The Space Between Debord and Pikachu

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ABSTRACT
In the heady discourse following the launch of *Pokémon Go*, many of the game's influences, histories and precursors were forgotten or over-looked. Against the newness in which *Pokémon Go* is often framed, this article re-contextualises its history examining comparable practices and recalling the games evolution from earlier locative applications developed by Google to the experimental games of the modernist Avant Garde to which it has been compared. Central to this paper is discussion of the opportunities in the pervasive game development process for encoding and recoding the city by balancing in-game content with the nuances of the urban landscape in which it is played. While *Pokémon Go* has been revelatory in bringing awareness of pervasive gaming into the mainstream, this discussion of location-based games, public art projects, and playful approaches to urban exploration aims to fill gaps in the history of the field, and offer new possibilities for future game design and analysis.

Keywords
Pervasive Game design, Location-based games, Pervasive-games, Pokémon Go

INTRODUCTION
The augmented reality (AR) game *Pokémon Go* was released on July 6th, 2016. Within 12 hours, it became the top-grossing app on the Apple Store. In less than a week, it was a global phenomenon drawing opinions from broad social and political spheres (Keogh 2016; Downs 2016). Much was written on the game in the following weeks, discussing its immense popularity and societal impact (Lee 2016; Colley et al. 2017). For many, it heralded not just a revolution in gaming, but a new use and understanding of public space (Abboud 2016; Grajales 2016; Colley et al. 2017). In order provide a broader practical context to understanding *Pokémon Go* from a pervasive game design perspective, this paper explores the cultural and technological histories leading up to the launch of the game in 2016, and compares its design to related games types and interactive experiences that use a similar navigation approaches and city street contexts. These include the playful practices of urban navigation developed through the modernist avant-garde including *flânerie* and *derive*, but also to location-based games from the last two decades

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including *Mogi* (2004), situated in Tokyo; *Shadow Cities* (2010), a fantasy MMO playable worldwide; and *Ingress* (2012), a sci-fi mystery playable worldwide and immediate developmental precursor to *Pokémon Go*. Interwoven with this history is speculation on the design intent behind these games and related activities. Were they driven by new developments in spatial technologies? Did new cultural contexts for play emerge that made them possible? Were they a reaction to changes in urban planning and the design of cities? We believe that by examining *Pokémon Go* through these questions, the core play experience can be explored and better understood. In particular, possibilities emerge for re-encoding space through the increased virtualisation of reality. This concept of re-encoding space will be further elaborated but may be compared to *psychogeography* that encouraged "modulating reality" through the constructed world of the city. By examining the origins and motivations of the *Pokémon Go* game we will argue that it does not take up this opportunity, leaving an unexplored opportunity for future pervasive game design.

METHODOLOGY

With a focus on re-encoding space, we will draw upon earlier work in this field (Montola et al., 2009) and the author's own teaching, development, and play experience in the area, we propose the following three lenses through which to examine these games and the motivations behind their development: (1) Play as response to environment, (2) Play as exploration of an alternate reality, (3) Play as decoding infrastructure. While we acknowledge the existence of further aspects of play such as collaboration and social engagement, we propose these aspects in order to interrogate *Pokémon Go* and its history and we explore the features of each below. These lenses will be used to explore facets offered by the re-encoding of space via pervasive game design building on psychogeography as a key methodology. Introduced as a strategy for experiencing, understanding, and ultimately designing cities, this framework brings to the foreground two key opportunities for location-based game design: firstly, the collapse of any separation between game and its surroundings; and secondly, an alternative perspective in the mind of the player as a result of this collapse in which they see the constructed environment of the city as fluid and mutable – open to possibilities rather pre-determined functionality.

Play as response to environment

Many location-based games draw upon their site or *loci* as a critical context for play. *Ingress*, for example, situates a battle for territory within existing cityscapes drawing attention to cities as contested zones. Often narrative driven, these games engage with local histories, distinctive landmarks and locative elements described as the media of space and place (Davies 2007), blending them with the world of the game or co-opting them as in-game content. A common strategy, for example, is to rely on local knowledge to solve puzzles thereby unlocking deeper levels of the experience. In this strategy, the design of the game may seek to educate players about a location (the dataset used by *Ingress* and *Pokémon Go* includes short notes on each location), or may be more pragmatic, using local landmarks to orient the player and the game world. This strategy is used in all the pervasive games explored in this text, offering different readings of the urban space around the player. Often, physical constraints or quantifiable behaviour may be factored into the game to both calibrate the experience with the physicality of the situation or to provide rewards for activity, for example, counting steps toward a reward or checkpoint. The way in which the designer responds to the environmental context often reveals their intent – do they want players to get fit or are they aiming for a more contemplative experience? Are they using local data for calibration and orientation, or

does it provide the core content and experience? In terms of re-encoding this environment this may occur via two overlapping strategies – the appropriation of aspects of the urban environment into the world of the game or via the introduction of artificial life forms into this environment, such as the entities of *Shadow Cities* or *Ingress*. When these two approaches work together, they present a mixed reality that situates play as a response to environment, creating a form of hybrid nature re-encoding urban space. Of the three lenses, this is closest to the original goals of psychogeography as a practice of re-encoding of cities.

Play as exploration of an alternate reality

Typically game worlds are entirely constructed environments with complexity resulting from labour intensive design. In contrast, situating a game in the real world means beginning with complexity and generating meaningful links between the real world and the world of the game. Real-world events, objects and situations are appropriated into the game world through renaming or redefining them, or virtual objects are mixed with the real world to appear as though they are a part of it. Each offers different affordances in terms of the design of the game and the play experience that arise as a result, but both present the experience of an alternate reality through shifting a players perspective. In speculating on design intent the question becomes what kind of alternate world is the designer trying to establish in the minds of the players? While re-encoding nature may be seen as drawing attention to what we typically view as 'natural' features of the environment such as grassed areas, waterways, trees, and other organic signs of life; in the context of an alternate reality, patterns and systems from nature may be re-encoded into the world via the game. Pokémon present opportunities for this. For example, while catching a train at Melbourne's Flinders St Station, water Pokémon appear as the Yarra River is nearby. Other strategies to explore these ideas that explore alternate realities may animate urban features such as lampposts, Wi-Fi routers, and security cameras to also be 'nature' – a different kind of nature. In this scenario, functional elements of the city become part of an alternate reality with a different set of operations and meanings.

Play as decoding infrastructure:

Games present players with systems - locations, structures and rule sets – boundaries in which to play. Part of the play processes involves players exploring and critiquing a system in order to discover what is possible within its constraints. By appropriating locations, objects and situations from daily life and the real world, the designers of location-based games invite players to test its boundaries, decode its physical and ideological limits and critique the very infrastructure of reality's rules and systems. Here the intent of the designer may be revealed. Are they inviting players to subvert reality, to question it, or simply have fun with it? Both the choice of infrastructure and how it is contextualised within game are important design decisions that tell us a lot about the kind of world the designer is trying to establish. Location-based games are typically situated in cities that are by their nature constructed from multiple layers of infrastructure. Rather than construct an entirely virtual world and overlay that onto the city as a blank canvas, the urban environment sets the constraints and opportunities of a mixed reality. Highlighting different aspects of urban infrastructure results in different abstractions of this city – focussing on all the security cameras and thresholds between private and public space is one abstraction, looking for all the places small monsters could hide would be another, locating heritage sites and old laneways another, and so on.

CITY AS GAMEBOARD

In order to correctly discuss *Pokémon Go* as a game, we must first explore the notion of city as game board (as a codified series of spaces), that is play as a response to environment, and then of walking as play (as an activity engaged in for enjoyment and creativity than a serious or practical pursuit). In the influential chapter "Walking in the City" from his seminal work: *The Practice of Everyday Life,* Michel De Certeau articulates the city as a space generated and codified by governments, corporations, and other institutional entities who then produce artefacts like laws, restrictions and maps in order to describe the city as a unified whole. From the position Certeau adopts – specifically from the 110th floor of the World Trade Centre - the city can be viewed as a codified map almost like a game board (91). By contrast, Certeau notes, the walker at street level moves in a tactical manner, taking shortcuts, cutting through restricted areas and performing other acts that not are fully determined or condoned by the city's institutions of power (99). In this way, the city can be understood as an objectively conceived game board and walking within it can be understood as subjectively experienced play. However, walking as play has a significant history that predates Certeau's understanding of the city as will be outlined below.

WALKING AS PLAY

Pokémon Go continues a tradition of playful practices of walking first made famous in Baudelaire's nineteenth century figure of the flâneur. The flâneur is a bourgeois figure; almost always a middle class man whose social station allows him to amble unhindered though the Parisian avenues and arcades. These strolls are undertaken in order to contemplate the city environment, to survey its spirit of place and to experience its dynamics as a detached observer. The sauntering flâneur adopts an aloof attitude in his exploratory play, of a street-level but nonetheless objective position appraising environment he traverses.

In the early 20th Century, the Surrealists adopted and adapted the tactic of the flâneur but placed greater emphasis on deep engagement with the landscape and the role of chance as a determining factor in ones travels. For the Surrealists, the activities of the flâneur included but also transcended engagement with the existing environment, to generate and explore alternate realities. Flâneurship became but one tool in the Surrealist arsenal to expose situations in which 'reality' and 'surreality' became interchangeable. To provoke these alternate realities into being, the Surrealists drew-up provocative instructions for the flâneur that might involve following a stranger, pursuing objects of a particular colour or guiding oneself using the map of another city altogether, situations in which random acts of chance and play might allow for alternate realities to come into being.

For the Situationists in the 1950's and their defacto leader Guy Debord, the possibilities of walking in the city were seen differently again. Their term: dérive that literally translates as "drifting" significantly differs to the detached wandering of the flâneur and the alternate reality-seeking Surrealists. Dérive requires the drifter be guided by the implicit resonances of the city, to move with sensitivity to its psychogeographical contours and influences, and might therefore be understood as a playful decoding of infrastructure. Specifically, participants of a dérive must abandon usual activities and 'let themselves be drawn by the attractions of the terrain and the encounters they find there. For Debord and the Situationists, the act of dérive' was an important tool in their revolutionary project of decoding, appropriating and hacking cultural norms and allowing new situations to arise. In relation to location-based games, the derive and the opportunities afforded by psychogeography connect to the role of play in creating

alternate realities – those imagined by appropriating elements of the urban environment and associating new meanings with them – and play as decoding infrastructure as the player becomes more aware of different layers and systems that make up the nature of cities. A key point in this potential is the creation of new ways of being in the city via this reimagination of the urban environment.

Comparisons have been drawn between *Pokémon Go* and these playful practices of walking but with little attention the intentionality of each (Kriss 2016, Sparrow 2016). While the 19th century flâneur was more of a passive observer of the environment, the activities of both the Surrealists and Situationists had explicitly political and anti-capitalist ambitions with the former aiming to provoke alternate realities into being and the later hoping to hack the codified space of the city. *Pokémon Go* by contrast is not simply politically vacant; its emphasis on competitive collection is intrinsically commodity driven and as such is deeply antithetical to the ideas of both the Situationists and Surrealists. The groups would have found the game deeply offensive to their anti-capitalist positions. Neither does it satisfy the goals of play to create alternate realities – despite Pokémon being connected to real world locations, there is little connection with the site itself, so while it does present an alternate reality, this reality is not blended with features of the urban terrain. Similar observations can be made of other contemporary experiences that frame walking as urban exploration and play, experiences that, while not specifically commercial or competitive, often fall short of the potential outlined by psychogeography. They are limited to physical exercise, rather than deeper psychological engagement with the surrounding environment. The 2004 game *Mogi*, for example, provides collectable items that may take a player off their usual path but does not invite reflection on the experience of moving through urban space in a new way. Likewise, *Shadow Cities* places 'spirits' into the players path who as a mage must defeat them using spells but these are not connected to a sense of place or location but convenient opportunities to collect experience points and level up in the game. *Ingress* creates a stronger connection between narrative and place by appropriating public landmarks and monuments as portals, sources of 'exotic matter' that is a key resource in the game, but again these operate as a backdrop to play. In this case, infrastructure is identified through play but not decoded in any useful way – we see the locations appropriated by the dataset used in the game but not connections or associations between them. Instead they become portals in a network that makes sense in the game world as infrastructure for play but in the process any actual urban infrastructure is obscured. The process of adding a portal (an optional that was suspended in 2015) is perhaps the most interesting in terms of the design of the game, allowing a connection to local environment giving players the capacity to appropriate their immediate reality into the world of the game. It is this capacity to reinvent the world around you that motivated the psychogeographic experiments of the Situationists which raises a key question for game designers – how to translate the intention of the modernist Avant Garde into the language of pervasive game design? So if *Pokémon Go* differs so significantly from the experiences of *flânerie* and *derive* to which it is often compared, where does the history of the game lay?

POKEMON GO AS TREASURE HUNTING

Pokémon Go does have a significant pre-history, but is not found so much in the activities of the modernist avant-garde. Instead, the *Pokémon Go* player is a map wielding treasure hunter whose activities relate more to the letterboxing and orienteering activities of the 1800's. Orienteering - like the requisite maps and compasses it employed – emerged out of military navigation exercises in Försvarsmakten – the Swedish armed forces. This competitive sport for officers began opening up to civilians in the 1890's and by 1897,

the first non-military orienteering competition was held in Norway (Boga 1997, 2). Meanwhile in England, a parallel activity called letterboxing that had begun in 1854 as an underground hobby for hikers on the moors of Devon, was growing in popularity (Montola et al. 32). In letterboxing, hikers were invited to find hidden boxes and leave letters, puzzles, collectable objects and clues for future visitors equipped with maps and compass to navigate unfamiliar terrain. In the early 20th Century, both orienteering and letterboxing flourished on the back of the Scout Movement. By the 1950's, an explosion of cheap but reliable compasses produced during the World War Two rewarded these sports with a colossal influx of technology fuelling their post-war spread across Europe, Asia and North America. Orienteering quickly became widely institutionalised adopted as prescribed activity for schools, universities, backpacker societies, bushwalkers and weekend adventurers. Play evolved in response to possibilities afforded by the environment – maps, landmarks, and cardinal directions. Until recently in *Pokémon Go*, locating items was largely the result of a random walk unless there was a nearby concentration of player activity most locations have an equal chance of leading to opportunities for play. Missions in *Ingress* offer more targeted goals with special events tied to specific locations but largely the games are designed for casual gameplay rather than more strategic navigation of the environment.

At the turn of the millennium, The U.S. government lifted limitations that had been placed on the accuracy of civilian GPS technologies for security reasons. Suddenly the acutely precision of GPS devices saw compasses rendered almost completely obsolete and Orienteering was rebranded as Geocaching. With mobile phones becoming ubiquitious and increasingly taking on locative technologies, a new species of location-based games began to emerge. *Pokémon Go's* closest relatives are found with games such as *ConQwest* 2003 in which had players finding and scanning optic codes to capture territory - and *Plundr*, a game in which Wi-Fi hotspots act as contested spaces for players to battle over. Yet, of the games explored in this paper, *Mogi* remains the earliest example of location-based gameplay using GPS technology. It was introduced to Japan in 2004, a country with easy access to mobile data, and was developed by French-based Newt games. Unlike the predictable locations of resources in *Shadow Cities* and *Ingress*, the locations of items are randomised and have limited availability - leading to covert play to ensure being the first to reach a new item. This has more similarities to the physical constraints of geocaching, rather than the constantly renewable caches of resources common to Shadow Cities and *Ingress*. While integration of GPS into the game world locates the player in relation to cities they live in the worlds created by remapping GPS data and street maps use this as a backdrop to player rather than as a response to the urban environment or as an approach to decoding this infrastructure. These games share more in common with the 'occupation' mechanics of the Foursquare app, where Gateways and Portals may be owned by one of two factions and require players to cast spells or hack them to gain ownership, and ongoing activity by players to maintain ownership.

PLAY AS DECODING/ENCODING THE CITY

In *Shadow Cities*, players own and protect gateways for their faction. These gateways were evenly distributed across the map of each area linked to geographic locations. Gateways visited and owned by the player's faction could be visited later when the player was in another location altogether. This feature allowed a rudimentary remapping of the city as players developed a multi-locational awareness of the network of places they had visited and those currently owned by their faction. As outlined earlier, *Ingress* deliberately encodes the city by appropriating public landmarks and monuments as portals in the game. The act of adding a portal by a player could be seen as an act of

decoding through identifying and photographing the site for submission to the database. *Pokémon Go* reskins this map both of terrain but also the player submitted portals.

While *Ingress* presents a complex and stylised map interface, *Pokémon Go* offer a simple and clean vector map of the same territory into which the Pokémon are placed. Although these "PokéStops" appear to emphasise nearby murals, monuments, and other environmental features, this is largely due to the games reskinning of its immediate precursor *Ingress*. While some PokéStops are located near restaurants and cafes where business owners have paid in-app fees for additional Pokémon to increase foot traffic, *Pokémon Go* generally ignores the real-world environment on to which the game is overlayed. In this way, *Pokémon Go* does not decode existing infrastructure so much as encode it with digital content from the Pokémon transmedia-verse. Here we encounter a central difference between *Pokémon Go* and the history of geocaching activities from which it is derived; it is not the technology used, but the locality in which they were played. *Pokémon Go* is largely practiced in urban centers while geocaching was almost exclusively undertaken in rural and natural settings. The urbanisation of *Pokémon Go* therefore accounts for the evocation of dérive and flâneur in its surrounding discourse, as these activities were also urban in setting. Yet where the dérive and flâneur traverse and - with varying success - attempt to decode the city, *Pokémon Go* actively encodes it. Once again, the urban environment simply serves as a backdrop for play rather than play responding to the environment itself.

The alternate reality presented by the world of *Pokémon Go* is comprised of fragments of the digital Pokémon game franchise transplanted into cities with corporate branding clearly in the foreground and unaware of the specific context and location of play. With the developmental emphasis of the game focused on entertainment and commercial concerns, *Pokémon Go* ignores crucial social, political and territorial codes located through-out physical space, a fact that has led to considerable issues encountered by players of the game (McCartney, 2016). Playing *Pokémon Go* has also highlighted inequities in the experience of city space – and that movement within cities is unevenly experienced and prejudiced by factors including race, gender and ethnicity (Colley et al. 2016; Huffaker 2016). Identical imbalances also arose for the Situationists as, in 1958, Situationist writer and theorist Abdelhafid Khatib carried out a psychogeographical report on the Paris district of Les Halles. At this time, France was at war in Algeria and French Arabs were under placed curfew that saw Khateb twice arrested and detained overnight during his psychgeographic journeys. His report of the study mentions police harassment in light of the curfew against North Africans, yet no mention of this incident was to appear in published Situationist writings, arguably to the detriment of Guy Debord's later work as a game designer. However, the incident and its implications were recorded and examined by Situationist writer and one-time wife of Guy Debord: Michèle Bernstein in texts that emerged via a recent re-examination of her oeuvre. In a caveat that might be well adapted for the rules of play for *Pokémon Go*: Bernstein writes: "While race and nationality are cultural – political – constructs, our psychogeographical experiments have shown that they materially condition our experience of power and the city, the zones of our residence, our work, our play, our movements, even our ability to fully carry out intellectual inquiry" (Gibbons 2015).

A BRAND HISTORY OF POKEMON GO

Given the rich history of pervasive and location-based games outlined thus far, it could appear surprising they have only found popularity through *Pokémon Go*. This success is largely due to the combination of Google mapping software and the brand power of

Pokémon. The technical foundations of *Pokémon Go* can be tracked through the career of entrepreneur and head of Niantic Lab: John Hanke. Through the 1990's, Hanke created and sold a series of successful technology start-ups before founding the geospatial data visualization firm Keyhole in 2001. Keyhole was part owned by the CIA and company's major client base was U.S military and intelligence agencies. The mapping technology that Hanke would later utilise in *Pokémon Go* was first used to support US troops in Iraqi in 2003. In 2004 Google purchased Keyhole for 35 million and immediately absorbed the company - and its CEO John Hanke - into what we now know as Google Earth. For the rest of the decade, Hanke ran Google mapping projects such as street view. In 2010, Hanke formed Google's in-house start-up Niantic Labs. Niantic's first product release in 2012 was an app called Field Trip that provided locative information on museums and historical landmarks. In the same year, Niantic released a gamified version of the same app called: "*Ingress*". While never a mainstream hit, today *Ingress* players note its significant echoes in Pokémon Go: "right down to the important real-world locations that also serve as hubs for players to gain more items and power." (Levine 2015) Although identical at a coding level, the reskinning of *Ingress* as *Pokémon Go* brought a known celebrity brand to the game platform ensuring its cultural legitimacy and commodification. Given the focus of this history has largely been on the development of technology, it is not surprising that design issues are operating in service of technology. The solution sought after here is one that fits any place in the world using map data that is already an abstraction of that world. *Pokémon Go's* capacity to situate play in relation to the urban environment is limited by what is included in this dataset. *Ingress* addressed this to an extent via the actions of players to identify and create portals (and this data was transferred verbatim to the *Pokémon Go* environment). The creation of an alternate reality falls to the players as they change their behavior in response to the actions required of them in the game design of *Pokémon Go*. Some of the more extreme examples of this manifested in the form of multiple players swarming on one location in response to reports of a rare Pokémon creating a spectacle that furthered the Nintendo brand and hysteria around the game.

The partnership with Nintendo began almost two years prior to *Pokémon Go's* release. A short-lived game released on April Fools' Day 2014 challenged players to find Pokémon all over the world via the Google Maps mobile service. Its success in terms of public interest and as a developmental exercise inspired Google and Nintendo toward future projects. Then, during Google's massive reorganization into Alphabet in 2015, Hanke's Niantic Lab broke off as an independent company in a move purporting to allow it to "align more closely with investors and partners in the entertainment space" (Weinberger 2019). Presumably, Nintendo was one of those partners. While largely independent, Hanke is still chief executive and strong ties with Google Alphabet remain. As such, these games represent a highly successful proof of technology that opens up new possibilities for location-based game design. In themselves, they contribute to the infrastructure of urban environments by opening up its mapping systems for play. However, further work is needed to frame this play within the context of exploring the relationships between digital mapping systems and the physical and layered terrain of urban infrastructure. In that way, richer alternate realities may emerge that blend digital entities and creatures in ways that respond to, and augment their environment. While this may be outside the scope of a global dataset, perhaps possibilities for re-encoding urban environments could be part of the remit of players which in-turn would lead them to both play and reflect upon urban infrastructure as occurred in the photographing and naming portals in the early days of *Ingress*. Such opportunities may already reside within the narrative framework of the Pokémon franchise.

RECODING NATURE ONTO THE CITYSCAPE

Although Pokémon was a substantial transmedia franchise prior to its realization as location-based game, the property was always intended for spatial interaction. Its inventor Satoshi Tajiri developed the original Pokémon game and story-verse in 1996 for the then leader in mobile gaming platforms - the Nintendo's Game Boy. With Pokémon, Satoshi wanted to evoke his own childhood experiences of growing up in rural area outside Tokyo where he would run around collecting insects in the rice paddies, rivers and forests. These natural environments of play had been gradually lost to the encroaching city to be replaced by roads, shopping malls and game arcades. The original game design was an abstraction of nature into an alternate reality that responded to the environments it represented by capturing them in rules and systems – the 'infrastructure' of a natural environment. In a Time magazine interview in 1999, Satoshi recalled:

"all the insects were driven away… Every year they would cut down trees and the population of insects would decrease. The change was so dramatic. A fishing pond would become an arcade center." (Satoshi 1999)

With Pokémon Satoshi aimed to recreate ecologies of insects like those that had deeply fascinated him in the virtual world of a game and to invite young players to collect them all. Satoshi had brought into being precisely what Debord had reviled: a version of reality in which: "everything that was directly lived has moved away into a representation." This representation of a lost reality grew and became reinforced as Pokémon has swept across Japan, the U.S. and beyond with franchising and transmedia spinoffs including comics, trading cards, a TV series, several movies and more games. This phenomena by which everything that was once lived actually is now virtualised and monetized perfectly constitutes Debord's notion of the spectacle - the corporate takeover of all lived reality and social relations into a set of participatory clichés to serve commercial and branding interests. The result is the total commodification of every aspect of life. Debord never uttered the term neoliberalism, but his ideas pinpoint it. Or as Debord himself put it: "Everything that was directly lived has moved away into a representation" (Debord, 1967, p. 1)

Ironically, the original Pokémon Game Boy game recreates this experience more effectively than *Pokémon Go*. Despite the inclusion of Augmented Reality to situate Pokémon within the video feed from a player's mobile phone camera, the alternative reality presented by the game feels separate and disconnected from the situational context of being outdoors. *Shadow Cities* and *Ingress* both present cohesive alternate realities although again these are quite separate from the real world in which they are situated – the most meaningful collision of these two worlds occurs when players become aware of each other as being keyed into the same alternative map of the world. The design of *Mogi* actively encouraged players to hide their activities from one another as they were individually competing for the same items. So, the starting point for encounters and situations that effectively mix realities is there but despite the popularity of games like *Pokémon Go* the design of these games has not yet found the 'sweet spot' between creating another world and mapping that world into the city in meaningful ways.

CONCLUSION

Taken from the perspective of pervasive game design and its precursors, *Pokémon Go* misses the point. Rather than decoding infrastructure or appropriating its environment and giving it new meaning, it encodes it for design efficiency and convenience. This accounts for the unconvincing alternative reality presented by the game, despite the rich

Pokémon game world evoked Satoshi's original intention. While the game does bring its players into contact with urban environments, activity is still largely screen based so any connection is fleeting and superficial.Nonetheless, as a vehicle for establishing a mainstream platform and awareness for pervasive game designers, *Pokémon Go* represents a major achievement. While the game has colonised the urban landscape with a pantheon of Nintendo's corporate iconography, it is has also appropriated that space for play. The range of acceptable behaviour in cities has expanded to include play not only on mobile devices, but play that connects the mobile screen with the urban environment. Now that that everyone is watching this space it is time to explore its other potentials – of which there is a rich history to draw upon.

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