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Location Unaware: Developing a Standard of Secondary Liability For Location-Aware Technology Developers

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LOCATION UNAWARE: DEVELOPING A STANDARD OF SECONDARY LIABILITY FOR LOCATION-AWARE TECHNOLOGY DEVELOPERS

*Joseph Phillip Sklar**

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I. INTRODUCTION

It is July 6, 2016, and the streets of every city in America are filled with people playing the newly-released “*Pokémon Go*” on their mobile devices.¹ At its peak, *Pokémon Go* surpassed the daily app usage record set by “*Candy Crush Saga*” in 2013 with over twenty million daily users.² *Pokémon Go*, created and developed by Niantic, Inc., is a location-aware application (app) that uses a combination of GPS and Wi-Fi to create a location-based, augmented reality in which users can act as “*Pokémon trainers*” by “catching” and “battling” their *Pokémon*, while collecting various items to make the users more successful as trainers.³ To catch and battle *Pokémon* and collect items, trainers must travel on foot to find where *Pokémon* “spawn” and battle other trainer’s *Pokémon* at “*Pokémon gyms*.”⁴

The overwhelming majority of “*Pokémon Go*’s” spawn points, *PokéStops*, and gyms can be utilized by trainers on public property, and do not create issues of trespass.⁵ However, due to “*Pokémon Go*’s” utilization of landmarks first developed for the app “*Ingress*,” “*Pokémon Go*’s” predecessor, some of the landmarks and *Pokémon* spawn locations are located on private property, creating some cause for concern.⁶

Reports of *Pokémon* trainers attempting to access “*Pokémon Go*” locations through trespass to private property has led to questions about potential liability for the game developers as a result.⁷ This question of indirect liability for Niantic as the result of the direct infringement of property rights by “*Pokémon Go*’s” users is an issue that could have far-reaching implications in the development of location-aware technologies. Complaints stemming from use of “*Pokémon Go*” in sensitive areas like Arlington National Cemetery and the

¹ Jon Russell, *Pokémon Go is launching on iOS and Android today*, TECHCRUNCH (July 6, 2016), <https://techcrunch.com/2016/07/06/pokemon-go-is-launching-on-ios-and-android-today/>.

² See *Pokémon Go App Downloads and Revenue in Real Time*, APPINSTITUTE, <http://appinstitute.com/pokemongo-realtime-stats/> (last visited Oct. 5, 2017) (comparing peak Daily App Usage (DAU) of *Pokémon Go* (23 Million) and *Candy Crush Saga* (22 Million)).

³ Stephanie Lee, *What is Pokémon Go and Why is Everyone Talking About It?*, LIFEHACKER (July 11, 2016, 11:00 AM), <http://lifehacker.com/what-is-pokemon-go-and-why-is-everyone-talking-about-it-1783420761>.

⁴ *Id.*

⁵ Dean Takashi, *How Pokémon Go will benefit from Niantic’s lessons from Ingress on location-based game design*, VENTUREBEAT (Dec. 16, 2015, 7:30 AM), <http://venturebeat.com/2015/12/16/how-niantic-will-marry-animated-characters-with-mobile-location-data-in-pokemon-go/view-all/>.

⁶ *Id.*

⁷ Tiffany Li, *Pokémon Go and The Law: Privacy, Intellectual Property, and other Legal Concerns*, FREEDOM TO TINKER (July 19, 2016), <https://freedom-to-tinker.com/2016/07/19/pokemon-go-and-the-law-privacy-intellectual-property-and-other-legal-concerns/>.

National Holocaust Museum, have given the question of secondary liability traction, and may be the impetus for future litigation.⁸

“*Pokémon Go*” is not the only location-aware app that has drawn the ire of property owners. “*Waze*”, the popular navigation app owned by Google, has come under fire by property owners claiming that the app has caused significant increases in automotive traffic and associated negative effects as a result of the app’s innovative route navigation algorithm that re-routes traffic.⁹ This can sometimes result in increases in traffic in areas not accustomed to heavy traffic.¹⁰ One legal implication associated with “*Waze*’s” navigation system is the possibility of secondary liability for nuisance caused by the app’s users.¹¹

Location-aware technology used in apps like “*Yelp*” and “*Waze*” provide a substantial benefit to society through everything from recommendations for nearby restaurants¹² and reduced daily commutes,¹³ to more efficient international shipping and improved national defense.¹⁴

There are two competing interests involved in addressing what standard of liability should be applied in determining whether producers and owners of developing technology are culpable for the direct infringement of the users of their technologies. The first interest involved is that of the property owner suffering the infringement. There is little question that direct liability can be imposed on individuals playing *Pokémon Go* when they trespass on private property, but imposing secondary liability on Niantic, Inc. is a different question entirely. Parallels can be drawn to other areas of law, including respondeat superior and secondary copyright infringement. It is important to consider the interest conflicting with the interest of the property owners: the interest in protecting and developing technology.

⁸ Sarah Ashley O’Brien, *Pokémon Go players unwelcome at Arlington, Holocaust museum*, CNN: TECH (July 13, 2016, 11:34 AM), <http://money.cnn.com/2016/07/12/technology/pokemon-go-holocaust-arlington/>.

⁹ Steve Hendrix, *Traffic-weary homeowners and Waze are at war, again. Guess who’s winning?*, WASH. POST: LOCAL (June 5, 2016), https://www.washingtonpost.com/local/traffic-weary-homeowner-s-and-waze-are-at-war-again-guess-whos-winning/2016/06/05/c466df46-299d-11e6-b989-4e5479715b54_story.html.

¹⁰ *Id.*

¹¹ Adi Robertson, *What can you do when Pokémon Go decides your house is a gym?*, THE VERGE (July 12, 2016, 4:46 PM), <http://www.theverge.com/2016/7/12/12159422/pokemon-go-turned-house-into-gym-augmented-reality-privacy>.

¹² *About Us*, YELP, <https://www.yelp.com/about> (last visited Oct. 8, 2017).

¹³ Hendrix, *supra* note 9.

¹⁴ *GPS Applications*, NATIONAL COORDINATION OFFICE FOR SPACE-BASED POSITIONING, NAVIGATION, AND TIMING, <http://www.gps.gov/applications/> (last visited Oct. 8, 2017).

II. BACKGROUND

A. TECHNOLOGY AND THE LAW

As new and novel technologies emerge, and present technologies develop and evolve, the law will inevitably be forced to catch up.¹⁵ To expect the law to adequately address every issue raised by technologies not considered at the time of drafting is a foolish endeavor. Laws are created and amended to meet the needs of society, and the needs of society change as society progresses.¹⁶

To illustrate this point, consider two distinct technological developments that substantially altered how society addressed intangible property and real property, respectively: the printing press and the railroad. The printing press allowed books and manuscripts to be mass-produced, significantly reducing the cost and difficulty of spreading information.¹⁷ The mass communication made possible by the printing press played a significant role in the democratization of knowledge and the development of the commercial enterprise of printing.¹⁸ The commercial enterprise of printing led to the first copyright laws.¹⁹ With the development of the steam engine came the spread of the railroad across the United States, and with that came questions regarding how to balance the interest in the spread of railroads against the rights of landowners of property intersected by railroad tracks.²⁰ What developed was a right given to the railroad from the landowner known as a “wayleave,” and with it came questions regarding whether the right was proprietary and whether the rail lines were private or public property.²¹ With these examples in mind, this Note next looks to the nature and development of location-aware technology.

B. LOCATION-AWARE TECHNOLOGY

Not only has location-aware technology provided a significant benefit to the public while raising significant legal problems, but other technologies have had this effect as well. A brief history of the development of these technologies needs to be provided before a standard of liability can be determined. Location-aware technology is one facet of the continually developing field of

¹⁵ Lyria Bennett Moses, *Recurring Dilemmas: The Law's Race to Keep Up With Technological Change*, 2007 U. ILL. J.L. TECH. & POL'Y 239, 240–44.

¹⁶ *Id.* at 247–56.

¹⁷ *The Printing Press*, THE HISTORY GUIDE: LECTURES ON MODERN EUROPEAN INTELLECTUAL HISTORY, <http://www.historyguide.org/intellect/press.html> (last updated May 2, 2016).

¹⁸ *Id.*

¹⁹ *Copyright Timeline: A History of Copyright in the United States*, ASSOCIATION OF RESEARCH LIBRARIES, <http://www.arl.org/focus-areas/copyright-ip/2486-copyright-timeline> (last visited Nov. 9, 2017).

²⁰ Moses, *supra* note 15, at 253–56.

²¹ *Id.* at 253–54.

global positioning system (GPS) technology.²² In addition to the role GPS plays with location-aware applications, GPS plays a vital role in commerce, travel, and national defense.²³ GPS functions through an interconnected system of satellites orbiting the Earth positioned in such a way that at least four satellites are “visible” to any receiver on Earth at any time.²⁴ Each satellite sends a signal at light-speed to your device in regular intervals, and the length of time it takes for the signal to reach the satellite from your device determines your distance from the satellite.²⁵ When the technology overlays the circles from each satellite, based on the time it takes to communicate, it can pinpoint your location based on the point at which the circles of three satellites intersect.²⁶

Apps like “Yelp”, “Waze”, and “Pokémon Go” utilize a user’s location in relation to other users or other entities, determined through GPS technology, in creating the app experience.²⁷ “Waze” and “Pokémon Go” have drawn the ire of landowners for nuisance and trespass, respectively, as a result of app users either entering onto the land or generally causing a nuisance around the land due to use of the app.²⁸ Suits have been threatened against the developers of “Waze” and “Pokémon Go,” presenting a unique question: what standard of liability should apply in claims of secondary infringement of property rights?

In order to determine what standard of liability to apply to secondary infringement of real property, it is helpful to understand how secondary liability is treated in other areas of law, such as tort negligence, patents, and copyright.

C. SURVEY OF THE LAW OF SECONDARY LIABILITY

While this Note will focus primarily on the similarities between contributory copyright infringement and secondary liability for infringement of real property rights, areas of law outside of copyright can prove helpful in providing background. Respondeat superior is a well-known example of liability imposed on a party that did not directly commit the harm.²⁹ Liability for employers under respondeat superior is grounded in the liability imposed on principals for the acts or omissions of their agents within the general principal-agent

²² *GPS Applications*, NAT’L COORDINATION OFFICE FOR SPACE-BASED POSITIONING, NAVIGATION, AND TIMING, <http://www.gps.gov/applications/> (last modified Nov. 25, 2014).

²³ *Id.*

²⁴ *How does GPS work?*, INST. OF PHYSICS, <http://www.physics.org/article-questions.asp?id=55> (last visited Oct. 10, 2017).

²⁵ *Id.*

²⁶ *Id.*

²⁷ *See Using the Yelp App*, YELP, https://www.yelp-support.com/Using_the_Yelp_App?l=en_US (last visited Oct. 11, 2017).

²⁸ *See, e.g., Traffic app facing speed bumps in quiet neighborhoods*, CBS NEWS (Nov. 20, 2014, 10:01 AM), <http://www.cbsnews.com/news/waze-traffic-app-causing-controversy-in-quiet-neighborhoods/>; *Li, supra* note 7.

²⁹ RESTATEMENT (THIRD) OF AGENCY § 2.04 (AM. LAW. INST. 2006).

relationship.³⁰ The acts of employees, within the context of their employment, can be attributed to their employer in many situations, because the employer has a right to exercise a degree of control over the employee and derives benefits from the acts of the employee in the course of their employment.³¹

Respondent superior is commonly supported by some combination of three rationales: (1) “that an innocent person, either the plaintiff or the employer, must bear the loss”; (2) “that the employer had formal right of control over the employee's work”; or (3) “that the employer benefits from the employee's work.”³² Principals can also be held liable for real property infringements committed by independent contractors in the context of their contractual duties.³³

Outside of the principal-agent relationship, indirect liability has been found where an actor's misfeasance “created an undue risk of harm” as between third parties.³⁴ Liability for third party defendants from special relationships with victims will not be discussed in this Note, because there is no substantial overlap in duties owed or rationales employed.

Copyright infringement, like infringement of real property rights in the context of location-aware technology, is a claim steeped in evolving technologies.³⁵

D. THE THREE ROUTES TO SECONDARY COPYRIGHT INFRINGEMENT

Contributory and vicarious copyright infringement are consistently contentious topics in the field of intellectual property law.³⁶ Before delving into secondary copyright case law, it is helpful to differentiate between secondary infringement, vicarious infringement, and contributory infringement. Secondary infringement is used in this Note to refer generally to any infringement that does not qualify as direct infringement, and vicarious and contributory infringement both fall under the umbrella of secondary liability. To be liable for vicarious copyright infringement, the secondary infringer must have (1) “a right and ability to supervise the infringing activity,” and (2) a

³⁰ *Id.* § 2.04 cmt. b.

³¹ *Id.*

³² DAN B. DOBBS ET AL., DOBBS' LAW OF TORTS § 426 (2d ed. June 2016 update).

³³ RESTATEMENT (SECOND) OF TORTS § 427B (AM. LAW. INST. 1965).

³⁴ *See* Weirum v. RKO General Inc., 539 P.2d 36 (Cal. 1975) (holding radio station liable in a wrongful death suit for the station's prize giveaway that incentivized contestants to drive recklessly, causing a fatal accident, in the hopes of being the first to find the defendant's agent to claim a cash prize).

³⁵ *See* Charles W. Adams, *Indirect Infringement from a Tort Law Perspective*, 42 U. RICH. L. REV. 635 (2008) (analyzing the development of copyright, patent, and trademark law as technology developed).

³⁶ *See id.* at 663–67 (illustrating the development of indirect liability for copyright infringement and the contention between different decisions).

“direct financial interest” in the infringement.³⁷ To succeed in a claim for contributory copyright infringement against an alleged secondary infringer, a plaintiff must show that the defendant “with knowledge of the infringing activity, induces, causes or materially contributes to the infringing conduct of another.”³⁸ The modern line of secondary copyright infringement spawned out of *Sony Corp. of America v. Universal City Studios*, 464 U.S. 416 (1984), commonly referred to as the *Sony* case.³⁹

In the *Sony* case, a group of copyright holders of television programs and films brought suit for contributory copyright infringement against Sony Corp. of America, claiming that owners of Sony’s Betamax VCR were infringing on copyrights through “time-shifting” recorded programming.⁴⁰ The Supreme Court ultimately held that Sony was not liable for contributory copyright infringement, finding that the VCR was “capable of substantial noninfringing uses,” and that there was no direct infringement by VCR owners because the “private, noncommercial time-shifting in the home” constituted fair use.⁴¹ The “capable of substantial non-infringing use” standard developed in the *Sony* case has played a central role in two subsequent contributory copyright infringement cases: *A&M Records, Inc. v. Napster, Inc.*⁴² and *Metro-Goldwyn-Mayer Studios Inc., v. Grokster Ltd.*⁴³

In *Napster*, plaintiffs were primarily holders of audio copyrights who sought an injunction as well as damages against Napster, Inc. for their *MusicShare* software that allowed software users to transfer files peer-to-peer (P2P) within an infrastructure created by Napster.⁴⁴ Plaintiffs sought to establish that Napster was liable for contributory copyright infringement and was vicariously liable for copyright infringement.⁴⁵ The Ninth Circuit found that plaintiffs were likely to succeed on both claims, and remanded to the district court with directions for altering the preliminary injunction originally brought against Napster when the case was first heard in District Court.⁴⁶

³⁷ *Gershwin Publ’g Grp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971) (citations omitted).

³⁸ *Id.* at 1162.

³⁹ See A. Samuel Oddi, *Contributory Copyright Infringement: The Tort and Technological Tensions*, 64 NOTRE DAME L. REV. 47, 47–49 (1989) (detailing the “Supreme Court’s ‘trilogy’ of [intellectual property] cases” and noting that the *Sony Corp.* case was “by far the most controversial” of the three).

⁴⁰ *Sony Corp. of America v. Universal City Studios Inc.*, 464 U.S. 417, 419–21 (1984).

⁴¹ *Id.* at 442.

⁴² See 239 F.3d 1004, 1016 (9th Cir. 2001) (relying on *Sony*’s fair use and “substantial non-infringing use” analyses).

⁴³ See 545 U.S. 913, 933 (2005) (“The parties and many of the *amici* in this case think the key to resolving it is the *Sony* rule and, in particular, what it means for a product to be ‘capable of commercially significant noninfringing uses.’”).

⁴⁴ *Napster, Inc.*, 239 F.3d at 1010–12.

⁴⁵ *Id.* at 1027.

⁴⁶ *Id.*

In determining that the plaintiffs would likely succeed on their contributory copyright infringement claim, the Court noted that “Napster has *actual* knowledge that *specific* infringing material [was] available using its system, that it could block access to the system by suppliers of the infringing material, and that it failed to remove the material.”⁴⁷ Supporting their determination as to the likelihood of success of the vicarious liability claim, the Court noted that Napster had a direct financial interest in the infringement and “[had] the right and ability to supervise its users’ conduct” but failed to exercise that right.⁴⁸ The standard for contributory copyright infringement applied in *Napster* can be viewed as more protective of copyright holders than the standard applied in the *Sony* case.⁴⁹

Metro-Goldwyn-Mayer Studios Inc. v. Grokster Ltd.,⁵⁰ the third installment of the secondary copyright infringement saga, includes two oft-cited concurrences, by Justice Ginsburg and by Justice Breyer that provide helpful background in understanding the current state of contributory copyright infringement.⁵¹ *Grokster*, like *Napster*, distributed software facilitating P2P transfers of electronic files, many subject to copyright protection.⁵² The majority in *Grokster* vacated the Ninth Circuit’s grant of summary judgment for the defendants and remanded, holding that “one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps . . ., is liable for the resulting acts of infringement.”⁵³ However, the rationale for vacating and remanding the Ninth Circuit’s holding was not uniform across the bench, with two concurring opinions providing separate rationales.⁵⁴

In her concurrence, Justice Ginsburg stated that liability can stem from (1) “actively encouraging (or inducing) infringement through specific acts,” or from “distributing a product [recipients] use to infringe copyrights, if the product is not capable of ‘substantial’ or ‘commercially significant’ noninfringing uses.”⁵⁵ Justice Ginsburg notes that the two categories overlap to a degree, but “capture different culpable behavior,” founded on two concepts traditionally found in

⁴⁷ *Id.* at 1022 (citing *A&M Records, Inc. v. Napster, Inc.*, 114 F. Supp. 2d 896, 918, 920–21 (N.D. Cal. 2000)).

⁴⁸ *Id.* at 1023 (citing *A&M Records, Inc. v. Napster, Inc.*, 114 F. Supp. 2d 896, 920–21 (N.D. Cal. 2000)).

⁴⁹ Compare *id.* (applying the right and ability with failure to act standard of secondary liability), with *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 419–21 (1984) (finding liability only where the product was “capable of substantial noninfringing use”).

⁵⁰ 545 U.S. 913 (2005).

⁵¹ *Id.* at 942, 949 (Ginsburg & Breyer, JJ., concurring).

⁵² *Id.* at 913–14 (majority opinion).

⁵³ *Id.* at 918–19.

⁵⁴ *Id.* at 918, 942, 949.

⁵⁵ *Id.* at 942 (Ginsburg, J., concurring) (citing *Sony Corp. of America*, 464 U.S. at 417, 442).

patent law: “active inducement liability,” and “contributory liability for distribution of a product not ‘suitable for substantial noninfringing use.’”⁵⁶

Justice Breyer’s concurrence in *Grokster* advocates for a more technology-protective standard that places greater emphasis on the word “capable” within the legal question presented in the *Sony* case.⁵⁷ By focusing on a product’s capability for “commercially significant noninfringing uses,” Justice Breyer would allow greater protection to technology producers by leaving the door open to future noninfringing uses of technology which may prove commercially significant, that would otherwise be closed off by the standard presented in the majority opinion or Justice Ginsburg’s concurrence.⁵⁸ Liability under the Breyer concurrence would therefore require either (1) active advancement of infringement by other parties or (2) a product incapable of any “significant noninfringing uses.”⁵⁹

The next section of this Note will analyze the applicability of the different forms of secondary liability discussed in this section in order to create a standard for liability in cases of infringement of property rights by users of location-aware technologies.

E. ANALYSIS

In order to properly balance society’s interest in protecting innovation and socially useful technology with property owners’ right to exclude, the standard of liability for secondary infringement of property rights must deter conduct that contributes to third-party infringement while not unnecessarily stifling innovation as a result of overly broad application of liability.

This section discusses and analyzes possible solutions and the rationales that support them, starting with the principal-agent relationship of respondeat superior then moving to secondary copyright infringement. Next, this section will provide a sample application of the standards from *Sony*, *Napster*, and *Grokster*, followed by presenting three standards of liability for secondary infringement of property rights modeled after the approaches taken in *Napster*, Justice Ginsburg’s *Grokster* concurrence, and Justice Breyer’s *Grokster* concurrence.

1. *Interests and Rationales of Respondeat Superior.* The comparison between respondeat superior and secondary liability for infringement of property rights centers around three elements: (1) the financial interests of employers and technology developers in the behavior of their employees and users,

⁵⁶ *Id.* at 942 (“Compare 35 U.S.C. § 271(b) (active inducement liability) with [35 U.S.C.] § 271(c) (contributory liability for distribution of a product not ‘suitable for substantial noninfringing use.’”).

⁵⁷ *Id.* at 953 (Breyer, J., concurring).

⁵⁸ *Id.* at 954.

⁵⁹ *Id.* at 957–58.

respectively; (2) the right and ability to control employees and users; and (3) the characterization of the relationships between employer-employee and developer-user.⁶⁰

The actions of an employee within the context of employment provide a benefit to the employer. Somewhat similarly, technology developers like Google and Niantic derive financial benefit from the users of their products, whether through in-game purchases or advertising revenue.⁶¹ Technology developers may or may not have the same right and ability to control users that employers have over the actions of their employees within the employment context. *Respondeat superior* provides helpful comparisons for analyzing secondary liability for property infringement, but the difference between the employer-employee relationship of *respondeat superior* and the developer-user relationship of the present issue is a significant roadblock to applying the *respondeat superior* standard of liability to secondary liability for property infringement.

Liability for the employer results from the actions of his employee in the course of employment.⁶² The employee, in exchange for compensation, undertakes to perform duties ordered by the employer, and in the course of performing those duties, or within a reasonable area of performing those duties, the employee commits the harm.⁶³ Conversely, in the context of the developer-user relationship, the user is not performing a duty for the developer. Instead, he or she uses the developer's product of his or her own free will. Without compensation, the user is not obligated to act on behalf of the developer. Furthermore, applying a standard of liability akin to *respondeat superior* runs the risk of stifling technological development by application of an overly strict standard.

2. *Interests and Rationales of Contributory Copyright Infringement.* Secondary liability for copyright infringement in the context of new and developing technologies primarily involves three interests: (1) the interests of the copyright holder; (2) society's interest in protecting new and developing technologies; and (3) society's interest in the promotion of the arts and sciences.⁶⁴ Interests (1) and (3) have significant overlap. The court in *Sony* cites to Justice Stewart's approach to ambiguity and confusion in the law of copyright in *Twentieth Century Music Corp. v. Aiken*: "[c]reative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts [T]he ultimate aim is, by

⁶⁰ RESTATEMENT (THIRD) OF AGENCY § 2.04 cmt. b (AM. LAW. INST. 2006).

⁶¹ See Matt Rosoff, *Steve Ballmer: There are four ways to make money in high-tech*, INFOWORLD (Nov. 15, 2012), <http://www.infoworld.com/article/2616240/technology-business/steve-ballmer—there-are-four-ways-to-make-money-in-high-tech.html>.

⁶² *Id.* § 2.04.

⁶³ *Id.* § 2.04 cmt. b.

⁶⁴ *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 430–32 (1984).

this incentive, to stimulate artistic creativity for the general public good.”⁶⁵ The court in *Sony* declined to apply an absolute protection to copyright holders, asserting that noncommercial home use of the VCR furthered the public interest by increasing access to television programming, an interest that “is consistent with the First Amendment policy of providing the fullest possible access to information through the public airwaves.”⁶⁶

As Justice Breyer argues in *Grokster*, overly inclusive liability for secondary copyright infringement does not afford developers and entrepreneurs protections as they develop new technologies.⁶⁷ Justice Breyer goes on to argue that a narrow interpretation of the rule in the *Sony* case “has provided entrepreneurs with needed assurance that they will be shielded from copyright liability as they bring valuable new technologies to market.”⁶⁸ What Justice Breyer advocates for in *Grokster* can be considered a technology-protective standard.

However, before applying a technology-protective standard to secondary copyright infringement, courts have analyzed to varying degrees the capability of noninfringing use and the role of the developers in inducing infringement.⁶⁹

3. *Copyright Liability Applied.* This Note will apply the different standards for secondary liability presented in: *Napster*, Justice Ginsburg’s interpretation of *Sony* in *Grokster*, and Justice Breyer’s interpretation of *Sony* in *Grokster*, to three location-aware applications. Two of the applications will be fictional, and the third will be Pokémon Go.

The first application will be referred to as “*Sneakster*.” “*Sneakster*” is an application designed for, and marketed to, thrill seekers. Specifically, the application is tailored to trespass enthusiasts, allowing users to score points and unlock achievements through various trespasses. The application will feature a centralized database of locations with corresponding values for trespass. The application generates revenue through advertisement.

“*Sneakster*” would likely incur liability under each of the three standards of analogous secondary infringement. Under *Napster*, “*Sneakster*” can be held liable if it is shown that (1) “*Sneakster*” knows, or has reason to know of specific infringement by its users, and (2) “*Sneakster*” materially contributes to the infringement.⁷⁰ By incentivizing infringement through rewarding users for trespass in the form of in-game points and achievements, it is fairly clear that “*Sneakster*” knows, or has reason to know, of infringement by its users,

⁶⁵ *Id.* at 431–32 (quoting *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975)).

⁶⁶ *Id.* at 425 (quoting *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (citations omitted)).

⁶⁷ *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster Ltd.*, 545 U.S. 913, 956–62 (2005) (Breyer, J., concurring).

⁶⁸ *Id.* at 957.

⁶⁹ *Id.* at 959.

⁷⁰ *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1020, 1022 (9th Cir. 2001).

satisfying the first prong of the *Napster* test. Applying Justice Ginsburg's two-prong test in *Grokster*, "*Sneakster*" would likely be held liable for secondary infringement because, as explained above, "*Sneakster*" actively induces infringement through specific acts, distributes a product that assists users in infringing on property rights, and is not capable of "substantial" or "commercially significant noninfringing uses."⁷¹ Under Justice Breyer's standard, "*Sneakster*" would likely be liable because it is a technology that is not capable of substantial or commercially significant noninfringing use and it actively encourages infringement.⁷² However, Justice Breyer's standard considers not only the current capability for noninfringing use, but the potential future capability for noninfringing use.⁷³ The significance of this distinction will be explained below.

The second application is in many ways similar to "*Sneakster*," however, it is distinguished from "*Sneakster*" by its decentralized, user-controlled storage of information. This application will be referred to as "*UrbanX*." "*UrbanX*" is an urban exploration app that provides an organized search engine that allows users to search for potential urban exploration sites based on their location, as determined by the application's GPS technology. While "*UrbanX*" does not have control over the information, it does encourage users to explore sites that are universally known to be private property. "*UrbanX*" also derives its revenue from advertisement.

Looking first to the *Napster* standard, "*UrbanX*," through its active encouragement of property infringement, likely would satisfy the knowledge standard.⁷⁴ "*UrbanX*" has reason to know that users of an app tailored for urban exploration, which often involves trespass and facilitates the transfer of information between users, should be aware of specific instances of infringement.⁷⁵ By providing the search function and organizational structure, it is likely that courts would find that "*UrbanX*" materially contributed to the property infringements of its users. Justice Ginsburg's standard would require "*UrbanX*" to either actively induce infringement through specific acts or distribute a product that assists in infringement and is not capable of substantial noninfringing use.⁷⁶ "*UrbanX*," as noted above, would likely be found to actively induce infringement by its users, and it is a product that undoubtedly assists users in infringing.

However, some questions arise when considering whether the app is capable of substantial noninfringing use. Under Justice Ginsburg's standard, the evidentiary burden on the alleged secondary infringer is a heavier burden than it

⁷¹ *Grokster*, 545 U.S. at 948 (Ginsburg, J., concurring).

⁷² *Id.* at 957 (Breyer, J., concurring).

⁷³ *Id.* at 953–54.

⁷⁴ *Napster*, 239 F.3d at 1020.

⁷⁵ *Id.* at 1020–21.

⁷⁶ *Grokster*, 545 U.S. at 949 (Ginsburg, J., concurring).

would be under Justice Breyer's standard.⁷⁷ Under Justice Breyer's standard, if the defendant can show that there is capability of substantial noninfringing use presently or in the future, the developer can escape liability if there is no active inducement of infringement.⁷⁸ The active inducement of infringement element would likely doom "UrbanX," but the distinction is important in cases where active inducement of infringement is not present.

Finally, this Note will apply each of the above-referenced standards to "Pokémon Go." "Pokémon Go" features location-based material developed primarily in "Ingress." "Pokémon Go" ties its location-based material to local landmarks.

Under *Napster*, "Pokémon Go" would not satisfy either the knowledge requirement or the material contribution requirement, although the latter could be argued to an extent.⁷⁹ "Pokémon Go" maintains a massive network of geolocation points on fixed locations.⁸⁰ However, unlike "Sneakster" or "UrbanX," the appeal of the "Pokémon Go" locations is not that they are private property. "Pokémon Go" features a significant amount of locations on public property that are equally valuable to users and do not come with the attached legal risk of locations on private property.⁸¹ Simply having some location points on private property is unlikely to be considered a material contribution to infringement without specific knowledge of the infringement or active inducement to infringe. "Pokémon Go" issues a disclaimer against trespassing before loading the game and has procedures in place to report locations on private property, making it very unlikely a court would find active inducement of infringement.⁸² Additionally, as noted above, the technology of "Pokémon Go" has a substantial noninfringing use. Using the application in public does not infringe on property rights, and public use is certainly a substantial portion of the application's use. As such, "Pokémon Go" would escape liability under both Justice Ginsburg's and Justice Breyer's approaches.

In setting a proper standard for liability for location-aware applications, copyright liability shares substantial considerations and features many of the same contentions. In weighing the interests of property owners and technology protection, one approach adequately balances the interests: Justice Breyer's interpretation of the standard espoused in *Sony*.

⁷⁷ *Id.* at 959 (Breyer, J., concurring).

⁷⁸ *Id.* at 953–54.

⁷⁹ *Napster*, 239 F.3d at 1020.

⁸⁰ Takashi, *supra* note 5.

⁸¹ Li, *supra* note 7.

⁸² *Id.*

III. CONCLUSION

Shaping secondary liability for property infringement by location-aware applications in the image of Justice Breyer's interpretation of the *Sony* standard for secondary copyright infringement should be applied because Justice Breyer's standard protects technology.

Any stricter interpretation would weaken the law's ability to protect technology, and any positive impact on property owners derived from a stricter interpretation would not outweigh the harm done to technology. As outlined in Justice Breyer's concurrence, a broad interpretation of the protections afforded to new technology under *Sony* protects society's interest in the continuing advancement of technology because the rule: (1) is clear, (2) makes imposition of liability difficult, (3) is forward thinking, and (4) eases judicial strain in analyzing technological matters.⁸³

The rule's clear line of liability allows developers to know whether their application will be subject to liability before they invest significant amounts of time and money. Conversely, the rule deters developers from making applications that actively induce infringement or are incapable of substantial or commercially significant noninfringing use. The rule only imposes secondary liability where the application is almost exclusively used for infringement or actively induces infringement. The rule contemplates future use by considering plausible future capability for noninfringing use, thereby allowing technology to develop. Allowing courts to consider current and plausible future use in answering questions of substantial or commercially significant noninfringing use lessens the burden on judges to decide between technology experts provided by either side in determining whether current or future capability should be considered.

Applying the case-by-case analysis championed in *Napster*⁸⁴ or Justice Ginsburg's analysis that places a heavier burden on the defendant⁸⁵ would weaken the law's ability to protect technology. A heavier evidentiary burden on the defendant makes defense more difficult and costly and may subject many technology developers to lawsuits brought by wealthy plaintiffs looking to unjustly enjoin a defendant's operations. The case-by-case approach creates uncertainty for developers and may deter potential developers from entering the market. Either approach could "chill . . . technological development."⁸⁶

Any gain to property holders that could result from a stricter interpretation and implementation of liability would not outweigh the harm done to developing technologies. The positive impact gained, ostensibly more control over one's own property, while beneficial to the property owner, and perhaps to

⁸³ *Grokster*, 545 U.S. at 957–58.

⁸⁴ *Napster*, 239 F.3d 1004.

⁸⁵ *Grokster*, 545 U.S. 913, 945 (Ginsburg, J., concurring).

⁸⁶ *Id.* at 960 (Breyer, J., concurring).

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society to an extent, hardly outweighs the possibility of a chill to technological development. Furthermore, unlike the massive scope of file transfers associated with copyright infringement through services like Napster and Grokster, real property infringement can be combatted to a great degree through pursuit of the direct infringer.

Ultimately, the interests of advancing technology hold more weight than the interests of property owners when analyzing secondary infringement. Thus, adopting a standard that is grounded in the public policy interest of advancing technology is the most logical choice for this developing area of law.