Playing with place: Location-based mobile games in post-pandemic public spaces

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During the COVID-19 pandemic, many aspects of our lives, such as work, socializing, schooling, and play, were confined to the home. In this assemblage (Watson et al., 2021), how we think about mobility, placemaking, public space, health, and play has been reconfigured (Hjorth & Lammes, 2020). Mobile games have a long history with regard to their ability to activate public spaces, creating feelings of connection and resilience in playful and inventive ways. In pandemic times, the ambient play of mobile games, that is, moving in and out of the background to the rhythm of everyday life, has taken on new currencies (Hjorth & Richardson, 2020). This short provocation piece explores how location-based mobile games can play a powerful role in how we reimagine, activate, and reinhabit urban spaces and placemaking as we move out of the pandemic. As we argue, games can address some of the challenges advanced by the pandemic in relation to public health messaging, crisis management, and making playful ways to connect together for a better new normal.

In the United States, overall videogame internet traffic increased by 75% when COVID-19 restrictions were imposed (M.B., 2020). As the heightened threat of viral contagion gripped the popular imaginary, the debates about screen time, and especially games, shifted. Even the World Health Organization, which in 2019 officially registered game addiction as a mental health disorder, has recognized the communicative power and...
global reach of games (Snider, 2020). For many children who were unable to play physically with their friends, games became a way of staying connected and being playful, both necessary ingredients for the well-being of youth. Games can also transform the mundane space of the home into a virtual playground. *Pokémon GO*, a popular location-based game that requires players to walk about and tag locations in their neighborhoods and city streets, temporarily changed the mechanics so the play could take place in the proximity of a person’s house (Bhattacharya et al., 2021; Laato et al., 2020). Especially now, games are important not only as spaces for friendly sociality and play, but also because they allow us to explore, take risks, empathize, be creative, and build a sense of community, caring, and belonging that directly responds to the current crisis.

Play theorists have long argued that our capacity to play defines us as social and empathic beings (Flanagan, 2009; Huizinga, 1950; Raessens, 2006; Salen & Zimmerman, 2003; Sicart, 2014; Sutton-Smith, 1997). More recently, we have seen the power of games, because they have the capacity to enhance sociality and connection during times of physical distancing and lockdowns (M.B., 2020). In particular, we are interested in how the pandemic has redefined the role of location-based mobile games so they can be used to augment how we reactivate public spaces. Indeed, games such as *Pokémon GO* have great power to reinvent neighborhoods and social connections (Hjorth & Richardson, 2017; Hjorth et al., 2020), as well as help public health messaging as we move out of the pandemic (M.B., 2020). Drawing on the history of mobile games and their continuing ability to activate and connect publics in playful and creative ways, we argue that one aspect of the future of mobile games could be to channel social innovation in public policy and planning further, for example, by helping emergency workers activate publics when a crisis is happening. As pandemics and disasters become increasingly part of our foreseeable future, mobile games present new opportunities for dealing with disaster preparedness, crisis management, and recovery.

We start by describing how location-based games engage and connect players in public and digital spaces, making them perfect candidates for what has been traditionally called “serious games.” Then, we describe two examples of “serious” locative mobile games we have designed during the pandemic to address public health messaging or engage hard-to-reach communities such as older adults with a low level of digital literacy. We finish by addressing some speculative futures for mobile, locative, and playful media.

**Location-based mobile games as “serious” games**

Location-based games have a long history spanning 20 years and more (de Souza e Silva, 2013). As we have shown elsewhere (de Souza e Silva & Hjorth, 2009), they have the potential to transform urban spaces into playful spaces. By embedding fictitious narratives and digital game elements in specific locations and geolocalizing players, these games encourage players to explore their cities, take unusual routes to work, and meet new people (de Souza e Silva et al., 2021; Licoppe & Inada, 2006; Saker & Evans, 2016). Their potential for encouraging players’ mobility and engagement with physical spaces has inspired researchers, designers, and educators from early on to develop locative games that could support situated, experiential, and social learning (de Souza e Silva & Delacruz, 2006). For example, in 2005, the Waag Society developed *Frequency 1550*,
a “one-day activity meant for secondary school students to actively experience the history of Amsterdam” (Admiraal et al., 2009, p. 303). In the game, teams of four students (two walking on the streets and two at the Waag building) had to work together to solve location-based tasks concerning the history of medieval Amsterdam to progress in the game. The game developers noted that playing Frequency 1550 particularly helped low-ability students expand their knowledge of history.

Following Lave and Wenger (1991), we understand knowledge as embodied through actions and contextualized through a community of practice. In the case of Frequency 1550, students were constantly communicating with each other about the tasks to be performed. In location-based games, knowledge is also acquired through social cooperation, mobility, and spatial experience. As de Souza e Silva and Delacruz (2006) suggest, these games have two main characteristics that make them relevant for promoting education and well-being: they create environments where collaboration is necessary to achieve the game’s goal by giving players space-specific information; and they create a bridge between players across different spaces via the mobile phone interface (p. 245).

With its initial lockdowns and stay-at-home orders, the COVID-19 pandemic posed serious threats to location-based game play. Because these games must be played outside when walking around, and because they encourage players to meet and get together, suddenly many players had to reconsider their routine play habits. In Pokémon GO, for example, not being able to spin a Pokéstop quickly led to a lack of Pokéballs and the inability to catch Pokémon. Players could also no longer get together for raids and gym battles. Location-based mobile games, however, were quick to adapt their game mechanics to adjust to the lack of players’ mobility. Pokémon GO increased the minimum distance to spin Pokéstops, added remote raid passes, and buddies started to bring supplies periodically (Bhattacharya et al., 2021; Laato et al., 2020). However, instead of adapting existing games to the “new normal,” we should explore location-based games’ enormous potential for rethinking how we will interact with public spaces and nearby people as we move out of the pandemic. We now offer two examples of locative games developed in response to the pandemic’s changing spatial and mobility practices.

Case studies

The “social distancing” location-based mobile game

During the COVID-19 pandemic, many levels of governments (state/federal/council) implemented public health education. However, from the outset it became clear that public health messages were misunderstood by the general public or did not reach the proper audience. The pandemic has highlighted that we need to rethink how we approach public health messaging. Because mobiles are always on hand, they offer a powerful vehicle for nuanced messaging, especially through playful campaigns that focus on incentivizing, gamifying, and ritualizing healthy behavior.

Location-based games typically encourage players to move physically closer to other players, to be more mobile in urban spaces, and to visit more places. However, during a pandemic, urban mobility and social interaction in public spaces have the potential to contribute to viral spread. To educate people with regard to how their daily mobility in
public spaces might contribute to viral spread, the NC State University’s Networked Mobilities Lab, led by de Souza e Silva, is developing the “social distancing location-based game.”¹ The game inverts the traditional mechanics of location-based games by encouraging players to maintain physical distance and visit less crowded areas, avoiding high-risk locations. The ultimate goal is to help ordinary people understand that their daily urban mobility can be intrinsically connected to the increased circulation of a respiratory virus. Because locative games are social activities that happen in public spaces, they can be powerful tools in helping people understand how trips to the store or to visit friends can influence disease transmission.

Contrary to traditional games like Pokémon GO, in the “social distancing” game, players receive points for moving away from others in public spaces and avoiding crowded areas, marked as high-risk zones on the game map. For example, a neighborhood might include red, yellow, and green zones to denote high-, middle-, and low-risk areas, respectively. Outdoor spaces like beaches or public parks are green zones, but indoor crowded spaces such as bars and restaurants around the park might be red. Digital geolocated viruses are concentrated in high-risk areas but are less common in low-risk areas. In-game infections occur through proximity to other infected players or by catching random floating digital viruses, which are most abundant in high-risk areas. Players are sometimes notified of their infection, and other times not, mimicking asymptomatic spread. Players gain points by spending time in low-risk zones and lose points by visiting high-risk zones. The main goal of the game is to avoid getting infected and to prevent mass spread of the virus. It is our hope that playing the game will help people learn about and directly experience the basic mechanics of airborne viral diseases. We hope to disseminate the scientific concepts that help reshape daily urban mobility and socialization in public spaces so they can be applied in the next pandemic.

Pet playing for placemaking (PP4P)

The Cherished Pets Foundation is an Australian charity that recognizes the important role animals play in many people’s lives. One in three Australians prefer the company and sociality of animals over humans. For many older adults, their animal (or more-than-human) companions are crucial for their social and physical well-being. However, as mobility declined and care needs increased during the pandemic, the potential for owners and their pets to engage with the community decreased. This is when the Cherished Pets Foundation stepped in to offer support such as volunteers to walk people’s dogs or cheap vet assistance. Larissa Hjorth, Ingrid Richardson, and Jacob Sheahan worked with the Cherished Pets Foundation community to develop resources to communicate the value of animals for well-being, especially during the pandemic (Hjorth & Richardson, 2020). Then, with the community, Sheahan co-designed the Pet Playing for Placemaking (PP4P) location-based game. PP4P was designed primarily as a social, supportive experience that fosters placemaking.²

Responding to the isolation of vulnerable and older members of the Ocean Grove pet-owning community and the social restrictions placed on them due to the COVID-19 pandemic, this location-based game took an innovative approach to supporting pet ownership in the community. The game invited older pet owners and local community
members to partner up and compete in treasure hunt-style gameplay. Older pet owners, limited in mobility and vulnerable to the virus, complete digital puzzles that reveal locations where their play partner (typically a volunteer or neighbor) can walk their pet and discover more challenges that lead to other places (Figure 1). Cooperation is critical for gameplay, with each player supporting the other’s limitations. The gameplay presents playful scenarios as content through digital–physical mechanics, encouraging players to explore such themes through play and engage with others in their local community.

**Conclusion: Mobile futures**

Moving out of the COVID-19 pandemic is the challenge of the decade. Developing and playing location-based games can teach us lessons about how we want the future of our public spaces to look, especially as disasters and pandemics become increasingly commonplace. Mobile games have a long history with regard to their ability to activate public spaces in playful and creative ways. They can incentivize and gamify good public health and social responsibility actions. They have the ability to overlay the social, digital, and material in powerful ways to help connect community. They can be models for new apps and new types of social and spatial awareness.

Rather than defaulting back to the old normal, mobile games can allow us to find different ways of reimagining our public spaces that take inequalities and injustices seriously to sketch a more thoughtful and careful world. Location-based games may help us to find creative solutions for mastering other contemporary challenges. They can be vehicles for climate, data, and social justice in a changing world in that they are a playful invitation to a more sustainable and considered future.

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Notes
1. Game title to be determined.
2. This game was funded by a Community Connections Grant (Give Where You Live Foundation).

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