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A License to Play: Regulating Location-Based Augmented Reality Gameplay on Public Property

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A License to Play: Regulating Location-Based Augmented Reality Gameplay on Public Property

Cover Page Footnote

Kate Johnson is a blockchain software engineer from Washington DC. In 2022, she graduated from the University of North Carolina at Chapel Hill with a Master's in Media and Communication. Her M.A. thesis focused on the strategic uses of virtual and augmented reality in marketing. Evan Ringel is a Ph.D. student at the University of North Carolina Hussman School of Journalism and Media; Media Law Fellow, UNC Center for Media Law and Policy; Graduate Student Affiliate, UNC Center for Information and Public Life (CITAP). In 2021, he earned dual degrees: J.D. from University of North Carolina School of Law, and M.A. from the University of North Carolina Hussman School of Journalism and Media. Amanda Reid is an Associate Professor at the University of North Carolina Hussman School of Journalism and Media; Faculty Co-Director, UNC Center for Media Law and Policy; Faculty Research Affiliate, UNC Center for Information and Public Life (CITAP). The authors are grateful for thoughtful feedback from Professor Eric Goldman, Professor Eric E. Johnson, and participants of the 2023 Symposium, "The Intersection of Law & Technology." And special thanks are extended to the editors of the UGA Law Review, including Savannah Grant, Tripp Keeffe, and Millie Price. The proposal herein is intended to provoke a conversation about regulating contested uses of LoBAR gameplay on public property. Questions or comments should be directed to areid@unc.edu.

A LICENSE TO PLAY: REGULATING LOCATION-BASED AUGMENTED REALITY GAMEPLAY ON PUBLIC PROPERTY

*Kate Johnson, Evan Ringel & Amanda Reid**

This novel research sits at the intersection of augmented reality gameplay and government licenses for use of public property. Governments have long used licensing schema to assure public safety and order. Augmented reality gameplay on public lands presents a new, contested use of public property. Under our proposed licensing scheme, those wishing to engage in location-based augmented reality (LoBAR) gameplay on public lands would need a license. This proposal is akin to how governments—federal, state, and municipal—have authorized permit schema for use of public property, including rock climbing, geocaching, street performing, and film photography. Our Article offers sample legislation for policymakers to license LoBAR gaming, and a sample license application is included in the Appendix.

* Kate Johnson is a blockchain software engineer from Washington DC. In 2022, she graduated from the University of North Carolina at Chapel Hill with a Master's in Media and Communication. Her M.A. thesis focused on the strategic uses of virtual and augmented reality in marketing.

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I. INTRODUCTION

This research sits at the intersection of augmented reality gameplay and government licenses for use of public property. Governments—federal, state, and local—license various uses of public property. To regulate “competing uses” of public forums, governments often impose a permit requirement.¹ Recreational activities on public property can require special permissions, like hiking,² camping,³ fishing,⁴ picnicking,⁵ and group exercising.⁶

¹ See, e.g., *Forsyth Cnty. v. Nationalist Movement*, 505 U.S. 123, 130 (1992) (“[T]o regulate competing uses of public forums, [the government] may impose a permit requirement on those wishing to hold a march, parade, or rally.”).

² See, e.g., *Half Dome Permits for Day Hikers*, NAT’L PARK SERV., <https://www.nps.gov/yose/planyourvisit/hdpermits.htm> (last visited June 17, 2023) (“Permits to hike . . . are required seven days per week”); *Palouse to Cascades State Park Trail Registration*, WASH. STATE PARKS, <https://www.parks.wa.gov/1089/Palouse-to-Cascades-State-Park-Trail-Reg> (last visited June 17, 2023) (“Registration is required for [hiking] the trail.”); *Grandfather Mountain State Park*, N.C. STATE PARKS, <https://www.ncparks.gov/state-parks/grandfather-mountain-state-park> (last visited June 17, 2023) (“[F]ree permits are required and must be filled out at the trailhead prior to hiking.”).

³ See, e.g., 36 C.F.R. § 2.10(a) (2022) (“The superintendent may require permits, designate sites or areas, and establish conditions for camping.”); 2 COLO. CODE REGS. § 405-7:704(1) (2017) (“No person shall camp in designated campgrounds or use any campground facilities of any park or recreation area unless such use is by authority of a valid campground-use permit issued by the Colorado Parks and Wildlife.”); 4 VA. ADMIN. CODE § 5-30-150(A) (2010) (“Camping will be conducted only under a valid reservation.”).

⁴ See, e.g., MD. CODE ANN., NAT. RES. § 4-604 (2021) (“Any person 16 years or older shall secure an angler’s license to fish in the nontidal waters”); N.C. GEN. STAT. § 113-270.1B (2019) (“[N]o person may . . . fish . . . without having first procured a current and valid license authorizing the activity.”).

⁵ See 36 C.F.R. § 2.11 (2022) (allowing conditions to be imposed for picnicking in permitted areas); 2 COLO. CODE REGS. § 405-7:706 (2021) (requiring picnickers to first obtain a permit); N.Y. COMP. CODES R. & REGS. tit. 9, § 372.7 (2019) (requiring picnics of more than twenty-five people to first obtain a permit); CITY OF SACRAMENTO, CAL., PARK USE GUIDE: FREQUENTLY ASKED QUESTIONS, https://www.cityofsacramento.org/-/media/Corporate/Files/ParksandRec/Permits/PermitPark_AppSPRev052022.pdf?la=en (last visited June 17, 2023) (granting exclusive access to certain park areas for picnics with permits).

⁶ See, e.g., N.C. DEP’T OF NAT. CULTURAL RES., ROCK CLIMBING MANAGEMENT GUIDELINES, <https://files.nc.gov/ncparks/north-carolina-state-parks-rock-climbing-management-guidelines.pdf> (last visited June 17, 2023) (requiring a Special Activity Permit for group rock climbing on public property); OC PARKS, APPLICATION FOR GROUP INSTRUCTION, <https://www.ocparks.com/sites/ocparks/files/2022-01/Application%20For%20Group%20Instruction%20-%20%28Fillable%29.pdf> (last visited

Other, more expressive activities on public property can also require government approval, including protests,⁷ parades,⁸ and still and film photography.⁹

Governments have long used licensing schema to assure public safety and order. Augmented reality gameplay on public lands presents a new, contested use of public property. Empirical studies have shown that location-based augmented reality (LoBAR) gameplay yields physical and psychosocial benefits.¹⁰ However, some community members have raised concerns about public health and safety, traffic congestion, and property damage.¹¹ If left

June 17, 2023) (providing the permit application to conduct group instructions, such as tennis lessons, on park grounds).

⁷ See, e.g., *First Amendment Activity*, NAT'L PARK SERV., <https://www.nps.gov/cal/planyourvisit/sup-1st.htm> (last visited June 17, 2023) (requiring a Special Use Permit for First Amendment activities on public property in Cape Lookout); HONOLULU, HAW., REV. ORDINANCES ch. 10, art. 1, § 10-1.3(5) (2021) ("Expressive activities . . . require a permit when the expressive activity involves 150 or more persons.").

⁸ See, e.g., HENRICO CTY., VA., CODE OF ORDINANCES § 22-419 (2010) ("It shall be unlawful to conduct a parade within the county except in accordance with a permit . . ."); BOZEMAN, MONT., CODE OF ORDINANCES § 34.08.040 (2011) (requiring parade conductors to maintain current and valid permits); NEW ORLEANS, LA., CODE OF ORDINANCES § 154-1651 (1956) (requiring a permit to conduct a parade in New Orleans).

⁹ See, e.g., *Filming & Still Photography Permits*, NAT'L PARK SERV., <https://www.nps.gov/aboutus/news/commercial-film-and-photo-permits.htm> (last visited June 17, 2023) ("There are some circumstances when a permit is needed for commercial still photography."); FLA. ST. PARKS, FEE SCHEDULE, https://www.floridastateparks.org/sites/default/files/inline-files/2021_05_10%20FSP%20Fee%20Schedule%2005.2022.pdf (last visited June 17, 2023) ("Photography is permitted without [a permit] . . . except where normal park operations are disrupted . . ."); FLA. DEP'T OF ENV'T PROT., APPLICATION—PHOTOGRAPHY PERMIT FOR PHOTOGRAPHY, VIDEOGRAPHY AND CINEMATOGRAPHY, <https://www.floridastateparks.org/sites/default/files/media/file/DRP-067%20ENABLED.pdf> (last visited June 17, 2023) (providing the application for a photography, videography, or cinematography permit in Florida); NASHVILLE, TENN. BD. OF PARKS & RECREATION, COMMERCIAL FILM VIDEO & PHOTOGRAPHY PERMIT APPLICATION, <https://www.nashville.gov/sites/default/files/2021-08/Commercial-Film-Video-Photography-Permit-Application-2021.pdf?ct=1628521619> (last visited June 17, 2023) (providing the application for film video and photography in Nashville).

¹⁰ See Alberto Ruiz-Ariza, Rafael Antonio Casuso, Sara Suarez-Manzano & Emilio J. Martínez-López, *Effect of Augmented Reality Game Pokémon GO on Cognitive Performance and Emotional Intelligence in Adolescent Young*, 116 COMP. & EDUC. 49, 55–56 (2018) (finding that Pokémon GO increased daily exercise in adolescents, improved their cognitive performance, and improved social relationships).

¹¹ See, e.g., Evan Bush, *Des Moines Fed Up with Pokémon Go Players, Asks to "Opt Out" of Game*, THE SEATTLE TIMES (Sept. 1, 2016, 10:38 AM), <https://www.seattletimes.com/seattle->

unregulated, some worry we risk a tragedy of the commons where our public parks are overused.¹² Policymakers and commentators have considered a variety of legal mechanisms to balance competing interests at play with LoBAR gaming.¹³ This is the first research to consider the constitutionality of individual licenses for LoBAR gameplay.

Licensing LoBAR gameplay sits comfortably within a genre of licensing schema for other recreational activities on public property.¹⁴ The authors express no opinion on the advisability of the breadth of such licensing schema, which includes licenses for weddings on public beaches,¹⁵ use of drones in state parks,¹⁶ and

news/des-moines-fed-up-with-pokmon-go-players-asks-to-opt-out-of-game/ (“People are flocking to the South King County city’s marina and beach park, which are home to Pokéstops, Pokégym and a plethora of the digital creatures themselves, of course. ‘We’re talking 150, 200 people down at the marina, and we’re talking at night,’ said Sgt. Doug Jenkins of the Des Moines Police Department. ‘It’s been a drain on the police resources. People are driving in there after hours,’ Jenkins said. ‘It’s noise-related, they’re leaving their garbage around. There are complaints that they’re smoking marijuana and drinking.’”).

¹² See Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1243 (1968) (theorizing that finite, common resources can only support finite usage and that overuse leads to depletion); see also Jin Ha Lee, Jason Yip, Adam Moore, Yeonhee Cho, Zale de Jong, Ryan Kobashigawa & Alexander Escalera Sanchez, *Users’ Perspectives on Ethical Issues Related to Playing Location-Based Augmented Reality Games: A Case Study of Pokémon GO*, 39 INT’L J. HUM.-COMPUT. INTERACTION 348, 349 (2023) (“What if the use of these [LoBAR] games leads to a tragedy of the commons where public parks are overused?”).

¹³ See discussion *infra* section II.C.

¹⁴ States have long had the power to require a license to fish or hunt on public lands. See, e.g., *Dapson v. Daly*, 153 N.E. 454, 454 (Mass. 1926) (“The Legislature has made provision for the hunting of deer during a restricted period by those duly licensed. These regulations are valid. The right to hunt deer exists and can be exercised only in accordance therewith.” (citation omitted)); *People v. Setunsky*, 126 N.W. 844, 845 (Mich. 1910) (“That the Legislature has power to regulate the taking of fish and game within the confines of the state, and the waters that it owns, is unquestionable, not only as to time and place, but as to method. It is upheld by the decisions of the federal and state courts generally, and has been so held in this state.”); *Leonard & Leonard v. Earle*, 279 U.S. 392, 393 (1929) (finding a state business license to harvest oysters did not violate the federal constitution).

¹⁵ See *Wedding Permits*, CAPE HATTERAS NAT’L SEASHORE: N.C., <https://www.nps.gov/caha/planyourvisit/wedding-permits.htm> (last visited June 17, 2023) (presenting the permitting process for weddings at Cape Hatteras National Seashore).

¹⁶ See *Remote Controlled Aircraft Permit*, WASH. STATE PARKS & RECREATION COMM’N, <https://www.parks.wa.gov/1080/Remote-Controlled-Aircraft> (last visited June 17, 2023) (requiring a permit for “remote controlled aircraft”); *Photography & Filming Permits: Drones*, MINNEAPOLIS PARK & RECREATION BD., https://www.minneapolisparks.org/rentals-permits/photography_filming_permits/ (last visited June 17, 2023) (prohibiting drones from

lotteries for access to national parks.¹⁷ Others have raised concerns about governments' expansive permitting schema.¹⁸ Scholars worry that proliferation of permitting schema to engage in expressive activities on public property poses a threat to First Amendment freedoms.¹⁹ In this vein, there are those who mount a robust critique against the "permit power in the hands of government."²⁰ Exercise of this power has been called "dangerous" and it can serve as a "stranglehold on individual behavior."²¹ Other scholars offer a more charitable view of regulatory permits and praise their flexible and contextual regulatory power.²² The authors of this Article offer no rejoinder to these thoughtful perspectives. The authors do not enter this debate and do not make a normative case. Rather, the authors

taking off or landing on any property that is owned and operated by the Minneapolis Park and Recreation Board without a permit).

¹⁷ See *Enter a Lottery*, RECREATION.GOV, <https://www.recreation.gov/lottery/available> (last visited June 17, 2023) (administering lotteries for public access to certain areas of national public lands because "given the high volume of interest, some opportunities require a lottery process to limit traffic, [and] enhance your experience and reduce our footprint").

¹⁸ See, e.g., Nathan W. Kellum, *Permit Schemes: Under Current Jurisprudence, What Permits Are Permitted?*, 56 DRAKE L. REV. 381, 382 (2008) ("As a tool that empowers a governmental entity to decide whether a particular message can be heard in the public arena, permit schemes represent a significant threat to free speech, fueling more and more controversy about their validity."). Excessive "occupational licensing" is also ripe for critique. See, e.g., Jeffrey Zients & Betsey Stevenson, *Trends in Occupational Licensing and Best Practices for Smart Labor Market Regulation*, THE WHITE HOUSE: PRESIDENT BARACK OBAMA (July 28, 2015, 12:01 PM), <https://obamawhitehouse.archives.gov/blog/2015/07/28/trends-occupational-licensing-and-best-practices-smart-labor-market-regulation> (discussing the benefits and consequences of occupational licensing).

¹⁹ Compare Kellum, *supra* note 18, at 383 (criticizing "a growing trend among government bodies to promulgate and utilize permit schemes that effectively preempt protected expression on public ways"), with Eric Biber & J.B. Ruhl, *The Permit Power Revisited: The Theory and Practice of Regulatory Permits in the Administrative State*, 64 DUKE L.J. 133, 137 (2014) ("Administrative permits are ubiquitous in modern society.").

²⁰ Richard A. Epstein, *The Permit Power Meets the Constitution*, 81 IOWA L. REV. 407, 417 (1995); see also Edan Burkett, *Coordination or Mere Registration? Single-Speaker Permits in Berger v. City of Seattle*, 2010 BYU L. REV. 931, 961–62 (discussing impermissible permitting actions by the government); John Juricich, *Freeing Buskers' Free Speech Rights: Impact of Regulations on Buskers' Right to Free Speech and Expression*, 8 HARV. J. SPORTS & ENT. L. 39, 41 (2017) ("[P]ermitting schemes are but another piece of the broken clockwork of case law governing busking.").

²¹ Epstein, *supra* note 20, at 416–17.

²² See Biber & Ruhl, *supra* note 19, at 228 ("[W]e have offered a framework for thinking about the scope and design of regulatory permits, showing permitting to constitute a far more flexible and contextual regulatory power than Professor Epstein's critique assumed.").

only posit that LoBAR gameplay may be licensed to the extent that other recreational activities (e.g., hiking) and expressive activities (e.g., moviemaking) may be licensed on public lands.

To analyze the constitutionality of licensing LoBAR gameplay, this Article proceeds in three parts. Part II outlines how LoBAR games operate and explores the popularity of such games. Researchers have identified benefits to the individual and to the community from LoBAR gameplay, yet the proliferation of such gameplay can raise concerns. Part III summarizes policymakers' concerns and various regulatory interventions to navigate contested uses of public property. The only court to consider a First Amendment challenge to a special event permit requirement for LoBAR gaming found that the content-neutral ordinance failed intermediate scrutiny.²³ With the current jurisprudential landscape in mind, Part IV offers sample legislation for policymakers to license location-based augmented reality gaming. A sample license application is included in the Appendix.

II. AUGMENTED REALITY GAMING

A. LOCATION-BASED AUGMENTED REALITY (LOBAR) GAMES

Augmented reality (AR) refers to the superimposition of digital content onto a live video display from a mobile device's camera.²⁴ This overlap creates the illusion that the digital content is present in the user's physical world. Video games have become an increasingly popular form of media.²⁵ And software developers have leveraged advances in technology to create location-based AR games that superimpose gameplay over a player's physical environment.²⁶

²³ See *Candy Lab Inc. v. Milwaukee Cnty.*, 266 F. Supp. 3d 1139, 1148, 1154 (E.D. Wis. 2017) (holding that the content-neutral ordinance failed intermediate-scrutiny).

²⁴ See *Augmented Reality*, INTERACTION DESIGN FOUND., <https://www.interaction-design.org/literature/topics/augmented-reality> (last visited June 17, 2023) (discussing the basic premise and digital techniques of augmented reality).

²⁵ See Tim Wulf & Matthew Baldwin, *Being a Kid Again: Playing Pokémon GO Contributes to Well-Being Through Nostalgia*, 9 STUD. COMM. & MED. 241, 244 (2020) ("Video games have become a substantial part of human media consumption, especially in the last couple of decades.").

²⁶ See, e.g., Shaojung Sharon Wang & Chih-Ting Hsieh, *Ubiquitous Pokémon GO: Human-Environment Relationships and the Location-Based Augmented Reality Game*, 52 ENV'T & BEHAV. 695, 696 (2020) (describing the game's use of augmented reality); see also Travis Alley,

These LoBAR games combine the digital and physical worlds by featuring the player location as a “key element” of gameplay.²⁷ Users are encouraged to move between real-world locations to access different features within the game.²⁸ As a user moves around a particular location, game tokens or rewards can be accumulated.²⁹

The first developer to harness LoBAR technology for gaming was Niantic Labs: a tech startup originally housed within Google.³⁰ In 2012, Niantic launched *Ingress*, their first LoBAR mobile game, which relied on existing technology from Google Earth, Streetview, and Google Maps.³¹ Niantic left Google in 2015, and in July 2016 the company launched *Pokémon GO*.³² This LoBAR mobile game was based on the “pocket monsters” found in the Pokémon universe of trading cards, books, movies, and video games.³³

The release of *Pokémon GO* took the world by storm.³⁴ The game was downloaded more than 250 million times on iPhones and

Pokemon Go: Emerging Liability Arising from Virtual Trespass for Augmented Reality Applications, 4 TEX. A&M J. PROP. L. 273, 273 (2018) (“To catch these Pokémon, players must physically walk around their environment . . .”).

²⁷ Lee et al., *supra* note 12, at 348 (“Location-based augmented reality (LBAR) games, which blend the digital world and the real-world via gameplay by featuring the player location as a key element are becoming increasingly popular.”).

²⁸ See *id.* at 349 (describing data on people feeling encouraged to go outside more and the structure of the game requiring players to visit real-life locations).

²⁹ *Id.* at 348.

³⁰ Jessie Marchessault, *Casual Play, Hardcore Community: Social and Spatial Ecosystems in Location-Based Mobile Gameplay* 11 (Sept. 2020) (unpublished M.A. thesis, Concordia University) (on file with the Concordia University Spectrum Research Repository).

³¹ See *id.* (describing *Ingress* as “the first of its kind, location-based, augmented reality mobile game”); see also Andrew L. Rossow, *Gotta Catch a Lawsuit: A Legal Insight into the Intellectual, Civil, and Criminal Battlefield Pokemon Go Has Downloaded onto Smartphones and Properties Around the World*, 16 J. MARSHALL REV. INTELL. PROP. L. 329, 332 (2017) (describing the app’s dependence on existing technology and intellectual property); Sara Gold, *When Pokemon Go(es) Too Far: Augmented Reality and Tort Law*, 38 WHITTIER L. REV. 161, 168 (2018) (“Pokemon GO [is not] the first-ever digital game to incorporate augmented-reality technology. In 2012, Niantic released its first augmented-reality game, *Ingress*, which is similar to *Pokémon GO* in that both games require players to travel to real-life locations to interact with the game.”).

³² See Marchessault, *supra* note 30, at 11.

³³ See Rossow, *supra* note 31, at 330 (defining pocket monsters as animated creatures that “exist in the wild”).

³⁴ See Alf Inge Wang, *Systematic Literature Review on Health Effects of Playing Pokémon GO*, 38 ENT. COMPUTING 1, 1 (2021) (“Pokémon GO is by far the most successful augmented reality game ever released, and also one of the most successful mobile games of all time grossed more than \$4 billion in revenue and has nearly 600 million unique installs.”); see also

Android mobile phones in its first three months.³⁵ By 2019 it had been downloaded more than one billion times.³⁶ *Pokémon GO* users traveled around battling with and capturing Pokémon, which appeared as digital animal-like beings moving about a player's mobile device's screen.³⁷ The mechanics of the game used the player's location to dictate which Pokémon creatures the player would encounter and be able to capture.³⁸

Shortly after the game's release, the appearance of rare Pokémon (which were more difficult to find and capture) often led to huge crowds flocking to a single location, as the Tweet in Figure 1 below illustrates.³⁹ The caption on the Tweet reads, "A Wartortle just showed up on Santa Monica Pier and HUNDREDS of people ran for it. Absolutely insane #PokemonGo."⁴⁰

Chia-Yen Hsieh & Tim Chen, *Effect of Pokémon GO on the Cognitive Performance and Emotional Intelligence of Primary School Students*, 57 J. EDUC. COMPUTING RSCH. 1849, 1851 (2019) ("Among [AR games], *Pokémon GO* has gained significant fame in a very short time. It is the first mass market app that is fully immersed into actual geographical space and that transcends the virtual, the spatial, the social, and the physical.").

³⁵ See Jeremy Winslow, *Pokémon GO Surpasses One Billion Downloads*, GAMESPOT (July 31, 2019), <https://www.gamespot.com/articles/pokemon-go-surpasses-one-billion-downloads/1100-6468805/> ("Two months after market introduction, the game was downloaded 500 million times. . .").

³⁶ See *id.* ("[T]he mobile game has been downloaded more than one billion times since its July 2016 launch.").

³⁷ Gold, *supra* note 31, at 123.

³⁸ See *id.* ("The *Pokémon Go* smartphone app syncs with the Global Positioning System ('GPS') to generate a map that displays the player's real-life location, absent any street or geographic names, and transforms these real-life landmarks into 'Pokémon-specific' buildings. In this virtual world, players can hunt for more than 300 species of Pokémon characters, all modeled after the characters from the original franchise that launched in Japan in 1996. To play, a player's smartphone alerts him or her that a Pokémon character is nearby, and then the player has to travel the short distance in order to locate and capture the Pokémon by means of a virtual 'Pokéball' capturing device.").

³⁹ See Sam Thorne (@Strippin), TWITTER (July 13, 2016, 3:16 AM), <https://twitter.com/Strippin/status/753126057973342208>.

⁴⁰ *Id.*



Figure 1: A photograph posted on Twitter in 2016 depicting a large gathering of *Pokémon GO* players at a Santa Monica pier.

Pokémon GO has continued to dominate in the LoBAR mobile game market. While the game's popularity has cooled since the initial mania, *Pokémon GO* remains one of the most-played and highest-grossing LoBAR games. The game grossed \$1.3 billion in

2021, the seventh-highest total for a mobile game.⁴¹ In 2022, an estimated seventy-nine million users played it at least once a month.⁴² To capitalize on consumer interest, Niantic Labs and other companies have introduced similar games depicting characters from franchises like *NBA All-World*,⁴³ *Harry Potter*,⁴⁴ *Pikmin*,⁴⁵ and *The Walking Dead*.⁴⁶ Thus, *Pokémon GO* is just one example of the practical and real world application of LoBAR technology. Market researchers have projected average revenue growth of nearly forty percent over the next decade for the augmented reality and virtual reality industry.⁴⁷ These market projections are a strong indication that LoBAR gaming will continue to be a source of entertainment and revenue over the years to come.⁴⁸

⁴¹ See Craig Chapple, *Pokémon GO Catches \$6 Billion in Lifetime Player Spending*, SENSOR TOWER (June 2022), <https://sensortower.com/blog/pokemon-go-6-billion-revenue> (comparing *Pokémon GO*'s revenue to other mobile games).

⁴² See *Pokémon GO Live Player Count and Statistics*, ACTIVEPLAYER.IO (June 2022), <https://activeplayer.io/pokemon-go/> (providing a table of the average monthly players from August 2021 to January 2023).

⁴³ Niantic, *NBA and NBPA Usher in a New "NBA All-World" Mobile Game*, NAT'L BASKETBALL LEAGUE (Jan. 24, 2023, 12:08 PM), <https://www.nba.com/news/niantic-nba-and-nbpa-usher-in-new-nba-all-world-mobile-game>.

⁴⁴ See Nicole Carpenter, *Harry Potter: Wizards Unite Is the Next Step Forward for Augmented Reality Games*, POLYGON (June 20, 2019, 9:00 AM), <https://www.polygon.com/2019/6/20/18683450/harry-potter-wizards-unite-preview-augmented-reality-games-niantic> (stating how both *Pokémon GO* and *Wizards Unite* use augmented reality).

⁴⁵ See Amanda Silberling, *Pikmin Bloom, An AR Mobile Game, Is Niantic's Next Collaboration with Nintendo*, TECHCRUNCH (Oct. 27, 2021, 4:29 PM), <https://techcrunch.com/2021/10/27/pikmin-bloom-an-ar-mobile-game-is-niantics-next-collaboration-with-nintendo/> (stating how *Pokémon GO*'s creator is releasing another augmented reality game inspired by *Pokémon GO*).

⁴⁶ See Andrew Webster, *The Walking Dead Is Getting a Pokémon GO-Style AR Game*, THE VERGE (Aug. 29, 2017, 4:35 PM), <https://www.theverge.com/2017/8/29/16184500/the-walking-dead-our-world-augmented-reality-game-iphone-android> (stating how *The Walking Dead* is getting an augmented reality game).

⁴⁷ See Technavio, *Augmented Reality and Virtual Reality Market Size to Grow by USD 162.71 Billion*, CISION (Mar. 31, 2022), <https://www.prnewswire.com/news-releases/augmented-reality-and-virtual-reality-market-size-to-grow-by-usd-162-71-billion--technavio-301513938.html> (stating the projected growth of the augmented reality and virtual reality market from 2020 to 2025).

⁴⁸ See *Global Augmented Reality Gaming Market (2021 to 2026)—Industry Trends, Share, Size, Growth, Opportunity and Forecasts*, BUS. WIRE (Feb. 24, 2021, 11:24 AM), <https://www.businesswire.com/news/home/20210224005771/en/Global-Augmented-Reality-Gaming-Market-2021-to-2026---Industry-Trends-Share-Size-Growth-Opportunity-and->

B. WHY LOBAR GAMES ARE POPULAR

The immediate and unprecedented commercial success of *Pokémon GO* left many commentators and scholars searching for an explanation.⁴⁹ A frequent explanation for *Pokémon GO*'s popularity was nostalgia on the part of the player,⁵⁰ as Pokémon characters had been a fixture of entertainment media since they were first introduced in 1996.⁵¹ Scholars confirmed that nostalgia was a “crucial” predictor of both a user’s intention to play *Pokémon GO* and their subsequent enjoyment of the game.⁵²

Forecasts---ResearchAndMarkets.com (projecting “the global augmented reality gaming market to reach a value of US\$ 28.60 Billion by 2026”).

⁴⁹ See, e.g., Ágnes Zsila, Gábor Orosz, Beáta Bóthe, István Tóth-Király & Orsolya Király, *An Empirical Study on the Motivations Underlying Augmented Reality Games: The Case of Pokémon Go During and after Pokémon Fever*, 133 PERS. & INDIVIDUAL DIFFERENCES 56, 63 (2018) (“The popularity of Pokémon Go raises the question as to what motives drive players to engage in this augmented reality game.”); Brian Barrett, *The Quiet, Steady Dominance of Pokémon GO*, WIRED (July 6, 2018, 7:00 AM), <https://www.wired.com/story/pokemon-go-quiet-steady-dominance/> (“It was completely uncharted territory. The initial fervor, that global excitement around the game and the way it spread virally, globally, in such a short period of time. It was a new experience”); Claire McNear, *Five Years Later, “Pokémon GO” Is Still a Sensation (No, Really)*, THE RINGER (July 9, 2021, 6:20 AM), <https://www.theringer.com/2021/7/9/22569369/pokemon-go-five-years-later> (“Long after the first crowds dissipated, Niantic’s game is setting user and profit records and has inspired a community of die-hard fans.”); Alex Fitzpatrick, *How “Pokémon GO” Took Over the World*, TIME, <https://time.com/4400791/pokemon-go-iphone-android-nintendo/> (last updated July 12, 2016, 9:54 AM) (“What explains Pokémon Go’s seemingly inexplicable popularity? Go offers an interesting twist over most games in that players must set off and move around their physical world.”).

⁵⁰ See, e.g., Samuli Laato, Sampsa Rauti, A.K.M. Najmul Islam & Erkki Sutinen, *Why Playing Augmented Reality Games Feels Meaningful to Players? The Roles of Imagination and Social Experience*, 121 COMPUT. HUM. BEHAV. 1, 4 (2021) (“[S]tudies have discovered an association between engagement with the game and nostalgia.”); Wulf & Baldwin, *supra* note 25, at 256 (“This research provides converging evidence that nostalgia is a considerable factor in media use and well-being.”).

⁵¹ See Gold, *supra* note 31, at 163 (stating that the *Pokémon GO* characters are modeled after the characters from the 1996 original franchise); see also Zsila et al., *supra* note 49, at 57 (noting the Pokémon franchise expanded and “movies, comics, trading cards, toys, and other productions were manufactured as part of the ‘Gotta Catch ‘Em All’ global media sensation”).

⁵² See Wulf & Baldwin, *supra* note 25, at 256 (“Nostalgia was an even stronger predictor of intention to play”). Researchers have found that nostalgia served to help *Pokémon GO* players construct “meaningful” experiences while searching for Pokémon. See Laato et al., *supra* note 50, at 122 (“[N]ostalgia has been shown to be a stronger predictor of behavioral inspiration.”). Note that while nostalgia seems to play a role in the continued success of

Uses and gratification (U&G) theory suggests people seek out various types of media based on their needs.⁵³ U&G researchers traditionally identified four gratification categories: (1) diversion, entertainment, and emotional release; (2) personal relationships and social companionship; (3) personal identity and self-expression; and (4) surveillance and other forms of information seeking.⁵⁴ New media technologies can drive new gratifications.⁵⁵ For example, scholars who study social media have identified other motivations for media uses, including empowerment and social pressure.⁵⁶

The U&G paradigm can be applied to new technologies, like augmented reality gaming.⁵⁷ U&G theory can serve to illuminate

Pokémon GO, other LoBAR games that would ostensibly trigger a similar sense of nostalgia have failed, implying that other aspects of AR gameplay are also factors in commercial success. See Michael McWhertor, *Niantic Is Shutting Down Harry Potter: Wizards Unite*, POLYGON (Nov. 2, 2021), <https://www.polygon.com/22759539/harry-potter-wizards-unite-shutting-down-date-niantic> (“Wizards Unite seemingly didn’t find the same wide audience of Pokémon Go . . .”).

⁵³ See Elihu Katz, Jay G. Blumler & Michael Gurevitch, *Uses and Gratifications Research*, 37 PUB. OP. Q. 509, 514 (1973) (identifying various uses of media, like watching television or listening to the radio, as ways people fulfill specific needs); see also Princely Ifinedo, *Applying Uses and Gratifications Theory and Social Influence Processes to Understand Students’ Pervasive Adoption of Social Networking Sites: Perspectives from the Americas*, 36 INT’L J. INFO. MGMT., 192, 193 (2016) (stating that “[s]ocial and individual needs, which vary from one person to another, constitute the main reasons why individuals use [social networking systems],” and investigating the specific factors driving the pervasive use of social networking systems within the U&G theory framework).

⁵⁴ See CarrieLynn D. Reinhard & Brenda Dervin, *Media Uses and Gratifications*, in 21ST CENTURY COMMUNICATION: A REFERENCE HANDBOOK 506, 509 (2009) (“This basic four appeared, for example, in a 1972 study by McQuail, Blumler, and Brown under the labels *diversion*, *personal relationships*, *personal identity*, and *surveillance*” (citing Denis McQuail et al., *The Television Audience: A Revised Perspective*, in SOCIETY OF MASS COMMUNICATION 135 (Denis McQuail ed., 1972))).

⁵⁵ See S. Shyam Sundar & Anthony M. Limperos, *Uses and Grats 2.0: New Gratifications for New Media*, 57 J. BROAD. & ELEC. MEDIA 504, 504 (2013) (proposing that “affordances of media technology can shape user needs, giving rise to new and distinctive gratifications”).

⁵⁶ See, e.g., Daniël G. Muntinga, Marjolein Moorman & Edith G. Smit, *Introducing COBRAs: Exploring Motivations for Brand-Related Social Media Use*, 30 INT’L J. ADVERT. 13, 33–34 (2011) (identifying empowerment and social interaction as motivations for creating consumers’ online brand-related activities); see also Anabel Quan-Haase & Alyson L. Young, *Uses and Gratifications of Social Media: A Comparison of Facebook and Instant Messaging*, 30 BULL. SCI. TECH. & SOC’Y 350, 357 (2010) (finding three key motivations for why participants joined Facebook).

⁵⁷ See, e.g., Salvador Bueno, M. Dolores Gallego & Jan Noyes, *Uses and Gratifications on Augmented Reality Games: An Examination of Pokémon Go*, 10 APPLIED SCI. 1, 2 (2020)

LoBAR players' unmet needs and to explain the gratifications they receive during gameplay.⁵⁸ One survey of players suggests gameplay is driven by content gratification (i.e., catching Pokémon), process gratification (i.e., entertainment), game knowledge, and achievement.⁵⁹ Another survey of players suggests the motives for gameplay include game enjoyment, outdoor activity, ease of use, challenge, and nostalgia.⁶⁰ Another group of researchers found the two strongest motive for players were recreation and nostalgia.⁶¹ Another study found that a top motivation for participation in LoBAR games was exercise.⁶² Researchers also found that active LoBAR game players report a higher average step count than their nonplaying peers.⁶³ Individual motivations for LoBAR gameplay are

(studying the motivations for using the augmented reality game of *Pokémon GO*); Ezlika M. Ghazali, Dilip S. Mutum & Mei Yuen Woon, *Multiple Sequential Mediation in an Extended Uses and Gratifications Model of Augmented Reality Game Pokémon GO*, 29 INTERNET RSCH. 504, 504 (2019) (studying the dimensions of U&G influences on the augmented reality game of *Pokémon GO*); Juho Hamari, Aqdas Malik, Johannes Koski & Aditya Johri, *Uses and Gratifications of Pokémon Go: Why Do People Play Mobile Location-Based Augmented Reality Games?*, 35 INT'L J. HUM.-COMPUT. INTERACTION 804, 805 (2019) (employing the U&G framework to study the connection between gratifications from augmented reality games and the desires to play and pay for the games); Zsila et al., *supra* note 49, at 55–56 (researching the motivations behind Pokémon GO players); Zsolt Demetrovics et al., *Why Do You Play? The Development of the Motives for Online Gaming Questionnaire (MOGQ)*, 43 BEHAV. RSCH. METHODS, 814, 814–25 (2011) (suggesting that online gaming represents new ways to satisfy basic human needs).

⁵⁸ See Ghazali et al., *supra* note 57, at 506 (highlighting that past U&G studies “underline the suitability of incorporating U&G as the underlying theory to explain players’ psychological needs in association with their gaming behaviours as it helps researchers understand how and why players obtain gratification during their playing experience”).

⁵⁹ Seongsso Jang & Yi Liu, *Continuance Use Intention with Mobile Augmented Reality Games: Overall and Multigroup Analyses on Pokémon Go*, 33 INFO. TECH. & PEOPLE 37, 37 (2020).

⁶⁰ Hamari et al., *supra* note 57, at 811–13.

⁶¹ Zsila et al., *supra* note 49, at 62; *see also id.* at 63 (“[T]he lowest scores were observed in the case of skill development and escapism motives. Therefore, escaping from reality was not a strong motivation for the respondents to engage in this augmented reality game.”).

⁶² See Jocelyn Evans et al., *Motivations for Social Interaction: The Case of Pokémon Go After the Fad Ended*, 102 SOC. SCI. Q. 547, 548 (2021) (discussing exercise as a motivation for the game).

⁶³ See Alf Inge Wang, *Systematic Literature Review on Health Effects of Playing Pokémon Go*, 38 ENT. COMPUTING 1, 6 (2021) (“The primary trend of the articles that report step-counts is that active Pokémon Go players have a higher number of step-counts than non-players and that Pokémon Go players significantly increased their step-count from before playing the game.”).

varied, yet researchers identify that consistent gratifications include entertainment and recreation.

1. Individual-Level Benefits. LoBAR games offer benefits both for the individuals that play them and for the communities that form around gameplay. One of the notable individual benefits of LoBAR games is an increase in exercise and physical fitness.⁶⁴ Research suggests that eighty percent of Americans do not engage in sufficient physical activity.⁶⁵ By combining enjoyment and engagement, LoBAR games encourage physical activity and promote psycho-social outcomes.⁶⁶

LoBAR games leverage gamification and location tracking technology to encourage players to walk to different places to engage with the game in real-world settings.⁶⁷ Researchers have found

⁶⁴ See Emilio J. Martínez-López, Sebastián López-Serrano, Manuel De La Torre-Cruz & Alberto Ruiz-Ariza, *Effects of the Augmented Reality Game Pokémon GO on Fitness and Fatness in Secondary School Students*, 81 HEALTH EDUC. J. 54, 54 (2022) (finding gameplay among previously inactive youth showed a 22.2% increase in cardiorespiratory fitness and an 11.3% decrease in their percentage of body fat compared to non-players); see also Madina Khamzina, Kaustubh V. Parab, Ruopeng An, Tiffany Bullard & Diana S. Grigsby-Toussaint, *Impact of Pokémon GO on Physical Activity: A Systematic Review and Meta-Analysis*, 58 AM. J. PREVENTIVE MED. 270, 281 (2020) (explaining that “[p]laying Pokémon Go was found to be associated with a statistically significant but clinically modest increase in the number of daily steps taken among game players”); Claudio R. Nigg, Desiree Joi Mateo & Jiyoung An, *Pokémon GO May Increase Physical Activity and Decrease Sedentary Behaviors*, 107 AM. J. PUB. HEALTH 37, 37 (2017) (finding that “[p]laying Pokémon GO increased moderate to vigorous physical activity by about 50 minutes per week and reduced sedentary behavior by about 30 minutes per day”).

⁶⁵ See DEP’T OF HEALTH & HUM. SERVS., THE PHYSICAL ACTIVITY GUIDELINES FOR AMERICANS (2018), https://health.gov/sites/default/files/201909/Physical_Activity_Guidelines_2nd_edition.pdf. (“[N]early 80 percent of adults are not meeting the key guidelines for both aerobic and muscle-strengthening activity, while only about half meet the key guidelines for aerobic physical activity. This lack of physical activity is linked to approximately \$117 billion in annual health care costs and about 10 percent of premature mortality.”).

⁶⁶ See Mathieu Winand, Alicia Ng & Terri Byers, *Pokémon “Go” but for How Long? A Qualitative Analysis of Motivation to Play and Sustainability of Physical Activity Behaviour in Young Adults Using Mobile Augmented Reality*, 27 MANAG. SPORT LEIS. 421, 432 (2020) (positing that *Pokémon GO* could have prevented player dropouts by integrating a social network into the game); see also Anthony Barnett, Ester Cerin & Tom Baranowski, *Active Video Games for Youth: A Systematic Review*, 8 J. PHYS. ACT. HEALTH 724, 724 (2011) (explaining that active video games have “the potential to help remedy the inactivity of youth”).

⁶⁷ See Jung E. Lee, Nan Zeng, Yoonsin Oh, Daehyoung Lee & Zan Gao, *Effects of Pokémon GO on Physical Activity and Psychological and Social Outcomes: A Systematic Review*, 10 J.

physical, mental, and emotional benefits from this LoBAR gameplay.⁶⁸ A study of adolescents who played AR games found that those who played regularly for at least eight weeks had significantly higher selective attention and concentration levels.⁶⁹ Other reported health benefits from these games include improved emotional outlook, higher motivation to exercise and engage in social situations, and positive effects on social anxiety.⁷⁰ Researchers have called LoBAR gaming “active leisure activity” because of the gameplay’s mental, social, and physical benefits.⁷¹

As noted above, the affordances of these games superimpose virtual gameplay over the physical world through a mobile phone. Thus, a core feature of these games requires players to physically travel from one location to another in order to access different game content.⁷² Sometimes players travel between locations by vehicle—which can lead to concerns about traffic congestion and distracted driving.⁷³ In other instances, players walk between locations,

CLINICAL MED. 1, 1 (2021) (“Pokémon GO . . . encourage[s] players to walk in different place to catch Pokémon characters in real-world settings.”).

⁶⁸ A meta-analysis of the research literature suggests playing LoBAR games can promote meaningful improvements in walking behavior, as well as psychological and social well-being. See e.g., *id.* (“Pokémon GO was associated with increased . . . walking, improved mood and social interaction . . .”).

⁶⁹ Ruiz-Ariza, *supra* note 10, at 55–56.

⁷⁰ See Wang, *supra* note 63, at 8 (concluding that playing *Pokémon GO* “can result in improved wellbeing and emotions . . . [and] being socially and physically active”).

⁷¹ Gordon Chih-Ming Ku, I-Wei Shang & Meng-Fan Li, *How Do Location-Based Augmented Reality Games Improve Physical and Mental Health? Evaluating the Meanings and Values of Pokémon GO Users’ Experiences Through the Means-End Chain Theory*, 9 HEALTHCARE 794, 794 (2021).

⁷² See *supra* note 64 and accompanying text.

⁷³ See, e.g., Fredrick Kunkle, *Pokémon GO Crash is Proof that Texting and Driving has Gone Too Far*, WASH. POST 2016 (Jul. 18, 2016), <https://www.washingtonpost.com/news/tripping/wp/2016/07/18/pokemon-go-crash-is-proof-texting-and-driving-has-gone-too-far/> (reporting that a driver crashed into a tree while playing *Pokémon GO*); Walter Sim, *9-Year-Old Boy Killed by Truck Driver Playing Pokémon GO in Central Japan*, THE STRAITS TIMES (Oct. 28, 2016), <http://www.straitstimes.com/asia/east-asia/9-year-old-boy-killed-by-truck-driverplaying-pokemon-go-in-central-japan> (noting the death of a child resulting from a *Pokémon GO* player’s distracted driving); Chris Baynes, *Man Has Leg Amputated After Falling on to Railway Tracks While Playing Pokémon GO*, THE INDEP. (Dec. 3, 2018), <http://www.independent.co.uk/news/uk/home-news/man-fall-train-trackspokemon-go-leg-amputate-railway-track-salisbury-district-phonea8665741.html> (“Surgeons were forced to amputate the leg of a man who fell onto railway tracks while playing Pokemon Go.”).

especially if game content is superimposed over locations that are inaccessible to cars—like public parks.⁷⁴

2. *Community-Level Benefits.* Playing LoBAR games also enable community formation of like-minded players. Games like *Pokémon GO* have been linked with a “stronger sense of community and belonging.”⁷⁵ Research suggests that those who play *Pokémon GO* in order to make new friends play the game more consistently and enjoy gameplay more.⁷⁶ Niantic’s design of *Pokémon GO* seeks to capitalize on players’ interest in community building by including features like “raids” and “gyms” where multiple players either battle against one another or work collaboratively to capture Pokémon.⁷⁷ By establishing common routes and landmarks where Pokémon can be captured, the game brings players from diverse backgrounds into contact with one another.⁷⁸ The communities that are formed can also thrive outside of AR worlds. The largest online community for *Pokémon GO*—with more than 760,000 followers—operates the subreddit “TheSilphRoad” and describes itself as a “grassroots network of trainers whose communities span the globe.”⁷⁹

The community benefits from LoBAR games are not reserved for the actual players of the game. Prior to the COVID-19 pandemic, Niantic Labs introduced “sponsored locations” on *Pokémon GO*, allowing businesses to apply for advertising within the *Pokémon GO* map and schedule periods of increased game activity when they

⁷⁴ See Orlando Woods, *The Territoriality of Teams: Assembling Power Through the Playing of Pokémon GO*, 9 MOBILE MEDIA & COMM. 405, 405 (2021) [hereinafter Woods, *The Territoriality of Teams*] (discussing how players interact with each other in public spaces).

⁷⁵ Evans et al., *supra* note 62, at 548.

⁷⁶ See *id.* at 550 (“[T]hose who used Pokémon Go as a way to build new relationships with friends report playing it more than before and find the game more . . . interesting.”).

⁷⁷ See Woods, *The Territoriality of Teams*, *supra* note 74, at 411 (“All of these virtual objects offer different opportunities to gain competitive advantage *within* the game, and to engage with the physical environment and other players *through* the game.”).

⁷⁸ See Orlando Woods, *Experiencing the Unfamiliar Through Mobile Gameplay: Pokémon GO as Augmented Tourism*, 53 AREA 183, 186–87 (2021) [hereinafter Woods, *Experiencing the Unfamiliar*] (“As the game establishes certain routes around the city, so too do it bring players into contact with each other . . . Practices like these can forge a sense of familiarity among people otherwise marked as different . . .”).

⁷⁹ *The Silph Road*, REDDIT, <https://www.reddit.com/r/TheSilphRoad/> (last visited June 17, 2023).

want more foot traffic around their business.⁸⁰ Economists have suggested that location sponsorship in LoBAR gaming can offer two-fold benefits: (1) it can be a new revenue source for game companies, and (2) it can help brick-and-mortar stores generate foot traffic.⁸¹ Other scholars have studied the spillover effects on local business and restaurants near LoBAR portals and posit that the foot traffic can generate indirect benefits for businesses, like improved online reputations.⁸²

In addition to economic benefits, the map-based gameplay for LoBAR games can also help players explore unfamiliar environments, thereby serving as a form of “augmented tourism” by “providing the motivation and route needed” for players to experience new places.⁸³ Thus, LoBAR technology can be used to enhance people’s awareness of cultural heritage, and it can be used to form immersive experiences that enhance people’s motivation for exploring cultural heritage and promote place satisfaction.⁸⁴ By allowing players to interact with landmarks through the virtual gameplay on their smartphone screen, LoBAR games can bring out the “playfulness” in each location.⁸⁵

As described above, LoBAR games can offer significant benefits for both individuals and communities. This gameplay involves

⁸⁰ See generally *Sponsored Locations for Business*, NIANTIC, <https://nianticlabs.com/en/sponsoredlocations/> (last visited June 17, 2023) (explaining how to access a broad audience of players).

⁸¹ See generally Meilin Gu, Zhe Wang, Xinxin Li & Dengpan Liu, *Location Sponsorship in Location-Based Augmented Reality Gaming: A Game-Theoretic Model* (Oct. 15, 2021) (unpublished manuscript), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3943446 (discussing the potential benefits of location sponsorship).

⁸² See Yuan Zhang & Jie Zhang, *Catch Them All: Impacts of Location-Based Augmented Reality Mobile Applications on Local Businesses*, 58 INFO. & MGMT., 1, 1 (2021) (“[B]usinesses located in the surrounding areas may gain indirect benefits after the app’s entry . . .”).

⁸³ Woods, *Experiencing the Unfamiliar*, *supra* note 78, at 186.

⁸⁴ See Shu-pei Tsai, *Augmented Reality Enhancing Place Satisfaction for Heritage Tourism Marketing*, 23 CURRENT ISSUES TOURISM 1078, 1078–83 (2019) (discussing the immersive experience given by such computer-mediated environments).

⁸⁵ See Orlando Woods, *Gamifying Place, Reimagining Publicness: The Heterotopic Inscriptions of Pokémon GO*, 42 MEDIA, CULTURE & SOC. 1003, 1009 (2020) (explaining the effects of embedding notions of playfulness into everyday spaces).

players traveling from one physical location to another while engaging with content on their mobile device. Notwithstanding the well-documented prosocial aspects of LoBAR,⁸⁶ this gameplay has generated legal and societal tensions.⁸⁷ These concerns include risks to health and safety,⁸⁸ privacy,⁸⁹ and land management.⁹⁰ The next part of this Article outlines regulatory intervention policymakers have considered when trying to negotiate various interests implicated with LoBAR gameplay.

⁸⁶ See, e.g., Lukas Dominik Kazmarek, Michal Misiak, Maciej Behnke, Martyna Dziekan & Przemyslaw Guzik, *The Pikachu Effect: Social and Health Gaming Motivations Lead to Greater Benefits of Pokémon GO Use*, 75 COMPUTS. HUM. BEHAV. 356, 356–63 (2017) (finding that playing *Pokémon GO* increases activity and thus health outcomes).

⁸⁷ See, e.g., Lee et al., *supra* note 12, at 1–2 (“Mainstream media has reported dozens of incidents where conflicts arose or individuals were killed or hurt because the players ended up in dangerous situations during gameplay.”); see generally Maeve Serino, Kyla Cordrey, Laura McLaughlin & Ruth L. Milanaik, *Pokémon GO and Augmented Virtual Reality Games: A Cautionary Commentary for Parents and Pediatricians*, 28 CURRENT OP. PEDIATRICS 673 (2016) (finding that gameplay benefits included increased exercise, socialization, and outdoor activity, while negative effects included increased risk of injury, abduction, trespassing, violence, and cost).

⁸⁸ See generally Mara Faccio & John J. McConnell, *Death by Pokémon GO: The Economic and Human Cost of Using Apps While Driving*, 87 J. RISK & INS. 815, 815 (2020) (discussing the harmful injuries resulting from the game); Stefania Barbieri et al., *Pedestrian Inattention Blindness While Playing Pokémon Go as an Emerging Health-risk Behavior: A Case Report*, 19 J. MED. INTERNET RSCH. 86, 87 (2017) (“Road injuries incurred by people playing video games on mobile phones . . . have also become a cause for concern.”); Pranev Sharma & Vassilios Vassiliou, *Pokémon Go: Cardiovascular Benefit or Injury Risk?*, 10 OXFORD MED. CASE REPS. 267, 267 (2016) (discussing the risks of the potential for distraction from games); Victoria R. Wagner-Green, Amy J. Wotring, Thomas Castor, Jessica Kruger, Sarah Mortemore & Joseph A. Drake, *Pokémon GO: Healthy or Harmful?*, 107 AM. J. PUB. HEALTH 35, 35–36 (2017) (focusing on the potential harms from the game); John W. Ayers, Eric C. Leas, Mark Dredze, Jon-Patrick Allem, Jurek G. Grabowski & Linda Hill, *Pokémon GO—A New Distraction for Drivers and Pedestrians*, 176 JAMA INTERNAL MED. 1865, 1865 (2016) (assessing car crashes due to *Pokémon GO*).

⁸⁹ See Travis W. Windleharth, Marc Schmalz, Sarah Peterson & Jin Ha Lee, *Identity, Safety, and Information Management Within Communities of Practice in Location-based Augmented Reality Games: A Case Study of Ingress*, 2020 HUM.-COMPUT. INTERACTION 1, 6–7 (addressing privacy and safety issues); see generally Philipp A. Rauschnabel, Alexander Rossman & M. Claudia tom Dieck, *An Adoption Framework for Mobile Augmented Reality Games: The Case of Pokémon Go*, 76 COMPUTS. HUM. BEHAV. 276, 276–86 (2017) (conducting a study that established the privacy issues associated with such online games).

⁹⁰ See Donald J. Kochan, *Playing with Real Property Inside Augmented Reality: Pokémon Go, Trespass, and Law’s Limitations*, 38 WHITTIER L. REV. 70, 72 (2018) (discussing the property law issues relating to *Pokémon GO*).

III. POLICYMAKER CONCERNS & REGULATORY INTERVENTIONS

A. CONTESTED USE OF PUBLIC PROPERTY

In the aftermath of *Pokémon GO*'s release in 2016, tensions developed between LoBAR gameplay and property rights of landowners. Property owners around the world reported an uptick in trespassing by players looking to access the Pokéstops and Pokégyms that the game maker superimposed on private property.⁹¹ One Massachusetts resident alleged that “more than 15” trespassing *Pokémon GO* players entered his property to access the Pokégym that Niantic virtually placed on his property.⁹² In states like Texas, Arizona, Utah, Alabama, South Carolina, and Pennsylvania, law enforcement agencies issued statements warning players not to trespass in search of an elusive Pokémon.⁹³

LoBAR game developers appear aware of the potential for trespass by players. Niantic Labs' Terms of Service include both an admonition not to trespass and prescriptions for how LoBAR game players should interact with others.⁹⁴ Notwithstanding Niantic's attempts to discourage misbehaving players, the company faced legal challenges. In 2017, a lawsuit was filed against Niantic Labs, accusing the company of “flagrantly disregarding the foreseeable consequences” of placing Pokéstops on or directly adjacent to private property.⁹⁵ Three separate lawsuits against Niantic were

⁹¹ See Nathaniel Mott, “*Pokémon GO* Is Not a License to Trespass,” INVERSE (July 22, 2016), <https://www.inverse.com/article/18683-pokemon-go-not-license-trespass-get-off-my-lawn> (reporting on international trespassing incidents related to *Pokémon GO*).

⁹² Second Consolidated Amended Class Action Complaint ¶ 5, *In re Pokémon GO Nuisance Litig.*, No. 3:16-cv-04300, 2017 WL 10525833 (N.D. Cal. Aug. 28, 2017).

⁹³ See Mott, *supra* note 91 (“Police in Texas, Arizona, Utah, Alabama, South Carolina, Pennsylvania, and Washington, DC have warned Pokémon GO players not to trespass while playing the game. Departments in other states, including Massachusetts and Virginia, have also reported a rise in trespassing and told Pokémon GO players to obey the law.”).

⁹⁴ See *Niantic Terms of Service*, NIANTIC LABS § 3.3 (May 8, 2023), <https://nianticlabs.com/terms/en/> (“You agree that in conjunction with your use of the Services, you will maintain safe and appropriate contact with other players and other people in the real world. You will not harass threaten or otherwise violate the legal rights of others. You will not trespass, or in any manner attempt to gain or gain access to any property or location where you do not have a right or permission to be, and will not otherwise engage in any activity that may result in injury, death, property damage, nuisance, or liability of any kind.”).

⁹⁵ Second Consolidated Amended Class Action Complaint, *supra* note 92, ¶ 5.

consolidated into a class action.⁹⁶ Plaintiffs brought nuisance and trespass claims and alleged that Niantic should be liable for the actions of its players.⁹⁷ The suit was later settled after a district court in California refused to grant Niantic's motion to dismiss.⁹⁸

In a 2019 settlement with landowners, Niantic agreed to institute game reforms, including a more effective complaint process whereby public and private parties could notify Niantic of problematic LoBAR gameplay.⁹⁹ Niantic also created a "mechanism" for public parks allowing a park to request that Pokéstops and Pokégym only operate during the park's hours of operation.¹⁰⁰ However, the company was only bound by the terms of the settlement through the end of 2022.¹⁰¹

The class action complaint against *Pokémon GO* included allegations that groups of players entered plaintiffs' private property "at all hours of day and night" while using their phones to catch Pokémon.¹⁰² The complaint also alleged damage from players attempting to enter enclosed areas on plaintiffs' property,¹⁰³ as well as litter on their property that was left behind by players.¹⁰⁴ However, the concerns generated by LoBAR gameplay were not limited to litter and trespass on private property;¹⁰⁵ concerns also arose when gameplay occurred in and near public spaces. Plaintiffs cited their proximity to a "small municipal park,"¹⁰⁶ a "pedestrian

⁹⁶ See Plaintiffs' Motion for Final Approval of Settlement at 4–5, *In re Pokémon GO Nuisance Litigation*, No. 3:16-cv-04300, 2019 WL 3244466 (N.D. Cal. June 13, 2019) (detailing the procedural history).

⁹⁷ Second Consolidated Amended Class Action Complaint, *supra* note 92, ¶¶ 171–87 (alleging the nuisance and trespass claims).

⁹⁸ See Plaintiffs' Motion for Final Approval of Settlement at 5 (detailing the procedural history).

⁹⁹ See *id.* at 7 (enjoining Niantic to "promptly address future complaints of trespass and nuisance by Pokémon Go players").

¹⁰⁰ *Id.* at 8.

¹⁰¹ See *id.* at 7 (establishing a "three-year Settlement Period").

¹⁰² Second Consolidated Amended Class Action Complaint, *supra* note 92, ¶ 75.

¹⁰³ See *id.* ¶ 88 (alleging that players trespassed on a plaintiff's property and broke her fence).

¹⁰⁴ See *id.* ¶¶ 123, 125 (alleging that players littered on private property).

¹⁰⁵ See Kristi Palma, *Police: Stop Trespassing While Playing Pokémon GO*, BOSTON.COM (July 12, 2016), <https://www.boston.com/news/local-news/2016/07/12/police-stop-trespassing-play-pokemon-go/> ("[P]olice are reminding gamers to keep their quests for a Pikachu off of private property.").

¹⁰⁶ Second Consolidated Amended Class Action Complaint, *supra* note 92, ¶ 56.

access point to [a] park,”¹⁰⁷ and a “sculpture garden”¹⁰⁸ as key factors that eventually spurred litigation.

Affordances of LoBAR games serve to bring players to public landmarks and spaces such as parks and monuments. This gameplay then channels players into a common space (e.g., where a Pokéstop or Pokégym is located).¹⁰⁹ Many municipalities have welcomed LoBAR players into their parks. Niantic hosts an annual *Pokémon GO Fest* in cooperation with cities around the world.¹¹⁰ At the annual event, the game maker releases exclusive Pokémon, which has served to draw in large groups of players.¹¹¹ In 2019, the festival had over 85,000 in attendance in Germany¹¹² and more than 60,000 in attendance at Grant Park in Chicago.¹¹³ Commentators estimate that the events contributed nearly \$250 million in tourism revenue.¹¹⁴ The in-person portion of the 2022 *Pokémon GO Fest* was scheduled to take place in large public parks in Berlin, Seattle, and Sapporo; it connected over 150,000 players and was estimated to

¹⁰⁷ *Id.* ¶ 74.

¹⁰⁸ *Id.* ¶ 104.

¹⁰⁹ See Woods, *Experiencing the Unfamiliar*, *supra* note 78, at 186 (“The map, therefore, is an integral part of the game; it is the ‘guidance device that lead[s] players to Pokéstops and portals,’ and integrates player, the game, and the environment in which it is played.” (citations omitted)); Alley, *supra* note 26, at 278 (“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.”).

¹¹⁰ Ashleigh Klein, *Pokémon Go Fest Sapporo—Every Shiny Pokémon Listed*, GINX (Aug. 5, 2022), <https://www.ginx.tv/en/pokemon/pokemon-go-fest-sapporo-every-shiny-pokemon-listed>.

¹¹¹ *Id.*

¹¹² See *Summer Adventures Continue at Pokémon GO Fest 2019 Dortmund!*, POKÉMON GO LIVE (July 9, 2019), <https://pokemongolive.com/en/post/gofest-dortmund-2019/> (“More than 85,000 attendees attended over the four-day event and 200,000 Trainers played in the surrounding Dortmund area.”).

¹¹³ See Jack Fennimore, *Pokemon Go Fest 2019 Attendance Triple That of Last Year*, HEAVY (June 18, 2019), <https://heavy.com/games/2019/06/pokemon-go-fest-2019-attendance/> (“More than 60,000 players attended Pokemon Go Fest 2019 in Grant Park, Chicago over the four day weekend . . .”).

¹¹⁴ See Nick Statt, *Pokémon Go’s Live Events Drove Nearly \$250 Million in Tourism Revenue Last Year*, THE VERGE (Jan. 22, 2020), <https://www.theverge.com/2020/1/22/21076597/pokemon-go-fest-live-events-tourism-revenue-ar-niantic-labs> (“Niantic Labs says its live events for augmented reality hit *Pokémon Go* contributed \$247 million in tourism revenue last year across three cities.”).

generate over \$300 million in revenue to the local economies of the host cities.¹¹⁵

LoBAR gaming in public parks is not without controversy, however. Despite the economic successes and revenue generated from LoBAR gameplay, some states and municipalities have responded to constituents' concerns by seeking to limit or condition gameplay in public spaces.¹¹⁶ News coverage has recounted instances of players "trampling through award-winning roses" in San Diego's Rose Garden; players also left cigarette butts and other trash behind.¹¹⁷ A city in Washington requested that Niantic remove Pokéstops and Pokégyms entirely from their marina and city park because large gatherings of players were causing an "unsustainable amount of traffic."¹¹⁸ In Canada, police were forced to break up a large group of *Pokémon GO* players in Montreal after players gathered at a public park at night to catch Dragonite—a rare Pokémon.¹¹⁹

The next section examines legislative attempts to regulate LoBAR games, including a 2017 First Amendment-based legal challenge in *Candy Lab, Inc. v. Milwaukee County*.¹²⁰

¹¹⁵ See Zeroghan, *Pokémon GO Live Events Contribute Over \$300M to Local City Economies in 2022*, POKÉMON GO HUB (Nov. 9, 2022), <https://pokemongohub.net/post/news/pokemon-go-live-events-contribute-over-300m-to-local-city-economies-in-2022/> ("The return of *Pokémon GO* Fest live events gave over 150,000 players a chance to connect and explore together in the real world, while making a meaningful contribution to the city economies of Berlin, Seattle, and Sapporo[.] Data from research firm Statista shows that Niantic's three flagship Pokémon GO Fest live events delivered a combined \$309 million contribution to the local economies of their host cities in 2022, including total expenditure and associated increase in tax revenue.").

¹¹⁶ See H.B. 6601, 99th Gen. Assemb., Reg. Sess. (Ill. 2016) (enacting a law requiring developers of location-based video games to remove "ecologically sensitive" sites and "historically significant" site from the game).

¹¹⁷ Laura McVicker, *Pokemon Play at Balboa Park Damages Rose Garden: Visitors*, NBC 7 SAN DIEGO (July 19, 2016), <https://www.nbcsandiego.com/news/local/pokemon-play-at-balboa-park-damages-rose-garden-visitors/68701/>.

¹¹⁸ KOMO Staff, *Des Moines: Stop with the Pokemon Go at Our Marina and Park*, KOMO NEWS (Aug. 25, 2016), <https://komonews.com/news/local/des-moines-stop-with-the-pokemon-go-at-our-marina-and-park>.

¹¹⁹ See Christian Hoffer, *Police Called on Large Group of Pokemon Go Players Chasing Rare Pokemon*, COMICBOOK (July 21, 2016), <https://comicbook.com/news/police-called-on-large-group-of-pokemon-go-players-chasing-rare/> (stating that the party "forc[ed] the police to intervene" and "[t]he crown had gathered at Cabot Square, reportedly to catch a Dragonite lingering in the area").

¹²⁰ 266 F. Supp. 3d 1139 (E.D. Wis. 2017).

B. REGULATORY INTERVENTIONS

To date, no state has enacted specific regulations for LoBAR gaming. Lawmakers in New York¹²¹ and Illinois¹²² considered statutory amendments to target LoBAR games; however, neither state has enacted legislation. A proposed Illinois bill made it to committee, but it failed to garner enough support to progress further.¹²³ As discussed below, the only enacted regulation specific to LoBAR games is an ordinance from Milwaukee County, Wisconsin.

1. *Background and Enactment of Milwaukee County's LoBAR Ordinance.* After *Pokémon GO* was released in July 2016, Milwaukee County lawmakers began fielding complaints from constituents about large groups of people playing the game in the county's parks.¹²⁴ In a park that the news media described as one of the "most active *Pokémon GO* sites in the Midwest," players were reportedly littering, trampling the grass and flowers, and remaining

¹²¹ No bill was formally introduced. See Jimmy Vielkind, *Assemblyman Ponders Pokemon Go Legislation*, POLITICO (July 13, 2016), <https://www.politico.com/states/new-york/albany/story/2016/07/assemblyman-ponders-pokemon-go-legislation-103747> (quoting Assemblyman Felix Ortiz who stated that "he's not prepared to introduce legislation to Pokemon Go . . . but hopes game companies recognize potential risks in their products and react accordingly").

¹²² The bill would have required developers of LoBAR games to remove in-game objects from ecological and historical sites as well as private properties within two business days of a request from a property owner, manager, or custodian. See H.B. 6601, 99th Gen. Assemb., Reg. Sess. (Ill. 2016) ("Within 2 business days of receiving a request from the real property owner, manager, or custodian, the developer of a location-based video game shall remove from its location-based video game an ecologically sensitive or location, historically significant site or location . . . deemed as dangerous by the real property owner, manager, or custodian.").

¹²³ See GR Staff, *Location-Based Video Game Act "Pidgey's Law" Rejected by Illinois Legislators*, GAMERANT (May 3, 2017), <https://gamerant.com/pokemon-go-law-illinois/> (reporting that "lawmakers in Illinois have been mulling over new legislation intended to protect sensitive areas from players of location-based games" but "the bill proposing the new rules failed to gain sufficient support in a House Judiciary-Civil Committee vote").

¹²⁴ See Susan Bence, *Pokémon Go Triggers Resolution: "We Want Lake Park to be Used, but in a Proper Way,"* WUWM 89.7 FM (Feb. 2, 2017), <https://www.wuwm.com/environment/2017-02-02/pokemon-go-triggers-resolution-we-want-lake-park-to-be-used-but-in-a-proper-way> (discussing recommendations from various members of the community around Lay Park in Milwaukee County).

in the parks after park hours.¹²⁵ Local residents also complained that the increase in LoBAR gameplay resulted in inadequate bathrooms for parkgoers, unauthorized vendors in the park, parking violations, and significantly increased traffic congestion.¹²⁶ One lawmaker estimated that as a result of LoBAR gaming, the county was forced to spend tens of thousands of dollars on additional law enforcement and park maintenance services.¹²⁷

In August 2016, the Milwaukee County Parks Director sent a letter to Niantic advising the company that it needed obtain a geocaching permit for each Pokéstop or Pokégym located in a county park.¹²⁸ According to the letter, the permit did not include a fee, but it would have required Niantic to monitor each location four times a year for damage caused by, according to the Parks Director, “throngs of players.”¹²⁹ The letter from the Parks Director sought to assure Niantic that the county was not seeking to block *Pokémon GO* from operating in public parks or other county facilities.¹³⁰ Niantic neither responded to the letter nor sought a geocaching permit.¹³¹ In December 2016, the county enacted an ordinance specifically to regulate gameplay.¹³² In relevant part, the ordinance provided as follows:

Virtual and location-based augmented reality games are not permitted in Milwaukee County Parks except in those areas designated with a permit for such use by the director of the department of parks, recreation, and

¹²⁵ Don Behm, *No Common Ground on Pokemon Go*, MILWAUKEE J. SENT. (Sept. 13, 2016), <https://www.jsonline.com/story/news/local/milwaukee/2016/09/13/no-common-ground-pokemon-go/90322362/>.

¹²⁶ Bence, *supra* note 124; *see also* Behm, *supra* note 125 (stating the negative consequences of the game such as “traffic congestion; parking problems along Wahl Ave.; littering; damaged turf; lack of restrooms; and risk of damage to natural areas”).

¹²⁷ *See* Behm, *supra* note 125 (discussing the additional municipal services needed).

¹²⁸ *See* Don Behm, *Parks Permit Required for Pokémon Placement*, MILWAUKEE J. SENT. (Aug. 24, 2016), <https://www.jsonline.com/story/news/local/milwaukee/2016/08/24/parks-permit-required-pokemon-placement/89273396/> (addressing the intent of the Milwaukee County Parks letter).

¹²⁹ *Id.*

¹³⁰ *See id.* (detailing the purpose of the permits).

¹³¹ *See id.* (“Niantic officials could not be reached for comment.”).

¹³² *See* MILWAUKEE, WIS., CODE ORDINANCES § 47.03(3) (2023) (“Games and amusements prohibited except in designated areas.”).

culture (the “DPRC”) [The permitting] process shall include an internal review by the DPRC to determine the appropriateness of the application based on site selection, protection of rare flora and fauna, personal safety, and the intensity of game activities on park lands. Game activity shall only occur during standard park hours unless otherwise authorized by the DPRC Director[.]¹³³

The ordinance applied to both virtual reality gaming and LoBAR gaming; however, it only defined one type of gaming. In a resolution accompanying the ordinance, it defined virtual gaming as “an activity during which a person can experience being in a three-dimensional environment and interact with that environment during a game, and the game typically consists of an artificial world of images and sounds created by a computer that is affected by the actions of a person who is experiencing it.”¹³⁴ The ordinance used the term “location-based augmented reality games,” but did not define it.¹³⁵

After Milwaukee County passed the ordinance, all AR game developers planning to superimpose LoBAR game content on coordinates within any Milwaukee County park were required to apply for a special use permit by filling out a ten-page application.¹³⁶ The application mirrored the one the Parks Department used for other special events. The application requested detailed information about the proposed event, including estimated attendance, desired location within the park, event dates and times, a site map, and whether and how the event would be advertised.¹³⁷ Applicants were also responsible for providing detailed plans for garbage collection, on-site security, and medical services (including liability insurance).¹³⁸ The Milwaukee County permit required applicants to

¹³³ *Id.*

¹³⁴ S. Res. 16–637, Milwaukee Cnty. Bd. (Wis. 2017).

¹³⁵ MILWAUKEE, WIS., CODE ORDINANCES § 47.03(3).

¹³⁶ *See* Candy Lab Inc. v. Milwaukee Cnty., 266 F. Supp. 3d 1139, 1143 (E.D. Wis. 2017) (noting the application and its process).

¹³⁷ *See id.* at 1143–44 (detailing the contents of the requested application information).

¹³⁸ *See id.* at 1144 (“It requires detailed plans for garbage collection, on-site security, and medical services”). Note that these requirements are not uncommon for special event permit applications in public and national parks; however, such permits typically apply to large day-and-time-specific events such as sporting events, ceremonies, and concerts. *See* 36

submit multiple fees to the Parks Department.¹³⁹ Permission was not guaranteed; submission of the application did not automatically grant an applicant's permission to conduct the proposed event.¹⁴⁰ The Department had the discretion to demand further information.¹⁴¹ And the application gave the Department "sole discretion" to "grant, deny, revoke, or suspend any permit, at any time and for any reason."¹⁴²

2. LoBAR Game Permits and the First Amendment: Candy Lab v. Milwaukee County. Shortly after the passage of Milwaukee County's ordinance, Candy Lab, a company that has been developing LoBAR software since 2011, sought to launch a game called *Texas Rope 'Em* in Milwaukee County.¹⁴³ Candy Lab's LoBAR game operated similarly to *Pokémon GO*; players were encouraged to travel from location to location to obtain virtual playing cards that would help to construct the best possible poker hand.¹⁴⁴ In late March 2017, Candy Lab's CEO contacted a Milwaukee County official to explain his planned LoBAR game and to inquire whether Candy Lab would be required to seek a special event permit before releasing the game in the local area.¹⁴⁵ A county official confirmed that the new ordinance required Candy Lab to obtain a special events permit before releasing *Texas Rope 'Em* if the game maker wished to superimpose any gaming stops in Milwaukee County parks.¹⁴⁶

Candy Lab did not apply for a permit to release *Texas Rope 'Em*.¹⁴⁷ The company neither wanted to undergo the lengthy process of securing a permit per the ordinance nor did it want to incur the fees associated with obtaining the necessary services (e.g., garbage

C.F.R. § 2.50 (2022) (detailing when such permits will be denied depending on the kind of activity occurring in the park area).

¹³⁹ See *Candy Lab Inc.*, 266 F. Supp. 3d at 1144 (describing the fees).

¹⁴⁰ See *id.* (detailing the submission of the application).

¹⁴¹ See *id.* ("It also requires payment of several fees, and reserves to the DPRC the discretion to demand information.").

¹⁴² *Id.*

¹⁴³ See *id.* at 1142 (discussing when Candy Lab was created and how its game is playable on in "select cities, including Milwaukee").

¹⁴⁴ See *id.* (detailing the goal and how the game *Texas Rope 'Em* functions).

¹⁴⁵ See *id.* at 1144 (noting the application submission and discussion with the DPRC Special Events Coordinator).

¹⁴⁶ See *id.* (indicating the need to submit permit and include a map with desired virtual gaming spots).

¹⁴⁷ See *id.* ("As of the date of this Order, Candy Lab has not applied for a permit . . .").

collection, on-site security, medical services, and liability insurance).¹⁴⁸ Instead, Candy Lab challenged the constitutionality of the new ordinance in federal court. Candy Lab sought a preliminary injunction to prevent enforcement of the ordinance on the grounds that it violated the game maker's First Amendment interests.¹⁴⁹ Siding with Candy Lab, the district court denied Milwaukee County's motion to dismiss.¹⁵⁰ The court then granted the temporary injunction to prevent Milwaukee County from enforcing the ordinance.¹⁵¹

Relying on U.S. Supreme Court precedent extending First Amendment protections to video games, the district court held that LoBAR games similarly receive some level of First Amendment protection.¹⁵² In the district court's assessment, LoBAR games are expressive content in the sense that they employ "features distinctive to the medium" like displaying the location of content on a map shown on the player's phone, which the user must then "physically navigate to and 'grab' using the phone's camera."¹⁵³

As a "threshold question" in determining whether the ordinance violated the First Amendment, the court analyzed whether the ordinance was a *content-neutral* restriction on speech (which would trigger intermediate scrutiny) or a *content-based* restriction on speech (which would trigger strict scrutiny).¹⁵⁴ Despite Candy Lab's argument that the Milwaukee County ordinance was content-based—because it "singles out" LoBAR games for additional

¹⁴⁸ See *id.* at 1141 (noting Candy Lab's aversion to submitting a permit).

¹⁴⁹ See *id.* (suggesting the ordinance violated Candy Lab's First Amendment right to freedom of speech).

¹⁵⁰ See *id.* at 1145 ("[T]he Court finds that Candy Lab has shown a sufficient likelihood of success to warrant preliminary injunctive relief.").

¹⁵¹ See *id.* at 1141 (granting Candy Lab's motion and denying the county's motion).

¹⁵² See *id.* at 1146 (noting precedent instructing video games to be treated just as other forms of expression under the First Amendment (citing *Brown v. Entm't Merchs. Ass'n*, 564 U.S. 786, 790 (2011))).

¹⁵³ The court rejected Milwaukee County's argument that the game lacked expressive elements and was no more than a "pictorial overlay on the real world to facilitate a card game." See *id.* (differentiating LoBAR games from typical video games). The court also rejected the city's claim that *Texas Rope 'Em* lacks First Amendment protection because the application was allegedly illegal gambling. *Id.* at 1147.

¹⁵⁴ *Id.* at 1148.

“administrative and logistical burdens”—the court ultimately ruled that the ordinance was content-neutral.¹⁵⁵

Applying intermediate scrutiny, the ordinance was struck down because it lacked “adequate standards” to guide the decision of whether to grant or deny the permit.¹⁵⁶ The district court concluded the ordinance impermissibly allowed Milwaukee County officials “boundless discretion” in their decision-making process.¹⁵⁷ The court’s analysis also called into question the narrow tailoring of the ordinance, suggesting that Milwaukee County showed a “lack of sophistication” by treating game developers as event-holders.¹⁵⁸ Regulating a game maker as if it was seeking to hold just a single event in a county park fundamentally misunderstands of the nature of LoBAR games. These games are not typically played at a precise time or predictable location within a park. Like other mobile games, LoBAR games are played by individuals or groups at various times and in general locations of their choosing. Rather than burdening game developers, the district court suggested that the County should directly regulate any “objectionable downstream conduct” from LoBAR game players themselves.¹⁵⁹ The court advised that the County could address its concerns by “aggressively penalizing gamers who violate park rules or limiting gamers to certain areas of the park.”¹⁶⁰

The *Candy Lab* case offers valuable guidance in the unclear legal landscape surrounding LoBAR gameplay in public spaces. First, the district court struck down the only enacted U.S. law specifically targeting LoBAR gameplay for its inadequate tailoring. Second, the opinion suggests that LoBAR game developers enjoy some level of

¹⁵⁵ According to the court, the ordinance’s differential treatment for location-based AR games is based not on the content of the speech but rather on the mode or channel of the speech. *See id.* at 1150 (“[T]he Court finds that the Ordinance is content-neutral.”).

¹⁵⁶ *See id.* (“[T]he Ordinance does not pass muster” (citing *Thomas v. Chicago Park Dist.*, 534 U.S. 316, 323 (1989))).

¹⁵⁷ The court noted that the four factors by which the ordinance authorized a permit denial were not enumerated in the application itself; the application itself explicitly stated that an application could be granted or denied “at any time, for any reason.” *See id.* at 1150–51 (noting the great discretion the County retained in permit control (citing *City of Lakewood v. Plain Dealer Pub. Co.*, 486 U.S. 750, 764 (1988))).

¹⁵⁸ *See id.* at 1153 (“The Ordinance thus dooms itself in its failure to provide ‘narrowly drawn, reasonable and definite standards’ to guide the County officials who must apply it.”).

¹⁵⁹ *Id.*

¹⁶⁰ *Id.* at 1154.

First Amendment protection for the expressive elements of the games. Following the *Candy Lab* case, scholars and commenters searched for other policy solutions to tackle the concerns raised by LoBAR gameplay. The next Section summarizes various scholarly proposals; the next Part then outlines the authors' analysis of game play licensing.

C. OTHER SCHOLARLY PROPOSALS TO REGULATE LOBAR GAMEPLAY

In the wake of the *Candy Lab* court invalidating Milwaukee County's LoBAR special permit requirement, scholars and commenters offered other suggestions for how to balance competing interests. The primary remedies for the concerns raised by LoBAR games focused on the interests of private landowners, private spaces, and the rights to exclude others from their property. Some of these solutions involved various forms of an opt-out system, which would allow private parties to exclude their physical property from LoBAR games.¹⁶¹ Others called for an opt-in system, which would establish a default expectation that game content would only be superimposed on private land if a landowner explicitly indicated that they wanted to participate.¹⁶² One scholar proposed a national "Do-Not-Locate" registry, which would offer the advantage of

¹⁶¹ See, e.g., Alley, *supra* note 26, at 292–93 (proposing an opt-out system for businesses if gameplay hinders sales and an opt-in system for private landowners if they want to participate); Joseph Carrafiello, *No Trespassing: A Lawmaker's Guide to Protecting Property Rights in the Age of Augmented and Mixed Reality*, 80 OHIO ST. L.J. 583, 595 (2019) (suggesting that Congress should pass a "Virtual Trespass" statute which allows for opt-in or opt-out schemes); Danielle Nicole Craft, *Common Law Consequences of Catching 'Em All: Exclusionary Property Rights in Augmented Space and an Alternative Notice/Opt-Out Procedure for Location-Based Augmented Reality Technology*, 48 SETON HALL L. REV. 841, 867 (2018) (calling for state legislation requiring LoBAR game developers to create a GPS-based online database of game content so that private landowners can opt out).

¹⁶² See, e.g., Alley, *supra* note 26, at 292 (proposing an opt-out system for businesses if gameplay hinders sales and an opt-in system for private landowners if they want to participate); Kochan, *supra* note 90, at 70 (expressing a "preference" for an opt-in scheme for private owners); Carrafiello, *supra* note 161, at 595 (suggesting that Congress should pass a "Virtual Trespass" statute which allows for opt-in or opt-out schemes); Craft, *supra* note 161, at 867 (calling for state legislation requiring LoBAR game developers to create a GPS-based online database of game content so that private landowners can opt out).

functioning more efficiently than state legislation or local ordinances.¹⁶³

These various proposals may mitigate some of the private harms resulting from LoBAR games; however, they do little to address concerns about the potential burden on public spaces. Policymakers have broad authority to safeguard the health, welfare, and safety of constituents. If animated to address concerns about LoBAR gameplay on public property, the next Part of this Article discusses the permissibility of licensing.

IV. LICENSE TO PLAY

A. PROPOSAL: AN INDIVIDUAL LICENSE FOR LOBAR GAMEPLAY

Consistent with the First Amendment, states may regulate expressive conduct in a public forum to protect public health, safety, or welfare.¹⁶⁴ To that end, policymakers may require permits for gatherings in a park—even when such gatherings are protests designed for issue advocacy.¹⁶⁵ For policymakers seeking a solution to the concerns raised by LoBAR gameplay in public spaces, this Article considers a novel approach: an individual license. The

¹⁶³ William T. McClure, *When the Virtual and Real Worlds Collide: Beginning to Address the Clash Between Real Property Rights and Augmented Reality Location-Based Technologies Through a Federal Do-Not-Locate Registry*, 103 IOWA L. REV. 331, 357–58 (2017).

¹⁶⁴ Cf. *Josephine Havlak Photographer, Inc. v. Vill. of Twin Oaks*, 864 F.3d 905, 919 (8th Cir. 2017) (upholding, as content neutral and constitutional, a municipal ordinance requiring a permit for all commercial activity in its neighborhood park—including commercial photographers).

¹⁶⁵ See *Thomas v. Chicago Park Dist.*, 534 U.S. 316, 322 (2002) (upholding Chicago Parks permitting process despite challenge from organization seeking to hold rallies in support of marijuana legalization and ruling that a permit to use public property is consistent with the First Amendment when (1) “[n]one of the grounds for denying a permit has anything to do with what a speaker might say”; (2) “the ordinance (unlike the classic censorship scheme) is not even directed to communicative activity as such, but rather to all activity conducted in a public park”; and (3) “the object of the permit system (as plainly indicated by the permissible grounds for permit denial) is not to exclude communication of a particular content, but to coordinate multiple uses of limited space, to assure preservation of the park facilities, to prevent uses that are dangerous, unlawful, or impermissible under the Park District’s rules, and to assure financial accountability for damage caused by the event”); see also *Santa Monica Food Not Bombs v. City of Santa Monica*, 450 F.3d 1022, 1025–26 (9th Cir. 2006) (upholding city ordinance requiring a permit for community events held in public spaces including parks, streets, and sidewalks if regulation was tailored to events that realistically presented serious traffic, safety, and competing use concerns).

Milwaukee County ordinance at issue in *Candy Lab* also employed a permitting scheme; however, that ordinance required an application from the game developer, rather than game players.¹⁶⁶ Thus, our proposal is the first to analyze *individual* licensing for LoBAR gameplay.

Under such a licensing scheme, those wishing to engage in LoBAR gameplay on public lands would need a government license. This proposal is akin to how governments—federal, state, and municipal—have authorized permit schema for use of public property, including rock climbing,¹⁶⁷ geocaching,¹⁶⁸ street

¹⁶⁶ See *Candy Lab Inc. v. Milwaukee Cnty.*, 266 F. Supp. 3d 1139, 1143 (E.D. Wis. 2017) (noting the application process).

¹⁶⁷ See, e.g., *Rock Climbing*, ROCKY FACE MOUNTAIN RECREATIONAL AREA, <https://rockyfacepark.com/rock-climbing/> (last visited June 17, 2023) (generating the rule that “[n]o climbing is allowed without possession of a valid daily permit”); *Rock Climbing Permit*, COLO. SPRINGS, <https://coloradosprings.gov/parks/webform/rock-climbing-permit> (last visited June 17, 2023) (“Rock Climbing is governed by City Code 9.9.104 as well as administrative regulations and guidelines set forth by the Parks, Recreation and Cultural Services Director.”).

¹⁶⁸ See, e.g., N.Y. STATE OFF. OF PARKS, RECREATION & HIST. PRES., GUIDANCE DOCUMENT: GEOCACHING IN STATE PARKS AND HISTORIC SITES (2013), <https://parks.ny.gov/documents/inside-our-agency/OPRHPGeocacheGuidanceDocument.pdf> (creating the rule that “OPRHP has developed a written permit form (available in PDF format) that is required for each geocache installed on lands under the agency’s jurisdiction.”); U.S. DEPT’ OF AGRIC. FOREST SERV. S. REGION, GEOCACHING ON THE NATIONAL FORESTS IN NORTH CAROLINA (2010), https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5288138.pdf (providing that “[c]aches that will be in place longer than a year require a formal special use permit”); *Geocaching*, PENN. DEPT’ OF CONSERVATION & NAT. RES., <https://www.dcnr.pa.gov/Recreation/WhatToDo/Geocaching/Pages/default.aspx> (last visited June 17, 2023) (providing that “[g]eocaches can be found in many of Pennsylvania’s 121 state parks, and all of the 20 state forest districts. Placing them does require a permit as outlined in the DCNR’s Guidelines for Placing Caches (PDF)”).

performing,¹⁶⁹ and photography.¹⁷⁰ Some of these permitting systems have been challenged in court, like permits for film photography in national parks,¹⁷¹ permits to distribute materials in national parks,¹⁷² and busking (or street performing) in a city center.¹⁷³ The vast majority of permit requirements, however, have gone unchallenged. Even in instances when one jurisdiction's license system is invalidated, dozens more, in jurisdictions across the country, remain in effect. As discussed below, three exemplars of this phenomenon are permit requirements for (1) busking, (2) film and still photography, (3) drone use.

¹⁶⁹ See *Street Performers & Artists (Buskers Program)*, CITY OF FORT LAUDERDALE, <https://www.fortlauderdale.gov/government/departments-a-h/city-manager-s-office/nighttime-economy/street-performers-artists-buskers-program> (last visited June 17, 2023) (listing program requirement that “[s]treet artists and performers must bring their valid permit and clearly display their permit during all busker activities”); CITY OF CHI., STREET PERFORMER LICENSE, <https://40thward.org/wp-content/uploads/2019/06/Street-Performer-License-Factsheet-BACP.pdf> (last visited June 17, 2023) (stating that “[a] street performer license is required for individuals that perform in a public area”); *Busking Program*, CITY OF NAPA [hereinafter Napa Busking Program], <https://www.cityofnapa.org/1107/Busking-Program> (last visited June 17, 2023) (creating rule that “[a] permit is required to participate in the Busking Program”); CITY OF SALEM, DOWNTOWN STREET PERFORMER RULES & REGULATIONS (2021), https://www.salemga.gov/sites/g/files/vyhlf7986/f/uploads/street_performers_rules_regulations_and_map_10-2021_revised_1.pdf (creating regulations for performers in the city). But see *Young v. Sarles*, 197 F. Supp. 3d 38, 41 (D.D.C. 2016) (enjoining the Washington Metropolitan Area Transit Authority (WMATA) from enforcing regulations to prevent busking on certain “free” areas on WMATA property).

¹⁷⁰ Some public parks have limited photography or videography for, among other reasons, “resource protection.” See *Fees*, FL. ST. PARKS, <https://www.floridastateparks.org/fees> (last visited June 17, 2023) (listing rule that “[p]hotography is permitted without fee for all purposes except where normal park operations are disrupted or for resource protection” and to “[c]ontact park staff when photography permits are required”).

¹⁷¹ See *Price v. Barr*, 514 F. Supp. 3d 171, 191 (D.D.C. 2021) (holding that a statute requiring permits for commercial filming violated the First Amendment and was therefore unconstitutional). But see *Josephine Havlak Photographer, Inc. v. Vill. of Twin Oaks*, 864 F.3d 905, 919 (8th Cir. 2017) (upholding, as content neutral and constitutional, a municipal ordinance requiring a permit for all commercial activity in its neighborhood park—including commercial photographers).

¹⁷² See *Boardley v. U.S. Dep’t of Interior*, 615 F.3d 508, 525 (D.C. Cir. 2010) (holding National Park Service regulations that required a permit to distribute printed materials in national parks violated the First Amendment).

¹⁷³ See *Berger v. City of Seattle*, 569 F.3d 1029, 1035 (9th Cir. 2009) (en banc) (holding Seattle’s busking permit unconstitutional because it violated the First Amendment).

A permit is required for buskers in cities like Miami,¹⁷⁴ Fort Lauderdale,¹⁷⁵ Chicago,¹⁷⁶ and Napa.¹⁷⁷ In 2009, the Ninth Circuit struck down Seattle’s busking permit on First Amendment grounds.¹⁷⁸ In striking down the permitting scheme, the Ninth Circuit framed the permitting requirement as a prior restraint on speech with a “heavy presumption” against its constitutionality.¹⁷⁹ The circuit court noted that the Supreme Court has “consistently” invalidated individual speech permitting schemes even when those schemes regulated the solicitation of private homes.¹⁸⁰ Seattle’s permit directly threatened the “zenith” of First Amendment protection in public fora like streets and parks and was not a narrowly tailored time, place, or manner restriction on speech.¹⁸¹ Despite the Ninth Circuit’s decision, busking permits remain in effect in cities across the United States.

¹⁷⁴ See MIAMI BEACH, FLA., CODE ORDINANCES ch. 18, art. XV (2010), https://library.municode.com/fl/miami_beach/codes/code_of_ordinances?nodeId=SPAGEOR_CH18BU_ARTXVSTPEARVE (providing regulations for buskers in Miami).

¹⁷⁵ See FORT LAUDERDALE, FLA., CODE ORDINANCES ch. 23, art. VI (2015), https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_C_H23SOPEET_ARTVISTPESTAR (providing regulations for buskers and artists in Fort Lauderdale).

¹⁷⁶ See CHIC., ILL., MUNICIPAL CODE ch. 2-244, art. III (2012), https://codelibrary.amlegal.com/codes/chicago/latest/chicago_il/0-0-0-2636178 (providing regulations for buskers in Chicago).

¹⁷⁷ See Napa Busking Program, *supra* note 169 (detailing goals of the busking program as well as explaining the steps to apply for a permit).

¹⁷⁸ See *Berger*, 569 F.3d at 1035 (emphasizing the importance of individual speech).

¹⁷⁹ *Id.* at 1037.

¹⁸⁰ *Id.* at 1038.

¹⁸¹ *Id.* at 1039–40.

A permit is required for filming and still photos in Arizona state parks,¹⁸² in Los Angeles County,¹⁸³ in certain Philadelphia parks,¹⁸⁴ and in Milwaukee County parks.¹⁸⁵ In 2021, a D.C. district court struck down the National Parks Service (NPS) permitting and fee requirement for commercial filming activities on First Amendment grounds.¹⁸⁶ The district court ruled that, by regulating only “commercial filming”—but not other types of commercial (or filming) activity—the NPS was imposing a content-based restriction on expressive speech.¹⁸⁷ While the court acknowledged that the NPS may have a compelling interest in protecting natural resources, the permitting requirement was not narrowly tailored to protect that interest.¹⁸⁸ This ruling was reversed by the U.S. Court of Appeals for the D.C. Circuit.¹⁸⁹

¹⁸² See ARIZ. STATE PARKS & TRAILS, PHOTOGRAPHY/FILMING PERMIT APPLICATION (2021), <https://arizona-content.usdirect.com/storage/Admin/20221014074350permit-application-2022-23.pdf> (“A personal photography permit applies to each of the following: Wedding and engagement photos; Family portraits; School or graduation pictures, homecoming or prom pictures, modeling portfolios; or Any other posed photography session that uses a park location as a backdrop for pictures and/or that require special attire.”).

¹⁸³ See *Film & Photo Permit*, L.A. CNTY., <https://beaches.lacounty.gov/film-photo-permit/> (last visited June 17, 2023) (“The Los Angeles County Department of Beaches and Harbors requires that any persons engaged in the business or activity of filming, videotaping, or otherwise producing motion pictures or still photography for television or public exhibition at any place, must obtain a Film Permit. Film Permits are required in Marina del Rey, on Los Angeles County beaches, and in County parking lot use for commercial film, video or still photography shoots.”).

¹⁸⁴ See PHILA. PARKS & RECREATION, MEDIA PERMIT (2022), <https://www.phila.gov/media/20220623133944/Media-Application-rev-06.2022.pdf> (providing a multi-step application (including a waiver) for anyone wanting a permit to shoot media content in the parks).

¹⁸⁵ See *Formal Photography Permit*, MILWAUKEE CNTY. PARKS, <https://county.milwaukee.gov/EN/Parks/Plan/Get-a-Permit> (last visited June 17, 2023) (“A photography permit is required for all wedding, engagement, family and school pictures or any other posed photography session that uses a park location as a backdrop and/or requires special attire.”).

¹⁸⁶ See *Price v. Barr*, 514 F. Supp. 3d 171, 193–94 (D.D.C. 2021) (“[This section] and its implementing regulations also fail to leave open any alternative channels for commercial filmmakers who would like to film in national parks without a permit.”).

¹⁸⁷ See *id.* at 188 (“[This section] and its implementing regulations are, in fact, content-based restrictions on speech.”).

¹⁸⁸ See *id.* at 188–89 (“Defendants do not even attempt to argue that [this section] and its implementing regulations meet this standard.”).

¹⁸⁹ See *Price v. Garland*, 45 F.4th 1059, 1075–76 (D.C. Cir. 2022), *rehearing en banc denied*, 2022 WL 15524454 (denying the petition for rehearing the lower court’s holding that

On appeal, the permit-and-fee requirements for “noncommunicative” First Amendment activity of commercial filming were reviewed for reasonableness—which the circuit court found they “surely are.”¹⁹⁰ Filmmaking, according to the circuit court, “undoubtedly is protected by the First Amendment.”¹⁹¹ Nevertheless, “[noncommunicative] filmmaking is subject to the same degree of regulation in a traditional public forum as it would be in a nonpublic forum.”¹⁹² Thus, the NPS filmmaking restrictions were reviewed for reasonableness.¹⁹³ The permit-and-fee regime passed this reasonableness inquiry (1) by being viewpoint-neutral¹⁹⁴ and (2) by furthering two significant government interests: “(a) raising revenue to maintain and improve the parks; and (b) ensuring that filming does not harm federal lands or otherwise interfere with park visitors’ enjoyment of them.”¹⁹⁵ Thus, much like in other government-owned parks, a permit is required to engage in commercial filmmaking in our national parks.

A permit is required to take off or land a drone in Minneapolis parks,¹⁹⁶ in New York parks,¹⁹⁷ and in Virginia state parks.¹⁹⁸ In

documentary filmmaking may be reasonably subject to permit-and-fee requirements since “speech-protective rules of a public forum apply only to communicative activity”).

¹⁹⁰ See *id.* at 1075 (holding that “regulations governing filmmaking on government-controlled property need only be ‘reasonable,’ which the permit-and-fee requirements for commercial filmmaking on NPS land surely are”).

¹⁹¹ *Id.* at 1067.

¹⁹² *Id.* at 1071–72.

¹⁹³ See *id.* at 1072 (“The upshot is that filmmaking on all NPS land is subject to the same ‘reasonableness’ standard that applies to restrictions on first amendment activity in a nonpublic forum.”).

¹⁹⁴ See *id.* (“No party argues (nor could they) that the permit-and-fee requirements discriminate based upon viewpoint.”).

¹⁹⁵ *Id.*

¹⁹⁶ See *Drone Use Application, Procedures & Fees*, MINNEAPOLIS PARK & RECREATION BD., https://www.minneapolis-parks.org/rentals-permits/photography_filming_permits/ (last visited June 17, 2023) (“Permits are required for all drone flight that is from, within and on Minneapolis Park and Recreation Board property.”).

¹⁹⁷ See N.Y. PARKS, RECREATION & HIST. PRES., REGULATING UNMANNED AIRCRAFT SYSTEMS, OPR-PCD-018 (Jan. 6, 2015), <https://parks.ny.gov/documents/inside-our-agency/PublicDocuments/GuidancePolicies/RegulatingUnmannedAircraftSystemsDronesModelAirplanesQuadCopters.pdf> (“The launch, landing and operation of UAS [Unmanned Aircraft Systems] is allowed in state parks and historic sites only with prior written approval by the agency through a permit authorizing the specific time, location and type of use.”).

¹⁹⁸ The Virginia Administrative Code bans all drone operations in all Virginia State Parks or DCR-owned property. See 4 VA. ADMIN. CODE § 5-30-400 (2022) (“No person shall . . .

2022, a Texas district court struck down Texas's drone statute on First Amendment grounds.¹⁹⁹ The court classified the Texas law as a content-based restriction on speech; the state law prohibited journalists from collecting drone footage on private property, but it did not proscribe footage collected on public property or by professors, insurance employees, or real estate brokers.²⁰⁰ The district court was not persuaded that Texas could show that the law was "actually necessary" to protect a compelling government interest in private property or individual privacy.²⁰¹ An appeal is currently pending in the U.S. Court of Appeals for the Fifth Circuit.²⁰² Drone regulations outside of Texas are unaffected by this litigation. While there have been isolated challenges to permit requirements, permitting regimes remain common and popular among policymakers.

For illustrative purposes, this Article considers a state statute requiring a license for LoBAR gameplay in state-owned parks.²⁰³ Suppose "New Carolina" decided to adopt an individual license requirement for LoBAR gameplay. New Carolina's license could be administered by a state administrative agency through a statutory

operate within or upon any park; any . . . drone . . ."). There is an exception only if the Department of Conservation and Recreation (DCR) issues a Special Use Permit. *See* VA. DEP'T OF CONSERVATION & RECREATION, UNMANNED AIRCRAFT, <https://www.dcr.virginia.gov/state-parks/document/rules-drones.pdf> (last visited June 17, 2023) ("Persons who seek to use unmanned aircraft on a DCR State Park or Natural Area Preserve . . . shall apply for a special use permit . . .").

¹⁹⁹ *See* Nat'l Press Photographers Ass'n v. McCraw, 594 F. Supp. 3d 789, 813 (W.D. Tex. 2022) ("IT IS FURTHER ORDERED that [Texas statutes] violate the First and Fourteenth Amendments and are therefore unconstitutional.").

²⁰⁰ *See id.* at 805 ("The Surveillance and No-Fly Provisions are both content-based restrictions that regulate based on the subject of the expression.").

²⁰¹ *See id.* at 807 ("Defendants have failed to establish that alternative means are insufficient to sufficiently protect [government] interests.").

²⁰² *See id.* at 813 (noting the appeal pending before the 5th Circuit), *appeal docketed*, No. 22-50337 (5th Cir. May 3, 2022).

²⁰³ Note that a state-issued license likely would not necessarily apply to municipal-owned property. Municipalities could choose whether to require a separate permit. Alternatively, municipalities could negotiate "reciprocal agreements" similar to agreements between bordering states around fishing licenses. For example, Georgia has agreements with Alabama, Florida, North Carolina, and South Carolina allowing holders of Georgia fishing licenses to fish in the waters covered without obtaining a fishing license from the bordering state. *See Georgia Fishing: Agreements with Bordering States*, EREGULATIONS, <https://www.eregulations.com/georgia/fishing/agreements-with-bordering-states> (last visited June 17, 2023) (listing Georgia's fishing agreements with other states).

grant of authority. The hypothesized statute could grant authority to the New Carolina “Department of Parks, Recreation, and Wildlife” to license LoBAR gameplay in state parks. Such a proposal is in line with how states have assigned authority to administer other licenses on public lands.²⁰⁴ For analysis and consideration, suggested statutory language is presented in the Section below.

B. SAMPLE LEGISLATION: LOBAR GAMEPLAY LICENSE

The proposed legislation proceeds as follows:

- Section 1. Purpose and Intent
- Section 2. Scope; Authority
- Section 3. Definitions
- Section 4. Gameplay License—Required
- Section 5. Types of Gameplay License
- Section 6. Gameplay License Application
- Section 7. Issuance or Denial of Gameplay License
- Section 8. Fees
- Section 9. Notification and Appeals
- Section 10. Assignability
- Section 11. Indemnification
- Section 12. Enforcement
- Section 13. Rights of Violators

1. Purpose and Intent. This <legislative body> recognizes and supports the public’s interest in the enjoyment of <Jurisdiction> Parks. At the same time, the safety of members of the public in the <jurisdiction> is of utmost importance. This <legislative body> also values the preservation of the natural and cultural resources of the <jurisdiction>, prioritizing allowing the public to experience those resources while protecting the <jurisdiction’s> compelling interests in public health and safety and resource conservation. In implementing a license requirement for location-based augmented reality gameplay in <Jurisdiction> Parks, this <legislative body>

²⁰⁴ See, e.g., NEV. REV. STAT. § 232.020 (2021) (creating and assigning authority to the Department of Conservation and Natural Resources); N.Y. ENV’T CONSERVATION LAW § 3-0301(P) (McKinney 2021) (authorizing the Department of Environmental Conservation to delegate matters such as issuing permits and licenses to other agencies).

seeks to protect those valuable resources and limit disruption of park use while allowing all to enjoy their time at the park.

2. *Scope; Authority.* This <legislation> applies to all <jurisdiction-owned parks> within <the jurisdiction>.

3. *Definitions.* The following words and phrases shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

“Location-based augmented reality game” means a game that superimposes digital content based on a player’s location onto a live video display from that player’s mobile device.

“Location-based augmented reality gameplay” means the act of operating a location-based augmented reality game on a mobile device.

“Gameplay License” means permission to operate a location-based augmented reality game within <Jurisdiction> Park issued pursuant to <this legislation>.

“Player” means any natural individual of at least [] <e.g., 16> years of age.

“<Jurisdiction> Park” means all public parks, beaches, wetlands, playgrounds, athletic fields, recreation centers, marinas, golf courses, open spaces and areas publicly owned and acquired for the conservation of natural resources and the enjoyment thereof by the residents of <the jurisdiction>.

4. *Gameplay License—Required.* No player shall operate a location-based augmented reality game within any <Jurisdiction> Park without first applying for and receiving a Gameplay License from <the authorized department>, issued in accordance with <this legislation>.

5. *Types of Gameplay Licenses.* There shall be the following types of Gameplay Licenses for location-based augmented reality gaming issued by the <jurisdiction>:

Resident short-term license that enables the licensee to operate a location-based augmented reality game in any <Jurisdiction> Park for a period of ten (10) days, subject to all applicable Park rules and regulations and the provisions of this <legislation>.

Nonresident short-term license that enables the licensee to operate a location-based augmented reality game in any <Jurisdiction> Park for a period of ten (10) days, subject to all applicable Park rules and regulations and the provisions of this <legislation>.

Resident annual license that enables the licensee to operate a location-based augmented reality game in any <Jurisdiction> Park for a period of one (1) year, subject to all applicable Park rules and regulations and the provisions of this <legislation>.

Nonresident annual license that enables the licensee to operate a location-based augmented reality game in any <Jurisdiction> Park for a period of one (1) year, subject to all applicable Park rules and regulations and the provisions of this <legislation>.

Resident lifetime license that enables the licensee to operate a location-based augmented reality game in any <Jurisdiction> Park for the duration of their life, subject to all applicable Park rules and regulations and the provisions of this <legislation>.

Nonresident lifetime license that enables the licensee to operate a location-based augmented reality game in any <Jurisdiction> Park for the duration of their life, subject to all applicable Park rules and regulations and the provisions of this <legislation>.

6. *Gameplay License Application.* Each application for a Gameplay License must be completed in full and filed with <the authorized department> or such other office as may be designated by <the authorizing commissioner>.

Each application must include the following information:

- The full legal name of the applicant.
- The date of birth of the applicant.
- The desired starting date of the Gameplay License.
- The phone number and email address of the applicant.
- The residency status of the applicant.
- The mailing address of the applicant.
- The desired Gameplay License of the applicant: Short-term, Annual, or Lifetime.

To obtain a Gameplay License, the applicant (or their legal guardian if the applicant is under the age of majority in the jurisdiction) must certify that they will abide by all <Jurisdiction> Park rules and regulations while operating a location-based augmented reality game.

7. *Issuance or Denial of Gameplay License.* The <authorizing commissioner> or their designee shall issue a Gameplay License under this <legislation> upon receipt of a completed application and Gameplay License fee.

The <authorizing commissioner> or their designee shall deny the Gameplay License if the conditions of the <legislation> and all applicable laws and regulations have not been met or if the application contains incomplete or false information.

The <authorizing commissioner> or their designee may immediately revoke a Gameplay License which has been granted, if the conditions of the <legislation> and all applicable laws and regulations are no longer being met or if the information supplied by the applicant becomes false or incomplete.

A Gameplay License obtained through fraud or through material misrepresentation on the application is deemed void ab initio.

8. *Fees.* A non-refundable application fee of [\$___] is required with the submission of any Gameplay License application to <the authorized department>.

In addition to the application fee, the fees for Gameplay Licenses are according to the following schedule, and shall be paid prior to the issuance of a Gameplay License:

Resident, short-term: [\$___]
Nonresident, short-term: [\$___]

Resident, annual: [\$___]
Non-resident, annual: [\$___]

Resident, lifetime: [\$___]
Non-resident, lifetime: [\$___]

9. *Notification and Appeals.* The <authorized department> shall act upon the Gameplay License application in a timely fashion and shall approve or deny the application within three (3) business days of receipt. The applicant will be notified in a prompt fashion after a decision on approval or denial.

Any notice of denial will explain why the license was denied and state the appropriate remedy (if applicable).

An unsuccessful applicant may appeal the decision to <the authorized department> through the form available on the <the authorized department's> website. The appeal shall be adjudicated within thirty (30) calendar days from receipt of the form.

10. *Assignability.* A Gameplay License to operate a location-based augmented reality game on <jurisdiction-owned parks> is non-assignable and non-transferable.

11. Indemnification. All license holders shall agree to defend, indemnify, and hold harmless <the jurisdiction> and its officers, agents and employees from any suit, actions on claims arising out of or in any way connected with the licensed activities, except for any claims or liability arising from the negligence or misconduct of the <jurisdiction>, its agents, officers, or employees.

12. Enforcement. A violation for location-based augmented reality gameplay without a license in a <jurisdiction park> shall result in the violator being served with a notice of violation subject to the following fines and penalties:

(1) First offense: [\$___] <e.g., \$50.00>.

(2) Second offense in the previous 12-month period: [\$___] <e.g., \$100.00>.

(3) Third offense in the previous 18-month period: [\$___] <e.g., \$250.00>; ineligible for application for permit for one year.

(4) Fourth or subsequent offense in the previous 24-month period: [\$___] <e.g., \$500.00>; ineligible for application for permit for two years.

These fines do not preclude the violator from being subject to other penalties, including but not limited to a trespass warrant.

A violator shall also be liable for administrative costs and damages incurred by <the Department>.

13. Rights of Violators. A violator who has been served with a notice of violation, shall elect either to:

(1) Pay the civil fine in the manner indicated on the notice;
or

(2) Request an administrative hearing before <an officer of the court (e.g., a special magistrate)>, appointed as

provided <by the jurisdiction>, to appeal the decision of <the compliance officer> that resulted in the issuance of the notice of violation.

C. THE CONSTITUTIONALITY OF LOBAR LICENSING

In assessing the constitutionality of a LoBAR license requirement, a threshold inquiry is whether gameplay is protected by the First Amendment. The answer is likely yes; however, no court has squarely addressed this question. The Supreme Court has found that the First Amendment protects nude dancing,²⁰⁵ live entertainment,²⁰⁶ parade organizing,²⁰⁷ and the failure to salute the flag.²⁰⁸ The Court has never demanded “a narrow, succinctly articulable message” as a condition for First Amendment protection.²⁰⁹ The Court has also recognized that the expressive elements in video games are protected.²¹⁰

It is likely a court would find that game makers have protectable First Amendment interests. And much like listeners, who have an interest in receiving information from speakers, game players likely have an interest in receiving entertainment and expression from

²⁰⁵ See *City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41, 54–55 (1986) (holding that the city’s zoning ordinance aimed at regulating “adult theaters” satisfies the “dictates of the First Amendment”).

²⁰⁶ See *Schad v. Borough of Mount Ephraim*, 452 U.S. 61, 61, 76–77 (1981) (noting the First Amendment “requires sufficient justification for the exclusion of a broad category of protected expression” and the questioned ordinance in this case cannot impose a complete ban on live entertainment).

²⁰⁷ See *Hurley v. Irish-Am. Gay, Lesbian & Bisexual Grp. of Bos.*, 515 U.S. 557, 559 (1995) (ruling that a mandate requiring private citizens who organize a parade to “include among the marchers a group imparting a message that organizers do not wish to convey” violates the First Amendment).

²⁰⁸ See *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 642 (1943) (holding “the action of the local authorities in compelling the flag salute” to “transcend[] constitutional limitations on their power and invade[] the sphere of intellect and spirit” of the First Amendment).

²⁰⁹ *Hurley*, 515 U.S. at 569.

²¹⁰ See *Brown v. Entm’t Merchs. Ass’n*, 564 U.S. 786, 790–91 (2011) (acknowledging that “video games qualify for First Amendment protection” and generally, the government lacks power “to restrict expression because of its message, its ideas, its subject matter, or its content”).

game developers.²¹¹ It is acknowledged that the expressive activity associated with LoBAR gameplay is distinguishable from other, more traditional modes of disseminating ideas like books and pamphlets.²¹² While the precise scope and extent of the First Amendment protection for players is unclear, for present purposes it is presumed that some degree of free speech protection would apply to gameplay.

First Amendment analysis also includes an assessment of the type of forum in which the expressive activity is taking place. Courts recognize three types of government-controlled spaces: (1) traditional public forums, (2) designated public forums, and (3) nonpublic forums.²¹³ Public parks, like our streets and sidewalks, are generally regarded as a traditional public forum.²¹⁴ On public property, other expressive activities—like demonstrations and rallies—can be subject to reasonable time, place, and manner regulations.²¹⁵

²¹¹ The Supreme Court has held that the First Amendment protects not only a speaker's right to free speech, but also a listener's right to receive information. *See, e.g.,* *Lamont v. Postmaster Gen.*, 381 U.S. 301, 308 (1965) (Brennan, J., concurring) (“The dissemination of ideas can accomplish nothing if otherwise willing addressees are not free to receive and consider them. It would be a barren marketplace of ideas that had only sellers and no buyers.”); *Island Trees Sch. Dist. v. Pico*, 457 U.S. 853, 867 (1982) (“[W]e have held that, in a variety of contexts, ‘the Constitution protects the right to receive information and ideas.’” (citing *Stanley v. Georgia*, 394 U.S. 557, 564 (1969))); *Va. State Bd. of Pharm. v. Va. Citizens Consumer Council*, 425 U.S. 748, 763–64 (1976) (acknowledging the strong individual and societal interests in the free flow of information).

²¹² *See Watchtower Bible & Tract Soc’y of N.Y., Inc. v. Vill. of Stratton*, 536 U.S. 150, 151 (2002) (acknowledging “the historical importance of door-to-door canvassing and pamphleteering as vehicles for the dissemination of ideas”).

²¹³ *See Minnesota Voters All. v. Mansky*, 138 S. Ct. 1876, 1885 (2018) (recognizing the three types of government-controlled spaces); *Perry Educ. Ass’n v. Perry Loc. Educators’ Ass’n*, 460 U.S. 37, 45–46 (1983) (addressing different types of property).

²¹⁴ *See Mansky*, 138 S. Ct. at 1885 (“In a traditional public forum—parks, streets, sidewalks, and the like—the government may impose reasonable time, place, and manner restrictions on private speech, but restrictions based on content must satisfy strict scrutiny, and those based on viewpoint are prohibited.”). Note that not all public lands are necessarily a public forum. The inquiry turns on the purpose to which the property is put. For present purposes, we sidestep this fact-based inquiry and generally presume that public parks are public fora.

²¹⁵ *See Grayned v. City of Rockford*, 408 U.S. 104, 115 (1972) (“Our cases make equally clear, however, that reasonable ‘time, place and manner’ regulations may be necessary to further significant governmental interests, and are permitted.”); *see also Cox v. New Hampshire*, 312 U.S. 569, 578 (1941) (finding that the government’s licensing scheme was a valid “exercise of local control over the use of streets for parades and processions”).

To regulate competing uses of a public forum, a valid time, place, and manner permitting schema must meet four key constitutional requirements. First, it must not delegate overly broad licensing discretion to a government official.²¹⁶ Second, it must not be based on the content of the message. A licensing statute lacks content neutrality (1) if it burdens only certain messages²¹⁷ or (2) if it imposes a burden on all messages, while granting officials unfettered discretion to treat messages differently.²¹⁸ Third, the statute must be narrowly tailored to serve a significant governmental interest.²¹⁹ And last, it must leave open ample alternatives for communication.²²⁰

Consistent with other valid licensing schema, the above proposed LoBAR license does not contain a grant of overly broad discretion.²²¹ As the Supreme Court has prescribed, this license would be administered in a “ministerial” and “routine” manner based on

²¹⁶ See *Watchtower Bible*, 536 U.S. at 162 (holding that an ordinance relying on an exercise of discretion by a city official was invalid).

²¹⁷ A content-based regulation is one that (1) “draws distinctions based on the message a speaker conveys” or (2) “applies to particular speech because of the topic discussed or the idea or message expressed.” *Reed v. Town of Gilbert*, 576 U.S. 155, 163 (2015).

²¹⁸ See *Thomas v. Chicago Park Dist.*, 534 U.S. 316, 323 (2002) (“Where the licensing official enjoys unduly broad discretion in determining whether to grant or deny a permit, there is a risk that he will favor or disfavor speech based on its content.”); *Cox*, 312 U.S. at 577 (concluding the statute was content neutral because there was “no evidence that the statute ha[d] been administered otherwise than in the fair and non-discriminatory manner”).

²¹⁹ See *United States v. Albertini*, 472 U.S. 675, 688–89 (1985) (“Regulations that burden speech incidentally or control the time, place, and manner of expression must be evaluated in terms of their general effect. Nor are such regulations invalid simply because there is some imaginable alternative that might be less burdensome on speech. Instead, an incidental burden on speech is no greater than is essential, and therefore is permissible under *O’Brien*, so long as the neutral regulation promotes a substantial government interest that would be achieved less effectively absent the regulation.” (internal citations omitted)).

²²⁰ See *Forsyth Cnty. v. Nationalist Movement*, 505 U.S. 123, 130 (1992) (“[A]ny permit scheme . . . must leave open ample alternatives for communication.”); see also *Clark v. Cmty. for Creative Non-Violence*, 468 U.S. 288, 293 (1984) (noting that time, place, and manner regulations are “valid provided that they are justified without reference to the content of the regulated speech, that they are narrowly tailored to serve a significant governmental interest, and that they leave open ample alternative channels for communication of the information”).

²²¹ See *City of Lakewood v. Plain Dealer Publ’g Co.*, 486 U.S. 750, 757 (1988) (“[I]n the area of free expression[,] a licensing statute placing unbridled discretion in the hands of a government official or agency constitutes a prior restraint and may result in censorship.”); see also *Miami Herald Publ’g Co. v. City of Hallandale*, 734 F.2d 666, 673 (11th Cir. 1984) (“In order to qualify as narrowly tailored, a content neutral ordinance must avoid vesting city officials with discretion to grant or deny licenses . . .”).

objective criteria set forth in the proposed enabling legislation.²²² As the Court has instructed, there must be “narrow, objective, and definite standards to guide the licensing authority.”²²³ Section 7 of the proposed legislation sets forth limited basis on which a LoBAR license would be denied. After a completed application is submitted (along with the necessary fees), an eligible permit issues in a “timely fashion,” according to Section 9. This license schema does not impose a long waiting period, and licenses would be issued routinely.²²⁴ Thus, spontaneous gameplay would not be hindered by the license requirement.²²⁵

The proposed fee structure is set forth in Section 8 of the authorizing legislation and is not left to the “arbitrary” and “unbridled discretion” of a government official.²²⁶ The Supreme Court has long recognized the validity of a fee imposed as a “regulatory measure to defray the expenses of policing the activities in question.”²²⁷ A licensing fee may be constitutionally invalid if it leaves too much discretion to the administrator.²²⁸ In the proposed schema above, fees are assessed based solely on in-state residency and desired length of license. The Supreme Court has upheld similar graduated fee schedules that were based on residency

²²² *Poulos v. New Hampshire*, 345 U.S. 395, 403 (1953).

²²³ *Shuttlesworth v. City of Birmingham*, 394 U.S. 147, 151 (1969).

²²⁴ *Cf. Kaahumanu v. Hawaii*, 682 F.3d 789, 805 (9th Cir. 2012) (“[T]he [beach wedding] permit requirement does not delegate overly broad discretion to a government official. The substantive criteria for granting a permit are clear. So long as an applicant agrees to the terms and conditions of the permit and pays the fee, the regulations leave little or no discretion . . .”).

²²⁵ *See Watchtower Bible & Tract Soc’y of N.Y., Inc. v. Vill. of Stratton*, 536 U.S. 150, 167 (2002) (noting concerns that a licensing scheme would unduly burden spontaneous expressive activity); *see also Kaahumanu*, 682 F.3d at 805 (“The absence of any significant burden on Plaintiffs’ speech weighs heavily in the narrow tailoring analysis.”).

²²⁶ *Forsyth Cnty. v. Nationalist Movement*, 505 U.S. 123, 133 (1992).

²²⁷ *Murdock v. Pennsylvania*, 319 U.S. 105, 113–14 (1943); *see also Jacobsen v. Harris*, 869 F.2d 1172, 1172 (8th Cir. 1989) (finding that fee covering administrative costs of processing news rack permit applications did not violate First Amendment).

²²⁸ *See Nationalist Movement*, 505 U.S. at 134 (finding that the statute was not content-neutral because the administrator could adjust the permit fee based on his guess that the crowd might react more heavily to a given protest).

status.²²⁹ And these fees are unlikely to implicate the Dormant Commerce Clause.²³⁰

This proposed licensing system is content neutral because it does not distinguish among expressive, gameplay activities based on the gaming content.²³¹ It applies to all LoBAR gameplay on public property. Although this licensing requirement would apply to all LoBAR gamers—not only those who litter and congest public property—policymakers are not required to wait for damage to occur. Other public park permits (e.g., protesting, picnicking, and photographing) are not predicated on a speculation of which attendees pose the greatest threats to safety and order.²³² On the other hand, there are significant government interests not addressed by this LoBAR gameplay license. LoBAR gamers are not the only park users who may raise concerns. Other park permits are similarly targeted and affect non-problematic uses (e.g., camping, drone use, geocaching placement, etc.). Thus, this proposed license is neither overbroad nor unduly narrow. The Supreme Court has instructed that a narrowly-tailored licensing schema need not be the least restrictive or least intrusive means to further a government interest.²³³ The inquiry is whether the regulation burdens substantially more expressive activity than necessary to achieve the scheme’s important goals.²³⁴

²²⁹ Cf. *Toomer v. Witsell*, 334 U.S. 385, 398–99 (1948) (“The State is not without power . . . to graduate license fees . . . or even to charge non-residents a differential which would merely compensate the State for any added enforcement burden they may impose or for any conservation expenditures from taxes which only residents pay.” (footnotes omitted)).

²³⁰ See *Am. Trucking Ass’n v. Mich. Pub. Serv. Comm’n*, 545 U.S. 429, 437–38 (2005) (finding that taxes on “purely local activity” of interstate trucking firms do not deter or discriminate against interstate activities and do not violate the Dormant Commerce Clause); *South Dakota v. Wayfair, Inc.*, 138 S. Ct. 2080, 2093–94 (2018) (“The Court has consistently explained that the Commerce Clause was designed to prevent States from engaging in economic discrimination so they would not divide into isolated, separable units.”).

²³¹ See *Glendale Assocs., Ltd. v. NLRB*, 347 F.3d 1145, 1155 (9th Cir. 2003) (describing what makes a rule content-neutral).

²³² Cf. *Epstein*, *supra* note 20, at 412 (“Once the permit is required, the individual citizen becomes a supplicant before the government in all cases, whether or not any real threat of harm exists.”).

²³³ See *Ward v. Rock Against Racism*, 491 U.S. 781, 798 (1989) (“[W]e reaffirm today that a regulation of the time, place, or manner of protected speech must be narrowly tailored to serve the government’s legitimate, content-neutral interests but that it need not be the least restrictive or least intrusive means of doing so.”).

²³⁴ See *id.* at 799–800 (“[T]he requirement of narrow tailoring is satisfied so long as the . . . regulation promotes a substantial government interest that would be achieved less effectively

Here, the proposed permit scheme bears a direct relationship to, and furthers, significant governmental interests. First, the government has a substantial interest in regulating competing uses of public parks.²³⁵ In upholding a city park's content-neutral permitting scheme, the Supreme Court acknowledged the government's interests are four-fold: (1) to coordinate multiple uses of limited space; (2) to assure preservation of the park facilities; (3) to prevent uses that are dangerous, unlawful, or impermissible; and (4) to assure financial accountability for any damages caused.²³⁶ Valid government interests include public safety and convenience,²³⁷ as well as good order and aesthetics.²³⁸ A second justification is that an individual permit is necessary because the nature of LoBAR gameplay makes a special event permit impractical and nonsensical.²³⁹ Requiring individual licenses, akin to other recreational licenses, is a means "not substantially broader than necessary to achieve the government's interest."²⁴⁰ This LoBAR licensing system outlined above defines LoBAR games as ones that superimposes digital content based on a player's location onto a live video display from that player's mobile device. Unlike the Milwaukee Ordinance that left the term undefined, this definition serves to avoid potential concerns about overbreadth.

absent the regulation So long as the means chosen are not substantially broader than necessary to achieve the government's interest, however, the regulation will not be invalid simply because a court concludes that the government's interest could be adequately served by some less-speech-restrictive alternative." (citation omitted)).

²³⁵ See *Price v. Barr*, 514 F. Supp. 3d 171, 190 (D.D.C. 2021) ("Protecting national park land and the resources it contains is a substantial governmental interest."); *Kaahumanu v. Hawaii*, 682 F.3d 789, 803 (9th Cir. 2012) (concluding it was a significant government interest to regulate competing and overlapping uses of Hawaii's public lands, including its public beaches).

²³⁶ See *Thomas v. Chi. Park Dist.*, 534 U.S. 316, 322 (2002) (discussing the purpose of the permit system).

²³⁷ See *Heffron v. Int'l Soc'y for Krishna Consciousness, Inc.*, 452 U.S. 640, 650 (1981) ("As a general matter, it is clear that a State's interest in protecting the 'safety and convenience' of persons using a public forum is a valid governmental objective."); see also *New Eng. Reg'l Council of Carpenters v. Kinton*, 284 F.3d 9, 26 (1st Cir. 2002) ("Public safety and convenience are paradigmatically permissible considerations in the issuance of permits").

²³⁸ See *Horton v. City of St. Augustine*, 272 F.3d 1318, 1333 & n.19 (11th Cir. 2001) (noting "other enumerated municipal purposes" for limiting street performer activities included "congestion, noise, illegal activity, rudeness, and diminished aesthetics").

²³⁹ Cf. *Candy Lab Inc. v. Milwaukee Cnty.*, 266 F. Supp. 3d 1139, 1153 (suggesting that Milwaukee County's ordinance is placing a "square peg in a round hole").

²⁴⁰ See *supra* note 234 and accompanying text.

Last, the proposed individual LoBAR license schema leaves open ample alternatives for gameplay. No license is needed to play on private residential property or at consenting business locations.²⁴¹ Thus, a license for LoBAR gameplay on public property is likely to survive intermediate scrutiny because it is ministerial, content neutral, and narrowly tailored to significant governmental interests.

V. CONCLUSION

The fact that LoBAR gameplay may be licensed can fuel critiques by those wary of government licenses that control access and use of public property. Yet, as discussed above, a license to play is likely to survive First Amendment review.²⁴² In other words, LoBAR licensing sits comfortably within the wider practice of licensing recreational and expressive activities. However, such a license may animate concerns about the proliferation of government licensing schemes.²⁴³

This sample LoBAR gameplay legislation is offered to start a conversation; it is not intended as a complete answer. There are legitimate concerns about equitable access to public parks²⁴⁴ and concerns that the impecunious may be hampered in their ability to engage in valuable gameplay. The authors leave for future analysis the normative advisability of the wider practice of licensing so many activities on public property. For present purposes, we note that a

²⁴¹ Cf. *Kaahumanu v. Hawaii*, 682 F.3d 789, 805 (9th Cir. 2012) (“The ‘entire medium’ of a beach wedding is clearly not foreclosed. A person need not obtain a permit to conduct a commercial beach or beach-related wedding on sites other than a state beach. These alternative sites include county beaches or private property next to any beach.”).

²⁴² See *supra* section III.C.

²⁴³ Compare Kellum, *supra* note 18, at 383 (criticizing a “growing trend among government bodies to promulgate and utilize permit schemes that effectively preempt protected expression on public ways”), with Biber & Ruhl, *supra* note 19, at 137 (“Administrative permits are ubiquitous in modern society.”).

²⁴⁴ See Hayley Smith, *Visiting a State Park? Your Library Card Can Get You in for Free*, L.A. TIMES (Apr. 7, 2022, 2:46 PM), <https://www.latimes.com/california/story/2022-04-07/visiting-a-state-park-your-library-card-can-get-you-in-for-free> (“In an effort to provide more equitable outdoor access for all Californians, residents can now use their library cards to check out day passes for free access to more than 200 state parks, officials announced this week.”).

LoBAR gameplay license is likely consonant with constitutional principles.

Thus, our scholarly contribution is two-fold: (1) to highlight the variety of permits that governments currently require for public access and use of public property; and (2) to suggest that requiring LoBAR gamers to seek a license to play on public property fits within the broad exercise of government power.²⁴⁵ Much like how governments have required permits for beach weddings,²⁴⁶ street performances,²⁴⁷ commercial photography at municipal parks,²⁴⁸ and filming activities in national parks,²⁴⁹ policymakers could require a LoBAR license to play on public property.

²⁴⁵ For example, policymakers have used this broad authority to safeguard the health, welfare, and safety of residents to prohibit the use of recreational devices, like roller skates, from public property. *See* N.J. ADMIN. CODE § 7:2-2.25 (2014) (“The use of roller skates and skateboards on State Park Service roads and parking lots is prohibited.”); ZEPHYRHILLS, FLA. CODE OF ORDINANCES § 70.20 (2008) (“It shall be unlawful for any person to use a skateboard, skates, scooters, inline skates, roller blades, coaster, or bicycle on property owned and maintained by the city, including city parks, when such area is designated as prohibiting such usage.”); COM., CAL. MUN. CODE ch. 9.50.020 (2011) (“No person shall ride, use or propel any bicycle, skateboard, rollerblade, roller skate or other coaster device, whether powered by human or motorized means [i]n or upon any public facility, including, but not limited to parking lots or structures, with the exception of any facility that is specifically designated for such use . . .”).

²⁴⁶ *See Kaahumanu*, 682 F.3d at 803 (concluding a beach wedding permit requirement was “reasonably designed to minimize conflicting uses of limited beach area and to conserve the physical resource of the beaches”).

²⁴⁷ *See Horton v. City of St. Augustine*, 272 F.3d 1318, 1333 (11th Cir. 2001) (“The City’s restriction of street performances within a four-block area of an historic district satisfies this First Amendment analysis and is a legitimate exercise of legislative authority.”). *But see Berger v. City of Seattle*, 569 F.3d 1029, 1033 (9th Cir. 2009) (invalidating on First Amendment grounds a city’s permit requirement for street performers).

²⁴⁸ *See Josephine Havlak Photographer, Inc. v. Vill. of Twin Oaks*, 864 F.3d 905, 905 (8th Cir. 2017) (upholding, as content neutral and constitutional, a municipal ordinance requiring a permit for all commercial activity in its neighborhood park—including commercial photographers).


²⁴⁹ *See Price v. Garland*, 45 F.4th 1059, 1059 (D.C. Cir. 2022) (upholding, as reasonable and constitutional, National Park Service (NPS) permit-and-fee requirements for commercial filmmaking on NPS lands).

VI. APPENDIX

[State] Department of Parks and Recreation

**LOCATION-BASED AUGMENTED REALITY GAMING ON
PUBLIC PROPERTY LICENSE APPLICATION FORM**

To obtain a license please complete all questions.



LOCAL EMBLEM
Official Park's
Emblem/Logo Here

Full Name (Last, First) :

Date of Birth : / /

License start date : / /

Residency : ☐ Resident ☐ Non-resident License Length ☐ Short-term 10 days ☐ Annual ☐ Lifetime

Phone number : E-Mail :

Address :

Billing Address : ☐ Same as mailing ☐ Different

Card number :

Billing address :
(if different than mailing)

CVC : Expiration Date : /

License Fee :

	Resident	Non-Resident		Resident	Non-Resident		Resident	Non-Resident
Short-term	<input style="width: 50px;" type="text"/> Insert license fee here \$	<input style="width: 50px;" type="text"/> Insert license fee here \$	Annual	<input style="width: 50px;" type="text"/> Insert license fee here \$	<input style="width: 50px;" type="text"/> Insert license fee here \$	Lifetime	<input style="width: 50px;" type="text"/> Insert license fee here \$	N/A

Processing Fee : Insert processing fee here \$

Fee and license agreement :

I agree to the license and processing fee for the Location-Based Augmented Reality Gaming on Public Property License be charged to the above payment method. ☐ Yes

I certify that I will abide by all public property rules and regulations while engaging in augmented reality gaming and acknowledge that the Department of Parks and Recreation has the right to fine me or revoke my license if I violate park rules. ☐ Yes

Signature: Date:

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