



## **Pokémon GO and Placemaking**

### *Positive Side Effects of Using Augmented Reality Applications*

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It has been argued that technologies blending multiple realities are “enhancing” when people proactively “make and share” rather than simply consume as users. (Applin and Fischer 2011:1) This paper reports on a small scale visual research project that explores the recent global phenomenon *Pokémon GO* as medium for augmenting reality. Data was collected using an online questionnaire and phone interviews with several members of the ‘Pokemon GO Bathurst’ Facebook group. Some common themes of augmentation that surfaced include an enhanced appreciation for physical nature, increased wellbeing through greater exercise, and aesthetic appreciation for blended reality images. An experimental video accompanying this research – using audio recordings of the interviews and images of Bathurst environs captured with a 360 degree Virtual Reality camera - illustrates and explains the main ways that *Pokémon GO* changed and augmented reality for users.

The findings strongly suggest that technologies used in *Pokémon GO* can make substantive changes to place and meaning of place, and that they can meet anthropologists Applin and Fischer’s (2011) proactive criteria for enhancement, to make and share, not just consume. Importantly, this short project provides evidence that for some people *Pokémon GO* can be a catalyst for positive physical and social experiences that they would have otherwise been unlikely to participate in. The project concludes with a model suggesting that future designers consider the potential benefits of including bodily and social, in addition to pro-activity, for enhancing augmented reality experiences.

The findings contribute new evidence concerning the largely unexplored overlap between two anthropological fields - Space and Place Research, and Augmented Reality – and suggests value in focus on the bodily and social in augmented reality research.

#### 1 Introduction

Just ten days after its launch when this research began, the mobile game *Pokémon GO* already had millions of active users, and businesses, political groups and governments were trying to figure ways they could use it for strategic ends. *Pokémon GO* is a free-to-play location-based augmented reality (AR) game in which users are required to physically navigate and explore their own physical environments to progress through the game. This research was led by an interest in understanding

to what extent place-making was occurring, because *Pokémon GO* encourages users out into their physical surroundings and attaches in-game meaning to real landmarks. That is, *Pokémon GO* integrates the actual physical surrounds of the user with the virtual on screen world. For example, as the user physically walks down a street whilst playing *Pokémon GO*, their avatar walks down a virtual representation of that street in the game.

When discussing *Pokémon GO* as augmented reality, Keogh (2016) summarises the difference between ‘augmented’ and ‘virtual’ reality by saying “VR aims to put the player in the videogame; AR aims to put the videogame around the player.”<sup>1</sup>

The research focused on ways that people interact with place and other users through the technology. It draws on Low’s (2009:22) suggestion that “anthropological theory of space and place needs to be process-oriented, person based, and allow for agency and new possibilities.” It also draws on a more recent call by Applin and Fischer (2011:1), they argued that new technologies that blur or augment realities must “increase peoples’ capacity to continue to make and share rather than simply depend upon these for consumption”, or “humans are in danger of functioning more as data generating objects than as active integrations of a physical and virtual reality.” Consequently, the research has a special interest in ways that people use the technology actively and creatively to ‘augment’, to enhance, their realities through making and sharing.

Anthropologists Low (2003; 2009:27) and Ingold (1993:155-156) say that the role of the body, due to its inseparable connection to both space and landscape, is crucial in studying the process of place-making. The body was very important to this project. Particularly because previous discussions had failed to adequately address whether the use of new reality-blending technology such as AR might alter the definition of ‘body’ and thus of place-making within anthropology.

This research and the recent phenomenon of *Pokémon GO* are important because they address human dimensions of what appears to be the first popular use of augmented reality on a mass scale (Keogh 2016; Holland 2016 a.b), with a range of physical world consequences, and in ways that had previously defied categorization. Further, in combining these two fields - space/place and augmented reality - it promised to improve understanding where presently there is a significant gap in anthropological research. The project brings together theory that deals with space and place (such as Low 2003; 2009; and Ingold 1993), and theory that focuses on current and future reality-blending technologies such as AR (such as Applin and Fischer 2011).

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<sup>1</sup> A well-known example of an ‘Augmented Reality’ application is a GPS or *SatNav*, where streets and locations are represented virtually on a screen as a car or user moves through physical locations. An example of ‘Virtual Reality’ would be viewing a visual world virtually through a headset product like *Oculus Rift* or *Google Cardboard*.

## 2 Method

The research question at this heart of this project was:

In what ways does *Pokémon GO* allow for placemaking and meaning to be produced? This project was exploratory and I chose and created a qualitative approach to the study in three stages: questionnaire, interviews, and visual representation. The site for my research was Bathurst, the familiar place of my birth and youth, a city of 35000 people in regional NSW, Australia.

### 2.1 Questionnaire

I joined the *Pokémon GO* Bathurst Facebook group and asked some members if they would respond to a short questionnaire with open answers. They responded positively and on August 5, 2016 I posted a link to an online questionnaire of eight questions hosted by *SurveyMonkey*. The line of questioning deliberately avoided leading respondents, preferring to allow respondents to spontaneously select concepts and vocabulary of their choice and importance. To this end I used general openings such as: “Can you tell me about your experiences?” and “Could you describe the positive and the negative?” (Denyer-Simmons 2016 a)

The Facebook group had about 330 members after just a few days and was an open, positive space where members share information about local spots of significance to *Pokémon GO* or memes and general chatter. (*Pokémon GO Bathurst Facebook Group* 2016) Two days after posting my questionnaire I had ten full responses.

There were several main themes evident in responses to the questionnaire. People spoke very positively and enthusiastically about the game. They referred to a range of benefits arising from leaving their home and getting outside, as is necessary to play *Pokémon GO*:

It gets me out and about. It took me to places around Bathurst that I didn't know we had, me and my mates found a shortcut road that leads straight to our houses” (Respondent 2)

It has encouraged me to take the younger kids to the park to play more often. (Respondent 4)

Most respondents noted that they were doing more physical exercise and feeling healthier because of the game, physically and especially mentally. More than half of the respondents referred to mental health benefits from playing the game

We're walking so much more. Walked 10 km in 3 days when we got it. (Respondent 3)

*Pokémon GO* has had a positive impact upon my mental health, I struggle with anxiety and depression and the endorphins from all the exercise have done me a world of good. My wallet is taking a hit because we tend to buy annies ice cream

every time we go out hunting. [hunting refers to trying to catch Pokémon in the game]. (Respondent 9)

Another salient theme was the increased social interaction that players of the game experienced.

We've developed friendships with locals for the first time since we moved here, and they have children around the same age as my daughter as well so they're able to give us insight into the good places to go with children in the area. (Respondent 9)

Myself and my children are out so much more walking and pokemoning. My kids are going up to people talking Pokemon. Even if you don't say anything to a fellow Pokemon player there is still a sense of unity. (Respondent 3)

Pokémon GO has made me new friendships, strengthened my relationship with my fiancé by getting us out of the house and active together, and reconnected me with family members I haven't had much contact with. (Respondent 6)

Reviewing the responses, I decided that within the scope of this research project I had enough data to progress to the interview stage of my research. The questionnaire allowed me to select participants whose responses both best represented the themes common to all respondents and who would best benefit the research project from interviews.

## 2.2 Interviews

I initially planned to use videos of semi-structured interviews, cut with further visuals, as the visual representation. However the findings from the questionnaire led me to redesign my method. I decided that this project would benefit more if the interviews were audio only and that their content would guide my choices for the visual work, not become the visual work through talking heads. Importantly, I felt that audio interviews might facilitate greater depth and openness in responses. Audio would also allow for a more sensorial and experimental approach to the final stage of my methodology.

The online questionnaire asked respondents if they would be willing to participate in a follow-up interview. Most indicated they would be willing. I conducted individual semi-structured phone interviews with 3 participants. I determined that I would be very transparent in the lead up to the interviews, and told the interviewees in advance some of the main findings from the questionnaire, and what I'd like to focus on.

Most of the interview questions were similar to those in the questionnaire as I wanted viewers of the visual work to hear some of the findings directly from the subjects. Having decided before the interviews to use only the audio, I did ask the interviewees explicitly to describe their favourite places to play, and their experiences, for hopefully a more visceral response. To explore the main themes of interest, place-making and augmented reality, and their overlap, I asked questions such as:

“What is your favourite place to play and why?”

“Try and describe the experience of being there”

“What do you see? What do you hear?”

The interviews allowed for more personal and descriptive elaborations of the findings and themes revealed in the questionnaire, whilst giving me both direction and freedom in the production of the visual component of this project.

### 2.3 Visual Representation

I decided to place some limitations on the length of the visual work to keep it concise and within a reasonable scope for the project. After in-depth analysis of the audio interviews I decided to only include two interviews for the visual work. Studying the use of augmented reality technology is a new field in anthropological research. Until this year with the advent of *Pokémon GO* augmented reality technology had not reached mass-markets and so the scope for potential inquiries has been limited. I decided that I would experiment with use of a 360 degree virtual reality (VR) camera to record the 6.35 minute visual work accompanying this study. Like *Pokémon GO*, VR 360 degree cameras have not been produced for mass consumption until very recently and therefore its use in visual research is scarce. The use of VR allows for viewers of the visual work to be placed *in* the places that are frequented by *Pokémon GO* players in Bathurst, whilst hearing from the research subjects about their own experiences of those places and the benefits of playing the AR game. The use of a VR camera is important to understanding new ways of conducting visual research, both for the viewers and for the researcher himself.

### 3 Findings and Analysis

The findings suggest that not only does *Pokémon GO* encourage place-making and the production of place oriented meaning but also, for many of the subjects that took part, the game had a positive influence on their bodily and mental wellbeing.

Many respondents reported that they had new physical places to which they attributed memory, meaning and experience. Because *Pokémon GO* had attached in game meaning to many local places, the respondents reported that some sites became a “hub” for social interaction - where players would notice each other playing and interact with each other.

It basically creates a hub. And sitting there and walking over near the fountain and just seeing a whole bunch of people from all ages and genders and races and creeds together. Sitting there and laughing and playing this silly little phone game but socializing. People just enjoying each other’s company, meeting new people, making new friends. And I think that is honestly the moment where it sort of clicked with me of just how much of a positive side this game can have.  
(Interviewee 2)

The findings strongly suggest that playing *Pokémon GO* benefits physical health: this is a direct result of the game requiring that players

explore their local environments without a vehicle, and so are motivated to exercise, even if exercise is simply an unavoidable consequence of playing the game.

There is some evidence from the findings to suggest that for some people who struggle with anxiety or mental health condition, the game combines increased physical exercise and increased social interaction with other players, which can have a therapeutic effect on their mental health.

This project found feelings among users that *Pokémon GO* had augmented their realities in various and mostly positive ways that traditional gaming does not. The study also suggested that players shared the researcher's view that in the near future there will be significant advances in augmented and virtual reality technology, but that the successful history of *Pokémon's* gaming and entertainment franchise meant its sudden rise would be difficult to replicate.

The project also allowed for experimentation with Virtual Reality technology in the creation of visual research by offering a kind of immersion and agency to the viewer that is unattainable through traditional AV media.

#### 4 Conclusion

The findings suggest that *Pokémon GO* can and does enable changes to place and the meaning of place, in ways that meet Applin and Fischer's (2011) criteria for enhancement, to make and share, not just consume. Importantly, this short project revealed that because *Pokémon GO* requires users to physically explore their local environments it became a catalyst for positive bodily and social experiences that users may have otherwise been unlikely to participate in. And so, in the interest of physical and mental health, I recommend that future creators of augmented reality applications and technology should also consider bodily health and social interaction as desirable outcomes. Building on the anthropological criteria of Applin and Fischer (2011) I suggest a model outlining recommended dimensions to be considered when designing augmented reality. Figure 1 illustrates the model *Dimension considerations for enhancing augmented reality design*.

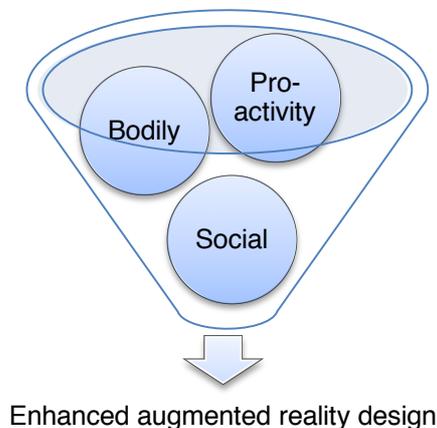


Figure 1: *Dimension considerations for enhancing augmented reality design*.  
Henry Denyer-Simmons 2016.

There were three main dimensions of benefit reported here; pro-activity, bodily and social. I suggest that Applin and Fischer's (2011) criteria for 'enhancement' could be summed up as 'pro-activity' - augmented reality technology that promotes or requires users to make, share or have some control over their own experience. 'Bodily' refers to the physical and mental health benefits that augmented reality design can achieve - such those that *Pokémon GO* users reported from the game requirements to be physically moving around, walking, to play. 'Social' refers to deliberately designing augmented reality technology to increase human interaction, a basic human need. In the case of *Pokémon GO* users in this study, *Pokémon GO* was the catalyst for meeting and interacting with people they would not otherwise have met. *Pokémon GO* necessitated going out, encountering other players, and a provided a bond between strangers who would have otherwise just passed each other by, but now had something in common.

It is not known whether the designers of the game anticipated such positive consequences when making *Pokémon GO* to have users physically explore their local towns and environment. However, this short project provides evidence that, for many people, playing *Pokémon GO* had positive consequences that it was a catalyst for positive physical and social experiences that they would otherwise have been unlikely to participate in. These benefits are each possibly achievable through physical exercise and other forms of social interaction, however for the small sample of respondents and interviewees they were positive consequences of playing *Pokémon GO*. The design of this game led to the augmentation of reality for this sample of players.

The visual work accompanying this research was an experimental first attempt at using a VR camera and was a steep learning curve. As mentioned above, Virtual Reality camera technology is only beginning to be readily available commercially and until as recently as a year ago I would not have been able to access and experiment with this technology. The potential of Virtual Reality remains a largely unexplored medium in visual anthropology and in visual research forms more generally. I advocate for more researchers to explore and experiment with VR cameras in the future, especially as they become cheaper and more readily available.

To conclude, I outline some concerns about the limitations of this project and suggestions for using this project as a guide to future research into the potential for augmented reality applications to improve the lives of users.

This short project had quite a narrow scope with a small field of research, which meant that I was able to uncover some key ways in which place-making and meaning was produced for a few individuals in one part of the world. As more applications like *Pokémon GO* reach mass markets, augmented reality technologies will become increasingly used in the daily lives of people around the world. I hope to have given some indication of how anthropologists can contribute to augmented reality research.

Future research by myself and others should expand in breadth, time and scope. Research should use larger samples and different contexts,

applications and time frames to explore deeper understandings and develop greater confidence concerning the role these technologies can play in shaping the daily lives of users.

This project revealed that within the broader understanding of how *Pokémon GO* contributes to place-making there was some suggestion that both augmented and virtual reality applications have the ability to be a real alternative way of making meaning especially for those who struggle to find a sense of belonging by other means.

This small project suggested therapeutic benefits from augmented reality technology. It will be important to use larger, broader, sustained research projects to at least find out if augmented reality technologies can be applied to benefit those who don't get their proper dose of belonging through more traditional means such as religion, the arts, sport or nightlife.

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