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The territoriality of teams: Assembling power through the playing of Pokémon Go

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ABSTRACT

This paper explores how the playing of Pokémon Go can cause power to be assembled, and team-based expressions of territoriality to manifest. By playing the game, players become embedded within digital assemblages of power, which they reproduce through their interactions with other players, game features, and public spaces. When digital assets—such as gyms—are indexed to public spaces, players work together in teams to compete for digital ownership, and control, of these assets. In turn, this leads to the forging of a team-based sense of territoriality that is pervasive, and maximized by consolidating the power of the assemblage. Qualitative data are presented to empirically explore how playing Pokémon Go in Singapore can encourage players to forge a team-based sense of territoriality, which in turn results in the (dis)assembling of power. To conclude, I call for closer consideration of the implications of digital assemblages of power for everyday life.

KEYWORDS

Territoriality, teams, digital assemblages of power, Pokémon Go, Singapore

Introduction

The irreversible embedding of digital technologies into the fabric of everyday life has redefined how we interact with the people and places that constitute the “real” world. Despite this empirical reality, how the mediatory interface of the digital can contribute to the reproduction of power in society remains undertheorized; where theorization has occurred, it has tended to explore how “code, to varying degrees, conditions existence” (Dodge and Kitchin, 2005, p. 164). Increasingly, however, it has been recognized that more nuanced theorizations of how the digital can shape and incentivize user behavior

are needed; ones that consider how digital platforms are just one factor amongst an *assemblage* of influences that coalesce to redefine the terms of socio-spatial engagement (e.g. Saker and Frith, 2019, 2020; Woods 2020a, 2020b). In this vein, Kitchin (2017, p. 25) recently called for the “full socio-technical assemblage to be examined,” whilst Ash et al. (2018, pp. 36-37, original emphasis) more recently called for research to “critically reflect upon the wider *dispositif* or assemblage of the digital” in order to understand how it can “enhance and maintain the exercise of power in society.” This paper responds to these calls by exploring how the team-based logics of Pokémon Go, an augmented reality mobile game, can maximize the territorializing behaviors of players through the configuration of digital assemblages of power.

The research question that this paper explores is twofold. One, it considers how the digital interface of Pokémon Go leads to new sorts of territorial claims by players; two, it considers how these claims require and reward team-based activities, which, in turn, can shape the ways in which players engage with each other and the public spaces they occupy. Playing the game therefore encourages new sorts of behavior that can cause diverse entities—including players and the teams they represent, public spaces, and game features—to be configured as “digital assemblages of power.” These assemblages manifest when digital assets—which, in the context of Pokémon Go, relate primarily to gyms—are indexed to public spaces. Through playing the game, players compete for digital ownership of, and control over, these assets; in doing so, they must negotiate game features, the competitive agency of other players and teams, and the spatio-temporal idiosyncrasies of the locations upon which digital assets are overlaid. The territoriality of teams emerges when these diverse entities are assembled into specific socio-spatial configurations that strive for exclusivity. That said, whilst territory can be assembled in this way, it is never stable. The (dis)assembling of power through the playing of Pokémon Go thus encourages players to territorialize, counter-territorialize and re-territorialize public space in ways that cause it to become an increasingly contested construct.

Over the past 10 years, numerous studies have highlighted the workings of power through games like Foursquare (Frith, 2013; Saker and Evans, 2016; Schwartz, 2013), Mogi (Licoppe, 2017; Licoppe and Inada, 2008, 2010), and also Pokémon Go (de Souza e Silva, 2017; Feldman, 2018; Papangelis et al., 2017; Tekinbas, 2017). This paper builds on these contributions in two ways. One, it focuses explicitly on the *team-based* dynamics of Pokémon Go. Whilst the team element distinguishes Pokémon Go, my focus on how players, game features and public spaces are assembled through team-based logics provides a point of distinction from existing work on Pokémon Go. Two, it is empirically grounded in Singapore, which, being a city-state with a spatially concentrated population, is a uniquely competitive environment in which Pokémon Go is played. Whereas other studies have considered how Pokémon Go “incentivizes people to move. . . towards urban areas, where they can much more easily find dense regions of PokéStops” (Colley et al., 2017, p. 1184), in Singapore, play is not limited by a lack of game features, network coverage or other players. This means that in Singapore there is a distinct *need* to configure team-based assemblages of power if players are to generate competitive advantage within the game. Before exploring the Singapore case further, I first consider how territorial power can be expressed digitally.

Theorizing digital expressions of territorial power

Understandings of territory and territoriality seek to explain the ways in which people engage with, claim, and attempt to control space. Whereas territory can be understood as an outcome of these engagements, territoriality is the process through which such engagements and negotiations unfold. Despite offering an integrative perspective through which the mutually constituted nature of society, space, and power can be interpreted, the theoretical development of territory has been relatively recent. Exactly 10 years ago, Elden (2010, p. 799) lamented the “under-examined” place of territory in academic discourse, whilst Painter (2010, p. 1090, emphasis added) asserted in more specific terms that “the implications of territory for the exercise of power, the nature of territory itself – *its being and becoming*, rather than its consequences and effects – remains under-theorized and too often taken for granted.” These critiques have since spurred scholars to reengage with the theoretical underpinnings of territory and territoriality, and to explore how they unfold in the contemporary world. Most notably, this has involved a shift away from understanding territory as bounded and static, and has explored the “more active connotation” (Elden, 2010, p. 781) of what it means to be territorial. In this section, I build on this trajectory by considering how digital technologies imbue territoriality with a fluidity that goes beyond individual claims to space, and is implicated instead in the team-based dynamics of mobile games. These dynamics cause territory to be constantly (dis)assembled, and constantly, therefore, to be in a state of becoming. The two subsections that follow elaborate on these ideas. First, I consider how territoriality can be rethought through the playing of mobile games; second, I explore how playing these games can cause territoriality to be reified through the formation of digital assemblages of power.

Rethinking territoriality through team-based mobile games

Whilst sustained scholarly engagement with ideas of territory and territoriality has been relatively recent, it builds on longstanding ideas that have been developed by social theorists over the past 50 years or so. These ideas are built on the premise that “societies, and consequently those who belong to them or are a part of them, maintain relations with. . . space or nature and transform it into territory” (Raffestin, 2012, p. 122; after Soja, 1971). In other words, territory was initially understood as an outcome of the pervasive and ongoing demarcation of space into spheres of influence that define the terms of social formation and behavior. Sack (1986, p. 1) developed these principles by recognizing the socially constructed, and therefore *empowered*, nature of territory, asserting that territorial behaviors are a “spatial strategy to affect, influence or control resources and people, by controlling area.” By understanding territory as an “outcome of boundary-drawing and as a process which creates pre-assigned relational positions” (Brighenti, 2006, p. 65), we can begin to appreciate the extent to which territory is “forged through interaction and struggle, and thoroughly permeated with social relations” (Elden, 2010, p. 783). These theoretical ideas yield important insight into the *social* and *relational* nature of territory, both of which underpin my understanding of team-based expressions of territoriality. However, they also illustrate Painter’s (2010, p. 1090) lament that there is a tendency to focus on the outcomes or effects of territory, rather than the processes involved

in its “being and becoming.” Thus, by engaging with Painter’s (2010, p. 1090) assertion that territory emerges from “networked socio-technical practices,” we can begin to appreciate how the digital in general—and the playing of mobile games in particular—can foreground new conceptualizations of digitally-defined territoriality.

Exploring the increasingly prominent role of the digital in (re)configuring territory has provided a recent focus of scholarship. Two factors that are unique to the digital—its ability to augment reality, and to imbue territoriality with a pervasive sense of playfulness—underpin these (re)configurations. In the first instance, Liao (2018, p. 133, 135) suggests that “one key feature that distinguishes augmented reality from other media is the extent to which it interacts with the physical artifacts that exist in public space and place.” Augmented reality causes “the digital” to be layered onto “the real”, which in turn creates opportunities for power to be created and reproduced in the space that emerges *between* each layer (what Lemos, 2011, p. 278 describes as “information territorialization”). Augmented reality games like Pokémon Go create situations of “multi-layered co-presence, where players are not just experiencing their own play, but potentially also the simultaneous public performance of play by others” (Apperley and Moore, 2019, p. 14). This leads to increasingly pervasive, fluid, and thus volatile configurations of territory that are realized *through* the digital. In the second instance, then, location-based mobile games are centrally implicated in both the creation and claiming of “playful territories” (Lemos, 2011, p. 282). What makes these territories unique is that they are potentially unlimited in space and time; they are pervasive. Thus, whilst playful territories are currently understood as the spatio-temporal demarcation of the limits of play—manifested through a football pitch, or a chessboard, for example—mobile games cause these demarcations to become *unbounded*, and to therefore wax and wane throughout the day. Indeed, the fluid nature of digitally defined territory causes territorial nuances to become embedded within the game mechanics, meaning mobile games do not just incentivize players to claim territory, but also to share, transfer or cede territory to other players as part of an overall gaming strategy. These behaviors are considered in relation to Pokémon Go, below.

Compounding these digital (re)configurations of territory is the team-based aspect of some mobile games, which in turn foregrounds the need to develop more networked understandings of territoriality. The networked nature of mobile games means there is an undercurrent of sociability embedded within the game mechanics. Indeed, mobile multi-player gaming has been shown to foster both a sense of community among players, and greater levels of competitiveness, which, in turn, can alter the terms of engagement with public space (Li and Counts, 2007). Lofland (1998, p. 10) defines social relations as being either public, private, or parochial, with each form of relation informing the ways in which individuals engage with each other in space. Whilst the public and private are based on the social proximity of the self to others (from unknown to intimate respectively), the parochial realm emerges when groups of people share “a sense of familiarity or commonality.” Engaging with this idea, Schwartz (2013) has demonstrated how Foursquare can facilitate encounters with “networked familiar strangers”, which essentially reverses the logic that public spaces are defined by “many unknown or only categorically known others” (Lofland, 1989, p. 455). Parochial relationships foreground the emergence of *teams* of players, which, through their networked connectivity and competitive behaviors, can

scale-up the logics by which territory is claimed and controlled. Whilst team-based mobile games are not unique in triggering territorial behaviors (single-player games can have similar effects), they do cause expressions of territoriality to become enhanced, and can therefore yield an increasingly *uneven* public topography of socio-spatial access, control, and exclusion. Thus, in view of the need to “carefully think through the overlapping ways power relations are differentially manifest over time and space through digital augmentation” (Graham et al. 2013, p. 468), I now explore the being and becoming of team-based expressions of territoriality through the configuration of digital assemblages of power.

Digital assemblages of power

Mobile games integrate various objects, triggers, perspectives, and behaviors—from both the digital and real layers of experience—into a unique way of engaging with the world. As Lemos (2011, p. 279) notes, these games unfold through “movement (physical and informational), digital interaction in public space, the exchange of information on specific locations (the context), and, at the same time, interaction between players and real and virtual objects.” As a response to such complexity, assemblage theory provides a useful perspective from which the outcomes of these integrated experiences can be understood. Specifically, it provides insight into the “beings and becomings” of digitally mediated territory, and the expressions of power that can emerge from digital content creators, collective practices, and/or the idiosyncrasies of the physical environment, as a result. As Davies (2011, p. 271) explains, assemblage “generally refers to the coming together of various entities into a loose aggregate,” which in turn “stresses the ongoing and dynamic state of interplay between various components, rather than a static whole.” The notion of a “state of interplay” indicates the specific temporalities of assemblages, and how they are both responsive to, and constitutive of, different socio-spatial formations. These formations are an outcome of various factors. For the purposes of this paper, the most relevant are the “distributed agencies” that contribute the formations and outcomes (the “state of interplay”) of assemblages, and the resultant “reading of power as multiple co-existences” (Anderson and McFarlane, 2011, pp. 124-125). Anderson et al. (2012, p. 172) outline more directly how thinking in this way foregrounds the idea that

spatial forms and processes are themselves assembled, are held in place, and work in different ways to open up or close down possibilities. In short, assemblage provides a useful purchase on processes of composition, allowing us to understand how spatial forms and processes are held together, often with degrees of internal tension, and might have been assembled otherwise.

Assemblage thinking enables us to understand spatial outcomes that may be surprising, yet which can define new socio-spatial realities. It reveals how power can be scaled-up beyond individuals to groups (or teams), and thus become a more pervasive phenomenon. That said, whilst the value of assemblage thinking has been shown time and again, it has not yet been brought into direct conversation with parallel theorizations of the digital transformation of society and space (see, however, Kitchin’s (2014) notion of “data assemblages”, which focuses on the inter-relationships between digital infrastructures, coded spaces and the environment). An important point of theoretical expansion, then, is

to consider how enfolded the digital into the “distributed agencies” that comprise the assemblage may enable us to think through the new expressions of power that are being formed by individuals and groups, and which are materializing in conversation with physical spaces throughout the world. Digital assemblages of power recognize, in other words, the embedded role of digital agencies in contributing to a range of socio-spatial outcomes. Importantly, these agencies range from being determinative (algorithmically defined code, or environmental contingencies, for example), to mediatory (enabling individuals and groups to overcome the limitations of space and time, for example), in the ways in which they contribute to the state of interplay. In this sense, we can begin to see how digital assemblages may overlap with gaming logics, as digital agencies can both shape and respond to the inputs from other agencies (or players, algorithms, physical spaces) that participate in the assemblage.

By embedding digital code within the assemblage, the potential for power to be exerted or contested by human stakeholders that are implicated in the assemblage becomes pronounced. As Feldman (2018, p. 290) reminds us, “code may be a mediatory agent but is not always backed by authority or afforded hegemony.” Rather, it can empower individuals to create their own, alternative, visions that exist at the intersection of code/space. Digital assemblages can, in this sense, encapsulate the idea of “posthuman” expressions of power, wherein agency can be rooted in the assemblage of code, public spaces, and augmented realities, meaning “there is no determinism at all. Rather, because power is enacted through assemblage, it must be understood as distributed among the various components of that assemblage” (Dittmer, 2014, p. 389). Again, we can see here how gaming logics permeate digital assemblages, as once the game is in process, it is difficult to repeat it in the same way again, or to otherwise replicate it in a non-gaming environment. In this sense, by being configured through the digital assemblage, access to power becomes “democratised” (Colley et al., 2017), meaning it becomes a more easily attainable, and less exclusively hierarchical, construct (Woods, 2019, 2020a, 2020b). Accordingly, one of the defining features of digital assemblages is their volatility, which in itself reflects Kitchin’s (2017, p. 14) assertion that algorithms are “contingent, octogenetic and performative in nature.” With these ideas in mind, I now introduce the team-based territoriality of Pokémon Go, and then explore empirically how playing the game can lead to the forging of territoriality and the (dis)assembling of power.

The team-based territoriality of Pokémon Go

From the moment Pokémon Go was released by Niantic in July 2016,¹ it began to make an impact in the real world. In its first month it was downloaded from Apple’s App Store more times than any other app in history, and soon after began to make news headlines for the lengths that players would go to in order to catch and develop Pokémon. Through the game’s interface, Pokémon are embedded in public spaces, which means that to play Pokémon Go is to enter a new reality in which the virtual world of the game and the real world in which players live become synchronous. Pokémon Go is played through both digital and physical spaces, with the game interface providing a map of a player’s locality and an indication of where Pokémon can be found. Ganzert et al. (2017, p. 44) explain in more detail how

players are supposed to take on the role of a Pokémon Trainer and roam their personal local space to find and catch Pokémon. . . . To fulfil this goal, players must move through neighbourhoods and cities, different landscapes or countries and look for Pokémon on their map, which appear when a player is close enough to them.

Importantly, when playing the game, it is not just the search for Pokémon that defines the movements of players, but their engagement with other virtual objects as well. These include PokéStops, raids, and, perhaps most importantly for the purposes of this paper, gyms. All of these virtual objects offer different opportunities to gain competitive advantage *within* the game, and to engage with the physical environment and other players *through* the game. Combined, these engagements inform how playing Pokémon Go “establishes a dynamic multi-layered mode of connected and disconnected co-presence in public spaces” (Apperley and Moore, 2019, p. 12). In light of these characteristics, Pokémon Go is seen by many as “not just a casual mobile game, for while we might play it in the midst of other daily activities, it also *explicitly intervenes with and modifies* those activities and relations—sometimes in positive ways, sometimes negative” (Hjorth and Richardson, 2017, p. 5, emphasis added). These interventions and modifications highlight the role of Pokémon Go in the configuring of digital assemblages of everyday life for its players. They also, however, foreground the assertions of territoriality and the reproduction of power that playing the game can lead to. In many respects, the team-based forms of territoriality that underpin Pokémon Go cause the game to “lose its innocence in the very moment that the act of playing becomes one of preserving the status quo” (Cristiano and Distretti, 2017, p. 131). In this sense, the loss of innocence reflects the slippages of power from the gaming environment to the real world, when teams of players work together to preserve the “status quo” of their territorially defined position(s) in the game. Thus, to the extent that playing Pokémon Go encourages players and their teams to *claim* territory, so too does it encourage them to become active in its management in order to maintain a position of digitally assembled power.

When it comes to understanding how playing Pokémon Go can lead to the configuration of digital assemblages of power, it is necessary to understand where most competitive action takes place in the game: gyms. Gyms are virtual objects that are tied to real-world locations (such as buildings, or other landmarks, like bus stops) in which players can deposit (meaning “train”) their Pokémon and collect coins. When players download the game, they must choose a team that they want to belong to: red, blue or yellow. Each gym can only hold six Pokémon, and can only be occupied by players of the *same* color team; meaning, if a gym is occupied by a different color team, then players can “battle” the Pokémon inside them. If they win, they take over the gym. Occupiers of the gym can, however, defend their positions by “feeding” their Pokémon berries, thus maintaining their strength to withhold the attack. Within the game, “gyms serve as battle fields” (Zhao and Zhang, 2019, p. 100), as they are digitally mediated physical spaces in which players of different teams come into contact with one another, and fight to occupy the gym space. Holding a gym is to assert a claim to territory, and to therefore occupy a position of power within the game; to challenge a gym is to challenge that power. Digital assemblages of power, then, help to highlight the ways in which the “battle fields” of Pokémon Go translate into new forms of territoriality in the real world, as they provide

“both a rationale for dispossession and a ground for. . . opposition” (Blomley, 2015: 594). Indeed, whilst battles over gyms occur virtually, the fact remains that

pervasive games like Pokémon Go force us to look beyond the rules governing the play *inside* the game, to the social and cultural codes governing the contexts in which the game is embedded. These codes organize how the members of a community, for example, might respond to the presence of a so-called “outsider” on their block (Tekinbas, 2017, p. 36, original emphasis).

Here we can see the extent to which “pervasive games” are implicated in pre-existing socio-spatial power dynamics. These implications are most pronounced—and most antagonistic—when the meanings and values reproduced within the game come into contact with those reproduced in the real world. As Gong et al. (2017, p. 228) observe, “what is home or ‘my neighbourhood’ for some people might be a spot for Pokémon collection for others,” meaning that, by playing the game, “players also shape the spatial experience for others through their interaction.” As such, location-based augmented reality games like Pokémon Go have the potential to “violate situational norms and even laws of the physical space” (Liao, 2018, p. 137), and to reconfigure them according to the competitive logics of play. I now illustrate these ideas through an empirical examination of how playing Pokémon Go has contributed to the forging of territoriality and the (dis)assembling of power in Singapore.

Forging territoriality and (dis)assembling power in Singapore

In early 2019 I conducted 22 in-depth interviews with Singapore-based players of Pokémon Go. All participants identified as “regular” players (i.e., they play Pokémon Go at least 5 to 6 times per week), and all had been playing for at least one year. A snowball sampling strategy was employed, starting with acquaintances who play Pokémon Go and branching out from there. It became apparent early on that recruiting “regular” players would not be difficult (given the small size of Singapore, and the high penetration of Pokémon Go amongst young Singaporeans); as such, after the first four or five interviews I adopted a more targeted strategy that focused on identifying players (through initial screening) who had formed collaborative networks (often, these were pre-existing friends or family members) to increase their ability to assemble power and thus gain influence in the game. Ben,² a university student in his mid-20s, is a good example of this. I first interviewed him by himself, and, through him, gained access to his brother, Alvin, and his parents, all of whom played together on the same team (yellow). Sampling stopped once saturation was reached. Whilst the sample was evenly split in terms of gender (12 males, 10 females), it was uneven in terms of age. Eighteen players were in their 20s; the other four were in their 30s, 40s and 60s. This cohort is significant as it tends to include individuals who have grown up with, and are therefore emotionally invested in, the Pokémon franchise.

An interpretive framework was used for both data collection and analysis. As a result, interviews were open-ended and loosely structured according to key topics I wanted to cover. Topics included: the motivations for playing Pokémon Go; playing patterns; intra- and inter-team dynamics (focusing specifically on identifying examples of collaboration,

competition and/or conflict); and, more generally, how playing Pokémon Go has changed players' everyday engagements with the environments—spatial, social, and public—in which they live. In the cases in which I interviewed two players who knew each other from playing on the same team, I would solicit both perspectives on these topics in an attempt to triangulate findings. Interviews lasted approximately 45 to 60 minutes, and all interviewees were given a voucher to compensate them for their time. All interviews were conducted face-to-face by the author in English, and all were fully transcribed, and then analyzed for themes using an open coding approach upon completion. Two themes became apparent at a relatively early stage. They were: one, how playing Pokémon Go triggered an (often elevated) sense of territoriality within players; and two, how these territorializing instincts encouraged the formation of networks (or sub-teams) amongst players. Consequently, this led me to develop, and test in later interviews, an understanding of how digital assemblages of power are configured and contested through the playing of Pokémon Go. The two subsections that follow illustrate these ideas further.

Forging territoriality

When playing Pokémon Go, gyms are attached to physical places, meaning that to leave a Pokémon in a gym is to invest the gym—and the place that it is attached to—with a new sense of meaning and value that is derived from the game. These processes can be seen to imbue space with different forms of value for the players of the game. Put another way, the value of space is indexed to the value of the gyms that are located *in* space, meaning the occupation—or contestation—of gyms encourages players to forge a sense of territoriality that starts with, but which goes *beyond*, the game. Alvin, a working professional in his late 20s, and Ben's brother, explained how

that is the whole purpose of conquering gyms, to establish a territory. I mean, it is very nice to see the entire town yellow, and not just red and blue. That is why many of us, including our family, why we want to defend the gym. Sometimes it is not just for the coins, but rather. . . also for us to maintain some sort of territory.

Alvin speaks of how the “conquering” of gyms can lead to the marking of territory that starts with, but also *transcends*, gyms; conquering enables him to put his Pokémon inside the gym, which in turn can turn “the entire town yellow.” The team-based logic of Pokémon Go means that this sense of territoriality is forged, shared, and often heightened through interactions with other players. Territoriality thus becomes a competitive ideal that players are expected to subscribe to through their membership of the team. In turn, these expectations concerning the ongoing need to claim and consolidate territory through the playing of Pokémon Go could lead to players understanding the spatio-temporal rhythms of their neighborhoods in a new, territorially defined, light. For example, Jing Yi and Boon Leng, both university students in their mid-20s, respectively observed how “there are, kind of like, territories in the neighbourhood, so you know normally which players will put [their Pokémon] in what gyms and at what time”, and how “the uncles and aunties³ form cliques, and they are sort of the overlords in certain areas. . . they live there, so they generally control [the area].” Emphasized here are the *team-based*

logics upon which territory is constructed and controlled, with “uncles and aunties” banding together to ensure their territory is not disturbed by players from competing teams. Mel, a working professional in her late 20s, offered more insight into these expressions of control by explaining how the territorializing tendencies of players in her neighborhood was consolidated throughout the course of a typical day:

They have a schedule, at least in my neighbourhood, you would see this group of taxi drivers. . . they will have a so-called fixed schedule at around 6 a.m., one team would hit the gym and they will hold it until 12 noon, and then another group of uncles and aunties would come and take over.

In order to maintain control over a given territory, a group of players of the same team would calibrate their playing schedules so that their gyms would never be left unguarded. Defending territory is, however, less spatio-temporally demanding than attacking it, as players do not need to be physically present at a gym to withstand an attack. Rather, they can feed their Pokémon berries from afar. For example, Stephanie, a university student in her early 20s who played on the yellow team with her parents, recalled a family holiday to Malaysia. When they were sightseeing during the day, they took control of a gym; later that night, after returning to their hotel and her parents were sleeping, the gym came under attack. However, as Stephanie recalled, it was “just nice, in my room I can access the gym, so I just fed berries,” which resulted in a prolonged pattern of “attack, feed, attack, feed” that went on until the attacking player stopped at around 2 a.m. This example reveals two important points. First, players’ sense of territorial “presence” does not necessarily translate into physical presence, meaning their claims to territory can continue long after they have left the physical spaces to which gyms are indexed. Indeed, Stephanie still thought of the gym as “mine” long after they had left. Second, the defending team can leverage the assemblage anytime and anywhere, meaning the assertion of power remains nested in the physical space of the gym, even if the players are spatially distant. Indeed, in this case Stephanie was able to use her parents’ phones to access their berries and thus maximize her power within the game in order to withstand the attack. This example illustrates how Pokémon Go causes territorial power to become a more pervasive construct that is decoupled from physical presence.

Conversely, attacking teams would often take advantage of periods of relative inactivity in the game in order to take over gyms. Ben shared how he and his teammates would attack gyms at night that would otherwise be held by the red and blue teams during the day, the aim being to “take over ten gyms” which “would allow you to claim the maximum number of coins a day as a reward.” In a convoy of two to three cars, they would “driv[e] around late at night, around 9 p.m. to 11 p.m. and destroy all the enemy gyms, then build them up to our own colour.” As this example illustrates, territory is seized by deploying the agency of time (late at night), speed (driving around) and scale (two to three cars of players) to counter-claim territory through the game. In other words, time, speed, and scale become weapons of power that can be used to generate competitive advantage. Asserting a sense of territoriality in this way is to claim space as your own; however, as soon as these claims are made, they become liable to counter-claims, contestation and conflict. In many respects, these contestations are an outcome of how different

players become territorial *through* the game. Whereas some see territory in terms of its absolute value—occupying gyms so that no other player can—others see it in more strategic terms, wherein the occupation of territory is a more flexible process. For example, the family team of Ben, Alvin, and their parents lamented the fact that

some [players] are not very generous, because there is a maximum number of coins you can get every day. . . If you spend eight hours in the gym, let others take you down. Once others take you down, then you get your coins, and others can earn their coins. Why don't you give people a chance?

Alvin's question suggests that, whilst he and his family team claim territory for the sake of gaining competitive advantage within the game, other players appear to want to claim territory for the sake of blocking another player's and/or team's ability to counter-claim it. In these cases, territorial claims are imbued with value that goes *beyond* the game. Thus, whilst the game provides the starting point for territorial claims, some players take these claims beyond the game and use them to assert power in the real world. Arguably, these processes are pronounced in the spatially restricted gaming context of Singapore. As Ben explained, "in Singapore, it's just so crowded that nobody can ever lay claim to a gym for themselves," meaning there are relatively more players laying claim to each gym in Singapore than there are in most other countries. As a result, processes of (counter-)claiming exist in a constant state of competitive tension with other players representing other teams, some of whom may strive for territorial exclusivity. In order to maximize the chances of exclusivity, players must constantly work to (dis)assemble power.

(Dis)assembling power

As many of the above examples indicate, power is more easily assembled when players group together into sub-teams (that are smaller, privately organized, and often more parochial in outlook than the those defined by the game) and co-ordinate their efforts to (re)claim gyms. In doing so, they would engage in various practices to strengthen their team dynamics and consolidate their territorial power. Ben spoke of how "when we are done [driving around, reclaiming gyms from the other teams], we literally take screen-shots and then we share it with the group, and then everybody, like, applauding, clapping emoji, saying "look, look at all the yellow, look at all the yellow." Moving together as a team, with a shared goal and collaborative action to achieve that goal, can enhance the sense of camaraderie felt by players, and thus emphasize the need for shared action within the game, and a shared sense of responsibility for the outcomes of (in)action. Assembling power in this way does, however, cause its manifestations to lack stability or permanence, meaning the assemblage must constantly be (re)enforced if it is to minimize the risk of disassembly. In turn, this sense of "risk" becomes more pronounced, as it is not just individuals playing individuals, but groups of players playing other groups of players, thus causing the potential for conflict to become elevated. Ben shared how, when he and his family moved to a new home in Punggol,⁴ "we noticed our area around our place, there were two gyms near our house that would constantly be blue. Then me

and my family were like, OK, let's go kill them". Challenging pre-existing territorial configurations, and thus assemblages of power, in this way meant that he

gained some infamy around Punggol. . . we started realising that wherever we went to gyms. . . there would be people who would come to specifically target us. . . They hated us so much that whenever they saw us in the gym, they would literally say "he's back, he's back", and then he would literally call his friends. . . they would come together and attack us.

The digital assemblages of power that are constantly being (re)negotiated through the game can easily spill over into the real world. The physical presence of Ben (identifiable through his avatar in the game) caused players from the dominant team to "literally" call each other for backup to protect their gyms. Players come together through the spatio-temporal rhythms of the game, then disband again in order to lead their everyday lives, meaning there is a constant need to monitor gyms, and the actions of other players and teams, in order to remain competitive. When a competitive threat is posed, the digital assemblage is leveraged in ways that cause power to be *reassembled*. For example, Mel shared how, through playing the game, she became known to players from another team, who then made concerted attempts to rebut her challenges:

There is a gym near my house, so I used to fight that gym around 12 midnight. . . once I was fighting, and an uncle came up to me. . . from a few blocks away. . . and asked "oh, so you're on the blue team, is it?" . . . After that, on another occasion, one aunty tried to take a picture of me, maybe to let her other friends know that you see, this is the person whacking our gym, get ready to defend!

In this case, Mel was physically identified by a player from another team, who then identified her to other members of his team. In turn, one of these other members then attempted to take a picture of her in order to make her even more widely known as a "threat" to the territorial power of the local playing community. Not only does being implicated in digital assemblages of power cause players to become visible to other players, but so too does it cause them to be socially (re)positioned through the game. Boon Leng recalled a situation when such (re)positioning caused the competitive logics of the game to translate into real-world confrontations against other players: "they managed to track down the person who has been constantly trying to battle [their gyms] and kick them out. . . they managed to find him and confront him, it was quite hostile." He went on to explain why he thought such a confrontation came about, claiming that "because it's virtual, so they are not afraid of the consequences that will happen if they overstay in that particular gym." This explanation reveals a profound insight into the implications of assembling power through team-based play. It reveals how what happens in the "virtual" realm can have direct consequences in reality. Not understanding this synchronicity can, in turn, cause some players to be "not afraid" to play the game in an aggressively competitive way (thinking their actions are virtual only), whilst other players can interpret such actions as disrespectful to the power they have worked to configure through the game. The fact that such power is assembled through team-based play means that it implicates more people than the individual player; consequently, real-world retaliation

becomes a more likely outcome. The embedding of digital technologies into everyday life can, as a result, trigger wide-ranging, and sometimes disproportionate, socio-spatial effects.

Discussion and conclusions

Digital interfaces cause public spaces to be imbued with new or alternative meanings, which then alters the ways in which people engage with (other people in) them. Whilst “adding a virtual layer onto the actual world enables experiences that exceed the boundaries of both world through the creation of hyperrealities” (Cristiano and Distretti, 2017, p. 130), so too do these “hyperrealities” have resolutely *enplaced* consequences. They cause power to be assembled, as the processes of “capturing, recording, annotating, and representing place digitally exert a very real control and possession over those places” (Graham and Zook, 2013, p. 79). These acts of control and possession are pronounced when embedded within the competitive mechanics of mobile gameplay, more pronounced when reproduced through teams, and *even more* pronounced in the gaming environment of Singapore. Singapore is an environment defined by spatial constraint and high player density—two factors that accentuate aspects of the game, causing players to moderate their behaviors in response, which results in the rules of play becoming more locally nuanced. It is an environment that encourages the assembling of smaller, private, and more parochial sub-teams that are designed to maximize competitive advantage within the game, but in doing so they contribute to new forms of socio-spatial splintering. These teams develop territorial strategies—some of which are more aligned with the competitive logics of the game, others with the desire for socio-spatial exclusivity—that reflect the slippage of power from the game to the real world in which it is played. As Lemos (2011, p. 284) observes, territories are “zones of control and power” that “give meaning to places”, meaning that the digital configuration of territory through games like Pokémon Go causes places to become more-than-real—or “hyperreal”—constructs that are *more* meaning-full than their terrestrial counterparts. In turn, through the territoriality of teams, public spaces become more differentiated constructs, and thus vulnerable to becoming claimed, controlled, and potentially contested by others.

The competitive logics that underpin these practices can cause the playfulness of mobile games to become increasingly subsumed within more divisive practices of socio-spatial exclusion, both between, but also *within* teams (through the formation of sub-teams). In this vein, the team logic of Pokémon Go offers a point of distinction from other mobile games, as assertions of territoriality are a function of the *collective* as much as they are the *individual* (Frith, 2013; Saker and Evans, 2016; Schwartz, 2013). When playing Foursquare, for example, regular check-ins to particular locations are deployed as a strategy to promote one’s claim over territory, and thus prevent others from making similar claims (Papangelis et al. 2017). In Foursquare, power is therefore a function of individual agency; if a player checks-in more than other players, their position in the game is elevated, meaning “users can become the ‘mayor’ of a place if they visit it often” (Schwartz, 2013, p. 3). Playing Pokémon Go in Singapore means that power is a function of the team-based assemblages within which players are embroiled. As a result, power is constantly being *assembled*, *disassembled* and *reassembled* through the game, causing it

to become a more pervasive, multi-dimensional and evolving construct. The team is leveraged throughout the day to give a visible presence to territory, which, in turn, “‘affords’ the emergence of specific claims” (Licoppe and Inada, 2008, p. 15) to space. These claims lead to the ongoing surveillance of, and confrontations with, other players in order to consolidate the assemblage. Indeed, because “assemblage sees social formations as temporary aggregates of objects and people”, then “power is not centered, nor evenly distributed through the assemblage” (Davies, 2011, p. 276, 277); rather, like the territory to which it is indexed, it is embroiled in a constant state of (un)becoming.

To develop these ideas further, and to build on the “growing momentum” (Liao, 2018, p. 145) within the study of augmented reality mobile apps more broadly, I propose two avenues for further research. The first is general, and involves exploring the theoretical implications of embedding private performances of play within public space, and the resultant reimagination of publicness and the “right” to the digitally mediated city (Lefebvre, 1996). Indeed, as the claims of inter-player surveillance shared above suggest, playing augmented reality mobile games can cause the distinctions between public, private, and parochial relationships (after Lofland, 1998) to become blurred, causing players to increasingly be defined in relation to the game. As augmented reality continues to “mov[e] from science fiction to material reality” (Liao, 2018, p. 131), these processes of embedding and reimagination can provide important insights into the planning of cities in an increasingly augmented world. Just as Lemos (2011, p. 285) suggests that informational territories can “change the way we see, live, and understand places. . . [as] new informational functions are created in physical places,” so too are these changes implicated in the ongoing (re)production of socio-spatial differentiation, power and exclusion. Digital assemblages of power provide a conceptual framework through which both the public and private characteristics of everyday life can be understood and shaped for the greater good. The second is specific, and relates to how space evolves in response to digital assemblages of power. This is particularly relevant given the economic motivations that increasingly underpin the configuration of digital assemblages. Space plays an important role in bringing these assemblages to life; indeed, by materializing the digital, it is implicated in new, or alternative, expressions of value (Woods 2020c, 2020d). How space is reproduced in response to digitally assembled expressions of capital also provides, therefore, an important avenue of enquiry.

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Notes

1. Since its launch, the game has gone through various iterations to enhance playability. For clarity, I discuss the game in terms of its core mechanics rather than specific iterations.
2. All names have been changed to ensure anonymity.
3. In Singapore, older males and females are commonly referred to as “uncles” and “aunties”.
4. Punggol is a “new town” located in the northeast of Singapore.

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