

Pokémon Go: understanding community and
social interaction in a digital world

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Abstract

Pokémon Go is an augmented reality video game, where users or trainers attempt to catch digital monsters in a hybrid world. This application will be the tool that is used to analyze community building and social space within urban environments in two distinct Canadian cities. This research project uses participant observation of users in action and a cross-sectional data analysis of the Pokémon Go community to find out if Pokémon Go shapes the way we build community, and is there a new form of social interaction happening within the digital landscape that has become present in this new era.

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Introduction

Video games have been a prevalent part of my lifestyle for two decades, and because of this it has shaped the landscape of my socialization. During this time video games and the technology used to create and implement digital worlds has evolved drastically. What was once a two-dimensional world controlled through inputs on a keyboard has become integrated with the fabric of our reality. From the days of Super Mario Bros in 8-bit to the rise of mobile gaming, video games and the socialization that accompanies its entertainment has shifted. For many the days of playing your favourite game in the arcade have ended. Gaming has become a cultural phenomenon, and in recent years even a pro sport.

We have also entered an era where socialization in public spaces has shifted dramatically. Informal public socialization has declined, and people are increasingly forced to find entertainment entirely within their homes. For adults, there was coffee shops and pubs, and even for youth the arcade was a typical location. While these places still exist physically, their purposes have changed dramatically. We as humans need to socialize, and interact with each other leisurely. The current pattern of work to home daily activity is leaving a void in societal life that public gathering for leisure once filled. The restriction of this work-home two stop model (Oldenburg, 1999), in conjunction with the decline of informal public spaces make it difficult to find time for leisure.

The absence of informal public socialization is harming community formation, and isolating people from each other. Pokémon Go is bringing people outdoors with the sole purpose of interacting, whilst changing the way we interact with the physical

environment. Places that are not considered recreational are becoming hot spots for gameplay and socialization. In Halifax, there are painted electrical boxes that have no purpose other than adding a pleasant aesthetic to the neighbourhood. Within Pokémon Go these boxes become a stop that players go to collect items. This is just one example of how our sense of place is being disrupted through augmented reality, and creating new informal gathering places in suburban areas that are lacking.

These places are the third place that is missing in the two-stop model. A place where people can meet new friends, and catch up with old ones. While some might imagine this third place to be somewhere of significance, or even somewhere they have been before, that is not the case when it comes to Pokémon Go and augmented reality. As with the electrical box, many other places or objects littered through out cities across the world have become places of interest for the people who engage in Pokémon Go.

This research will analyze the formation of community within an augmented reality that takes place in a digital landscape. This augmented reality and digital world that is the focus of the analysis is Pokémon Go. Pokémon Go has been an active application since July 2016. This application in conjunction with previous research on community formation within hybrid space will assist in shaping how we view community in a technological age. This poses the question how does this community of Pokémon Go users define our understanding of communities and social space?

Pokémon Go Terminology

These are the key terms from the Pokémon Go game that will be used throughout this research, and are important to understanding the analysis.

Pokémon

An abbreviated word for Pocket Monsters. These are the digital sprits that the user in the game is attempting to catch in a poke ball and battle against other users with.

Battle

At rival Gyms, you can battle other teams' Pokémon for a chance at claiming the Gym. Each rival Pokémon you defeat reduces the Gym's Prestige and potentially lowers the Gym's level. Reduce the Gym's Prestige to zero to capture the Gym for your team.

Eggs

Pokémon Eggs are items that can be found at PokéStops. Once you place an Egg in an incubator and walk a specific distance, the Egg will hatch into a Pokémon.

Experience Points (XP)

Your advancement is measured in Experience Points (XP). Increase your XP to advance to higher Trainer levels.

Gyms

Gyms are locations where you can battle the Pokémon of rival teams, or train your Pokémon by battling against the Pokémon assigned there by other members of your team. Gyms belonging to your team are known as friendly Gyms, and Gyms that have been claimed by other teams are known as rival Gyms. Gyms that have not yet been claimed are known as open Gyms.

Incense

Incense attracts wild Pokémon to your location with its aromatic scent.

Incubator

Placing an Egg into an incubator allows it to hatch into a Pokémon as you walk.

Lure Module

You can attract wild Pokémon to a PokéStop for a limited time with a Lure Module.

Lucky Egg

You can double the amount of XP you earn in a certain amount of time by using a Lucky Egg.

Medals

Medals are awarded to you for an array of gameplay achievements.

Poké Balls

Poké Balls are items used to capture wild Pokémon. They can be found at PokéStops and purchased in the shop.

PokéCoins

PokéCoins are currency that Trainers can exchange for premium items in the shop. Users can also buy PokéCoins in the shop.

Pokédex

Your Pokédex is where you will find info about all the Pokémon species you have caught or encountered.

PokéStops

PokéStops are locations where you can gather items such as Poké Balls, Potions, and Eggs. A PokéStop will change its shape when you walk close enough. Touch it to interact with it, and spin the Photo Disc to get items.

Prestige

Prestige is how a Gym's progress is measured. Prestige is earned when Pokémon train at the Gym. Increase a Gym's Prestige to advance the Gym to higher levels.

Spoofers

A person who engages with the application from a remote location. They are in violation of the game's legal policy, and if they are caught are banned from playing the game from the account they used. This action is disrespectful by other legitimate users.

Teams

When users reach level 5 in Pokémon Go, they are prompted to pick a team to join. They are given the choice between 3 teams that have distinct characteristics, and cater to personality traits. The three team choices and their descriptions are:

- **Valor:** Driven by the idea that power is the most crucial element of the Pokémon world. Passion and strength motivate Valor members more than anything else.
- **Instinct:** The key to success is following one's instincts and believing in their Pokémon's innate abilities. Go for Team Instinct if the idea of closing your eyes and trusting in the Pokémon themselves appeals to you, or perhaps if you're generally the kind of person to have faith and trust that things will work out.

- Mystic: Guided by calmness, wisdom, and intellect. The group defined by maintaining a cool head rather than giving into emotion.

Training

At friendly Gyms, Trainers can battle Pokémon assigned there by other members of their team to increase their XP and the Prestige of the Gym.

Trainer

Trainers are people who play Pokémon GO.

Literature Review

Emerging technologies have shifted the way humans form bonds and organize themselves into communities. This has become an importance in recent years due to the decline of small towns, and communal social space (Oldenburg, 1999). The amount of time spent between work and home has increased, causing less time for people to gather for recreational purposes. Oldenburg (1999) states that having a “third” place where people go to bond outside of work and home is essential for nourishing community, and that informal gathering places are key to human civilization. Even though some informal gathering places still thrive for social interaction, such as pubs, night clubs, coffee shops, and speciality games stores. They do not encompass the same traits their previous iterations had.

Pubs used to be intimate places for neighbourhood residents to frequent and socialize, now its modern bar counter part does nothing more than alienate its customers. The central design of these establishments was human oriented, now gimmicks such as sports, gambling, and sexually appealing wait staff are typical design elements. People no longer go out to meet strangers, but go out with select friends with no intention to broaden their social groups. Oldenburg (1999) calls this category of drinking establishment Bring Your Own Friends (B.Y.O.F). This same idea is transferable to the other common informal gathering places. Coffee shops are no longer a place for locals to stop and gossip, or meet neighbourhood residents. Starbucks has become a place of work for many looking to take advantage of free internet access. Also, the inclusion of drive throughs has eliminated possible any form of social interaction between patrons if you have a motor vehicle. In terms of gaming, the video arcade is almost non-existent save for

small corners in niche establishments catering to the millennial demographic. These locations play on the nostalgia of times passed for many, and contribute to shutting out the youth from communities leaving them no place for networking. Very few facilities are accessible for youth to congregate in, leaving them with a similar home-school two stop model that mirrors the adults work-home model (Oldenburg, 1999, p.267).

Social media has become dynamic and technological interactions are bringing people outdoors away from stationary desktops. The rise in cellphone usage has created a new social environment and begins to help us understand new forms of social interactions (Humphreys, 2005). Though the cellphones capacity for social interactions is limited, with the integration of new social media that capacity becomes expanded. Prior to internet capabilities cellphones features were restricted to making calls, and shortly after included sending brief messages to contacts that had already been established. Once the internet became more common on mobile devices, it was still very costly to have access to. While the software for online communication was available through message board web pages, it was usually done through home computers, and when done on a mobile device was quite tedious if the user was not well versed in in the software interface. The most accessible new media was first available on mobile devices through the introduction of Facebook mobile web page in 2007, and since then many forms of social media exist on cellphones. New media has many features; though they are not all necessarily always present. The features can include portability, interactivity, digitality, and aesthetic (Brighenti, 2012). The portability feature is what makes modern technologies like augmented reality (AR) so influential in creating new communities. With stationary technology AR is nothing more than an accessory to a computer that powers it, only

augmenting the reality of a singular room. It is an individual experience and does nothing to promote community and human socialization. That is why the preferred technology for stationary use is virtual reality. AR on the other hand is built for portability, allowing users to have a dual experience of enjoying the physical world with the digital concurrently.

The role of augmented reality (AR) becomes a solution in creating a digital social space within reality. Hughes (2014) defines AR as a technology that allows a person to impose a digital world over reality to engage with virtual objects (p.24). In a study addressing the implications of mobile AR on social interactions, it was found that mobile AR gave users the power to change the meaning of social space. The study also found that AR broke the boundary between the physical and cyber, creating a new social space all together (Humphreys & Liao, 2015). This



Image 1: Pokémon Go in progress

new space created from mobile AR applications are considered hybrid spaces. This is seen in Image 1, which shows the AR gameplay in progress. The user's avatar can be seen interacting with a digital version of the physical world. As the user traverses the world around them, their avatar responds in similar fashion.

Hybrid spaces are defined by the constant movement of people who are connected to the internet and other users via a mobile device. This space is created from the connections to information and the social interactions that take place between the users (Silva, 2006). What Silva (2006) states has the most evidence of the convergence of digital communities into these hybrid spaces is location-based mobile games. These hybrid-reality games allow the user to navigate physical locations, and complete objectives using mobile technology. The multi-user feature of the games is what builds community. These new games have the potential for cultural exchange through the new communities it forms (Farley et al., 2009). Players are required to interact with each other, based on the urban space they occupy, and this location governs the social interactions.

The process of cyber and physical becoming one comes from the layering the digital world over the physical one using maps (Humphreys & Liao, 2015). These digital maps fold together physical space and time, and shapes the experience of the user through cartography (Wilmott, 2016). Maps are used in mobile technology on the display. The use of screens has become so pervasive in urban environments. The mobile screen is versatile, because it implements a dynamic approach to displaying information. Through this screen and networked device, users exist within the cyber and the physical city. The urban landscape used to be static, but technology that keeps us connected to a network always sending and receiving data, we have moved towards a mobile reality (Hoelzl, 2016).

One game of interest in this hybrid-reality genre is Pokémon Go. Pokémon Go is the latest and most innovative AR based game available on a mobile platform. This new

era in video game technology is the bringing the social back in social network (Mims, 2016). Pokémon Go as an AR application, has users go to real world locations to interact with the game. It is during these journeys that players find themselves interacting with each other (Gazzard, 2011). An example of this is Image 2, where the Pokémon is a digital sprite and the background is an actual image of a stove top. This image taken in real time, shows the physical world while engaging with the application.



Image 2: *Pokémon in frying pan.*

Research in this area tends to be political in nature. Social media and technology that cause people to gather in public spaces for political purposes show the positive effects, and how new media can be used for good. These political gatherings and sometimes social movements have spawned because of social media technologies (Shirky, 2011). There are also some suggestions that through digital interactions real world conversations become empowered. Having multiple people engaged on a single task fosters social interaction (Tscholl & Lindgren, 2014). The opposing view point suggests that people being submerged in a mobile device causes a disregard for reality, and creates social divisions (Hatuka & Toch, 2016).

It raises the question are virtual communities' true communities? The loss of conventional community is evident in the research, so can cyberspace activity constitute the regaining of said community. The rise of the automobile suburb after World War II also helped contribute to the loss of community. It scattered the components that made up a community into separate locations. It forces a person to work in one place, sleep in another, shop elsewhere, and find companionship where they can (Oldenburg, 1999, p.4). Not having all the necessary components of a community like a place to socialize and shop in a central location leaves most people feeling unsatisfied, and makes the choice to leave a suburban area easier than ever, because there is no common tie keeping a person there through their life cycle.

What is most important is three key characteristics define community: a population territorially organized, completely rooted in the ground it occupies, and the mutual dependence of the individuals in the relationship (Park, 1936). If we are to consider cyber communities as legitimate the definition of community must be re-evaluated. Since the virtual community has no ties to physical place, can it stand alone with only the two elements of common ties and social interaction (Driskell, 2002). In a study on what cyber interactions do in enhancing community, and strengthening existing relationships. Hampton et al. (2003) discovers that having a bond through internet technology vastly increases the bonds in communities that are already established, and are just being formed.

Pokémon Go falls into a unique category. It implements AR technology in a mobile device game, which creates its own hybrid space. The key factor where the rest of the research does not have a solution for it that all the social aspects of the game to date

occur in the physical world. The online interactive component is between the user and the machine, in the act of catching Pokémon, fighting gyms, and collecting items. The game can indeed be a very lonely environment, but the creators have made it so users benefit from working together in teams, and sharing information about their experiences. This is manifested in online discussion boards, and Facebook groups both dedicated to the individual teams a person must join once they reach a certain level, and to the whole Pokémon Go community in a region.

Methodological Approach

In conducting this research, the first step was to observe the Pokémon Go community in action. This required being on location in areas where the game was being played and documenting my experience with the application. This observation took place in two provinces in Canada. The two locations were Ontario and Nova Scotia, and more specifically the Greater Toronto Area (G.T.A) and Halifax respectively.

The approach was qualitative using a cross-sectional design coupled with participant observation. Through this method the aim is to provide data that encompasses the entire Pokémon Go community through observing various players in action at different moments in time. Since the participants change based on time and place, it is very unlikely that the same people can be observed repeatedly for data collection, making a cross-sectional research design the most appropriate method. Also, the pool of participants in this research vary in age, gender, income, and education contributing to this choice of method. In terms of the participant observation I will be taking part in gameplay along with the participants. Which means engaging with them both in the physical world through conversation about nearby Pokémon and battling gyms. I will also be participating in the online aspect of the community through Facebook. To collect data, I must be an active member of the most frequented Facebook groups that discuss Pokémon Go related events, and socialize with users when necessary to understand their interactions amongst the group. If I did interact with the participants I would not be able to gauge the degree to which the community members are involved with each other.

As far as previous research is concerned, it has focused on the impact of augmented reality on its users. As well as how online communities are organized, and the

relationships that form are manifested in the physical world. This study will differ because the community has an online and physical presence that work together cohesively and are interdependent on each other.

The participants in the study are Pokémon Go trainers. Trainers engage with the application in real time, and engage with each other on social media. The social media applications that trainers engage with are Facebook and YouTube. For this research, YouTube is excluded because the content is reliant on YouTube streamers and their followers which may include non-trainers. Trainers can be any person who engages with the game, thus there are no limitations on a trainer for any social categorization. The only limitation to becoming a trainer is access to technology which is addressed in the limitations to the research project itself.

For the research the application Pokémon Go is a requirement. As a participant, myself, my cellular device was used in data collection, which involved taking photographs, video, and screenshots of gameplay. Also, my computer was an apparatus that was integral to data collection in terms of looking at Facebook interaction between trainers. Because Facebook is open in terms of privacy settings content does not have to be screened for user information. The same is true for photos and video data that has been taken in public.

To begin data collection, engagement with the application is key, and finding the perfect placement was necessary. In the G.T.A, the area from Scarborough East to Etobicoke was played. Most the results were obtained in the downtown area, with priority given to the harbourfront district. This is where large amount of Pokémon Go was played, and most of the trainers recorded their experience. Regarding Halifax, most the gameplay

was done in the harbour area as well, and on both the Halifax and Dartmouth sides of the Atlantic Ocean.

With the project, I do consider myself as an insider in the research, due to the fact I was a user/trainer before I began this project. My personal experience is what lead me to want to further analyze Pokémon Go and the user interactions. Also, to help understand the effect my involvement in this new form of social interaction has on my life outside of Pokémon Go.

Theoretical Approach

To uncover how community is taking shape in the technological era, and the shift that has taken place because of digital social interaction through an augmented reality, the first step was to determine if the Pokémon Go trainers are considered a community. Do Pokémon Go users fall within the parameters of the definition of a community. The application will be understood by looking at the literature three parameters of community; identification with place, common ties, and social interaction (Park, 1936). These parameters, do apply yet in an unconventional manner when looking at the Pokémon Go community. The table set out by Driskell & Lyon (2002) shows the interaction of community environments and elements.

CITY & COMMUNITY

TABLE 1. Community Environments and Elements

Environments	Core Elements		
	Identification with Place	Common Ties	Social Interaction
Local place	+	+	+
Shared space	±	+	+
Cyberspace	-	±	±

+ element likely to be present.

± element may be present.

- element likely to be absent.

The first core element of identification with place in Pokémon Go is envisioned in an unconventional manner. Due to AR occupying a hybrid space, place must be redefined to include digital space as tangible. Users must occupy their own physical space while interacting with each other, both in application whilst playing, and in cyberspace through Facebook. Meeting the three space requirements of community within Pokémon Go and analyzing the community interaction will align with a new development in the definition of community.

The second core element of common ties falls within the Pokémon network. The Pokémon community is vast. Spawning from the initial handheld version of the games, that were single player. A trading and battle function were included with the game, but unless you already had a network of players known to you these features went unused. Within Pokémon Go, the battle component happens at predetermined locations, making it easier to meet other users and take part in the game together. Thus, creating the common tie of Pokémon for all users. The common tie relies on user gameplay and their accessibility to user space in the physical and cyber. Until now only common ties and social interactions have been visible.

The third core element of social interaction is complex in regard to Pokémon Go. Prior to internet technology social interaction could only take place in the physical world. Now the digital landscape in which Pokémon Go operates, social interaction can take place in the physical and digital world, and in the hybrid reality created by the game. The application changes the element status of ‘may be present’ to ‘likely to be present’.

Park’s definition of community and Oldenburg’s perspective on the importance of communal social space lay the ground work for why I have conducted this research. Prior

to this research understanding what a community meant was difficult. Through taking part in the Pokémon Go application, an awareness that something more than just playing a game was happening. Bonds were being formed that transcended acquaintances with common interests. Having frequented the favoured areas for gameplay it was obvious that a form of socialization was at work in a place that typically had not had this much human traffic. This identification of place came from the use of a mobile device, and was shifting the way the physical location was perceived. Large groups of people who had either been interested in Pokémon for decades, people who had just learn about the application, and everyone in between were congregating together. People of all ages, genders, ethnic backgrounds with a common tie of Pokémon taking part in this new augmented reality application. Not only taking part but socializing with each other, when the game can be played without any human interaction. It speaks to how the decline of informal gathering places has left a void, making people want to garnish more from their leisure time. Then once they physical game play was over, using the technology available this social interaction continued using Facebook. Keeping the new formed community members in constant communication.

Results

My research took place in both the G.T.A and Halifax regions. Due to the distinct scope of difference between the two cities the results differed. Population size being the distinct factor that lead to the differences in the communities that form because of interaction with the application. This difference is most notable in the online communications between the users in the G.T.A.

Also, considering myself as an insider in the research, I had engaged in the Pokémon Go application a few months before beginning the research. I consider this to be an advantage in the research, because my knowledge base of the application lead to a greater understanding of how the Pokémon Go community operated. My experience and commitment to the game and its community is what allowed me to obtain the results that I did.



Image 3: Pokémon Go players at Alderney Landing in Dartmouth, NS.

When looking at Park's definition, Pokémon Go does fit the criteria because it contains the three core elements required to define community. Due to it occupying a hybrid space which includes physical reality it meets the first core element of identification of place. With the community having a shared interest in all Pokémon properties, the members share a common tie, fulfilling the second core element of a community. The third element of social interaction comes from the gameplay itself and the online component through social media. Users interact with each other through battling gyms and sharing their experience over Facebook. Even though Pokémon Go meets the three requirements, it also redefines what a community can look like due to technology creating a new hybrid social space. Image 3 depicts users on a dock at a waterfront, which is not a place of social interaction, yet many people gathered to attempt to catch a rare Pokémon. What is interesting is that the location does not contain any gyms or PokéStops which are permanent locations of activity, making this just a temporary social space. This temporary social space is what makes the Pokémon Go community distinct. This temporary social

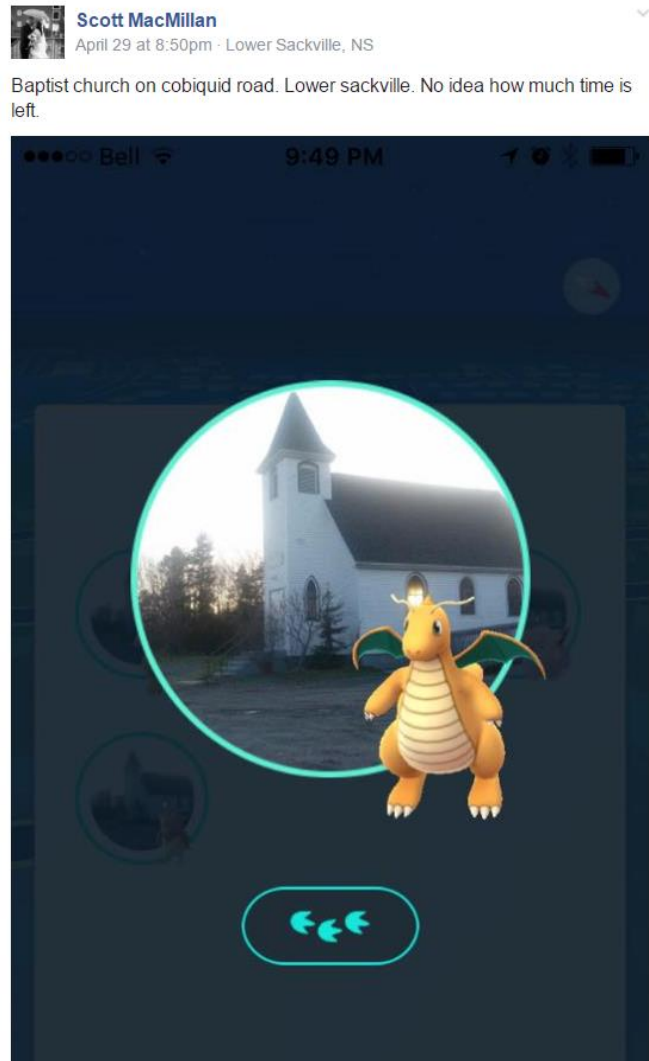


Image 4: Facebook user sharing Pokémon location

space is a key element of how the community itself operates. Within Facebook this temporary space is shared among users, and can happen at any time or place. An example of this can be seen in Image 4. In the users comment on their post they even give a time warning. This is due to the fact Pokémon only spawn for approximately 30 minutes. Meaning this temporary social space will no longer exist after time expires.

While Image 3 and 4 speak to the physical world implications of the community. The in application social interactions is what separates the Pokémon Go community from other communities that only operate in the physical or digital reality. Image 5 depicts two users attempting to take down a gym belonging to an opposing team. Gym battling is where most the interaction between users takes place in terms of in application gameplay. This requires all users to be in the gym at its location in the physical world.



Image 5: Two users battling a gym together



Image 6: PokéStops with and without a lure

The only other way users can interact with other within the game itself is the placement of lures. This allows one user to help increase the number of Pokémon spawns for other users at the same PokéStop. Lures help to bring users together to PokéStop locations for extended periods of time. Lures are represented by the ring of confetti encompassing the PokéStop. They also dictate what become population destinations for gameplay. Image 6 shows a PokéStop with a lure and one without a lure.

Image 7 shows what users call a ‘lure party’, which is a location with multiple active lures that attract a high volume of users. This specific ‘lure party’ takes place in the downtown area of Toronto. It covers a stretch of four city blocks, and typically last for 3-4 hours. This took place in winter, and because of the weather people navigated the lure party in cars. This made it so it could only be documented through the in-game screen. What is important is that to find out about lure parties, and group meet ups, the Facebook interactions are necessary.



Image 7: Lure Party in Toronto

Through Facebook users not only alert others to Pokémon locations, but they also decide when and where to meet to up to play in person. Through monitoring the various Facebook groups that Halifax and Toronto players frequent, it shows that the network of players rely on each other to enhance their experience. Users will only go to locations that others have deemed popular, and have the types of Pokémon that are categorized as rare. The data produced also shows that players like to share their life experiences that are not always Pokémon related. One example is a group chat

on Facebook that Team Valor members use. Within the chat people have become more than just Pokémon trainers, but now consider each other friends. Image 8 shows a portion of a conversation about shoes that began because a user posted a picture of them playing Pokémon with their child.



Image 8: Conversation between users in the Dartmouth Valour group chat on Facebook

Limitations

Due to this research being in Canada, quite a few limitations are evident. The climate in the regions the research was conducted it is very dynamic and can shift daily. Specifically, this project began in the winter season, and during this season both Toronto and Halifax has an abundance of precipitation including multiple snow storms.

As is evident in Image 9 and 10, you can see that the digital world is being engaged with (during the Valentines day event) and because of the winter weather outside, no user can be seen in the physical space. Even with the winter limitations, because of recurring events in the game like the Valentines Pink event, and the Waterfall Festival Event the wintry weather in both Toronto and Halifax did not deter trainers from playing.

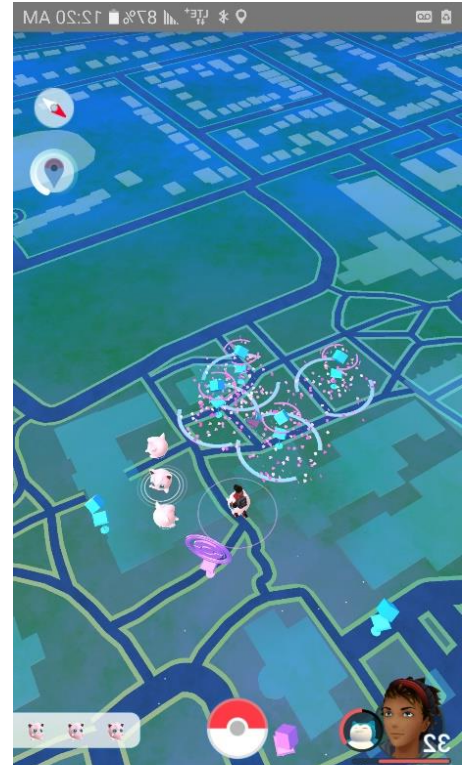


Image 9: Lures at Dalhousie University during Valentines Day Event



Image 10: Outside Dalhousie University, same location as Image 8

What occurs because of the change in weather is users engage with the application while not leaving the cars. Users will park in places that have access to multiple PokeStops so that they can stay stationary and make the most of their gameplay. This can be seen in Image 11.



Image 11: Line of cars at Alderney Landing in Dartmouth, NS

The major limitation to belonging to this community is access to technology. The Pokémon Go application is only available on mobile devices that have been released in the last three years. This immediately excludes people who cannot financially afford a mobile device with access to the internet. Also, having access to a mobile device typically puts a person within a certain age group. Children can only have access to this game with approval of their guardians, due to the fact you need to be an adult to have access to service provider contracts.

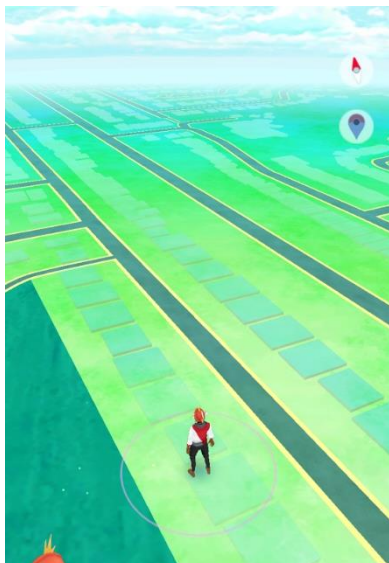


Image 12: Rural Area of G.T.A



Image 13: Urban Area of G.T.A

Another limitation is the lack of playable game areas in rural regions. The difference is depicted in Images 12 and 13. The game creators have decided to place fewer PokéStops and gyms in rural areas in a response to population density. Major cities report a higher number and concentration of players, so their access to the game is greater. Within the Facebook groups this has resulted in anger towards the game creators and deterred players from staying active in the community. This also limited me in conducting my research within city centers and their proximity.

A limitation that exists with the gameplay itself is the ability for players to spoof. When a player in a spoofer they interact, and play the game while not actually being at in game real world locations. They can use a computer to move around the digital world while being in a stationary location. This results in Pokémon being caught, PokéStops being visited, and gyms being battled from a remote location. While this does not occur frequently it does allow a user to play the game with none of the social interactions, and disrupts the defined Pokémon Go community. The game creators are always working to stop spoofers from having access to the game, so as time passes spoofing decreases.

Conclusion

Pokémon Go may not be the first augmented reality application, but it is truly one of a kind in how it has created such a large diverse community. In conducting this research, I attempted to understand how communities form in the technological era that exists in Canadian society. While not every person engages with social media and mobile devices, it is hard to find an individual who does not. Social media has caused a shift in the way humans form into social groups and communities, and changed how we define social space. When Oldenburg wrote about the decline of the ‘Great Good Place’ he did not know of the rise of technology and what it would mean for modern society. Even as physical locations where people congregate leisurely decline, applications like Pokémon Go are creating new physical, cyber, and hybrid spaces for everyone to enjoy. This research began by asking the question how does this community of Pokémon Go users define our understanding of communities and social space? Using Parks definition of community to analyze the group formation of Pokémon Go users, we see that Pokémon Go does create a new form of community that meets the three criteria.

Pokémon Go users all share an identification with place through the application in having to be at certain predetermined locations to interact with the game, and in their various online social groups. The common tie is the shared interest in all things Pokémon, from catching, battling, and exploration of the land that takes place in all Pokémon games across different platforms. Even users who have not played previous iterations of the franchise are curious about what Pokémon should offer and that ties them in. Pokémon has always been a social game; the creators have stated continuously over the last two decades since its inception that it is a game to be enjoyed in a group setting even though

the first game was primarily for single players. Pokémon Go is the most social of all the games because it can involve team play to battle gyms, and the online component of Facebook keeps users in contact even if they are not physically together.

Through the participant observation and cross-sectional analysis of the Pokémon Go playing population, its clear that it is very different from what most would consider when they think of community. Many youths growing up in this technological era will be familiar with online communities and what they represent to the users, but an older demographic may have trouble considering a digital reality as a tangible place.

Being an insider in the research it is important to realize the bias that comes with that positionality, but it also gives a greater perspective of how the community operates. It made it easier to navigate the various Facebook groups, and understand the discourse that comes along with Pokémon and video games in general. It is important to recognise that personal investment in the game be acknowledged but it does not distract from the results.

In terms of how this research can be situated within future projects, I hope it can be done in other countries, specifically the United States and Japan. Those two countries have a higher population of Pokémon Go players, and greater game support from the developers. Many corporations are collaborated with the games creators to enhance the gameplay of users. Starbucks releases offers on products that are Pokémon themed because all their locations in the United States are featured PokéStops that give special items. I believe because of the corporate interests in other countries the game experience will be different, and this may affect the way the community operates. Also, Japan is where Pokémon was created so they offer a wide range of different events, along with being the first to experience the latest updates.

Pokémon Go is an innovative game that has brought joy to a large amount of people globally, and continues to do so each day. It has changed the way people play video games by getting users outside and mobile instead of glue behind a screen indoors. Many have used it as a way to exercise and other do it to pass time while out and about, but what ever the reason everyone who takes part belongs to the Pokémon Go community and always will.

References

- Amselle, N. (2016). Pokémon go and what it means for parks. *Parks & Recreation*, 51(8), 15-16.
- Brighenti, A. (2012). New media and urban motilities: A territoriologic point of view. *Urban Studies*, 49(2), 399-414.
- Capitalizing on the pokémon craze. (2016). *Credit Union Magazine*, 82(9), 42.
- Chang, H., Wu, H., & Hsu, Y. (2013). Integrating a mobile augmented reality activity to contextualize student learning of a socioscientific issue. *British Journal of Educational Technology*, 44(3)
- Driskell, R. B., & Lyon, L. (2002). Are virtual communities true communities? examining the environments and elements of community. *City & Community*, 1(4), 373-390.
- Farley, K., Nitsche, M., Bolter, J., & MacIntyre, B. (2009). Augmenting creative realities: The second life performance project. *Leonardo*, 42(1), 96-97.
- Feenberg, A. (2015). Lukács's theory of reification and contemporary social movements. *Rethinking Marxism*, 27(4), 490-507.
- Gazzard, A. (2011). Location, location, location: Collecting space and place in mobile media. *Convergence*, 17(4), 405-417.
- Hampton, K. N., Livio, O., & Sessions Goulet, L. (2010). The social life of wireless urban spaces: Internet use, social networks, and the public realm. *Journal of Communication*, 60(4), 701-722.
- Hampton, K., & Wellman, B. (2003). Neighboring in netville: How the internet supports community and social capital in a wired suburb. *City & Community*, 2(4), 277-311.
- Hatuka, T., & Toch, E. (2014). The emergence of portable private-personal territory: Smartphones, social conduct and public spaces. *Urban Studies*, 0042098014524608.
- Hoelzl, I. Brave new city: The image in the urban data-space.
- Humphreys, L. (2005). Cellphones in public: Social interactions in a wireless era. *New Media & Society*, 7(6), 810-833.
- Kelley, M. J. (2014). The semantic production of space: Pervasive computing and the urban landscape. *Environment and Planning A*, 46(4), 837-851.

- Liao, T., & Humphreys, L. Layer-ed places: Using mobile augmented reality to tactically reengage, reproduce, and reappropriate public space.
- Mims, C. (Jul 25, 2016). WSJ.D technology -- keywords: 'pokemon go' surged by building community. *Wall Street Journal*, pp. B.4.
- Morrill, C. (2008). Culture and Organization Theory. *The Annals of the American Academy of Political and Social Science*, 619, 15-40. Retrieved from <http://www.jstor.org/stable/40375793>
- Oldenburg, R. (1999). *The great good place*. New York, NY: Marlowe & Company.
- Park, R. (1936). "Human Ecology," *American Journal of Sociology* 17(1), 1–15.
- Shirky, C. (2011). The political power of social media: Technology, the public sphere, and political change. *Foreign Affairs*, 90(1), 28-41.
- Silva, A. From cyber to hybrid: mobile technologies as interfaces of hybrid spaces.
- Tscholl, M., & Lindgren, R. (2014). Empowering digital interactions with real world conversation. *TechTrends: Linking Research & Practice to Improve Learning*, 58(1), 56-63.
- Wilmott, C. (2016). In-between mobile maps and media movement. *Television & New Media*, 1527476416663637.