

THE CONDUIT THEORY OF SECONDARY LIABILITY IN PATENT AND COPYRIGHT LAW

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Both patent and copyright law impose liability not only on direct infringers—those who actually make, sell, or use copies of the protected invention or work—but also on some third-parties that facilitate the direct infringement. Although such secondary liability has a long pedigree, it has remained undertheorized. The doctrine is often explained as a way to provide intellectual property (IP) owners with a remedy when pursuing direct infringers is not practically feasible, or as a way to catch and punish morally culpable bad actors beyond the set of direct infringers. Neither of these explanations provides much concrete guidance on how secondary liability doctrine should operate.

This Article provides a more detailed economic theory of secondary liability. Secondary liability is imposed on entities that can function as conduits through which IP owners can efficiently collect royalties from direct infringers, thereby reducing transaction costs compared to a regime where IP owners must chase direct infringers individually. The imposition of secondary liability to reduce transaction costs is, however, subject to an overriding limitation, which is that it must not cause collateral harm on noninfringing users and uses. Although these principles may seem simple, the conduit theory and its collateral harm limitation have surprisingly rich payoffs in providing a unifying framework to explain the doctrinal structure of secondary liability law, including the requirement of a unitary direct infringer, the statutory division between induced and contributory infringement, and the Supreme Court’s holding in Commil USA, LLC v. Cisco Systems, Inc. that incorrect beliefs in noninfringement negate intent but incorrect beliefs in invalidity do not.

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INTRODUCTION

Courts have long imposed liability for patent and copyright infringement not only on the parties who actually make, use, or sell a patented invention or copy a copyrighted work, but also on a range of secondary parties who facilitate or aid the underlying infringement. This doctrine, known as “secondary liability,” is a well-settled feature of American patent and copyright law.¹ Despite this pedigree,² secondary liability is surprisingly undertheorized. Courts have created an elaborate web of rules, often complex and counterintuitive on their face,³ but courts have provided very little theoretical justification for these complex rules beyond the intuition that having some sort of secondary liability doctrine is necessary to protect intellectual property (IP) rights from subversion by clever pirates.⁴ This anti-subversion argument may be true, but it does not explain all the complexities of the secondary liability doctrine that we have.

¹ See 35 U.S.C. § 271(b) & (c) (2010); *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 930 (2005) (“Although the Copyright Act does not expressly render anyone liable for infringement committed by another . . . these doctrines of secondary liability emerged from common law principles and are well established in the law.” (internal alterations and citations omitted)).

² See *Thomson-Houston Elec. Co. v. Kelsey Elec. Ry. Specialty Co.*, 75 F. 1005, 1007 (2d Cir. 1896) (identifying *Wallace v. Holmes*, 29 F. Cas. 74 (1871) as the first case on secondary liability in patent law).

³ For example, the doctrine states that a genuine-but-incorrect belief in noninfringement is a defense, but a genuine-but-incorrect belief that the IP right is invalid is not. *Commil USA, LLC v. Cisco Sys., Inc.*, 575 U.S. 632, 643–45 (2015).

⁴ *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 188 (1980).

This Article offers a more refined theory of secondary liability. Specifically, I argue that secondary liability is about identifying efficient conduits to facilitate transactions between users and IP owners.⁵ A good example of how this theory works can be understood by reference to the famous case of *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, which involved a secondary infringement claim against the peer-to-peer file-sharing service, Grokster.⁶ Because there were millions of infringing users using the Grokster service, the transaction costs of having a copyright owner directly collect royalties from each and every user would be prohibitive.⁷ Imposing secondary liability on an entity such as Grokster is economically efficient because Grokster can act as an intermediary to convey payment from users to IP owners in a manner that is more efficient and lower in transaction costs than the parties can do themselves. That is, Grokster can indirectly obtain payment from users by displaying advertising to them, and it can pay IP owners in a single lump sum payment for all uses of copyrighted works on its system. This is much cheaper as a matter of transaction costs than having IP owners chase each and every user directly for each download.⁸ Within the conduit theory, secondary liability is a transaction cost reduction mechanism; it is not about punishing morally culpable pirates for the sake of justice or preventing subversion. Grokster should be held secondarily liable because doing so increases social efficiency, not because Grokster was a bad or subversive actor.

By itself, the idea that secondary liability reduces transaction costs is not new.⁹ Prior economic accounts, however, have generally adopted balancing tests that trade off the transaction cost savings against various other considerations, such as the degree of culpable intent and the amount of collateral harm to noninfringing uses.¹⁰ The reliance on nebulous multi-factor balancing also

⁵ I confine my analysis to patents and copyrights and do not discuss trademarks in this Article because patent and copyright law share a common philosophical underpinning, constitutional foundation, and historic kinship. See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 439 (1984). Many of the same issues arise in trademark law, however, and the application of the theory to trademark is an obvious avenue for future research.

⁶ *Grokster*, 545 U.S. at 919–20.

⁷ *Id.* at 929–30 (“When a widely shared service or product is used to commit infringement, it may be impossible to enforce rights in the protected work effectively against all direct infringers . . .”).

⁸ See Douglas Lichtman & William Landes, *Indirect Liability for Copyright Infringement: An Economic Perspective*, 16 HARV. J.L. & TECH. 395, 397 (2003) (“[T]here are likely to be substantial enforcement and administrative savings if injured copyright holders like *A* are allowed to sue *C* rather than pursuing each *B* individually.”).

⁹ *Id.*; Mark MacCarthy, *What Payment Intermediaries are Doing About Online Liability and Why It Matters*, 25 BERKELEY TECH. L.J. 1037, 1047 (2010) (“[T]here need not be an indirect liability rule when the law or the wronged party can effectively reach the bad actor directly and transaction costs are not significant.”).

¹⁰ See, e.g., Lichtman & Landes, *supra* note 8, at 398 (providing a multi-factor balancing test where “contributory liability is more attractive: a) the greater the harm from direct copyright infringement; b) the less the benefit from lawful use of the indirect infringer’s product; c) the lower the costs of modifying the product in ways that cut down infringing activities

means that these accounts are unable to give much concrete guidance for secondary liability doctrine beyond a list of factors of indeterminate weight.¹¹ My argument in this Article is there is only one countervailing consideration that limits the imposition of secondary liability on conduits, which is that the imposition of secondary liability must not harm noninfringing users or uses. Moreover, this limitation—which I will call the “collateral harm limitation”—is not something that is balanced against the transaction cost savings, but is instead a paramount principle that trumps transaction cost savings: If imposing liability would result in more than de minimus harm to innocent parties, then secondary liability is prohibited, no matter how efficient the conduit is or how much transaction cost savings would result.

Although at first glance the differences between my theory—where secondary liability is a transaction cost savings mechanism limited by an overriding principle of preventing collateral harm on noninfringing uses—and the traditional multi-factor balancing theory may seem minor, it has surprising payoffs in allowing us to make sense of various secondary liability doctrines that otherwise defy explanation. As the Article will discuss, the conduit theory and its absolute prohibition on collateral harm provide a theoretical framework to understand some structural rules of secondary liability law that are deeply entrenched, but have never been satisfactorily explained, including (1) the requirement of a single direct infringer, (2) the statutory separation of induced and contributory patent infringement (with equivalent counterparts in Supreme Court copyright case law), and (3) the rule that an incorrect belief in noninfringement negates secondary liability, but an incorrect belief in the invalidity of the asserted IP right does not. It also helps clarify and resolve conflicting case law regarding the assessment of damages in secondary liability cases and the role of vicarious liability in copyright law.

Although the conduit theory provides powerful explanations for various features of secondary liability law, including doctrines that have been previously criticized as illogical or incoherent, there is one exception. The conduit theory is irreconcilable with the Supreme Court’s holding in *Aro Manufacturing Co. v. Convertible Top Replacement Co.*¹² that, even when a defendant sells a

without substantially interfering with legal ones; and d) the greater the extent to which indirect liability reduces the costs of copyright enforcement as compared to a system that allows only direct liability”); Mark A. Lemley, *Inducing Patent Infringement*, 39 U.C. DAVIS L. REV. 225, 243 (2005) (advocating a balancing approach that “trad[es] off greater involvement in the acts that constitute direct infringement against a mental state of greater culpability”); see also A. Samuel Oddi, *Contributory Copyright Infringement: The Tort and Technological Tensions*, 64 NOTRE DAME L. REV. 47, 53–54 (1989) (identifying five factors for contributory infringement).

¹¹ See Oddi, *supra* note 10, at 53–54. See generally *Menard, Inc. v. Comm’r*, 560 F.3d 620, 622–23 (7th Cir. 2009) (“Multifactor tests with no weight assigned to any factor are bad enough from the standpoint of providing an objective basis for a judicial decision . . . multifactor tests when none of the factors is concrete are worse.” (internal citations omitted)).

¹² *Aro Mfg. Co., Inc. v. Convertible Top Replacement Co., Inc.*, 377 U.S. 476, 491 (1964).

product with no substantial noninfringing use, there is no contributory liability unless the defendant knew that the use of the product was patented and infringing.¹³ Under the conduit theory, imposing liability on a product that has no use except to infringe cannot cause harm to innocent users, and such liability will generally be efficient whether or not the defendant had knowledge of his or her illegality. The *Aro* rule that requires culpable knowledge, even for articles that have no noninfringing use, has no economic or other policy justification, and it does not fit with the rest of IP law. It is also in grave tension with the Supreme Court's later statement in *Grokster* that, when "an article is 'good for nothing else' but infringement, there is no legitimate public interest in its unlicensed availability."¹⁴ Thus, to the extent that the conduit theory is not fully consistent with everything in secondary liability law, it is the anomalous *Aro* rule that should be discarded and not the conduit theory.

Before proceeding into the details, I should clarify the nature of my argument. I am making a fit-and-justification argument that the conduit theory provides the most coherent way to understand the existing body of secondary liability law.¹⁵ My analysis takes the existing rules of secondary liability doctrine largely as given, except to the extent that they cannot be sensibly reconciled. Thus, I am not making a first-principles normative argument about the ideal design of secondary liability law as a policy matter. The contribution is a positive one—to provide judges and lawyers with a way to understand, explain, and reconcile the existing doctrine, in terms that are clearer and more coherent than what courts have articulated.

Part I will provide a background on the doctrinal rules of secondary liability law, and Part II will provide a summary of prior theories and why they do not provide a satisfactory explanation for secondary liability doctrine. Part III will then outline the conduit theory, which consists of an affirmative principle subject to an overriding limitation. The affirmative principle is that secondary liability should be imposed on a defendant that can serve as an efficient conduit to reduce transaction costs between users and IP owners; the overriding limitation is that liability may not be imposed if doing so would cause more than de minimis collateral harm on noninfringing users or uses. Part IV will then discuss how the combination of these two principles provides a framework to understand important structural features of secondary liability law. This Part will also consider features of secondary liability law that sit in tension with the conduit theory—most particularly the *Aro* rule—and will discuss how those tensions should be resolved. A conclusion then follows.

¹³ *Id.* at 488 & n.8 ("On this question a majority of the Court is of the view that § 271(c) does require a showing that the alleged contributory infringer knew that the combination for which his component was especially designed was both patented and infringing.").

¹⁴ *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 932 (2005) (quoting *Canda v. Michigan Malleable Iron Co.*, 124 F. 486, 489 (6th Cir. 1903)).

¹⁵ See generally RONALD DWORKIN, *LAW'S EMPIRE* 242–50 (1986) (describing the criteria of "fit" and "justification" arguments).

I. THE RULES OF SECONDARY LIABILITY IN IP LAW

The patent and copyright statutes originally contained no express provision on secondary liability.¹⁶ Secondary liability thus evolved as a matter of judicial common law creation, initially in patent cases and then transplanted into copyright law.¹⁷ Congress eventually codified secondary liability in Section 271 of the patent statute. In the copyright realm, the doctrine remains entirely a matter of judicial creation.¹⁸ Because copyright's secondary liability doctrine borrows heavily from patent law, this Part will first discuss the doctrine in patent law and then move on to copyright law.

A. Patent Law

Sections 271(b) and (c) of the Patent Act delineate two categories of secondary liability, often termed “inducement” and “contributory” liability, respectively. The statute states,

(b) Whoever actively induces infringement of a patent shall be liable as an infringer.

(c) Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.¹⁹

By its terms, Section 271(b) appears to be very broad—stating that anyone who “actively induces” infringement is liable—while 271(c) has a much longer list of requirements, requiring (1) a sale, (2) of a component, (3) in the United States, (4) while knowing, (5) that the component is especially made or adapted for use in infringement. A keen reader might ask whether Section 271(c) is merely a subspecies of Section 271(b). That is, because selling a product that is especially adapted for an infringing use would seem to inherently induce a purchaser to engage in that infringing use, a literal application of Section 271(b) would seem to render Section 271(c) entirely superfluous.²⁰ An interpretation

¹⁶ Giles S. Rich, *Contributory Infringement*, 14 FED. CIR. BAR J. 99, 100 (2004) (“There is, strictly speaking, no statutory basis for contributory infringement.”).

¹⁷ See Pamela Samuelson, *Three Reactions to MGM v. Grokster*, 13 MICH. TELECOMM. TECH. L. REV. 177, 181 (2006) (“The Court, thus, borrowed patent law’s staple article of commerce rule in *Sony*, as well as its active inducement rule in *Grokster*.”).

¹⁸ See *Grokster*, 545 U.S. at 930 (stating that secondary liability doctrine in copyright emerged from the common law).

¹⁹ 35 U.S.C. § 271 (2010).

²⁰ See 35 U.S.C. §§ 281, 283–285 (providing remedies for infringement).

that renders a statutory section entirely superfluous, however, would violate standard interpretative principles.²¹

Courts initially distinguished Sections 271(b) and (c) by creating different scienter requirements.²² Historically, the plaintiff in a 271(b) case was required to prove that the secondary defendant had specific intent to cause patent infringement,²³ and such intent could not be inferred solely from the sale of a product that was known to be used in an infringing manner.²⁴ In Section 271(c) cases, intent to cause direct infringement could be inferred from having knowledge of the patent's existence plus the sale of a product with no substantial noninfringing use—a genuine belief that users of the product were not infringing was not a defense.²⁵ Section 271(b) thus covered a broad range of activity but had a higher scienter requirement, while 271(c) was limited to the sale of product with no substantial noninfringing use but had a lower scienter threshold.

This two-tier structure was overruled by the Supreme Court in *Global-Tech Appliances, Inc. v. SEB S.A.*,²⁶ which held that the scienter requirement for 271(b) is identical to that of 271(c), and both require knowledge that the induced activity is “patented and infringing.”²⁷ That is, the secondary defendant must be aware that a patent exists and that the direct user's conduct infringes

²¹ See *TRW Inc. v. Andrews*, 534 U.S. 19, 31 (2001) (“It is ‘a cardinal principle of statutory construction’ that ‘a statute ought, upon the whole, to be so construed that, if it can be prevented, no clause, sentence, or word shall be superfluous, void, or insignificant.’” (quoting *Duncan v. Walker*, 533 U.S. 167, 174 (2001))).

²² See *Hewlett-Packard Co. v. Bausch & Lomb, Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990) (“Section 271(c) . . . made clear that only proof of a defendant's *knowledge*, not *intent*, that his activity cause infringement was necessary to establish contributory infringement. . . . [P]roof of actual intent . . . is a necessary prerequisite to finding active inducement.”).

²³ *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006) (en banc) (“[I]nducement requires ‘that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement.’” (quoting *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1378 (Fed. Cir. 2005))).

²⁴ *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1365 (Fed. Cir. 2003) (“Especially where a product has substantial noninfringing uses, intent to induce infringement cannot be inferred even when the defendant has actual knowledge that some users of its product may be infringing the patent.”).

²⁵ *Rohm & Haas Co. v. Dawson Chem. Co.*, 599 F.2d 685, 689 (5th Cir. 1979) (“The requisite intent was presumed, however, when the items sold had no use except in the infringing combination.”), *aff'd*, 448 U.S. 176, 223 (1980); *S. States Equip. Corp. v. USCO Power Equip. Corp.*, 209 F.2d 111, 121 (5th Cir. 1953) (“[I]t having been shown that the castings had utility only in switches which they either knew constituted an infringement, or should fairly be charged with such knowledge, their intent to engage in contributory infringement was presumed as a matter of law . . .”).

²⁶ *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 765–66 (2011).

²⁷ *Id.* at 763–64 (quoting *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 488 (1964)).

it.²⁸ Thus, in modern doctrine, Section 271(c) has been effectively subsumed within 271(b).²⁹ And because Section 271(b)'s definition of the activities constituting "active inducement" is very broad,³⁰ the key question in secondary liability discussions has largely boiled down to whether the scienter requirement is satisfied.³¹

Despite its centrality to secondary liability analysis, courts have not been clear in articulating and explaining the scienter requirement.³² One recurring issue is whether, and to what extent, a defendant's good faith belief in innocence serves as a defense. In *Commil USA, LLC v. Cisco Systems, Inc.*,³³ the Supreme Court resolved this question by holding that a defendant's genuine (though incorrect) belief that the direct user does not infringe a patent serves as a defense to secondary liability, but a genuine (though incorrect) belief that the plaintiff's patent is invalid—and therefore cannot be infringed by the direct user—does not serve as a defense.³⁴ The *Commil* majority justified this rule on the pragmatic basis that frivolous arguments regarding invalidity could too easily be made;³⁵ but the rule appears difficult to defend from a theoretical perspective because an invalid patent cannot be infringed, so it would appear at first glance that a belief in invalidity logically implies a corresponding belief in noninfringement.³⁶ If the policy justification for secondary liability is to punish morally culpable actors who bear malicious intent, then a genuine belief that there is no valid patent would seem to be just as morally innocent as a genuine belief that a patent exists but is not infringed.

²⁸ *Id.* at 765–66, *see also* *Nalco Co. v. Chem-Mod, LLC*, 883 F.3d 1337, 1356–57 (Fed. Cir. 2018) (the Federal Circuit has continued to cite *Hewlett-Packard* and seems to impose a lower intent requirement for 271(c), but this is difficult to reconcile with the Supreme Court's decision in *Global-Tech*).

²⁹ R. CARL MOY, *MOY'S WALKER ON PATENTS* § 15:14 (4th ed. 2012) ("[I]t is unlikely that a fact pattern satisfying all the conditions set out in 271(c) will fail to present an instance of inducing infringement under paragraph 271(b).").

³⁰ *Fromberg, Inc. v. Thornhill*, 315 F.2d 407, 411 (5th Cir. 1963) ("[T]he term is as broad as the range of actions by which one in fact causes, or urges, or encourage, or aids another to infringe a patent.").

³¹ W. Keith Robinson, *Only a Pawn in the Game: Rethinking Induced Patent Infringement*, 32 SANTA CLARA HIGH TECH. L.J. 1, 7 (2015) ("Since its codification, the main issue with respect to induced infringement has centered on its intent requirement.").

³² *See, e.g., Lemley*, *supra* note 10, at 238 ("While the specific intent requirement is well-established in the law, the Federal Circuit has been unable to agree on precisely what it is that a defendant must intend.").

³³ *Commil USA, LLC v. Cisco Sys., Inc.*, 575 U.S. 632 (2015).

³⁴ *Id.* at 642 ("The question the Court confronts today concerns whether a defendant's belief regarding patent validity is a defense to a claim of induced infringement. It is not.").

³⁵ *Id.* at 645 ("Every accused inducer would have an incentive to put forth a theory of invalidity and could likely come up with myriad arguments.").

³⁶ *Id.* at 648 (Scalia, J., dissenting) ("Only valid patents confer this right to exclusivity—invalid patents do not. It follows, as night the day, that only valid patents can be infringed. To talk of infringing an invalid patent is to talk nonsense.").

B. Copyright Law

Copyright law recognizes three types of secondary liability: (1) vicarious liability, (2) contributory liability, and (3) inducement liability.³⁷ Whereas contributory liability and inducement liability were imported by the Supreme Court from their patent law counterparts,³⁸ vicarious liability is based on principles of agency law.³⁹

In its most narrow form, vicarious liability reflects nothing more than the elementary legal principle that the acts of an agent are attributed to a principal.⁴⁰ If Barnes & Noble sells a pirated book, it is obvious that the person that is doing the “selling” is not the cashier who physically completes the sale but Barnes & Noble as a corporate entity. The same principle applies in patent law, even though patent law does not classify vicarious liability as a form of secondary liability: If Samsung copies the iPhone from Apple and makes knockoffs in its factories, the responsibility for infringement is attributed to Samsung as a corporate entity rather than to the factory employees. Properly understood, this attribution of an agent’s actions to a principal creates not secondary liability but direct liability—in my hypothetical, Barnes & Noble is not being held derivatively responsible for its employee’s sale of a pirated book; it is being held liable for its own sale. The fact that the sale is carried out by a human employee is no different than if the sale were carried out by a robot: both are simply instruments through which the principal acts.

Copyright law’s vicarious liability doctrine, however, has evolved to become much broader than the simple attribution of an agent’s actions to a principal.⁴¹ In copyright law, a defendant is vicariously liable for the conduct of another whenever they have the right and ability to supervise the underlying conduct and derive financial benefit from it.⁴² Thus, the file-sharing service Napster was held vicariously liable for its users’ downloading of copyrighted music—because it had the ability to stop users from downloading and profited

³⁷ *Viacom Int’l, Inc. v. YouTube, Inc.*, 676 F.3d 19, 45 n.5 (2d Cir. 2012) (“Doctrines of secondary copyright infringement include contributory, vicarious, and inducement liability.”).

³⁸ *See Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 434–42 (1984) (importing 35 U.S.C. § 271(c)); *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 914–15 (2005) (importing 35 U.S.C. § 271(b)).

³⁹ *See Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 261–62 (9th Cir. 1996) (“The concept of vicarious copyright liability was developed in the Second Circuit as an outgrowth of the agency principles of respondeat superior.”).

⁴⁰ *Stockwell v. United States*, 80 U.S. 531, 550 (1871) (“The principle asserted in all those cases is that whatever an agent does, or says, in reference to the business in which he is at the time employed, and within the scope of his authority, is done, or said, by the principal.”).

⁴¹ *Gershwin Publ’g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971) (“Although vicarious liability was initially predicated upon the agency doctrine of respondeat superior, this court recently held that even in the absence of an employer-employee relationship one may be vicariously liable . . .” (citation omitted)).

⁴² *A&M Recs., Inc. v. Napster, Inc.*, 239 F.3d 1004, 1022–23 (9th Cir. 2001).

from their use of its service—even though Napster’s users were in no sense “agents” of Napster or acting on its behalf.⁴³

Separate from vicarious liability that is derived from agency law, copyright has imported contributory and inducement liability from patent law. As Justice Ginsburg explained in *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, “[l]iability under our jurisprudence may be predicated on actively encouraging (or inducing) infringement through specific acts . . . or on distributing a product distributees use to infringe copyrights, if the product is not capable of ‘substantial’ or ‘commercially significant’ non-infringing uses.”⁴⁴ “While the two categories overlap, they capture different culpable behavior. Long coexisting, both are now codified in patent law.”⁴⁵

The Supreme Court explained that the two categories differed based on the proof of intent required. When the defendant’s product has no noninfringing use, intent to infringe can be imputed.⁴⁶ Thus, the distribution of a product solely useful in copyright infringement creates secondary liability without need for further proof. Conversely, where the secondary defendant supplies a product (or performs some other action) that is capable of both infringing and noninfringing uses, “the mere understanding that some of one’s products will be misused” is not enough;⁴⁷ there must be proof of “an affirmative intent that the product be used to infringe.”⁴⁸ This affirmative showing of unlawful intent “overcomes the law’s reluctance to find liability when a defendant merely sells a commercial product suitable for some lawful use.”⁴⁹

Although the Supreme Court explicitly stated that the two categories of contributory and inducement liability were distinct,⁵⁰ lower courts have not adhered to this separation.⁵¹ Instead, as the law has developed in the lower courts, contributory and inducement liability have collapsed into a single test, often known as the *Gershwin* test.⁵² Under this test, a secondary defendant is liable

⁴³ *Id.* at 1022–24. Section IV.E will argue *against* this conception of vicarious liability, but here, I am simply describing the rules as they are conventionally understood, and modern copyright courts declare that there is a broad vicarious liability doctrine under the heading of secondary liability.

⁴⁴ *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 942 (2005) (Ginsberg, J., concurring); *id.* at 915, 930, 934).

⁴⁵ *Id.* at 942 (Ginsberg, J., concurring) (“Compare 35 U.S.C. § 271(b) (active inducement liability) with § 271(c) (contributory liability for distribution of a product not ‘suitable for substantial noninfringing use.’”) (quoting 35 U.S.C. § 271(c)).

⁴⁶ *Id.* at 932 (quoting *New York Scaffolding Co. v. Whitney*, 224 F. 452, 459 (C.A.8 1915)).

⁴⁷ *Id.* at 932–33.

⁴⁸ *Id.* at 936.

⁴⁹ *Id.*

⁵⁰ *Id.* at 934 (“Because *Sony* did not displace other theories of secondary liability, and because we find below that it was error to grant summary judgment to the companies on MGM’s inducement claim, we do not revisit *Sony* further. . .”).

⁵¹ The Supreme Court itself later blurs this distinction in *Global-Tech*. See *supra* text accompanying notes 26–29.

⁵² *Gershwin Publ’g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d. Cir. 1971) (“[O]ne who, with knowledge of the infringing activity, induces, causes or materially

“if it (1) has knowledge of a third party’s infringing activity, and (2) ‘induces, causes, or materially contributes to the infringing conduct.’”⁵³

As Judge Richard Posner of the Seventh Circuit has observed, this test is unhelpful because it does not define what constitutes a “material” contribution, or how that differs from “induces” and “causes.”⁵⁴ Perhaps more importantly, the test is quite vague on the type and degree of knowledge required. The *Gershwin* test seems to find intent from knowledge of a user’s infringing activity, but the Supreme Court stated in *Grokster* that intent to infringe should not be imputed from simple knowledge of user misuse.⁵⁵ The lack of clear principles means that the law is largely unsettled outside of fact situations with clear analogies to prior precedent, with the uncertainty most strongly felt in areas of emergent technology. One illustration of this uncertainty is a pair of cases involving a vendor of online pornography. In the first case, the Ninth Circuit held that Google could be held secondarily liable for linking to pirate websites in its search results.⁵⁶ In the second case, the same court held Visa and Mastercard could not be held secondarily liable for providing payment services to those same websites despite charging them higher fees for their unlawful activities.⁵⁷ The difference in outcome is clear, the reason for it is not.⁵⁸

II. EXISTING THEORIES AND THEIR INADEQUACIES

A. Existing Theories of Secondary Liability

Courts have not clearly articulated a detailed theory of secondary liability, but several basic arguments can be gleaned from judicial opinions. In *Dawson Chem. Co. v. Rohm & Haas Co.*,⁵⁹ the Supreme Court explained the rationale for secondary liability in this manner:

[Secondary liability] exists to protect patent rights from subversion by those who, without directly infringing the patent themselves, engage in acts designed to facilitate infringement by others. This protection is of particular importance in situations . . . where enforcement against direct infringers would be difficult, and

contributes to the infringing conduct of another, may be held liable as a ‘contributory’ infringer.”).

⁵³ Perfect 10, Inc. v. Visa Int’l Serv. Ass’n, 494 F.3d 788, 795 (9th Cir. 2007) (quoting *El-lison v. Robertson*, 357 F.3d 1072, 1076 (9th Cir. 2004)).

⁵⁴ *Flava Works, Inc. v. Gunter*, 689 F.3d 754, 757 (7th Cir. 2012).

⁵⁵ See *Grokster*, 545 U.S. at 931–33.

⁵⁶ Perfect 10, Inc. v. Amazon.com, Inc., 487 F.3d 701, 729 (9th Cir. 2007).

⁵⁷ See *Visa Int’l Serv. Ass’n*, 494 F.3d at 809–10.

⁵⁸ See MELVILLE B. NIMMER & DAVID NIMMER, 3 NIMMER ON COPYRIGHT § 12.04[A][3][a], at 12–86.6 (Matthew Bender, rev. ed. 2016) (arguing that the two decisions are irreconcilable).

⁵⁹ *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176 (1980).

where the technicalities of patent law make it relatively easy to profit from another's invention without risking a charge of direct infringement.⁶⁰

Although the Court's explanation is terse, two mutually complimentary reasons for imposing secondary liability can be gleaned from this statement.⁶¹ First, under what I will call the "anti-subversion" theory, the Court could be understood to be arguing that secondary liability is necessary to make IP protection effective, because pursuing direct infringers is often too difficult.⁶² Second, under what I will call the "culpability" theory, the Court could be understood as arguing that secondary liability is justified as a way to punish culpable conduct that technically does not constitute direct infringement of an IP right but is nevertheless morally condemnable. In this view, secondary liability exists to punish and deter morally culpable bad actors who would otherwise escape punishment.⁶³

Going beyond *Dawson*, the anti-subversion and culpability theories can also be found in subsequent decisions and in academic commentary. In *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*,⁶⁴ the Supreme Court gave voice to the anti-subversion theory by stating that, "[w]hen a widely shared service or product is used to commit infringement, it may be impossible to enforce rights in the protected work effectively against all direct infringers, the only practical alternative being to go against the distributor of the copying device for secondary liability."⁶⁵ The culpability theory finds its clearest expression in the Federal Circuit's decision in *Hewlett-Packard Co. v. Bausch & Lomb Inc.*,⁶⁶ where the court defined secondary infringement as encompassing "any other activity where, although not technically making, using or selling, the defendant dis-

⁶⁰ *Id.* at 188.

⁶¹ See Nate Ngerebara, *Commil v. Cisco: Implications of the Intent Standard for Inducement Liability on Willfulness*, 31 BERKELEY TECH. L.J. 535, 535 (2016) ("Inducement liability enables patent holders to forestall infringement of their rights when it is either impractical or contrary to public policy to enforce a claim against direct infringers, or when the inducer is more morally culpable than the direct infringers.").

⁶² *Rohm & Haas Co. v. Dawson Chem. Co.*, 599 F.2d 685, 689 (5th Cir. 1979) ("The doctrine of contributory infringement was a judicial invention designed to give effective protection to patentees.").

⁶³ See MOY, *supra* note 29, § 15:17, at 15-107 ("[T]he provision is 'intend[ed] to hold liable the mastermind who plans the whole infringement . . .'" (quoting Giles S. Rich, *Address of Giles S. Rich, Nov. 6, 1952*, reprinted in 75 J. PATENT & TRADEMARK OFF. SOC'Y 3 (Special Issue 1993))); Sriranga Veeraraghavan, *Comment, Joint Infringement of Patent Claims: Advice for Patentees*, 23 SANTA CLARA COMPUT. & HIGH TECH. L.J. 211, 219 (2006) (arguing that secondary liability allows the patentee "to hold the 'real' infringer liable"); Dmitry Karshedt, *Damages for Indirect Patent Infringement*, 91 WASH. U. L. REV. 911, 918 (2014) (arguing that courts react to a "sense that the inducer who provides the enabling technology is the real tortfeasor, while the primary actor is something of a passive instrumentality").

⁶⁴ *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005).

⁶⁵ *Id.* at 929-30.

⁶⁶ *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464 (Fed. Cir. 1990).

played sufficient culpability to be held liable as an infringer.⁶⁷ More frequently, the culpability theory finds expression in analogies of secondary liability to aider and abettor liability in criminal law⁶⁸ (which is based on the moral culpability of the criminal accomplice⁶⁹). The anti-subversion and culpability theories are mutually complimentary and sometimes fused together,⁷⁰ such as in Mark Lemley's description of the rationale for secondary liability as "to give patent owners effective protection in circumstances in which the actual infringer either is not the truly responsible party or is impractical to sue."⁷¹

One weakness of the anti-subversion theory is that it does not provide any obvious limit on the scope of secondary liability. There is no obvious line between what is clever "subversion" of the IP owner's rights through loophole exploitation versus simply legitimate conduct,⁷² and allowing an IP owner to sue more people will almost always make IP protection more effective for owners. One can attempt to delineate a limit by reference to the broader policy purposes of IP law, adding a gloss to the anti-subversion theory to create what I will call the "balancing" theory. In the Supreme Court's words, this theory says that secondary liability is about striking "a sound balance between the respective values of supporting creative pursuits through [IP] protection and promoting innovation in new communication technologies by limiting the incidence of liability for [IP] infringement."⁷³ What logically follows from this principle is

⁶⁷ *Id.* at 1469.

⁶⁸ See H.R. REP. NO. 82-1923, at 9 (1952) ("Paragraph (b) recites in broad terms that one who aids and abets an infringement is likewise an infringer."); *Nat'l Presto Indus., Inc. v. W. Bend Co.*, 76 F.3d 1185, 1194 (Fed. Cir. 1996) ("The statutory liability for inducement of infringement derives from the common law, wherein acts that the actor knows will lead to the commission of a wrong by another, place shared liability for the wrong on the actor."); *Sims v. W. Steel Co.*, 551 F.2d 811, 817 (10th Cir. 1977) ("This subsection contemplates that the inducer shall have been an active participant in the line of conduct of which the actual infringer was guilty. Thus he should be in the nature of an accessory before the fact.").

⁶⁹ Adam Harris Kurland, *To "Aid, Abet, Counsel, Command, Induce, or Procure the Commission of an Offense": A Critique of Federal Aiding and Abetting Principles*, 57 S.C. L. Rev. 85, 111 (2005) ("The federal aiding and abetting statute reflects a clear legislative judgment by Congress that the aider and abettor is of equal moral culpability as the principal offender.").

⁷⁰ See, e.g., Michael N. Rader, *Toward a Coherent Law of Inducement to Infringe: Why the Federal Circuit Should Adopt the Hewlett-Packard Standard for Intent Under § 271(b)*, 10 FED. CIR. BAR J. 299, 300 (2000) ("It is often infeasible to sue the individual infringers in such situations, and in any case, the culpable party may well be the company encouraging or facilitating the infringing conduct.").

⁷¹ Lemley, *supra* note 10, at 228.

⁷² See generally Leo Katz, *A Theory of Loopholes*, 39 J. LEGAL STUD. 1, 7–8 (2010) (arguing that courts implicitly theorize loopholes as a mismatch between the results of a rule and its underlying purpose).

⁷³ See *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 928 (2005); see also *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984) ("The staple article of commerce doctrine must strike a balance between a copyright holder's legitimate demand for effective—not merely symbolic—protection of the statutory monopoly, and the rights of others freely to engage in substantially unrelated areas of commerce.").

an economic balancing test: secondary liability should be imposed when the incentive benefits of greater protection outweigh the costs to innovation in other technologies resulting from expanding liability. Law and economics scholars have traditionally conceptualized secondary liability doctrine as managing a balance in these terms.⁷⁴ No one knows, however, what the incentive benefits and monopoly costs of IP protection are in any particular case, so drawing a line based on this economic balancing test is not practically workable as a legal standard.⁷⁵

Before moving to criticize the conventional theories, I should first acknowledge that they have explanatory power in some respects. The anti-subversion theory helps explain why we have a secondary liability doctrine at all, despite its lack of textual support in the modern copyright statute and the historical patent statute.⁷⁶ The balancing theory helps explain the need for, and existence of, limits on secondary liability, even if it does not provide much practical guidance for exactly what those limits are or how they operate. The culpability theory helps explain the central role of scienter as the primary limit on the scope of secondary liability in modern IP law. Because “[m]ens rea requirements are the traditional means to determine culpability,”⁷⁷ basing secondary liability on a moral culpability theory logically leads to a doctrine that focuses on the secondary defendant’s intent as its central inquiry. The influence of the culpability theory can thus be seen in the fact that the Supreme Court has crafted both patent and copyright secondary liability doctrine to require culpable intent,⁷⁸ and that the scienter inquiry forms the central focus of secondary

⁷⁴ Lichtman & Landes, *supra* note 8, at 398 (providing a multi-factor balancing test where “contributory liability is more attractive: a) the greater the harm from direct copyright infringement; b) the less the benefit from lawful use of the indirect infringer’s product; c) the lower the costs of modifying the product in ways that cut down infringing activities without substantially interfering with legal ones; and d) the greater the extent to which indirect liability reduces the costs of copyright enforcement as compared to a system that allows only direct liability”); see also Lemley, *supra* note 10, at 244 (advocating a balancing approach that “trad[es] off greater involvement in the acts that constitute direct infringement against a mental state of greater culpability.”).

⁷⁵ See Louis Kaplow, *The Patent-Antitrust Intersection: A Reappraisal*, 97 HARV. L. REV. 1813, 1844 (1984) (“A central reason for reliance on a patent system is that it is thought to be too difficult to determine the appropriate level of reward fairly and accurately on a case-by-case basis.”).

⁷⁶ *Rohm & Haas Co. v. Dawson Chem. Co.*, 599 F.2d 685, 689 (5th Cir. 1979) (calling secondary liability doctrine a “judicial invention designed to give effective protection to patentees”).

⁷⁷ Darryl K. Brown, *Federal Mens Rea Interpretation and the Limits of Culpability’s Relevance*, 75 L. & CONTEMP. PROBS. 109, 109 (2012).

⁷⁸ *Aro Mfg. Co., Inc. v. Convertible Top Replacement Co., Inc.*, 377 U.S. 476, 488 (1964) (interpreting 35 U.S.C. § 271(c) to require knowledge that a direct user’s conduct is “patented and infringing”); *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 763–64 (2011) (holding that 35 U.S.C. § 271(b) has the same intent requirement as § 271(c)); *Grokster*, 545 U.S. at 914 (“One infringes contributorily by intentionally inducing or encouraging direct infringement . . .”).

liability analysis today.⁷⁹ Indeed, the Supreme Court in *Grokster* focuses so much on punishing culpable intent that it finds liability based on incriminating advertisements that were never even distributed to users, because those advertisements proved the defendant's guilty state of mind and moral culpability.⁸⁰

B. *The Inadequacies of Existing Theories*

Although the anti-subversion, balancing, and culpability theories are embedded in leading judicial opinions and explain some features of existing secondary liability law, they are inadequate as overarching theories of secondary liability. The anti-subversion theory by itself is inadequate because it provides no definition of what constitutes “subversion” and therefore no limits on the scope of secondary liability. Adding an economic balancing principle that secondary liability should only be imposed when the incentive benefits of expanding liability outweigh the costs on innovation in surrounding technologies provides a limit, but it also creates two problems. The first is that courts lack the institutional capacity to actually implement this kind of balancing principle, in that it is largely impossible to measure the benefits and costs of IP protection with any precision.⁸¹ The second—and related—problem with the balancing theory is that it bears little resemblance to actual secondary liability doctrine today, in which the central limit on liability is the requirement of scienter. While intent is relevant to economic balancing—because it is less costly for an actor to avoid intentional misconduct than to prevent unintentional harm⁸²—economic balancing tests tend to result in a negligence rule, which is what law and economics scholars have suggested as sound policy for secondary liabil-

⁷⁹ See, e.g., Craig A. Grossman, *From Sony to Grokster, The Failure of the Copyright Doctrines of Contributory Infringement and Vicarious Liability to Resolve the War Between Content and Destructive Technologies*, 53 BUFF. L. REV. 141, 151 (2005) (“Over the course of the last few decades, contributory infringement has expanded into a broader rule of general applicability, the touchstones for liability being knowledge and a material contribution to infringement.”); Sverker K. Högberg, Note, *The Search for Intent-Based Doctrines of Secondary Liability in Copyright Law*, 106 COLUM. L. REV. 909, 911 (2006) (“The recurring theme behind the expansion of secondary liability in the peer-to-peer file-sharing cases is the courts’ concern with the intent of the creators of new technologies of copying and dissemination”); Robinson, *supra* note 31, at 7 (“Since its codification, the main issue with respect to induced infringement has centered on its intent requirement.”).

⁸⁰ *Grokster*, 545 U.S. at 938 (“Whether the messages were communicated is not to the point on this record. The function of the message in the theory of inducement is to prove by a defendant’s own statements that his unlawful purpose disqualifies him from claiming protection.”).

⁸¹ See Tun-Jen Chiang, *Forcing Patent Claims*, 113 MICH. L. REV. 513, 536 (2015) (“The patent system’s central theoretical premise is that judges cannot meaningfully conduct case-by-case economic balancing.”).

⁸² William M. Landes & Richard A. Posner, *An Economic Theory of Intentional Torts*, 1 INT’L REV. L. & ECON. 127, 130 (1981).

ity.⁸³ But the fact that the balancing theory leads to a negligence standard makes it less helpful as a positive explanation for the actual secondary liability law that requires scienter.

Unlike the balancing theory, the culpability theory—that secondary liability exists to catch and punish morally culpable actors, as reflected by their nefarious intent—does provide an explanation for the central role of intent in secondary liability law. A theory based on moral culpability is also more judicially administrable because it is easier for courts to make inferences about intent than to measure economic variables such as the benefits and costs of IP protection.⁸⁴ The culpability theory is in this sense the most powerful descriptive theory of the three. But the culpability theory suffers from three defects.

First, any legal standard based on moral culpability inherently has some degree of subjectivity because different people have different moral values.⁸⁵ Thus, while the moral culpability theory provides somewhat more guidance than the anti-subversion theory, and it is more judicially administrable than an economic balancing test, it still does not provide a clear rule or objective principle.

Second, although the culpability theory has strong explanatory power for some features of existing secondary liability law—as described above, it seems to underlie the centrality of scienter in modern secondary liability cases—the theory has difficulty with respect to other deeply entrenched rules of secondary liability. Consider, for example, the Supreme Court case of *Limelight Networks, Inc. v. Akamai Technologies, Inc.*, which dealt with a patent on delivering media content over the Internet via html tags.⁸⁶ Slightly simplified, the patented method had two steps: (1) embedding a html tag in a web page, and (2) delivering content from a server to the web page based on the html tag.⁸⁷

The defendant Limelight had two separate parties perform the two steps in the method. Limelight itself would operate servers that would store and deliver content, but it had its customers (i.e., owners of websites) code their own web

⁸³ Lichtman & Landes, *supra* note 8, at 405 (“[A]n efficient approach to indirect liability might start by applying a negligence rule to any activity that can lead to copyright infringement.”).

⁸⁴ See FRITZ MACHLUP, AN ECONOMIC REVIEW OF THE PATENT SYSTEM *in* STUDY OF THE SUBCOMMITTEE ON PATENTS, TRADEMARKS, AND COPYRIGHTS OF THE COMM. ON THE JUDICIARY, 85TH CONG. 1, 79 (Comm. Print 1958) (“No economist, on the basis of present knowledge, could possibly state with certainty that the patent system, as it now operates, confers a net benefit or a net loss upon society.”).

⁸⁵ See H.L.A. HART, THE CONCEPT OF LAW 184 (2d ed. 1994) (“Such differences of weight or emphasis placed on different moral values may prove irreconcilable.”).

⁸⁶ *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 572 U.S. 915, 918 (2014); *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1334 (Fed. Cir. 2012), *rev’d*, 572 U.S. 915 (2014).

⁸⁷ See U.S. Patent No. 6,108,703 (filed May 19, 1999).

pages with html tags.⁸⁸ The result was that no one entity performed all the steps of the patented method, because the customers performed the step of embedding the html tag, while Limelight performed the step of delivering the content. Because it is elementary patent law that direct infringement requires the performance of all the steps of a patented method, there was no unitary direct infringer.⁸⁹

When the case initially reached the Federal Circuit, the court held that there was direct infringement even without a unitary direct infringer. The Federal Circuit reasoned that the patentee's monopoly rights had been violated in the sense that all the steps of the patented method had in fact been performed, and the lack of a single unitary actor did not alleviate this violation.⁹⁰ It then held that Limelight intentionally induced this direct infringement (because it purposefully had separate parties perform the steps) and was therefore secondarily liable.⁹¹

The Federal Circuit's holding is strongly supported by the moral culpability theory. Limelight was a paradigmatic bad actor who was purposefully trying to evade direct infringement through a legal trick, and punishing this type of shenanigan is necessary to maintain the effectiveness of IP rights. If secondary liability in IP law is truly about punishing morally culpable bad actors who subvert IP rights, then the Federal Circuit's decision was entirely justified—a straightforward application of the theoretical logic that the Supreme Court had previously endorsed.⁹²

However, when the case reached the Supreme Court, the Court not only reversed the Federal Circuit, it lambasted the lower court for “fundamentally

⁸⁸ See *Akamai*, 692 F.3d at 1306 (“Limelight, however, does not modify the content providers’ web pages itself. Instead, Limelight instructs its customers on the steps needed to do that modification.”).

⁸⁹ *Limelight Networks*, 572 U.S. at 921 (“A method patent claims a number of steps; under this Court’s case law, the patent is not infringed unless all the steps are carried out.”).

⁹⁰ See *Akamai*, 692 F.3d at 1308–09 (“Nothing in the text indicates that the term ‘infringement’ in section 271(b) is limited to ‘infringement’ by a single entity. Rather, ‘infringement’ in this context appears to refer most naturally to the acts necessary to infringe a patent . . .”).

⁹¹ *Id.* at 1309 (“A party who knowingly induces others to engage in acts that collectively practice the steps of the patented method—and those others perform those acts—has had precisely the same impact on the patentee as a party who induces the same infringement by a single direct infringer. . .”).

⁹² See *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 188 (1980) (noting that secondary liability exists “to protect patent rights from subversion by those who, without directly infringing the patent themselves, engage in acts designed to facilitate infringement by others”). The same logic is more explicitly laid out in *Wallace v. Holmes*, 29 F. Cas. 74, 80 (1871) (“It cannot be, that, where a useful machine is patented as a combination of parts, two or more can engage in its construction and sale, and protect themselves by showing, that . . . each makes and sells one part only . . .”), which the Supreme Court favorably discussed in *Dawson*, 448 U.S. at 188 (“The *Wallace* case demonstrates, in a readily comprehensible setting, the reason for the contributory infringement doctrine.”).

misunderstand[ing]” basic patent law principles.⁹³ According to the Supreme Court, it is elementary patent law that secondary liability requires direct liability—i.e., a unitary direct infringer who performs all the steps of a patented method.⁹⁴ In the absence of such a direct infringer there can be no secondary liability.

As a matter of traditional legal doctrine, the Supreme Court is correct that the rule that secondary liability requires direct liability is fundamental. Indeed, this rule is implicit in the name of the doctrine itself—liability is secondary because it is based on someone else’s primary liability, so without a primary infringer there can be no secondary liability. But it is also true that applying this rule to *Limelight* would allow a bad actor to go unpunished and allow easy subversion of Akamai’s patent. What the case illustrates is a tremendous tension between the traditional theories of secondary liability and the rule that secondary liability requires a unitary direct infringer. If secondary liability is about catching and punishing morally culpable bad actors who subvert IP rights through clever legal technicalities, then whether there is a unitary direct infringer has no logical relationship to the secondary defendant’s moral culpability or to preventing subversion of IP rights. In other words, the rule requiring a unitary direct infringer does not easily fit the anti-subversion, balancing, or culpability theories.⁹⁵

Third, building on the second point, the great body of IP law is typically not concerned about moral culpability. The dominant philosophy of IP law in the United States is consequentialist.⁹⁶ Intellectual property law generally does not ask whether direct infringers are morally culpable or had nefarious intent—it imposes strict liability for all violations of the IP right.⁹⁷ A theory of secondary liability that is based on punishing moral culpability thus fits uncomfortably within the larger framework of IP theory and doctrine more generally.⁹⁸

⁹³ *Limelight Networks*, 572 U.S. at 921 (“The Federal Circuit’s analysis fundamentally misunderstands what it means to infringe a method patent.”).

⁹⁴ *Id.* at 921–22.

⁹⁵ *Cf. Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990) (stating that secondary liability covered “*any other activity* where, although not technically making, using or selling, the defendant displayed sufficient culpability to be held liable as an infringer” (emphasis added)).

⁹⁶ *See Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141, 146 (1989) (“The Patent Clause itself reflects a balance between the need to encourage innovation and the avoidance of monopolies which stifle competition without any concomitant advance in the ‘Progress of Science and useful Arts.’” (quoting U.S. CONST. art. 1, § 8, cl. 8)).

⁹⁷ *See Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 761 n.2 (2011) (“Direct infringement has long been understood to require no more than the unauthorized use of a patented invention. . . . Thus, a direct infringer’s knowledge or intent is irrelevant.”); *EMI Christian Music Group, Inc. v. MP3TUNES, LLC*, 844 F.3d 79, 89 (2d Cir. 2016) (“Copyright infringement is a strict liability offense in the sense that a plaintiff is not required to prove unlawful intent or culpability . . .”).

⁹⁸ Mark Bartholomew, *Cops, Robbers, and Search Engines: The Questionable Role of Criminal Law in Contributory Infringement Doctrine*, 2009 BYU L. REV. 783, 785 (2009) (“In-

I should be careful not to overstate my claim. The anti-subversion and moral culpability theories are sufficiently capacious that it is difficult to definitively refute them, because a clever lawyer can always come up with novel arguments about what constitutes “subversive” or “immoral” conduct to fit the theory to a desired result.⁹⁹ It is not necessary for my argument here to conclusively demonstrate that the anti-subversion and moral culpability theories are irredeemably flawed. It is enough for my argument that the existing theories fit uncomfortably with some key features of existing doctrine and have difficulty providing coherent explanations for them. In comparison, as the next Part will show, the general body of secondary liability doctrine can be more easily and straightforwardly explained by the conduit theory. In the language of philosophy, the conduit theory is more parsimonious than its alternatives, and in this sense it is the superior theory, even if the alternatives can be made to work with enough effort.

III. THE CONDUIT THEORY OF SECONDARY LIABILITY

This Part outlines what I will term the “conduit” theory of secondary liability. In a nutshell, the conduit theory provides a principle for imposing secondary liability and a limitation on its scope. Under the conduit theory, the function of secondary liability is to create efficient conduits—intermediaries who can channel payment from users to IP owners. The imposition of secondary liability, however, is subject to an important limitation, which is that secondary liability should not harm noninfringing users and users to the extent possible. Unlike the traditional economic balancing theory, where the harms to innocent users are balanced against efficiency gains from expanding liability, the collateral harm limitation in the conduit theory is a paramount principle that cannot be balanced away: If noninfringing users are likely to be harmed in anything more than a *de minimis* manner, secondary liability may not be imposed, regardless of how efficient the conduit might otherwise be.

A. *Secondary Parties as Conduits*

As Doug Lichtman and William Landes have explained, the basic economic argument in favor of imposing secondary liability is that secondary parties “are often in a good position to discourage [IP] infringement either by monitoring direct infringers or by redesigning their technologies to make infringement more difficult.”¹⁰⁰ By making these secondary parties liable to the same extent

fringement law’s explicitly nonretributive justification clashes with the moral basis for criminal punishment of aiders and abettors of crimes.”).

⁹⁹ Cf. Gordon Tullock, *A Comment on Daniel Klein’s “A Plea to Economists Who Favor Liberty”*, 27 E. ECON. J. 203, 205 (2001) (quoting Ronald Coase as saying, “if you torture the data long enough it will confess”).

¹⁰⁰ Lichtman & Landes, *supra* note 8, at 396.

as the direct infringers, the law incentivizes secondary parties to take measures to reduce the amount of direct infringement, since reducing direct infringement would thereby reduce their secondary liability. To the extent that the IP system is otherwise configured in a manner that promotes social efficiency—i.e., if direct liability was only imposed when the incentive benefits of IP protection outweighed the monopoly costs¹⁰¹—then incentivizing secondary parties to take measures to reduce the amount of direct infringement creates a social benefit.

The conduit theory follows largely the same logic as laid out by Lichtman and Landes, with two refinements. First, Lichtman and Landes present the benefit of secondary liability as reducing enforcement costs, so that IP owners can more easily discourage or shut down infringing activity (such as by putting a facilitator like *Grokster* out of business).¹⁰² But a court-ordered shutdown of infringing activities is not actually the outcome that IP law seeks to foster. Rather, the point of IP law is to enable the use of a work or invention, while ensuring that the author or inventor gets paid for it, through private transactions between the IP owner and users, without the need for litigation.¹⁰³ A credible threat of enforcement may be necessary to give the IP owner negotiating leverage to extract payment from the secondary defendant (and thereby force the conduit to pass this cost to users), but actual enforcement is not the goal.¹⁰⁴ The conduit theory makes clear that we are trying to find efficient conduits to reduce the transaction costs of conduiting payments from users to IP owners in private transactions while promoting use of a copyrighted work or patented invention; we are not trying reduce enforcement costs to put infringers out of business. Second, as Section III.B will discuss in more detail, whereas Landes and Lichtman rely on case-by-case balancing of multiple considerations,¹⁰⁵ the

¹⁰¹ See Tun-Jen Chiang, *A Cost-Benefit Approach to Patent Obviousness*, 82 ST. JOHN'S L. REV. 39, 63–64 (2008) (“[P]atents should only be available when the patent incentive creates more social benefits than granting the patent exacts in costs.”).

¹⁰² Lichtman & Landes, *supra* note 8, at 397 (“[T]here are likely to be substantial enforcement and administrative savings if injured copyright holders like *A* are allowed to sue *C* rather than pursuing each *B* individually . . . the prospect of liability will most likely put *C* out of business.”).

¹⁰³ See Peter Lee, *Transcending the Tacit Dimension: Patents, Relationships, and Organizational Integration in Technology Transfer*, 100 CALIF. L. REV. 1503, 1511–12 (2012) (“Patents play a key role in facilitating these market exchanges by ‘commodifying’ technology, thus allowing it to be bought and sold in markets.”). See generally Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609, 614–15 (Nat’l Bureau of Econ. Rsch. ed., 1962) (arguing that “[w]ith suitable legal measures, information may become an appropriable commodity,” while without such legal protection, information would be confined to the original possessor who “may not be able to exploit it as effectively as others”).

¹⁰⁴ See Tun-Jen Chiang, *The Reciprocity of Search*, 66 VAND. L. REV. 1, 21 (2013) (“The goal of patent law is to facilitate a transfer . . . It is *not* to have an inventor . . . sue the manufacturer for infringement—such a result is wasteful and is exactly what *ex ante* searching is supposed to *prevent*.”).

¹⁰⁵ Lichtman & Landes, *supra* note 8, at 398.

conduit theory eschews balancing and instead has a much more clear-cut, rule-based limit that I will call the “collateral harm limitation.”

The premise of the conduit theory is that secondary liability is about finding the most efficient mechanism to channel payment from users to the IP owner and providing incentives for that payment to be made without the need for a lawsuit. An entity like Grokster is an efficient conduit: instead of an IP owner finding and negotiating with each and every user for a royalty, the IP owner can simply negotiate with Grokster for a payment on behalf of all the users that Grokster can then recoup from the users through advertising. This avoids having the IP owner negotiate individually with each user, saving transaction costs.¹⁰⁶ Imposing secondary liability on Grokster creates an incentive for it to find and negotiate with the IP owner, thereby making Grokster into a conduit.

It is worth clarifying that, although we are looking for conduits to channel payment from users to IP owners, it is not necessary for the secondary party to be able to directly collect payment from a user to serve as an efficient conduit; payments from users can be collected indirectly. Grokster was a free service that did not directly collect payment from users, but it was an efficient conduit, because it made money from advertising that depended on the size and characteristics of its user base, so the users were indirectly paying Grokster.¹⁰⁷ The economic effect is to channel payment from users, because making Grokster pay IP owners a royalty would presumably cause it to pass this cost onto users, such as by blasting even more advertisements to them. In this sense, secondary liability places Grokster in the same position as a licensed intermediary such as a television station that pays IP owners and then indirectly collects this payment from users via advertising.¹⁰⁸

Two criteria emerge for the type of entity that can potentially serve as a conduit and thus would be a candidate for the imposition of secondary liability. First, a secondary defendant must have the ability to prevent or at least make more difficult each user’s infringing activity, since without this ability the secondary defendant has no leverage against users to demand payment from them.¹⁰⁹ Second, as a general rule, the secondary defendant should have a preexisting contractual or other commercial relationship with each individual

¹⁰⁶ Having Grokster collect payment from each individual user through advertising does not add transaction costs, because Grokster already collects revenue from users through advertising.

¹⁰⁷ *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 916, 926 (2005) (“Grokster and StreamCast receive no revenue from users Instead, both companies generate income by selling advertising space As the number of users of each program increases, advertising opportunities become worth more.”).

¹⁰⁸ See Agnieszka McPeak, *Disappearing Data*, 2018 WIS. L. REV. 17, 24 n.23 (2018) (“Television delivers people to an advertiser . . .”).

¹⁰⁹ See Lichtman & Landes, *supra* note 8, at 396 (“The argument in favor of liability is that third parties are often in a good position to discourage copyright infringement either by monitoring direct infringers or by redesigning their technologies to make infringement more difficult.”).

user. As above, this relationship does not need to be direct—the ability to advertise to users and collect money from advertisers is sufficient for this purpose. Nor does the relationship need to be profit-seeking: a non-profit university can be an excellent conduit because it has a contractual relationship with every student; it is engaged in commerce with students even if it is not profit-seeking.¹¹⁰ All that is required is some mechanism by which the secondary party can extract payment from users without additional transaction costs. This follows from the principle that secondary liability is about finding efficient conduits that reduce the transaction costs of making users pay IP owners. A strictly non-commercial entity such as Wikipedia, which has no preexisting contractual or other commercial relationship with its users and does no advertising, may provide a product or service that can facilitate patent and copyright infringement—such as by instructing users on how to make a patented product or providing links to copyright-infringing websites—but does not make for a suitable target for secondary liability.¹¹¹

There is a partial exception to this second criterion. Sometimes, shutting down an unauthorized distribution channel may redirect users to a licensed and more efficient distribution channel. For example, if a BitTorrent hosting website that displays no advertising is shut down, users may be incentivized to go to Spotify or Netflix to obtain access to copyrighted music and shows instead, and this would allow copyright holders to obtain payment even without the secondary defendant itself acting as a conduit. This outcome is efficient if Spotify or Netflix are superior distributors than BitTorrent (such as by being easier to use), once BitTorrent's pricing advantage through avoidance of IP royalties is excluded from consideration.¹¹² Thus, there are occasions when it is economically justified to impose secondary liability on a non-commercial entity with no ability to extract payment from users in order to redirect users to a different provider.

This exception is narrower than it might appear, however, because a licensed alternative is not necessarily a more efficient alternative;¹¹³ and IP owners have a strong incentive to divert users away from unauthorized channels,

¹¹⁰ Cf. *Madey v. Duke Univ.*, 307 F.3d 1351, 1362 (Fed. Cir. 2002) (holding that non-profit university research does not qualify as “experimental use,” “so long as the act is in furtherance of the alleged infringer’s legitimate business and is not solely for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry”).

¹¹¹ See generally Mitra Barun Sarkar et al., *Intermediaries and Cybermediaries: Sarkar, Butler and Steinfeld*, 1 J. COMPUT.-MEDIATED COMM’N (1995) (“The existence of cybermediaries is consistent with traditional marketing theory, which views intermediaries as organizations that support exchanges between producers and consumers, increasing the efficiency of the exchange process by aggregating transactions to create economies of scale and scope.”).

¹¹² Cf. David Fagundes, *Efficient Copyright Infringement*, 98 IOWA L. REV. 1791, 1794 (2013) (arguing that infringement should be permitted if, after the defendant’s unlawful pricing advantage from infringement is excluded, such infringing use is still socially beneficial).

¹¹³ In the above example, shutting down BitTorrent to redirect users to Spotify and Netflix is efficient only if Spotify and Netflix are superior distribution channels. See *id.*

not because those channels are socially inefficient, but to maintain control beyond the parameters of IP law. For example, a copyright owner could conceivably argue that if a free public library is shut down, then users who might have unlawfully photocopied books in the library may be forced to buy those books instead, which would more effectively secure protection of IP rights. But it should be obvious that the primary motivation and effect of shutting down the library is not to prevent unlawful infringement through photocopying but to prevent users from reading borrowed books, when unlicensed loaning of books is an efficient distribution mechanism that is expressly permitted by copyright law (even though it hurts copyright owners' profits).¹¹⁴ In principle, secondary liability should only be imposed on entities with no commercial relationship to the user when the use of the defendant's product or service is driven by its unlawful advantages from infringement and not by any legitimate reason. The extent to which this principle is reflected in practice is difficult to assess: formal doctrine only weakly insulates non-commercial entities from liability,¹¹⁵ but claims against non-commercial entities are rare,¹¹⁶ and successful claims even rarer.¹¹⁷ This rarity, however, is most readily attributed to the fact that these entities rarely have enough money to make a lawsuit against them worthwhile, rather than any assessment of the legal merits. The empirical validity of the preexisting-commercial-relationship criterion is therefore difficult to assess because there is insufficient evidence one way or the other.

B. *The Collateral Harm Limitation*

If secondary liability is about finding entities that (1) can restrict user infringement, and (2) have direct or indirect commercial relationships with each user, then a wide variety of entities satisfy these criteria. To use the example of music piracy through online file-sharing, it is not only a file-sharing service such as Grokster that can limit user infringement. Internet service providers such as Verizon could block peer-to-peer connections,¹¹⁸ Microsoft could pro-

¹¹⁴ 17 U.S.C. § 109(a) (2008).

¹¹⁵ Non-commercial use is a factor supporting a fair use defense in copyright law, 17 U.S.C. § 107, and a factor supporting an experimental use defense in patent law, *Sawin v. Guild*, 21 F. Cas. 554, 555 (C.C.D. Mass. 1813) (Story, J.), but does not form a per se safe-harbor from liability.

¹¹⁶ See Jessica Litman, *Revising Copyright Law for the Information Age*, 75 OR. L. REV. 19, 40 (1996) ("Non-commercial users rarely get sued and, when they do, tend to have powerful fair use arguments on their side.").

¹¹⁷ See Rebecca Tushnet, *Legal Fictions: Copyright, Fan Fiction, and a New Common Law*, 17 LOY. L.A. ENT. L.J. 651, 685 (1997) ("Noncommercial users are rarely, if ever, found liable for copyright infringement.").

¹¹⁸ See Nassim Nazemi, *DMCA § 512 Safe Harbor for Anonymity Networks Amid a Cyber-Democratic Storm: Lessons from the 2009 Iranian Uprising*, 106 NW. U. L. REV. 855, 875 (2012) ("ISPs can identify file-sharing traffic through a controversial technique called 'deep-packet inspection' (DPI). For example, in 2007, the public learned that one ISP, Comcast, had been using DPI to identify and selectively block BitTorrent traffic . . .").

gram Windows to create a blacklist so that Grokster's software (and others like it) cannot be installed, and hardware manufacturers could disable MP3 files from being played on their devices, to name just a few imaginable possibilities. Imposing secondary liability on these entities and requiring them to pay for the user infringement that occurs through use of their products or services incentivizes these entities to either implement the restrictive measures or increase prices on users to offset the increased cost from legal liability.

The problem with an expansive application of secondary liability, as courts and commentators have repeatedly noted, is that it can create collateral harms on noninfringing uses and users.¹¹⁹ If smartphone manufacturers are held secondarily liable for users playing pirated MP3 files on their devices, they may respond by disabling MP3 files from being played. This would discourage copyright infringement, but it also creates a collateral hardship that even noninfringing users with lawful MP3 files now cannot listen to them. Alternatively, smartphone manufacturers may simply increase the prices of smartphones to offset the increased cost from paying infringement judgments, but all consumers—not only the consumers who play pirated MP3s—would bear this increased cost. This again creates a collateral harm on noninfringing users.

Courts have recognized this concern about collateral harm as a reason to limit the scope of secondary liability. The Supreme Court in *Sony* characterized the rule that contributory infringement requires a component to be incapable of substantial noninfringing use as “strik[ing] a balance between a[n] [IP right] holder’s legitimate demand for effective—not merely symbolic—protection of the statutory monopoly, and the rights of others freely to engage in substantially unrelated areas of commerce.”¹²⁰ The Court in *Grokster* likewise described secondary liability law as “an exercise in managing the tradeoff” between maintaining incentives for creation and preventing collateral harms,¹²¹ and it characterized the decision in *Sony* as “str[iking] a balance between the interests of protection and innovation.”¹²² Commentators have similarly characterized other facets of secondary liability doctrine—such as the intent requirement—as reflecting the same balance between the interest in securing effective IP protection and the interest in preventing collateral harm.¹²³ In this sense the collateral harm principle is well known.

¹¹⁹ Lichtman & Landes, *supra* note 8, at 396 (“The argument against [secondary liability] is that legal liability almost inevitably interferes with the legitimate use of implicated tools, services, and venues.”).

¹²⁰ *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984).

¹²¹ *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 916, 928 (2005).

¹²² *Id.* at 941.

¹²³ Theresa E. Durante, *Commil USA, LLC v. Cisco Systems: Joining Policy and Prose to Foster a Good Faith Analysis*, Note, 75 MD. L. REV. ENDNOTES 76, 100 (2016) (“[T]he intent requirement of induced infringement balances ‘the public’s access to non-infringing uses of products against the patent owner’s right to a remedy when the use is infringing.’” (quoting Brief of Petitioner at 41, *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920 (2015) (No. 13-896))); see Lemley, *supra* note 10, at 228, 242–43 (noting “the law

The difference between my theory and prior articulations of the collateral harm principle is that the prior literature consistently characterizes secondary liability law as striking a balance between these two competing interests.¹²⁴ My theory, in contrast, posits the avoidance of collateral harm not as a consideration that is balanced against the benefits of better IP protection and a myriad of other factors, but as a paramount principle that overrides the benefits of expanding liability. Secondary liability should not be understood as a balance where more benefits from stronger IP protection would permit more collateral harm on noninfringing users. Secondary liability doctrine is best understood as a rule subject to an absolute limitation: if imposing secondary liability in a particular fact situation would create more than de minimis collateral harm on noninfringing users and users, then secondary liability cannot be imposed, no matter how much IP incentives might otherwise be benefited and how much IP infringement could otherwise be prevented.

Conceptualizing secondary liability doctrine as constrained by an absolute prohibition on collateral harms helps explain many features of secondary liability doctrine as it exists today. Part IV will elaborate on the implications in more detail; for now, I will give just one example, namely that this conception of the collateral harm limitation explains the structure of secondary liability doctrine with its two categories of inducement and contributory liability. There is much confusion and debate about whether inducement and contributory liability are truly distinct, and, if so, how.¹²⁵ The collateral harm principle provides an answer. If secondary liability may be imposed only in situations where noninfringing users and uses will not be harmed, then there are two basic fact patterns where such collateral harm is unlikely, each mapping onto contributory and inducement liability, respectively.

The first situation is if there are no noninfringing uses of a secondary defendant's product or service. As the Supreme Court stated in *Grokster*, "where

must take equal care to avoid imposing liability on those who participate in the stream of lawful commerce merely because their products can be misused" and arguing for a balancing approach that "trad[es] off greater involvement in the acts that constitute direct infringement against a mental state of greater culpability").

¹²⁴ See, e.g., *Sony*, 464 U.S. at 442 ("The staple article of commerce doctrine must strike a balance between a copyright holder's legitimate demand for effective—not merely symbolic—protection of the statutory monopoly, and the rights of others freely to engage in substantially unrelated areas of commerce.").

¹²⁵ Erika Douglas, *Paypal is New Money: Extending Secondary Copyright Liability Safe Harbors to Online Payment Processors*, 24 MICH. TELECOMM. & TECH. L. REV. 45, 53 (2017) ("Some consider *Grokster*'s inducement theory to be a distinct category of secondary liability, while others see it as a subcategory of contributory copyright infringement."); see also Daniel Kohler, Note, *A Question of Intent: Why Inducement Liability Should Preclude Protection Under the Safe Harbor Provisions of the Digital Millennium Copyright Act*, 41 SW. L. REV. 487, 488–89 (2012) ("This distinction has more than mere semantic significance because by defining inducement as a subset of contributory infringement, courts have brought inducement liability automatically within the meaning of the safe harbor provisions of the Digital Millennium Copyright Act. . .").

an article is ‘good for nothing else’ but infringement, there is no legitimate public interest in its unlicensed availability, and there is no injustice in presuming or imputing an intent to infringe.”¹²⁶ If a product or service has no substantial noninfringing uses,¹²⁷ then imposing liability cannot harm noninfringing users because there are none (or so few as to be *de minimis*). This logic corresponds to Section 271(c) contributory liability in patent law (which has the requirement that the secondary defendant’s product must not be suitable for substantial noninfringing use)¹²⁸ and *Sony*-type contributory liability in copyright law.¹²⁹

Although *Grokster*’s argument gets at the right intuition, it is somewhat imprecise when it ties this argument to inferences about the defendant’s intent.¹³⁰ When a product is not capable of substantial noninfringing use, the reason for imposing secondary liability is simply that “there is no legitimate public interest in its unlicensed availability”;¹³¹ noninfringing users cannot be harmed by being forced to pay higher prices for the product because there are no noninfringing users. Whether the secondary defendant has any culpable intent to infringe is irrelevant to this argument. The secondary defendant may have the most benign intentions in the world (for example, he may genuinely, albeit incorrectly, believe the uses are noninfringing fair uses). None of that should matter if there are no innocent users or uses to be harmed.¹³² Imputing intent to infringe in situations where a product or service has no substantial noninfringing use is best understood as a legal fiction to reach the correct outcome under the conduit theory, rather than a judgment about the defendant’s actual intent or state of mind.

¹²⁶ *Grokster*, 545 U.S. at 932 (quoting *Canda v. Michigan Malleable Iron Co.*, 124 F. 486, 489 (6th Cir. 1903)).

¹²⁷ To be clear, noninfringing uses include potential future noninfringing uses, because harming future noninfringing use is still collateral harm. See *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1021 (9th Cir. 2001) (“The district court improperly confined the use analysis to current uses, ignoring the system’s capabilities.”).

¹²⁸ 35 U.S.C. § 271(c).

¹²⁹ *Sony*, 464 U.S. at 441–42 (“Unless a commodity ‘has no use except through practice of the patented method,’ the patentee has no right to claim that its distribution constitutes contributory infringement.” (quoting *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 176 (1980)).

¹³⁰ *Grokster*, 545 U.S. at 932.

¹³¹ *Id.*

¹³² One collateral harm would be that the possibility of being subject to unknown contributory liability might have a chilling effect, discouraging the secondary defendant from making or distributing the product in the first place. See *infra* text accompanying notes 135–42. Unlike the chilling effect with respect to inducement liability (which chills a separate inducing act such as advertising), the conduct being chilled by potential contributory liability is the same as that of potential direct liability—both discourage a defendant from making and distributing a potentially infringing product. As I will explain later, strict liability for contributory infringement does not impose a significantly greater chilling effect than direct infringement already does and therefore does not cause incremental collateral harm. See *infra* text accompanying notes 172–76.

The second situation where the imposition of secondary liability is unlikely to cause collateral harm is when the secondary defendant affirmatively promotes or encourages user conduct that the secondary defendant knows would be infringing.¹³³ Imposing liability for intentional inducement of infringement is unlikely to result in collateral harm to noninfringing users even if the liability is imposed on a staple article capable of noninfringing use. For example, if Apple intentionally advertised for users to play pirated MP3s on its iPhones, imposing liability for the advertisement does not create an incentive for Apple to stop manufacturing or selling the iPhone. Instead, the logical incentive effect on Apple is to stop the advertisement of infringing uses, assuming the iPhone is still commercially viable without those uses.¹³⁴ Because only the advertising or encouragement of infringing use is being disincentivized, and not the manufacture or distribution of the staple product itself (or even advertising of noninfringing uses), there is no collateral harm on the noninfringing uses of the product. This rationale explains Section 271(b) inducement liability in patent law and *Grokster*-type inducement liability in copyright law.

Three additional implications follow from this explanation of inducement liability. First, inducement liability should only be imposed for inducements that specifically encourage infringing conduct;¹³⁵ it should not be imposed for generalized or vague messages that may encourage infringing as well as noninfringing conduct. Imposing liability for vague messages may disincentivize the noninfringing conduct and thus cause collateral harm. For example, Apple's famous "rip, mix, burn"¹³⁶ marketing slogan was ambiguous: ripping music CDs to share with others is copyright infringement, but ripping for portability purposes is noninfringing fair use.¹³⁷ Because suppressing the "rip, mix, burn" slogan will hamper both the infringing and noninfringing conduct, Apple was

¹³³ *Grokster*, 545 U.S. at 936 ("Evidence of 'active steps . . . taken to encourage direct infringement,' such as advertising an infringing use or instructing how to engage in an infringing use, show an affirmative intent that the product be used to infringe, and a showing that infringement was encouraged overcomes the law's reluctance to find liability when a defendant merely sells a commercial product suitable for some lawful use. . . ." (quoting *Oak Indus., Inc. v. Zenith Elecs. Corp.*, 697 F. Supp. 988, 992 (N.D. Ill. 1988))).

¹³⁴ And if a product is *not* commercially viable without reliance on infringing uses, then it comes under the first rationale of a product that has no legitimate reason to exist, so elimination of the product from the market is not a collateral harm.

¹³⁵ See *DSU Med. Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006) (en banc) ("[I]nducement requires 'that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement.'" (quoting *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1378 (Fed. Cir. 2005))).

¹³⁶ See generally Peter S. Menell & David Nimmer, *Legal Realism in Action: Indirect Copyright Liability's Continuing Tort Framework and Sony's De Facto Demise*, 55 UCLA L. REV. 143, 191–92 (2007) ("In 2001, Apple Computer's 'Rip, Mix, Burn' advertising campaign struck many in the entertainment industries as bordering on inducement of illegal activity.").

¹³⁷ See *Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072, 1079 (9th Cir. 1999) ("The Rio merely makes copies in order to render portable, or 'space-shift,' those files that already reside on a user's hard drive.").

not secondarily liable, even if “rip, mix, burn” likely induced far more copyright infringing conduct than noninfringing conduct on net. This is consistent with the collateral harm limitation functioning as an absolute principle, one that protects noninfringing uses whenever there is more than de minimis harm, even if imposing liability would create greater overall benefits.

Second, inducement liability should be imposed only when the secondary defendant knows at the time of inducement that the conduct being encouraged infringes an IP right.¹³⁸ This is because if secondary defendants are held liable for encouraging conduct that later turns out to be infringing—but whose unlawful nature they were unaware of at the time of the inducement—then the incentive effect would not only be to stop inducements that encourage infringing use. The incentive effect would be to stop messages encouraging any use, because the defendant cannot be sure what conduct might or might not be found to infringe some IP right—including an IP right whose existence the defendant is currently not even aware of¹³⁹—in the future.¹⁴⁰ This “chilling effect” would thus cause collateral harm on noninfringing conduct (by reducing promotion of and instructions for such conduct).¹⁴¹ For this reason, inducement liability requires scienter, in that the secondary defendant must know at the time of the inducement that there is an IP right and that the user conduct being induced infringes that right.¹⁴² Within the conduit theory, the requirement of scienter serves not to differentiate between culpable versus non-culpable secondary defendants (nor to punish the former as a matter of moral justice), but instead as a mechanism to protect noninfringing uses from collateral harm due to chilling effects.

Third, because inducement liability seeks to disincentivize only the inducement of infringing uses (advertising the download of pirated music on iPhones) and not the general product that is capable of noninfringing use (the iPhone itself), remedies for inducement liability should generally be targeted to the inducement and not the product. If Apple is found to induce users to download pirated music on iPhones, the logical remedy is an injunction against fu-

¹³⁸ See *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 757, 766 (2011) (holding that “induced infringement under § 271(b) requires knowledge that the induced acts constitute patent infringement”).

¹³⁹ See JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATIONS AT RISK* 71–72 (2008) (arguing that the current patent system suffers from a problem of “[h]igh search costs” so it is difficult to find all the patents that cover a product or activity).

¹⁴⁰ See Timothy R. Holbrook, *The Intent Element of Induced Infringement*, 22 SANTA CLARA COMPUT. & HIGH TECH. L.J. 399, 408 (2006) (“To hold otherwise would penalize a ‘good’ actor who holds a belief that the others are not directly infringing. Such behavior is pro-competitive—it encourages parties to enter the market if they have such a belief.”).

¹⁴¹ See generally *Reno v. Am. Civ. Liberties Union*, 521 U.S. 844, 871–72 (1997) (arguing that a vague restriction on speech “raises special First Amendment concerns because of its obvious chilling effect on free speech”).

¹⁴² *Global-Tech Appliances*, 563 U.S. at 766 (“[I]nduced infringement under § 271(b) requires knowledge that the induced acts constitute patent infringement.”).

ture inducements, not an injunction against the iPhone in totality. An injunction against the entire product for inducement of a subset of infringing uses is overbroad unless the product is not commercially viable without those infringing uses (in which case the product would not exist in the marketplace without the unlawful inducement and should therefore be removed from the market). This principle illuminates the ultimate disposition of the *Grokster* case, where the file-sharing networks were enjoined from operating and not merely enjoined from future advertising,¹⁴³ which at first glance seems in tension with my argument. Although the court did not elaborate on this point, it is almost certainly true that the file-sharing networks were not commercially viable without the infringing uses,¹⁴⁴ and thus the decision is correct under the conduit theory.

This last point is worth elaborating. When I say that the collateral harm principle means that noninfringing users and uses should not be harmed, I do not mean that they should never suffer any adverse effects from a judgment against a secondary defendant. I mean that noninfringing users and uses should not be put in a materially worse position compared to a counterfactual world without direct infringement. If *Grokster* goes out of business because of a massive judgment against it for secondary liability, some noninfringing users who use *Grokster* to distribute their own self-created music are undoubtedly negatively affected (compared to an alternative where *Grokster* is not subjected to secondary liability). But these noninfringing users are not truly “harmed” by the imposition of secondary liability if perfect enforcement of direct liability would also put *Grokster* out of business by removing the overwhelming majority of its user base.¹⁴⁵ In such a situation, the imposition of secondary liability is simply removing an improper subsidy that *Grokster* and its users (both infringing and noninfringing) were receiving from the imperfect enforcement of direct liability law.

IV. IMPLICATIONS OF THE CONDUIT THEORY

This Part discusses the payoffs of the conduit theory. The conduit theory is a positive theory: it is primarily about explaining current secondary liability doctrine rather than advancing normative policy arguments. The contribution of the theory is to provide a framework to understand the rules and overarching structure of secondary liability doctrine. Section IV.A explains and justifies the *Akamai* rule that secondary liability requires a unitary direct infringer, so that multiple parties who combine to infringe do not face liability. Section IV.B ex-

¹⁴³ *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 518 F. Supp. 2d 1197, 1239, 1241 (C.D. Cal. 2007).

¹⁴⁴ *See Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 923 (2005) (“MGM’s evidence gives reason to think that the vast majority of users’ downloads are acts of infringement . . .”).

¹⁴⁵ This is a version of the familiar “baseline problem.” *See generally* Richard A. Epstein, *The Ubiquity of the Benefit Principle*, 67 S. CAL. L. REV. 1369, 1371–72 (1994) (“The question of benefits and harms therefore is parasitic on the choice of baselines.”).

plains the distinction between inducement and contributory liability and clarifies that the two categories are conceptually distinct and serve different functions; courts and commentators that blur the distinction between the two statutory categories are incorrect to do so. Section IV.C will explain the Supreme Court's holding in *Commil USA, LLC v. Cisco Systems, Inc.*¹⁴⁶ that an incorrect belief in noninfringement negates intent, but an incorrect belief in invalidity does not.¹⁴⁷

Beyond explaining core structural features of secondary liability doctrine, the conduit theory helps clarify some other areas of conceptual confusion. Section VI.D will discuss how the conduit theory helps explain and ultimately reconcile conflicting lines of case law on the issue of whether damages for induced infringement should be limited to the specific instances of direct infringement that are proven by the plaintiff.¹⁴⁸ Section IV.E will discuss how the conduit theory helps clarify copyright law's vicarious liability doctrine, which is currently a conceptually incoherent mess.¹⁴⁹

Although the conduit theory is consistent with, explains, and helps reconcile many areas of secondary liability doctrine, there is one glaring inconsistency between the conduit theory and actual secondary liability law. Specifically, the conduit theory cannot be reconciled with the rule in *Aro Manufacturing Co. v. Convertible Top Replacement Co.* that contributory liability (not just inducement liability) requires intent to infringe a known IP right, so that a genuine-but-incorrect belief in noninfringement precludes liability even when the secondary defendant's product has no use except for infringement.¹⁵⁰ Section IV.F will argue that the *Aro* rule has no basis in principle or policy, does not fit with the rest of IP law, and ought to be abandoned.

¹⁴⁶ *Commil USA, LLC v. Cisco Sys., Inc.*, 575 U.S. 632, 642 (2015).

¹⁴⁷ See, e.g., Timothy R. Holbrook, *The Supreme Court's Quiet Revolution in Induced Patent Infringement*, 91 NOTRE DAME L. REV. 1007, 1032 (2016) (“[T]he Court’s holding reflects an artificial bifurcation of invalidity and infringement that does not exist in practice.”); Durante, *supra* note 123, at 96–97 (arguing that the distinction between invalidity and noninfringement is “tenuous”).

¹⁴⁸ Compare *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1275–76 (Fed. Cir. 2004) (“Dynacore must . . . point to a specific instance of direct infringement and restrict its suit to liability stemming from that specific instance.”), with *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1334 (Fed. Cir. 2009) (“[W]e have never laid down any rigid requirement that damages in all circumstances be limited to specific instances of infringement proven with direct evidence.”).

¹⁴⁹ See, e.g., *In re Aimster Copyright Litig.*, 334 F.3d 643, 654 (7th Cir. 2003) (“How far the doctrine of vicarious liability extends is uncertain.”); Charles W. Adams, *Indirect Infringement from a Tort Law Perspective*, 42 U. RICH. L. REV. 635, 685 (2008) (“Vicarious liability for copyright infringement was never sound in principle . . .”).

¹⁵⁰ *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 487–91 (1964) (stating that “the component was hardly suitable for any noninfringing use” but holding that “Aro cannot be held liable in the absence of a showing that at that time it had already acquired the requisite knowledge that the Ford car tops were patented and infringing”).

A. *The Requirement of a Direct Infringer*

As described in Section II.B, there is perhaps no rule more foundational to secondary liability law than the rule that secondary liability requires direct liability.¹⁵¹ This principle is embedded in the name of the doctrine itself, because saying that liability is “secondary” implies that there is a predicate “primary” liability. However, the conventional theories of secondary liability have difficulty explaining this rule, because the unavoidable implication of the rule is that when multiple parties combine to cause a direct infringement without any single direct infringer—such as the situation in *Akamai* in which one party codes an html tag while another party provides the server, with direct infringement requiring both—no liability (direct or secondary) results.¹⁵² If one looks to the anti-subversion theory, then imposing secondary liability is necessary to protect the patent right from subversion in such a scenario, because otherwise the patent becomes extremely easy to evade.¹⁵³ By the same logic, as a matter of economic balancing, the benefits of imposing secondary liability far outweigh any downsides. And if one looks to moral culpability, the defendants in *Akamai* were highly culpable because they were engaged in a transparent maneuver to practice the invention without payment to the inventor.¹⁵⁴ The upshot is that the anti-subversion and moral culpability theories sit in tension with a rigid rule requiring a unitary direct infringer.

In contrast, the conduit theory is consistent with and explains the rule. Under the conduit theory, secondary liability is about creating efficient conduits—the secondary defendant is merely a conduit that conveys money from direct infringers to the IP owner in a more efficient manner (“more” efficient compared to the alternative of the IP owner chasing the direct infringers directly). If there are no direct infringers from whom the IP owner could theoretically collect royalties, then there is nothing to convey, and therefore no secondary liability.

To the objection that the unitary direct infringer rule allows clever pirates (such as the defendants in *Akamai*) to exploit loopholes in IP law and under-

¹⁵¹ See *supra* text accompanying notes 86–95; *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 572 U.S. 915, 921 (2014) (“[O]ur case law leaves no doubt that inducement liability may arise ‘if, but only if, there is direct infringement.’” (internal quotation marks and alterations omitted) (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961))).

¹⁵² *Limelight Networks, Inc.*, 572 U.S. at 925–26 (“Finally, respondents, like the Federal Circuit, criticize our interpretation of § 271(b) as permitting a would-be infringer to evade liability by dividing performance of a method patent’s steps with another whom the defendant neither directs nor controls. We acknowledge this concern.”).

¹⁵³ See *id.*

¹⁵⁴ See Jingyuan Luo, *Shining the Limelight on Divided Infringement: Emerging Technologies and the Liability Loophole*, 30 BERKELEY TECH. L.J. 675, 696 (2015) (“The Supreme Court’s decision creates a loophole for would-be infringers to escape liability for patent infringement by dividing the performance of method patents with a party it neither directs nor controls.”).

mines incentives to create, the response of the conduit theory is that the problem arises from a loophole in the definition of direct liability.¹⁵⁵ The solution should therefore be to reform direct liability doctrine if necessary. As conceptualized under the conduit theory, secondary liability is not a general anti-subversion mechanism to close the loopholes in IP law;¹⁵⁶ secondary liability has the different and narrower function of finding efficient intermediaries to solve a transaction cost problem when it is costly for IP owners to collect payments from direct users. As a matter of first-principles policy debate, one can criticize this understanding of the function of secondary liability as rather cramped and lacking ambition.¹⁵⁷ But narrowing our understanding of the function of secondary liability gives it greater coherence, and the narrow understanding is more descriptively consistent with the doctrine's actual rules and structure, including the requirement of a unitary direct infringer.

B. Differentiating Inducement and Contributory Liability

As Section III.B explained, there are two general fact patterns that satisfy the collateral harm principle forbidding harm to noninfringing users and uses, and they correspond to contributory and inducement liability.¹⁵⁸ The first is when there are no noninfringing uses of a product or service—or at least such noninfringing use is so rare as to be *de minimis* and not worth thinking about. In such cases, the imposition of secondary liability cannot cause collateral harm.¹⁵⁹ Contributory liability, which requires the defendant's product or service not be suitable for substantial noninfringing use, corresponds to this situation.¹⁶⁰

When a defendant provides a general product or service capable of both infringing and noninfringing uses, however, secondary liability cannot be imposed just for the sale of the product itself. Otherwise, the defendant would ra-

¹⁵⁵ *Limelight Networks, Inc.*, 572 U.S. at 926 (“Any such anomaly, however, would result from the Federal Circuit’s interpretation of § 271(a) in *Muniauction*. A desire to avoid *Muniauction*’s natural consequences does not justify fundamentally altering the rules of inducement liability that the text and structure of the Patent Act clearly require . . .”).

¹⁵⁶ *See id.* (arguing against “creating for § 271(b) purposes some free-floating concept of ‘infringement’ both untethered to the statutory text and difficult for the lower courts to apply consistently”).

¹⁵⁷ To reemphasize a point made in the Introduction, I am presenting the conduit theory as a descriptive theory to explain existing law, not as a first-principles normative theory.

¹⁵⁸ *See supra* text accompanying notes 125–46.

¹⁵⁹ *See Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 932 (2005) (“In sum, where an article is ‘good for nothing else’ but infringement, there is no legitimate public interest in its unlicensed availability, and there is no injustice in presuming or imputing an intent to infringe.”) (quoting *Canda v. Michigan Malleable Iron Co.*, 124 F. 486, 489 (6th Cir. 1903)).

¹⁶⁰ *See* 35 U.S.C. § 271(c) (requiring that the accused article be “not a staple article or commodity of commerce suitable for substantial noninfringing use”); *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984) (importing this limitation into contributory copyright infringement).

tionally respond by raising prices across-the-board on the product to offset the cost of infringement liability, which causes harm to the noninfringing users. The second situation where liability can be imposed without causing collateral harm is when a secondary defendant does more than provide a general product or service and specifically induces another party to do some action X, while knowing that action X infringes an IP right. As will be explained below, imposing secondary liability for intentionally and specifically inducing infringement does not cause collateral harm, because its deterrence effect is narrow—a rational defendant will only reduce encouragement of known infringing conduct and the effect on noninfringing activity is therefore minimal. A rule that imposes secondary liability for intentionally and specifically inducing infringement, of course, corresponds to inducement liability in patent law under 35 U.S.C. § 271(b), which the Supreme Court imported into copyright law in *Grokster*.¹⁶¹

To see why inducement liability works under the collateral harm principle, consider again the hypothetical situation where Apple is considering an advertising campaign that specifically advertises the ability of iPhones to play pirated MP3s.¹⁶² This is open-and-shut secondary infringement, and the copyright holder will approach Apple with a demand for royalties. In a negotiation between the two parties, however, the copyright holder cannot demand all of Apple's profits from the iPhone, because Apple's liability does not arise from the sale of iPhones as such. Rather, the copyright holder would only be able to demand the incremental profit Apple expects to make from advertising the ability to play pirated MP3s on its iPhones. If the copyright holder demanded any more, then Apple can simply not do its pirated-MP3s advertising campaign, at which point it would not be liable for inducement. Apple has no incentive to reduce sales of the iPhone or reduce its advertising generally.¹⁶³ The burden of inducement liability falls only on infringing uses and users, because Apple will only pay for a license if the profits it can make from users who want to use the iPhone to play unlicensed MP3s—and who therefore would be motivated to purchase iPhones because they see advertising for this use—is greater than the amount of royalties it expects to pay for the license. Alternatively, if Apple does not pay for a license and instead chooses to not advertise the capability of the iPhone to play pirated MP3s, the burden also falls only on infringing users, since they are the only ones who would benefit from receiving that message.

Both scienter and specificity are required to achieve this narrow tailoring effect. If Apple is held liable for general or ambiguous marketing messages—for example, if it is held liable for a general advertising campaign describing

¹⁶¹ *Grokster*, 545 U.S. at 936 (“For the same reasons that *Sony* took the staple-article doctrine of patent law as a model for its copyright safe-harbor rule, the inducement rule, too, is a sensible one for copyright. We adopt it here.”).

¹⁶² See *supra* text accompanying notes 133–34.134

¹⁶³ See *Grokster*, 545 U.S. at 937 (“The inducement rule, instead, premises liability on purposeful, culpable expression and conduct, and thus does nothing to compromise legitimate commerce or discourage innovation having a lawful promise.”).

the iPhone's ability to play MP3s—then it may refrain from advertising all use of MP3s on iPhones, which would harm innocent users who might otherwise have wished to play uncopyrighted MP3s on their iPhones and now do not realize it has that capability. Similarly, if Apple is held secondarily liable for inducing conduct that it incorrectly believed was noninfringing (but which turns out to be infringing), then it may desist in the future from encouraging any conduct that might infringe some IP right. Given that there are hundreds of thousands of active patents that are beyond the capability of even a well-resourced company such as Apple to comprehensively read,¹⁶⁴ virtually all conduct might infringe some unknown patent out there. Limiting secondary liability to inducement of known infringing conduct prevents this type of broad chilling effect. At the same time, because the function of the scienter requirement is to prevent the chilling effect that would arise from punishing unknowing conduct—rather than as a measure of moral culpability as such—malicious or rapacious purpose should not be required.¹⁶⁵ An inducing act done with knowledge that infringement will occur (or willful blindness to avoid gaining that knowledge) is enough,¹⁶⁶ because punishing such knowing conduct does not create a significant chilling effect on unknowing activity.

The upshot is that the conduit theory explains why inducement and contributory liability really are separate doctrines that belong in different statutory sections.¹⁶⁷ The two types of secondary liability apply to different situations, are based on different logical underpinnings, and have different requirements, especially as to the level of scienter that should be required. The distinction between the two is real and is not something that Congress just arbitrarily made up.¹⁶⁸ Courts that blur the distinction—which they have done in both patent and copyright law—are wrong to do so.¹⁶⁹

¹⁶⁴ See Christina Mulligan & Timothy B. Lee, *Scaling the Patent System*, 68 NYU ANN. SURV. AM. L. 289, 304–05 (2012) (arguing that it would cost more to review all software patents for all software firms than the total value of the software industry).

¹⁶⁵ See MODEL PENAL CODE § 2.02 (AM. L. INST., Proposed Official Draft 1962) (distinguishing between “purposely” and “knowingly”).

¹⁶⁶ See *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 769 (2011) (“[A] willfully blind defendant is one who takes deliberate actions to avoid confirming a high probability of wrongdoing and who can almost be said to have actually known the critical facts.”).

¹⁶⁷ See 35 U.S.C. § 271(b) & (c) (2010) (distinguishing between inducement and contributory liability).

¹⁶⁸ Cf. NIMMER & NIMMER, *supra* note 58, at § 12.04 (“[T]he question remains whether, at the outset, intending to induce should be conceptualized as a subset of contributory infringement. . . . Emblematic of the confusion here is that, in two cases separated by six weeks brought on similar theories by the same plaintiff, different panels of the Ninth Circuit handled the matter differently.”).

¹⁶⁹ See *supra* text accompanying notes 26–31 (discussing the merger of the two sections in patent law); see also, e.g., *Luvdarts, LLC v. AT&T Mobility, LLC*, 710 F.3d 1068, 1071 (9th Cir. 2013) (“[C]ontributory infringement liability requires ‘inducing or encouraging’ direct infringement.” (quoting *Metro-Goldwyn-Mayer Studios Inc. v. Gorkster, Ltd.*, 545 U.S. 913, 930 (2005))); *KBL Corp. v. Arnouts*, 646 F. Supp. 2d 335, 345 (S.D.N.Y. 2009) (“The plaintiff has not identified any legal authority indicating that the Copyright Act pro-

Two counter-arguments can be made against the distinction between inducement and contributory liability that I have described. The first is that, under my theory, inducement liability works because its effect is narrowly tailored, and it is narrowly tailored because a secondary defendant can choose to not do the inducing message (such as advertising playback of pirated MP3s) instead of paying royalties. This seems in tension with my argument earlier that the conduit theory is about finding efficient conduits to convey payment to IP owners, not to stop infringing activity for its own sake.

The argument therefore needs a further step. Imposing secondary liability is not about suppressing products or services with no noninfringing use or shutting down inducing advertising for its own sake. Rather, imposing liability on these activities forces a secondary defendant to internalize the IP costs and conduct a cost-benefit balance.¹⁷⁰ If the ability to playback copyrighted MP3 songs on iPhones is really so valuable to users, and so few of them know about it beforehand that advertising this information will increase iPhone sales, then Apple should be willing to pay royalties to do the advertising. The parties will only rationally fail to come to agreement if the monetizable value of the advertised use is lower than the transaction costs of the negotiation plus the IP owner's best alternative (if the Recording Industry Association of America (RIAA) could force users to use Spotify, it may not be willing to license MP3 playback on iPhones unless Apple could pay it more than Spotify). Discouraging uses that are not valuable enough to overcome the royalty demanded by IP owners is the IP system and the conduit theory working according to its economic underpinnings; it is not about reducing infringement because infringement is bad.

The second objection is that my argument with respect to chilling effects does not truly distinguish inducement from contributory liability. My argument is that inducement liability has a scienter requirement to prevent chilling effects: if defendants are held liable for encouraging conduct that they did not know is infringing, then they might rationally respond by not encouraging anything at all, which would harm innocent uses because defendants would not encourage those either (because there is no way to be sure ahead of time what is infringing and what is innocent). One might argue that the same chilling effect would occur if contributory infringement did not require scienter: if one is held strictly liable for selling products that turn out to have no noninfringing use, one might rationally respond by not selling any products (including products that have lawful uses) because one cannot be sure ahead of time whether a product's uses might later be found to be infringing.¹⁷¹

vides for an inducement to infringe claim that is distinct from contributory infringement. Indeed, the case law supports the opposite conclusion.”)

¹⁷⁰ Grossman, *supra* note 79, at 149 (“[T]he rules for secondary liability serve a loss spreading function . . . requiring businesses who benefit from copyright infringement to internalize those costs.”).

¹⁷¹ See generally Tun-Jen Chiang, *Trolls and Orphans*, 96 B.U. L. Rev. 691, 695 (2016) (“The harm of holdup comes from its deterrent effect on productive investment: if people

This is not a convincing objection, for two reasons. The first is that, in the situation where a defendant supplies a product or service, the risk of infringing an unknown IP right already happens because of strict liability for direct infringement.¹⁷² Contributory infringement requires that the defendant supply a product or service (logically antecedent to the product or service having no substantial noninfringing use), and there is an ever-present risk that any product or service may turn out to directly infringe an unknown patent or copyright.¹⁷³ A defendant who is chilled by the prospect that his product or service might be found to infringe an unknown patent or copyright would thus already take it off the market for fear that the product or service will be found to directly infringe. The incremental risk added by the possibility that the product or service will turn out to be useful for nothing but infringement by users, while not being itself directly infringing, is likely to be trivial. In contrast, inducement does not require the supply of a product or service—it covers activities such as advertising or providing instructions—and thus has a much lower risk of directly infringing any unknown patents or copyrights. This is because most patents cover making, selling, or using tangible products or services¹⁷⁴ and direct copyright infringement generally requires making or distributing copies of someone else’s work.¹⁷⁵ Strict liability for inducement thus creates a significant incremental chilling effect over direct infringement that strict contributory liability does not.

Second, the chilling effect would be much more frequent and pervasive if inducement liability were strict than if contributory liability were strict. Contributory liability only applies if the defendant supplies a product or service, and only if the product or service has a specific use. If one were concerned that one’s product or service might be found to contributorily infringe an undiscovered patent or copyright, one can search patent and copyright databases before launching new products and services to try and discover whether any IP rights

who are contemplating fixed investments fear that those fixed investments will be subject to later holdup, they are likely to make fewer investments. . . .”).

¹⁷² *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 761 n.2 (2011) (“Direct infringement has long been understood to require no more than the unauthorized use of a patented invention. Thus, a direct infringer’s knowledge or intent is irrelevant.” (internal citations omitted)).

¹⁷³ See generally BESSEN & MEURER, *supra* note 139, at 71–72 (arguing that the current patent system suffers from a problem of “[h]igh search costs”); Daniel Harris Brean, *Ending Unreasonable Royalties: Why Nominal Damages are Adequate to Compensate Patent Assertion Entities for Infringement*, 39 VT. L. REV. 867, 915 (2015) (“[T]he complexity and unpredictability of patent law would make it nearly impossible to steer clear of all infringement.”).

¹⁷⁴ Cf. Tun-Jen Chiang, *Patents and Free Speech*, 107 GEO. L.J. 309, 325–26 & n.89 (2019) (arguing that “patent claims that are facially specific to particular types of content or viewpoints are likely to be rare” but not nonexistent).

¹⁷⁵ See 17 U.S.C. § 106 (2002) (defining exclusive rights to include making reproductions and derivative works, distributing copies, and publicly performing or displaying copies).

cover that product or service or its use.¹⁷⁶ In contrast, inducement liability applies to virtually any activity that might encourage or facilitate third-party conduct, from advertising to instruction manuals to customer service calls to adding product features. Requiring defendants to search patent and copyright databases for each and every instance of such activity is not feasible; the only realistic risk-mitigation response would be to broadly cut back on such inducing activities.

C. Explaining the Commil Rule

Viewing the scienter requirement for inducement liability as a screening mechanism to prevent overbroad chilling effects—rather than as a mechanism to identify culpable bad actors—leads to a further payoff: it provides a way to make the Supreme Court’s holding in *Commil USA, LLC v. Cisco Systems, Inc.*¹⁷⁷ logically defensible. *Commil* held that a genuine belief that one does not infringe a patent is sufficient to negate the intent required for inducement liability under 35 U.S.C. § 271(b), but a genuine belief that the patent is invalid does not negate intent and does not preclude inducement liability.¹⁷⁸ Stated another way, *Commil* holds inducement defendants strictly liable for incorrect beliefs about invalidity, but not for incorrect beliefs about noninfringement.¹⁷⁹ This distinction between beliefs about noninfringement and beliefs about invalidity is widely regarded by commentators as utterly illogical,¹⁸⁰ because an invalid patent cannot be infringed, and therefore logically a defendant who believes a patent is invalid must necessarily believe that it is not infringed.¹⁸¹

As a matter of assessing what goes through a defendant’s mind—and the degree of culpability that would be associated with that state of mind—the critics are clearly correct: a defendant who believes a patent is invalid cannot be more culpable than a defendant who believes a patent is not infringed, because a defendant who believes the former must also believe the latter.

The key to making sense of the *Commil* rule is to not view it as being about the defendant’s actual state of mind or the culpability of such thoughts. Rather,

¹⁷⁶ See Jonathan S. Masur, *Patent Liability Rules as Search Rules*, 78 U. CHI. L. REV. 187, 187 (2011) (arguing that allocating liability implicitly allocates the obligation to search).

¹⁷⁷ *Commil USA, LLC v. Cisco Sys., Inc.*, 575 U.S. 632 (2015).

¹⁷⁸ *Id.* at 639, 642 (“The question the Court confronts today concerns whether a defendant’s belief regarding patent validity is a defense to a claim of induced infringement. It is not. The scienter element for induced infringement concerns infringement; that is a different issue than validity.”).

¹⁷⁹ *Id.*

¹⁸⁰ Holbrook, *supra* note 147147, at 1032 (“[T]he Court’s holding reflects an artificial bifurcation of invalidity and infringement that does not exist in practice.”); Saurabh Vishnubhakat, *An Intentional Tort Theory of Patents*, 68 FLA. L. REV. 571, 585 (2016) (“[J]ust as one cannot infringe an invalid patent, someone who believes in good faith that a patent is invalid cannot intend for it to be infringed.”).

¹⁸¹ *Commil*, 575 U.S. at 648 (Scalia, J., dissenting) (“[I]t is impossible for anyone who believes that a patent cannot be infringed to induce actions that he *knows* will infringe it.”).

if we proceed from the perspective of purely comparing the economic consequences of the two competing rules, (1) strict liability for incorrect beliefs in noninfringement versus (2) strict liability for incorrect beliefs in invalidity, then the two are very different in their effects. Specifically, as I will explain below, a rule that imposes strict liability for incorrect beliefs in noninfringement will have much broader chilling effects than a rule that imposes strict liability for incorrect beliefs in invalidity.

As explained previously, the concern underlying the scienter requirement for induced infringement is the potential for a chilling effect that prevents dissemination of information about lawful uses.¹⁸² If a secondary defendant is held liable for all encouragement of conduct that later turns out to be infringing, and it does not know ahead of time what conduct is infringing—including because it cannot be sure what IP rights exist—then it might rationally cut back on all encouragement of any conduct.

This chilling effect is greatly limited, however, if a defendant is only punished for being wrong about the validity of known patents or copyrights. If a defendant is punished for encouraging conduct that it believes to be lawful because the patent or copyright that covers the conduct is invalid, then as a matter of logical necessity the defendant already knows the specific IP right to exist and believes that it covers the induced conduct—otherwise, the defendant does not get to the point of forming an opinion that the particular IP right is invalid. Thus, the only chilling effect of a rule that holds the defendant strictly liable for any error in its belief about invalidity is that the defendant will be overcautious with respect to conduct that it knows to be covered by an IP right that it believes to be invalid. At most, the defendant will treat every patent and copyright it encounters as if it were valid, which, as the *Commil* opinion noted, is consistent with the statutory instruction that all patents should be presumed valid.¹⁸³ There will not be a broad chilling effect extending to all of a defendant's dissemination of information on all topics.

A rule that defendants are strictly liable for erroneous beliefs about noninfringement, however, is not so confined. If defendants are held strictly liable for erroneous beliefs about noninfringement, they cannot safely respond simply by being ultra-cautious with respect to some limited category of conduct—any conduct that they currently believe to be noninfringing may turn out to infringe, either because they incorrectly assessed the scope of a patent or copyright that they were aware of, or (even less avoidably) because they are found to infringe a patent or copyright that they did not know about.¹⁸⁴ The only practical precau-

¹⁸² See *supra* text accompanying notes 138–42.

¹⁸³ *Commil*, 575 U.S. at 643 (“Allowing this new defense [of good faith belief in invalidity] would also undermine a presumption that is . . . reflected in this Court’s precedents for a century. Under the Patent Act, and the case law before its passage, a patent is presumed valid.” (internal citations and quotation marks omitted)); see also 35 U.S.C. § 282(a) (2011) (“A patent shall be presumed valid.”).

¹⁸⁴ See Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421, 1424 (2009) (arguing that intentional copying is extremely rare).

tion that a defendant can take to ensure safety is to cut back on all encouragement of any activity by users.

The distinction between invalidity and noninfringement that *Commil* draws, therefore, has a logical basis. A rule of strict liability for erroneous beliefs about noninfringement has a broader chilling effect than a rule of strict liability for erroneous beliefs about invalidity, and the broader chilling effect is more problematic from the standpoint of the collateral harm principle. *Commil* thus imposes strict liability for erroneous beliefs about invalidity but not for erroneous beliefs about noninfringement.

Although the collateral harm principle provides a logical explanation for the *Commil* rule, a rigorous application of the collateral harm principle would still counsel against the rule. Strict liability for erroneous beliefs about invalidity creates less of a chilling effect than strict liability for erroneous beliefs about noninfringement, but it still creates a chilling effect. Secondary defendants will be rationally overcautious in communicating information about uses that are covered by IP rights that they know about and believe to be invalid, and, to the extent that those IP rights really are invalid, such excessive caution harms innocent users and uses. A rule that a genuine belief in either invalidity or noninfringement precludes inducement liability—which is the rule that courts followed before *Commil*¹⁸⁵—is more consistent with an absolute principle of protecting the innocent from collateral harm.

D. Clarifying Damages Calculation

The conduit theory provides a way to clarify how causation and damages should be assessed for induced infringement cases. As Dmitry Karshedt has discussed, the case law contains contradictory pronouncements on this issue.¹⁸⁶ In *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*,¹⁸⁷ the Federal Circuit held that damages for secondary infringement must be limited to instances where an individual unit of the secondary defendant's product was "shown to infringe the [plaintiff's] patent."¹⁸⁸ In *Lucent Technologies, Inc. v. Gateway, Inc.*,¹⁸⁹ the Federal Circuit stated that "we have never laid down any rigid requirement that damages in all circumstances be limited to specific instances of

¹⁸⁵ *Commil USA, LLC v. Cisco Sys., Inc.*, 720 F.3d 1361, 1368–69 (Fed. Cir. 2013), *vacated in part*, 575 U.S. 632 (2015).

¹⁸⁶ Karshedt, *supra* note 63, at 939–42, 944, 947–49, 951–52, 954.

¹⁸⁷ *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009).

¹⁸⁸ *Id.* at 1358; *see* Karshedt, *supra* note 63, at 947–50 (explaining how the court's decision amounts to a holding that "the plaintiff must prove direct infringement for each ICD in order to establish indirect infringement liability (and therefore be entitled to collect damages) for that unit."); *see also* *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1275–76 (Fed. Cir. 2004) ("Dynacore must therefore either demonstrate that LANs compliant with the IEEE 1394 Standard necessarily infringe the '732 Patent, or point to a specific instance of direct infringement and restrict its suit to liability stemming from that specific instance.").

¹⁸⁹ *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301 (Fed. Cir. 2009).

infringement proven with direct evidence.”¹⁹⁰ Copyright law contains similar ambiguity about the specificity of proof required, though case law clearly addressing the issue is much sparser.¹⁹¹

Understanding the conduit theory both sheds light on why there are contradictory lines of case law in this area and points the way to a reconciliation of them. As an initial matter, contributory liability should not require separate proof of direct infringement, because contributory liability requires that the secondary defendant’s product or service have no substantial noninfringing use. It follows a fortiori that all use of the defendant’s product is directly infringing and royalties should be assessed simply on the product itself, without the need to show whether a particular unit was used in an infringing manner.¹⁹²

The issue is more complex with respect to inducement liability. In the context of inducement liability, there are three categories of uses of the defendant’s product: (1) uses of a secondary defendant’s product that are directly infringing and are intentionally induced by the defendant, (2) uses of a secondary defendant’s product that are directly infringing but are not intentionally induced by the defendant, and (3) uses of a secondary defendant’s product that are not infringing at all. Because inducement liability is premised on the principle that we are trying to disincentive the intentional inducement (for example, advertising the use of iPhones to download pirated music), not to disincentive the product or service itself (i.e., the manufacture and sale of iPhones),¹⁹³ it logically follows that only category (1) should be included in assessing damages in an induced infringement case, at least as a matter of theoretical principle.

This theoretical principle does not mean, however, that patent and copyright law should in operation require the plaintiff to prove each and every instance of direct infringement that is induced by the secondary defendant in order to receive damages for those infringements. Indeed, requiring such proof would be contrary to the transaction cost logic of the conduit theory. Under the conduit theory, the central reason for having secondary liability in the first place is that it is prohibitively costly for an IP owner to chase down each and every infringing user to collect royalties.¹⁹⁴ By the same logic, it would also be prohibitively costly for a plaintiff to identify and collect evidence to prove each and every instance of direct infringement in a lawsuit. Thus, just as much as the conduit theory supports a theoretical principle that damages for inducement should be based on the individual instances of direct infringement that are actually induced by the defendant, it counsels against an operational rule that requires concrete proof of those individual instances. As long as the plaintiff

¹⁹⁰ *Id.* at 1334.

¹⁹¹ See *Columbia Pictures Indus., Inc. v. Fung*, 710 F.3d 1020, 1037 (9th Cir. 2013) (“The parties here advance competing interpretations of the causation requirement.”).

¹⁹² See *Dynacore*, 363 F.3d at 1275–76 (stating that plaintiff could quantify damages by showing that uses of the defendant’s product “necessarily infringe” the plaintiff’s patent).

¹⁹³ See *supra* text accompanying notes 133–34.

¹⁹⁴ See *supra* text accompanying note 8.

proves that the secondary defendant has induced at least one direct infringement, a jury should be allowed to make educated guesses about how many other instances of direct infringement have been induced and assess damages based on such an approximation.

Once this distinction between the theoretical principle and its practical implementation is understood, the dichotomy in the case law can be clarified and reconciled. Cases like *Cardiac Pacemakers* reflect the theoretical goal that damages for induced infringement should be based on the amount of direct infringement that is actually induced by the defendant.¹⁹⁵ Cases like *Lucent* reflect the practical constraints on how the theoretical goal can be accomplished—the rule in practice cannot require concrete proof of each and every individual instance of direct infringement; it can only require approximate inferences.¹⁹⁶ Both lines of case law are partly right and partly wrong. Viewed through the lens of the conduit theory, IP law should not require plaintiffs to concretely prove each and every individual instance of direct infringement. At the same time, it should instruct juries to try and guess the true number of direct infringements actually induced by the defendant, not give carte blanche for jurors to simply assess damages based on all use of the defendant’s product.¹⁹⁷ And to the extent that a secondary defendant can prove certain direct infringements were not caused by its inducing messages, those infringements should not be considered as part of the damages assessment.¹⁹⁸ This intermediate approach reconciles the contradictory pronouncements in the case law and points to a way forward.

E. Clarifying Vicarious Liability

Copyright scholars will have noticed that, thus far, I have said very little about vicarious liability, even though courts routinely list it as a major category of secondary liability alongside contributory and inducement liability.¹⁹⁹ This is because, properly understood, vicarious liability is not a distinct theory of secondary liability. As this Section will explain, the cases finding “vicarious liability” in copyright law can either be understood as applying the principles of inducement liability by another name, or as applying agency law principles of

¹⁹⁵ *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348, 1358 (Fed. Cir. 2009) (holding that the district court was correct to limit damages to devices shown to have “actually performed cardioversion during the infringement period.”).

¹⁹⁶ *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1333–34 (Fed. Cir. 2009).

¹⁹⁷ *Cf. Columbia Pictures Indus., Inc. v. Fung*, 710 F.3d 1020, 1036–37 (9th Cir. 2013) (holding that a secondary defendant who intends to induce infringement is liable for *all* the infringement that occurs, whether the infringement is actually induced by the defendant or not).

¹⁹⁸ *Id.* at 1035, 1037–38 (rejecting this limitation on liability).

¹⁹⁹ *Viacom Int’l, Inc. v. YouTube, Inc.*, 676 F.3d 19, 28 n.5 (2d Cir. 2012) (“Doctrines of secondary copyright infringement include contributory, vicarious, and inducement liability.”).

imputed conduct. To the extent that vicarious liability is really inducement liability, it is not a separate theory. To the extent that vicarious liability is a mechanism of imputing conduct, it is not a theory of secondary liability but rather a mechanism to establish the principal's direct liability.

As an initial matter, it is worth noting that the anti-subversion and culpability theories have difficulty explaining copyright law's vicarious liability doctrine, because vicarious liability is strict: the principal's lack of knowledge regarding the agent's conduct is not a defense.²⁰⁰ The fact that vicarious liability is strict and requires no intent fits uncomfortably with the anti-subversion theory because subversion usually refers to "acts designed to facilitate infringement."²⁰¹ It fits even less comfortably with the culpability theory, because culpability is usually measured by intent.²⁰² This lack of fit means that courts usually justify vicarious liability not by reference to any detailed theory, but simply by appeals to precedent.²⁰³ To the extent that courts provide any theoretical justification, the argument is based on the traditional risk-transfer rationale for the respondeat superior doctrine, namely that an employer or principal who gains the economic benefits of an activity should also bear the correspondent risks and burdens.²⁰⁴ This risk-transfer logic, however, does not support vicarious liability as a species of secondary liability, because secondary liability does not transfer liability from the primary defendant to the secondary defendant. As the very name implies, "secondary" liability makes the secondary defendant liable alongside the primary infringer, with the direct infringer still being considered the primarily responsible party.²⁰⁵

In the same vein, the risk-transfer rationale is inconsistent with the requirement that there be a direct infringer, which the Supreme Court in *Akamai*

²⁰⁰ *Shapiro, Bernstein & Co., Inc. v. H. L. Green Co., Inc.*, 316 F.2d 304, 308 (2d Cir. 1963) ("The imposition of liability upon the Green Company, even in the absence of an intention to infringe or knowledge of infringement, is not unusual."); *Dreamland Ball Room, Inc. v. Shapiro, Bernstein & Co.*, 36 F.2d 354, 355 (7th Cir. 1929).

²⁰¹ *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 188 (1980).

²⁰² *See Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 915 (2005) ("[A]n affirmative intent that the product be used to infringe . . . overcomes the law's reluctance to find liability when a defendant merely sells a commercial product suitable for some lawful use.").

²⁰³ *See, e.g., Shapiro*, 316 F.2d at 307-08 ("We believe that the principle which can be extracted from the dance hall cases is a sound one and, under the facts of the cases before us, is here applicable.").

²⁰⁴ *Polygram Int'l Publ'g, Inc. v. Nevada/TIG, Inc.*, 855 F. Supp. 1314, 1325 (D. Mass. 1994) ("Modern decisions, when explaining policy justifications for [copyright] vicarious liability rather than merely citing precedent, commonly refer to risk allocation. . . . [I]t is ordinarily fair and reasonable to place responsibility for those losses on the person who profits. . . ."); *see also Horn v. Duke Homes, Div. of Windsor Mobile Homes, Inc.*, 755 F.2d 599, 605 (7th Cir. 1985) ("The reasoning behind [respondeat superior] is rarely articulated, though the more modern cases tend to rely on a risk allocation theory: the employer, not the innocent plaintiff, should bear the cost of the torts of its employees as a required cost of doing business. . . .").

²⁰⁵ *See supra* Section IV.A.

emphasized as a core principle of secondary liability law.²⁰⁶ In every other context outside of copyright law, it is well accepted that there can be vicarious liability by a principal without underlying direct liability of an agent, if multiple agents combine to commit a tort or crime in the aggregate. To take an example from patent law because it is conceptually closest to copyright, if Employee A performs one step of a patented method and Employee B performs the other step, then the Employer is vicariously liable for direct patent infringement even though neither Employee A or Employee B is liable.²⁰⁷ The *Akamai* rule requiring a direct infringer for secondary liability does not apply because the Employer is not considered secondarily liable, but is instead considered directly liable, because the employees' actions—not merely their legal liability—are transferred to the Employer, who is then directly responsible for those actions as its own. In contrast, vicarious liability in copyright law is (incorrectly) categorized as a species of secondary liability, and copyright courts say that vicarious liability requires a predicate of direct infringement by a direct infringer.²⁰⁸ Logically, this would imply that if an orchestra hires twenty musicians to collectively perform a copyrighted song, with no single musician individually performing enough of the song to constitute copyright infringement, then no one is liable for infringement. Copyright courts have not followed this logic to its logical conclusion,²⁰⁹ but they have never explained why not.²¹⁰

Properly understood, where a principal exercises control over an agent's actions and reaps the economic benefit,²¹¹ vicarious liability is best conceptualized as a mechanism for imputing the agent's actions to the principal—based on the logic that they who reap the benefits should also bear the burdens²¹²—

²⁰⁶ *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 572 U.S. 915, 920–21 (2014) (“One might think that this simple truth is enough to dispose of this appeal.”).

²⁰⁷ *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020, 1024 (Fed. Cir. 2015) (en banc) (“Limelight directs or controls its customers’ performance of each remaining method step, such that all steps of the method are attributable to Limelight.”).

²⁰⁸ *Leonard v. Stemtech Int’l Inc.*, 834 F.3d 376, 386 (3d Cir. 2016) (“‘Secondary liability for copyright infringement does not exist in the absence of direct infringement by a third party.’ Thus, to prove a claim of contributory or vicarious infringement, a plaintiff must first show direct infringement by a third party.” (quoting *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1013 n.2 (9th Cir. 2001))).

²⁰⁹ *See Herbert v. Shanley Co.*, 242 U.S. 591, 593–95 (1917) (holding restaurant vicariously liable for performance by its employees, without considering the divided-infringement problem).

²¹⁰ *See id.*

²¹¹ *See Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1173 (9th Cir. 2007) (“[T]o succeed in imposing vicarious liability, a plaintiff must establish that the defendant exercises the requisite control over the direct infringer and that the defendant derives a direct financial benefit from the direct infringement.”).

²¹² *Shapiro, Bernstein & Co., Inc., v. H. L. Green Co., Inc.*, 316 F.2d 304, 307 (2d Cir. 1963) (“When the right and ability to supervise coalesce with an obvious and direct financial interest in the exploitation of copyrighted materials . . . the purposes of copyright law may be best effectuated by the imposition of liability upon the beneficiary of that exploitation.” (internal citation omitted)).

rather than a theory of secondary liability. Because an agent's acts are imputed to the principal, any copyright-infringing acts create direct liability as the principal's own actions, not derivative secondary liability. A doctrinal implication that follows is that, as a species of direct infringement, there should be no predicate requirement of a separate direct infringer, which as seen above is more consistent with how vicarious liability doctrine actually operates even within copyright law. In a similar vein, there should be no requirement of intent to infringe, because direct infringement is strict liability, which is again consistent with actual copyright decisions.²¹³ Understanding vicarious liability as imputing conduct to create direct liability, rather than as a species of secondary liability, is therefore more coherent, better corresponds to actual practice, and is more consistent with general principles of law outside of the copyright domain.

This conceptualization of vicarious liability, however, is difficult to reconcile with some famous copyright cases. For example, in *Fonovisa, Inc. v. Cherry Auction, Inc.*,²¹⁴ the defendant Cherry Auction was the operator of a flea market where individual vendors sold pirated recordings.²¹⁵ Although the defendant had some control over the vendors by virtue of their contractual relationship, and it indirectly benefited from the sale of pirated recordings by being able to charge higher rents,²¹⁶ it would be a stretch to say that the vendors' actions should be attributed to Cherry Auction as if the vendors were passive instrumentalities. It is more reasonable to regard the vendors as the primary economic beneficiaries of the infringement. Portraying vicarious liability as a mechanism to transfer risks and burdens to the real economic beneficiary—by attributing the conduct to the principal—does not fit the result in *Fonovisa*.²¹⁷ Similarly, in *Gershwin Publishing Corp. v. Columbia Artists Management, Inc.*,²¹⁸ the Second Circuit found a management company vicariously liable for copyright infringement performed by artists under its management, even though the primary actors and economic beneficiaries were the artists.²¹⁹

Both *Fonovisa* and *Gershwin*, however, were decided before the Supreme Court recognized intentional inducement as a theory of liability in *Grokster*,²²⁰ and before the Court clarified in *Global-Tech Appliances, Inc. v. SEB S.A.* that willful blindness was sufficient to prove intent for inducement liability.²²¹

²¹³ *Id.* at 308 (“The imposition of liability upon the Green Company, even in the absence of an intention to infringe or knowledge of infringement, is not unusual.”).

²¹⁴ *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259 (9th Cir. 1996).

²¹⁵ *Id.* at 261.

²¹⁶ *Id.* at 263.

²¹⁷ *Id.* at 264.

²¹⁸ *Gershwin Publ'g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159 (2d Cir. 1971).

²¹⁹ *Id.* at 1163 (“CAMI knew that copyrighted works were being performed at the Port Washington concert and that neither the local association nor the performing artists would secure a copyright license. It was, therefore, responsible for, and vicariously liable as the result of, the infringement by those primary infringers.”).

²²⁰ *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 930 (2005).

²²¹ *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 768 (2011) (“Given the long history of willful blindness and its wide acceptance in the Federal Judiciary, we can see no

Without these subsequent doctrinal developments, the courts in *Fonovisa* and *Gershwin* faced a problem that the defendants could plausibly claim that they simply offered a general product or service (a flea market in *Fonovisa*, management services in *Gershwin*) that was capable of many noninfringing uses.²²² Faced with such an argument, an expansive doctrine of vicarious liability served as a convenient way to impose liability on these efficient conduits.

After *Grokster*, it is much easier to understand *Fonovisa* and *Gershwin* as cases that are really based on a theory of intentionally inducing copyright infringement, rather than cases about vicarious liability in its proper conceptualized form. Both the *Fonovisa* and *Gershwin* courts placed great emphasis on the defendant's knowledge of infringement.²²³ Indeed, *Gershwin* summarizes its reasoning as, "CAMI knew that copyrighted works were being performed at the Port Washington concert and that neither the local association nor the performing artists would secure a copyright license. It was, therefore, responsible for, and vicariously liable as the result of, the infringement by those primary infringers."²²⁴ Taken literally, this sentence is a logical *non sequitur* because the fact that the defendant knew of infringement has no relevance for vicarious liability,²²⁵ which does not require knowledge but does require control and financial benefit. In comparison, *Gershwin*'s summary makes complete sense as a finding of inducement liability, and it foreshadows *Grokster*'s inducement standard when it stated that "a person who has promoted or induced the infringing acts of the performer has been held jointly and severally liable as a 'vicarious' infringer."²²⁶ Thus, although ostensibly decided under a theory of vicarious liability, cases such as *Fonovisa* and *Gershwin* are better understood as cases finding inducement liability before the doctrine was recognized and developed in *Grokster*, and they should be reclassified as inducement cases, with their statements about vicarious liability being understood as dicta.

F. Rethinking the Anomalous Aro Rule

Although the conduit theory is consistent with, and helps explain, many features of secondary liability doctrine in patent and copyright law, including helping to clarify some areas of doctrinal inconsistency and confusion, there is

reason why the doctrine should not apply in civil lawsuits for induced patent infringement under 35 U.S.C. § 271(b).")

²²² See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984) ("Accordingly, 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.")

²²³ See *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 261 (9th Cir. 1996) ("Cherry Auction and its operators were aware that vendors in their swap meet were selling counterfeit recordings in violation of Fonovisa's trademarks and copyrights.")

²²⁴ *Gershwin*, 443 F.2d at 1163.

²²⁵ *Shapiro, Bernstein & Co., Inc., v. H. L. Green Co., Inc.*, 316 F.2d 304, 308 (2d Cir. 1963).

²²⁶ *Gershwin*, 443 F.2d at 1162.

one major doctrinal rule that it cannot explain or reconcile. Specifically, the conduit theory is inconsistent with the Supreme Court's holding in *Aro Manufacturing Co. v. Convertible Top Replacement Co.*²²⁷ that contributory patent liability under 35 U.S.C. § 271(c) requires the seller of a product with no substantial noninfringing use to nonetheless have knowledge of the patent and knowledge of infringement by direct users.²²⁸ As Section III.B explained, imposing liability for the sale of a product with no substantial noninfringing use is efficient, because it operates as an effective conduit (the seller can simply incorporate the royalty owed to the IP owner into the sale price), and it cannot harm noninfringing users because there are none.²²⁹ Under the conduit theory, therefore, the seller of a product with no substantial noninfringing use should be secondarily liable without more, whether or not that seller actually knew of the users' infringement.

To the extent that the conduit theory operates as a descriptive theory to explain secondary liability doctrine, therefore, it has a weakness that it is inconsistent with a Supreme Court decision. But this does not mean that the conduit theory is defective; rather, the fact that *Aro* is inconsistent with the conduit theory merely reveals how out-of-place the *Aro* rule is in relation to the other doctrines of secondary liability law. Once *Aro*'s full implications are considered, it should be discarded because it is incoherent in theory, unsound in policy, and inconsistent with the larger framework of IP law. *Aro* is also difficult to reconcile with the Supreme Court's own later pronouncement in *Grokster* that, "where an article is 'good for nothing else' but infringement, . . . there is no legitimate public interest in its unlicensed availability, and there is no injustice in presuming or imputing an intent to infringe."²³⁰ As I shall argue in this Section, taking this statement in *Grokster* seriously would in practical effect eviscerate the *Aro* rule while maintaining its formal existence, and such an approach is both legally sound as a matter of precedent and would accomplish good policy results.

To understand why *Aro* is incoherent as a matter of theory and policy, consider a hypothetical patent over a sofa. A furniture store that sells an assembled sofa that unwittingly infringes this patent would be strictly liable for the infringement, because a sale of a patented product is direct infringement,²³¹ and direct infringement under *Aro* is a strict liability offense.²³² In contrast, an IKEA store that sells the exact same sofa in disassembled form (for customer

²²⁷ *Aro Mfg. Co., Inc. v. Convertible Top Replacement Co., Inc.*, 377 U.S. 476 (1964).

²²⁸ *Id.* at 488 & n.8 ("On this question a majority of the Court is of the view that § 271(c) does require a showing that the alleged contributory infringer knew that the combination for which his component was especially designed was both patented and infringing.").

²²⁹ See *supra* text accompanying notes 126–32.

²³⁰ *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 932 (2005) (quoting *Canda v. Michigan Malleable Iron Co.*, 124 F. 486, 489 (6th Cir. 1903)).

²³¹ 35 U.S.C. § 271(a) (2012).

²³² *Commil USA, LLC v. Cisco Sys., Inc.*, 575 U.S. 632, 639 (2015) ("Direct infringement is a strict-liability offense.").

assembly at home) escapes liability unless the patentee proves knowledge,²³³ because the disassembled sofa is not the complete invention and therefore its sale is not direct infringement.²³⁴ To top this all off, the consumer in both cases—who is clearly the most innocent party—is strictly liable when they sit on the assembled sofa in their home, with no knowledge required.²³⁵

This disparity in treatment between the IKEA store and its competitors, as well as between the IKEA store and its customers, has no moral or economic policy justification. It simply operates as a subsidy for sellers (like IKEA) that sell products in disassembled form. Nor is my example a contrived extreme case to artificially magnify *Aro*'s shortcomings: cases involving the sale of disassembled products are routine in contributory infringement.²³⁶ *Aro* itself involved the seller of customized fabric tops for customer installation into convertible cars—the patent covered a fabric convertible top assembly that required the complete assembly to infringe—which is only a minor variation of the fact pattern and raises the same underlying issues, in that the customers who actually do the installing are strictly liable while the seller of the customized fabric top escapes liability absent proof of intent.

Not even *Aro* itself provides any justification for its rule. Rather, the *Aro* rule is the product of a 4-1-4 split on the Court that produced no coherent rationale.²³⁷ When the Court considered the question of whether knowledge of the patent and its infringement was necessary for liability, Justice Brennan, on behalf of four Justices, argued that Section 271(c) liability only required knowledge that a product was customized for a particular use (i.e., that the fabric tops were specialized for particular convertible cars) and no knowledge of the patent or its infringement were required.²³⁸ Justice Black, on behalf of four other Justices, argued that scienter should be required for all patent infringement liability, including direct infringement.²³⁹ This would have been a major

²³³ See *Aro*, 377 U.S. at 488 & n.8.

²³⁴ See *Mercoid Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661, 667 (1944) (“The patent is for a combination only. Since none of the separate elements of the combination is claimed as the invention, none of them when dealt with separately is protected by the patent monopoly.”).

²³⁵ See *Aro*, 377 U.S. at 483–84 (holding that purchasers of infringing cars are liable for direct infringement).

²³⁶ See, e.g., *Wallace v. Holmes*, 29 F. Cas. 74, 80 (1871) (considered the first case on contributory infringement); see also *DeepSouth Packing Co., Inc. v. Laitram Corp.*, 406 U.S. 518, 519–21 (1972).

²³⁷ See *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 764 n.5 (2011) (outlining the vote breakdown in *Aro*).

²³⁸ *Aro*, 377 U.S. at 488 n.8 (“JUSTICES HARLAN, BRENNAN, STEWART and GOLDBERG . . . are of the view that the knowledge Congress meant to require was simply knowledge that the component was especially designed for use in a combination and was not a staple article suitable for substantial other use. . . .”).

²³⁹ *Id.* at 515, 524 (Black, J., joined by Warren, C.J., Douglas, J., and Clark, J., dissenting) (“I would hold that unless there was such knowledge, there can be no infringement or contributory infringement.”).

change from preexisting law, but at least it has the virtue of logical consistency. Of course, Justice Black's argument only received four votes, so it did not become law.

The *Aro* rule is the result of Justice White's short concurring opinion, where he simply stated that he agreed with Justice Black "that the plain language and legislative history of § 271(c) require the alleged contributory infringer to have knowledge of the infringing nature of the combination to which he is contributing a part,"²⁴⁰ but in all other respects agreed with Justice Brennan.²⁴¹ Because Justice White provided the fifth vote necessary for a majority, and he expressed agreement with Justice Black only with respect to the scienter required for Section 271(c) contributory infringement, the holding of *Aro* has been understood to require scienter only with respect to contributory liability and not direct liability.²⁴² But neither Justice White nor anyone else provided any coherent rationale why a directly infringing use of a sofa (or car) is strict liability, but a sale of the same sofa or car in disassembled state—with no use except to assemble the package into an infringing sofa (or car)—requires scienter. This unjustifiable disparity is simply the accidental product of a mishmash of five votes, producing an outcome and a rule but no logical justification for it.²⁴³

The *Aro* rule's incoherence extends beyond its tortured origins and policy effects. The *Aro* rule is also in tension with the larger theoretical framework of intellectual property law in general. Intellectual property law, in the American legal system, is generally based on consequentialist considerations of providing incentives for creation while minimizing monopoly costs; considerations of a defendant's moral culpability—to which a scienter standard most readily maps—do not usually enter the calculus.²⁴⁴ For this reason, infringement liability in both patent and copyright law is generally strict, with a defendant's good faith being no defense, because any diminution of the IP owner's monopoly will reduce their ex ante incentive to create—a competitor who reduces the IP owner's monopoly profits is causing the same economic loss even if they are acting in complete good faith.²⁴⁵ As explained previously, a scienter requirement for inducement liability is justifiable even within this consequentialist

²⁴⁰ *Id.* at 514 (White, J., concurring).

²⁴¹ *Id.*

²⁴² See *Global-Tech Appliances*, 563 U.S. at 765–66 (“[T]he holding in *Aro II* has become a fixture in the law of contributory infringement under section 271(c).” (quoting 5 R. CARL MOY, MOY’S WALKER ON PATENTS § 15:10, 15–131 (4th ed. 2009))).

²⁴³ See generally Richard M. Re, *Beyond the Marks Rule*, 132 HARV. L. REV. 1942 (2019) (criticizing the *Marks* rule that, in cases where the Court is fractured, the holding is regarded as the narrowest ground among the majority).

²⁴⁴ See *supra* notes 9696–9898 and accompanying text.

²⁴⁵ See *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 n.2 (Fed. Cir. 1996) (“Infringement itself, however, is a strict liability offense . . . and a court must award damages adequate to compensate for the infringement . . . regardless of the intent, culpability or motivation of the infringer.” (internal citations and quotation marks omitted)).

framework because liability for unintentional inducement is prone to generate overbroad chilling effects.²⁴⁶ But contributory liability—which requires the product to have no substantial noninfringing uses—has no analogous concern about overbroad chilling effects,²⁴⁷ and thus the *Aro* intent requirement fits uncomfortably within the consequentialist framework of American IP law.

Reflective of this lack of fit with the larger theoretical framework of American IP law is the fact that *Aro* is difficult to reconcile with the Supreme Court’s later pronouncement in *Grokster* that, “where an article is ‘good for nothing else’ but infringement, . . . there is no legitimate public interest in its unlicensed availability, and there is no injustice in presuming or imputing an intent to infringe.”²⁴⁸ Unlike the *Aro* rule, which is simply based on Justice White being the deciding vote and has no other theoretical foundation, *Grokster*’s imputation of intent when an article has no substantial noninfringing use is based on a sound theoretical framework, namely the conduit theory. If one takes *Grokster* seriously, then intent to infringe should be presumed whenever a seller sells a product with no substantial noninfringing use. This would in practical effect eviscerate the *Aro* rule, but does not contradict it as a matter of formal legal precedent: *Aro* would still remain and require intent to infringe for contributory liability, but the required intent would be imputed whenever the plaintiff proves that the defendant’s product has no substantial noninfringing use.

This reconciliation of *Aro* and *Grokster* may seem contrived, but it is consistent with the rules of stare decisis.²⁴⁹ This two-step process of having an intent requirement but then presuming intent from the lack of noninfringing use is also not something that I have made up just to circumvent *Aro*—this is the historical approach that courts used for contributory infringement analysis;²⁵⁰ returning to it would merely take the doctrine back to the status quo ante. That said, I admit that my main argument in favor of this approach is not fidelity to precedent but that it achieves better policy in eliminating an unjustifiable disparity between IKEA stores and their competitors and customers. Eliminating this disparity makes secondary liability doctrine more sound, more coherent,

²⁴⁶ See *supra* text accompanying notes 138–42.141

²⁴⁷ See *supra* text accompanying notes 171–76.

²⁴⁸ *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 932 (2005) (quoting *Canda v. Michigan Malleable Iron Co.*, 124 F. 486, 489 (6th Cir. 1903)).

²⁴⁹ See generally Richard M. Re, *Narrowing Supreme Court Precedent from Below*, 104 GEO. L.J. 921, 921 (2016) (arguing that “narrowing from below is usually legitimate when lower courts adopt reasonable readings of higher court precedent, even though those readings are not the most persuasive ones available.”); Barry Friedman, *The Wages of Stealth Overruling (with Particular Attention to Miranda v. Arizona)*, 99 GEO. L.J. 1 (2010) (arguing that stealth overruling is illegitimate).

²⁵⁰ See *Rohm & Haas Co. v. Dawson Chem. Co.*, 599 F.2d 685, 689 (5th Cir. 1979), *aff’d*, 448 U.S. 176 (1980) (“The requisite intent was presumed, however, when the items sold had no use except in the infringing combination.”); *S. States Equip. Corp. v. USCO Power Equip. Corp.*, 209 F.2d 111, 121 (5th Cir. 1953) (“[T]heir intent to engage in contributory infringement was presumed as a matter of law . . .”).

and better fitting with the larger theoretical framework of American IP law. From a policy and theory perspective, the *Aro* rule should be discarded; to the extent that courts are not able or willing to overrule a Supreme Court decision, I am providing an alternative means to accomplish the end while avoiding the legalistic difficulty.

CONCLUSION

Simply stated, the conduit theory has two parts: (1) secondary liability should be imposed on entities that serve as efficient conduits to channel payment from infringing users to IP owners, but (2) not if doing so will cause more than de minimis collateral harm on noninfringing uses. The underlying principle is that secondary liability law seeks to reduce the transaction costs of IP rights (to facilitate use whilst ensuring the IP owner gets paid) but has an overriding concern for protecting legitimate activities.

By itself, neither insight is completely new: courts and commentators have recognized that secondary liability addresses a transaction cost problem,²⁵¹ and they have discussed the importance of protecting legitimate uses.²⁵² The contribution of this Article is to tie these principles into a unifying theoretical framework and concretely apply this framework to explain the features of secondary liability doctrine. Although the conduit theory is simple to state, it has surprisingly rich implications and payoffs when rigorously applied. As the Article has discussed, the conduit theory provides a way to understand and clarify doctrinal features of secondary liability law including the single direct infringer requirement, the distinction between induced and contributory infringement, the *Commil* distinction between good faith beliefs in noninfringement and invalidity, the distinction between vicarious and secondary liability, and the proper calculation of damages. These are all rules that courts have proclaimed but not explained, and which the prior literature has not adequately justified. By providing a theoretical framework to explain these rules, the Article brings to the surface the embedded logic of secondary liability law that courts have implicitly recognized and intuitively applied, but have not previously articulated. Explicitly articulating the conduit theory and its implications helps clarify the policy and logic of secondary liability doctrine, and provides guidance to promote greater consistency and clarity going forward.

²⁵¹ See Lichtman & Landes, *supra* note 8, at 397.

²⁵² *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984) (“[T]he 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.”).