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Poke´Mon Go: Emerging Liability Arising From Virtual Trespass for Augmented Reality Applications

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POKÉMON GO: EMERGING LIABILITY ARISING FROM VIRTUAL TRESPASS FOR AUGMENTED REALITY APPLICATIONS

Travis Alley[†]

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I. INTRODUCTION

Pokémon Go is an augmented reality¹ application (“app”) for smartphones that has taken the world by storm. The basic concept is that a player uses the app to catch fictional creatures called Pokémon in their real world environments. The game accesses the player’s smartphone camera, and the Pokémon appear superimposed on the phone screen as if they were actually standing in front of the camera lens. To catch these Pokémon, players must physically walk around their environment until a Pokémon appears. The app also has PokéStops and Gyms at designated public locations that attract players to destinations like parks, churches, and monuments.²

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1. Augmented Reality will be discussed in Section II of this article.

2. Sara Ashley O’Brien, *Pokemon 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/> [<https://perma.cc/YBS6-M4B6>]. (Stating DOI: <https://doi.org/10.37419/JPL.V4.I4.1>)

Alibaba is a Chinese ecommerce giant also utilizing the growing popularity of augmented reality.³ In September 2016, the technology company implemented a concept similar to Pokémon Go to boost sales at Chinese Kentucky Fried Chicken (“KFC”) restaurants.⁴ Consumers were able to use their smartphones to capture images of Tmall’s (a Chinese mall) cat mascot for discounted KFC items.⁵ This implementation led to the sale of over 80,000 thirty-piece chicken nugget meals, which totaled around 2.4 million nuggets sold in a single day.⁶

Legal implications accompany the success of Pokémon Go and are affecting players, property owners, and technology developers. Consider Peter, a homeowner in a heavily populated city where he has happily lived for the past ten years.⁷ His home is an eighteenth century church that he chose to renovate with his wife. Lately, Peter has become frustrated with groups of people that have been congregating outside of his house.⁸ They are all looking at their phones as they trample across his lawn and loudly converse with each other at all hours of the night.⁹ One afternoon, Peter witnessed a child break his leg as he walked into his backyard and fell off an elevated play set.¹⁰ The play set is not visible from the street, but the child stumbled upon it while looking at his phone. There have also been breakouts of physical violence on and near Peter’s property.¹¹ He and his wife used to enjoy spending time in their garden, but the couple has been forced to cease gardening because of the large crowds. Peter and his wife are also losing sleep from the large congregations around their home. A general uneasiness has set in between the couple because of the recent

that Pokémon Go players have played at various locations including a Holocaust Memorial Museum).

3. Helen H. Wang, *From Virtual Reality To Personalized Experiences: Alibaba Is Bringing Us The Future Of Retail This Singles Day*, FORBES (Nov. 6, 2016, 1:30 PM), <http://www.forbes.com/sites/helenwang/2016/11/06/how-alibaba-will-use-the-worlds-biggest-shopping-day-to-transform-retail/#662e09197b43> [https://perma.cc/RQ6M-ZJJ8].

4. *Alibaba-KFC partnership more than a shareholding*, INSIDE RETAIL: ASIA (Sept. 16, 2016), <https://insideretail.asia/2016/09/16/alibaba-kfc-partnership-more-than-a-shareholding> [https://perma.cc/BD6T-EA46].

5. *Id.*

6. *Id.*

7. This is a hypothetical derived from various nonfictional examples.

8. Judy Dutton, ‘My Home Was Turned Into a Pokemon Go Gym’, REALTOR .COM (July 11, 2016, 5:38 PM), http://www.realtor.com/news/trends/help-my-home-was-turned-into-a-pokemon-go-gym/?is_wp_site=1 [https://perma.cc/YL2Z-K3T9].

9. *Id.*

10. Janissa Delzo, *Men fall from cliff playing Pokémon Go*, CNN (July 16, 2016, 9:43 AM), <http://www.cnn.com/2016/07/15/health/pokemon-go-players-fall-down-cliff/> [https://perma.cc/3F5P-EPSQ].

11. *2 men arrested after getting into fight over Pokemon Go in first such case here*, STRAITS TIMES (Aug. 16, 2016, 2:44 PM), <http://www.straitstimes.com/singapore/courts-crime/2-men-arrested-after-getting-into-fight-over-pokemon-go-in-first-such-case> [https://perma.cc/Q4W4-KS2A].

violent outbreaks, and they fear their home insurance costs could skyrocket. Peter has finally had enough and confronts a group of people on his lawn to investigate these recent abnormalities.¹²

Finally, a man informs Peter that his home is a PokéStop and the people surrounding his house are playing a phone app called Pokémon Go. Confused as to the concept of the game, Peter tells the man to remove the “PokéStop” label from his home. The man replies that he cannot do that because the app developers designated his house as a PokéStop due to the historical significance of the renovated church.¹³ Peter’s frustration grows, and he is not only angry with the crowds of people surrounding him, but also at the game developers for sending these people to his property without permission.¹⁴

This Article focuses on various types of trespass and the challenges that augmented reality technology presents to the parties involved. Section II lays out a broad overview of augmented reality, its history, and the concept of Pokémon Go. Section III addresses evolution trespass law in the United States and how it is applied in cases of physical and electronic intrusions. Section III also discusses nuisance briefly, as it can often interrelate to trespass theories. Section IV then analyzes how courts might interpret trespass laws for augmented reality applications and the forms of liability each party may face. The solution in Section V proposes a compromise between these parties by suggesting legislative reform to offer opt-in and opt-out provisions. Lastly, this Article stresses the importance of weighing the interests of the involved parties with the benefit of technological advancements.

II. OVERVIEW OF AUGMENTED REALITY

A. *History and Evolution of Augmented Reality*

Augmented reality (“AR”) is the digital imposition of technology on the user’s environment in real time.¹⁵ AR differs from virtual reality by overlaying information over an existing environment, while virtual reality creates a totally artificial environment.¹⁶ The term “augmented reality” was first coined by Thomas Caudell in 1990 to describe the head-mount displays that wiring technicians used to configure wiring harnesses.¹⁷ AR technology has grown more advanced

12. *Pokemon Go makers face trespassing lawsuit*, BBC (Aug. 3, 2016), <http://www.bbc.com/news/business-36961201> [https://perma.cc/3GBR-HK4J].

13. *Help! My Church is a Pokemon Go Gym or Pokestop*, ROSE PUBLISHING (July 11, 2016, 8:11 PM), <http://blog.rose-publishing.com/2016/07/11/church-pokemon-go-gym/#.WJThxWUMFII> [https://perma.cc/5CZH-DQZK].

14. Dutton, *supra* note 8.

15. Margaret Rouse, *augmented reality (AR)*, TECHTARGET, <http://whatis.techtarget.com/definition/augmented-reality-AR> [https://perma.cc/5PSW-4KM7] (last updated Feb. 2016).

16. *Id.*

17. *Id.*

over the years to engage a wide variety of users and markets; however, as the technology has advanced, so have the legal issues surrounding its implementation.

As of 2016, investments in AR reached \$1.1 billion.¹⁸ Major companies like Microsoft and Google recently invested a combined \$2 billion in AR, with total investments projected to reach \$120 billion by the year 2020.¹⁹ The advancement of AR technology has warranted increased attention from venture capitalists who are trying to capture their share of the AR pie.

One widely-known use of AR is the yellow “first down” line that is shown during broadcasted NFL games. This technology was first implemented in 1998 to show viewers of NFL games how much further the offense needed to go to gain a “first down,”²⁰ rather than relying on the information verbally given by the television analysts. The technology was so successful amongst television viewers that the NFL later implemented the “first down” line in its Skycam technology, a mobile aerial camera that follows the game above the playing field.²¹

Heads-up display (“HUD”) is another version of AR whose usage is gradually increasing in the automobile industry.²² The most familiar concept is a car’s backup camera system that allows a driver to see a digital version of the car on a video screen located in or on the dashboard, meant to assist the driver in parking.²³ Toyota recently obtained a patent for HUD that directly displays the information on the car’s windshield instead of a screen monitor.²⁴ Toyota is hoping to incorporate other useful aspects into HUD technology, such as the ability to display the car’s lane position in real time.²⁵ In theory, HUD is supposed to retain the driver’s attention on the road by maintaining

18. *Infographic: The History of Augmented Reality*, AUGMENT (May 12, 2016), <http://www.augment.com/blog/infographic-lengthy-history-augmented-reality/> [<https://perma.cc/6RPP-32PF>].

19. Jacob Siegal, *All the crazy stats about Pokemon Go collected on a single infographic*, BGR MEDIA (Aug. 4, 2016, 8:00 PM), <http://bgr.com/2016/08/04/all-the-crazy-stats-about-pokemon-go-collected-on-a-single-infographic/> [<https://perma.cc/TR2J-APSZ>].

20. Rouse, *supra* note 15.

21. AUGMENT, *supra* note 18.

22. *Head-up Displays*, CONTINENTAL, <http://continental-head-up-display.com/#arhud> [<https://perma.cc/BD4T-7FEH>] (last visited Oct. 24, 2017).

23. Lynn Walford, *New connected car hardware from Continental, Corning Glass, HARMAN, Hella, Bosch, Mistsubishi, NVIDIA, PNI, SMK, VocalXoom & VOXX*, AUTO CONNECTED CAR NEWS (Jan. 22, 2017), <http://www.autoconnectedcar.com/2017/01/new-connected-car-hardware-from-continental-corning-glass-harman-hella-bosch-mistsubishi-nvidia-pni-smk-vocalxoom-voxx/> [<https://perma.cc/7QMY-AYZG>] (regarding fully automated parking, the CompactRadar sensor is particularly important).

24. Andrew Krok, *Toyota patents augmented-reality windshield*, CNET (Mar. 29, 2016, 1:34 PM), <https://www.cnet.com/roadshow/news/toyota-patents-trick-augmented-reality-windshield/> [<https://perma.cc/GL7V-BRRV>].

25. *Id.*

constant focus on the windshield, but the realistic incorporation is still years away from going into production.²⁶

Another manifestation of AR has recently been unveiled in the form of wearable technology—Google Glass (“Glass”). Glass is an electronic device that gives its users access to information from their phone or computer through a digital lens when placed over regular glasses.²⁷ The glasses are worn on the user’s face and project computerized images across the lenses.²⁸ Glass was met with much criticism from the legal field, primarily over privacy concerns.²⁹ The glasses have the ability to record a user’s surroundings, including a stranger’s activities and movie screenings.³⁰ This caused concern amongst theater owners and led to the ban of Glass in cinemas, as production companies feared Glass owners could more easily engage in piracy.³¹ Google Glass was essentially terminated before it was able to go into mass production,³² but the concept remains relevant.

B. *Pokémon Go*

Pokémon Go (“the App”) is the latest implementation of AR that has both intrigued and frustrated consumers, business owners, and property holders. It is an app for smartphone users that was created by The Pokémon Company, Nintendo, and Niantic Labs.³³ In July 2016, Pokémon Go became the top-grossing app in the U.S. within thirteen hours of its release and surpassed Candy Crush Saga as the biggest mobile game in U.S. history.³⁴

The App’s popularity has not only influenced mobile phone users. As of August 4, 2016, Pokémon Go has generated over \$35 million in revenue and increased Nintendo’s market value to \$9 billion within

26. *Id.*

27. Hayley Tsykayama, *Everything you need to know about Google Glass*, WASH. POST (Feb. 27, 2014), <https://www.washingtonpost.com/news/the-switch/wp/2014/02/27/everything-you-need-to-know-about-google-glass/> [https://perma.cc/Z6VZ-VEMQ].

28. *Id.*

29. *Id.*

30. *Id.*

31. *It’s Official: Google Glass Is Banned in Movie Theaters*, NBC NEWS (Oct. 29, 2014 3:01 PM), <http://www.nbcnews.com/tech/innovation/its-official-google-glass-banned-movie-theaters-n236841> [https://perma.cc/4EJX-U972].

32. Nick Bilton, *Why Google Glass Broke*, N.Y. TIMES: STYLE (Feb. 4, 2015), http://www.nytimes.com/2015/02/05/style/why-google-glass-broke.html?_r=1 [https://perma.cc/D3E8-BCGC].

33. Dave Their, *What Is ‘Pokémon GO,’ And Why Is Everybody Talking About It?*, FORBES: TECH (Jul. 11, 2016, 11:44 AM), <http://www.forbes.com/sites/davidthier/2016/07/11/facebook-twitter-social-what-is-pokemon-go-and-why-is-everybody-talking-about-it/#10f4fd3c21c7> [https://perma.cc/SYB6-WN4L].

34. Siegal, *supra* note 19.

five days of the App's release.³⁵ Pokémon Go has expanded to over 26 countries,³⁶ influencing businesses and investors around the world.

Pokémon Go allows users to play a game on their mobile phone while interacting with their real-world surroundings. Once the App is downloaded onto a mobile phone, the player can begin capturing digital representations of fictional creatures called Pokémon.³⁷ The game is designed to have players capture Pokémon using a real time GPS mapping system, and then collect items to level up the Pokémon to take over rival “gyms”³⁸— designated locations where players can battle their Pokémon to advance further in the game.

The mapping system in Pokémon Go is the primary feature that has contributed to the App's success. The App runs on a real-time GPS mapping interface that shows players' real-world surroundings including neighboring streets, landmarks, and geographical distinctions.³⁹ But, the source of this data is concerning. Niantic has not disclosed where this information comes from on the App.⁴⁰ Experts have speculated that the App's mapping system derives its data from sources like Google Alphabet, because the App's legal page cites to licenses for Google products like Android.⁴¹ Regardless, the lack of an expressly cited license is unusual because digital maps typically cite their licenses they are using.⁴²

Once a player opens the App, he or she will see an avatar that represents the player's real time person. As he or she walks around her existing environment, the avatar imitates his or her movement on the map in the exact same way a car moves on a GPS system while driving. The App is alluring to consumers because it monitors the distance and speed at which a player is traveling and rewards players by allowing them to hatch “eggs” for every 2km, 5km, or 10km walked. The notion is that the farther distance a player walks to hatch an egg, the more valuable the Pokémon will be once it is hatched. Thus, the App encourages players to exercise by tracking their distance to hatch eggs and discover new Pokémon. The App has tried to deter players from operating vehicles while playing by limiting the maximum speed on the GPS tracker to around 12 miles per hour to keep the vehicle operator's focus on the road, rather than on the App.⁴³

35. *Id.*

36. *Id.*

37. *Pokémon GO*, POKÉMON CO., <http://www.pokemon.com/us/pokemon-video-games/pokemon-go/> [<https://perma.cc/G476-YL6Q>] (last visited Oct. 25, 2017).

38. *Id.*

39. Robinson Meyer, *The Curious Mystery of the Map in Pokémon Go*, ATLANTIC (July 11, 2016), <http://www.theatlantic.com/technology/archive/2016/07/where-did-pokemon-go-get-its-map/490799/> [<https://perma.cc/DN8H-PF3T>].

40. *Id.*

41. *Id.*

42. *Id.*

43. Bull Dozier, *What is the maximum “walking” speed, for egg hatching in Pokémon GO?*, QUORA (Answered Dec. 29, 2016), <https://www.quora.com/What-is->

The final feature of Pokémon Go is the App's implementation of real-world landmarks into virtual destinations. Pokémon Go has established certain locations in the game's environment to serve as "PokéStops" or "PokéGyms." A PokéStop is a location where players can collect items to help them to progress in the game, and a PokéGym is a location where the player can battle his or her Pokémon against another player's. These locations are marked on the App's map with distinct shapes and colors to alert a player that a gym or a stop is nearby. The developers have set these specific locations at historical markers, monuments, and art installations, resulting in increased traffic at these destinations whether the property owners desire it or not.⁴⁴

III. OVERVIEW OF PROPERTY LAW

Real property law in the United States developed with the intention of diverging from English law, which allowed families to preserve longstanding landholdings.⁴⁵ Americans have since abandoned many English concepts to facilitate an increase in the marketability of land interests and land transactions.⁴⁶ While this concept was successful in promoting new ownership throughout the United States, unforeseen challenges have risen due to ever-evolving technology that requires a review of property rights policy.

Property rights have long been analogized by using the "bundle of sticks" metaphor. Collectively, the landowner's right to use, possess, transfer, exclude, and destroy his or her land make up a "bundle of sticks" that comprises the owner's power to enforce certain rights in his or her land. However, this metaphor is often oversimplified, leading to a notion that each individual right may be fragmented, and that parcels of land may be separated from the social communities where they are located.⁴⁷ The result is that lay clients, and many lawyers, continue to view property rights as absolute *ownership*⁴⁸ rather than ownership with certain inherent rights with resource-specific limitations.⁴⁹ For example, a landowner may choose to deposit hazardous

the-maximum-"walking"-speed-for-egg-hatching-in-Pokémon-GO [https://perma.cc/RRF5-D7E3].

44. *PokeStops*, IGN, <http://www.ign.com/wikis/pokemon-go/PokeStops> [https://perma.cc/YC69-ASZL] (last updated Nov. 3, 2016).

45. David A. Thomas, *Anglo-American Land Law: Diverging Developments from a Shared History - Part III: British and American Real Property Law and Practice - A Contemporary Comparison*, 34 REAL PROP. PROB. & TR. J. 443, 467 (1999).

46. *Id.*

47. Myrl L. Duncan, *Reconceiving the Bundle of Sticks: Land as a Community-Based Resource*, 32 ENVTL. L. 773, 780 (2002).

48. Anna di Robilant, *Property: A Bundle of Sticks or a Tree?*, 66 VAND. L. REV. 869, 871 (2013).

49. *See id.* at 872 (explaining a modern view that property rights should be viewed as a tree with inherent rights comprising the trunk and resource-specific limitations comprising the branches).

waste from his farming operations into a river that runs through his land. This waste then flows downstream and has an exponentially detrimental effect on not only those who own property abutting the river, but also those who choose to enjoy the benefits that the waterway offers. To circumvent this problem, the law has adopted the principle of usufruct⁵⁰ that now categorizes running water as public property because of the value the resource holds.⁵¹ The law was forced to adapt for policy reasons that certain landholder's rights—once considered *absolute*—are now outweighed by the benefits to society.

The following property concepts will discuss the history and evolution of these legal theories when determining whether inherent rights of property holders should be upheld, altered, or terminated in favor of the public because of the public demand and increased use of augmented reality technology.

A. *Trespass*

One of the rights in the property owner's bundle of sticks is the right to exclude. This right is often considered the most fundamental right of property law, enabling a landholder to use varying degrees of self-help, including the use of reasonable force, to remove someone from his or her land.⁵² Trespass is one of the traditional common law torts that grant a landowner the ability to exercise his or her right to exclude.⁵³ The Restatement (Second) of Torts states an individual is liable to another for trespass, irrespective of whether any legally protected interests are harmed, if the individual:

- (a) enters land in the possession of the other, or causes a thing or a third person to do so, or
- (b) remains on the land, or
- (c) fails to remove from the land a thing which he is under a duty to remove.⁵⁴

These elements offer the plaintiff a unique advantage over other tort claims or invasions of property interest. Trespass requires no balancing of injury and benefit; the protection of the individual landowner outweighs any potential benefits to society.⁵⁵ Therefore, an individual who has a possessory interest may punish those who invade that interest⁵⁶ regardless of possible benefits the trespass may have had for society.

50. Duncan, *supra* note 47, at 792.

51. *Id.*

52. Gideon Parchomovsky & Alex Stein, *Reconceptualizing Trespass*, 103 Nw. U. L. REV. 1823, 1829–30 (2009).

53. James T. O'Reilly, 1 *Toxic Torts Practice Guide* § 6:8 (2017).

54. RESTATEMENT (SECOND) OF TORTS § 158 (1965).

55. *See* O'Reilly, *supra* note 53.

56. *Id.* (stating that defendants' worthiness, social status or job creating desirability for the local economy is not in issue).

Trespass is a strict liability tort. It differs from intentional torts because the element of intent is not required to establish a cause of action. Indirect trespass is a prime example of this.⁵⁷ It is not necessary that a trespasser know that he, or something that he controls, is invading another's land so long as actual entry occurs.⁵⁸ A common example is a farmer who allows his cattle to graze upon his neighbor's crops.⁵⁹ Presumably, the farmer did not intend his neighbor's crops to be destroyed, yet he was held liable for allowing his cattle to enter the land.

Some scholars have proposed the theory of the *ex ante* and the *ex post* view on trespass.⁶⁰ The *ex ante* theory establishes the rights a landowner has before a trespass occurs, and the *ex post* theory delves into how the landowner is protected after a trespass has been committed.⁶¹ The departure between the two views is a comparison between the landowner's right to exclude (*ex ante*) and his right for relief (*ex post*). Once a trespass has occurred, the landowner has lost the right to exclude and must settle for liability protection.⁶² Some legal scholars suggest that the same protections a landowner reserves post trespass ought to apply before a trespass.⁶³ Thus, a plaintiff should be compensated an amount equal to the *ex ante* price a landowner would have agreed to with the defendant.⁶⁴

Lastly, the Restatement (Second) of Torts includes an inducement liability clause.⁶⁵ This clause states that an actor who causes a third person to enter another's land may be fully liable as though he himself had committed the trespass.⁶⁶ This area of law primarily deals with property owner's mistakes in identifying boundary lines that result in trespass.⁶⁷ But, the concept of inducing another to trespass is also applicable to current AR cases.

1. Cyber Trespass

As the Internet and subsequent AR technology evolves, traditional theories of physical trespass have been found insufficient when deter-

57. See RESTATEMENT (SECOND) OF TORTS § 158 (1965) (stating that mistaken entry onto another's land is a trespass if without permission and not induced by the landowner.).

58. *Id.*

59. *Hempel v. Ihrig*, 450 P.2d 179 (Wash. 1969).

60. *Parchomovsky & Stein*, *supra* note 52, at 1829.

61. *Id.*

62. *See id.* at 1831.

63. *See id.* at 1837 (discussing the belief that the owner's right to exclude others deserves an equal degree of protection *ex ante* and *ex post*).

64. *Id.*

65. RESTATEMENT (SECOND) OF TORTS § 158 (1965).

66. *Rodriguez v. Rodriguez (In re Rodriguez)*, 524 B.R. 111, 117 (Bankr. S.D. Tex. 2014).

67. *Id.*

mining liability. This has led some courts to establish the theory of cyber-trespass.⁶⁸

In *Register.com, Inc. v. Verio, Inc.*, a domain registry website sought injunctive relief after the defendant created a search robot to collect customer information from the plaintiff's website.⁶⁹ The defendant then used this information to solicit the plaintiff's customers.⁷⁰ The court granted the plaintiff's request for injunctive relief partially under the theory of trespass to chattels.⁷¹ While the New York court granted the relief under trespass to chattels, some scholars have found this offense to be more accurately described as cyber trespass.⁷²

Cyber trespass, also called e-trespass or virtual trespass, is directly aimed at preventing unlawful intrusion of another's computer system or electronic device. It does not address the recent conundrum of an independently owned GPS application that places unwanted virtual objects—that solely exist in the application—on someone's property. While the virtual objects or characters do not physically enter another's land, the existence of these characters does result in the application user's physical trespass. This leads to the question of whether application developers should legally be allowed to place virtual objects on private property through a GPS enabled application.

Courts have provided some attenuated guidance for this question. In *United States v. Jones*, the United States Supreme Court held that government actors violated the Fourth Amendment when they placed a GPS tracking device on the defendant's car.⁷³ The evidence obtained from the GPS tracker was suppressed because, under the Fourth Amendment, it was deemed a search that was the equivalent to a physical trespass.⁷⁴ However, in *United States v. Skinner*, the Sixth Circuit distinguished the issue of trespass from *Jones*.⁷⁵ In *Skinner*, the government arrested the defendant when evidence was obtained by tracking the defendant's GPS on his cell phone.⁷⁶ Here, the Court held that the government did not commit trespass when it tracked a phone's GPS that was used voluntarily on public roads.⁷⁷ Thus, the "trespassory test" in *Jones* provides little guidance in cases involving electronic surveillance that do not require a physical invasion of property.⁷⁸

68. Edward W. Chang, *Bidding on Trespass: eBay, Inc. v. Bidder's Edge, Inc. and the Abuse of Trespass Theory in Cyberspace-Law*, 29 AIPLA Q.J. 445, 457–58 (2001).

69. *Id.* at 455.

70. *Id.* at 454.

71. *Register.com, Inc. v. Verio, Inc.*, 126 F. Supp. 2d. 238, 251 (S.D.N.Y. 2000).

72. Chang, *supra* note 68, at 456.

73. *United States v. Jones*, 565 U.S. 400, 400 (2012).

74. *Id.*

75. *United States v. Skinner*, 690 F.3d 772, 780 (6th Cir. 2012).

76. *Id.* at 774.

77. *Id.* at 780.

78. *Id.*

2. Intangible Invasion

If courts deem AR objects not to be real, landholders may still have a trespass claim via intangible invasion.⁷⁹ The theory of intangible invasion involves a non-tangible invasion to physical property, such as pollution.⁸⁰

In *Borland v. Sanders Lead Co.*, the Alabama Supreme Court held that a plaintiff has a claim for intangible invasion by showing (1) an invasion affecting an interest in the exclusive possession of his property; (2) an intentional act which results in the invasion; (3) reasonable foreseeability that the act could result in an invasion of plaintiff's possessory interest; and (4) substantial damages to the property.⁸¹ Here, the Court held that establishing a real and substantial invasion of a protected interest is key,⁸² "for the law will not concern itself with trifles."⁸³

The theory of intangible invasion requires an analysis of the interest with which the offender interfered.⁸⁴ Trespass applies to an interference with the plaintiff's exclusive possession of the land,⁸⁵ while nuisance requires an interference of the plaintiff's use and enjoyment of the land.⁸⁶ The difference between these two affects the type of damages that may be awarded.⁸⁷

The *Borland* court offered an example of when either trespass or nuisance would apply. If pollutants from a defendant are physically deposited on a plaintiff's property, thereby affecting the exclusive possession of the land, the plaintiff will have a cause of action for trespass.⁸⁸ But, if the pollutants merely annoy a plaintiff, affecting only the use and enjoyment of the land, then an action for nuisance is appropriate.⁸⁹

B. Private Nuisance

Nuisance is a condition or activity that interferes with the use and enjoyment of property.⁹⁰ The concept is divided between public and

79. Keith Lee, *Is PokemonGo Illegal?*, ASSOCIATE'S MIND, <http://associatesmind.com/2016/07/11/is-pokemongo-illegal/> [<https://perma.cc/8GC5-56LY>] (last updated July 13, 2016).

80. *Borland v. Sanders Lead Co.*, 369 So. 2d 523, 525 (Ala. 1979).

81. *Id.* at 529.

82. *Id.*

83. *Id.*

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.* (Trespass requires no showing of actual damages; nominal or punitive damages may be awarded).

88. *Id.* at 530.

89. *Id.*

90. *Nuisance*, BLACK'S LAW DICTIONARY (4th ed. 2011).

private nuisance.⁹¹ Where public nuisance is a criminal wrong that interferes with a right common to the general public,⁹² private nuisance is a tort that involves an unreasonable use of one's property in a manner that substantially interferes with the use or enjoyment of another's individual property without an actual trespass.⁹³

Private nuisance law evolved from an absolute protection of property rights into a doctrine of tort law that includes concepts of reasonableness.⁹⁴ Factors used to balance this reasonableness include frequency, nature of the activity, and the effect on enjoyment of the property.⁹⁵ An intentional invasion of one's use and enjoyment of land is presumed to be unreasonable "unless the utility of the actor's conduct outweighs the gravity of the harm."⁹⁶ Thus, the tortfeasor must show that the benefit of nuisance exceeds the interference with the enjoyment of the property.

The essential element for a nuisance claim is control over the cause of harm.⁹⁷ Creating or continuing a nuisance enables a plaintiff to establish proximate cause between the defendant's conduct and the alleged injury.⁹⁸ This is where nuisance differs from the previously addressed intangible invasion. A plaintiff must show actual damages resulting from the nuisance, while intangible invasion only requires an actual entry onto the land.⁹⁹

IV. LIABILITY FOR AUGMENTED REALITY PARTIES

A. *Overview Affected Parties*

AR applications are constantly being developed and released into the marketplace. This rapid influx of data and technology exposes the legal system to a variety of issues. The first step in determining how to analyze these issues is to separate the parties and define their legal rights, duties, and remedies.

Pokémon Go affects three primary parties: technology users ("the players"), game developers ("the developers")¹⁰⁰, and landholders.

91. *Private Nuisance*, COLLINS DICTIONARY OF LAW (2006), <http://legal-dictionary.thefreedictionary.com/private+nuisance> [<https://perma.cc/WTA6-JRZE>].

92. *Public Nuisance*, BLACK'S LAW DICTIONARY (10th ed. 2014).

93. *Private Nuisance*, COLLINS DICTIONARY OF LAW (2006), <http://legal-dictionary.thefreedictionary.com/private-uisance> [<https://perma.cc/WTA6-JRZE>].

94. See Robert G. Bone, *Normative Theory and Legal Doctrine in American Nuisance Law: 1850-1920*, 59 S. CAL. L. REV. 1101, 1225 (1986).

95. Jeff L. Lewin, *Comparative Nuisance*, 50 U. PITT. L. REV. 1009, 1018 (1989).

96. *Id.* at 1018-19.

97. *Terry v. Catherall*, 789 S.E.2d 218, 221 (Ga. Ct. App. 2016).

98. *Toy Tire N. Am. Mfg. v. Davis*, 787 S.E.2d 171, 175 (Ga. 2016).

99. BLACK'S LAW DICTIONARY, *supra* note 90.

100. Andrew L. Rossow, *Gotta Catch. . . a Lawsuit? A Legal Insight Into the Battlefield Pokémon Go has Downloaded onto Smartphones and Properties Around the World*, OHIO ST. B. ASS'N (July 20, 2016), <https://www.ohiobar.org/NewsAndPublications/News/OSBNews/Pages/Gotta-catch-a-lawsuit-A-legal-insight-into-the-battle-field-Pokemon-Go-has-downloaded-onto-smartphones-and-properties.aspx> [<https://>

These parties are likely to remain constant as new AR applications are created, though there is certainly potential for new parties to enter the realm. It is essential to define the interests of these parties in relation to one another to properly evaluate how courts will determine future liability, and how legislatures may potentially reconsider current laws. The following analysis will analogize the introductory hypothetical to prior cases to evaluate how courts might hold on future AR cases between technology users, developers, and landholders.

1. Technology Users

The first party involved in AR is the group of people who utilize the technology: the players. The players consume AR products and their demand fuels the industry. Fortunately, liability for the players is less complex than liability for developers or landholders. One who enters another's land is liable for trespass.¹⁰¹ The law is well settled that intent is irrelevant when an individual commits a trespass.¹⁰²

AR gamers should also be wary that players have been detained for essentially loitering near police stations while engaging in AR applications.¹⁰³ Ingress is an AR application that is similar to Pokémon Go and was also created by the same developers.¹⁰⁴ Brian Wassom, a recognized scholar on AR, wrote about an Ingress player who was placed in a holding cell for three hours while trying to "capture a portal" near a police station.¹⁰⁵ Ingress has also resulted in 911 calls reporting "suspicious characters" around public and private areas.¹⁰⁶ Wassom correctly predicted the future implications of AR applications like Ingress when he stated that these games would generate more 911 calls.¹⁰⁷

The terms of service for Pokémon Go attempt to relieve the developers from any liability relating to players trespassing while playing the game.¹⁰⁸ Courts have yet to address whether it will uphold this specific term of service. But one thing is readily apparent: practical

perma.cc/EH9C-G6XQ] (listing the Pokémon Go developers: Niantic, Inc., The Pokémon Company, and Nintendo Co., Ltd.).

101. RESTATEMENT (SECOND) OF TORTS, *supra* note 57.

102. *Id.*

103. Brian Wassom, *Augmented Reality Gamer Detained by Police*, AUGMENTED LEGALITY (Dec. 4, 2012), <http://www.wassom.com/augmented-reality-gamer-detained-by-police.html> [<https://perma.cc/N3MJ-8K3P>].

104. INGRESS INFORMATION FOR LAW ENFORCEMENT, <http://ingressfieldguide.com/police.php> [<https://perma.cc/978C-HWLN>] (last visited Dec. 20, 2016) (Ingress was developed by a division of Google called Niantic Labs, the same developers for Pokémon Go).

105. Wassom, *supra* note 103.

106. Brian Wassom, *Ingress AR Game Impacting Kansas Law Enforcement?*, AUGMENTED LEGALITY (May 14, 2014), <http://www.wassom.com/ingress-ar-game-impacting-kansas-law-enforcement.html> [<https://perma.cc/7NZQ-HE7E>].

107. *Id.*

108. POKÉMON GO TERMS OF SERVICE, <https://www.nianticlabs.com/terms/pokemongo/en> [<https://perma.cc/C3G3-NFXP>] (last visited Jan. 8, 2017).

consequences can result in detainment by the police,¹⁰⁹ because “I was collecting Pokémon” is not a legal defense.¹¹⁰

The overarching theme here is public safety. These throngs of AR players have also been known to congregate near fire departments, which creates a safety hazard for first responders.¹¹¹ The Duvall, Washington Police Department even issued a statement on Facebook, stating that players should first alert officers when they are playing an AR game to help alleviate suspicion and safety concerns.¹¹² People engaging in AR applications must be mindful that they do not have to intend to trespass to be liable for trespass, and their participation in AR may result in creating safety hazards or possible arrest.

2. Developers

The goals of software developers for Pokémon Go and any other AR application are to create applications for profit while minimizing liability costs.¹¹³ Pokémon Go attempts to limit its liability in its terms of service agreement.¹¹⁴ The terms state that users assume all liability related to property damage and injury while playing the game.¹¹⁵ But, how will the courts receive these disclaimers as AR cases find their way into the courtroom?

Consider Peter from the introductory hypothetical. He does not want his home to be a PokéStop. He never gave permission to Pokémon Go to do this. He does not want children being injured on his property while looking for fictional characters that he cannot even see. He wants to sue the developers for directing players to trespass on his land and seek contribution for injuries that children suffered on his property. Will his suit be successful?

The Restatement (Second) of Torts for trespass allows plaintiffs claiming trespass to hold non-trespassers liable if they cause the actual trespasser to enter onto the property.¹¹⁶ The key word from this claim is whether non-trespassers *caused* a trespasser to enter onto property. Courts must determine whether developers *cause* Pokémon Go players to trespass on private property.

The law is limited when evaluating whether an AR app developer can be liable for causing others to commit trespass on another’s land.

109. Wassom, *supra* note 106.

110. Ananya Bhattacharya, *Pokemon with Caution*, QUARTZ.COM (July 12, 2016), <https://qz.com/729782/i-was-collecting-pokemon-is-not-a-legal-defense-police-warn-pokemon-go-trespassers> [<https://perma.cc/4M4Q-AZNR>].

111. *Id.*

112. *Id.*

113. *Id.*

114. POKÉMON GO TERMS OF SERVICE, <https://www.nianticlabs.com/terms/pokemon-go/en> [<https://perma.cc/C3G3-NFXP>] (last visited Jan. 8, 2017).

115. *Id.*

116. Rodriguez v. Rodriguez (*In re Rodriguez*), 524 B.R. 111, 117 (Bankr. S.D. Tex. 2014).

Based on available case law, the developers will likely be able to escape liability for causing players to trespass on Peter's property. The Pokémon characters that the developers utilize do not physically appear in the real world. More importantly, the developers are not directing players to commit trespass.¹¹⁷

In *Wilen v. Falkenstein*, the Texas Court of Appeals held that a neighbor was liable for trespass when he caused a tree service company to trim his neighbor's tree.¹¹⁸ The defendant caused the tree company to enter his neighbor's land by failing to tell the tree company that the land belonged to the plaintiff.¹¹⁹ The defendant was held liable for actual damages to the tree¹²⁰ and for exemplary damages for acting with malice when he directed the tree service company to enter his neighbor's land.¹²¹ The *Wilen* case is distinguishable from Peter's circumstance because the Pokémon Go developers have not told players to enter anyone's property. The players have a choice of whether to trespass, and thus relieve the developers from liability by agreeing to the terms of service when they download the game.¹²²

Peter could stand a better chance at holding the developers liable for virtual trespass by claiming they intentionally entered his property in the virtual world by using GPS to place characters on his land. However, the *Jones* and *Skinner* cases reveal that courts place more emphasis on physical intrusion of property over hacking GPS systems that are available to the public.¹²³ These cases will probably lead the court to conclude that merely placing objects on Peter's GPS coordinates does not rise to the level of virtual trespass. The developers did not hack into Peter's online property, making trespass to chattels unlikely,¹²⁴ unless Peter pursues intangible invasion.¹²⁵

In *Borland*, the Alabama Supreme Court stated that intangible invasion could be established when a non-physical invasion affects a plaintiff's possessory interest.¹²⁶ Peter can likely establish that the developers' invasion of his virtual property affected his exclusive possession of the property. The developers intentionally placed Pokémon on his virtual land, which resulted in an invasion. It was foreseeable that

117. POKÉMON GO TERMS OF SERVICE, <https://www.nianticlabs.com/terms/poke-mongo/en> [<https://perma.cc/C3G3-NFXP>] (last visited Jan. 8, 2017) (You agree not to violate applicable laws . . . including trespass.).

118. *Wilen v. Falkenstein*, 191 S.W.3d 791, 798 (Tex. App.—Fort Worth 2006, pet. denied).

119. *Id.*

120. *Id.* at 799.

121. *Id.* at 800.

122. *Id.* (Developers disclaim all liability relating to any tort liability.).

123. *United States v. Jones*, 565 U.S. 400, 404–05 (2012); *United States v. Skinner*, 690 F.3d 772, 780 (6th Cir. 2012).

124. *Cf.* 126 F. Supp. 2d. 238 at 251.

125. The Fourth Amendment in *Jones* applied to government actors, but courts may construe it to apply in other circumstances as well.

126. *Borland*, 369 So.2d 523 at 525.

this act could result in an invasion of Peter's possessory interest because the developers knew players would attempt to capture the Pokémon. Lastly, Peter must prove that the developers interfered with his interest in the land. If the developers interfered with Peter's interest in exclusive possession of his land, then trespass may be appropriate.¹²⁷ But, if the interest is Peter's use and enjoyment of his land, then nuisance will apply.¹²⁸

Jeffrey Marder, a homeowner in New Jersey, filed a class action suit against Pokémon Go for these exact reasons.¹²⁹ Marder claimed that the developers intentionally put gyms or PokéStops on or near private property; that they were created without his permission; and that the resulting trespassers are inhibiting his use and enjoyment of the land.¹³⁰ Pokémon Go has since filed a motion to dismiss, arguing that they cannot be held responsible for the actions of players who are not under their control.¹³¹

Landowners pursuing a nuisance claim can show that Pokémon Go interferes with their use and enjoyment of the land in myriad ways, primarily through increased automobile and foot traffic on or near the property.¹³² However, without showing actual substantial damage and proving the interference was unreasonable, the nuisance claim will fail.¹³³

With respect to the substantial damage element, courts measure the degree of harm by the effect the invasion would have on persons of normal health and sensibilities living in the same community.¹³⁴ This element is evaluated objectively on whether a reasonable person in the area would be substantially annoyed.¹³⁵ Marder has filed a class action lawsuit,¹³⁶ likely illustrating that those playing Pokémon Go objectively disturb the community as a whole.

The unreasonableness element is also evaluated objectively.¹³⁷ To determine whether an invasion is unreasonable, courts look at whether the gravity of the harm outweighs the social utility of the de-

127. *Id.* at 529.

128. BLACK'S LAW DICTIONARY, *supra* note 90.

129. Nicholas Kanter, *Pokemon Go Away: Monsters Creating Nuisance Problems*, LEWITT HACKMAN (Aug. 10, 2016, 5:17 PM), <http://www.lewitthackman.com/blog/pokemon-go-away-monsters-creating-nuisance-problems.html> [<https://perma.cc/4NF8-EX3A>].

130. Class Action Complaint at 3, *Marder v. Niantic, Inc.*, No. 4:16-cv-04300-KAW (N.D. Cal. July 29, 2016).

131. Paul Tassin, *Pokemon Go Class Action Says App is Nuisance for Property Owners*, TOP CLASS ACTIONS (Aug. 2, 2016), <https://topclassactions.com/lawsuit- settlements/lawsuit-news/341107-pokemon-go-class-action-says-app-nuisance-property-owners/> [<https://perma.cc/9GLD-9776>].

132. *Id.*

133. *San Diego Gas & Elec. Co. v. Superior Court*, 920 P.2d 669, 670 (Cal. 1996).

134. *Id.*

135. *Id.*

136. Kanter, *supra* note 130.

137. *San Diego Gas & Elec. Co.*, 920 P.2d at 669.

fendant's conduct.¹³⁸ Here, the harm is the congregations of players surrounding property because the developers intentionally designated the property as gyms or stops.

Both of these elements are questions of fact that must be determined by a jury.¹³⁹ In *Schild v. Rubin*, the court held that excessive noise might constitute an interference with land, but that not every activity that is offensive to the senses and interferes with the comfortable enjoyment of life is a nuisance.¹⁴⁰ Therefore, it is insufficient that property owners objectively believe their use and enjoyment of the land has been interfered with if substantial harm and unreasonableness are not readily apparent. It is likely that a jury will ultimately determine whether Pokémon Go created a nuisance without a greater showing of damage and unreasonableness from property owners.

Peter will probably be more successful in asserting a cause of action for nuisance against the developers because his use and enjoyment of the land is more affected than his exclusive possession. Trespass is a possible claim due to crowds of people entering his property, but Peter and his wife cannot enjoy their land when they fear children might become injured or players might react violently towards each other, resulting in fewer damages.¹⁴¹ Trespass and nuisance are both viable claims, but nuisance will likely result in more damages.

If AR developers are found to be liable for nuisance, comparative negligence principles may serve as a defense in appropriate circumstances.¹⁴² Courts only refuse to apportion fault to the plaintiff in cases involving strict liability or intentional wrongdoing.¹⁴³ So, while the developers may be liable to property owners for nuisance, the property owner's damages may be reduced for any negligence attributable to the plaintiff. Thus, from the hypothetical, Peter's claim may be reduced for contributing to the child's injury on the play set.¹⁴⁴

3. Landholders

The last party typically involved in AR applications is the landholder. It is well established that U.S. law holds individual property rights in the highest regard.¹⁴⁵ One of the primary property rights is

138. *Id.*

139. *Mendez v. Rancho Valencia Resort Partners, LLC*, 207 Cal. Rptr. 3d 532, 542–43 (Cal. Ct. App. 2016).

140. *Schild v. Rubin*, 283 Cal. Rptr. 3d 533 (Cal. Ct. App. 1991).

141. *Borland*, 369 So.2d at 529.

142. Lewin, *supra* note 95, at 1077 (noting that courts are not hesitant to employ comparative fault principles when nuisance is based on the negligent conduct of the defendant).

143. *Id.*

144. Delzo, *supra* note 10.

145. See THE FEDERALIST NO. 54 (Alexander Hamilton) (Stating that government is instituted no less for protection of the property, than of the persons, of individuals.).

the right to exclude, whether it is to exclude private citizens or governmental units.¹⁴⁶ For this reason, Peter has a cause of action for trespass. The courts must decide if the players, the developers, or both, will be liable. This Section will analyze landholder's remedies for trespass and possible defenses the other parties might assert.

Landholders may seek relief for a trespass either through self-help or the legal system.¹⁴⁷ Self-help allows a landowner to remove a trespasser with "reasonable force."¹⁴⁸ This remedy must be executed with caution because reasonable force only includes an action to protect the landowner's interest, while inflicting only reasonable harm on the trespasser.¹⁴⁹ Removal of the trespasser must be done with due care because a landowner may be liable if unreasonable force causes harm to the trespasser.¹⁵⁰ For example, the owner of a private parking lot may have an unauthorized vehicle towed if the towing is done with due care.¹⁵¹ This common law remedy is not available for residential landowners.¹⁵² Thus, self-help is only a feasible option in AR cases when the person commits trespass on a business trip while using an application. Peter's attempt at forcibly removing a trespasser would be met with scrutiny. A more viable alternative would be for Peter to call the police and avoid the risk of having tortious claims brought against him.

Self-help is the most cost-effective remedy for trespass because the plaintiff does not have to expend money on legal fees.¹⁵³ However, if self-help is ineffective or impractical, a landowner can resort to the legal system for equitable relief or damages. Generally, courts like to avoid granting equitable relief, like mandates or injunctions, and will refuse to do so when a trespass is considered *de minimis*.¹⁵⁴ Additionally, equitable relief is most often used in cases of continuing trespass where the invasion of property is ongoing.¹⁵⁵ Injunctions and similar forms of relief are granted only after the court has considered the adequacy of an injunction against other remedies, the relative hardship likely to result for the plaintiff and the defendant, and the interests of third persons and the public.¹⁵⁶ Based on this standard, it would be

146. See *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979).

147. 'Would you mind getting off my property, please? Thank you', ROLLITS, <https://www.rollits.com/news/articles/would-you-mind-getting-off-my-property-please-thank-you.aspx> [<https://perma.cc/NR55-QDT2>] (last visited Oct. 27, 2017).

148. *Id.*

149. *Reed v. Esplanade Gardens, Inc.*, 398 N.Y.S.2d 929 (N.Y. Civ. Ct. 1977), *aff'd*, 403 N.Y.S.2d 416 (N.Y. App. Div. 1978).

150. *Rossi v. Ventresca Bros. Constr. Co.*, 405 N.Y.S.2d 375 (N.Y. Civ. Ct. 1978).

151. *Id.* at 377.

152. *Would you mind getting off my property, please?*, *supra* note 147.

153. *See id.*

154. *See Danchak v. Tuzzolino*, 600 N.Y.S.2d 816 (N.Y. App. Div. 1993).

155. 75 AM. JUR. 2D *Trespass* § 19 (2017).

156. *Greyhound Lines, Inc. v. Peter Pan Bus Lines, Inc.*, 845 F. Supp. 295, 298 (E.D. Pa. 1994).

unlikely that a court would grant equitable relief to Peter. An injunction would be difficult to enforce, and other remedies, like monetary damages, are more practical.

Lastly, Peter's damages may be reduced or negated if the trespassers can assert a valid counterclaim. Attractive nuisance is one such counterclaim that can be brought against Peter for injury to a child. This doctrine often establishes a cause of action for defendants who have committed a trespass, if certain conditions are met. A landowner is generally not required to ensure the safety of a trespasser.¹⁵⁷ However, a landowner may be liable for injuries sustained by a child trespasser caused by an artificial condition upon the land if:

- (a) the possessor knows or has reason to know a child is likely to trespass on the dangerous condition, and
- (b) the possessor knows or has reason to know that the condition involves an unreasonable risk of death or serious bodily harm, and
- (c) the children because of their youth do not discover the condition or realize the risk involved in coming into contact with it, and
- (d) the burden of eliminating the dangerous condition is slight as compared with the risk to children involved, and
- (e) the possessor fails to exercise reasonable care to eliminate the danger or otherwise to protect the children.¹⁵⁸

Hence, Peter may be liable if a child trespassed on his property because an attractive condition lured the child onto the land. Peter could make the argument that Pokémon Go and the developers enticed the child to trespass, which led to the injuries. However, this argument holds little weight when landholders maintain an attractive condition on their land and the developers did not create the artificial condition.¹⁵⁹

V. THE COMPROMISE BETWEEN DEVELOPERS AND LANDOWNERS

A. *Opt-out and Opt-in Provisions*

The law is a fluid notion that must adapt as technology and public perception change. As the real and virtual worlds continue to merge, so too must the laws governing real and virtual property. The first step to alleviating litigation involving AR is to force AR developers to offer an opt-out provision for private landholders in any respective application made available to the public.

SPAM is an attempt to force information on people who would otherwise not receive it.¹⁶⁰ It is a plague of the Internet that attacks users

157. *Erie R.R. Co. v. Hilt*, 147 U.S. 97, 101 (1918).

158. RESTATEMENT (SECOND) OF TORTS § 339 (AM. LAW INST. 1965).

159. *Mason v. City of Mt. Sterling*, 122 S.W.3d 500, 509 (Ky. 2003).

160. Scott Hazen Mueller, *What is spam?*, SPAM.ABUSE.NET, <http://spam.abuse.net/overview/whatisspam.shtml> [https://perma.cc/X34F-CL6D] (last visited Oct. 30, 2017).

of all kinds, in all places.¹⁶¹ Pokémon Go users have also become the victims of SPAM campaigns from third party sites.¹⁶² Moreover, private landholders are also being subjected to SPAM in the form of physical trespass because developers are forcing their presence on those who would otherwise not receive it—the private landowners.

Courts could look to the CAN-SPAM Act of 2003 (“the Act”). The Act sets rules and requirements that companies must abide by when sending out commercial emails.¹⁶³ The Act is enforced by the FTC and subjects violators to penalties of up to \$16,000 for things like false or misleading information or failing to provide and honor opt-out provisions in marketing emails.¹⁶⁴ Companies must typically honor a customer’s opt-out request within ten business days.¹⁶⁵ When a company fails to include opt-out provisions for spam emails, the company has violated the Act.

Pokémon Go may be working on options to allow businesses to opt-out of having their locations being designated as PokéStops.¹⁶⁶ The PokéStops are fixed locations in the game that essentially notify a business when its location is a PokéStop because of increased traffic. In fact, some businesses enjoy being a PokéStop because of the opportunity for increased revenue.¹⁶⁷ Therefore, the opt-out provision for businesses may best serve the interest of both AR developers and businesses. The potential benefit for business owners likely outweighs the burden of opting out from an AR application, and of course, the option to remove the business from AR applications is still the business’s decision. Private homeowners have no opt-out option because

161. Reagan Smith, *Eliminating the Spam from Your Internet Diet: The Possible Effects of the Unsolicited Commercial Electronic Mail Act of 2001 on Junk E-Mail*, 35 TEX. TECH L. REV. 411, 413 (2003).

162. Seamus Mac Grianna, *Gotta Spam ‘em All - Pokémon GO Spam*, ADAPTIVEMOBILE (Aug. 17, 2016), <https://www.adaptivemobile.com/blog/gotta-spam-em-all-pokemon-go-spam> [<https://perma.cc/Q4CJ-FK24>] (Stating “the largest Pokémon GO SMS spam campaign we observed were messages sent to subscribers trying to entice them to visit a website called Pokemonpromo.xxx.”).

163. *CAN-SPAM Act: A Compliance Guide for Business*, FTC, <https://www.ftc.gov/tips-advice/business-center/guidance/can-spam-act-compliance-guide-business> [<https://perma.cc/NF3Q-K32G>] (last updated Mar. 2017).

164. *Id.*

165. *The CAN-SPAM Act: Trying to Protect Consumers From Unsolicited E-Mail*, FINDLAW <http://consumer.findlaw.com/online-scams/the-can-spam-act-trying-to-protect-consumers-from-unsolicited.html> [<https://perma.cc/3UQ3-C9PG>] (last visited Oct. 30, 2017).

166. Lauren Keating, *‘Pokémon GO’ Creators Want To Be More ‘Respectful’ Of Locations So It’s Letting Places Opt Out Of Being A PokéStop*, TECH TIMES (July 29, 2016, 4:25 PM), <http://www.techtimes.com/articles/171873/20160729/pokemon-go-creators-want-more-respectful-locations-letting-places-opt.htm> [<https://perma.cc/G2C9-PNQG>].

167. Walter Chen, *How Pokemon Go Is Driving Insane Amounts of Sales at Small, Local Businesses*, INC.COM (July 11, 2016), <http://www.inc.com/walter-chen/pok-mon-go-is-driving-insane-amounts-of-sales-at-small-local-businesses-here-s-h.html> [<https://perma.cc/9ZPB-MJBK>].

they do not know if, or when, a Pokémon will show up on their virtual property. Although this is an improvement, it does not resolve the issue of Pokémon spawning—spontaneously appearing—on private residences.

Pokémon Go has provided an opt-out provision for those who play the game.¹⁶⁸ The provision is applicable when players wish to opt-out of a waiver agreement that allows the developers to utilize consumer information.¹⁶⁹ However, this does not address the property owners who are subject to trespassers entering their land.

Laws should be implemented to prevent AR companies from placing any type of augmented reality object on private property without the owner's consent. At the very least, legislation similar to the Act should be promulgated to require AR companies to allow property owners to opt-in to their application.

The issue is that most private homeowners do not have the Pokémon Go application, making an opt-out provision useless for them. Developers currently offer an online form that landowners can fill out if they do not want to be a spawning location for Pokémon Go's PokéStops or Pokémon characters.¹⁷⁰ This remains insufficient. A landowner should not be required to opt-out of an inevitable trespass. The Act requires the opposite. It is the developer's duty—as the one who controls the technology—to obtain permission before committing virtual trespass. Thus, an opt-in provision for private landholders would provide more protection and efficiency. Developers are reaping the rewards of the App and should therefore be required to alleviate the burden on landholders by requiring opt-in consent.

A hybrid option appears to be the best solution for all parties: allow businesses to opt-out of AR applications if it hinders sales, and allow private residential landowners to opt-in to the application if they wish to participate. The fragile scales between landowners and developers can be balanced if property owners' interests are viewed as supreme. The paramount issue with SPAM is that it shifts costs onto the consumers, not the sender.¹⁷¹ Businesses are at less risk for incurring these costs because they make up for it through increased traffic. However, residential landowners must cover these costs via the legal system for invasion of the use and enjoyment of their land. Legislators must recognize the public policy arguments for both parties to pre-

168. Patricia Harman, *Hunting Pokémon raises liability issues when incidents happen*, PROPERTY CASUALTY 360° (July 19, 2016), <http://www.propertycasualty360.com/2016/07/19/hunting-pokmon-raises-liability-issues-when-incide> [https://perma.cc/3F9B-4FET].

169. *Id.*

170. K. Dumaraog, 'Pokmon GO' news: locations can opt out from game via update, developers confirm, VINEREPORT (Aug. 1, 2016), <http://www.vinereport.com/article/pokemon-go-news-locations-can-opt-out-from-game-via-upcoming-update-developers-confirm/12985.htm> [https://perma.cc/X92P-3EN5].

171. Smith, *supra* note 161, at 413.

serve private property rights while encouraging advancements in beneficial AR technology.

B. *Weighing Technology Advancement and Property Rights*

Historically, public policy has been difficult to define. One definition states that an objective going against health, morals, and the well-being of public citizenry is against public policy; the courts should nullify these actions even if there is a law supporting them.¹⁷² Another definition expressed in the legal field is that public policy is whatever the courts say it is.

With this in mind, courts have the ability to influence how laws should be adapted to best serve the interests of both landowners and AR developers. Courts must seek to preserve individual property rights without hindering technological innovations that society values. Apps like Pokémon Go benefit society by challenging users to exercise. Some players walk around six miles a day thanks to the App.¹⁷³ However, the App also agitates landowners, just like Peter from the hypothetical, because it encourages trespass onto private property.¹⁷⁴ The legal system must weigh not only the current value of AR, but also consider the potential detriment it brings to consumers.¹⁷⁵

If an opt-out provision fails to properly protect landholder interests, then attractive nuisance laws must adapt. As previously noted, trespass laws have evolved with the times to protect the public from invasions of privacy on the Internet.¹⁷⁶ The common-law system encourages legal flexibility because it is often hard to predict how laws must change in the future, and judges should not be forced to rely on abstract statutes or codes.¹⁷⁷

The attractive nuisance doctrine needs to apply to developers when they place augmented characters on private property. Landholders may take all the steps necessary to conceal an attractive danger on the

172. See *Public Policy*, BUSINESS DICTIONARY, <http://www.businessdictionary.com/definition/public-policy.html> [<https://perma.cc/2TZY-CQZA>] (last visited Oct. 30, 2017).

173. Selena Larson, 'Pokémon Go' is so addictive that people are getting way more exercise than they're used to, DAILY DOT, <http://www.dailydot.com/debug/pokemon-go-workout-exercise-perk/> (last updated Feb. 24, 2017, 12:05 PM).

174. See Paul Blake, *Pokemon Go Creators Face Lawsuit Over Players' Trespassing*, ABC NEWS (Aug. 2, 2016, 1:33 PM), <http://abcnews.go.com/US/pokemon-creators-face-lawsuit-players-trespassing/story?id=41066863> [<https://perma.cc/H5M4-BNM2>].

175. See Anna, *Benefits of Using Augmented Reality For Business*, APP SOLUTIONS, <http://theappsolutions.com/blog/development/ar-benefits-for-business/> [<https://perma.cc/4T7Y-AMPL>] (last visited Oct. 30, 2017) (discussing AR apps that will allow consumers to try on clothes from their home by placing augmented clothing on their bodies.).

176. See Chang, *supra* note 68.

177. *Common law*, FREE DICTIONARY, <http://legal-dictionary.thefreedictionary.com/common+law> [<https://perma.cc/FDZ3-Z26Q>] (last visited Oct. 30, 2017).

property by ensuring it is not visible to children from public areas, but they cannot constantly patrol their land for all forms of AR.¹⁷⁸ Moreover, the burden should not extend to landholders when children trespass because of AR. It is the developers who should have reason to know the Pokémon, or augmented objects, are likely to cause children to trespass on a dangerous condition.¹⁷⁹ The developers make profits from advertisements and consumption of AR technology, which makes them best suited to cover any potential liability that arises from trespass that was initiated from their application. Homeowner and renter's insurance likely cover most liability resulting from Pokémon Go players, but it should be the developers' insurance that specifically covers personally injury claims arising from attractive nuisances on private property.¹⁸⁰

Lastly, the courts must consider the practical effect of enforcing trespass claims against AR users. Public safety will often trump technological advancements and those who do trespass should be held liable regardless of intent. However, as previously noted, AR players have been detained simply for utilizing AR in public spaces. This raises First Amendment issues and the judicial system must be careful weighing safety and individual freedoms.

VI. CONCLUSION

Pokémon Go is the primary example used in this article to convey certain legal implications regarding property rights. However, it is merely an example. The issues discussed can be applied to a variety of current and emerging AR technology. Various legal battles between developers, landholders, and AR consumers must still be fought before any resolution is clarified.

The interests of all the parties involved must be weighed against each other in conjunction with the advancement of AR. The benefits will have to gradually be accepted by the public, followed by the legislature. Until then, the judicial system must rule on these issues the best it can.

178. *Cf.* *Gotcher v. City of Farmersville*, 151 S.W.2d 565, 566 (Tex. 1941) (discussing the doctrine of a public and attractive nuisance).

179. *Cf.* *Borland v. Sanders Lead Co.*, 369 So.2d 523, 526 (Ala. 1979) (discussing increase in value due to private condemnation).

180. *3 Types of Insurance Coverage Needed to Play Pokemon Go*, NEC INSURANCE (July 19, 2016), <http://www.necins.com/if-youre-a-pokemon-player-heres-3-types-of-insurance-youll-need> [https://perma.cc/MQ89-ZGYY].