

Programmable Places: Mobile Games for Improving Public Space

By

Scott Margeson

B.S. Physics, B.A. Philosophy

University of Pittsburgh

Pittsburgh, PA (2004)

Submitted to the Department of Urban Studies and Planning in partial fulfillment of the requirements for the degree of Master in City Planning at the
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June 2017

© 2017 Scott Margeson. All Rights Reserved

The author hereby grants to MIT the permission to reproduce and to distribute publicly paper and electronic copies of the thesis document in whole or in part in any medium now known or hereafter created.

Author Signature redacted
Department of Urban Studies and Planning
(date of signing)

Certified by Signature redacted
Assistant Professor Sarah Williams
Department of Urban Studies and Planning
Thesis Supervisor

Accepted by Signature redacted
Associate Professor P. Christopher Zegras
Chair, MCP Committee
Department of Urban Studies and Planning



Programmable Places: Mobile Games for Improving Public Space

By Scott Margeson

Submitted to the Department of Urban Studies and Planning on May 23, 2017 in Partial Fulfillment of the Requirements for the Degree of Master in City Planning

ABSTRACT

The public realm is an important element of any city. Urban design theorists like Allan Jacobs have described in detail how public spaces can serve city inhabitants with physical comfort and social amenities. Meanwhile, urban political theorists like Henri LeFebvre have pointed out that public space is a crucial platform for the establishment of a democratic and equitable public sphere.

What happens to these functions when physical public space is overlaid by a virtual dimension accessible only through digital devices? The huge popularity of Pokémon Go, a mobile smartphone game released in 2016, shows how significantly an urban place can be changed by a digital game. At that time, a flood of news reports and anecdotes from the US and around the world described a sudden army of urban explorers filling previously underutilized parks and having serendipitous encounters with friends and strangers.

This thesis explores in detail how the physical and political functions of urban public space were impacted by the release of Pokémon Go. This is important in order for urban planners and public officials to fully understand the positive and negative implications of virtual worlds that interact with the “real” world, and may be widespread in the future. Performing a survey of public-space-related behaviors and attitudes among Pokémon Go players, this research set out to test whether Pokémon Go helped to further the environmental and political functions of public space.

The results show that Pokémon Go’s effects vary considerably depending on the specific location and on the attitude of the individual. Nevertheless, it is shown that Pokémon Go’s release caused significant positive and negative changes in peoples’ use of public space, with a particularly pronounced effect on players. Furthermore, deliberate interventions using the game have the potential to make cities more equitable and their citizens more engaged.

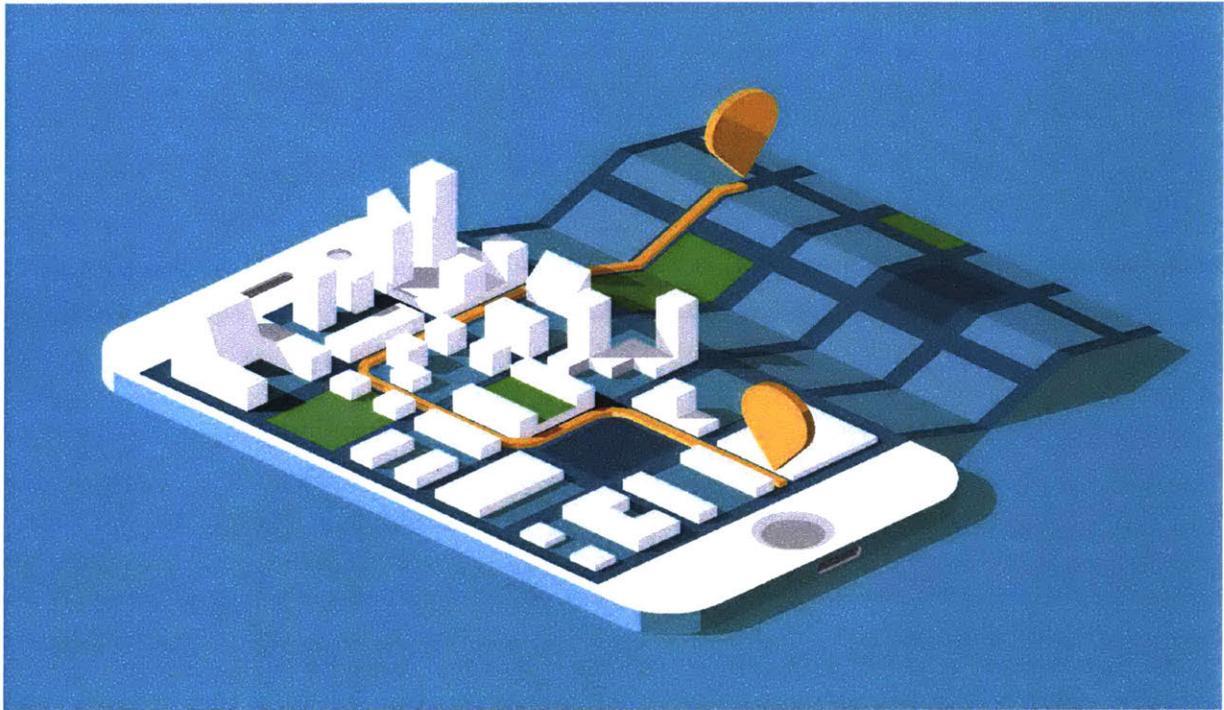
Keywords: Digital Democracy, Everyday Urbanism, Mobile Games, Public Space, Public Realm, Right to the City, Urban Design, Urban Planning

Thesis Supervisor: Sarah Williams, Assistant Professor of Technology and Urban Planning

Thesis Reader: Mary Anne Ocampo, Lecturer

programmable PLACES

Mobile Games for Improving Public Space



Scott Margeson | Master in City Planning Candidate

MIT Dept. of Urban Studies & Planning

Spring 2017

TABLE OF CONTENTS

Introduction: That Time Everyone Was Chasing Cartoon Monsters across the City	8
Urban Games and How They Work.....	11
Pokémon Go and its Mechanics	11
Other Urban Games	13
Public Space and Its Functions	17
Introduction to the Literature.....	17
Making the City Great: the Environmental Function of Public Space	18
Pedestrian Activity Levels.....	19
Variety and Mystery	20
Responsiveness	21
Social Contact	22
Making the City Democratic: the Political Functions of Public Space.....	23
Accessibility.....	24
Multiplicity and Diversity.....	25
Autonomy	25
Mobile Technology in Public Space.....	26
Collecting Evidence: Research Methods and Findings.....	29
Player Survey	29
From a Player’s Perspective: Survey Findings	33
Players Speak Out: Direct Quotations.....	39
Conclusion: Virtual World, Real Impact.....	40
Pokémon Go’s Effects on the Environmental Functions of Public Space	40
Pokémon Go’s Effects on the Political Functions of Public Space.....	46
Final Conclusions.....	50
Summary of Findings	50
Implications for the Future.....	51
Directions for Future Research	54
Works Cited	56
Appendix.....	59
Interviews.....	59
Player Quotes by Theme.....	59
Complete Survey Results.....	68

INTRODUCTION: THAT TIME EVERYONE WAS CHASING CARTOON MONSTERS ACROSS THE CITY

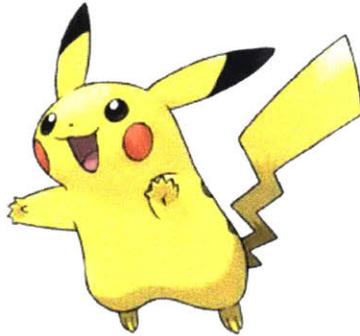


FIGURE 1 – PIKACHU, A TYPICAL POKÉMON (© THE POKÉMON COMPANY)

When the mobile game Pokémon Go was released on July 6, 2016, few could have predicted the explosive effect it would have on public places, especially in cities. Practically overnight, the game brought forth legions of urban explorers who emerged from their homes to scour parks, sidewalks, and other real-world places in pursuit of virtual creatures to capture. These players were engrossed in a digital game intimately tied to real physical locations, and every place they went was transformed by their presence. Understanding how this happened and what the results were will show planners and other urban actors how to tap into the power of digital environments to improve real-world public places.

It is not the first location-based game ever, but Pokémon Go offers the best chance yet to study the effect of such games in urban environments. Though the technology has been around for some time now, this particular game represents the first time a location-based mobile game has achieved a high degree of popularity. Pokémon Go's massive popularity is undisputed by virtually any metric. Apple's App Store reported the most downloads during a launch week ever, and the app reached 10 million downloads in record time (Molina). Following the US release, the app's average time spent per user and frequency of use surpassed that of Facebook (Perez).

The game's far-reaching effect on urban places is also well documented. A Washington Post reporter at the time described the "Pokémon Go craze" sweeping towns and cities in Illinois, Wyoming, Massachusetts and elsewhere, as the "massively popular" game caused points of interest to be "swarmed" (Guarino). Later that month, US Magazine reported the presence of a rare Pokémon in Central Park causing a flash mob which drew "massive numbers" of nearby players, with some even exiting their cars to join the crowd (Chen). And around the same time, a staggering 2,000 players showed up to an outdoor open area in Sydney, Australia, for an impromptu Pokémon Go event (Plunkett). While the latter is certainly an extreme case, there is no doubt the game's effects on the public realm were widely noticed even by casual observers.

Many people were delighted at the resulting changes, especially in the cases of formerly under-used parks and struggling businesses that saw increases in foot traffic. “Places that people didn't know existed instantly became huge gathering places for people to meet and hang-out,” reported one player. Another survey respondent said “I found that the early Pokémon Go craze activated public spaces all across town. It helped ease our collective social isolation by giving players common ground to be friendly towards each other.”¹

Others were less sanguine, such as those who fretted about Pokémon players trampling over their private lawns, or forming noisy crowds in public locations. Noted a local CBS affiliate at the time, “The ‘Pokémon Go’ craze across the U.S. has people wandering into yards, driveways, cemeteries and even an off-limits police parking lot in search of cartoon monsters, prompting warnings that trespassers could get arrested.” (CBS-DFW Phoenix)

Still, there is one fact about which there is no dispute: the effect of the game on urban places was real and noticeable. Pokémon Go is not the first digital game to be tied to physical locations, an honor which would go to the earlier game Ingress, or perhaps its antecedent, geocaching, but it was certainly the first to have such an obvious impact. Its players were compelled to leave their homes by the millions and begin exploring everywhere, pursuing virtual monsters across the real world.

Thus, the Pokémon Go launch marks the singular moment that location-based mobile gaming truly arrived in the city, and the question of the day is what will happen to our city places as a result. Pokémon Go itself is likely to be a transient phenomenon, as are most mobile games, but the tremendous power of location-based mobile gaming in general has ongoing implications for the future.

To understand why the presence of games like this could have a meaningful impact on life in cities, consider the ‘board’ on which they are played in cities: urban public space. Public space is not an optional luxury, but a vital component of any city in its own right. Planning literature notes two especially important functions for public space. First, it is an environmental asset that can provide comfort, freedom and social amenities to individuals in the city. Second, it provides the platform on which a democratic and equitable public sphere can constitute itself. In both cases it could be considered a respite from the otherwise endless sequence of privately controlled spaces that one traverses in a city.

Because public space in cities is so important, it worth inquiring whether popular location-based mobile games such as Pokémon Go have any effect on its environmental and political functions. One reason there might be such a relationship is the previously mentioned crowds, which seem to have made some public places busier or more crowded, at least temporarily. Another reason to suspect a relationship between Pokémon Go and public space is the ‘virtual world’ that the game creates and overlays on the real world. The objects and location markers in this virtual world both draw players to specific places in the real world, and also influence

¹ These quotes are from text responses to the Programmable Places survey conducted as part of the present research.

their behavior while there. For both reasons, Pokémon Go's release represents a chance to examine and qualify this potential relationship between mobile games and public space.

There are many intriguing questions that research could attempt to answer. For example, are in-game items geographically distributed in a fair way? Could mobile games help us improve equitable access to amenities? Or allow planners to 'program' foot traffic in specific locations? Can Pokémon Go drive potential customers to businesses?²

The full scope of these and other interesting issues cannot be explored in a single study, so the primary aim of the present research is to simply establish a normative rubric by which to evaluate the effects of mobile games on the city, and then apply this rubric to the test case of Pokémon Go. It will supply an answer to the following question:

What has been the effect of Pokémon Go on the social and political functions of public space?

To answer this question, this thesis will walk through several stages. First, "Urban Games and How They Work" will explain the basics of the game and how it gets people to move, and situate Pokémon Go in the context of other related games. Next, "Public Space and Its Functions" will draw on both political theories of urbanism such as the *Right to the City*, and design theories such as Allan Jacobs' *Great Streets*, in order to establish a set of guidelines indicating whether and how a public space is fulfilling its political and social functions. Using these guidelines to evaluate the observed effects of Pokémon Go will offer an early glimpse at what the advent of location-based games portends for urban inhabitants. That section will also explore research and writing specifically about mobile games in public space.

"Collecting Evidence: Research Methods and Findings" will explain the research conducted as part of this thesis, and describe the findings. One method, an online survey of players, offers insight into changes in their use of public space as a result of playing the game. The other source of primary data was a pair of interviews conducted with individuals knowledgeable about specific Pokémon-Go-related partnerships taking place with the City of Boston.

Finally, "Conclusion: Virtual World, Real Impact" will put the research findings into the context of the theoretical criteria developed, and offer a normative evaluation of Pokémon Go's effects on the urban public realm. This chapter will also attempt to generalize the findings and speculate about the potential impact on cities of location-based mobile apps in general. The ability of such apps to add a digital layer onto an existing physical space is quite radical. Digital environments are as fluid and responsive as physical ones are static and timeless. Thus the combination of public space with mobile gaming can produce spaces that are more dynamic, flexible, and re-configurable than it is today. Public space in the city may soon become more complex – and more interesting – than ever before.

² To this question, some retail stores and restaurants are betting the answer is 'yes', to the extent that they are paying real money to install game lures near their location (Tribune News Services).

URBAN GAMES AND HOW THEY WORK

POKÉMON GO AND ITS MECHANICS

Pokémon Go is a free-to-play mobile game with optional in-game purchases, developed by Niantic, Inc. for Apple and Android smartphones. Its immediate popularity upon release was due in part to the large existing Pokémon fan base. The highly successful Pokémon franchise already includes television cartoons, stuffed animals, trading cards, console video games and more. In this fictional universe, humans known as “trainers” capture wild monsters known as “Pokémon.” They then train the Pokémon and send them into battle against other trainers’ Pokémon. All of this is typically accompanied by a whimsical anime aesthetic and a spirit of friendly competition.

Pokémon Go, the latest product, invites players to take on the role of trainers: collecting various Pokémon, improving their abilities, and engaging in battles with other trainers. The game space mirrors the real world, and is overlaid on top of it, so that in order to change locations in the virtual world, players must actually move in physical space. This fusion of virtual world with real space is key to the game’s ability to make real changes to public urban places.

It is worth briefly noting that this characterization is in contrast to most articles and observations about the game, which tend to emphasize its augmented reality aspect as if that were the most revolutionary or interesting part of the phenomenon. In fact, although Pokémon Go does use augmented reality, this feature is not connected the actual mechanics of the game. It simply uses the phone’s camera view as a background for the Pokémon-catching animation so that the monster looks as though it is walking around in the real world. While certainly entertaining, this feature can be turned off completely without compromising any of the game’s other features. Superimposing a cartoon creature on a real image is not what gives the game city-changing power; what matters is the fact that physical location is an integral part of the experience.

This is the sense in which the term ‘augmented reality’ is usually used: the concept of adding digitally created elements to real-time images. But actually, if taken in a more literal sense, *augmented reality* does describe the Pokémon Go situation quite well, since the real world has been augmented by a virtual world with its own locations and objects. In order to avoid confusion with the more common usage of the phrase ‘augmented reality’, this phenomenon, as applied to cities, will be referred to throughout this paper as *augmented urbanism*.



FIGURE 2 – POKÉMON GO PLAYER APPROACHING A POKÉSTOP



FIGURE 3 – POKÉSTOP CLOSE-UP

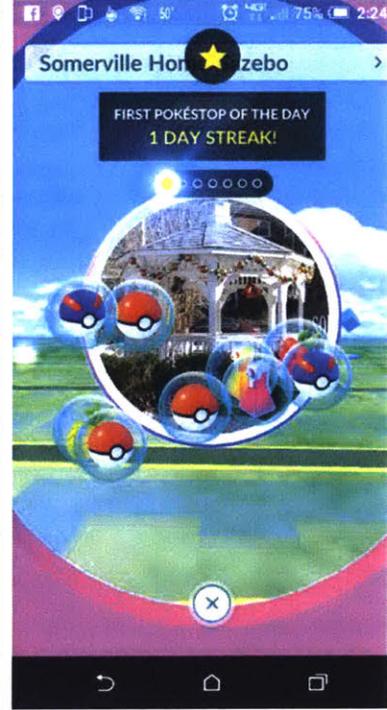


FIGURE 4 – POKÉSTOP AFTER ACTIVATION

The mechanics of the game reinforce and take advantage of its location-based nature. The primary mechanic of the game is collecting the Pokémon themselves, which involves coming near to a virtual monster's location in the real world, and then engaging in a simple on-screen maneuver to capture it. Pokémon appear regularly and can do so anywhere, but once collected, are not replaced immediately. Furthermore, different types of Pokémon tend to appear in different locations. This impels players to go somewhere else, in order to find other Pokémon and continue collecting.

Another game mechanic tightly tied to physical space is the PokéStop. These are icons fixed to real world locations, and they give bonuses of useful items and power-ups to players who come close enough. The locations of these PokéStops can be seen on the in-game map, provoking players to visit them, and potentially influencing route choice in order to maximize PokéStop contact. Because they are fixed, they are effectively static features of their locations.

Yet another game mechanic that compels real-world movement is the eggs. These are virtual items representing unhatched Pokémon, and are occasionally granted to the player in the course of playing the game. Once acquired, "hatching" the eggs into useful Pokémon requires the player to walk a certain total distance. Unlike the PokéStops, these do not motivate movement toward any particular destination, but simply encourage the player to walk as much as possible.

It should be noted that the types of movement required to fulfill these mechanics generally includes only pedestrian-speed movement, as certain game functions stop working over speeds of 18 km/hr, while the game is essentially unplayable at speeds over 30 km/hr

(Moldharia). This is important for the current discussion because it means that the additional public space visitors generated by this game are almost all pedestrians.



FIGURE 5 – POKÉMON GO VIRTUAL WORLD



FIGURE 6 – POKÉMON GO GYM INTERFACE

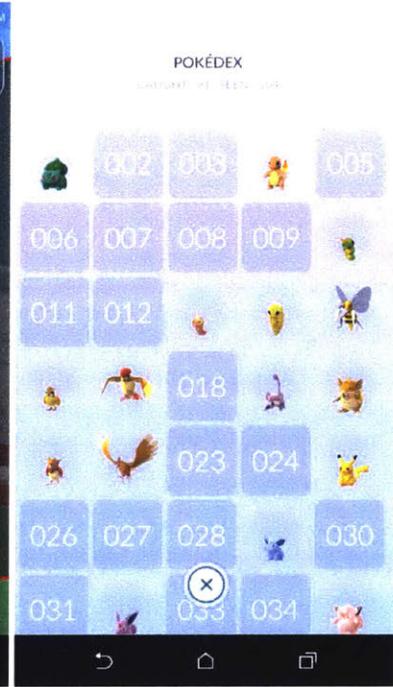


FIGURE 7 – A POKÉMON COLLECTION

The mechanic that allows trainers to compete against one another is the gym. These function as “king of the hill” type arenas, again tied to specific locations in the real world. Each one is defended by Pokémon controlled by the current champions, and attacking players can attempt to dislodge them through battles conducted on-screen. These gyms and their current champions can be seen by other players on the in-game map.

There is one more mechanic worth mentioning, which is the in-game item called a lure. These one-time-use digital items can be used by players to draw extra Pokémon to their vicinity for a limited time. What makes these significant to the current discussion is that *other players* can also see and make use of the lure, once set. This means that players can, however trivially, make actual changes to the public space around them through the mechanics of the game. The implications of this will be discussed in greater detail under *Findings*.

OTHER URBAN GAMES

Pokémon Go, of course, is just one among a huge variety of games that are played in urban space. It is beyond the scope of this thesis to provide a comprehensive explanation of all such games, but a general overview of the types available, and their similarities and differences, will help to situate Pokémon Go in context.

VIRTUAL-WORLD GAMES

There are many games available for smartphones that feature a virtual world overlaid on the real world, just like Pokémon Go. These games vary considerably in their mechanics and objectives, but they all use real physical environments as the board on which the game is played. One example is Ingress, a precursor to Pokémon Go that was developed by many of the same people. In Ingress, players join one of two global teams. By capturing several “portals” located at real-world places, a team “claims” the area between the portals. The game’s virtual world is therefore a mirror of the real one, and is divided into a series of territories, each of which is controlled by one team or another, with world domination being each team’s primary goal. (Wikipedia)

A slew of other games create similar virtual worlds as the basis for their mechanics. In CodeRunner, an espionage-themed game, players must go to specific locations in the world to retrieve mission assignments and complete objectives, and can even leave virtual objects for other players. The game Landlord is like Monopoly played on the real world; players buy and sell ‘properties’ at real world locations and charge rent to other players who go there. Parallel Mafia, ResourcesGame, and Zaploot similarly involve taking virtual control of certain locations, and defending them from other players.

In Turf Wars, the overall object of the game is to compete against other players to be the champion of a particular city, king-of-the-hill style. Meanwhile, SpecTrek is more focused on collecting things (in this case, snapping pictures of virtual ghosts) than competing for control. And Zombies, Run has yet another objective. It’s a health app designed as a game, which uses a horde of virtual zombies to chase players around the world, providing some extra motivation for physical activity and adding a dash of fun. (Vasiliu)

Other games of this type come and go. For example, the ‘Come Out & Play’ festival regularly hosted in San Francisco is an organized event that brings people together to play a wide variety of urban games, most of them entirely unique to the festival. Many of the games are location-based or include a virtual world, and some do both (CO&P).

What all these games have in common with Pokémon Go is they develop a virtual world for players to interact with, and require movement in the real world in order to play the game and accomplish objectives. One significant difference among them is whether players are working solely for themselves, or as part of a team. This has some implications for social interactions in the places where the games are played, since competition and cooperation cause different reactions in different people. Also, the motivations for a player to explore in general, to visit specific locations, or to interact with others in a particular way all depend on the specific game mechanics, which vary considerably.

GEOCACHING: A GLOBAL SCAVENGER HUNT

Geocaching is essentially a global scavenger hunt game that can be played with just a GPS device, and predates the existence of modern smartphones. The following description of the game is from the researcher’s personal experience. Players have access to a list of GPS coordinates, each of which corresponds to a physical cache hidden at that real-world location.

In dense urban areas, a cache may be something as small as a one-ounce metal tin; in more natural or rural areas it may be something the size of a tackle box. In any case, each cache contains a notebook or piece of paper, on which everyone who finds the cache adds their name and perhaps a note. The cache is then carefully returned to its hiding place for the next person.

There is no other reward beyond the joy of finding it. Perhaps having one's name permanently inscribed within could make the place more personally meaningful, in a sentimental way. Perhaps, also, it could foster a sense of connection with the other people on the list, despite the fact that the player will likely never meet any of them.

Like Pokémon Go and other scavenger-hunt style games, the primary objective of geocaching is collecting things or checking them off a list by visiting specific real-world locations. Unlike Pokémon Go, the game depends on actual physical objects, which means it could potentially be discovered or disrupted by someone who is unaware of the game. Most caches include a brief description of geocaching, and a plea to not move the cache, in case of discovery by someone who is unfamiliar. Also unlike Pokémon Go, geocaching does not create a virtual world, despite being location based - the game uses GPS coordinates that correspond to real world locations, but does not include any virtual objects or interactions.

In addition, there is little incentive in geocaching to visit the same location multiple times, and cache locations tend to be static for many years, so caches are probably less likely to generate sudden crowds or other dynamic changes. Finally, geocaching is crowd-sourced, since the locations of caches are up to whomever decides to place them and publicize them. The game does not require a developer or other authority to manage it.

REAL-WORLD GAMES

Last but not least, there are of course many games that take place in urban space that are neither location-based nor dependent on a virtual world. This includes schoolyard games such as hopscotch and tag, as well as adult sports such as basketball. It also includes activities that may be enjoyable but not necessarily considered a game, such as parkour, the sport that involves running, jumping and climbing across the built environment. Another candidate for inclusion here is Live Action Role-Playing or LARPing, in which players take on the role of fictional characters and participate in an interactive story led by a gamemaster or storyteller. LARPers frequently enjoy dressing up as their characters, and they act out their in-game conversations and movements in the real world.

Although some of these games require some minimal infrastructure, they can for the most part be played anywhere in urban space where permitted, and they are generally temporary events which are planned and organized on a very local scale, often by the players themselves. This is in contrast to most of the games discussed so far, including Pokémon Go, which are largely developed by centralized entities with broad control over the game. Certainly, they can cause groups to gather in particular locations, and they allow people to use space in a customized way. However, because these real-world games are so temporary and highly localized, and eschew any connection to a persistent virtual world, these effects are likely to be tightly

constrained both geographically and temporally, and so they are unlikely to generate the sort of consistent widespread changes wrought by Pokémon Go.

PUBLIC SPACE AND ITS FUNCTIONS

INTRODUCTION TO THE LITERATURE

In order to evaluate Pokémon GO's effects on the public realm, it is necessary to clearly establish a normative approach to public space. Urban planning literature has attempted to define public space's purpose many times over the last half century. For the purposes of this thesis, these ideas are grouped into two loose categories.

The first category includes literature which treats public spaces as physical environments where a city's inhabitants can enjoy themselves and gain social benefits. This category includes the work of Jane Jacobs, who saw public space such as sidewalks as a key location that allowed for children to play, for useful encounters to happen, and for communities to keep themselves secure (J. Jacobs 29-74). It also includes works like Allan Jacobs' *Great Streets* and William Whyte's *Social Life of Small Urban Places*. What all of these writers had in common was conceiving of the ideal street or public place as an environment that is generally attractive to city inhabitants, providing them opportunities for rest, relaxation, comfort, physical activity, and social contact with friends and strangers alike.

The second category covers public space's political role: as a platform for a vigorous and democratic public sphere. This 'public sphere' is a construct identified by Jürgen Habermas, characterized as a literal or figurative place where individuals come together to exchange views and generate public opinion (Habermas 27). Two theories of urbanism that tie this concept directly to spatial considerations are the Right to the City, originally championed by Henri Lefebvre in the 1960s, and the more recent Everyday Urbanism movement advocated by Margaret Crawford, Daniel Campo, and others. These are distinct philosophies of urbanism, each with its own particular motivations. But they share the general idea that a city's inhabitants should have the right to participate in the public sphere, and that a necessary precondition for this is the presence of shared space free from external control – i.e., public space.

These two definitions of the public realm spell out the environmental and political functions, respectively, of urban public space. For a city to be comfortable and interesting, as well as just and democratic, its public space should be both enjoyable and empowering.

MAKING THE CITY GREAT: THE ENVIRONMENTAL FUNCTION OF PUBLIC SPACE

“There is magic to great streets. We are attracted to the best of them not because we have to go there but because we want to be there.”

– Allan Jacobs, *Great Streets*

One simple way to conceive of a successful public space is as one which is attractive and where one can have pleasant encounters. Providing this is one of the public realm’s primary roles, one which is here referred to as the *environmental function* of public space. Someone who stops for a moment to think about their favorite park, for example, is likely to choose one that they personally enjoy visiting, perhaps without knowing exactly which elements underlie its appeal.

In fact, the factors that influence a public space’s attractiveness are complex. Not all successful spaces share the same features, and some excellent places are quite unique. Nevertheless, dedicated long-term observation of spaces that work particularly well can reveal commonalities. Allan Jacobs did an excellent job cataloging such features in his compendious *Great Streets*. William Whyte also made huge contributions through his seminal study *The Social Life of Small Urban Spaces*. Their work, along with a few others’, provides an excellent list of criteria from which to begin an analysis.

Which of the criteria identified by these writers are most relevant to the current discussion? Some key elements of public space, such as the presence of pedestrians and the types of activities that happen there, are highly dynamic and can vary by the hour, day and season. Others, like the space’s physical design and its geographic context, are less so.

When considering the elements of public space, it is the more dynamic elements which have the greater relevance to location-based mobile gaming, since they are a much better match for the rapidly changing, real-time action of digital games. These will be described in depth momentarily. But first, for the purposes of contrast, it will be instructive to briefly consider the features of great public places which move more slowly, and might therefore be more exempt from the influence of mobile games.

For example, the presence of trees is highly desirable in most public places because they provide shade from the sun, visual variety, spatial definition, and a sense of nature (A. B. Jacobs 276-282). However a tree, like most of the built environment, operates on very long timescales relative to individual users of public space. True, a tree is dynamic in the sense that it moves in the wind, it grows over time, it changes with seasons, and so on. But major changes to its size and appearance tend to take a relatively long time, on the order of months or years. People in public space can only observe such changes over long periods involving multiple visits. In a digital universe like Pokémon Go, on the other hand, gameplay moves much faster, with changes occurring on the order of minutes or seconds. So it is conceptually possible for trees to interact meaningfully with a virtual world, but the game or app in question would have to include mechanics that operate on long timescales, which Pokémon Go lacks thus far.

Similarly, there are certain physical elements of urban design in a given public space which matter a great deal for the quality of peoples’ experiences in that space, but change relatively

slowly. For example, building heights and masses, architectural gestures, and landscape definition can have a strong effect on peoples' experience of public space. However, major physical projects like this are usually developed on timescales of weeks – at best – or years, in many cases. This means that changes in such features can be difficult to align with the relatively rapid activities of Pokémon Go players.

Interestingly, it is possible that some of the utility of these elements could be duplicated in ways that do operate on shorter timescales. For example, a tree's shade properties might be replicated through an umbrella that tilts and rotates to produce maximum shade, automatically or perhaps under someone's control. Separating this function from its original object in this way would put it on a shorter timescale and create the potential for interaction with mobile digital technology. One can imagine a future game that uses light and shade as game elements, for example.

For the purposes of present-day analysis, though, the elements of great public space most likely to be affected by mobile games are those elements which are already highly dynamic. This includes specific features noted by Allan Jacobs and others, namely *pedestrian activity levels; variety and mystery; responsiveness;* and the potential for *social contact*. A careful examination of each will provide a useful picture of what we expect from good public spaces, and will provide a baseline for evaluating any Pokémon Go related changes.

PEDESTRIAN ACTIVITY LEVELS

The public space criterion with the most obvious relevance to Pokémon Go is pedestrian activity levels, since the game seems to have greatly increased these levels across a variety of public spaces (at least when it launched). The presence of people, and specifically people on foot, in a public space is a significant part of what distinguishes successful public spaces from the rest. In part, the number of people in a place acts as a rough measure of the place's general popularity.

More importantly, though, the people in a place are actually a fundamental part of the attraction. As William Whyte explains, "What attracts people most, it would appear, is other people." He observed that conversations in the street tended to begin, and remain, in the busiest part of the main pedestrian flow rather than off to the side. Patterns of standing or sitting in plazas also showed that, far from avoiding crowds, people generally are drawn to the densest concentrations or flows of people. Even people who were alone seemed to prefer being alone in the company of others (Whyte 19-21).

Though he primarily studied US cities, and New York in particular, Whyte goes on reference other research which has found this "self-congestion" happening in other urban areas all around the world, such as Jan Gehl's study in Copenhagen, Matthew Ciolek's in Australia, and Whyte's own comparison research in Tokyo (Whyte 22-23). The results of all this indicate that self-congestion is not an artifact of some particular culture, but a more universal tendency.

This tendency can be explained in a variety of ways. Whyte himself suggests that being in the middle of the largest flows is appealing because it maximizes an individual's available choices:

which direction to go, which people to avoid or encounter. It's also true that people in public are frequently the subject of detached but interested observation: people-watching is a common, fun, and legitimate urban activity. Jane Jacobs goes so far as to describe the daily rhythms of street life as an "intricate ballet" that is "replete with improvisation" and pleasurable to watch (J. Jacobs 50), as anyone who has spent some time observing a busy street corner will likely agree.

Additionally, the presence of people in public places constitutes an important structural element of the neighborhood community. Here Jane Jacobs, especially in *Death and Life of American Cities*, emphasizes the positive role that 'eyes on the street' can have in reducing crime, and in allowing a community to maintain social norms (J. Jacobs 34-35). Individual acts of vandalism, assault, or other undesirable behaviors are much less likely with large numbers of observers present, even if those observers are technically strangers to one another.

VARIETY AND MYSTERY

The capacity of a public space to intrigue its users is another important quality of its attractiveness. Public spaces whose physical design is varied and complex are more likely to be successful, as are public spaces that create a sense of mystery and suggestiveness. In both cases, the advantage is simple to explain: interesting spaces are better than boring ones. Existing urban planning literature almost exclusively refers to these qualities as an aspect of purely physical design, but by establishing a general theoretical framework for interestingness, its lessons can easily be applied to digital universes as well.

Variety is the first consideration. All else being equal, people tend to prefer spaces with some degree of visual, environmental or thematic variation. Combining variations in height, color, material, structure and layout can create places that are perceptibly complex. Allan Jacobs in *Great Streets* describes it thus: "Great streets require physical characteristics that help the eyes do what they want to do, must do: move. Every great street has this quality" (A. B. Jacobs 282). Of course, this truism applies equally well to other kinds of public space such as plazas or parks.

As an extreme example, a street with nothing but flat, blank walls on both sides has far less potential for success than one that is regularly interrupted by storefronts and plazas. Even simple architectural gestures such as pillars, windows, niches, balconies and other elements can help create spatial definition and introduce complexity and interest. Modern property developers frequently make a gesture at this idea by introducing regular variations of depth and color on the facades of otherwise monolithic structures.

This comes with the caveat that the physical design must also be legible at large scales, as urban design theorist Kevin Lynch defined it: "visually grasped as a related pattern of recognizable symbols." In other words, if the design is so complex as to be spatially confusing, people will be disoriented and unable to appreciate the setting (Lynch 2-3).

The capacity for a public space to be intriguing also includes what Allan Jacobs calls "transparency", a somewhat ethereal quality that suggests something lies beyond what is immediately apparent. In physical terms, the archetypal example is a glass storefront. The

window does not show the entire shop, but merely a selection of items deemed representative, as well as a taste of the shop's design aesthetic, price range, and so on. If the storefront is set up well, it reveals enough to intrigue observers without giving away everything that is inside. This expectation that something is there – without knowing exactly what it is – creates a pleasant sense of mystery.

In the case of a storefront, this mystery is deliberately designed to pique peoples' curiosity and bring them into the store. A similar effect can also be created through urban design. For example, a plaza may have a pedestrian alleyway leading away from it that includes a turn, so that the other end is not visible. This prompts curiosity and a desire for exploration for its own sake.

People need not be able to actually uncover the mystery in order for suggestiveness to matter. For example, something as simple as leaves hanging over a brick wall "take you over the wall, into the garden beyond." And the presence of windows on a residential building likewise imply a life going on beyond what is visible, and creates the sense that the place is bigger than what is immediately apparent. (A. B. Jacobs 287)

RESPONSIVENESS

The word "responsiveness" is being used here to describe a public place's ability to change in direct response to the desires of whomever is using it. This quality of public space turns out to be important for political reasons as well (see "Autonomy" below under "Political Functions of Public Space.") but here the primary relevance is that the responsiveness of a space tends to increase its comfort and utility.

This can be taken to extremes, of course. The MIT Senseable City Lab's Digital Water Pavilion can be lowered into the ground when desired, and its 'walls' made of perpetually falling water can be made to display any image or message (Richards). But such technological showmanship is not necessary to appreciate the benefits of a space that can be modified by its users.

For example, one of William Whyte's most useful observations in his seminal study *The Social Life of Small Urban Spaces* is that the comfort potential of a space can be significantly magnified by such simple amenities as moveable chairs. These allow people to move their seats into the shade or the sun to maximize physical comfort, and to associate with others in whatever group configuration is desired. Whyte even observed people moving chairs for no apparent reason except the satisfaction of exercising choice (Whyte 34-36).

Some public space modifications are unauthorized, such as arranging a park's benches in order to hold a skateboarding tournament, or adding graffiti artwork to a public wall. Public space users who do things like this are crossing into the realm of tactical urbanism, in which they exert control over a space by modifying it. This provides those users with new, desirable functions or otherwise alters the space to their benefit, albeit at the risk of alienating other users or would-be users of the space. Regardless, all these examples illustrate the power of allowing spaces to be changed by their users.

SOCIAL CONTACT

One of the most important benefits of using public space is the possibility of encountering other people, and a great public space should facilitate rather than hinder such encounters. For those who hate cities, no doubt constantly bumping into unknown individuals is a source of anxiety or annoyance. But for Jane Jacobs and other metrophiles, these small, unplanned and public encounters with strangers are not only tolerable but a prominent source of community vitality and rewarding relationships.

In *Death and Life of Great American Cities*, she explains this by way of contrast with small town life. In a small town, people know each other well and strangers are rare; the people you interact with each day – a grocer, say, or the teller at the bank – are likely to be the same people who also know your personal affairs. Thus the boundary between public life and private life is blurred. Cities, on the other hand, have a sufficient density of people to ensure that most of the people you encounter in a given day will be strangers. The anonymity thus provided creates a clear separation between public and private life which Jacobs describes as “one of the attributes of cities that is precious to most city people.” (J. Jacobs 58-59)

This separation then allows for development of a new kind of relationship between individuals, a public one with a strictly limited scope and few concurrent obligations. Neither friends nor strangers, acquaintances are a way for people to make meaningful associations with a broad swath of the urban public, since they will not fear “unwelcome entanglements, boredom... giving offense... and all such paraphernalia of obligations.” (J. Jacobs 62) Examples could include a daily morning discussion on politics with the newspaper vendor, or the routine exchange of recipes with a neighbor one does not otherwise know well. These relationships allow both parties to have a meaningful and useful exchange without any of the baggage that comes from having an extensive knowledge of the others’ circumstances, history, opinions and so on. Incidentally, this also makes it much easier to connect with people from other classes or backgrounds.

It is exactly these kinds of self-limited relationships that make up the threads of one’s daily public life in the city, and provide much of the richness of urban life. Public urban spaces are essential to the maintenance and formation of such relationships, as they allow both autonomy over one’s privacy as well as sufficient numbers of strangers in one place.

MAKING THE CITY DEMOCRATIC: THE POLITICAL FUNCTIONS OF PUBLIC SPACE

“A right to the city must be at the heart of any vision of a progressive, democratic and just world.”

- Don Mitchell, *The Right to the City: Social Justice and the Fight for Public Space*

Having explored the aspects of public space that give it value as a physical asset for users of the city, it is important to also examine its political functions. Namely, public space’s role as a venue for the establishment of influence and the dispersion of power among a city’s various inhabitants. In contrast to popular conceptions of the city that make economic performance, iconic architecture, or cultural amenities the primary sign of a good city, this view describes the ideal city as a diverse and democratic one, with public space playing an important role.

Two theories in urbanist philosophy provide the primary criteria for this analysis. The first is the Right to the City, which Henri Lefebvre first wrote about in 1968 in *La Droit a la Ville* (republished in *Writings on Cities*, 1993), and which subsequent writers have since transformed into a fully articulated theory of spatial justice. This theory describes the city as an “oeuvre”, an ongoing work to which all of its citizens³ contribute, and emphasizes that a city’s inhabitants should have the right to agency within, and even appropriation of, the places that make up a city (Mitchell 17-18). It’s most often applied to issues of housing and displacement, but the theory has many implications for public space as well, since public space generally offers users the most agency and has the most opportunities for appropriation.

The other theory with strong political implications for urban public space is referred to here as Everyday Urbanism, in accord with the 1999 book of that name, and in particular with Margaret Crawford’s use of the phrase in her essay from that book, “Blurring the Boundaries: Public Space and Private Life.” The central motivation of this philosophy, which intersects with related ideas that go by various names such as “tactical urbanism” or “guerilla urbanism,” is the belief that peoples’ most common everyday experiences are not only legitimate objects of study, but actually the source of a free, creative and empowered society.

Both of these theories firmly establish the importance of urban public space in generating and maintaining a healthy and democratic public sphere. Together, they provide us with a broad set of criteria for the kinds of public space we should strive for if we want a diverse and inclusive city which empowers its citizens. These criteria include *accessibility* to all users; room

³ ‘Citizen’ can mean different things in different contexts. Here the word is intended in its most broad and literal sense, indicating any inhabitant of a city. Homeowners, renters, homeless people, tourists, visitors, employees, the very old and the very young, are all legitimate users of the city, and are ‘citizens’ for the purposes of this discussion.

to allow for *difference and multiplicity*; and the possibility for a space to *respond* to citizen's desires, in order to allow expression of cultural and political aims.

ACCESSIBILITY

Lefebvre, a Marxist, offered a sharp critique of private property in *La Droit a la Ville*. Consider that ownership of land in the city is exclusionary by definition. To own property is to assert who may be there, and what may happen there. On the other hand, universal access is a precondition to democratic engagement. Therefore private property tends to be incompatible with the creation of a truly democratic public sphere which includes all inhabitants of a city. But as Lefebvre insisted, "The right to the *oeuvre*, to participation and appropriation (clearly distinct from the right to property) are implied in the right to the city." (LeFebvre 174)

This failure of private property to allow full participation and access serves to highlight the importance of public space as the only other place where such a condition could be obtained⁴.

There is a difficulty, however, as Don Mitchell, in *The Right to the City: Social Justice and the Fight for Public Space*, sums up: "The problem with the bourgeois city... in which we really live is that [Lefebvre's] *oeuvre* is alienated, and so not so much a site of participation as one of expropriation by a dominant class." (Mitchell 18)

In other words, the interests driving most of a city's development – whether public or private – are largely economic- or class-based, and are not necessarily interested in accommodating differences or devolving control over the space to individuals. As a result, exclusionary spaces abound in cities, both private and allegedly public. Mitchell's invocation of homeless people brings this fact into sharp relief. Given that virtually all areas of a typical city are outright hostile to the presence of homeless people, the number of city spaces where such users would be considered legitimate is relatively small. Their public representation and ability to participate in public life are also thereby curtailed.

For a city to be just, its public spaces must be legitimately accessible to all its citizens.

⁴It should be noted that a site's accessibility is not perfectly correlated with its ownership status. Privately-owned public space, for example, is becoming increasingly common in American cities as a gesture toward the public good, made by developers in exchange for higher building density or height limits. These combinations of public access with private management result in a spectrum of possibilities somewhere between universal access and complete exclusion. The converse is also true: publicly owned spaces may be partly exclusive in practice. For example, anti-homeless spikes, posted rules against skateboarding, and other interventions are commonly designed to exclude specific people and activities from municipal parks that are allegedly public.

MULTIPLICITY AND DIVERSITY

Once citizens have equal access to public space, the next step in ensuring a fair and democratic public sphere is to make sure that public space does in fact serve a wide diversity of individuals rather than just one group or class.

Margaret Crawford explained the importance of diversity in this context by way of contrast with social theorist Jürgen Habermas. Habermas characterized the public sphere as “an arena of discursive relations conceptually independent of the state and economy,” and went on to describe the ideal public sphere as being equitable and universal (Crawford 22-23). Crawford accepted this relationship between individual and society, but made a significant departure from Habermas: she rejected the idea of a public sphere being universal and all-inclusive.

Rather, she picked up Nancy Fraser’s characterization of the public sphere as a collection of “counter-publics.” In Crawford’s view, the public sphere is “founded on contestation rather than unity and created through competing interests.” (Crawford 24-25). This is a sophisticated sort of public sphere, one which does not express a single unified ideal, but rather plays host to different views. It is an arena within which individuals struggle with one another to express their culture, generate political meaning, and determine the nature and function of the spaces they inhabit. This approach to the meaning of “public” is appealing in part because of its strong emphasis on individual agency and diversity.

Thus an ideal city should allow not just widespread participation in the public sphere, but allow participation to take place in a variety of different ways. In Anastasia Loukaitou-Sideris and Renia Ehrenfeucht’s book *Sidewalks: Conflict and Negotiation over Public Space*, the authors emphasize the importance of diversity this way: “A just city requires the flexibility that allows diversity to stimulate greater diversity and that creates opportunities for people to find their niches by constructing parochial spaces in public cities.” (Loukaitou-Sideris and Ehrenfeucht 59)

The link to urban public space is clear. Public spaces that accommodate diversity and allow for a multiplicity of perspectives will reward their users with increased freedom.

AUTONOMY

As previously noted, the ability of users to modify a given public space can greatly extend its comfort and utility. But this ability also has important political implications vis-à-vis the Right to the City and Everyday Urbanism. For Lefebvre, Mitchell, and other proponents of the Right to the City, a city’s inhabitants have the right a place where they have autonomy and freedom from control. This means that individuals should also be able to change the places they occupy in ways that suit.

For Crawford and other everyday urbanists, such autonomy within space is the source of individual freedom and authentic meaning. One example Crawford cites is that of garage sales in the Mexican-American neighborhoods of Los Angeles. In these garage sales, the home owners convert portions of their private lawns or garages into commercial areas, where they

make money selling surplus household items to passerby while also blurring the usual distinctions between domestic and commercial, and between public and private. In some cases, it becomes a permanent business. (Crawford 30)

Because these proprietors have the freedom to reconfigure the physical and economic structure of the spaces around them, they are able to participate in public life on their own terms. This makes the public life of the whole city richer. Public spaces need not be modified to such an extent in order to serve the city's citizens, but they should ideally allow enough change to be able to authentically represent the populations who use them.

MOBILE TECHNOLOGY IN PUBLIC SPACE

It is important to understand not just the functions of public space itself, but also what we know about the effects of mobile smartphones or place-based games on cities in general. This means exploring work by researcher Eric Gordon, who studies the use of games in urban space, as well as research by those who study the integration of digital and physical environments.

The latter concept – the integration of digital and physical environments, like the virtual world produced by Pokémon Go – has seen increasing attention in technology and urban planning literature as the phenomenon has grown more widespread. Carlo Ratti and Anthony Townsend, of MIT's Senseable City Laboratory and the Institute for the Future respectively, are among those who are optimistic about a highly networked future city blanketed with digital touch points, a condition they describe as “computers in open air.” (Ratti and Townsend)

According to Ratti and Townsend, the potential for this condition to produce great cities comes especially from technologies that are ‘grassroots’ rather than top-down – that is, networked technologies that prioritize direct peer-to-peer interactions rather than relying on a centralized control system. A city well integrated with such networks could, they note, can result in efficiency improvements for infrastructure, for example by measuring the urban movements of many volunteers in order predict traffic jams. It can also help to generate social networks by creating direct connections to one's geographic neighbors who share an interest or can provide a particular service. In addition, such platforms are by their nature inclusive, and provide citizens with the autonomy to take care of their own needs without reliance on centralized agencies. (Ratti and Townsend)

Whether the virtual world provided by Pokémon Go fits the description here is not entirely clear. True, it is owned and managed by a single corporate entity, so is not grassroots in that sense. However, individual interactions within the game space are not restricted, within the rules of the game. One can imagine adding some player-to-player interactive features that might encourage social connections, or some digital elements that allow players to access services or report problems related to that location.

Another useful perspective on the digital city comes from Cristina Ampatzidou and Ania Molenda, who wrote about this topic in “New Media in Old Cities: The Emergence of the New Collective.” The authors note that “Pervasive games blend with our real lives. The result is a public, open and spontaneous set of reactions that have a possible spatial outcome.”

In other words, using digital networks to link physical locations to one another allows behaviors in space, and digital or online elements, to influence one other reciprocally. In the authors' own words, "Every digital interpretation of the physical space helps us to alter our surroundings by giving us the choice to adjust our behaviour in reaction to real-time information." They go on to explain the importance of such systems for allowing citizens to self-organize, and note the critical issue of who controls hybrid space.

Although the extra 'information' presented by Pokémon Go is fictional, rather than representing real-world data, it works in a similar way: PokéStops were chosen in part for the significance of their real-world locations. Meanwhile, those PokéStops then generate pedestrian activity at those locations. Thus digital elements, physical locations and user behavior come together to mutually influence one another, illustrating the underlying dynamic that allows the game to affect space and society.

Other researchers have gone down the experimental route. An interview with Eric Gordon at Emerson College's Engagement Lab provided an intriguing glimpse of using Pokémon Go specifically to achieve urban planning goals. In collaboration with Niantic and with the City of Boston, including people at the Boston Mayor's Office of New Urban Mechanics, Gordon is spearheading an effort to empower Boston youth through Pokémon Go engagement. As of March 2017, the project was exiting the planning stages and preparing to launch within the next few months.

The original motivation for the project was the socially unjust distribution of game items. PokéStop locations are based on submissions from players of an earlier mobile game, Ingress, who are demographically very different from Pokémon Go players. PokéStops tend to be more common in neighborhoods where Ingress' mostly white, male players often went, and scarce elsewhere. Well-known historical sites and moderately affluent neighborhoods are well represented, while minority and less affluent neighborhoods tend to be underserved. One goal of Gordon's initiative is to rectify this. The easiest way to do so would be to simply ask Niantic to add more stops in underserved locations.

But the initiative's goals are much more ambitious than this. Rather than simply dictating new locations for PokéStops, Gordon wants Boston citizens to have a say. And not just any citizens, but those who would most benefit from civic engagement: local youth. According to the project's plans, Boston's high-school age Pokémon Go-playing population will be invited to propose new PokéStop locations in their neighborhoods. Proposals must be backed up with reasons why each place is important, whether historically, socially, or otherwise. This means youth either need to cogently explain a place they know well, or do sufficient research into a place they may not know much about.

Proposals will be reviewed by the Boston Mayor's Youth Council and voted on (again by young people, in both cases). Winning proposals will get a custom PokéStop added to that location by Niantic, seeded with relatively rare or interesting Pokémon in order to make it unique. In this way, local young people not only learn about locations near them, but invest time and energy in making changes to those locations that they find interesting and exciting. Besides giving them experience in engaging with municipal governance, this project should give young people

a sense of investment in, and agency over, the places around them – the exact goals aspired to by Everyday Urbanism and the Right to the City.

COLLECTING EVIDENCE: RESEARCH METHODS AND FINDINGS

With a theoretical framework for public space now established, it remains to examine evidence for the effects of Pokémon Go. Two research methods were used to generate primary data: An internet survey of Pokémon Go players, and interviews with individuals who have unique knowledge of the game's urban planning applications.

The overall aim of the research is to establish a relationship between the use of Pokémon Go and the personal and political functions of public space. Therefore, an ideal program would have set out to observe and evaluate those functions in a wide variety of public spaces at various times of day and in different seasons. If these observations were conducted in the same places both before and after the release of Pokémon Go, they could be compared and the differences evaluated.

The practical cost of getting a useful number of observations is prohibitive in the current research context. Furthermore it is no longer possible to observe public spaces as they were prior to June of 2016. Instead, a simple survey of Pokémon Go players and some conversations with knowledgeable individuals proved to be orders of magnitude more efficient, albeit slightly less informative.

PLAYER SURVEY

MOTIVATION

If Pokémon Go has made any difference in public spaces, it is because of its players' actions there, and players are a good (if imperfect) source of information about their own behavior. The survey used here asked Pokémon Go players about their public-space related activities, and more specifically about how those activities had changed as a result of playing the game.

Because these observations are one step removed from the public spaces themselves, this survey cannot conclusively establish the quality of any given public space, nor can it be definitive about how non-players experience those places. Nevertheless, it sheds light on the mechanisms underlying the game, and in combination with some relevant public space theory, provides evidence for the game's effect on public places.

SURVEY DESIGN

Questions written were of three categories. The first set of questions was meant to establish an overall profile of the respondents, such as their frequency of play and their familiarity with the game. The second set of questions was meant to explore player behavior in public spaces, asking respondents about what kinds of places they play the game in, whether they go to new places in order to play, and so on.

Finally, the third set of questions asked the players for their observations and opinions on Pokémon Go's effects on public space. Because these questions were only directed at Pokémon Go players, the results are likely not generalizable to the broader population of public space users and will not be addressed in *Conclusions*, below. However, the survey's wide distribution offered a unique opportunity to garner some additional data, and so these questions were included in case they might provide additional insight, or be more useful in combination with other data later.

For the full text of all survey questions, see Appendix.

DATA COLLECTION AND ANALYSIS

The survey was conducted in electronic format on the internet, in order to reach as many players as possible. It was created through the online tool Survey Monkey, using the researcher's personal paid account.

The survey was first released on January 29, 2017; subsequent releases on February 2 and 3 2017 were used to increase the respondent pool. In order to target Pokémon Go players specifically, the requests to fill out the survey were posted in internet forums dedicated to discussion of the game, along with a brief explanation of the project (see Appendix for recruitment language). The two most fruitful sources for recruits were the Reddit forums Pokémon Go and The Silph Road. The former is a high-traffic forum for Pokémon Go players in general; the latter is a smaller sub-community focused on game mechanics and research. These two sources together account for the vast majority of survey responses, 261 and 1,196 respectively.

A link to the survey was also distributed through email and social media throughout the same time period, first to friends and acquaintances of the researcher, and then forwarded on to additional secondary and tertiary contacts. Thirty-five responses were collected, constituting just 2.3% of the total.

Response rates were highest in the hours after each posting, and slowed to zero after a day or two. Once a significant number of responses had been collected, and it was clear that no more responses were forthcoming, the survey was closed and the data downloaded in *.csv format. Microsoft Excel was used to organize and clean the data. The primary cleaning operation involved disaggregating each multiple-choice categorical question into a series of binary dummy variables, thus allowing statistical operations to be run on them. Also, the numeric codes used for responses were made consistent across the data set, and text responses were extracted for separate analysis.

The data was then analyzed using JavaScript data visualizations, and a series of charts was created to illustrate the data. For the charts and an explanation of the results, see *Survey Findings*, below. For the complete tabulation of all survey responses, see the Appendix.

POPULATION AND SAMPLE

The desired population to study was all active players of Pokémon Go, as the most straightforward and relevant population for answering the research question. Although the survey used for this thesis did not ask about location or demographic information, previous research conducted by Survey Monkey Intelligence (SMI) in December 2016 did establish a baseline of demographics for players using smartphones in the U.S. That research found that 53% of those players were female, a notable decrease from the 63% found in a previous version of the survey. It also found that 62% of players are under 30, and that 51% of users have an annual income less than \$50,000. Finally, among players, African-Americans are slightly underrepresented compared with the U.S. average (9% vs 12.3%) while Hispanic users are slightly overrepresented (19% vs 17%). (Sonders)

How large is the total population of Pokémon Go players? Since its popularity fluctuates over time, only Niantic Labs can precisely quantify this value. But even without their data, it is possible to determine rough upper and lower bounds. As of July 2016, shortly after the game launched but several weeks after its peak, this population totaled approximately 20 million people in the United States (Newhouse).

The size of this population at the time the research was conducted is somewhat harder to determine. From widespread reports (Kawa and Katz), it is clear that the game's popularity has subsided considerably since its launch, by a factor of at least two according to some anecdotes, although hard numbers are difficult to find. Countering this trend is the fact that game has also added new users by expanding to other countries. Statistics aggregators suggest that the US now accounts for between one third and one half of users worldwide (App Institute).

Together, these facts suggest we can set a reasonable upper bound for the size of this population at perhaps 40 million people, with the real number being significantly smaller, perhaps 10 million, depending on the game's actual overall popularity in January of 2017.

The sample collected by the survey is not perfectly representative of this ideal population. First, because of the simple opt-in nature of the survey, the entire sample is self-selected, which introduces unavoidable bias. We can speculate without evidence that this sample likely has relatively strong feelings about the game or its effects, either positive or negative, and that those who chose not to respond to the survey, conversely, felt more neutral about the topic. While unfortunate, this self-selection bias was deemed an appropriate trade-off. Interviewing a truly random sample of this globally-distributed, anonymous population would have eliminated this bias but only by incurring extraordinary costs of time and resources, and would have resulted in a much smaller sample size as well.

It is also possible that Pokémon Go players who use internet forums differ systematically from those who do not. Although the possibility of such a variation cannot be dismissed, this effect is unlikely to be very large, because there are not many filters that would exclude any homogenous group of Pokémon Go players from the forum-using population. For example, playing Pokémon Go suggests that the player has a level of comfort and familiarity with digital communications on mobile devices that very likely applies to computers and web browsers as well, so would be unlikely to avoid forums for technical reasons.

Likewise, people who have the economic means to own a mobile phone to play the game are virtually guaranteed to also have internet access, and sufficient leisure time to make use of forums, so access is not a likely barrier. And the social nature of the game suggests that most players would have no particular aversion to visiting an online community. Furthermore, this survey would have been easily accessible to those with the least possible forum presence – even a first-time visitor without an account or username would have been able to participate in the survey.

If anyone is systematically excluded from the survey sample, it is probably relatively inactive players, those who may play occasionally but are not interested enough in the game to bother exploring it on the internet and who therefore would not have seen the survey. Whether such players systematically differ from survey respondents in ways that might affect the results is not known.

A more precise description of the sample is provided by the responses to the survey's first few questions, which were intended to create a profile of the respondents. For example, 92% of them reported playing several times a week or more, so it is accurate to say that the sample is highly representative of very active players. On the other hand, the results are not very generalizable to players in rural areas, because such players constituted only 3.4% of the total respondents. See *Survey Results* below for more on the respondent profile.

In short, the actual population to which we can generalize the survey results is active Pokémon Go players who use internet forums and care enough about the game to fill out a survey.

CONFIDENCE

5

The total size of the surveyed sample is 1,493 people. Even assuming the largest possible population estimate of 40 million people, this response rate is sufficient to give results a confidence interval smaller than +/- 3 percentage points on a 95% confidence level (Creative Research Systems).

⁵ One highly unlikely, but potentially large, source of error is a technical one: it is possible that the survey mechanism was artificially manipulated through the use of programmed bots or other software. Logic suggests this is unlikely, as such software would have to be custom designed, with no clear motivation doing so. A review of the data also shows clear evidence that respondents were all or mostly humans. For example, the vast majority of respondents answered at least one open-ended question with a unique and relevant text answer in plain language, a feat beyond the ability of all but the most sophisticated software, yet easily within the grasp of a group of humans.

FROM A PLAYER'S PERSPECTIVE: SURVEY FINDINGS⁶

PROFILE OF RESPONDENTS

The following pie charts show the results of the survey's first set of questions, which were intended to create a general profile of the respondents.

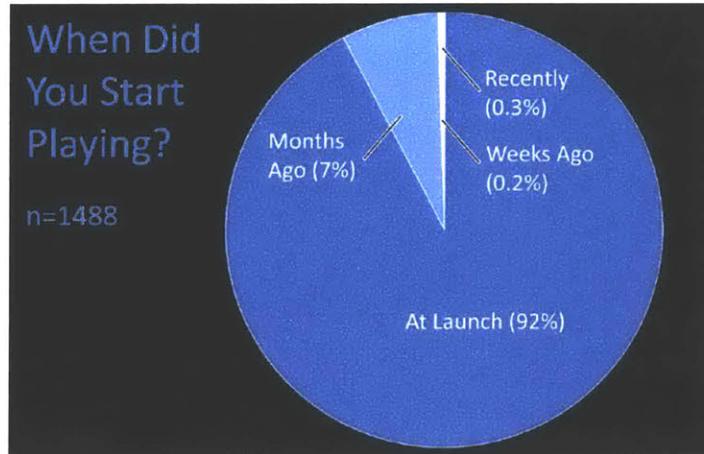


FIGURE 8 – WHEN DID YOU START PLAYING POKÉMON GO?

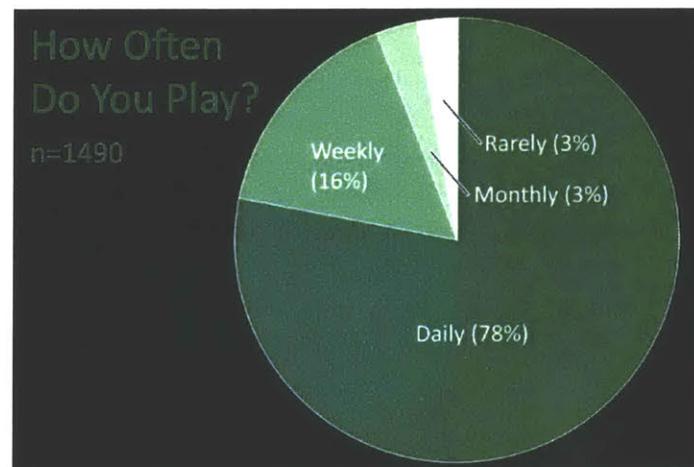


FIGURE 9 – HOW OFTEN DO YOU PLAY POKÉMON GO?

⁶ For a complete summary of all results, and a list of all text responses, see Appendix.

As can be seen from the charts above, the respondents skew heavily toward frequent and long-term players, with most reporting that they have been playing since the launch of the game, and play on a daily basis. This could be an artifact of the sample; that is, the players who are motivated enough to discuss the game in online forums, and therefore saw the survey, might also be the most active and invested players.

It is also possible that this profile accurately reflects the broader population. There has been a steady decline in use since the game's halcyon days (Kawa and Katz). Casual players who picked it up late, or did not play very often, may be more likely to have stopped by the time the survey was released, while the most invested players are more likely to still be active.

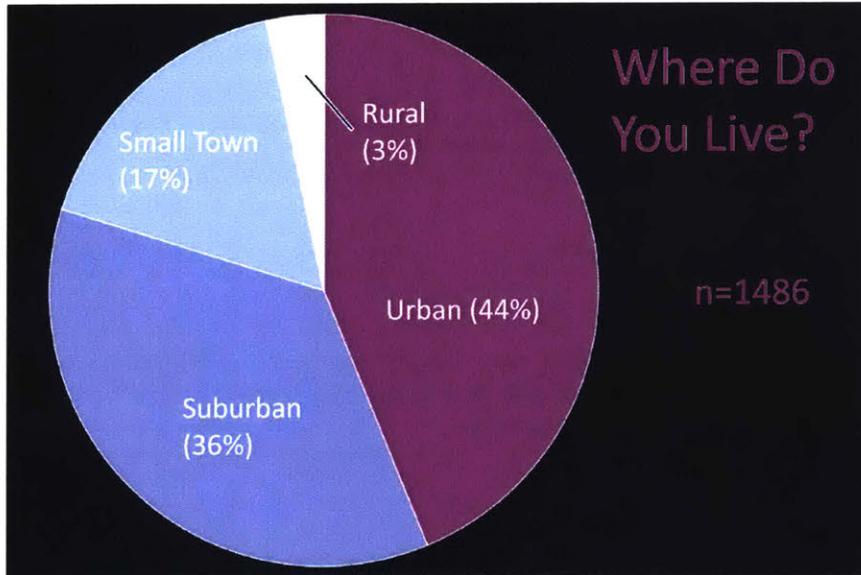


FIGURE 10 – WHERE DO YOU LIVE?

Asking about the type of place where respondents live produced a more varied picture of the respondent pool. Just under half of respondents live in an urban area, while rural players are clearly in a minority. For comparison purposes, the previously cited SMI survey from December 2016, not affiliated with the present research, found from a sample of unreported size that 88% of players identified as urban and 12% as rural, given only those two options. (Sonders)

The reason for this difference is not obvious, as the SMI survey did not reveal its methodology or anything about its sample. It is likely that including "suburban" and "small town" options simply adds a degree of nuance not present in the SMI results.

In any case, both data sets agree that the vast majority of players are enjoying the game in places which have seen a fair degree of physical development. This makes the survey results highly relevant to the present query, since the primary concern is with the public portions of the built environment.

SURVEY RESULTS: OTHER GAMES

In considering whether Pokémon Go's effects might be replicable through a different game or custom app, it would be helpful to understand the nature of the game's appeal. One hypothesis is that the game's primary appeal is the Pokémon franchise itself – the characters and universe that have proven so popular in other mediums like card games and TV shows. A competing hypothesis is that the game's collection and exploration mechanics underlie its popularity.

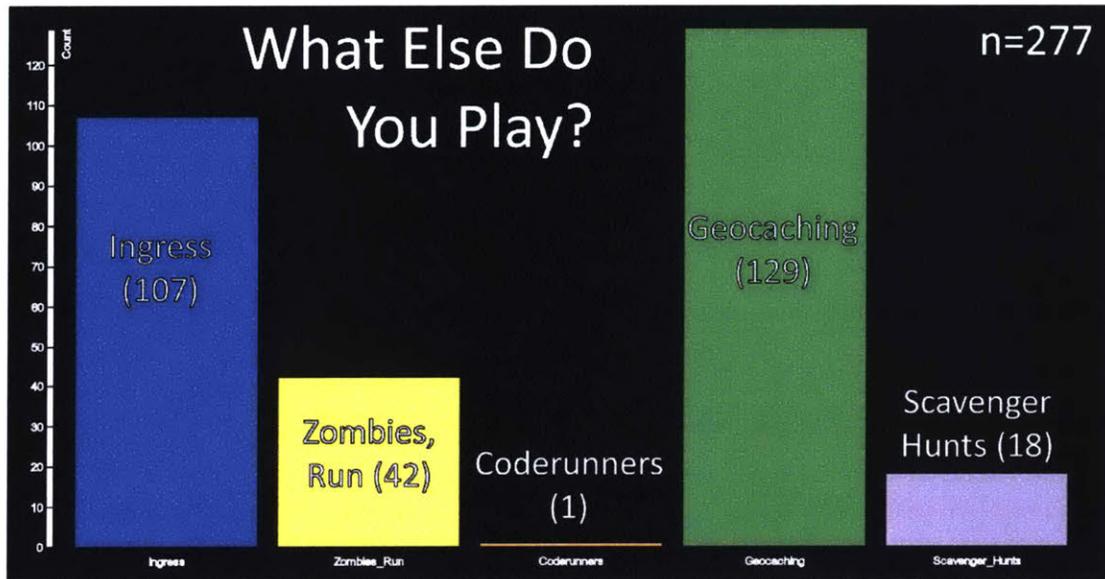


FIGURE 11 - WHAT OTHER LOCATION-BASED GAMES DO YOU PLAY?

If the latter were true, we would expect many Pokémon Go players to also be interested in other games with similar mechanics. To provide some evidence on the matter, the survey asked respondents whether they play any of a selection of other location-based games. In fact, only 277 people answered the question, so the vast majority of respondents (91.5 %) either do not play any of these games, or did not bother to answer the question. This suggests that Pokémon Go might be better categorized as a unique phenomenon, and not closely tied to other place-based gaming trends. Its popularity may be due more to the general popularity of Pokémon, which suggests the game's effects would be quite difficult to replicate in non-Pokémon related games – an interpretation which was also suggested during conversations with the Boston Mayor's Office of New Urban Mechanics.

Among those who did respond, geocaching and Ingress were the most common answers. See "Urban Games" above for additional details.

SURVEY RESULTS: POKÉMON GO'S EFFECT ON VISITS TO PUBLIC SPACES

These survey questions were intended to ascertain how the game affected players' use of public space. First, a matrix was introduced listing a variety of types of urban space⁷, including several types of both private and public spaces for comparison purposes. For each type, the player could indicate whether they went to such places specifically to play Pokémon Go, played there if they happened to be there for another reason, or didn't play there at all.⁸

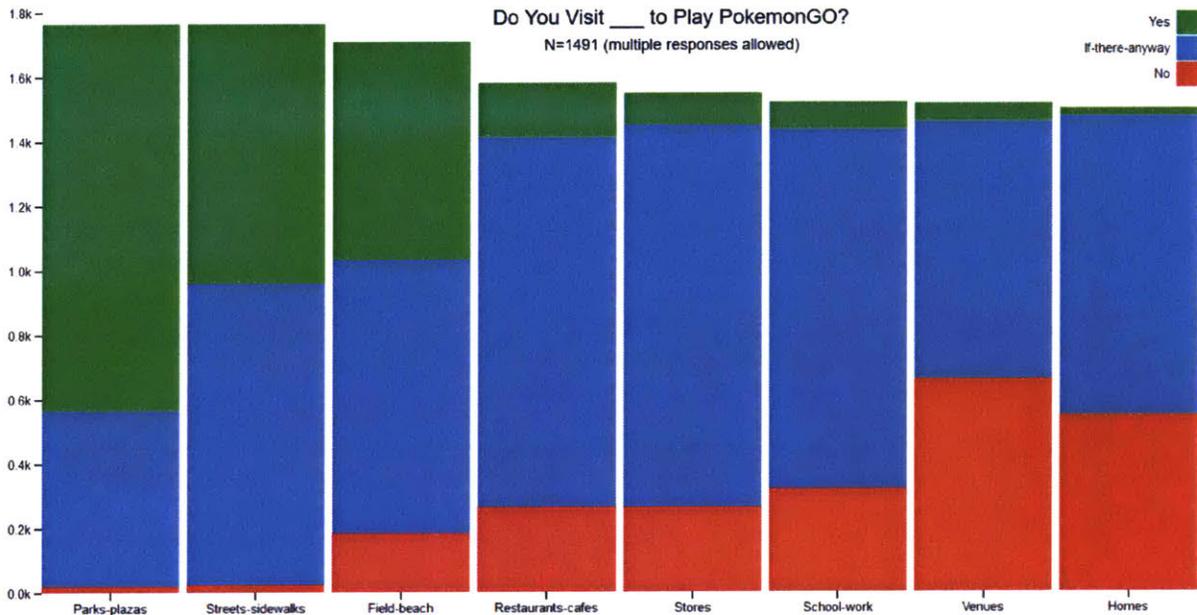


FIGURE 12 - DO YOU GO TO THESE PLACES TO PLAY POKÉMON GO?

The green portions of each bar in Figure 5 represent the number of respondents who go to that location specifically to play Pokémon Go⁹. These respondents are responsible for creating additional foot traffic at those locations which can be attributed entirely to the game.

The blue bars represent those respondents who play the game in a given location if they happen to be there anyway, but don't necessarily go there just to play. This indicates people who probably would have been in those locations regardless, but may be behaving or

⁷ Full text of each location choice: A) People's Homes; B) School or Work; C) Parks or Plazas; D) Streets or Sidewalks; E) Fields, Forests, Lakes or Beaches; F) Stores; G) Restaurants or Cafes; H) Theaters, Music Halls or other Venues

⁸ Because of limitations on the configuration of the online survey, respondents were able to select multiple responses for each type of urban space, so in some cases the total responses exceed the number of respondents n.

⁹ Full text of each response choice: 1) I go there specifically to play the game; 2) I play if I'm there for some other reason; 3) I don't play there.

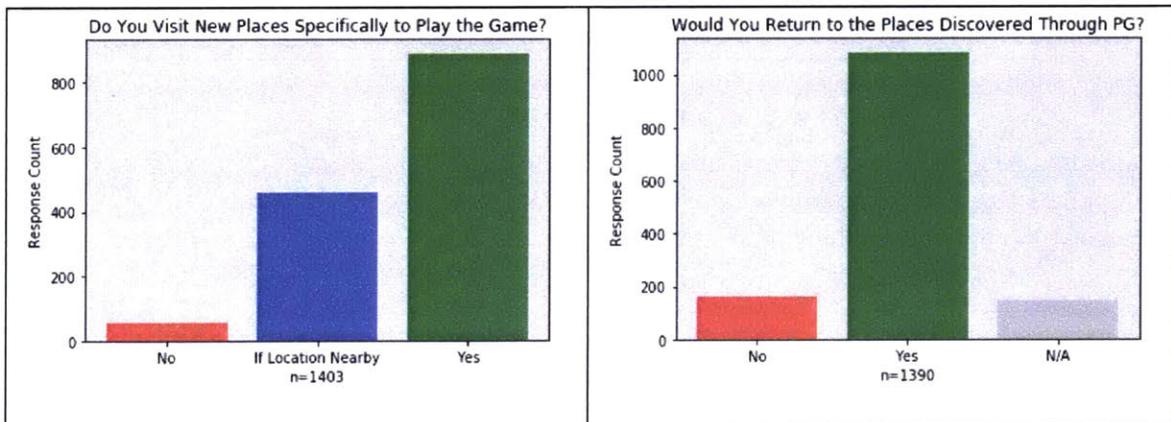
interacting differently there than they would have without the game. Finally, the red bars represent respondents who said they don't play the game in that location at all. We can therefore assume these people are not contributing to any Pokémon Go-related differences in those locations.

The responses here show some clear patterns. First, it is clear that most respondents are generally willing to play the game in any location, if they happen to be there anyway, as indicated by the blue bars in the charts above. The only location type with a strong contingent of respondents saying they don't play there at all was "Theaters, Concert Halls and Other Venues." This is perhaps due to additional pressure from social norms in such places that are not present in more public locations. It is also possible that some respondents simply don't go to such places.

Second, even a cursory look at the data reveals a cluster of locations that differentiates itself from the rest. By far the most common places where respondents go *specifically to play the game* are streets and sidewalks; outdoor spaces; and most of all, parks and plazas. This is evidence that these locations are much more likely to be affected by increased foot traffic due to Pokémon Go than the other location types. It also supports some of the anecdotes that originally motivated this research: personal stories about public parks and sidewalks suddenly thronged with Pokémon Go players.

On the other hand, the related anecdotes about restaurants and businesses seeing a concurrent increase in traffic do not seem to be borne out by the respondents' behavior. The charts shown above suggest that while Pokémon Go is driving some positive amount of additional traffic to these locations, it is no more than in other places. For example, about as many respondents go to school or work for Pokémon-related reasons as go to stores and businesses.

Respondents were also asked about their tendency to explore new places as a result of playing the game¹⁰. As a follow-up question, they were asked whether they had (or would) return to places discovered in this way.



¹⁰ Actual response choices: 1) I only play the game in places I would visit anyway; 2) I might go a little out of my way for a 'stop or a gym; 3) I go to places I've never been, specifically to play the game.

FIGURE 13 - EXPLORATION DUE TO POKÉMON GO

In both cases, large majorities of respondents answered in the affirmative. This is evidence that games like Pokémon Go can not only get people to visit places they have never been, but that players are likely to return to some of those places. This implies that any resulting changes to urban spaces could persist longer than the initial burst of interest in the game.

SURVEY RESULTS: POKÉMON GO'S EFFECT ON SOCIAL INTERACTION

The next two questions asked respondents whether the game had changed their social interactions with strangers or with people that they know.

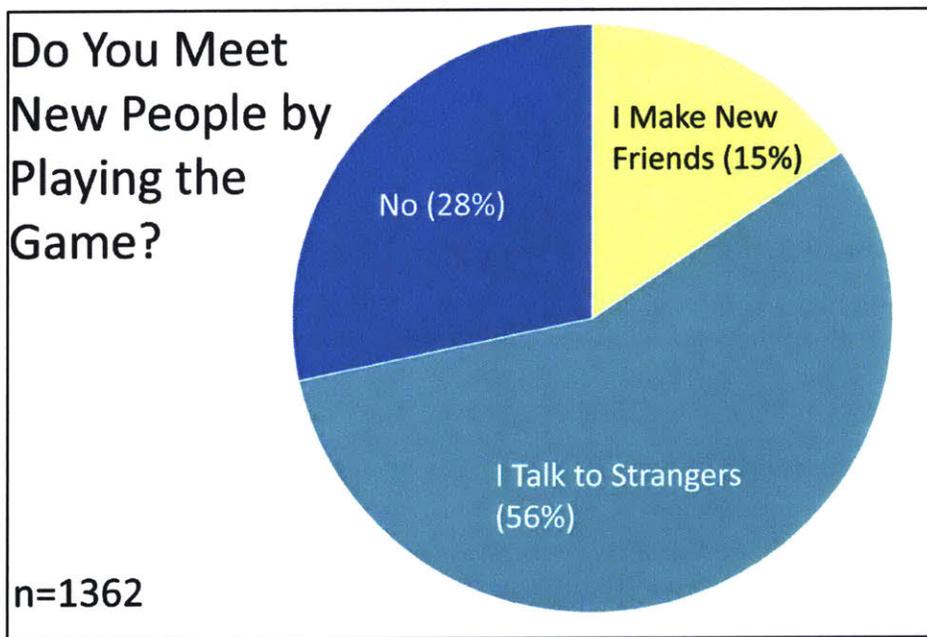


FIGURE 14 - MEETING NEW PEOPLE

The results from this question indicate a strong willingness on the part of players to interact with people that they don't know. Nearly three-quarters of respondents report doing so, with 15% claiming to have established lasting relationships in this way.

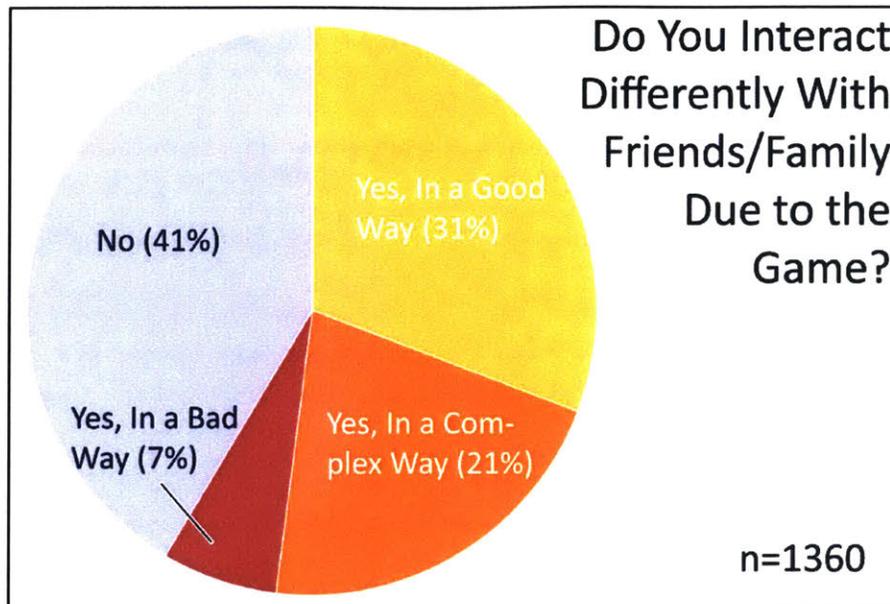


FIGURE 15 – INTERACTING WITH FRIENDS/FAMILY

Respondents were also asked whether the game affected their interactions with people they already know – friends and family. For 41%, the answer was ‘no’. Of those who said ‘yes’, about half indicated it was generally a positive thing. Everyone else noted the social changes caused by the game as being either negative or, at best, mixed.

PLAYERS SPEAK OUT: DIRECT QUOTATIONS

Finally, survey respondents were invited to add text comments to further characterize their thoughts about Pokémon Go and its ability to change places. Four hundred and sixty one respondents elected to share their opinions and experiences. In addition to those quotes highlighted elsewhere in the document, the appendix contains a list of quotes intended to be reflective of the wide variety of thoughtful responses. They are organized thematically, and include both positive and negative reactions to various aspects of the game.

Some overall themes are apparent. Many players described urban changes due to Pokémon Go, the most common of which were increased pedestrian activity and increased ethnic diversity in public places. Other respondents focused on their own personal experiences, with many of them reporting more frequent and rewarding interactions with strangers, a stronger tendency to explore, and/or a deeper appreciation of the places around them. A small but vocal contingent of players expressed strong skepticism that Pokémon Go could make any significant changes at all. Finally, lots of respondents went out of their way to note the general decline in all effects of the game since its launch. In addition to the thematic list, a full list of all submitted responses can be found in the Appendix.

CONCLUSION: VIRTUAL WORLD, REAL IMPACT

With evidence in hand for changes in Pokémon Go player behavior and attitudes toward public space, it will now be possible to examine the established criteria for public space in order to qualitatively and normatively evaluate Pokémon Go's effects.

First, it must be noted that whatever the effects, they were strongest near the launch of the game, and have declined significantly since then, according to many survey respondents, including some quoted above. Independent estimates also suggest that overall usage has probably peaked (Allan), although the game may see a resurgence when summer returns to the northern hemisphere in 2017.

Even if the strongest effects of Pokémon Go turn out to have been transient, they are still worth studying for several reasons. First, even if they number far fewer than at their peak, many players are likely to continue playing loyally for several years or longer, marking a small but persistent presence in public spaces everywhere.

Second, Pokémon Go's phenomenal success practically guarantees that it will be followed by a host of imitators. Many already exist, as described in "Urban Games", above, and although none of them has achieved the status of cultural phenomenon in the way that Pokémon Go has, they each have their own base of fans. Cities of today are already overlaid by not one digital universe, but many, and this is a trend that has the potential to accelerate. Finally, if any positive effects of the game could be duplicated, perhaps through a custom game, for the explicit purpose of improving public spaces, this could be a powerful planning tool. So, temporary or otherwise, it is worth looking at what happened when Pokémon Go was released.

POKÉMON GO'S EFFECTS ON THE ENVIRONMENTAL FUNCTIONS OF PUBLIC SPACE

The first set of criteria to be examined are those that affect public space's environmental function, namely pedestrian activity levels; variety and mystery; responsiveness; and the potential for social contact.

POKÉMON GO BOOSTS PEDESTRIAN ACTIVITY – BUT PROBABLY NOT SAFETY OR COMFORT

Pedestrian presence is a key aspect of a well-functioning public space, as explained in detail earlier. What has been the effect of Pokémon Go on pedestrian numbers? First, based on the news reports noted in the introduction and others, it's clear that the game brought many additional people into many public locations, at least around the time the game was launched. Many of the people who responded to the Programmable Places survey for this thesis went out of their way to note the game's effects on public space. Here are just two:

“When the game first came [out], I was really amazed at how some places changed. Usually desert[ed] streets or quiet bars, filled with people.”

“During the first few weeks of the game coming out, there was a profound effect on place--my friends and I would specifically travel to particular spots where about a hundred other players were at any given time.”

The pertinent question is how well this activity fulfills the functions described for public space. If Whyte’s self-aggregation theory is applied here, then a clear argument can be made for the benefits of Pokémon Go. The people in a given public space who are there to play the game will form flows and crowds as well as any other pedestrians, and should therefore provide some attraction.

The players themselves may not follow this self-aggregation tendency. Instead, they may cluster in places where useful game objects are found, such as PokéStops. If that were the case, then crowds of players, in combination with the self-reinforcing nature of self-aggregation, could draw other, non-playing pedestrians to those same locations. In other words, Pokémon Go players, even if they constitute a minority of the users of a given public space, could ‘seed’ patterns of pedestrian distribution that are generated by the game’s digital geography.

This is intriguing, because it implies that Niantic – or future city planners deploying a custom mobile app – could effect significant changes in overall pedestrian numbers, as well as the locations and densities of crowds. Furthermore, this sort of influence might be possible even if most pedestrians are not using or even aware of the app.

Increased numbers of people in public locations could also improve norm enforcement and safety, as explained by Jane Jacobs and others. The more eyes there are on the street (or plaza, park, etc.), the more likely people are to behave appropriately and to feel safe. Additionally, the activity of people-watching is surely rewarded when places are busy. For all of these reasons, the additional people brought into spaces by Pokémon Go might naively be expected to make them into safer and more interesting environments.

However, there are also reasons to question whether the presence of Pokémon Go players is entirely positive in these contexts. This is because the behavior of players differs significantly from that of other users of the space. For example, players tend to be focused on their phones, where the game’s user interface is, rather than their environment. Many survey respondents observed this feature, one of whom described it thus:

“I might have been walking with someone, however I wasn’t interacting with them... I was interacting with the phone.”

This tendency suggests that players may be less likely than others to observe, say, a crime being committed, which could make them less effective as a deterrent. Likewise, people who are deeply focused on a virtual environment could be less fun to watch, as their behavior would be hard to interpret. If Pokémon Go players are reacting largely to events and objects that other observers cannot see, they could be perceived as uninteresting. Some research into the effects

of smartphones found that use of a smartphone during a conversation was correlated with decreased feelings of empathy and lower quality of conversation. (Misra, Cheng and Genevie)

Worse, such behavior might actually be disruptive. Allan Jacobs in *Great Streets* notes that although dynamic movement generally makes public spaces feel more vibrant and interesting, the specific kind of movement matters a great deal. He hypothesizes that movements that are more relatable make a better contribution to great streets. For example, slow moving cars in the distance may provide a comfortable buzz of activity, while speeding cars in close proximity may be perceived as more “surprising or shocking-alerting.” (A. B. Jacobs 283)

If Pokémon Go players’ movements are sufficiently confusing as to annoy or alienate other users of public space to a similar extent, then Whyte’s self-aggregation theory might break down entirely. Public space users who aren’t playing the game may outright avoid clusters of Pokémon Go players.

On the other hand, for players themselves, the Pokémon Go crowds usually represent an enhancement to public space. Since the players all share the same digital universe, their behavior is not alienating, and in fact this shared experience may introduce feelings of camaraderie. One survey respondent explained it this way:

“I haven’t ever experienced anything like the first weeks of PoGo. When everyone interacted with everyone, people were friends, helping each other, everyone seemed happy. It was beautiful.”

In sum, the effect of Pokémon Go on raw activity levels is quite clear, but how that increased activity affects a public space’s user experience is ambiguous, with indications for both positive and negative effects.

POKÉMON GO MAKES PUBLIC SPACES MORE VARIED AND INTERESTING (FOR PLAYERS)

How are the important public space concepts of variety and mystery affected by the presence of Pokémon Go in cities? For people who don’t play the game, public spaces probably have no more variety than they did before. It’s true that players behave somewhat unusually compared with other users of the space, but the novelty of seeing them would wear off quickly, leaving no detectable difference regarding the variety or complexity of the space.

For players, on the other hand, the increase in variety is immediately apparent. Every real-world location that hosts a game object is now imbued with one or more additional qualities. These include options for digital interaction (such as PokéStops), information about the real world (such as the written descriptions that accompany each PokéStop), the user names of other players (on the Gyms), and the possibility of entering competitions against those players (also in the Gyms).

When these game elements are placed near one another, as often happens in urban locations, they pack an impressive amount of variety into a relatively small area, albeit variety that is only perceptible to a subset of the population.

It is not unusual or necessarily undesirable for a public space to provide variety and interest for particular individuals and not others. For example, a community garden may have a wide variety of fruits, vegetables and flowering plants that presents gardeners with a fascinating panoply, while appearing as an undifferentiated mass of greenery to those less horticulturally inclined. What is unique about the Pokémon Go case is that the extra variety can be applied to *existing* public spaces, adding interest and depth of meaning to any location without the need for additional infrastructure or construction, and without eliminating the current uses of the space. This quality of being purely additive gives Pokémon Go the potential to add elements to public space without displacing existing uses, allowing the space to successfully serve additional constituencies.

Suggestiveness and mystery are another key quality of good public places. In the case of Pokémon Go, any additional suggestiveness ascribed to public places would have to be digital in nature.

What does this look like in practice? In the case of public space users who are *not* playing the game, it could be argued that the presence of an entire digital realm they cannot directly access is in itself an intriguing mystery. However, this would depend on non-players first being aware that this digital realm exists. Unlike a glass storefront, which prompts a small question in the minds of observers, there is no digital portal that is visible to non-players, and so nothing to suggest the mystery.

On the other hand, the extreme popularity of Pokémon Go, along with the high profile news coverage it generated, means that many people in an urban setting would have at least a chance of knowing about the digital universe lying just out of reach. Furthermore, it is possible in theory to add small pieces of physical infrastructure that could act as clues suggesting the existence of a curtain to be pulled back. For example, a tablet computer permanently installed at a location could act as a window into the game universe, enticing anyone who came by to look in and wonder. Or, more simply, a piece of paper with text and a QR code could physically denote the location of a PokéStop or Gym, and encourage passerby to download the app in order to see it.

Even without such aids, one survey respondent got into the game in the first place precisely because of this spatial mystery effect:

“What convinced me to start playing was that I was intrigued by interacting with a ‘world within a world’; secret places and creatures that weren't visible to everyone.”

For the players themselves, the game also brings additional suggestiveness and mystery to the urban realm. This does not apply to places well-known to the player, since most major game features, such as PokéStops, do not move or change very often and therefore quickly become familiar to anyone who visits that area frequently. Although good for adding variety, these elements do not add much mystery because they have nothing to hide. Unlike the storefront or the garden wall, once a player has perceived them, they know all there is to know about them.

Instead, the suggestiveness comes from places the player *hasn't* been. Knowing that Pokémon and PokéStops could be found anywhere, many players are driven to explore whole new areas

of their neighborhood, city, or region just to seek out rare Pokémon, or specific ones needed for their collection, or just to see what is out there. Two players in the survey wrote:

“I am sure that without Pokémon Go I would never have explored the city the way I did.”

“Discovery of places and objects in public spaces is an incredibly powerful effect of the game!”

Niantic takes a strong stance against users generating maps of in-game locations (Weinberger), which further ensures that players must actually visit a location in order to learn what desirable things might be there.

This is an interesting effect, because it generates mystery on a larger scale than what Allan Jacobs and others describe. Pokémon Go shows that location-based gaming can create an intriguing ‘curtain’ of mystery at the scale of a neighborhood or an entire city, thereby encouraging and rewarding exploration.

POKÉMON GO ONLY ADDS A LITTLE RESPONSIVENESS TO PUBLIC SPACE

Does Pokémon Go allow people to modify public spaces? For non-players, the answer is a fairly straightforward ‘no’, since there are no new interactions available to them that were not available before the game. Players, on the other hand, can modify the game environment by deploying *lures* at their location. Lures are single-use virtual game items that attract Pokémon to the area for a limited time. Although these items primarily serve to further the player’s personal progress in the game, once activated they can be seen and used by all players, no matter who initially deployed them. This gives them a sort of social currency and means that any individual player has the ability to bring together groups of players around a shared activity at a shared location, including both friends and strangers. The lures can only be used at PokéStop locations, so this type of modification is directly tied to specific places.

Unlike the moveable chairs described by Whyte, these modifications provide no additional comfort to users. However, they do provide a crude tool for bringing additional people to a public space for the particular purpose of playing the game, which does indeed make them very useful to players who desire additional socialization opportunities or simply want to contribute resources to the local player community.

Furthermore, as noted by Whyte, the mere fact of exercising one’s will on the environment can be appealing in its own right.

POKÉMON GO CREATES MORE SOCIAL ENCOUNTER OPPORTUNITIES (BUT NOT BETTER ONES)

The ability of Pokémon Go to generate crowds in public spaces was described by many observers and journalists, as noted in the introduction. In addition, the results of the thesis survey indicate that many Pokémon Go players visit public spaces like parks and plazas

specifically to play the game (see “Findings” above). The question then becomes whether these app-generated crowds can provide the benefits of social contact in public places.

For many players, the answer is certainly ‘yes.’ One survey respondent said that when competing in Gyms, there’s a “sense of connection” with strangers on their team, since “me and a perfect stranger suddenly have the same goal.” Another found that the game “brings a diverse group of people together that otherwise would have never met.” When asked whether they talk to strangers while playing the game, 56% of survey respondents answered in the affirmative, with an additional 15% asserting that they make friends this way.

That ‘making friends’ doesn’t happen all that often is not surprising or particularly alarming; generating meaningful friendships takes a lot of time and personal investment and is not something society generally expects its public space to provide. More relevant to the current discussion is the obvious popularity of talking with strangers while playing, because it is precisely these low-investment relationships that give public space much of its value.

Such contacts could recur between the same two people, for example if they frequent the same PokéStop and have similar schedules. Or a conversation with a nearby user of public space might be just a singular event. Either way, such acquaintance interactions provide social value, as they are opportunities to encounter interesting people, discuss narrow matters of shared interest, or simply feel a sense of connection to the broader community. And the general lack of obligation to continue the relationship is part of the appeal, as Jane Jacobs and others have noted.

For non-players, the results are less clear cut. The additional people brought to a place by Pokémon Go should, naively, offer non-players the same increased chances of useful, low-intensity social interactions. However, as previously noted, the behavior and attention of players can be alienating to observers. When someone is in the same physical location, but in a completely different place mentally, it can be difficult to start a conversation or, indeed, to make any meaningful exchange.

Smartphones, in particular, may make it difficult to connect socially. In a 2015 interview, sociologist Sherry Turkle explains her theory: “First, it [the smartphone] decreases the quality of what you talk about, because you talk about things where you wouldn’t mind being interrupted... Secondly, it decreases the empathic connection that people feel toward each other.” (Suttie) Whether this is generally true for all smartphone related interactions is beyond the scope of this paper to answer, but it is fairly obvious that a non-Pokémon Go player would face some barriers to socializing with someone who is engrossed in an unseen world on their phone.

There is one particularly important type of relationship that public space can generate and nurture. Jane Jacobs recognized the importance of public space “custodians” as early as 1961 in *Death and Life of Great American Cities*. These custodians of urban space are unofficial, informal and, in some cases, unaware of their role. They are, for example, the corner shopkeepers who serve customers in unofficial capacities by holding onto keys, receiving packages, passing messages and sharing news (J. Jacobs 59-61). Their role is be a central node for social connections that tie the local community together and help it to function.

There is no evidence that Pokémon Go generates this degree of community management, but it does have several features that could be leveraged to encourage investment in one's local community. By visiting certain places regularly and associating them with pleasant game experiences, players might naturally start to feel ownership over those places. For example, one player in the survey observed the following:

“When my brother started playing the game, he began to clean up his local park and even petitioned the local government for new trash bins in the park to keep it free of litter.”

One can imagine that having one's user name listed as champion at a Gym would also lead to some location-based pride. Neither of these involve the kind of direct community custodial functions that Jane Jacobs praised, but with some behavioral nudges and rewards for socializing, they could be leveraged to produce local caretakers who feel some sense of responsibility for certain places.

POKÉMON GO'S EFFECTS ON THE POLITICAL FUNCTIONS OF PUBLIC SPACE

The second important set of criteria by which to evaluate Pokémon Go's effect on public space is the list of qualities that affect its political functions. As determined earlier, these criteria include accessibility; difference and multiplicity; and autonomy.

POKÉMON GO CAN'T CHANGE PUBLIC SPACE ACCESSIBILITY (BUT IT CAN CHANGE PERCEPTIONS)

As noted, one of public space's key roles is to host a public sphere which is democratic and accessible. Can Pokémon Go have any effect on citizens' ability to be included in public space? In a literal sense, the answer is no. The game does not have any impact on ownership or management of places, so cannot directly change what or who is allowed. However, it can do two related things: it can change peoples' perception of whether they're allowed to be somewhere, and it can ensure that certain people who are allowed access a public space, actually do so.

Regarding perceptions: not all public spaces are obviously public. But the presence of a game object such as a PokéStop tells players that a given location is public and implies that they can be there, regardless of whatever signage or other indications may be physically present. Additionally, the presence of large numbers of players in a place may also send signals to non-players that the space they're occupying is public and accessible.

In general, this is an accurate indication. Although there have been occasional cases where game objects were placed inside of private homes, such as the case of the Massachusetts man who discovered people coming up to his home at all hours of the night to use the Gym arena placed there (Tribune News Services), Niantic tries to avoid doing this, and in any case most game objects can be accessed from a reasonable distance of a few dozen feet away. It is also

true that players might trespass on private property in order to make shortcuts to game objects, but this is not strictly necessary in order to play.

Therefore, on the whole, Pokémon Go increases the visibility of public places and makes clear that they are public. This is not relevant to well-maintained, well-marked public space such as major parks, whose public nature is usually obvious. But it is potentially very important regarding the various privately-owned public spaces now proliferating in cities in response to development guidelines. Under such guidelines, in exchange for providing public space, private developers receive a bonus to allowed height or density, but many of the spaces so provided are 'public' only in theory.

Such spaces are technically public but use strict rules and obtrusive design elements to discourage occupancy. They have little to offer to the public sphere, so when cities accept them in exchange for giving the developer looser building requirements, it is the cities who are getting a poor deal. Putting PokéStops or similar game elements in such places could turn players into municipal occupiers of a sort, reclaiming the space as truly public and making the fact obvious to everyone.

Regarding increases in actual access versus theoretical access, it is clear that Pokémon Go encourages players to visit new public places they have access to but have never visited. Nearly two thirds of survey respondents affirmed that they go to places they've never been, specifically to play the game (see "Findings" above).

This implies the existence of some barrier that once prevented the person from visiting, which the game helps to overcome. It might have been a subtle social barrier, such as the perception that a given place is only welcoming to people of a certain neighborhood or ethnic background. Or it may simply have been that a given place was too far or too uninteresting to walk to without the additional motivation of finding Pokémon.

In any case, the game helps to translate theoretical access to a public place into actual visits. This, in turn, means that Pokémon Go broadens the overall universe of people who are represented in public space.

POKÉMON GO IMPROVES REPRESENTATION (OF PLAYERS) IN PUBLIC SPACE

Has Pokémon Go impacted the multiplicity of groups represented in public space? Recall the importance of this for generating a public sphere that can accommodate a variety of cultural and political viewpoints. In one way, the game has created a new niche that was previously unrepresented in public space: Pokémon fans. Whether this niche is of any particular political value to its members is debatable, but it certainly has some social value. The ability to connect with others who enjoy the same game, and to discuss it and play it in public, is surely a source of joy for many players. As one player noted in the survey, "I haven't ever experienced anything like the first weeks of PoGo. When everyone interacted with everyone, people were friends, helping each other, everyone seemed happy. It was beautiful."

By carving out a special parochial space within the greater public realm, the game gives these people a sense of ownership over public locations while also preserving and highlighting their

unique perspective. In other words, the public sphere is able to assimilate them into its multi-faceted fabric along with whatever other groups are already represented.

The games' effect on non-players in this regard is not clear. This is a prime area for future research, which will be discussed in greater detail below. It is possible that the game's players may, through their presence, alter the racial, ethnic, class or economic mix of a public space's users. As previously noted, compared with the national average, African Americans were slightly underrepresented among players, and Hispanics were slightly overrepresented (Sonders), although how this translates into the mix present at specific locations is impossible to determine without direct observation or more targeted survey mechanisms. Several survey respondents noted anecdotal increases in diversity in public places:

“Massively increased the diversity of people at Sydney's Circular Quay when the game was at its zenith.”

“The whole park was the sort of diverse you normally only see in college recruitment brochures.”

In any case, those who are playing the game in a particular place collectively constitute a Pokémon Go player niche, while also providing representation for racial and other niches. In other words, particular subgroups – say, Hispanic women – may find their demographics more robustly represented in public spaces because of the game, even if they as individuals do not play.

POKÉMON GO CAN BE USED TO PROMOTE INDIVIDUAL AUTONOMY OVER PLACE

Autonomy over a space and its uses has been established as an important political feature of a public space. The next question is whether Pokémon Go – or any mobile app – can help people modify spaces in a way that exercises their political agency and personal empowerment.

The previously cited Pokémon Go project of Emerson's Engagement Lab demonstrates how existing locations, no matter how tightly designed or centrally controlled, can be pushed into a more unfinished, experimental state by adding digital layers that can then be modified. Projects like it show that many different people can be given the opportunity to leave their mark on the city, to customize it to their own ends and in expression of their own culture and politics. And because digital worlds can be effectively infinite, in both extent and number, there need be no scarcity of space in which to do so; virtual public space can be owned and controlled many ways at once by many different people. Furthermore, this newfound flexibility need not have anything to do with the goals of the site's owners, managers, planners or anyone else.

This is not just a theoretical advantage. Research by Anthony Buccitelli, professor of American studies and communications at Penn State Harrisburg, has shown that the selection of physical locations for virtual elements has a real effect on peoples' perceptions of which places in their city are important and meaningful. (Devin)

Thus, Pokémon Go demonstrates a great deal of potential to make public space more accessible (and accessed); allow for a greater diversity of views to be represented; and to allow for

personal agency over city spaces. Most of these effects apply to players in particular, but the shared nature of public space extends some of these benefits to other users as well.

FINAL CONCLUSIONS

SUMMARY OF FINDINGS

The research results and theoretical considerations presented here add up to a complex and interesting picture of public space after the introduction of Pokémon Go. The game's effects are real and meaningful, albeit occasionally negative. In addition, the changes are implemented in a unique way, and carry important implications for the future.

First, it is clear from the analysis above that the effects of the game on the public realm are probably more significant for people who play the game than for those who do not. To play Pokémon Go is to engage with public space in a novel way. The game's location-based virtual features compel people to explore their surroundings, rewarding them with increased social contact, especially with those who are sharing the gaming experience – including strangers. It also imbues public space with new layers of depth and meaning, adding elements to interact with and a whole hidden world for players to explore.

The analysis above further suggests that the games' effects on political representation and autonomy within public spaces is less pronounced. It can shift the demographics of public space users a bit, and it can encourage people to exercise their right to be in a particular place, but has little overall effect on access to, or control over, public spaces. On the other hand, the ambitious Engagement Lab project demonstrates that when combined with community engagement, public-private partnership, and a sufficient reservoir of political will, it is possible to deliberately use the game to make significant improvements to civic participation and to citizens feeling a sense of ownership over the places around them.

The findings above indicate that effects on non-players are relatively limited. Increased crowd sizes and pedestrian traffic can make public spaces appear livelier, but the fact that players are focused more on their screens than their environment means they are also contributing less to the safety, social potential, and interest of the public space in question.

Some effects are downright negative, for players and non-players alike. Just as the game pushes people to occupy public space to which they have a right, it can also encourage misuse of private spaces such as yards and homes. And the crowds generated by the game were not always welcomed by neighbors, who complain about noise and obnoxious behavior. (CBS-DFW Phoenix)

Still, on the whole, the benefits of Pokémon Go to public space are meaningful. More importantly, they are uniquely implemented. Similar effects would be comparatively difficult to achieve through other means. For example, urban design is a tool that can make vast improvements to public space, but design projects are frequently susceptible to budget constraints, and some projects take a long time to implement. Event programming can be used to bring some flexibility to the public realm, but this is usually sporadic and rarely leaves any permanent change. And public policy can make places better by allowing or encouraging various uses, for example by increasing the number of food vendors in an area. But this can be

quite slow, depending on the policy maker in question and the number of stakeholders involved.

In contrast to all of these, Pokémon Go creates urban change that is persistent, yet flexible. The virtual dimension it adds can be improved, altered or removed at will, for a very low cost and in almost no time at all. Furthermore, once the initial digital infrastructure is created, it costs relatively little to expand it to the scale of a city, region, or continent. Therefore Pokémon Go, and the use of virtual worlds more generally, may not be able to create or sustain major urban changes alone, but as one tool among many, it has some unique advantages.

IMPLICATIONS FOR THE FUTURE

Since it is clear that Pokémon Go's popularity has declined significantly since the initial phenomenon surrounding its launch, it is fair to ask whether these findings have any relevance for the future.

In fact, because Pokémon Go proved that location-based mobile games could be hugely popular and highly profitable, it is likely that imitators will follow. Many others, as previously noted, already exist. To be sure, the Pokémon franchise itself bears much of the credit for the game's popularity, so it is not obvious that the phenomenon can be as widespread in other contexts. But it has now been firmly established that given the right set of incentives, large numbers of people are willing to spend time and money on a game that makes them walk around the city, and it seems likely that it will continue to be a profitable genre in which to produce games.

In addition to the model being used by software developers in pursuit of profit, its mechanics could also be adopted by urban planners, non-profits, historians, artists, or other urban actors who want to leverage it for its place-changing ability, or for other goals. For example, city planners interested in flexible programming might create a digital platform for impromptu, self-organizing public events. A tourism promoter might implement a self-guided walking tour of historical sites, while a countercultural artist might deploy subversive art in public spaces that is only visible through augmented reality.

No matter which approaches end up being realized, it is at least possible that the city of the future will find its public realm overlaid not by a single virtual world, but by many. As there is no limit to the number of such digital layers that may be overlaid on a given physical location, the public space of the future (or, indeed, of today) can include multiple different realities, depending on who is perceiving it and through what means. Together, these virtual realities constitute something like a fourth dimension in addition to public space's ordinary spatial dimensions.

This is a fairly radical conception of urban space. Each of those virtual worlds, on its own, can provide opportunities for interaction, modification, or socialization, just as Pokémon Go does. And in combination with one another, especially if such popular, they would make public space more complex, more fragmented and more ripe with potential than ever before. Pokémon Go represents the best chance yet to grapple with the integration of virtual worlds with physical

space, and the clearer its impacts are, the better planners can cope with – and even take advantage of – augmented urbanism¹¹.

What does such a world look like from the perspective of urban planning, and how might planners best intervene in the augmented city in order to advance urban planning goals? One can imagine a variety of different ways to take advantage of virtual worlds, depending on the desired outcome and the availability of resources. The following is not intended to be a comprehensive list of every possible intervention, but serves to highlight some of the key issues to consider as the future unfolds.

Some interventions require relatively little in the way of innovation, and may involve planners minimally or not at all. For example, existing regulations governing public space could be extended to include augmented places. Something like this is already happening in Milwaukee, Wisconsin, where park officials' complaints about crowds have led to a new local ordinance. It states that in order to put any augmented reality objects in the state park, Niantic (or anyone else) must "get a permit like any other business or group that wants to host park events." This applies to all such objects, including PokéStops and Pokémon, and the required process involves, at a minimum, filing an application and paying a variable fee. (Bogos) In this case, the ordinance simply took the existing event regulations governing a particular place and extended their scope to include the digital realm as well.

As with many urban interventions, whether this example represents a positive or negative change is a matter of perspective. Players of Pokémon Go would probably prefer the same freedom to play that they enjoy everywhere else, while the park officials are presumably happy that the park's income will more closely match its maintenance needs.

This approach to regulating digital worlds has the advantage of being relatively straightforward to implement, since people are presumably familiar with the logic of the existing rule. It can also be less risky than more experimental policy changes, because it is based on tested concepts. It also has some disadvantages. In particular, digital objects or locations may be wholly new in type, and thus not fit neatly into existing rules. In the Milwaukee case, for example, it requires some mental gymnastics to categorize a PokéStop, which is a persistent object at single location, as an event, which normally has spatial distribution and a limited duration.

A more experimental and proactive approach to augmented urbanism would be to codify a set of new, geographically defined rules specifically designed to govern virtual space. Perhaps something like a "virtual" zoning code could be enacted. It could govern when and where virtual objects are allowed, for example by mandating night-time "off" hours, or preventing people from augmenting cemeteries, ecologically sensitive areas, and other undesirable locations. It could also govern the types of activities allowed, similar to the function of land-use regulations. Perhaps augmented realities that are purely for entertainment would be permitted in different locations than, say, health-related applications.

¹¹ For an explanation of this term, see "Urban Games" above.

One downside of a 'virtual' zoning code is that it is not clear what the mechanisms of enforcement could be. With ordinary zoning codes, city officials have the power to prevent any physical construction which would be in violation of zoning. But a digital universe can be invented by anyone with sufficient resources and skill. And objects in such a universe can be used to augment any real-world location without restriction, regardless of what rules there are, who owns the property, or even whether the inventor is on the same continent. Perhaps enforcement mechanisms such as fines could simply be directed at people who are attempting to use the space in question, rather than the owner of the digital object or world.

Both the policy-extension approach and the virtual-zoning approach would likely work best if rules were built up slowly over time as needed. As explained above, augmented urbanism can be used in many different ways, from virtual marketing to personal health to public service delivery, and we cannot yet guess which ways will catch on, or which will have the greatest effect. In addition, some effects of augmented realities that are not obvious at first may emerge over time as the technology progresses and innovations accumulate, so it would be ideal if rules started out light and flexible.

A third way to intervene in the augmented city would be through direct partnerships with the developers or managers of the virtual worlds themselves. This is the model practiced by the Engagement Lab at Emerson, in partnership with Niantic Labs and the City of Boston. As noted in "Games in Urban Space" above, that project has the potential to simultaneously rectify spatial injustices in the game, give youth a sense of ownership over place, and generate civic engagement.

Although this is an example of a successful partnership, it may turn out to be difficult to replicate elsewhere. Niantic seems to be willing to work with partners in Boston, and perhaps they could be persuaded to do so elsewhere as well. But at present they are under no obligation to do so, and could stop at any time. Likewise, future developers of virtual worlds will be under no obligation to collaborate with urban stakeholders, barring the development of some coercive policy. Furthermore, the Engagement Lab itself provides much of the expertise, time, and commitment that makes the partnership work, and not every city has the benefit of such an organization.

Finally, there is a fourth approach to intervening in the augmented city that requires a great deal of innovation, as well as deep involvement of knowledgeable planners in order to be successful, and that is for planners to deploy a custom digital world for the express purpose of furthering urban planning goals. For example, planners could add a digital layer to the city that provides historical information, walking tours, local discounts, games and prizes, news alerts, city services or some other digital goods or services.

This approach has the advantage of being under the city's control, so it could be used for the explicit purposes of enhancing the urban environment, generating foot traffic in certain locations, increasing economic activity, giving citizens autonomy, or whichever potential effects are deemed desirable. By contrast, a private game developer's profit motive is likely to rank higher than other considerations, no matter how strong their municipal partnerships may be.

On the downside, developing the technology in-house would probably be more expensive, difficult and time-consuming for municipal agencies than “piggybacking” on something developed by a private company. In addition, making a game or app that is engaging enough to become popular requires a very specific type of expertise. This is a skill that may not be readily available to a municipal government. An interview with the Boston Mayor’s Office of New Urban Mechanics, for example, turned up a history of attempts in Boston and elsewhere to create walking tours and other place-based apps which gained a handful of dedicated users but never caught on more broadly.

These interventions each have unique advantages and disadvantages, and any or all of them could earn a place among planning tools. Perhaps, as augmented realities grow more numerous or complex, other useful ways to manage them will become apparent. In any case, it is incumbent upon the planners of today to grapple with the implications of augmented urbanism, both in order to mitigate its undesirable effects, as well as to leverage its awesome power to make positive urban change.

DIRECTIONS FOR FUTURE RESEARCH

Location-based mobile gaming, and Pokémon Go in particular, are new enough that researchers are faced with a myriad unresolved questions, any one of which would present an interesting avenue for further investigation.

The most straightforward way to extend this work would be to release another survey with additional questions. Adding questions about geographic location, such as zip code, would allow for GIS analysis of the results, and might reveal spatial variances in player behavior. Any observed patterns might tell us about the effects of geography, climate, or culture, and could reveal differences between urban and rural areas or among different countries. Other questions could seek insights about economic and ethnic demographics, attitudes toward cities, or other qualities that are important when planning inclusive urban places.

One obvious limitation of the present survey is that it measures player behavior, which is only an indirect measure of how public space functions. It would be useful to survey users of public space in general, in order to directly ask them what they think about the spaces they use, and whether that has changed as a result of the game.

Because a survey can only gather people’s perceptions, it would also be useful to explore some more quantitative research methods. One potential source of excellent data would be the in-game data presumably collected by Niantic in the course of producing performance metrics or market research. Although a request for access to any data they were willing to share was submitted to their public relations office, no response had been received as of the time of writing. Still, given their apparent willingness to partner with researchers and municipal agencies, it is reasonable to suppose they might be willing to share some properly anonymized subset of their data in the future.

Even a small selection of such data could provide a trove of detailed information about player behavior, including the real-world locations that see the most (or least) activity; the variation

in player behavior by time of day, day of the week or season; movement patterns; and much more. Any of these would offer greater detail than what is publicly available. Experiments would provide another source of interesting data. For example, comparing the movements, behaviors, or experiences of a control group of public spaces users, as compared with a test group using Pokémon Go.

Finally, the biggest question left unanswered is how these results might translate to location-based gaming more generally. Performing the same research presented here, on other games such as Ingress or geocaching, might reveal interesting differences in the effects of different games. Or a custom app could be developed and used in an experiment, in order to test specific hypotheses.

It is hoped that the present research provides a useful foundation for future empirical investigations into this new and important urban development.

WORKS CITED

- Allan, Robbie. *Has Pokemon Go Peaked? The Data Say "Yes"*. 7 December 2016. Web. 6 May 2017. <https://medium.com/@sm_app_intel/has-pok%C3%A9mon-go-peaked-the-data-say-yes-130c4a577c9d>.
- App Institute. *Pokemon Go App Downloads and Revenue In Real Time*. 8 May 2017. Web. 8 May 2017. <<https://appinstitute.com/pokemongo-realtime-stats/>>.
- Bogos, Steven. *Pokemon Go Monsters Will Need a Permit to Enter State Parks in Milwaukee*. 19 February 2017. Web. 18 May 2017. <<http://www.escapistmagazine.com/news/view/169583-Pokemon-GO-AR-Legislative-Milwaukee-Permits>>.
- CBS-DFW Phoenix. *Pokemon Go Players Trespassing, Risking Arrest*. 13 July 2016. Web. 7 May 2017. <<http://dfw.cbslocal.com/2016/07/13/pokemon-go-players-trespassing-risking-arrest/>>.
- Chen, Joyce. *Pokemon Go: Crowd Stampedes Through Central Park After Rare Vaporeon Sighting*. 16 July 2016. 6 May 2017. <<http://www.usmagazine.com/celebrity-news/news/pokemon-go-crowd-stampedes-after-spotting-rare-pokemon-w429525>>.
- CO&P. *Come Out And Play San Francisco*. 2014. Web. 20 May 2017. <comeoutandplaysf.org>.
- Crawford, Margaret. "Blurring the Boundaries: Public Space and Private Life." Crawford, Margaret, John Chase and John Kaliski. *Everyday Urbanism*. New York: Monacelli Press, 1999. 22-35. PDF.
- Creative Research Systems. *Sample Size Calculator*. 1 1 2012. Web. 8 May 2017. <<https://www.surveysystem.com/sscalc.htm>>.
- Devin, Kalisha. *New Research Suggests Location-Based Games Influence Our Perception of Culture*. 18 January 2017. Web. 20 May 2017.
- Guarino, Ben. *Pokemon GO Craze Sweeps Nation*. 11 July 2016. Web. 6 May 2017. <<https://www.washingtonpost.com/news/morning-mix/wp/2016/07/11/Pokemon-go-craze-sweeps-nation-players-find-monsters-and-injuries-robberies-and-worse/>>.
- Habermas, Jürgen. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society. 1962*. Trans. Thomas Burger. Cambridge: MIT Press, 1989.
- Jacobs, Allan B. *Great Streets*. Cambridge, MA: MIT Press, 1993.
- Jacobs, Jane. *The Death and Life of Great American Cities. 1961*. New York: Vintage Books, 1992.
- Kawa, Luke and Lily Katz. *These Charts Show That Pokemon Go Is Already In Decline*. 22 August 2016. Web. 8 May 2017. <<https://www.bloomberg.com/news/articles/2016-08-22/these-charts-show-that-pokemon-go-is-already-in-decline>>.
- LeFebvre, Henri. *Writings on Cities*. Ed. Eleonore Kofman and Elizabeth Lebas. Oxford: Blackwell, 1996.

- Loukaitou-Sideris, Anastasia and Renia Ehrenfeucht. *Sidewalks: Conflict and Negotiation Over Public Space*. Cambridge: MIT Press, 2009.
- Lynch, Kevin. *The Image of the Environment*. Cambridge: MIT Press, 1960.
- Misra, Shalini, et al. "The iPhone Effect: The Quality of In-Person Social Interactions in the Presence of Mobile Devices." *Environment and Behavior* 48.2 (2014): 275-298.
- Mitchell, Don. *The Right to the City: Social Justice and the Fight for Public Space*. New York: Guilford Press, 2003.
- Moldharia, Sohel. *PokemonGO Speed Limit Chart – How to use it for your advantage*. 15 November 2016. Web. 6 May 2017. <<http://otakukart.com/animeblog/2016/11/15/pokemongo-speed-limit-chart-use-advantage/>>.
- Molina, Brett. *'Pokemon Go' Sets Download Record on Apple's App Store*. 22 July 2016. Web. 6 May 2017. <<https://www.usatoday.com/story/tech/gaming/2016/07/22/pokmon-go-sets-download-record-apples-app-store/87446714/>>.
- Newhouse, Alex. *Pokemon Go Might Finally Have Hit Its Peak Number*. 23 July 2016. Web. 8 May 2017. <<https://www.gamespot.com/articles/pokemon-go-might-finally-have-hit-its-peak-number-/1100-6442135/>>.
- Perez, Sarah. *Pokemon GO Passed 100 Million Installs Over the Weekend*. 1 August 2016. Web. 6 May 2017. <<https://techcrunch.com/2016/08/01/pokemon-go-passed-100-million-installs-over-the-weekend/>>.
- Plunkett, Luke. *When Over 2000 People Turn Up to Play Pokemon Go*. 10 July 2016. Web. 6 May 2017. <<http://kotaku.com/when-over-2000-people-turn-up-to-play-pokemon-go-1783425980>>.
- Ratti, Carlo and Anthony Townsend. "The Social Nexus." *Scientific American* September 2011: 42-48.
- Richards, Patti. *MIT Digital Water Pavilion Makes a Splash in Spain*. 11 June 2008. Massachusetts Institute of Technology. Web. 4 May 2017.
- Sonders, Mike. *Pokemon Go Demographics: The Evolving Player Mix of a Smash-Hit Game*. 7 December 2016. Web. 7 May 2017. <https://medium.com/@sm_app_intel/pok%C3%A9mon-go-demographics-the-evolving-player-mix-of-a-smash-hit-game-b9099d5527b7>.
- Suttie, Jill. *How Smartphones Are Killing Conversation: An Interview With Sherry Turkle*. 7 December 2015. Web. 7 May 2017. <http://greatergood.berkeley.edu/article/item/how_smartphones_are_killing_conversation>.
- Tribune News Services. *'Pokemon Go' Digital Popularity Is Also Warping Real Life*. 13 July 2016. Web. 7 May 2017. <<http://www.chicagotribune.com/bluesky/technology/ct-pokemon-go-unintended-consequences-20160713-story.html>>.

Vasiliu, Alexandra. *8 Location Based Games for Android and IOS*. 4 August 2015. Web. 20 May 2017. <<http://www.pocketmeta.com/8-gps-based-games-for-android-and-ios-30708/>>.

Weinberger, Matt. *The Best Pokemon Go Apps Could Get You Banned from the Game*. 28 July 2016. Web. 7 May 2017. <<http://www.businessinsider.com/pokemon-go-iphone-and-android-map-apps-are-against-the-rules-2016-7>>.

Whyte, William. *The Social Life of Small Urban Spaces*. New York: Project for Public Spaces, 1980.

Wikipedia. *Ingress (Video Game)*. n.d. Web. 20 May 2017. <[https://en.wikipedia.org/wiki/Ingress_\(video_game\)](https://en.wikipedia.org/wiki/Ingress_(video_game))>.

APPENDIX

INTERVIEWS¹²

Two in-person interviews were conducted, one with employees at the Mayor’s Office of New Urban Mechanics on February 23, 2017; and another with the director of the Engagement Lab at Emerson University on March 23, 2017. In both cases, the individuals interviewed were partnering with the City of Boston and Niantic Labs on specific projects related to public space and Pokémon Go.

One interview was conducted with officials from the Boston Mayor’s Office of New Urban Mechanics. They described Boston’s recent history of using games and digital tools to generate civic engagement among residents, including through virtual reality design charrettes and online participatory planning tools with game-like mechanics. The officials also offered some general opinions on Pokémon Go’s future, its applicability to planning goals, and the potential for new and different games. One notable result was the observation that apps designed specifically for urban planning purposes rarely generate significant public interest, and that partnering with the private developer of an already-successful app was likely a better investment.

The second interview was conducted with Eric Gordon, Executive Director of the Engagement Lab at Emerson University. Much of this interview was a background discussion about the functions of public space, applications of digital technology, and social impacts of same. Mr. Gordon also provided an extensive explanation of the Engagement Lab’s partnership with the City of Boston and Niantic Labs, discussed above.

PLAYER QUOTES BY THEME

PLAYER QUOTES: EXPLORATION & DISCOVERY

“In the summer, seeing parks and other landmarks full of excited people was magical, I hope this can be repeated at least a little this summer.”

“I have learned so much about my new home city in Gothenburg Sweden through Go.”

“Definitely found parks around me I never knew about or would have visited when hunting for nests. Helps with city landmarks as well.”

¹² Each interview was conducted in person and was recorded using a smartphone app. In keeping with privacy best practices, recordings will be held for a maximum of one year and will then be destroyed. Interview consent forms were signed by all parties, and written permission was provided for all direct quotes.

“In the summer [when] it came out I noticed a lot of people on the streets walking around. Now that the hype has died down everything went back to normal.”

“I had just moved to a new city when the game released, and I learned about all sorts of locations and places in town by playing this game.”

“I have ventured out into my community more. I am in a wheelchair and the game gets me out and about when I might stay home otherwise.”

“Discovery of places and objects in public spaces is an incredibly powerful effect of the game! The social effect is much more muted now than at the game's launch, but it is still there as many people do know what the game is. I do wish the game's content was not so centralized on the urban environment. Pokémon Go may not be the right product to have a public-space emphasizing effect on rural locations.”

“Aside from increased awareness of parks, because the best and rare Pokémon tend to spawn downtown, Pokémon Go got me to go downtown much more frequently than I would otherwise. In fact, downtown is usually pretty intimidating for a suburbanite or rural person, even for me who goes downtown for work on occasion. Spending more time downtown helped me learn the streets and attractions better, including where to park which causes anxiety for many, and therefore I am more likely to spend time downtown doing other things like going to museums, concerts, and restaurants.”

“Geocaching has had a much bigger influence on how places feel and has introduced me to a lot more new places. Last summer I did both at once sometimes but was motivated more by geocaching and then just did Pokémon along the way.”

“Although I have gone to new places, enjoy them, and sometimes have gone back; there are places that I have gone that seemed fine on google maps, but the reality were terrifying places to be by myself.”

“I am certainly more aware about some places in town. Know more random pieces of art and what some buildings are. There are almshouses! There are pretty murals on my commute. I'd never have known that if it wasn't for PoGo. I think it makes people a bit more aware about their towns.”

“I am much more aware of my local parks and art/places of interest. It has, for me, changed my perception of certain perks. The Tualatin Commons in Tualatin OR has changed from being a nice center of the community that didn't really have much to do into being a hub for the local PG community and it receives much more traffic as a result.”

“It mostly attracts people to places that were not as frequently used as before. Like a lake about 1.5km from my home, even in this cold winter times people go there to play because it has the same spawn

frequency as the other "major PoGo" places in the city (Hannover, Germany) while being a nice quiet place in the nature."

"I've seen a lot of places I hadn't been to since I was a kid, also, like Adler and the other museums downtown. Going down for those has made me more comfortable heading down there for other things again. In addition, I never really walked around the downtown area of my suburb before, I recently went to a comedy show at a downtown place that I found while walking there!"

"I started university in my city in October and I am sure that without Pokémon go I would never have explored the city the way I did. I have a different feel of where I am because I always have a map that tells me where I can or cannot go and the PokéStops often contain texts that enrich my knowledge of the city and its attractions."

PLAYER QUOTES: NEW PERCEPTIONS AND PERSONAL GROWTH

"It makes otherwise insignificant places fun!"

"I'm never going to look at the water tower (gym) near my house the same way again."

"I've seen pogo players start up litter crews and play while picking."

"One of the things we've talked about a lot is the information on the PokéStops. I've lived in my small town for thirty years, always taken an interest in local history, and I've still learned a lot of new things. It's a fun aspect-and increases our civic pride (though, being English, I wouldn't say that out loud)."

"For me, the biggest change was I got to know my city on foot. I'm significantly more comfortable in the city, know where places are, and far less uncomfortable when in the city. Grand Rapids, MI for reference. I used to dislike the city, now I feel it isn't all that bad at all."

"I absolutely became an outdoors-person and I now know all the nice spots in my city. I became more trusting in other people and realize how safe and beautiful my city (Eindhoven, Netherlands) really is."

"Maybe there are too few people playing the game in my area, but I got to a few new places and there are memorials and Statutes I Never noticed before, but since they are PokéStops now I know them and read their description. I will always remember when I walk by them :)"

"We went [home] to our cities and discovered things had been here all along, but we had never been there until we had a game to play and see what was on offer at home all along!"

"I didn't have a history with the Pokémon series before this game. What convinced me to start playing was that I was intrigued by interacting with a "world within a world"; secret places and creatures that weren't visible to everyone. Also, I had a broken leg when I started playing and this game was key to rehabbing my injury and getting me to walk a LOT."

"I see more street art, like graffiti or old art on buildings that is now a PokéStop. I once saw some bad crime tv show where the old experienced guy said "people never look up" when they were looking for the murder weapon. I always thought that weren't true for me, but after Pokémon go came I got to admit there is a lot of buildings where I never looked at the top before. Lots of old decorations/portraits and symbols etc. on them that I never noticed before."

"I do pay less attention to my surroundings, for example we went to the capital a while ago and I got really distracted by the game. When I turned it off I couldn't stop thinking about what I might be missing so that aspect is definitely not healthy for me! (I'd been several times before though, if it was the first time in that city I hope I would have felt different about it)"

"When my brother started playing the game, he began to clean up his local park and even petitioned the local government for new trash bins in the park to keep it free of litter."

"The effects on me personally will endure because I will not lose that increased familiarity with the geography of my city."

PLAYER QUOTES: CROWDS AND URBAN CHANGE

"Massively increased the diversity of people at Sydney's Circular Quay when the game was at its zenith."

"When the game first came, I was really amazed at how some places changed. Usually desert[ed] streets or quiet bar filled with people"

"As an architect, I would like to see real life gyms and pokeparks be constructed."

"The first few months were an exceptional experience. Everywhere seemed safer than usual and people more approachable. Somewhat like orientation week at university wrapped in nostalgia, gaming and obligatory exercise."

"Some of the dead places in my town are now full of people walking around."

"One thing that I've noticed is that being in an urban area at night isn't nearly as unsettling when there are other groups out doing the same thing."

“There was a square park that was usually dangerous and badly illuminated in downtown. Because of a cluster of PokéStops the square changed completely, the game generated pressure to improve the lighting and thus thugs and whores were forced out. At the beginning it was constantly filled with players, now it’s just empty but much safer. TL, DR: Game transformed permanently a public space for the better.”

“My theory is that Pokémon Go will have a profound effect on places and social interactions in that it is on the forefront of a larger technological trend of MR/AR pervasiveness that will make previously codified locations much more liminal.”

“Much potential. As a rural player, on an island only accessible by boat, this game shows how public and private spaces benefit from foot traffic accessibility. More specifically, foot traffic only areas. From the ambiance to potential shoppers, the social aspect of life and human interaction is ingrained with a game like Pokémon go, my argument would be that the more healthy human interactions the better.”

“Clearly, PokéStop placement is key. In my small tourist town, those public locations with many nearby stops see a demonstrable increase in traffic and loitering. Public places without a concentration of stops, for whatever reason, have seemingly not changed.”

“I do not believe Pokémon Go has any "power" to change. The hype is over, Niantic has not managed the game well... the player base is in clear decline. It's just a game and there will be a next best thing (especially in AR). I'm located in Europe so perhaps my viewpoint is skewed in that dare I say, I think most places thought of it as an annoyance having people running around.”

“Changes were drastic in the beginning, but died off when the game stopped getting relevant updates. Difficult to answer the survey now as the game doesn’t really affect anything anymore.”

“As a transport planner, I think that the % of Pokémon GO players in the total population is a bit too small to become something that drives urban planning. Also, most of the people who still play the game after months are mostly young (like I am, too) and as such cannot represent the behaviour and the needs of the whole population.”

“During the first few weeks of the game coming out, there was a profound effect on place--my friends and I would specifically travel to particular spots where about a hundred other players were at any given time. Sadly that is no longer the case.”

“Clearly there are commercial applications to this type of thing, but I would like city councils to consider the overall feel for their towns/cities. When strangers come together to play (non-competitive) games, it really does make the place feel happy and safe.”

“Some of our downtown areas used to be dead zones at night. Pokémon has brought foot traffic to these places as late as 3am and made them feel safe. Seeing more people driving around playing since it's now cold outside. There are certain parks where it's not unusual to see cars driving around a loop at 20km/hr.”

“I think, for the actual players, some places have permanently changed. For example: there are the "lure-places" or the "secret hideouts with Pokémon X spawns" - but for others, these changes won't exist. In the past, they were noticeable for everyone though, when everyone was playing.”

“I don't really see the game changing substantively anything in the extant urban environment that I experience. Perhaps it has increased foot and auto traffic at some locations, but I suspect that if an increase has occurred, it likely is trivial.”

“I found that the early Pokémon GO craze activated public spaces all across town. It helped ease our collective social isolation by giving players common ground to be friendly towards each other.”

“I hope Pokémon go is laying groundwork for more augmented reality games, that way in the future some places might be hot spots in several games, so that there's activity from lots of people ongoing instead of a brief fad for a single game then back to normal/empty like it is now”

“It has also made many areas safer, as there are more people around. And it has brought more families out.”

“I live near the Long Beach Pike. Before PG the place was a ghost town except for people going to the Aquarium of the Pacific. There are people there 24 hours a day playing the game. Long Beach is known for its gang culture. It runs deep and is multi-generational. At the height of its popularity hundreds of people were hanging out at the Pike to play. I saw people with conflicting gang attire playing next to each other. There were no fights that summer. I think the big thing was that the whole family was playing and it is rude to bring up business conflicts when the families are out. When I stopped by a few days ago some guy had a 3000+ CP dragon thing in the gym at the tri-lure.”

“When the game was launched and there was a huge surge of new users, the impact on the city was definitely real. Some places that were never busy were packed with people all day long playing the game.”

“When the game was popular, garden beds were trampled, Litter at PokéStops, Night noise of many gatherings disturbed birds, day gatherings disturbed ducks at ponds, people did not stick to pathways. Lack of lighting in some PokéStop areas so you could not go there at night. On the plus side there were many more people using parks

and foot traffic areas! Now the game is not played as much many of these issues have gone away.”

PLAYER QUOTES: SOCIAL CONNECTIONS

“I haven’t ever experienced anything like the first weeks of PoGo. When everyone interacted with everyone, people were friends, helping each other, everyone seemed happy. It was beautiful.”

“It brings a diverse group of people together that otherwise would have never met.”

“It creates a new community of people coming together that are seeking things in a virtual world, which can be powerful to help places that are limited in the physical world.”

“Pokémon Go has allowed people to make connections with strangers in a meaningful way as well as to fully experience what a city has (landmark-wise).”

“Shortly after PoGo launched, I was in a park in our very affluent, very white, largely gay neighborhood. I was walking behind two Hispanic men with extensive tattoo work... moderately scary dudes, frankly. They ended up making friends with one of the locals, petting his dog a bunch, and talking about PoGo. That memory sticks out, but the whole park was the sort of diverse you normally only see in college recruitment brochures.”

“The people who play Pokémon Go tend to be a good group which helps places out. I've never met someone who was playing that I would never talk to again.”

“I appreciate that while the game is not as popular as it once was, it has encouraged my son (6) and me to go out and spend time exercising and exploring our city. It has led to some exciting adventures for the two of us.”

“I think that people like me who previously never went to community events or 'joined in' are more likely to join events in the future, because we have discovered new experiences and they were positive ones so we will be more likely to take a chance again.”

“I think the teams help people feel more attached to certain areas/ give people connections with strangers. If I see someone standing where near my team's gym and I see the prestige going up, there's a sense of connection- me and a perfect stranger suddenly have the same goal. I've helped my teammates prestige gyms and I've had strangers offer to help me do the same. PoGo gives you a connection with people that never would have existed without the game.”

“It was a craze that was amazing at first however didn't really promote socializing as much as everyone said it did. It made me talk

more about the game with others however I didn't feel genuinely connected as much as I did when playing soccer or biking as a kid. I spent less time looking at my girlfriend because of how much energy and attention I got from her. On the flip side it would have been better had they introduced one on one battling and trading. I spent a lot of my childhood doing just that which forced a level of friendly competition and convo that Pokémon go didn't have. I might have been walking with someone however I wasn't interacting with them...I was interacting with the phone."

"Pokémon Go has been great for my fiancé and I's relationship. We have been able to go on free/inexpensive dates that are very different and entertaining by packing a picnic, bringing the dogs, and playing Pokémon go. We also haven't felt bad about spending money on the game because if we went out to dinner it would easily be \$50, and \$50 goes a long way in Pokémon go. It has been a great way to explore our city and meet new people and try new things, and it also gives us a fun little way to be competitive with each other."

"It gave my 5 year old son and I a fun thing to do over the summer, and some special memories. I also have the game on when I go jogging. The pedometer feature actually motivated me to exercise more."

"It has been amazing means to connect with my kids. I've heard of numerous families being brought closer together because they play together."

"The game has definitely increased my social network in this small town, and we group up for coffee and lure parks together."

PLAYER QUOTES: ECONOMIC DEVELOPMENT

"Where I live, you can access two PokéStops at once from the living room. I have often wondered if we could rent out our townhouse on AirBNB for a premium because of this virtual perk!"

"It really brought some businesses and public works out into the light of the world, so to speak. Places that people didn't know existed instantly became huge gathering places for people to meet and hang-out."

"It was interesting to see how businesses would adapt and try to leverage the game if they had a stop or gym. The recent move by Starbucks to have sponsored gyms and stops was a bit late to game and would have been interesting to observe that impact if it had happened at peak game popularity."

"Generally, it has increased the amount of people who visit local parks and restaurants, to a noticeable extent, and additionally added regular customers to local businesses with clustered stops."

“A sister town to ours has had a bear economy for a decade. Its parks, some of which are inundated with PokéStops, have young people hanging out peacefully for the first time in years. The town is tabling a motion to devote more funds (and raise funds from businesses) towards these specific parks to refurbish and renovate.”

PLAYER QUOTES: TRANSIT

“Creates lots of car traffic in the locations with PokéStops and gyms. Standard driving “circuits.””

“3 new dirt roads have been built in Brussels because of Pokémon go. They’re planning on creating at least two parks in anticipation for gen2 so the mass of people can be accommodated Pokémon is here to stay.”

“Just as a random anecdote, Pokémon go encouraged me to take streetcars - they’re pretty slow, so even with the lowest speed limit I can still spin stops and catch. They go through busy areas, so I pass lots of nests and diverse spawns. And now that it’s winter, I can play without my hands getting cold. They’re the perfect Pokémon go vehicle. Aaaand because I realized that subway isn’t the only transit I can take, I’ve been getting places more efficiently, and also staying out later - because I had previously forgot that streetcars run all night, and now I can come home any time very conveniently (there’s one near my house). Plus, I find it much nicer to be outdoors than underground, so my commutes are nicer. Aaaand I notice really cool shops and places that encourage me to explore. So yeah, Pokémon Go has indirectly changed the way I explore the city.”

PLAYER QUOTES: HEALTH AND EXERCISE

“Better than other video games where I stay inside all day. I want the pogo+ so I don’t need to look at my phone at all and can spend more time in the real world”

“I run twice as much as I used to with PGo!”

“I walk 2-3 hours a day, have visited places I’ve never been to and will walk, drive, climb, crawl and do whatever it takes (other than breaking federal laws) to catch the mon!”

“It also has encouraged me to park further away from my destinations just so I can walk and play along the way.”

COMPLETE SURVEY RESULTS

Q1: When did you start playing Pokemon Go?

Answer Choices	Responses	
I'm just getting started	0.34%	5
A few weeks ago	0.20%	3
A few months ago	7.18%	107
When the game was released (summer 2016)	92.29%	1,376
Total		1,491

Q2: How often do you play?

Answer Choices	Responses	
Every day	78.05%	1,163
A few times a week	15.97%	238
A few times a month	3.02%	45
Rarely or never	2.95%	44
Total		1,490

Q3: Where do you play Pokemon Go? (Check all that apply).

Answer Choices	I don't play there	I play if I'm there for some other reason	I go there specifically to play the game	Total Respondents
Peoples' homes	37.52% 550	63.23% 927	1.57% 23	1,466
School or work	21.74% 320	75.82% 1,116	5.77% 85	1,472
Parks or plazas	1.48% 22	36.50% 542	80.81% 1,200	1,485
Streets or sidewalks	1.75% 26	62.80% 932	54.25% 805	1,484
Fields, forests, lakes, or beaches	12.43% 183	57.74% 850	45.79% 674	1,472

Stores	17.99% 265	80.31% 1,183	6.72% 99	1,473
Restaurants, cafes or pubs	17.91% 264	78.02% 1,150	11.40% 168	1,474
Theaters, music halls, or other venues	45.10% 662	54.50% 800	3.61% 53	1,468

Q4: Where do you live?

Answer Choices	Responses	
Somewhere urban	43.81%	651
The suburbs	36.00%	535
A small town	16.82%	250
Somewhere rural	3.36%	50
Total		1,486

Q5: Do you play other location-based games?

Answer Choices	Responses	
Ingress	38.63%	107
Zombies, Run	15.16%	42
Coderunners	0.36%	1
Geocaching	46.57%	129
Scavenger hunts	6.50%	18
Other (please specify):	15.88%	44
Total Respondents: 277		

Q6: Does Pokemon Go introduce you to new places?

Answer Choices	Responses	
Yes, I go to places I've never been, specifically to play the game	63.36%	889
I might go a little out of my way for a stop or a gym	32.64%	458
No, I only play the game in places that I would visit anyway	3.99%	56
Total		1,403

Q7: Do you (or would you) ever return to the places discovered through Pokemon Go?

Answer Choices	Responses	
Yes	77.91%	1,083
No	11.58%	161
N/A	10.50%	146
Total		1,390

Q8: Does Pokemon Go affect the places around you?

Answer Choices	Responses	
Yes, it increases foot traffic in some places	52.11%	728
Yes, it changes the "feel" or mood of some places	41.73%	583
Yes, it changes the way people talk to each other in some places	42.30%	591
No, I haven't noticed any changes	25.05%	350
Other (please specify)	10.74%	150
Total Respondents: 1,397		

Q9: Are these changes positive or negative? Or both?

Responses
Positive. The area is suffering user decline outside of working hours. PG has helped bring people together for recreation during non peak times.
Neutral. Its hard to tell

Positive- speak to strangers because we obviously have something in common- the game
Positive
Positive. Everyone is more approachable and open to social interactions
For me, they are mosly negative since I don't necessarily want to share experiences with other players while I'm out playing. I also don't approve people moving from place to place by car just to play the game nor behaving poorly in player vs. player situations. The biggest positive change has been the moments of player co-operation where there has been a lot of players at once or where ther ehas been some pre-planning involved.
People sitting in their cars idling is negative. People walking around, using parks is great.
Positive. People still interact at gyms occasionally
Positive. Great community vibes
Positive having more people outside.
I believe that the changes are positive and negative. One shopping district exploded with popularity after the game launched and embraced it. Another started kicking out players and left a bad vibe with the community.
Was fun as a player when it happened, but maybe mysterious/intimidating for outsiders who had no idea why groups of people were congregating in odd places, or outside their home near a gym/stop.
My town was extremely sleepy before the game came out. After 5pm you could walk miles and never see a human walking, it has significantly increased foot traffic at the park next to my house, and in our tiny downtown area.
Mostly positive
Positive. You got to meet lots of new people.
Positive for restaurants
Neutral
Positive. I've met lots of nice people while gym battling or when I've set up a lure in a park.
Mostly positive. More people, but more talking to each other instead of just blindly passing by each other.
positive
Positive, less likely to be in danger with many people
I would say they're positive. Being downtown in the first couple of months after the game was released, the downtown area felt more welcoming and comfortable than usual. That feeling has subsided now.
My city of Munich responded swiftly and put portable toilets, the big plastic boxes you see at construction sites as well as music festivals, near the popular spots. Those were certainly helpful, you did not need to bother a nearby restaurant or anything like that. As it cooled

down, the game and the climate, those got removed.

I would say both because when it first came out there were friendly people playing and now in the winter there's more people gps spoofing

Positive, as it helps to open up the usually silent community in my country

Both.. more people means more good and bad aspects of humans, but I see more of the good when I play, and it reminds me that people are generally respectful and friendly, when all we see on the news are stories of people being horrible to each other. So interacting with more strangers just doing their thing gives me a more balanced perspective compared to reading things reported in the media.

Q10: Do you think these changes will last?

Answer Choices	Responses	
No, places will go back to normal pretty quickly	52.16%	689
Yes, the changes will probably last a while	38.23%	505
Yes, I think some places will be permanently different from now on	9.61%	127
Total		1,321

Q11: Do you meet new people when playing Pokemon Go?

Answer Choices	Responses	
Yes, I make friends and acquaintances that way	15.49%	211
Yes, but it's not like we stay in touch or anything	56.17%	765
No, I don't talk to strangers while playing	28.34%	386
Total		1,362

Q12: Do you interact differently with friends or family, when you are playing Pokemon Go?

Answer Choices	Responses	
Yes, in a good way	30.81%	419
Yes, in a bad way	6.54%	89
Yes, in a complicated way	21.18%	288
No, my interactions with friends and family aren't affected	41.47%	564

Q13: Any final thoughts on the place-changing power of Pokemon Go?

Responses
It gets people moving. More people moving without using vehicles exposes them to other forms of Transport. It may help change transportation user habits.
It really depends on where you live. If you live in a small town and have few pokestops and pokemon, you have to go out of your way to play and maybe venture out of your normal routine. If you're like me and live in a populous area, you don't have to go searching that far to find pokemon since its already there within your walking proximity. It also depends on the person also. There are people that once lived sedentary lives prior to playing Pokemon Go. If you never go out, Pokemon Go will take you to places that you have never been... extra commentary...
Creates lots of car traffic in the locations with pokestops and gyms. Standard driving "curcuits."
PokÃ©mon go had the potential to be more effective than it has been, if it was developed better.
More people using parks is a good thing but people need to respect the parks as well.
It creates a new community of people coming together that are seeking things in a virtual world, which can be powerful to help places that are limited in the physical world.
I think the game has the ability to provide a stepping stone to otherwise boring/uneventful places and makes them desirable to visit, as seen with the Japan/Lapras event. This allows local communities/businesses to capitalize upon the increased foot traffic to try and attract return visits, or just change visitor perceptions about that area.
The game only works well in places that are already nice. Pokemon programmers only put fun stuff in central city places. My local park is empty of pokemon even though it could be a great place to walk. Walking on suburban sidewalks it is to far to find pokestops. My friends who live in the city have huge advantage. This ultimately made me quit.
The game has definitely increased my social network in this small town, and we group up for coffee and lure parks together. I'm hopeful when gen2 come outs the game will grow again and downtown will be more lively as it gets warmer. Right now only a few of us play outside the car.
It's also made it really interesting while traveling. Since the game was released I've been to Japan and also to 6 or 7 other cities in the USA and each time it has led me to discover some fun places and people.
More interactions with tourists. For some reason they think if I play Pokemon Go I know every inch of the city, and ask for locations that I didn't even know to exist. I usually pop Google Maps for them and try to explain how they can get to the place they want to. :)
won't ever be as big as it used to be, which is very sad
I've seen pogo players start up litter crews aND play while picking
I'm not sure if the game will have a long lasting effect but I really wish that it would. It was so fun the first month it came out and for a couple months after. I would love to have that positivity back
There is no power, because it is too small now and it is merely first generation augmented reality, some things did change, taxi drivers started to frequent certain places and portable

public restrooms were temporarily installed. This died down with a snow cover and freezing temperatures. See my forum post for more, and re-do the survey, it is flawed to the point that justifies giving you failing grades on it, i can help you fix it, i have seen several hundreds of professional marketing research surveys. Loaded possible answers to questions will simply void all results you get for that question, your professor will either be kind and allow it anyway, or bust you and disregard all these parts of your thesis and slap you with a bad grade. Better adjust now, and fix it before it goes bad.

Nice study!

Regarding whether the changes will last, I think that people like me who previously never went to community events or 'joined in' are more likely to join events in the future, because we have discovered new experiences and they were positive ones so we will be more likely to take a chance again.. whether it will be pogo or another game I can't say, but now that the concept is out there and in the minds of the mainstream, people are more likely to design other AR experiences that will be popular as well. I think the changes will last in as much as the game changed the way we experience our cities, but not because we will still be playing the same game. One final thought.. we travelled through Europe playing pogo and discovered awesome places in cities we visited, and kept saying this is what our city needs.. when we came home we went to our cities and discovered all those things had been here all along, but we had never been there until we had a game to play and see what was on offer at home all along!

AR will become a bigger thing. As one of the first and certainly the largest AR app, PoGo's actions will likely set the bar for a lot of future AR apps. Even if PoGo itself does not change a place, it will likely determine how future AR apps will change a place.

If pokemon go didn't die out, society would be different. When the game came out, it seemed like an episode of the twilight zone, where the world was playing pokemon go. it was really cool

It had a lot of potential, but the first AR game with mass appeal turned out to be a 3-month fad, not the beginning of a new AR-based lifestyle.

It already seems like most of the effects of the game have faded but I hope other similar games will continue to encourage people to explore their cities.

Not specifically for PoGo, but I think this idea has great potential for changing planning. For example, locations could have more interaction with electronics, or there could be instances built in (like with terminals). More widespread wifi or internet in places that were not considered before.

It really brought some businesses and public works out into the light of the world, so to speak. Places that people didn't know existed instantly became huge gathering places for people to meet and hang-out.

I think it's great when it gets people out, and exploring new areas of their city. Only downsides I can think of is when people litter / too noisy after reasonable hours (i.e. after 10pm)

I like the ability of Pokemon Go to draw my attention to public works of art that I may not have noticed or thought much of previously.

If it weren't such a bad game and everyone didn't quit, we'd be seeing significant changes already.

Generally, it has increased the amount of people who visit local parks and restaurants, to a noticeable extent, and additionally added regular customers to local businesses with clustered stops. It has also made many areas safer, as there are more people around. Last, it has brought more families out. Feel free to contact me if you would like some anecdotal data on any of those points. [redacted]@gmail.com

Gets some sedentary people out of the house

<p>There are always going to be negative people who will leave a bad impression where they go, and those people will be the ones business owners and park staff will associate with the game. Restrictions will be placed based on those people</p>
<p>I think it was very brief, and that if there were more options of games that got people out and about but with different locations and different themes it would have a longer lasting effect.</p>
<p>Clearly, pokestop placement is key. In my small tourist town, those public locations with many nearby stops see a demonstrable increase in traffic and loitering. Public places without a concentration of stops, for whatever reason, have seemingly not changed. Also, a sister town to ours has had a bear economy for a decade. Its parks, some of which are inundated with pokestops, have young people hanging out peacefully for the first time in years. The town is tabling a motion to devote more funds (and raise funds from businesses) towards these specific parks to refurbish and renovate.</p>
<p>I think each major update (release) (new gen) will act as an impulse in the interest and activity in towns and shops. You should consider running your study again when gen 2 comes out to see if it caused a spike in activity in going out.</p>
<p>massively increased the diversity of people at Sydney's Circular Quay when the game was at its zenith</p>
<p>My theory is that PokemonGo will have a profound affect on places and social interactions in that it is on the forefront of a larger technological trend of MR/AR pervasiveness that will make previously codified locations much more liminal.</p>
<p>I wish folks would be more concerned with the amount of garbage that they bring to parks and the impact on the communities.</p>
<p>Pokemon Go would have had an immense impact on the popularity of different places and how they're used if they had kept up the momentum from their initial release. Unfortunately, they have lost so much of their playerbase that it's rare to see any real-world effects from the game anymore. Hopefully the next big AR game will have more success in keeping its players engaged.</p>
<p>I found that the early Pokemon GO craze activated public spaces all across town. It helped ease our collective social isolation by giving players common ground to be friendly towards each other.</p>
<p>Not at the moment, but my Reddit ID is lassiemav3n if you'd like additional qualitative data responses.</p>
<p>I think the best benefit of Pokemon Go to places is that the game exposes players to parts of a town or region they may not have known about or visited before. I personally have discovered lots of public art (statues, etc.) that I found interesting and beautiful that I never knew existed before. I now appreciate my region's parks, open space areas, and public art more now than I did before. That being said, weather affects game playing a lot. Now that it's winter (in my area it is frequently below freezing), it is difficult to get out and play. And if the weather warms up for a few days, dirt trails turn into a muddy mess. So, I guess for city/county planning, it would be nice if unpaved outdoor trails could be made of pebbles, rock, or sand* to prevent mud being a problem and allow use of trails all year round -- which by the way would have positive effects on public health (more activity --> lower obesity --> lower cardiovascular disease) which can benefit communities financially (lower healthcare costs) and in other ways. [*I think making the paths out of pavement or cement should be avoided in open-space areas to keep them looking more natural.]</p>
<p>Shortly after PoGo launched, I was in a park in our very affluent, very white, largely gay neighborhood. I was walking behind two hispanic men with extensive tattoo work... moderately scary dudes, frankly. They ended up making friends with one of the locals, petting his dog a</p>

bunch, and talking about PoGo. That memory sticks out, but the whole park was the sort of diverse you normally only see in college recruitment brochures.
In the summer it came out I noticed a lot of people on the streets walking around. Now the hype has died down everything went back to normal
PoGo seems like an unprecedented phenomenon in incentivizing physical activity for a large swath of Americans, which is especially needed given the public health crisis we have here in the US due to sedentary lifestyles influenced by driving culture and land use. The more that citizens interact with their environment and the people around them in the flesh, the better off we are in society. Pokemon Go and urbanism are natural allies. Good luck on your thesis. I'm glad you're pursuing it and am very interested in the final product! P.S I'm a transportation planner/engineer for the city of San Francisco. Feel free to reach out gabrielho17@gmail.com
the first few months were an exceptional experience. everywhere seemed safer than usual and people more approachable. somewhat like orientation week at university wrapped in nostalgia, gaming and obligatory exercise. longevity is an issue; i think winter chills, the waning of initial excitement and pokemon gyms becoming less penetrable over time drove some people away. initially i was playing almost every day and walking long distances to do so, now i haven't logged in in a month or so. but if there's a way to keep the momentum going in the long run, we'll continue to pay more attention to our surroundings and utilize / value public spaces more.
Better than other video games where I stay inside all day. I want the pogo+ so I don't need to look at my phone at all and can spend more time in the real world (while still playing PokÃ©mon of course)
Many opportunities missed by Niantic to have a greater or more positive effect on the public.
You might want to check Yi-Fu Tuan, Edward Relph and David Seamon's work on conscious/unconscious walking habits
More people are walking and keeping fit.
It has been amazing means to connect with my kids. I've heard of numerous families being brought closer together because they play together.
Now that winter has hit and school is in session, my experience with PoGo is either semi-casual or EXTREMELY intense, but I truly believe that once the weather gets warmer, we'll see people flocking for a Dragonite again :)
Sometimes the pokestops are a significant architectural feature located higher than eye level. I have discovered (noticed?) new features on some older buildings that I never saw before despite walking past them many times. So, I have to say that even in those places that are unchanged by PokÃ©mon go, my PERCEPTION of them has changed because I know noticed a detail I didn't know before.
I believe that Augmented Reality is the biggest thing for tourism and city development.
no
I feel like the initial wave has really died down, but hopefully with the second gen release or another major event it will keep people out and about and enjoying the game and their communities!
n/a
I don't think sponsored stops have seen as big an increase in foot traffic as parks and popular historical markers that have become 'nest' locations.
Wish it was permanent but so far Niantic is wasting an amazing opportunity to make the world a more light hearted fun place to be. They could have done great things but squandered it all.
If the game kept the steam of the launch days, it could change how we walk over the city and

how we interact with strangers. But that lasted less than a month here. Not enough for a change.
There will always be a specific niche of people who will play PGO, even if the hype has died off from last year.
I think people will get bored of this game and quit, as they steadily have been since it's release. I don't think anyone should be designing roads and cities around a fad game for which the company who built it can barely keep up interest.
Nope
I run twice as much as I used to with PGo!
Some of our downtown areas used to be dead zones at night. Pokemon has brought foot traffic to these places as late as 3am and made them feel safe. Seeing more people driving around playing since it's now cold outside. There are certain parks where it's not unusual to see cars driving around a loop at 20km/hr.
The game will have to improve for this to keep up. If the game keeps losing players it won't have an affect anymore.
Needs new mechanics of some sort - the game is getting stale and the introduction of Generation 2 and future generations will only last temporarily.
Only becomes a place-changing power if an area is dense with resources (pokestops, gyms, rare spawns)
It'll be like ingress and last for as long as people are playing.
Mostly positive effects from my OWN experience
If it could keep its large player base, then spots would become a Po-Go destination and bring more people together. Unfortunately, that does not appear to be what is happening as more people seem to be leaving the game then entering it.
With todays technology i find it surprising there aren't more of these types of games.
I don't think it will change much, but we already had a decent public transport system and lots of foot traffic, before Pokemon Go
Maps, local reviews, and route-optimization tools will be changed due to the widespread reach of this game.
I think it is very location dependent. For instance, I have noticed a definite slacking off of players congregating during the winter months here in Raleigh. People are obviously still playing because gyms change hands all the time and I still see lures being put on Pokestops, but not the big crowds of the early game. I imagine something similar happens in more northerly places. I can also imagine play slacking off in the high heat of the summer when the humidity is 95% and it is 100 degrees out. And while I think there are fewer players, the ones left are more fun to interact with.
I think it had a nice impact on public spaces, making people go out more and interact more with each other. Maybe it had an impact on public transport, as I at least (maybe I wasn't the only?) started using the bus way more often than the subway to be able to play while commuting...
I think it's something good, because it got me to go outside more
Nope
Niantic's special events (double candy on halloween, extra stardust over thanksgiving week, etc) cause spikes in popularity and result in seeing more people out and about again. Then changes are positive, but do not seem to be sustainable.
There's was change when it first came out in Summer 2016, and it was a very nice and pleasant.

<p>Everyone was just having fun playing and enjoying the game. Really sad to see that it was only a Fad and not many continue to play to keep the changes permanent. Really happy that it happened, but also saddened that it's over. Best of Luck Trainer! Hope you do well on your Research. - Random trainer on Reddit</p>
<p>When the game was popular, garden beds were trampled,. Litter at pokestops,. Night noise of many gatherings disturbed birds, day gatherings disturbed ducks at ponds, people did not stick to pathways. Lack of lighting in some pokestop areas so you could not go there at night. On the plus side there were many more people using parks and foot traffic areas! Now the game is not played as much many of these issues have gone away.</p>
<p>I appreciate stops that are close to things to do especially for my kids, like playgrounds.</p>
<p>Pokemon Go is start of something new, something that has potential to change the way games are played. It can change the narrative that video games destroys socializing abilities of children and the youth. It also bridging the generation gap in a way. Hope to see more of it.</p>
<p>I think Pokemon Go is a fad that won't retain its popularity very long (even if I like it). I don't think it will have much long-term impact on the places where it is played.</p>
<p>This summer with the big lure partys was magic. But I don't think it will be anywhere that big next summer. But it could be very beneficial for citys to know we're those spots are and for example sell some ice cream and beer there. They would make a ton of money.</p>
<p>Perhaps as I live in a small town it hasn't had much of an effect, I often travel to major cities (UK- London, Edinburgh etc) through my work and I've found it a useful way to learn about unfamiliar areas (e.g. what is considered worthy of a pokestop).</p>
<p>In the beginning it was really cool, some places with good lure spots where permanently full of people, but that kinda stopped now (especially since it started snowing). But you can still find people in parks with good nests. So niantic has the power to get people to go somewhere, which we saw with the Lapras event in Japan, which was a success. So if they decide to make a legendary event somewhere they could let masses go there, and thats kinda scary but can be good.</p>
<p>I miss the early craze and wish Niantic had handled it better so that maybe it would have lasted a little longer</p>
<p>It can really take you to new places, but unfortunately it isn't as popular as it was over the summer so the changes aren't as great as they could be</p>
<p>The most important thing to mantain a place-changing power is to keep the great customer-base the game has.</p>
<p>It makes me visit more places more frequently</p>
<p>Indeed it has a lot of potential, especially talking about Gym locations, and Pokemon spanws (the rare ones). Good luck with your research from Italy!</p>
<p>I don't think there are enough players in my country (Norway) to make any noticeable difference to cities. I meet other players very rarely, even though I play in one of the largest cities in the country.</p>
<p>I haven't noticed important changes in my city, but I think it is positive in places where these changes happen.</p>
<p>For me, the biggest change was I got to know my city on foot. I'm significantly more comfortable in the city, know where places are, and far less uncomfortable when in the city. Grand Rapids, MI for reference. I used to dislike the city, now I feel it isn't all that bad at all.</p>
<p>I appreciate that while the game is not as popular as it once was, it has encouraged my son (6) and me to go out and spend time exercising and exploring our city. It has led to some exciting</p>

adventures for the two of us.
Last summer when the game released, there were about 20 people hanging around at a triple lure. Nowadays nobody around here anymore. Rarely see other players, all moving around with cars. The Market place, where are the most pokestops is empty. Saw 2 or 3 lured pokestops this year. Was a short hype in summer, since then close to a dead game in my town. An when nobody plays there won't be changes.
It can only help, wouldnt take away from places.
It's temporary. Niantec should have closed Pokemon Go at the end of Summer, and re-opened it next Summer. That's how you maintain a craze. Nice survey Scott. Tell MIT not to ban great speakers who's opinions they disagree with. #freespeech.
Its turned to crap, they've been invested billions into the game in their revenue and they cant update their game so all my friends no longer play it because its boring. Its become an old game which people dont want to play unfortunately, its killed major cities in the UK.
Not really, some parks that were empty before now have more visitors.
Could increase environmental damage, but I haven't seen evidence of it yet
The actual pokemon spawns are fairly arbitrary so I don't feel it connects to the area in the same way as (from what I've read) Ingress does.
I hope it starts a trend. People need to get out more.
Announced events in specific places in the world will make an impact (at least a short term one) on that location. As an example check the Japan Lapras event in November 2016.
I think we will see how PoGo changed places in one or two years, when everything is settled. Anyway, good luck for your theses!
It would be great if the company running it was interested in the positivity and learning. Instead they're mostly concerned with corporate sponsors and money.
It made augmented reality known to large parts of the public and has shown that it can be widely adopted. It will probably inspire many others to try new things. Good luck with the research.
3 new dirtroads have been built in Brussels because of pokemon go They're planning on creating at least two parks in anticipation for gen2 so the mass of people can be accomodated Pokemon is here to stay
I like it.
Pokemon Go when first released increased the foot traffic around the city where I live. However, that has significantly decreased since the enthusiasm has ceased. I don't see any long-term impact of this game in this iteration. This may potentially pave the way for future games to take advantage of the infrastructure and experience that PoGo has created.
Instead of taking the car for a short drive, I walk if the weather is nice.
It mostly attracts people to places that were not as frequently used as before. Like a lake about 1.5km from my home, even in this cold winter times poeple go there to play because it has the

<p>same spawn frequency as the other "major PoGo" places in the city (Hannover, Germany) while being a nice quiet place in the nature.</p>
<p>A game that grow my environment awareness</p>
<p>Sponsorships ought not be overlooked in this study. While I did stop outside a local Radio Shack to spin their stop, I don't feel like Sprint is the right kind of place to hang out, play Pok�mon, and buy things. I'm not going to buy a new phone every time I want to spin a Pok�stop. However, Starbucks is perfect for this formula, since it serves refreshments and encourages people to stay to study, play, or whatever. While Pok�mon Go certainly drives more exploration, sometimes the next visit will only be a walk-by if the space doesn't make sense with the game.</p>
<p>I look at certain areas with a different perspective. It is as though there is greater incentive to travel to a specific place.</p>
<p>I do believe there is the potential, but the way things are going right now its in decline</p>
<p>In my area and in my experience, I feel the impact is small. However some places like Santa Monica will have positive changes for quite some time.</p>
<p>These changes are only in affect when the weather is warm</p>
<p>Yes, there has been a fall out of players since Christmas. As with any game there's a big push, followed by a fall out and than it stabilizes with the "hardcore players". This could, however, quite possibly be just the beginning of many similar reality/community based games that could permanently change social behavior. Nearly a decade ago we saw the revolution that social media had worldwide. In 2000 nobody could have predicted that people would connect with total strangers to the point they visit them from international destinations. PoGo could be just the beginning of a new era of social interactive real world game play that could change our world permanently.</p>
<p>I think it's only affected while you are actually playing regularly, if you quit the game it would stop? I now have a mental map of every Dratini spawner in the 3 surrounding suburbs. But knowing where the Pokemon spawn is a bit like a fruit tree or something, a resource. I think in a primitive way it's like when people used to wander around gathering food in prehistoric times. I usually play from 2-4am and think of the suburb/s as my territory and try to take over gyms. I'm less interested in the 'landmarks' in the game since there aren't any around here I didn't know about. I like the game because it resembles more of a fake 'natural environment' rather than for cultural landmarks. There are hardly any real wildlife but now there are Pokemon and 'natural resources' (Pokestops). So now you can go to a park and stuff actually 'lives' there.</p>
<p>I think, for the actual players, some places have permanently changed. For example: there are the "lure-places" or the "secret hideouts with Pokemon X spawns" - but for others, these changes won't exist. In the past, they were noticable for everyone though, when everyone was playing.</p>
<p>Make PoGo great again.</p>
<p>I was awed and impressed by Niantic's 'Lapras event' in the tsunami-ravaged Iwate, Miyagi, and Fukushima prefectures in the Tohoku region of Japan, both in terms of Pokemon Go's ability to influence people's actions and local economies, and also the altruistic actions for the people and businesses located in that area.</p>
<p>I don't think it will be a long term change. A lot of hype at launch, more active players. The game has an impact on places mostly during summer and when there is new content available. We will have to wait till next summer I guess ;)</p>
<p>Now that the hype has largely died down, I doubt the game will continue to have much of an impact - at least locally. That could change once the weather warms up, but I think the impacts</p>

will be more subtle
When the game had more people playing, it did begin to feel like players had their realities augmented with something more. People were taking Pokemon Go into account when they made decisions to on where to go for walks, dine, hang out or ever travel abroad. The game unfortunately has lost majority of its player base, and things are pretty much returned to the way things before.
The games impact has reduced a lot know with much less players (on the street; mainly spoofers now). Hope it will get back some of its population when weather gets better and the game gets some refreshment. But sill I expect and hope that this type of game (or social and real life interaction) does not stop with PoGo, but keeps moving with new games (and other AR applications).
no power in the summer you could see players on streets, but now they're only playing on their way to work or spoofing from their homes after I caught a cold because of PoGo I play from home and in the yard when the weather is nice (and it's a couple days in a month)
Maximal influence during events or in the initial hype period. Unless the game could periodically reset I dont think any changes would be permanant. Good luck with your masters :-)
it was lit for first couple weeks
I started university in my city in October and I am sure that without pokemon go I would never have explored the city the way I did. I have a different feel of where I am because I always have a map that tells me where I can or cannot go and the pokestops often contain texts that enrich my knowledge of the city and its attractions.
no
I always wonder if being in a college town makes a huge difference in attitudes towards the game. If I yell out around the residence halls here that there's a Snorlax nearby I get a mix of excited and eye roll chuckle reactions from others. But everyone knows what I'm talking about. Nobody thinks it's a annoying and it's a big nostalgia factor for most. How widely to attitudes differ across communities?
I've found some new landmarks around places I normally go that I'd never noticed before but I haven't sought out many new places.
I measure the character of people by the way they treat my daughter and I have seen the best of people when we played (too cold right now; although yesterday I saw folks walking and it was 17 degrees F.) I never saw anyone who was rude or belittled her. They were kind, impressed by her progress, offered suggestions, and guided her. While I don't expect the crowds that were in the parks last summer, I am sure the parks and areas that welcome players will see the return of players. I wish to thank the Kenosha Wisconsin Museums and parks for their openness. The museum even has a free charging station and very clean bathrooms. The sign on their door welcomes Pok�mon players. So not only is it one of the best small museums I have ever visited, it is the friendliest. http://www.kenosha.org/wp-museum/ Although free, every time I stop there I donate a few dollars to say thank you for their support and goodwill.
I have ventured out into my community more. I am in a wheelchair and the game gets me or and about when I might stay home otherwise
It has potential to positively impact areas. More-so when the game was new and had new players but I've seen positive effects it has had on places I've traveled to. There is a sushi restaurant I go to specifically because it has a Pokestop and I enjoy placing a lure there while eating lunch.

<p>I absolutely became an outdoors-person and I now know all the nice spots in my city. I became more trusting in other people and realize how safe and beautiful my city (Eindhoven, Netherlands) really is.</p>
<p>It's positive most of the times, but it can lead to places being more dangerous and insecure from time to time</p>
<p>If done right, Pokémon Go can be a very powerful and influential game. Similar to the first week or two after release, if Niantic/ Pokémon company listened to their fan base it would be outright the most popular mobile game.</p>
<p>I don't know if it really changes places, I think it's more changing people, making them more active, more aware of places near them rather than driving to known places to walk, people just walk from their house, (like taking a walk around the neighbourhood to parks or areas of interest or historic sites, rather than driving to a national park or beach). Thanks for the survey, interesting ideas, please post a link to your thesis on silphroad when you're done. Good luck!</p>
<p>Changes were drastic in the beginning, but died off when the game stopped getting relevant updates. Difficult to answer the survey now as the game doesn't really affect anything anymore.</p>
<p>The game has a lot of potential as a tool for allowing groups of strangers who meet online for other topics to meet in a setting where they all feel more comfortable and can strike up conversation over something in common (playing pokémon go) and through this medium become more acquainted in general, as an example I seen a group of people while I was playing who were all from another country and has been talking online in a forum to try and connect with other people from their own country, they used pokémon go as a reason for them to meet up and a topic of conversation right from the start for them to begin to get to know each other.</p>
<p>If the game pushed further, and my friends weren't so easily bored, I may have more company when I do this, but I often go it alone. Can't complain tho, it's kinda nice.</p>
<p>I don't believe that PoGo can usher real change. It is a pioneering work in the right direction, but we are not there yet. Augmented reality will change public spaces, but its strength (and what makes it scary) is that it can be implemented without public planning or approval)</p>
<p>It established a beach head that later games will have to surpass</p>
<p>It was fairly effective in the summer. Now, not so much.</p>
<p>Place changing? No. Place planning? Hell Yes! Where you place art is vital. A good dispersal pattern ensures even coverage. It's a bummer to be around a pokéstop every block, then have swaths of nothing!</p>
<p>It was a craze that was amazing at first however didn't really promote socializing as much as everyone said it did. It made me talk more about the game with others however I didn't feel genuinely connected as much as I did when playing soccer or biking as a kid. I spent less time looking at my girlfriend because of how much energy and attention I got from her. On the flip side it would have been better had they introduced one on one battling and trading. I spent a lot of my childhood doing just that which forced a level of friendly competition and convo that Pokémon go didn't have. I might have been walking with someone however I wasn't interacting with them...I was interacting with the phone.</p>
<p>Good luck on thesis. Sounds like a fascinating read! Come back to Reddit and share it</p>
<p>Most players realize it's no longer necessary to hunt endlessly on foot. Rather, it's more efficient to play in a car and just drive from one rare pokémon catch to the next (they often spawn in random neighborhoods). After following a public broadcast via Twitter, I could click on a link to map where a dragonite was, then snorlax, then whatever popped up on the twitter feed. Thinking back to how much time I spent wandering with the crowds and hoping for a</p>

random spawn, that just seems inefficient compared to driving directly to a known guaranteed rare spawn. Eventually everyone would realize this, and people will just think it's not an economic use of time to wander, but rather just drive directly.
Nope
The initial impact of the game has somewhat lessened over time, though that can mainly be attributed to the lack of public interaction from the developers as well as slow updates to the game.
Niantic has a lot of power with the app to change placed. For example they increase tourism in certain parts of Japan by making a certain PokÃ©mon spawn more often.
I like turtles
It has lost too much popularity to matter anymore
If you take a mall, a zoo, a park, etc and put 10+ pokestops and some gyms within a mile radius it is going to change that place by attracting pedestrian players. If you put 10+ pokestops and some gyms in a 15 mile radius it's going to change that place by attracting players in vehicles.
I think changes to places will be fleeting, but changes to people and relationships will last forever. I still have fond memories of all the fun my friends and I had when space invaders came out (you're too young, google it). What might make the changes to places more permanent will be the games that come afterÃ© pokemon, those could etch the changes in
It feels like a "game-changer" to me. I'm sure future games will do it better, but it puts people in a different reality moderated by there phone.
It'd be better if people interacted, unless bad things happen. But it'd be cool to see people playing the game and interact however its done positively.
I hope Pokemon go is laying groundwork for more augmented reality games, that way in the future some places might be hot spots in several games, so that there's activity from lots of people ongoing instead of a brief fad for a single game then back to normal/empty like it is now
PoGo makes going to large cities more exciting.
I've been fortunate to have a positive experience behind my back while playing the game, I personally don't think any of this is going to be permanent. It makes social gatherings with friends, and going to a mall or park more entertaining and interactive, but I don't feel it'll add anything permanent or place-changing in cities. And good luck with your thesis!
Niantic definitely accomplished their original goal of creating an app that helps travelers in new places. Pokemon has a long history of being world-changing on its own right - it's really nice to get to share that with the rest of the population these days.
When the game was launched and there was a huge surge of new users, the impact on the city was definitely real. Some places that were never busy were packed with people all day long playing the game. It was interesting to see how businesses would adapt and try to leverage the game if they had a stop or gym. The recent move by Starbucks to have sponsored gyms and stops was a bit late to game and would have been interesting to observe that impact if it had happened at peak game popularity.
If the game changed enough, i.e. implemented more social features into the game, I could see Pokemon Go being able to change or at least affect social spaces.
nah
My neighborhood in Chicago (Ravenswood Manor) has toyed with the idea of changing one or two of the two-way thoroughfares into one-way streets with designated Pedestrian/Cycling traffic on the side of the street, but I believe they decided there wasn't enough space to implement their ideas. I feel that if Pokemon Go retains popularity (or if other location based

<p>games start catching on), these types of roads could become commonplace with that added desire for neighborhood strips of "park" and "grassland." From a community standpoint, I've observed that the pool of players tends to act significantly friendlier to one another than in games where there's no in-person interaction.</p>
<p>Nope!</p>
<p>No</p>
<p>Hope the release of gen2 and the summer months will recreate the launch vibe :)</p>
<p>Silph Road has had the biggest effect on guiding me to new places. Before I discovered the global nest atlas, I would walk farther in the places I knew or was visiting for some other reason. Afterwards, I deliberately visited new places with desirable Pok�mon nests. Another cool idea thing about Pok�mon go is that it added another dimension to the places I'm familiar with. I may not have noticed the odd sculpture or historical plaque in the past, but now that they are pokestops, I certainly do. Also, I find Pok�mon go a great way to explore new places. I travel frequently for work and use the game as a guide around new towns. Best of luck with your research. Report back on your findings!</p>
<p>I wish more folks still played! It led to some unusual foot traffic, and a fun way of seeing my neighborhood. I moved a few weeks after it came out, so maybe if I had stayed, I would still play with the friends I met through the game, and see new parts of my neighborhood with them.</p>
<p>Made me properly explore the city I've lived in my whole life and now I appreciate the area much more and have better knowledge of where parks etc. are and what the historical landmarks and art installations are and when/why they were put there.</p>
<p>Unless the game itself continues updating on a regular basis, and adds more of the functionality that "old-school" players had hoped for, I don't see this to be a lasting change. Over the course of a few months from release, a venue that I performed at had street-view so I could see people walking, and the crowds had died down during that time.</p>
<p>Nope</p>
<p>I think the place-changing potential lies more in suburban areas with families than in urban areas with individuals. Although there may be more casual log ins from randoms in the city, families who log in together to interact with a virtual Disneyland of sorts are more likely to interact with their local communities/governments to implement structures that benefit people of the virtual and actual community. The transient nature of urban cities, combined with the constant influx of outside money used to rebuild portions of the city, hampers the ability to create a unified vision that benefits the virtual and actual reality of that city.</p>
<p>Wish people were still out enjoying life in droves like in the beginning.</p>
<p>I don't think it has any place changing power in San Diego.</p>
<p>I wish more people would embrace it and I wish the company running the game would develop more content to allow people to experience what I have. Many people burnt out of the game, as I feel I am as well, but its due to lack of content. If there was more interactive geo location based requirements or objectives more people would be entranced like all the others still playing.</p>
<p>Discovery of places and objects in public spaces is an incredibly powerful effect of the game! The social effect is much more muted now than at the game's launch, but it is still there as many people do know what the game is. I do wish the game's content was not so centralized on the urban environment. Pokemon Go may not be the right product to have a public-space emphasizing effect on rural locations.</p>
<p>No?</p>

<p>Although I rarely go out of my way when playing PoGo, I will allow the presence of a gym or Pokestop to affect my choice between two equally accessible gas stations or two coffee shops a near equal distance from me. I will even chose the slightly more expensive gasoline or coffee if that location has a Pokestop.</p>
<p>It would be nice if drivers wouldn't try and hit me while crossing the street with phone down, not being looked at, and me being very aware of my surroundings. I've notice those that don't play, seem to love hating on those that do. Lots of hate from non-players.</p>
<p>Probably made more people go outside than any health campaign</p>
<p>Good</p>
<p>nope</p>
<p>Actually i would prefer to play on parks or in suburbans. The only reason i play in crowded places is that there are more pokestops. Many people agree that parks are more relaxing and less dangerous, and i believe niantic will upgrade rural areas, so the game will not affect design of big cities in my opinion</p>
<p>I learned about many monuments and places of interest through spinning PokeStops and battling PokeGyms, some of which I've passed by many times and never took notice of before PoGo. I see my parks and my downtown areas a little differently now.</p>
<p>Not really</p>
<p>When my brother started playing the game, he began to clean up his local park and even petitioned the local government for new trashbins in the park to keep it free of litter.</p>
<p>This is a great project! My PhD is in urban anthropology and I'd love to keep up with your research: [redacted]@gmail.com</p>
<p>I think when it first started you could tell people were playing and would talk to them, but the community is gone.</p>
<p>Pokemon go inspires people to learn about other location based games and also resources like open street map.</p>
<p>I think PokÃ©mon Go offers incentives to going out exploring and being active. I think certain "hot spots" (ex. Santa Monica Pier) will always have more of a presence due to the diversity and amount of spawns, and other areas that aren't as popular will be known to some. It all depends on how much certain places are still willing to give in to game, or if they just treated it as a fad and moved on.</p>
<p>The game has to keep changing in order to sustain the interest that has this effect. I hope it can do so</p>
<p>The game's impact has changed so drastically from release to current day. I don't know if this data is going to be of any use without breaking it into time periods.</p>
<p>The way it brought people together when it first came out was probably the best thing that happened in 2016. Bringing people together is what this world needs right now.</p>
<p>It makes otherwise insignificant places fun!</p>
<p>I think it's a great thing that has a lot of potential. I do think that a lot of that potential is being wasted as it's easy to get bored of and most of the people I know who played have long since stopped.</p>
<p>You read quite a bit about folks who have gotten up and walked around and moved about a lot more because of the game - myself included - and what an effect that has had on their healths and their moods. The population of folks playing will come and go, but I think these psychological changes for the better are more permanent for the individuals.</p>

<p>Unless a new update causes a spike of popularity and it is maintained, I believe the time for any place-changing power from Pokemon Go has passed.</p>
<p>In my very large urban setting, it just isn't a meaningful impact. I bet it makes more of a difference in smaller cities and suburban centers.</p>
<p>Had the game been good and managed by competent developers it could've permanently transformed my downtown. Instead it increased foot traffic for a few weeks then died.</p>
<p>I think it's a good way to discover interesting new things and places... much like with geocaching.</p>
<p>I'll add my reddit comment here: Just as a random anecdote, pokemon go encouraged me to take streetcars - they're pretty slow, so even with the lowest speed limit i can still spin stops and catch. They go through busy areas, so I pass lots of nests and diverse spawns. And now that it's winter, I can play without my hands getting cold. They're the perfect pokemongo vehicle. Aaaaand because I realized that subway isn't the only transit I can take, I've been getting places more efficiently, and also staying out later - because I had previously forgot that streetcars run all night, and now I can come home any time very conveniently (there's one near my house). Plus, I find it much nicer to be outdoors than underground, so my commutes are nicer. Aaaaand I notice really cool shops and places that encourage me to explore. So yeah, Pokemon Go has indirectly changed the way I explore the city. If you quote me in your research for some reason feel free to send me a message on reddit, indigo_____</p>
<p>Were I single or at least without kids I would be spending more time at cafes/bars with stops and gyms. But kids rule the world so we visit lakes, parks, and playgrounds instead and gives us all something to look forward to when we go. My wife brings the fam downtown to visit me at work once a week now, I get to see the kids more and we walk around collecting pokestops. That seems pretty powerful to me.</p>
<p>I think Niantic made a big mistake in releasing the game without having more in game options to keep people interested. The hype has died down and as a result the places impacted are no longer impacted. Maybe if the company chooses to do other big events places will be impacted. But again I think it will continue to be on a temporary basis until the event ends.</p>
<p>To people who don't go outdoors a lot, POGO may be an incentive. However, I already walk a lot, for actual utility purposes, to replace driving. When I walk, I used to focus on my surroundings. Ever since I started playing POGO, I feel less alert, and less likely to interact. The screen occupies all my attention and I find it difficult to juggle between walking safely, in proper posture, and catching pokemons. I am considering getting POGO+.</p>
<p>Not really. I cared more for the change in social scene.</p>
<p>It brings a diverse group of people together that otherwise would have never met.</p>
<p>Pogo and location-based games in general will forever shape the world. Pogo will never return to the hype but I do hope to get some of me lost friends back into the game if they ever decide to make it more exciting. I still play every day however what used to become an escape from depression might be the start of it again...</p>
<p>I with that Niantic hadn't ruined what could have been a massively influential game for years to come. Their inaction and incompetence has permanently and irrevocably stunted this game's potential and it's very disappointing.</p>
<p>The changes in place are almost all in the nature of personal perception and ways in which people congregate. The effects on me personally will endure because I will not lose that increased familiarity with the geography of my city. Some pokemon rich areas are more permanently affected as hard core players congregate there. The effect on minor parks is much more minor as people no longer congregate as they might have over the summer. You still see</p>

strangers playing, but it is no longer the all the time out door party it once was.
nope
The game is dying because there is almost no depth to it. While a future game way change the way cities are, PoGo is not that game.
Niantic needs to do better if this game will keep any influence. It's all on them. No matter how much cities comply.
Unfortunately I think the effect was short lived, as it seemed to die down by September/October and places went back to normal for the most part
Old people need to chill and let us enjoy things.
In our city of 300,000 people, there are a large number of pokestops along mainstreet. I have spent a lot of time walking through downtown to stock my bag and many other players do the same. In this way, the game has drawn a lot of people downtown. Cities spend time and money researching how to draw people to their centers and I think this game has definitely done that. The ability of the game to provide virtual interactions with physical places and the power of Niantic to shift those interactions as they choose has great potential for increasing both foot and vehicle traffic in places and increasing economic activity in those areas. Best wishes with your research.
The game could be a change for the good if channeled properly. If Niantic were to work with the cities, they could get more people out and about. Local vendors, especially food trucks, noticed the trend and took advantage - which is good for local business as well.
It's positive and ppl that whine about increased foot traffic in public parks wouldn't if it weren't for the game.
At this time due to the mis-management of the game by Niantic the game has lost all power to change locations in the real world.
I think it is great. It gets people outside and exercising. There has been millions of miles walked to this game and probably lives saved by the exercise. It brings people together and it is a great way to engage the area without involving or inconveniencing the people who aren't interested in playing.
Geocaching has had a much bigger influence on how places feel and has introduced me to a lot more new places. Last summer I did both at once sometimes but was motivated more by geocaching and then just did Pokemon along the way.
I had just moved to a new city when the game released, and I learned about all sorts of locations and places in town by playing this game.
The selling point of portable chargers.
There is this one arena, which is placed more or less in someone's garden. When i take it and someone is outside, it feels like I might be disturbing them. Haven't been there in weeks though. Poor people living there.
I honestly don't think it will as it requires one company to constantly keep the attention of a lot of people. Those that do stay focused on the game are few and far between compared to, what I believe to be, the amount you need to actually make significant change (i.e road planning or whatnot),
As an architect, I would like to see real life gyms and pokeparks be constructed. Of course, as I said before, it would have to be designed Niantic's cooperation and with the game in mind. This would be a difficult task for most city/counties but I definitely see it happening in the future.
Sometime's its negative. Google "Ballast Point Tampa Florida Pokestop" and you'll find articles where a local park was THE HOTTEST place for pokemon in all of Florida (besides Disney).

<p>People came there at the wee hours of the night, and locals "i.e. upper-class people" were all "GET OFF OUR PUBLIC PARK" (yeah, it's a public park). Anyways, some kid got tazed by police because he was an idiot. Fun tiems.</p>
<p>The sense of social contact improved a lot, even with no physical contact between friends.</p>
<p>game is terrible but idea is positive and if implemented better -- could have long term sustainability. The platform and structure are worth developing around for future games</p>
<p>During the first few weeks of the game coming out, there was a profound effect on place--my friends and I would specifically travel to particular spots where about a hundred other players were at any given time. Sadly that is no longer the case.</p>
<p>I live near the Long Beach Pike. Before PG the place was a ghost town except for people going to the Aquarium of the Pacific. There are people there 24 hours a day playing the game. Long Beach is known for it's gang culture. It runs deep and is multi-generational. At the hight of it's popularity hundreds of people were hanging out at the Pike to play. I saw people with conflicting gang attire playing next to each other. There were no fights that summer. I think the big thing was that the whole family was playing and it is rude to bring up business conflicts when the families are out. When I stopped by a few days ago some guy had a 3000+ CP dragon thing in the gym at the tri-lure.</p>
<p>I also participate in geocaching, as mentioned earlier. I feel like geocaching changes places less so because of how incredibly smaller the community is than the Pokemon Go community. Yes, a physical container is usually the 'geocache' and Pokemon Go is virtual, however, the geocaching community is pretty responsible to not harm the wildlife and the container securely sits where it is hidden, so there's about a net-zero physical change to the environment for both games. It's more the liveliness of a place that changes because of increased Pokemon Go foot traffic</p>
<p>When the game first came, I was really amazed at how some palces changed Usually desert streets or quiet bar filled with people</p>
<p>it has the power to bring people together</p>
<p>I would encourage an easier / faster way for locations to request removal of a gym or PokÃ©Stop if they are drawing traffic that is destructive to the environment or disruptive</p>
<p>I appreciate my community a lot nore thanks to PoGo.</p>
<p>The people who play PokÃ©mon Go tend to be a good group which helps places out. I've never met someone who was playing that I would never talk to again.</p>
<p>The first week, when half the Country was playing, was amazing.</p>
<p>It gave my 5 year old son and I a fun thing to do over the summer, and some special memories. I also have the game on when I go jogging. The pedometer feature actually motivated me to exercise more.</p>
<p>"Hype" plays a big role in pokemon go's power. There were significantly more active players just after release, but pokemon go players are relatively uncommon now. The hype died down and everything became normal again.</p>
<p>I think that it depends on the person, and depends on the app's staying ability. There are always groups of hardcore players who will keep playing a game after most other people move on, but Pokemon Go should try to avoid that, with releasing new Pokemon and all of that. However, I think the initial "popular" phase is on the way out, and it is mostly winding down. I love Pokemon but once I finally caught the Pokemon I wanted like building up enough candy for Charizard and Venusaur, I lost some interest and don't play it often and even considered deleting the app for space on my phone.</p>
<p>Gotta catch 'em all!</p>

Some locations are historical markers that I have not bothered to check before.
Interesting to see how long the game will stay popular, and if other super popular location based games will emerge.
Need more spawns in parks and wildlife areas to get people out there
Valor rules!
I think the game encourages friendly interactions. In my opinion this makes a better city.
A well developed plan could draw players to certain areas. The Denver zoo did an event that I assume made them a bunch of money.
Unfortunately, the places with the highest potential draw are places that already had significant tourist and recreation draws in the first place. Rural areas and small towns definitely suffer in this game because they didn't have a lot of native stops and spawns and didn't gain any in the sponsorship deals.
I think we're just brushing the surface of what we can do with location-based games, both in terms of game engagement and community engagement. We saw some of what it could be in the Pokémon Go trailer, when hoards of players gathered to battle Mew. Disneyworld has some location-based experiences in the parks, which also showcases a bit of where we could take this technology. The technology could be generic (any player could interact with it in the same way) or can be specialized (each player has a unique experience) or can be generalized in groups (certain classes of players can have a certain type of experience). If the game "migrates" interactive elements around the world, you could literally shift the location of players if they are hardcore enough. Properly leveraged, the possibilities could be endless...
It will be interesting to see if they do more events like the Lapras event in Japan. I think those will be the most noticeable impacts on the non-playing population.
It had a huge effect. Now it is over and there are significantly less people playing it
I am much more aware of my local parks and art/places of interest. It has, for me, changed my perception of certain perks. The Tualatin Commons in Tualatin OR has changed from being a nice center of the community that didn't really have much to do into being a hub for the local PG community and it receives much more traffic as a result.
depends on the content release
It's already feminine heavily, and will go back even more real quick
In the beginning it was mostly driven by pokestops close together. The best was three stops very close. Then for a while, it was driven my spawns. So I would go places because it is confirmed that a certain Pokemon is there. This has slowed a bit, but I do have a road trip planned with my girlfriend. Finally, the sponsored pokestops like starbucks don't really seem to add much to the game in their current version. Like Im not really incentivized to go there just for a pokestop.
The game had potential to be a useful tool for encouraging walking, and therefore encouraging planners to design more walkable spaces. However, the popularity of the game appears to have fizzled out far too quickly for any of these type of benefits to be enacted into city plans, which tend to take months or years to develop. In short, Pokemon go was too short of a craze to be able to drive any meaningful form of change.
Definitely got me to go into the city for increased spawn rates and made strangers seem friendly and connected for playing the same game.
Definitely found parks around me i never knew about or would have visted when hunting for nests. Helps with city landmarks as well
money rules the world. any other thing is just a side affect of that machine. pogo is just a

money maker for niantic.
I'm pretty sure we are on the brink of something magical and game-changing with PoGo, once news outlets will stop catastrophising its' negative effects whilst ignoring the positives altogether. Augmented reality provides opportunities for edutainment, and other inexpensive and fun pastimes. I wouldn't be the one to speculate on where exactly this is leading us, I'm not an Urban Development grad student after all ;) But I feel very optimistic about augmented reality experiences in the future.
I'm so happy to have a game that's fun in its own right, and also shows people some of the lesser-known gems of their regions. Not to mention the fitness benefits! Win-win-win :)
Lots of good has come out of this for a lot of small business.
I think it can bring attention to some hidden gems, e.g. parks that nobody knows about and stuff. The hugeeeee foot traffic increase in cities probably did mess up some people's day by blocking access to public transport etc but those days are gone, so overall I think it will have a positive effect on player's lives and no real effect on the lives of people who aren't playing.
I think it could stand to incentivize cleaning the environment. Is that possible?
I think the teams help people feel more attached to certain areas/ give people connections with strangers. If I see someone standing where near my team's gym and I see the prestige going up, there's a sense of connection- me and a perfect stranger suddenly have the same goal. I've helped my teammates prestige gyms and I've had strangers offer to help me do the same. PoGo gives you a connection with people that never would have existed without the game.
In the beginning it was fun when everyone would gather in the park together and race together for rares. Made the places seem more exciting but it didn't last.
I definitely experience nature and hike more as a result of the game. It is also a motivator to go on jogs.
An official method of chat could be beneficial, which would make meeting new people and organizing events slightly easier, but it would need a way to filter spam and make it "child friendly" to cohere with local and national laws.
I think it is a seasonal thing, will be interesting to see what happens next summer
I enjoy that it has gotten more people out to parks and exploring in general. I hope it can further expand to national parks and such as long as the areas are respected
It has been really good for Lowell. I've played in NYC, Boston, Tokyo, LA, and SF. Small cities are the best though, for XP/hr and rares.
Most fun in cities, used to live in suburbs and moved to NYC, game is completely different here, way better.
I didn't have a history with the Pokemon series before this game. What convinced me to start playing was that I was intrigued by interacting with a "world within a world"; secret places and creatures that weren't visible to everyone. Also, I had a broken leg when I started playing and this game was key to rehabbing my injury and getting me to walk a LOT.
If places and communities embrace Pokemon it can really bring people from all over together
I've explored many new places around me because the game took me there.
Definitely allows people to meet who otherwise would never have interacted. Brings businesses to otherwise quiet locations.
I walk 2-3 hours a day, have visited places i've never been to and will walk, drive, climb, crawl and do whatever it takes (other than breaking federal laws) to catch the mon!
PokÃ©mon go hotspots become similar to areas that are hosting an actual event.

No
I think this fad is super cool but I don't see it sustaining itself. I don't think it'll completely drop off and be forgotten, but only dedicated Pokémon fans will stick around. Many who played this summer were just jumping on the hype train
there is one really good grinding pokestop spot in town that is always filled with walkers and over Christmas the town decorated it and it seemed to really bring out a good time with ppl. also my church engaged the kids who came to the pokestop and it potentially helped get kids near a church so that's good imo
The downtown area of my city is more populated at night. Before Go it was mostly just people from the bars.
It definitely changes the way people act and tends to modify their routines by giving them incentive to go outside explore, communicate with strangers in real life not via social medias as oppose to what the norm had become. Unfortunately, the communication factor doesn't really last, once the "hype" died, those changes were not really there anymore, because a lot less people are playing now (even tho there are still a lot) and as such some places that were crowded with player are once again in their usual state so the social aspect doesn't really stick. The routine modification factor (at least on me) seems to last much longer for people that still play, even if at the stagnant stage the game is now, the incentive to explore more isn't as strong as it was.
I expect more and more partnerships in different industries to build on the Sprint/Starbucks start. theoretically this brings traffic to the stores but Niantic gets up every morning and over a cup of coffee ponders how to shit the bed with this game in new ways.... so the effect is minimal
Wish the developers put more content and fixes in game to keep it active, right now people are starting to quit playing. My friends used to play everyday for months until now we barely log in due to game breaking bugs and lack of new content
Pokestops and gyms create awareness of places that people in the neighborhood had no idea even existed but wished they learned about them sooner. Communities and interest groups should embrace that power.
It's kinda dead now tbh
They had an opportunity, and they squandered it. They are trying to shape us to play the way they want the game played, not how it is most fun to play. It's a lot less fun than it was, which is why people have left in droves. If they continue on this path, I feel like it'll still have a core following, bug the majority of players will give it up.
There was a square park that was usually dangerous and badly illuminated in downtown. Because of a cluster of pokestops the square changed completely, the game generated pressure to improve the lighting and thus thugs and whores where forced out. At the beginning it was constantly filled with players, now its just empty but much safer. TL, DR: Game transformed permanently a public space for the better.
It is a complicated thing. It can be a positive or a negative change depending on very specific details that may or may not be common among different locations. It is usually borderline intrusive and inappropriate for Niantic to "place-change" a private property. It is usually a welcoming economic aid in commercial areas. Player and non-player city citizens/organizations will see all "place-changing" scenarios in different light. Good luck with your thesis. Also, abbreviate Pokémon Go as PoGo, not PG.
It introduced many people to the idea of hanging out in massive groups, and in getting outside. There are several great short documentaries about this:

<p>https://www.youtube.com/watch?v=VtUK8Flxia0 and https://www.youtube.com/watch?v=G NUjq4E2Fvs&feature=youtu.be But realistically the drop-off for any mobile game is pretty massive and Pokemon Go was no exception, aka people stopped playing within a few months. The game stagnated and without a steady stream of asked-for updates, interest waned. Sure it was a phenomenon, but a short-lived one. That being said I (along with many others) still play and look forward to the next patch. I imagine that in the summer, maybe at the 1st year anniversary, a massive "version 2.0" patch with Gen 2 Pokemon will finally launch and everyone will go back outside in droves. Best of luck with your paper!</p>
<p>I would rather eat in a place that has a pokestop or a gym. And if the pokestop is lured, even better</p>
<p></p>
<p></p>
<p>My dog absolutely loves our more frequent and longer walks since I've started playing.</p>
<p>Some of the dead places in my town are now full of people walking around.</p>
<p>Pokemon Go has allowed people to make connections with strangers in a meaningful way as well as to fully experience what a city has (landmark-wise). What a neat game.</p>
<p>It has made me more aware of the beautiful parks around me and my neighborhood in general.</p>
<p>I do pay less attention to my surroundings, for example we went to the capital a while ago and I got really distracted by the game. When I turned it off I couldn't stop thinking about what I might be missing so that aspect is definitely not healthy for me! (I'd been several times before though, if it was the first time in that city I hope I would have felt different about it)</p>
<p>I believe that it has opened the eyes to a lot of developers, but the strength of the game is the brand. Not much can have the same effect that this game has had. I wish to see it continue to grow and succeed, but I feel like Niantic was not ready for what they had in their hands and lost a lot of players because of it.</p>
<p>As a transport planner, I think that the % of PokÃ©mon GO players in the total population is a bit too small to become something that drives urban planning. Also, most of the people who still play the game after months are mostly young (like I am, too) and as such cannot represent the behaviour and the needs of the whole population. Good luck on your study! I look forward to hearing some results.</p>
<p>I wish it had the same amount of power it did at the launch of the game. I miss when the community used to get together for pokewalks and stuff. We don't do that anymore in my area.</p>
<p>Nope.</p>
<p>Overall since the launch, there hasn't been much to show change in my neighborhood.</p>
<p>I don't see Pokemon Go really having a place-changing power in most places and on a regular basis. But we've seen with events attracting more players, business-sponsorships (Starbucks for example), or the Lapras event in Japan that Niantic and Pokemon Go still has a strong tool to bring people to some places.</p>
<p>No</p>
<p>I have seen restaraunts change menu items</p>
<p>People playing in cars is definitely changing things. I have seen people in cars hitting the same Pokemon that I am (on a kick scooter). I've seen this pretty benign, but I understand why people would be concerned about it. Also, certain gyms are close enough to park a car next to... so, seeing more parked, running cars with blinkers on parked next to a church or starbucks...</p>

that's kind of changing things... I guess...
I believe its mostly temporary but does allow for the discovery of new places.
nothing else!
I hope for this game to last and for new content to be added continuously as it has joined everyone together for a common interest.
Maybe there are too few people playing the game in my area, but i got to a few new places and there are memorials and Statutes i Never noticed before, but since they are pokestops now i know them and read their description. I will always remember when i walk by them :)
This sounds dorky at hell, but I think the there's also a bit of an "imaginary friend" factor at play. I feel a sort of "bond" with my pokemon, and even though I am fully aware that they aren't real, I can't deny that fighting battles and going on journeys with them provides a sort of pseudo-social experience, and that's interesting to me.
The game isn't that popular anymore where i live, so the effects on cities aren't that big.
Not really, sorry for not being too informative on the writing. Wanted to get through this quickly.
Parks get more foot traffic
Now that the trendiness of the game has passed, the changes that came with it have receded. This will most likely change fluidly as the game's popularity ebbs and flows, or as any other game doing similar things becomes popular. In most places I would expect no real lasting changes because of the game, but there will be a few places where the player base is large enough for a long lasting change.
Much potential. As a rural player, on an island only accessible by boat, this game shows how public and private spaces benefit from foot traffic accessibility. More specifically, foot traffic only areas. From parks to city centers these are things we lack in many N American cities and towns. If centers and parks are well accessed by foot & bike everyone there benefits. From the ambiance to potential shoppers, the social aspect of life and human interaction is ingrained with a game like Pokemon go, my argument would be that the more healthy human interactions the better.
Really, all these surveys (there are quite a few PoGo-themed theses being written right now) are premature. It's extremely difficult to factor out winter weather-related changes in Minnesota.
No change. So few people play nowadays it's unnoticeable.
It has much more potential if it would place pokestops and gyms in more "interesting" spots, while right now it seems like it solely depends on how many Ingress players played in that area- if many, every trash can is a gym. if not many, than a whole huge park or a public area that is more impressive than a common museum is empty. The sad part is that in the summer the game had potential to be one of the most positive impacts on society, and they missed it.
it was clearly noticable at first but the hype died fast
Well, If I go out to eat, if a restaurant has a Pokemon function, it gets moved up the priorty list of where to go
I do not believe it PokÃ©mon Go has any "power" to change. The hype is over, Niantic has not managed the game well... the player base is in clear decline. It's just a game and there will be a next best thing (especially in AR). I'm located in Europe so perhaps my viewpoint is skewed in that dare I say, I think most places thought of it as an annoyance having people running around. I wish you all the best in your future and for your thesis.
Nope! Thanks!

<p>One of the things we've talked about a lot is the information on the Pokestops. I've lived in my small town for thirty years, always taken an interest in local history, and I've still learned a lot of new things. It's a fun aspect-and increases our civic pride (though, being English, I wouldn't say that out loud).</p>
<p>I see more street art, like grafitti or old act on buildings that is now a pokestop. I once saw some bad crime tv show where the old experienced guy said "people never look up" when they were looking for the murder weapon. I always thought that weren't true for me, but after pokemon go came I got to admit there is a lot of buildings where I never looked at the top before. Lots of old decorations/portraits and symbols ect. on them that I never noticed before.</p>
<p>really helps certain stores lucky enough to be close to multiple stops.May bring more people to more parks canst say for sure, I have certainly covered much more space in the area i live in eg parks streets church grounds, restaurants beside poke stops</p>
<p>I'm never going to look at the water tower (gym) near my house the same way again.</p>
<p>It definitely got me to explore my local area more and change routes of previous runs I would take.</p>
<p>It's SO useful for business!</p>
<p>the area where we live is not very conducive to pogo. Virtually no sidewalks, few well maintained public areas, and the limited number of parks are small and under maintained. It does highlight new priorities in where we would want to live next and what what we would look for when we move. I don't think pogo itself will effect building plans, but I do think this awareness in the long run in combination with other AR games will influence peoples' preferences and increase awareness of the disability of things like walkability when designing new communities.</p>
<p>nope</p>
<p>I think there will be more games like that in the future, but it can also be dangerous as it has the potential of being abused. These games give the power to move masses to certain places and that can be a good or bad thing.</p>
<p>Ingress does a very good job at encouraging players to visit new places and learn some unique spots in their area. Pogo is horrible at this, there are no extra rewards for people who explore. Lures really encourage camping at pokestops which is the opposite of exploring along with only 3rd party maps available to find areas with nests and pokestops/gyms its a whole level of fail. I should say i enjoyed pokemon go until "i caught them all" but now that i have its stale and i might quit playing altogether. I really enjoy Ingress its predecessor and probably will continue to play that until it doesn't exist anymore.</p>
<p>Pokemon Go is exceptionally static and established. Roads, trails, and landmarks have changed in my area without updates to the PoGo map or the locations of pokestops or gyms. While PoGo has certainly shaped how public parks and other spaces are used in my area, new parks, spaces, and other urban developments are highly unlikely to benefit from PoGo unless made in collaboration with Niantic (sponsored, for example). From a research perspective, I fear that you're studying something that *happened* and not something that can be harnessed for future good.</p>
<p>I live in a small city; it is largely unaffected as their are no 'Santa Monica Pier' type locations nearby. The game could have a real positive impact, but this is compromised by (a) the need for revenues from sponsors, (b) safety concerns (and how this interacts with media coverage), and (c) the gaming community, which is its own worst enemy in terms of promoting change - they see everything through a myopic pinhole that only frameworks how it impacts their gaming experience. You need to try to get the views of the 'casual' players, particularly those who play as parent/child(ren) groups - for them the impact has been highly positive, although possibly</p>

faddish? [If I think of anything else on reflection, I'll post it to the thread. Good luck!]
It has only been 6 months since the game was released. It will be interesting if a large group of players remain and how long the game will keep them interested. If interest remains after a year I expect additional changes will be considered. Things like widening park roads or creating turnoffs, adding sidewalks, and formally increasing budget for more winter plowing.
It has opened so many new places up to myself and others I've met--it's made a really positive change!
Nope good luck
Initially, there's amazing change happening in public places. However amazing it may have been, the influences were not there anymore. A meteor shower, I would say, would be a suitable analogy. Finally, best of luck to you Scott, from another fellow graduate student!
Pokemon Go has surely gotten me outside and moving a lot more... unfortunately I'm not sure if I enjoy it more as a game or a lifestyle, but either way Pokemon Go has surely effected the way I go about my day. Hope my data was somewhat helpful :)
At the moment I don't think PoGo changes places since a lot of folks stopped playing. If Gen 2 brings the masses back, it could definitely be used to do great events, maybe even for real life problems like bad economics after a natural disaster like it happened in Japan
Gets people outside, meet new people, purchase from local businesses,
It does help you find interesting facts about where you are.
Aside from increased awareness of parks, because the best and rare pokemon tend to spawn downtown, Pokemon Go got me to go down there much more frequently than I would otherwise. In fact, downtown is usually pretty intimidating for a suburbanite or rural person, even for me who goes down there for work on occasion. Spending more time down there helped me learn the streets and attractions better, including where to park which causes anxiety for many, and therefore I am more likely to spend time downtown doing other things like going to museums, concerts, and restaurants.
I think the possibilities are limited by how successful the game, as a vehicle for place-changing power, can be. Especially over longer periods of time. If we imagine a game that is played by everyone for the next 20 years, such a vehicle could probably change what a place "actually is" because it's real properties (like being some bridge) are, in comparison, largely unimportant to most people. I could easily see such an immensely successful game be a relevant factor in real estate markets. But all in all, a game with such continued success is nearly unthinkable.
Niantic, Keep adding updates instead of minor text fixes and then people will be playing again
It gets people out and enjoying green spaces in an innocent and joyful way
Niantic needs to be more responsive when people report problems that rise from placement of game locations. Places that weren't designed to handle large crowds shouldn't attract large crowds. Those kind of problems haven't risen in my city though, but I've read of them.
What I really like about PoGo are the stops showing me things I'd never noticed otherwise. It's great for learning new things about the city I grew up in. To the survey: I began in August, so I wasn't sure if I should check from beginning (summer 2016) or a few months, as I missed the first ~3 weeks.
In the summer, seeing parks and other landmarks full of excited people was magical, I hope this can be repeated at least a little this summer.
One thing that I've noticed is that being in an urban area at night isn't nearly as unsettling when there are other groups out doing the same thing. It also has encouraged me to park further away from my destinations just so I can walk and play along the way.

<p>It's becoming more and more centralized to specific hotspots in cities. For example, in Boston the Common, Castle Island, and Aquarium are all hotspots where you're likely to run into other players, but it is fairly rare to see anybody else playing in other locations.</p>
<p>Another thing that I have started doing specifically because of Pokemon Go is mapping and editing Open Street Maps in my city and the surrounding area which is used by all kinds of things/services. I started doing this in hopes of adding some nests to parks that weren't marked as parks or weren't properly labeled with things that anecdotally are used by Niantic for some of their in-game map/spawning. While that's where it started, I'm not kinda addicted to it and work on it quite a bit in my spare time just to make it more accurate.</p>
<p>Yes, the other thing I noticed is that of the numerous landmarks used as Pokestops, many have changed since the game was implemented (esp. street art and some businesses). Now the Pokestops serve as a reminder of the history of the location, what was there before. It adds another layer to my experience of the city.</p>
<p>the game needs to add more features to keep players playing. need more incentive.</p>
<p>PoGo+ helped in not affecting time with my family of friends</p>
<p>It was also surprisingly a good tool to use when travelling. When I was in Japan, clicking on pokestops and gyms made it so easy to locate and find the famous tourist spots. The game worked out like a gps with tourist spots of interest which was pleasantly unexpected.</p>
<p>Place changes may be more seasonal, e.g. fewer people playing in cold weather but more playing in warmer weather, just impacting the level of effect on public places</p>
<p>I've seen a lot of places I hadn't been to since I was a kid, also, like Adler and the other museums downtown. Going down for those has made me more comfortable heading down there for other things again. In addition, I never really walked around the downtown area of my suburb before, I recently went to a comedy show at a downtown place that I found while walking there!</p>
<p>I think PoGo is great for urban exploration. I've noticed things I've seen a thousand times but have never paid attention to.</p>
<p>Some stores have provided better wi-fi access and charging stations since the game launched</p>
<p>Sidewalks are a much bigger commodity with Pokémon Go. If Pokestops can be accessed on sidewalks instead of on private property or grass, it would be less damaging to the environment.</p>
<p>Depends on the game's ability to improve, adapt, and stay relevant</p>
<p>It has potential, but until it can attract more players with more meaningful interactions, its potential to permanently or significantly affect physical places will remain low. Right now the playerbase has dropped enough so that it's hard to see it having the impact it had when it was more populated.</p>
<p>Clearly there are commercial applications to this type of thing, but I would like city councils to consider the overall feel for their towns/cities. When strangers come together to play (non-competative) games, it really does make the place feel happy and safe.</p>
<p>It was better when online trackers existed! Sometimes I'd meet a whole crew of players sprinting from one place to another because a rare Pokémon appeared. That doesn't happen much anymore, because everything is more disconnected.</p>
<p>I realize you are coming from the perspective of physical infrastructure and I do all my research for the sake of marketing / sales. One huge piece of information that would help us both is finding out the most active Pokestop locations “ especially if it tracks unique player spins / day as well as the time of day when they are most active. If you need any additional</p>

information shoot me an email: marksera@cox.net. Good Luck!
Well, here in my city there is a square at a lake with three pokestops, several spawns around it (once dratini every hour, people freaked out) and there have definitely been some changes. "Normal" people avoid this place because most of the time people stand around there, starring at their phones, some even bring chairs.
It could be harnessed for good, yet inate foolishness of some people can ruin it for everyone.
I am certainly more aware about some places in town. Know more random pieces of art and what some buildings are. There are almshouses! There are pretty murals on my commute. I'd never have known that if it wasn't for PoGo. I think it makes people a bit more aware about their towns.
I've not seen any influence on the city from the game. Perhaps I joined too late back in October as I've only encountered 1 person playing the game out and about. However what I really like is how many little bits of history you can learn from the Pokestops. For example one of the statues that I pass every morning is a mathematician. Also on my way to meet friends at a bar I saw a Pokestop for the location where Sean Connery (the true James Bond) was born. Pokemon Go has been a nice reminder of the rich history and culture of my city.
It's a great game that has gotten me outside more than ever before and I hope it keeps getting supported and updated to keep people interested so we can meet more nice people on our adventures.
If they'd update the game a bit and keep it interesting it could be quite a powerful merchandizing tool for companies...like starbucks, etc. The way it is going, though, people are rapidly losing interest
Wifi in parks Would b nice *
I walk more, go to out-of-way places just to play.
We saw what power Pokemon GO had in the first weeks. This effect would have lasted for a longer duration if the game had more depth and if the severe server issues were fixed within the first few days.
The effects were alot bigger in the beginning and are lessing even as I type this. Less and less people play. I rarely see people playing now. Maybe when new content comes and the sun starts to shine again the effects will continue. Only in very specific places with alot of pokÃ©mon there is a more permanent difference as in there are more people on these locations and the safety is increased because of that.
Pokemon go suffers from being an unfinished product. It's hard to grab people's interest for extended periods of time, and without enough content (and the cold winters in the UK) it's clear to see the player count has dropped to the point that no one really cares. There will undoubtedly be a resurgence in the summer and if the game has more content by then, I could see people sticking it out through the winter. It's only then that it will make lasting impacts on my city. At its best, it's able to drive up sales for small businesses and bring together the usually antisocial Londoners.
nope
I think that if Niantic started doing location-specific events (like go to a certain spot for an award in a limited period) it would have a much bigger impact on where people go since as it stands now, most people I believe prefer not travelling too far since they have caught most of what they need.
As long as people are respectful of sidewalks, trails it has a great ability to connect people to nature. Also, people respect areas and learn about things in their own neighborhood based on the text on the pokestops. I have learned so much about my new home city in Gothenburg

Sweden through Go.
It is virtually limitless, and has much potential for positive changes on people's habits and interactions.
Due to the nature of the game the intensity of the effects vary depending on the number of players (in that region)
when it launched it was big. you could see a lot of people in parks that you would never see outside. now, with the winter, it's back to normal.
People got a Chance to talk to each other and be out there together doing things they would have never even thought of doing with on another - and that is a very great Thing to me. Meeting People, trying to catch up with your friends etc. It's a challenge with a huge reward awaiting.
At the beginning in summer 2016, many places had way more people at them than before. But Niantac kinda screwed it so now not that much people are playing the game. So not that many people go out to play and these places aren't filled with that many people anymore
Pokemon go does wonderful things for communities and businesses however those effects were much more drastic in July. I miss the way things were then out in the community and wish the game was large enough again to go back to that. We had a few different business crawls (most pub/bar crawls but one wasn't) organized in my area for pokemon go that were fantastic ways to get business owners excited for the game! There are also a few restaurants that are stops that set up charging stations.
N/A
Amazing game to encourage people to go outside, talk, explore and set new goals
The hype was great for small towns
It pulls players outside and gives them new experiences they probably wouldn't have had other wise.
I think cities should embrace the many ways augmented reality can unlock potential of land and local businesses.
Initially the game changed our city in an impactful way, but as the game went stale and got worse people gradually went back to their daily routines. It was sad to see it's decline. I doubt the game will be able to bring back its original hype.
Pokemon Go has been great for my fiance and I's relationship. We have been able to go on free/inexpensive dates that are very different and entertaining by packing a picnic, bringing the dogs, and playing pokemon go. We also haven't felt bad about spending money on the game because if we went out to dinner it would easily be \$50, and \$50 goes a long way in pokemon go. It has been a great way to explore our city and meet new people and try new things, and it also gives us a fun little way to be competitive with each other.
N/A
Increased foot traffic. A little sad we can't use bikes to track distance (it goes over the speed limit), but i definitely see people outside a bit more often.
Where I live, you can access two pkestops at once from the living room. I have often wondered if we could rent out our townhouse on air b&b for a premium because of this virtual perk! I have also thought about what safety measures cities could implement for PokÃ©mon go players (and other phone users). For example, more signage on the sidewalks or closer to the ground so it's in the line of sight for someone looking at their phone.
Pokemon go definitely strengthens you socially, for me, it was the interaction and relationship that I've built with my family.

I think it highlights the importance of individual spatial awareness and our tendencies to get distracted/possibly endangered by social technology and/or alternate reality... stuff.
Has potential to do good in the world, as demonstrated by the lapras event in Japan. However the shallow gameplay cannot maintain a large and steady audience to prolong the positive effects of the game. PS. I think the positive effects of the game outweigh the negatives effects.
None
Makes it more exciting to go into town.
Honestly, you should have asked about our negative experiences too. Although I have gone to new places, enjoy them, and sometimes have gone back; there are places that I have gone that seemed fine on google maps, but the reality were terrifying places to be by myself.
I feel like the game needs more features, which would increase foot traffic.
80+ yr old volunteer in our old town museum told me about 2 weeks ago that she misses all the pokemon go players that used to sit on their steps or on the benches on the corner. She told me to tell that company to get those people playing again and back to old town.
Whatever shared comraderie there was initially has been gone since the end of the summer. Now that it's cold here, few people seem to be playing at all.
Don't forget about those sponsors ;)
I feel that PokÃ©mon GO has had a positive impact on people, as there is now an incentive for players to exercise. I think that the increased foot traffic is a good thing, but I fear that accidents may occur
Not really
It would be better if it was easier to play while driving.
I love it. I hope it attracts more people to socialize outside.
I think if niantic decided to change something, and put their minds to it, they probably could. Take the Lapras event in Japan as an example.
Pokemon Go, and location based games like Ingress, they are just the beginning. I am so PROUD of you for choosing to treat this emerging influencer (is that even a word? Lol!) with importance. I don't have a crystal ball, of course...I'm really not particularly insightful about these types of things, and am *certainly* not educated by anything other than 43 years of valuable real world experience, but I don't think that this is merely a trend, or some novel but passing phenomenon. ... you're on the right track! Keep going!
The popularity of the game when it was first released was such a massive success that it was unsustainable. The next AR-game that is better able to handle the success could have a more lasting and permanent change. PoGo is not that game but the harbinger of it.
It had the power... it's kinda weak now
I think that if they would manage to keep people interested in playing, we would definitely see some durable changes.
I think it's been overall positive with the exception of a few tainted instances
One thing I would wish is to see this power being used to get people exploring parks, fields, and natural wonders. It doesn't feel natural to find an extremely rare Pokemon in the heart of a city. It would be cool to find them in some place like a quiet forest or beach. Like I said earlier, I found a lapras in a neighborhood. It felt weird seeing a sea monster on a side walk, rather than in an ocean or beach.
I haven't ever experienced anything like the first weeks of PoGo. When everyone interacted

with everyone, people were friends, helping each other, everyone seemed happy. It was beautiful.
I think if the game had managed the release better, it could have retained more players and had more of an impact.
PoGo as I see it is almost a companion. Yes, I will go out specifically just to play (left my house at 1am just a couple days ago for a Grimer), but it's also something I love to have on just when I'm out of the house anyway. Going to the grocery store? Let's pick up some stardust while we're at it. Walking to my friend's house? Might as well fill a couple gyms on the way. Taking a nice hike? Nothing better than blasting music and hatching some eggs. It all depends on how you play, but I think the wonderful thing about PoGo is just how many ways you can play. So, whether you fill 10 gyms a day or just use it as a glorified pedometer with a cute monster minigame, there's something for everyone and that's what makes it so great.
You probably already know about the Lapras Event in Ishinomaki, Japan. I believe this game has a huge potential as a force for tourism.
In the summer, PoGo was a big social event, and I'm sure it positively impacted local businesses.
If Pok�mon GO was able to last longer, I bet it could have had a lasting impact, but it was limited due to the fact that it was a fad.
More benches with cover!
I'm excited to see how long Niantic can keep people interested for even longer!
I don't really see the game changing substantively anything in the extant urban environment that I experience. Perhaps it has increased foot and auto traffic at some locations, but I suspect that if an increase has occurred, it likely is trivial.
I love this game. It has made people who never leave the house, sit in front of TV playing a video game, now leave the house.
I think it all depends on layout of the game in a particular geographical location. I would look up 'Corbans art estate pokemon go' group in Auckland specially to see how a cluster of pokestops can help bring people together and form solid friendships.
When the game is popular, it makes people in parks friendlier, in my experience anyway. I tend to be a friendly person anyway so others' mileage may vary.
They should add more events, more incentives to play daily and make the play better for people in suburban towns and rural areas that aren't blessed with lots of stops and spawn diversity
I think the game is successful at getting people out to places they wouldn't go otherwise. Not everyone is respectful of property or rules, but most people are. I don't think the game could do anything to help this - that's just people being people.
I haven't observed any changes from pogo
I'd like to touch on the fact the effect of Pok�mon Go is strictly dependant to Niantic's ability to distribute in game content. (the company responsible for developing the game) I live in an urban South American city but the places where I can enjoy Pok�mon Go are very few. Since I've been playing for a while I have a couple of hotspots I exclusively frequent, despite the fact I'd love to explore and learn more about other areas in my city. Those areas in question don't offer any in game rewards and therefore no reason to play in them. Pogo could HAVE an effect on the dynamics of player movement on those areas if Niantic placed more in game content, but they haven't and doesn't seem like they will.
My play depends a lot on the danger in the area. So I depend on safe places I can stay (like fast

food stores or safe parks)
I think it would be nice to promote those kind of places for people to meet and play more, but those areas should have correct equipment in order that every player can enjoy the experience and the place remain intact and beautiful afterwards. Those areas should never been old monuments and important places for the town/city history. P.S: sorry for my english, I am no native english speaker.
I wish more people in my area played. I'm almost afraid to show others that I play.
Our local newspaper actually reported on one of our malls who contacted Niantic to remove the Pokestops from their location. I got the link for you. https://tinyurl.com/gtqywzt Many people gave the mall poor ratings on their Yelp page in retaliation. I'm not sure if it helped, but the stops are back now. The mall's culture changed overnight when Pokemon Go came out. They usually cater to wealthy adults by playing 50's music, enforcing a curfew, and maintaining expensive brand-name shops. Being an outdoor mall with tons of stops made it the place to go to play PoGo. The mall was JUMPING with parents, children, and teens. All types of people playing and helping one another on every corner. The stops were all lured, spirits were up, and people were having fun. There's no way they weren't seeing a huge spike in sales. I guess they had a hard time enforcing their curfew and "feel" of the place so one day the stops were just gone. It was strange to see them take such a strong direction given the increase in sales that I assume they were seeing. I took to Yelp because it seemed like the only place I could turn my frustration into action. When the stops were put back the community never returned. Maybe the game isn't as popular now, or maybe their marketing decision just put a bad taste in everyone's mouth. I know I still hold some resentment.
:)
None
The gameplay depends upon the city you live in. The game is really unbalanced and favors the cities with major population.
I might have mentioned some of this in my previous comment. But I do feel it has gone from a really community gatherer, to an almost embarrassment to be seen playing in certain cases. If anything, it shows the potential influence an app can have over almost the entire world!
If lot's of pokestops are placed anywhere it can definitely have an effect on businesses, something that should definitely be looked at next summer when the game comes back in a stronger force.
It doesn't change places. If there's too much interference in real life from pokestops, city government usually either requests removal or restriction of those stops in my country.
Pokemon go was an INCREDIBLE tool in its prime to get people outside, conversing, and having fun. Recently, bc of no innovation on Niantics part and cold weather, the impacts are falling off, but I am hoping to see them revived in summer 2017.
If more people were actively playing noticeably, I believe it could a great effect on my community.
Many places gained an unfair advantage because they just so happen to be near stops, but now that the hype died down, it doesnt matter as much.
I know that there are certain instances where I've actually taken the longer route to get to a destination just to see if there's actually any pokestops, or to add extra distance to my buddy, with music in so I don't get too distracted by the game. There was also 1 specific pokestop that everyone collaborated with, and had a lure on it 8/9 hours a day because everyone was working together, it was definitely a good thing.
More gyms are desperately needed

PoGo does not change the place it changes the people and that will not be a permanent change. The change only exists while people are playing. PoGo is not a world changing game. I hope you eventually study something more substantial and long-lasting.

I think rather than being place-changing it can be self-changing or social relationship-changing. Perhaps place changing in certain specific areas, but on a more fundamental level I think the social relationship change is more key.

I am the only one I know, who is still playing. Its probably cause the game does Not really evolve, get better. Its potential isn't fully used.

Hmm... Not really. Then again, things might improve with the weather or better updates, so if there is time for that, it might be wise to do this survey again in a month or two.

My home region is maybe 50 x 30 miles in size. All players know a certain small historic coastal town has the highest pokemon diversity. Everyone travels there.