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Is Pokémon GO Feminist?

An Actor-Network Theory Analysis

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ABSTRACT

The Pokémon franchise has been targeted and has been successful with males and females (Tobin, 2004). In it, cute-looking creatures with superpowers fight each other for the fame and glory of their masters (the players). The franchise includes a plethora of entertainment media. This essay will focus on the recent release, *Pokémon GO*. This particular game and its location-based technology will be analysed using cyberfeminism and actor-network theory to explore the play space as a context for kinaesthetic awareness and embodiment. The cyberfeminism herein exploited is that of "the utopian tradition of imagining a world without gender" (Haraway, 2000, p. 292). Actor-network theory, a strong

methodological tradition in science and technology studies, sees actors and the networks they create as completely ‘flat’ and non-hierarchical. ANT has been criticised for its lack of concern with politics and gender (Lagesen, 2012) but, in combination with a feminist lens, ANT has the potential to uncover issues that other approaches in game studies cannot. This original framework can help game studies scholars to see gameplay processes in a new light by following the many actors involved in game design and use.

Keywords

Pokémon, actor-network theory, feminism, gender, location-based game, augmented reality

INTRODUCTION

Pokémon GO (Niantic, 2016) is a location-based, augmented reality online game for smartphones. Based on the narrative of the original Pokémon games (Game Freak, 1996), it puts the player in the shoes of a Pokémon master whose goal is to explore the gameworld to collect Pokémon (creatures with special fighting powers), train them, and take them to ‘gyms’ to battle against other masters’ Pokémon. In *Pokémon GO*, the gameworld overlaps with the physical one due to its location-based features. Using GPS, the game draws a map similar to the player’s current location, adding to it ‘pokéstops’ where the player is encouraged to go in order to collect game items which aid game progress. These locations can be monuments, local landmarks, or businesses and other sites of local interest.

Pokémon GO, however, was not the first location-based, augmented reality game. *Ingress* (2012), Niantic’s debut title, paved the way with similar mechanics, and was also successful, reaching 20 million downloads across Android and iOS (Webster, 2017). Designing a game based on the Pokémon franchise, though, changed that figure into 750 million.

Pokémon GO, thus, having been a huge success since release, attracted both praise and criticism. Mainly, the location-based feature created worries that players would be lured into dangerous places or situations[1234]. Some of those situations were hoaxes, but some were not; the developer did fail to predict such problems related to the play space.

Dangerous gameplay or not, hordes of gamers got out of the stereotypical basement and took it to the parks and landmarks around the world to catch imaginary "pocket monsters". Thus, understanding the intersection of gender and spatiality becomes timely. To do this, a new theoretical framework is presented herein, borrowing from science and technology studies. Some important critical thinking was published on social media by academics (Velloso & Carter, 2016a; Velloso & Carter, 2016b; Phillips, 2016), but *Pokémon GO* has not been addressed as a feminist study of technology.

Cyberfeminism is mainly concerned with the cyberworld (Consalvo, 2002), however, *Pokémon G*O juxtaposes this with the physical world. Thus, where cyberfeminism lacks the appropriate tools to analyse physicality, I therefore adopt actor-network theory (ANT), a methodology that allows us to 'follow the actors' (literally in this case), analysing links among the network created by the artefact (the game).

This paper argues that ANT can be useful to game studies to uncover these unusual relationships between human and nonhuman actors. Additionally, when combined with a feminist theory, it can overcome its most damaging critique – a flat ontology that ignores gender and power dynamics.

1. http://www.smh.com.au/technology/smartphone-apps/pokemon-gos-unexpected-side-effect-injuries-20160710-gq2squ.html
2. https://www.kotaku.com.au/2016/07/pokemon-go-trainers-please-dont-wander-into-the-police-station/
3. https://www.theverge.com/2016/7/8/12132746/pokemon-go-teen-discovers-dead-body-wyoming
4. https://www.theguardian.com/technology/2016/jul/10/pokemon-go-armed-robbers-dead-body

The game will thus be discussed along with implications for the gendered gameplay experiences, and embodiment through the views of cyberfeminism, while adopting the actor-network theory method. The paper will thus enrich the games studies field by using an original framework to analyse a popular mobile game, looking at its cyberworld (user interface, game screen) and its translation into the physical world (location-based features).

INTRODUCTION TO ACTOR-NETWORK THEORY

Technology studies, as a discipline, is inherently multidisciplinary. It includes works from anthropology, history, science and politics. In its very definition, however, technology studies are concerned with the social, historical and political context in which technologies are developed and used.

Actor-Network Theory (ANT) has been controversial and, curiously, its name has been criticised by one of its strongest proponents, Bruno Latour (2005). Rather than a theory, he proposes that ANT is a methodology; a way of doing sociological research. The main requirements for doing research with ANT are: to take a neutral stance regarding the many actors involved in the phenomenon (human or otherwise), avoid biased views as to what is true or false, right or wrong, and start off from a theoretical tabula rasa (Dudhwala, 2015). The most controversial aspect of ANT is its ‘flat ontology’, which abolishes the macro/micro level of actors, thus attributing equal agency to all, whether human or not. This includes ignoring gender dynamics and power relations among those actors.

Thus, it would seem like attributing sentience to non-human actors such as videogames, albeit temporarily, could prove useful in the videogame development phase. During the playtesting phase, utilising the ANT method would allow developers to foresee potential hazards in gameplay. Let’s now take a look at a feminist theory that would complement this exercise.

INTRODUCTION TO CYBERFEMINISM

Cyberfeminism was a movement in the 1990s which had its origins in the academic discipline of technology studies, when feminists reacted to their technophobe predecessors (Kennedy, 2000). It was a reaction to notions that technologies belonged to a masculine culture; e.g. the microwave oven was first marketed as a brown good (such as televisions or audio equipment), for men (Cockburn & Ormrod, 1993; Consalvo, 2002) because it was a new technology and men would be 'naturally' suited to understand and use it. This, of course, ignored the domestic sphere where women were tasked with food preparation responsibilities. Soon after, microwaves started being marketed as white goods, along with other kitchen accessories and food preparation tools.

With the advent of new information and communication technologies (ICTs), feminist scholar Sadie Plant (1997) was inspired by the possibilities she saw in cyberspace, which seemed to abolish traditional gender roles, liberating women's bodies and identities as passive and nurturing creatures. Ironically, Plant was criticised for essentialism, seeing cyberspace as the perfect environment for women to thrive in, because of its femininity, expressiveness, and sociability (Lagesen, 2008).

Cyberfeminism, however, cannot be defined by the views of one author only, and many different views (and generations of feminists) have contributed under this concept (Wildling, 1998). As mentioned above, one of the first authors to write about cyberfeminism (Plant, 1997) was criticised for defending an essentialist view of women. Critics maintained that the only way to confront the gender divide in technology was to call all women to use it, especially ICTs and the cyberspace (Daniels, 2009). 'All girls need modems' was a motto of this group, who were, in turn, criticised for presuming all women could afford them. Following this, a younger and technology savvy group of writers turned their cyberfeminist efforts to encourage women to be more active in the technology industry instead of mere users (Consalvo, 2002).

Standing somewhere in between, some cyberfeminists believe that encouraging women to use technologies (digital ones) and the cyberspace in general, will improve diversity in its development (Cherny & Weise, 1996). Unfortunately, this does not seem to have improved women's standing in certain technological industries (such as videogame development) in the past few years (D'Anastasio, 2015; Duggan, 2015; Clercq, 2016; Sinclair, 2016). Others, however, acknowledge that equity in numbers is not the most important aspect of change. Wajcman (2004), for instance, defends a more political and action-oriented approach, rather than mere interaction with technology.

Given that cyberfeminism was primarily concerned with the cyberworld, this paper will map Sadie Plant's views about democratisation onto *Pokémon GO*'s gameplay. Additionally, the later perspectives will help us analyse how female gamers are interacting with the game and its play space.

Having described the theoretical framework and methodology to use, this paper will now proceed to analyse the gameplay implications of *Pokémon GO*. First, it will look at the game through the cyberfeminist lens and then combine it with ANT to ponder on gameplay procedures, looking at controversies that happened when the game was released last year.

CYBERFEMINIST ANALYSIS OF POKEMON GO

The marketing of Pokémon may be described as gender-neutral or ambiguous. Indeed, the franchise (videogames, anime and trading card game) has been seen to attract both boys and girls from a very young age. The most gendered aspects of the Pokémon world include the human characters and the cute creatures that the player needs to collect. They are described as monsters, but physically look adorable and inspire caring and nurturing actions (Allison, 2004). On the other hand, they are fiercely strong and their role in the game (besides being collected) is to fight each other. This inclusion of both gendered aspects (nurturing

and fighting) may explain the franchise's immense success throughout generations; its first release was in 1996. It was not marketed to a particular gender, which is a smart move that can potentially double sales (Tobin, 2004).

Referring back to the cyberfeminist lens that encourages women to actively participate in the development of technologies and not just use them passively *(Daniels, 2009)*, one could point out that Pokémon has been a success among people of all genders despite having been developed by a male and, as with most of the videogames industry, a male dominated team *(Crunchbase, 2017)*. Even though it is true that the gender gap in the videogames industry is still large *(Maggs, 2017)*, it is also true that many titles are now embracing diversity of representation and experiences. The sheer number of female gamers (41%, according to the Entertainment Software Association, 2017) shows that (predominantly male) game developers can still appeal to female gamers' interests. A fascinating example is the first-person shooter, Overwatch (Blizzard, 2016), which was praised for the interesting female playable characters which attracted double the usual number of female gamers for that specific genre *(Au, 2017)*.

Gender representation

Even though the original author of Pokémon is a male, the franchise always targeted children of both genders *(Tobin, 2004)*. Indeed, though the game's protagonist is Ash, a boy, there have always been female characters in the various videogames, albeit some non-playable until the release of Pokémon Crystal in 2001 *(Bulbapedia, 2017; Hernandez, 2016; Quiescence, 2014)*. Besides, although the Pokémon have ambiguous gender markers, the game aptly deals with gender by creating complete separate species to give them gender. In the case of Pokémon GO's first release, the only gendered creatures are 'Nidoran ♂' and 'Nidoran ♀'. In the main games' series, the creatures have three options, female, male or unknown; this is mainly to support the breeding game

mechanics (Bulbapedia, 2016). Pokémon GO eventually got an update seven months after the release to reflect this and started showing a gender for each creature caught in-game.

Thinking more specifically about ‘cyberfeminist utopia’, it should be pointed out that Pokémon GO enjoys gender-fluid characters. The leaders of the three teams a player can choose to join at the start of the game *are very androgynous (F*igure 1) [5]. Furthermore, the game asks the player to “choose a style” rather than gender or sex, which has been praised as a great achievement for gender-fluid representation in games (Rose, 2016). Nonetheless, the interface only has two options, which, regardless of gender-neutral clothing, are still easily identifiable as male and female, reinforcing binaries found in gender stereotypes. The change of language adopted seems to have been the result of a petition by fans, and also the impact of a very popular game – The Sims 4 (Electronic Arts, 2014) – having added a gender-fluid option to its avatar creation process (Rose, 2016).

5. Fanart credit to Mistiqarts, https://mistiqarts.deviantart.com/art/Pokemon-GO-team-leaders-626240654 reproduced with permission.

Figure 1: Team leaders in Pokémon GO

While the fans seem to be happy that Pokémon GO developers heard their pleas not to force them to identify as a certain gender (Denham, 2016), it remains that the body of the avatar is visible most of the time during exploration of the map. This underpins embodiment into something that non-binary, third gender, agender or those who disagree with the binary gender system, may not be comfortable with, because they do not feel represented. Avatar embodiment has been thoroughly discussed in games studies literature, and has been said to be inevitably linked to gender identities and performances *(Crowe & Watts, 2014; Todd, 2012)*.

A central argument of cyberfeminism was to embrace new technologies to destroy the gendered barriers that allowed microwave ovens to first be marketed to men, and then be a success among women. Pokémon GO shows that, even though it was a success among both, it still can neglect sections of the population. Evidence of non-binary individuals using videogames to try and feel represented has been increasing exponentially

(Detey, 2017; Morse-Noland, 2017), though very little of it has had scholarly attention, focusing mostly on sexualities rather than gender identities *(Shaw, 2015)*.

In addition, there is no diversity of bodies within the spectrum available. The avatars (as well as the team leader characters) follow a prototype of bodily fitness which, although matching the gameplay activity portrayed and necessary to progress the game (walking around), it demarcates a slim, attractive ideal of beauty standards perpetuated by the beauty industry *(Stone, 2017)*. On one hand, when choosing a female avatar there is no option to wear a plain tracksuit, which would fit the type of activity. All the clothes available are very tight fitting, which may look and feel uncomfortable for those with different body types than what the game avatars have. This sportswear style, specifically over-the-knee socks, is hyper feminine, and thus a clear gender marker. On the other hand, the male avatar has no choice of skirts, playsuit or sexy socks, as his female counterpart does. In Fallout 4 (Bethesta, 2015), any character can wear whatever piece of clothing available, irrespective of their gender. The male avatar in Pokémon GO is athletic and muscular. Although this analysis focuses on gendered representation, let us not forget disabled individuals who still participate in Pokémon GO by moving themselves by any other means necessary (e.g. wheelchair, crutches, public transport).

Pokémon GO: cyberfeminist utopia?

*N*ot allowing customization into a more androgynous look (or simply a gender-fluid option such as The Sims 4 allows) does not liberate individuals from the binaries lived in the stereotype-enforcing cis-gender world, something for which Sadie Plant's cyberfeminism strives for. Another aspect cyberfeminism aimed for was democratization of the cyberworld through liberation from our physical bodies. This was based on the anonymity allowed by the internet, the genderless utopia Plant talked about *(1997)*. Even though Pokémon GO definitely allows for

anonymity (one has to register to use the game through an email address, but no real name policy is put in place), the nature of gameplay forces the player to step outdoors. This overlay between reality and cyberworld obliterates the anonymity curtain. The game forces the player to step outside and embody the 'trainer' (name given to the player inside the gameworld), walking around in their own skin, with the possibility of being spotted by other players. Indeed, the movement required of players, i.e. to swipe their finger on the smartphone's screen, is easily spotted, in addition to the bright colours on the screen. Given the game's success since its release in July 2016, it can be quite easy for non-players to identify others playing, either in groups or by themselves. This has had an impact in gameplay experience for players and also non-players, who could notice groups of players crowding near Pokéstops and in-game Gyms *(Oakley, 2016)*.

Player visibility can also be correlated to the number of hours played. Although there is no hard data about the amount of time players spend in Pokémon GO, one can deduce that women play just as much as men, given that they account for nearly 40% of players *(Dogtiev, 2017)*. One interesting paradox, however, is in Pokémon GO's genre (mobile, and thus casual) and its theme/content being part of geek culture, which is associated with hardcore (male) gamers. Games developed for smartphones are usually, implicitly, 'casual games', e.g. Candy Crush Saga (King, 2012), and this genre has been historically associated with female gamers, because they demand low investment of time and skill (Bogost, 2007; Juul, 2010). This myth has, however, been debunked, as it has been found that casual gamers can spend just as much time playing as hardcore ones (Lewis & Griffiths, 2011), and there are just as many men as women who play casual games *(Jenson & Castell, 2015)*. This also echoes the notions early cyberfeminism tried to confront; that women are less capable of engaging with technology; this has also been debunked in massively multiplayer online games research *(Shen, Ratan, Cai, & Leavitt, 2016)*. Besides, at one point this summer, there were more female Pokémon GO players than male ones (Mac, 2016).

Indeed, the game's outdoorsy features encourage recognition and interaction among players in the offline world, which may encourage female gamers to meet and form bonds. This may, in fact, be Pokémon GO's biggest achievement for female gamers. It has been shown that women refrain from identifying as gamers, usually due to the strength of the male gamer stereotype, and for their own perception as being part of a minority amongst gamers (Assunção, 2016; Beavis & Charles, 2007; Consalvo, 2012; Duggan, 2015). Knowing other female gamers has been mentioned as an important step in accepting and assuming a gamer identity.

Even though the game can be considered gender-neutral because it has been a success among both genders, this does not completely illustrate the original cyberfeminist's dream of a genderless world (Haraway, 2000). As mentioned, the gender binary system is well entrenched while players choose their "style" (gendered avatars). Even though styles do not come with prescribed actions (e.g. first versions of The Sims did not allow male avatars to become pregnant), the game mechanic requiring players to step outdoors and walk increases kinaesthetic awareness, ensuring embodiment and immersion in the game (Peters, 2016). Although this is a typical feature of many popular videogames, the third-person view encourages identification with the visible avatar. This means that the discomfort of using an avatar that does not represent oneself, and playing this game outdoors, may be exacerbated by the forced embodiment with the constantly-visible avatar. Curiously, Shaw (2015) in a series of interviews with minorities who are under-represented in videogames, found that many enjoy playing those games where they do not identify with playable characters.

Avatar identification

One potential benefit of enhanced kinaesthetic awareness is the aforementioned identification and interaction with other players. One anecdotal example is a potential learning process that can happen when

one player notices another using different gestures on the smartphone's touchscreen to better catch a certain Pokémon. Again, this is a very important aspect for female gamers; given that they rarely identify as gamers, hindering their interaction with others, it has been often cited that their main introduction to games are male friends, partners, or family members (Butt, 2016; Shaw, 2011). As with other aspects of life (careers, education, entertainment), having similar role models is essential to choosing a path.

Myths such as those abovementioned, women do not belong near technology, and they should not be playing videogames, can thus be discredited if female gamers are more visible, and Pokémon GO does just that. Thus, if women are able to see others playing a game and enjoying it, it might be easier to literally 'come out' as gamers and be liberated of traditional gender roles and stereotypes.

This analysis has helped us understand Pokémon GO in a feminist light, concerning individuals' roles in technology development and use. It allowed us to see how gender in the game was thought through development, and how it can be experienced by players.

On one hand, we have Sadie Plant's view that the very characteristics of the cyberworld welcome women for their femininity, will swiftly fit in. On the other hand, later cyberfeminists were concerned with women's place in game development, technologies' narratives and outcomes. It can thus be said that Pokemon GO has some feminist aspects instilled in gameplay and user interface, but some problems remained unresolved. By analysing Pokémon GO through this lens, this paper uncovered the issues lying beneath the shiny colours of the game, and potential future research avenues in the intersection of non-binary representation, location-based games, and gamer communities.

The above cyberfeminist analysis of the game is incomplete because it is too narrowly focused on the micro-level analysis of the gaming experience, focusing on the cyberworld i.e. game interface. ANT will aid

this analysis by looking at the location-based implications of Pokémon GO's gameplay, while, at the same time, aggregating the conclusions from the cyberfeminist analysis.

ANT ANALYSIS OF POKEMON GO

Because ANT attributes agency to all actors in the same network (human or otherwise), it is a useful exercise in games studies, given that the artefact itself is seen as having agency, thus making its players perform certain actions. This would not be doable with a purely feminist approach to technology because it would ignore the game's strategy to replicate and spread its play space.

ANT as a methodology allows us to take a neutral stance towards an artefact and the networks it creates, ignoring power dynamics. The disregard of gender issues by ANT has been criticised by feminist scholars in technology studies (Quinlan, 2012). Indeed, because ANT treats all actors equally, it ignores power relations that, for example, erase women's achievements in STEM disciplines because of the difficulties presented in joining those careers where they weren't always allowed (Casper & Clarke, 1998; Lagesen, 2012). Because ANT researchers start from a 'blank slate', they do not take into account existing frameworks in which actors act the way they do. Attributing it all to their own agency ignores the social construction of their own identities and thus, the context in which they were built and their performances practiced. For instance, while it is true that the game's agency acts to encourage interaction between local businesses and gamers, it also overlooks women's interest in playing the game, allowing for their identification as gamers. Although identification with peers who share the same values and hobbies can increase self-esteem (Beavis & Charles, 2007; Shaw, 2011; Consalvo, 2012), it can also harm them by exposing them as gamers. Indeed, the game ignores the barriers women face when engaging in this type of activity (gaming), which is widely known to provoke harassment in online games (Fox & Tang, 2014; Fox & Tang, 2016). Given *Pokémon GO*'s location-based gameplay, this can

have a whole new set of implications for female gamers, the intersection of gaming-based toxic behaviour with the physical world where they are already victims of harassment, and worse (Flores, 2016).

There are many actors involved in *Pokémon GO*; the game; the game developers; the players; the non-players; 'gamers' who do not play *Pokémon GO*; the street businesses; Pokémon fans; social media; and others. Each one of these comprise, by themselves, their own network, in which *Pokémon GO* has entered and established itself as an obligatory point of passage. The example provided by Latour in his study of Pasteur's efforts to translate his discoveries about anthrax disease (1983) explains this very clearly. Before Pasteur's agency in actively joining the different interest groups (farmers and microbes), there was no link between them. The same has happened with the game mechanics provoking *interessement* between the game (and its players) and local businesses; e.g. cafés or shops that the game determined would be a pokéstop, or a gym, both very important for the game's progress. This increased the foot traffic around these places which, in turn, may have increased sales as people tend to stick around these locations while playing[6]. This has been shown by the overwhelming response Niantic (the game developer) got from businesses requesting that their locations be made into pokéstops and gyms. The following paragraph will explain how the location-based feature creates networks of *interessement*.

The game translates the physical world into a gameworld. Beyond the mobility of smartphone games that can be played anywhere and at any time, if there is a network signal, *Pokémon GO* juxtaposes and converts one into the other due to this augmented reality technology. Although it is optional to overlap the camera functionality with the virtual creatures in the game while trying to catch Pokémon (**F**igure 2), the game still draws a map representative of the player's position. Images such as these flooded the internet as players found the feature fun to use. This worked as a marketing tool (word-of-mouth), and invoked interest from

6. https://www.inc.com/walter-chen/pok-mon-go-is-driving-insane-amounts-of-sales-at-small-local-businesses-here-s-h.html

individuals who were not previously Pokémon fans. Some have pointed out that this is actually unnecessary, since it does not affect gameplay (Carter, 2016).

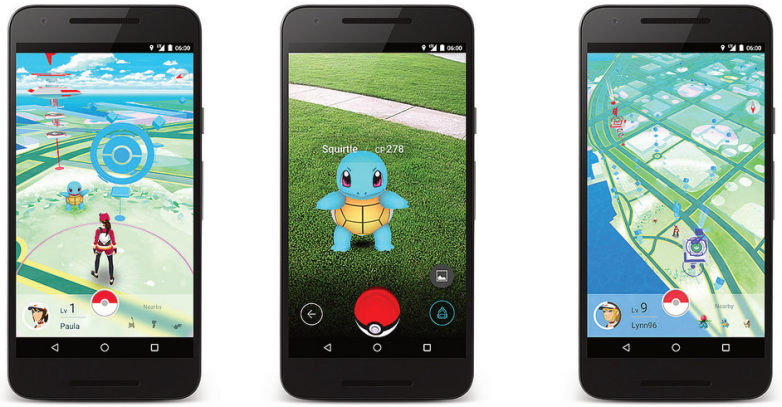

Figure 2: Pokémon GO screenshot on social media

Social media had a big impact on the game's reach, especially due to the abovementioned depictions of gameplay, which were replicated in memetic form. Social media and memes have been described as having agency when it comes to spreading information and replicating cultural phenomena (Richards, 2002). Memes, like genes, want to replicate; social media thrives on word-of-mouth and memes, evidenced by the 'trending topics' constantly visible in the ever-popular Facebook and Twitter spheres (Kairam, et al., 2013). Through the ANT lens, one can assume that social media and memes as structures definitely have some credit in the game's success and how it was socially constructed as a meme itself. Because of its innovative features, it attracted new populations (such as non-gamers and those who were not Pokémon fans). Like *Farmville* (Zynga, 2009) engaged an unprecedented number of female players (Shaw, 2011), *Pokémon GO* (and the many networks it created) replicated itself, spreading its powerful will to replicate.

Controversies

The developers failed to predict that the nature of gameplay rendered the game space, or play space, completely open-plan. The translation process rendered the activity of play almost impossible to limit physically or temporally. Another casual, simple, and readily-available game has had similar impacts and been impacted on by player-actors. *Flappy Bird* (Nguyen, 2013), also hugely successful, was taken off digital stores by its own creator a few months after release because its players became too addicted. The game's mechanics produced too much frustration (it was very hard to beat), and thus Nguyen, the indie developer, took it down because he could not manage the fame and negativity of the frustrated players (Kushner, 2014).

Similar negativity has surrounded *Pokémon GO* for its abovementioned availability. Firstly, the translation from the physical space into play space takes players to a time before videogames existed, when children played more outside (Fullerton, et al., 2007), which should not count as a negative thing. Indeed, one of the ironic outcomes of its success is that the game takes players outdoors, something which has been videogames' main criticism ever since they became popular as stationary virtual worlds on home PCs and consoles. However, this seems to have been a double-edged sword, for its far-reaching (Earthly) gameworld means that there are no off-limit areas. Unlike traditional digital games, where maps are finite, *Pokémon GO* players reportedly entered dangerous areas, private property, found corpses, and were victims of various accidents due to lack of attention while playing[7][8][9]. At least one blog was created specifically to document depictions of gameplay at funerals.

Similarities between ANT and the performativity of gender (Butler, 1990) cannot be ignored. In a paper exploring ANT's potential to study

7. http://www.syracuse.com/us-news/index.ssf/2016/07/pokemon_go_dangerous_every_crime_accident_death_shooting_linked_to_game.html#0
8. http://pokemongodeathtracker.com/
9. http://pokemonatfunerals.tumblr.com/

gender, Lagesen (2012) highlights how certain artefacts interrupt or complement a translation by introducing themselves in women's networks where gender is being performed. Women and men have the same agency in their performances of gender; both want to reinforce their gender identities in order to belong to the larger group, obtaining both status (the better performance, the better status) and certainty (confirming their own gender identity). Actors are thus genderless, for gender is a social construct. Actors acknowledge gender as they perform it. Artefacts are socially constructed, and thus reflect some gendered aspects of their developers; e.g. the I-methodology used in videogame design, which means most developers are male and create games for themselves (Oudshoorn, et al., 2004; Kirkpatrick, 2013). Even though Pokémon's mastermind is male, it appeals to young children of all genders.

ANT may not have been intentionally developed to be feminist, but it has the potential to be, as it allows for an equal analysis of all actors and the relationships among them. It eliminates inequalities and biases as a methodology, which seems to be highly appropriate for qualitative studies, where researchers come closer to their object of study. By ignoring the difficulties female gamers may have in identifying themselves as gamers, one can find how they are connecting to the network created around *Pokémon GO*. Ignoring the social construction of mobile games as casual, easy games, which are usually preferred by women, one can clearly see they are played by all genders in much the same way. Media outlets still try to reinforce the idea that mobile games are meant to "kill time", which in itself reinforces the notion that videogames are not a worthwhile endeavor. For instance, in a web article that cites a statistical study showing that *Pokémon GO* players consist of more males than females, the author asks, "Does it mean men have more spare time to kill on the game than women do?" (Dogtiev, 2017)

CONCLUSION

The present essay described *Pokémon GO*, a location-based, augmented reality mobile game with a 20-year old franchise history and a huge following. The game's gendered implications were discussed in relation to the cyber, and the physical world.

From a cyberfeminist perspective, the argument can be made that *Pokémon GO* has some feminist concerns for inclusivity and equality. It was found to have some desirable elements that deconstruct gendered practices. For instance, the game employs gender-inclusive language by allowing players during avatar creation to choose "a style", not a sex or gender. Nonetheless, after careful analysis, the present paper argues that the players have limited choices in avatar design (e.g. clothes available differ according to "style"). This means the game still has gendered binaries inscribed in its design, which can be quite limiting for non-binary players to feel represented. Indeed, the aesthetics of the player avatars are not as gender-fluid as the characters comprising the Team Leaders, which have androgynous bodies and very few gender markers.

Nonetheless, the analysis of this popular mobile game would be incomplete without juxtaposing the game's interface with its location-based gameplay. This paper therefore employed a popular science and technology study method, the actor-network theory, making use of its potential to look beyond gender constructs and analyse play space implications. The analysis showed not only the potential to use ANT in a feminist framework, but also the two perspectives' potential to uncover gendered issues in gameplay experiences. Indeed, even though it is an online game, players cannot remain anonymous due to its outdoor gameplay. One of the issues uncovered herein was female players' visibility, given that gameplay is easily spotted due to body movements and the user interface. This can be a positive thing for female gamers, who usually refrain from identifying as gamers (Shaw, 2011), because the game exposes their activity (e.g. bright screen, visible hand motions). On the other hand, they seem to avoid that identity sometimes due to

the prevalence of harassment of female gamers in online games (Fox & Tang, 2014). Future research into this aspect of *Pokémon GO's* gameplay and its female audience should reveal implications for gamer identity, visibility and whether outdoors gameplay is constructed as a sport activity.

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