{Antitrust in the Internet Era: The Legacy of United States v. A&P} (George Mason Law & Economics Research Paper No. 18-15, 2018), \url{http://ssrn.com/abstract=3186569}. 
products were rendered irrelevant as companies integrated different products together.\footnote{E.g., Town Sound and Custom Tops, Inc. v. Chrysler Motors Corp., 959 F.2d 468, 471-72 (10th Cir. 1992) (cars and car radios); Reiffin v. Microsoft Corp., 158 F.Supp.2d 1016, 1033 (N.D. Cal. 2001) (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). [cite other 1990s Microsoft product integration cases]}

Those who lost out in the marketplace often had an appealing emotional case to a jury that didn’t want to deprive them 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.\footnote{Mark A. Lemley, \textit{Property, Intellectual Property, and Free Riding}, 83 TEX. L. REV. 1031, 1043-46 & nn. 48-56 (2005) (collecting and discussing examples); Mark A. Lemley & Mark P. McKenna, \textit{Owning Mark(ets)}, 109 MICH. L. REV. 137, 140-41, 146-47, 189 (2010) (contending courts tend to find trademark infringement where they perceive defendant free-riding on plaintiff’s investments in the mark); Mark P. McKenna, \textit{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. \textit{E.g.}, David J. Franklyn, \textit{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, \textit{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”); [cite Felix Cohen, Transcendental Nonsense; Rochelle Dreyfuss].} Even in the absence of an IP right people have a strong instinct that copying is wrong.\footnote{See, e.g., Mengfei Huang et al., \textit{Human Cortical Activity Evoked by the Assignment of Authenticity when Viewing Works of Art}, 5 FRONTIERS HUM. NEUROSCIENCE, no. 134, 2011, at 6 (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, ‘\textit{No Fair, Copycat!}’: \textit{What Children’s Response to Plagiarism Tells Us About their Understanding of Ideas}, 14 DEVELOPMENTAL SCI. 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., \textit{No One Likes a Copycat: A Cross-Cultural Investigation of}}
“property” without paying.\textsuperscript{172} 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.”\textsuperscript{173} 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.\textsuperscript{174} And they have created various channeling doctrines that prevent one form of IP from overstepping its bounds and undoing the

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{172} See, e.g., Alex Shaw, Vivian Li, Kristina R. Olson, \textit{Children Apply Principles of Physical Ownership to Ideas}, 36 COGNITIVE SCI. 1381, 1384 (2012) (collecting literature).
\item \textsuperscript{173} Gordon, \textit{supra} note _, at 167.
\item \textsuperscript{174} 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, 676 (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 an identical copy of an unpatented item caused consumer confusion).}
\end{enumerate}
\end{footnotesize}
limits of another IP regime.\textsuperscript{175} Those doctrines don’t always work,\textsuperscript{176} 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 unjust enrichment and unfair competition, taking care to apply the same substantive standards IP law would.\textsuperscript{177} 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.”\textsuperscript{178}

The same problem of missing substantive standards can bedevil IP doctrines as well as other business torts. If an IP doctrine is untethered to the purposes or rules of that IP law, free riding can once again creep in. One example is the patent misuse doctrine. The doctrine was

\textsuperscript{175} 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-copirighted, now expired “Crusade in Europe” television series); Christopher Buccafusco, Mark A. Lemley, & Jonathan S. Masur, \textit{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 protection for certain works for which the cost would not be justified); Christopher Buccafusco & Mark A. Lemley, \textit{Functionality Screens}, 103 VA. L. REV. 1293, 1294-95 (2017) (evaluating and proposing reforms to functionality-related screens in IP regimes); Mark P. McKenna, \textit{Dastar’s Next Stand}, 19 J. INTELL. PROP. L. 357, 387 (2012) (detailing \textit{Dastar} decision and arguing that it should be understood as, or extended to mean that, \textit{Dastar} “reserve[s] to copyright law the rules for use of creative material, much as \textit{TrafFix} reserves to patent law rules for control of useful features”).

\textsuperscript{176} Buccafusco, Lemley, & Masur, \textit{supra} note 175, 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 \textit{Star Athletica}, the “toothless[ness]” of design patent’s creativity screen, and the weakness of trade dress’s functionality screen).

\textsuperscript{177} At least one court already has done so: Univ. of Colo. Found., 196 F.3d at 1372 (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).

developed by the courts to restrict the ability of patentees to abuse their patents in ways that restricted competition. But courts have sometimes applied the doctrine even in the absence of competitive harm.\footnote{See, \textit{e.g.}, \cite{Morton Salt Co. v. G. S. Suppiger Co.}, 314 U.S. 488, 493-494 (1942) (holding patent misuse defense could be raised even by a plaintiff unharmed by defendant’s conduct, because “[t]he patentee, like these other holders of an exclusive privilege granted in the furtherance of a public policy, may not claim protection of his grant by the courts where it is being used to subvert that policy’’); \cite{Hovenkamp et al., IP and Antitrust sec. 3._._. But cf. The Patent Misuse Reform Act of 1988, 35 U.S.C. § 271(d) (2012) (limiting misuse defense on several factors, though not on failure to show direct harm); \cite{Illinois Tool Works Inc. v. Indep. Ink, Inc.}, 547 U.S. 28, 41-42 (2006) (interpreting § 271(d) to indicate that patentees do not presumptively possess market power).} As Judge Posner warned, having a doctrine motivated by antitrust law but not limited by the scope of that law is a dangerous thing.\footnote{USM Corp. v. SPS Techs., Inc., 694 F.2d 505, 512 (7th Cir. 1982), \textit{cert denied}, 462 U.S. 1107 (1983) (Posner, J.) (‘‘If misuse claims are not tested by conventional antitrust principles, by what principles shall they be tested? Our law is not rich in alternative concepts of monopolistic abuse; and it is rather late in the day to try to develop one without in the process subjecting the rights of patent holders to debilitating uncertainty.’’).} The patent misuse doctrine can serve a valuable purpose in protecting competition,\footnote{A very, very long time ago, one of us suggested the doctrine was unnecessary, \cite{Mark A. Lemley, Comment, The Economic Irrationality of the Patent Misuse Doctrine, 78 CALIF. L. REV. 1599 (1990), but he has since recanted, \textit{cf. Mark A. Lemley, Beyond Preemption: The Law and Policy of Intellectual Property Licensing, 87 CALIF. L. REV. 111, 171 (1999) (concluding patent misuse plays role in protecting federal patent policy against contractual incursions). The doctrine may reach some conduct that is in fact anticompetitive but not easily reached with antitrust law for various reasons. But it should be applied only when it serves those purposes.\footnote{Hovenkamp et al., \textit{supra} note ___ sec. 3.____ Indeed, Congress has instructed courts as much. \textit{See} The Patent Misuse Reform Act of 1988, 35 U.S.C. § 271(d) (2012) (limiting patent misuse defense in some cases—such as where patentee receives revenues from activities that otherwise could be found contributorily infringing on the patent—unless the patentee has market power); \cite{Illinois Tool Works Inc.}, 547 U.S. at 41-42 (2006) (interpreting § 271(d)).}'} but courts must be (and increasingly are) careful to apply it only when doing so serves those procompetitive purposes.\footnote{\textit{See} Mark A. Lemley & Mark McKenna, \textit{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...”)}

Another example of an IP doctrine unmoored from its purpose 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.\footnote{183}{\textit{Mark A. Lemley & Mark McKenna, Irrelevant Confusion}, 62 STAN. L. REV. 413, 450 (2010)}
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. That misunderstands the purpose of the confusion requirement in trademark law. As the Sixth Circuit explained in Groeneveld 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 trad-dress law in suppressing lawful competition.

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

---

184 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 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 errored by dismissing complaint against Google for selling search ads using “Rescuecom” keyword to Rescuecom’s rivals); People for Ethical Treatment of Animals 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 the Rescuecom case.

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 well-calibrated laws can be expanded or distorted to prevent legitimate competition.

Copyright fair use cases ask whether the plaintiff would suffer market harm if the defendant’s use became widespread, but do not require that that market harm flow from the act of infringement itself.\(^{186}\) Similarly, courts do not require that the market harm affect plaintiff’s current market, allowing instead a showing of merely hypothetical harm to an unrelated market plaintiff may never exploit.\(^{187}\) 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.\(^{188}\) A particularly dramatic example is *Oracle v. Google*, 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

\(^{186}\) 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)).

\(^{187}\) 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’’); Cf. Campbell, 510 U.S. at 577 (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).

\(^{188}\) See Texaco, Inc., 60 F.3d at 937 (Jacobs, J., dissenting). 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.”).
tiny fraction of Oracle’s code in order to render its Android operating system compatible with Java.\textsuperscript{189} Other cases have found reproducing laws that have been adopted from privately-written standards to be an unfair use because it harms the market for the privately-written standard.\textsuperscript{190}

As we described above, the Supreme Court, especially in copyright cases, 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. And in Aereo, the defendant followed existing precedent defining public


\textsuperscript{190} 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 attempt to freely distribute standards incorporated by reference into law qualified as a use that furthered the purposes of the fair use defense.”). 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 (11th Cir. 2018). 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), cert. denied S. Bldg. Code Cong. Int'l, Inc. v. Veeck, 539 U.S. 969 (2003).
performance and distinguishing remote control by users from centralized operation of a broadcast system. In both cases, the lower courts held the defendants’ conduct lawful because it complied with the rules in force at the time. 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. 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.

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. And courts have been willing to presume harm to a brand even from uses in markets a plaintiff would never enter.

191 Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 919 (2005) (“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.”). Full disclosure: one of us (Lemley) represented Grokster in that case. See, e.g., 9th Circuit Betty Boop case; Board of Supervisors for La. State Univ. Agric. & Mech. Coll. v. Smack Apparel Co., 550 F.3d 465, 481-82 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 Dogan & Lemley, Merchandising Right, cite. For a discussion whether post-sale confusion generates harms trademark law should care about, see Jeremy N. Sheff, Veblen Brands, 96 MINN. L. REV. 769, 780-83, 793 (2012).

192 See, e.g., Scarves by Vera, Inc., v. Todo Imports 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 (W.D. La.
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 [a] defendants’ acts unlawful.” The doctrine is designed to prevent precisely the 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. And it has been effective in weeding out many suits by disgruntled competitors upset by competition rather than its absence.

---

1984) (enjoining defendant’s use of confusingly similar mark in a distant geography where, hypothetically plaintiff might seek to expand). *See generally* Lemley & McKenna, supra note 11, 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.


195 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”).

196 For cases exemplifying the antitrust injury screen in practice, see, e.g., CBC Companies, 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.”); Norris v. Hearst Tr., 500 F.3d 454, 468 (5th Cir. 2007) (holding no antitrust injury where newspaper distributor was displaced by a monopolist newspaper as it vertically integrated into distribution); 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.”); SmithKline Beecham
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. But we need a similar doctrine for IP cases. Christina Bohannan and Herb Hovenkamp have suggested adopting an “IP injury” doctrine modeled on the antitrust injury requirement. As they explain it:

We propose a concept of “IP injury” that limits IP remedies to situations in which the IP rights holder has suffered actual harm sufficiently linked to the purpose of intellectual property law, which is to incentivize innovation. An infringement that benefits the infringer and does no cognizable harm to the IP right holder or anyone else is a pure Pareto improvement – something that can be said of 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

---


See Cel-Tech Commc’ns., Inc., 973 P.2d at 544 (Cal. 1990) (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”).

See BOHANNAN & HOVENKAMP, supra note _ at 48; Bohannan & Hovenkamp, supra note 20 at 979-80; see also Gugliuzza, supra note 20 at 750 (reviewing Bohannan & Hovenkamp IP injury requirement in context especially of institutional considerations, such as the work of the specialized Federal Circuit Court of Appeals, affecting its implementation).
correct for them, intervening only where the inability to recover for an external benefit has a material impact on ex ante incentives to innovate.¹⁹⁹

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.²⁰⁰ There are ways to break that circularity,²⁰¹ but the notion of harm from IP infringement is a notoriously malleable one.

¹⁹⁹ Christina Bohannan & Herbert J. Hovenkamp, IP and Antitrust: Reformation and Harm (Faculty Scholarship at Penn Law, Repository No. 1083, 2010), https://scholarship.law.upenn.edu/faculty_scholarship/1803/; see also BOHANNAN & HOVENKAMP, supra note _ at 56 (making similar point); see also Bohannan & Hovenkamp, supra note 20 at 989 (making similar point).

²⁰⁰ 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, since 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 licensors 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 2021-2022. 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.


²⁰¹ See, e.g., Dorling-Kindersley, cite (refusing to apply Texaco’s circular reasoning to transformative uses); Hovenkamp & Masur, supra note _, at 413 (proposing that, whatever method courts use to
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. Such an IP injury doctrine will help weed out 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. Patent law requires a plaintiff who wants to recover lost profits to show that the defendant didn’t have available noninfringing alternatives, for instance.\textsuperscript{202} And that rule might extend to the calculation of reasonable royalties, though the law is less clear.\textsuperscript{203} A patentee who wants an

\footnotesize{calculate reasonable royalties, they do so without reference to existing licensing fees for the same patent in the market); Lemley & Shapiro, supra note \textemdash, at 2035-39 (suggesting that courts grant injunctions where the patent holder claims significant lost profits, grant but then stay injunctions where the patent holder does not claim significant lost profits and the cost of designing around the patent is small in context (the stay giving the infringer reasonable time to redesign while the injunction threat prompts the parties alternatively to negotiate a royalty rate), and so only calculate damages where no lost profits are claimed and no design-around is practicable).

\textsuperscript{202} 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.”)

\textsuperscript{203} 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 . . . .”\textsuperscript{)}. But cf. Rite-
injunction might – or might not – have to show that customers wanted the patented feature in order to show irreparable harm from infringement. And a patentee who wants to use its success in the marketplace as evidence its invention was nonobvious must show some sort of nexus between the invention and that market demand.

---

Hite Corp. v. Kelley Co., 56 F.3d 1538, 1549 (Fed. Cir. 1995) (en banc) (endorsing, albeit arguably in dicta, that plaintiffs may use the “entire market rule”—that is, they may attribute all the value of an apparatus to the patented infringed components therein—“whether for reasonable royalty purposes ... or for lost profits purposes”); Bose Corp. v. JBL, Inc., 274 F.3d 1354, 1361 (Fed. Cir. 2001) (same). For more background, see generally Mark A. Lemley, *Distinguishing Lost Profits from Reasonable Royalties*, 51 WM. & MARY L. REV. 655, 664-665 (2009) (discussing failure of patent remedies to appropriately differentiate the value defendant obtained through its efforts from those obtained through infringement).

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, it 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 a plaintiff seeking a permanent injunction does 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 error in finding a “causal nexus” between an infringed patent and resulting sales of a product even where the product “might have [contained] non-infringing design-arounds” of the allegedly infringing features).

See, e.g., Diamond Rubber Co. v. Consolidated Rubber Tire Co., 220 U.S. 428, 441 (1911) (noting approvingly that a tire was “commercially successful” when upholding the patent as a nonobvious improvement over prior art); Alco Standard Corp. v. Tenn. Valley Auth., 808 F.2d 1490 (Fed. Cir. 1986) (“This is one of those cases where evidence of secondary considerations[, here 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)). See generally Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 9-
We suggest generalizing those cases into an IP injury doctrine. A general requirement that the plaintiff’s injury be traceable to infringement, not 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. 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. [pharma patents? Some franchises?]

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.\footnote{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.”).} A sufficiently punitive damages award\footnote{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) (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 (2011) 507 & n.136 (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, THE 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, THE MEDIA INST. (Aug. 31, 2010), https://www.mediam institute.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 the absence of billion-dollar harms”).} 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.\footnote{Ayres & Talley on continuum between liability, property rules} 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.