

Location Based Mobile Games : Blurring the Borders Between Physical and Virtual Spaces

Title	Location Based Mobile Games
Subtitle	Blurring the Borders Between Physical and Virtual Spaces
Lead-in / Abstract	This paper investigates how location-based mobile games, known as pervasive games, merge virtual and physical spaces, changing our perception of urban environments. Games like <i>Botfighters</i> , <i>Supafly</i> , and <i>Geocaching</i> are descendants from multiuser environments, which formerly took place online. Cell phones equipped with SMS and GPS are responsible for bringing these online communities out to physical space. How urban circulation spaces transform into places? What are the effects of role-playing games in physical spaces?
Participants and speakers	de Souza e Silva, Adriana (US / BR)
Short biography of participants	Adriana de Souza e Silva is a Senior Researcher at the Graduate School of Education and Information Studies (GSE&IS / CRESST) at UCLA. She holds a Ph.D on Communications and Culture at the School of Communications in the Federal University of Rio de Janeiro, Brazil. Adriana's research focuses on how communication interfaces change our relationship to space and create new social environments.
Full text	1. Pervasive games: merging games with life

During the last decade, it was common belief that the Internet could be the ideal (non) place for community building, as long as users assumed they could create new identities, travel around the world without moving physically, and have no need for face-to-face interaction. Mobile devices, like cell phones, are responsible for bringing these communities out to physical space. The use of cell phones to play games incorporates the ludic characteristic of traditional multiuser environments, also bringing the imagination related to these "places" into urban spaces.

This imaginary playful layer that lies on top of the physical space changes our perception of the city, merging the borders between reality and fantasy. As these games are multiplayer, they also promote new types of interaction among users.

Pervasive games broaden the game environment because they occur anytime, anywhere. Not only is the game played outside the borders of a board, or a computer screen, but it also happens unexpectedly. Many developers have been waiting for sophisticated technology to implement mobile games. However, Swedish company *It's Alive* showed that a fairly good result can be achieved merely with cell phones equipped with SMS (Short Message Service) and location awareness. These two features allow important aspects of game playing: communication among players, and territory mapping. The mobile interface also eliminates the need for a specific place to play the game.

Botfighters is a pervasive game because it is dynamic, it is simple, and it is always on (unless the player turns the cell phone off, or decides to be unavailable for the game). Moreover, it happens "in between," that is, the player can be doing ordinary activities in life, but she is always vulnerable to a wireless bullet that can come when she least expects it.

To play *Botfighters* one goes to the game Web site ¹. and creates a robot, which is the user's avatar. The player can then arm it with guns and shields and go out on the streets. Soon one starts receiving SMS messages with specific missions to kill other robots in the vicinity. The cell phone is the interface that connects players and

creates the game environment. The user can send a "search [bot nickname]" message that informs her of the distance and direction in relation to the other bot. If she is within 200 meters, there is a chance that she might hit the robot (with basic weaponry). "With the default weapon you basically have to be in the same block as your opponent, but if you upgrade to the Laser Rifle you can be a sniper and hit your target at a distance of almost a mile" (*It's Alive press release*, 15 Mar. 2001).

Sending the "shot [bot nickname]" command produces a reply that tells whether or not the shot was successful. Often the user who shoots can get shots back from the attacked robot. The one who has the better equipment wins, unless the weaker robot runs out of range. The winner gets credits in the form of "robucks" with which she can buy armor, radar, and weapons for her bot on the game Web site.

Tom Söderlund (*It's Alive press release*, 21 Nov. 2000), *It's Alive* co-founder, affirms that the community aspect of any game is important; however, it is even more important in location-based games, because there is the possibility of interacting with people who are distant as well as with peers who are in the same neighborhood. Cell phones as interfaces are powerful because they move along with the users, therefore establishing a connection among players, and between players and the game space. Nevertheless, as important as the creation of a social space is the promotion of new imaginary spaces. In this context, the key part of a pervasive game is something that many games do not cater to: imagination. "We put the adventure all around you," explains Sven Hålling, *It's Alive* CEO, but "most of the excitement is in your mind" (id.).

Although *Botfighters* can be considered a "mere" action game, it changes players' experience of the space in which they live. Players reported that they started to take trips to unknown parts of the city, just to play the game (*Herald Sun*, 23 Jul. 2001). Therefore, the game not only transforms the familiar city space into the strange, but also stimulates users to go and discover unknown places.

Furthermore, some players really incorporate the transformation of physical space into the game arena. There is a taxi driver in Stockholm known by the nickname of "Taxi31" who spends all his time between fares shooting people. He has four phones in his taxi and his bills go up to \$4,000 U.S. (Stroud, 08 Feb. 2002). "He's crazy," says Hålling, "he even brags on the Web site that he's driven 30 kilometers outside the city to get in battles" (id.).

With the aim to also target the young feminine public, the same company is preparing to launch *Supafly*², the first location-based soap opera. *Supafly* does not have winners per se. Players rise up or down in the virtual environment depending on whether their deeds are good or bad. If their actions are cool or evil enough, they get a story written about them in the online newspaper. The ultimate goal of the game is to become famous and to appear on the news.

In order to play *Supafly*, the player also must create a character on the Web site, but instead of arming it with guns and shields, she must give the avatar good clothes and fancy shoes. Moreover, unlike *Botfighters*, users can take advantage of the mobile positioning to really meet friends in the physical environment, instead of only shooting.

Another example of a location-based mobile game is *Geocaching*³. *Geocaching* is not played with a cell phone; it uses GPS devices as the game interface. The goal of the game is finding hidden caches in weird and inaccessible places with the aid of a GPS device. The first step is going to the Web site and finding where caches are located. The Web site has each cache's coordinates which the player must download to the GPS device in order to find the hidden object's location. The coordinates give the exact location of the object on Earth. *Geocaching* rules are fairly simple, yet the game is interesting because it focuses on exploring physical spaces, connecting people who have the same interests.

Nomadic technologies have a strong relationship to physical space, and the act of mapping space is extremely connected to mobility. *Geocaching* actually uses GPS devices to map territories and find "treasures," transforming the physical environment in which we live into an unexplored territory. The creation of imaginary spaces has been connected to the activity of travelers, who went to unknown places and mapped new territories. The well-known tale about finding hidden treasures in lost islands is particularly connected to this type of fantasy, in which one finds precious objects in unexplored spaces. The idea behind *Geocaching* traces back to travelers' movement through unfamiliar spaces. The geocacher also has to report back her discoveries on the game Web site (the center and known space of the game). *Geocaching* succeeds in using a nomadic technology in order to stimulate players to go to unknown places, map these spaces, and find hidden "treasures", much like old travelers did. The difference, however, is that *Geocaching* is played in the known environment. This movement of transforming the familiar

into the strange is what drives mobile games.

2. Games and imaginary spaces

The most important feature of pervasive games is blurring the borders between reality and the game. Pervasive games are massively multiplayer role-playing games (MMRPG) without the screen. They include characteristics from both traditional and online RPGs. Traditional RPGs are also played outside the screen. Like online multiuser environments, pervasive games connect people who do not share the same contiguous space. Like both traditional and online experiences, pervasive games use quite a bit of players' imagination. However, unlike earlier forms of RPGs, pervasive games happen while players are in movement.

As pervasive games do not strictly separate reality from imagination, they also deny some other common characteristics that belong to traditional games, like the time dedicated to **gameplay**. When playing a game, the player is entirely dedicated to this activity, disconnecting from other instances of life. Conversely, a pervasive game implies that it happens **simultaneously** to other activities in physical space. The game no longer has a playing time separated from the "serious life"; it happens **in between**.

MMORPG already offered some possibility to share the **gameplay** with life through multiple windows opened in the computer screen. However, nomadic technologies, when used as the game interface, are much more powerful in bringing the game into life, because users carry them wherever they go.

Although pervasive games do not immerse the player in a modeled digital world, like a traditional MMORPG, they are not completely played in the physical space. The imaginary layer that represents the game narrative, when overlaid onto urban spaces, creates a hybrid space through which the player can move, and which has the shape of the physical city but the mixed content of reality and imagination. Pervasive games are an example of how imaginary spaces can be created even within the known space, transforming the familiar into the strange.

Pervasive games always **take place** in public spaces. Using the cell phone, one can actually talk to people who are nearby, sharing the same physical environment. "Mobile phone technology can connect both a gamer with both other mobile phone users nearby through cellular positioning services (...), or with your friend that is halfway across the globe from you" (Sundgot, 05 Dec. 2000). Cell phones can therefore represent a new way of meeting people who live in the same environment, formerly just anonymous faces in the city space.

The unpredictability that belongs to these types of games also contributes to merge the borders between reality and the game. While in the city, one cannot foresee whom one is going to meet or what is going to happen. It is exactly this unpredictability contained in urban spaces that makes them so exciting as unexpected playful environments.

Games like *Geocaching*, *Botfighters*, and *Supafly* have the common characteristic of widening the game environment. The game arena is no longer confined to a board or to a computer screen. When the game board becomes the physical space which we inhabit, there is no longer the need for avatars or any sort of representation of the body, because users are already physically immersed in the game. These games are possible, among other reasons, because of the emergence of wireless interfaces, which allow players to keep in contact with others regardless of their locations, and help them to navigate physical space.

Many believe that games will be the "killer-app" for mobile devices. Henry Jenkins suggested that "games have been to the PC what NASA was to the mainframe – the thing that pushes forward innovation and experimentation." Cell phones, as more inexpensive and available technologies than PCs, promise to influence society and cultural activities even more. However, when creating content for mobile phones, it is wise to pay attention to the characteristics of the mobile interface, not merely transferring desktop PC activities to mobile devices. Understanding the mobile phone as a novel interface is the only way to embed it in society and to study its cultural influences.

Notes:

- 1. Botfighters. (c) 2000-2004 It's Alive! < <http://www.botfighters.com/>> (09 Oct. 2003).
- 2. Supafly. (c) 2000-2004 It's Alive Mobile Games AB < <http://www.itsalive.com/supafly/demo>> (17 Dec. 2003).
- 3. Geocaching – The Official Global GPS Cache Hunt Site. Copyright © 2000-2003 Groundspeak Inc. < <http://www.geocaching.com>> (17 Dec. 2003).

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It's Alive press release. It's Alive launches BotFighters together with Telia Mobile. 15 Mar. 2001. < <http://www.itsalive.com/page.asp?t=presslist&lid=10&sb=0>> (31 Oct. 2003).

_____. It's Alive launches world's first location-based mobile game. 21 Nov. 2000. < <http://www.itsalive.com/page.asp?t=presslist&lid=10&sb=0>> (31 Oct. 2003).

Herald Sun. Mobile killers. 23 Jul. 2001. < <http://www.itsalive.com>> (31 Oct. 2003).

Jenkins, Henry, "Games, the New Lively Art." < <http://web.mit.edu/21fms/www/faculty/henry3/GamesNewLively.html>> (16 August 2004).

Stroud, Michael. Have cell phone, will shot. *Wired News*, 2:00 AM, 08 Feb. 2002 PT. < <http://www.wired.com/news/wireless/0,1382,50205,00.html>> (15 May 2003).

Sundgot, Jörgen. Location-based mobile games. *InfoSyncWorld*, 15:00 GMT, 05 Dec. 2000. < <http://www.infosyncworld.com/news/n/32.html>> (25 Jun. 2003).

Related internet addresses

<http://www.geocaching.com/>
<http://www.botfighters.com>
<http://www.itsalive.com/>