Lesser-known Worlds: Bridging the Telematic Flows with Located Human Experience Through Game Design.

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ABSTRACT
This paper represents a new theorization of the role of location-based games (LBGs) as potentially playing specific roles in peoples' access to the culture of cities [22]. A LBG is a game that employs mobile technologies as tools for game play in real world environments. We argue that as a new genre in the field of mobile entertainment, research in this area tends to be preoccupied with the newness of the technology and its commercial possibilities. However, this overlooks its potential to contribute to cultural production. We argue that the potential to contribute to cultural production lies in the capacity of these experiences to enhance relationships between specific groups and new urban spaces. Given that developers can design LBGs to be played with everyday devices in everyday environments, what new creative opportunities are available to everyday people?

Keywords
Location-based games, interaction design

INTRODUCTION
When the developers of hybrid spaces become involved with the planning of cultural environments, it is obligatory that these environments become participants in the world of global information flows in the form of 'intelligent buildings' and 'smart offices'. As a result, the places in which we humans find ourselves are becoming parallel infrastructures of both the telematic (telecommunication infrastructures) [11] and urban 'spaces of flow' [6]. The telematics improve processing and circulation of information, services, communication and exchange. Urban spaces,

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on the other hand, are the sites of human experience, social interaction, and construction of identities by groups and individuals.

Scoot is a location-based game that has taken place in various cultural places in Australian capital cities. In creating *Scoot*, we, as the developers of *Scoot,* selected places according to their technological, socio-cultural and historical potentials for game play. In this way, we approached the game design as if the locations were a game world and we were designing a real world game modification. Game modifications are normally designed by game fans, so it became a priority to first create a game aesthetic and narrative that players could participate in and later edit and build upon. The initial game events are an opportunity to expose the potentials of the sites telematics and to sample possible ways to subvert it for creative and collaborative expression in an effort to extend social interactions.

We start by reviewing a number of current LBGs to analyse how the city locations are represented in the game play. We then looked for how existing computer games connect players in collaborative ways to extend social interactions. What we learnt from this has informed the design of *Scoot* .

LOCATION-BASED GAMES AND THE CULTURE OF PLACE

There are a number of examples of this relatively new form of game design: all played out within different cultural locations and with different tools of play ranging from mobile phones equipped with location aware technologies, such as *Mogi* in Tokyo, Japan [17], to augmented reality devices like *AR Quake* in Adelaide, Australia [1]. However, not all of these examples claim to be designed in and for a unique physical location. Some of the examples that are closest in form to *SCOOT* are *Geocaching* [10], *I Like Frank in Adelaide* [3] and *Botfighters* [13] as they are designed to enable play in specific locations. Although these games employ innovative uses of technology and result in interesting player collaborations, we found that these games are normally limited to simple treasure hunts, chase sequences and combat scenes that do not necessarily engage participants in the specific culture of the sites they enter. They tend to treat the environment as a ‘stage’ for play rather than a potentially dynamic agent with multiple features, histories, local stories etc. In Los Angeles, the geocaching community has gained a reputation of being ‘geotrashers’ who have been famously accused of using the parks as arenas of play with little concern of the ecological impacts [20].

There have been some games that are more sensitive to the cultural value of the locations they employ. For example, *GeoQuest* of Marseille (by Ludigames and France Telecom, 2002) [2] and *Close Encounters* [21] in Los Angeles.We mention these here as exemplars for slightly different reasons. Firstly, although *Geoquest* is a mediated experience, it was designed in Marseille, France, specifically for families and the historically minded. The game mimicked a style combining an adventure story and puzzle hunt that revealed historic facts to the players as they progressed. To participate, players subscribed to receive SMS clues when they entered specific cells of a mobile phone network. Secondly, The creators of *Close Encounters* challenged the newly forming patterns of play by setting up a game that invited "geocachers to proactively step out from the cyber-realm into the charged terrain of racial politics" by sending them into Leimert Park, a predominantly African American neighborhood not normally visited by this demographic. The creators insured that the players did not only skim the surface of the site, but encouraged them to engage with the place and people. Evidence of their interaction with locals

was to be posted on the geocache web site. These examples have either begun with a narrative taken from the site or invited the players to share their own experiences of the place. Either way, we would argue that the resulting images or story artifacts are an engaging read that inspire a richer relationship to the site and provide a means for extending social interactions.

Alternate Reality Games (ARGs)

Alternate Reality games are siblings of the LBG as they blur the edges between the game world and the real world the players inhabit. However, the elements of play can be provided to the players in almost any form including email, land mail, faxes, websites, instant messaging, Internet Relay Chat (IRC) channels etc. An early version of an ARG was known as the Beast, produced by Microsoft and Dreamworks as a publicity game leading up to the release of the 2001 Steven Spielberg film, *Artificial Intelligence* (*AI*).

In early April 2001, movie fans started to notice a series of distributed clues and narratives on film posters that led to web sites, that lead to phone numbers, etc. It appeared to be some sort of game. However, there did not seem to be any evidence of game rules or rewards. "Websites and offline identities have been created for characters and sentient machines from *AI* (the film), for organizations inhabiting the world where the film is set, and even for some of the fictitious people credited with making the movie. The websites give fans a hint of the story played out in the film, and some intriguing clues about who does what to whom" [7]. Narrative clues could be found on web sites, in HTML source code, voice recordings left on phones, and photographs and packages left in public bathrooms across New York, Chicago and Los Angeles.

According to researcher, Jane McGonigal [16], when this game came to an end, some players had been so immersed in the experience that they wished to stay engaged with the community they had formed and continue with these collective activities. When the attacks on New York occurred on September 11 2001, a particular community of players calling themselves, the Cloudmakers, re-gathered with the intention to resolve the mystery using the methods of collaboration they had established while playing the Beast. However, this seemed extreme by some of the Cloudmakers who refused to participate reminding the members that "this is not a game'.

The confusion is somewhat acceptable as the producers of the Beast always maintained that the Beast was not a game. In fact, the alternate reality gamers now normally refer to this style of game as a TING (This is Not a Game). This is a tribute to the game designers ability to design a series of events that enabled a highly immersive and engaging experience for game players, particularly as it is set in their normal existence of space and time.

It is this phenomenon that we are most interested in: an experience that engages players beyond the virtual environment into the realms of reality. For a LBG to be successful, it must alter the players' perception of their own space: increasing their agency and motivation to be collaborative authors of the experience. This allows for a new kind of engagement in the culture of cities, and also broadens the opportunities for social interaction and creative production for the both locally and globally connected inhabitants.

GAMES AS AN OPPORTUNITY TO EXTEND SOCIAL INTERACTIONS AND SUPPORT CREATIVE PRODUCTION

It is commonly accepted that "players use games as mechanisms for social experiences" [Lazzaro 2005]. As part of our user research into creating *Scoot*, we asked approximately eighty first-year university students how they preferred to play games and why. The options for discussion were:

1. playing at home alone competing against the computer,
2. playing with others in the same physical location with networked computers (as in a LAN party)
3. playing with others remotely (as with MMORPG, and FPS)

We found that by far the most preferred option was playing with others in the same physical location. Under these conditions their group communications and interactions throughout the event were simply an extension of existing social dynamics. In any given group the hierarchy of game status depended on the genre of game being played. This is when the group dynamic is shifted depending on the skills of the individuals. For example, a player may be a huge challenge to others when playing a strategy game. But if they switched to a combat game she may became a weak opponent. When they players play in groups the dynamics change again. We also found that competing groups were the ultimate way to play. It meant that in the same game session the group could both compete and collaborate at the same time. At the end of game play the group would often recount the events that unfolded. Even if they play the same game multiple times, they had a new story to tell and debate each time.

The narratives that emerge from these groups and broader gamer communities are evidence of the games ability to motivate complex social interactions and valuable cultural artifacts. These various artifacts are produced as a result of 'pre play', 'in play' and 'post play' interactions between game developers and game players. Some of the interactions and artifacts are designed to occur, while others emerge unexpectedly. Traditionally pre-play game communications are trailers, teasers and discussion forums. These set up an opportunity for gamers to gather around the game in anticipation of its release. Before the game is even played, gamers can compete for game status by flagging their knowledge of the game history or what's to come. In-play interactions generally revolve around the in-game action whereas post-play interactions offer the best potential for players to be producers of creative texts.

Games are already about interactions within worlds in common. Whether players play a game simultaneously (such as with a LAN party) or they play separately; this is a shared experience. For dedicated game players an orbiting community is essential in maintaining their relationships to both the game world and to the other players. This is sustained through gamer communities that are critically or creatively sharing their experiences. Most developers recognize this and supply fan website kits, modding tools, forums, etc. In these arenas players respond by producing shared texts such as fan fiction, strategy guides, FAQs, and more extreme contributions like new game levels (mods) and machinimas. The *Halo* and *Halo 2* games are great examples of how a game can inspire creative production. Not only do players vigorously publish to official *Bungie* sites [5] and to unofficial forums and fan art sites [8], but also there are fans that produce

substantial creative works using the game as production tool. For example, the Drunken Gamers (now *Red vs Blue*) [18] have already produced multiple episodes of both *Halo* and *Sims* machinimas.

We consider *mods* to be the most relevant to the development of *Scoot*. A mod is a custom level or unique game, created from an existing game engine. Some *modders* simply create new game levels maintaining the world, play and rules of the original game. Others use the level editor as an opportunity to create unique environments by importing custom made graphical and sonic assets. There are active game communities that are dedicated to the distribution and criticism of mods. [19]

What we learn from this is essentially that the success of a game can be dependent on the ability of the game to facilitate collaborative and creative social interactions beyond the in-play action. These communities become loyal and active participants establishing interdependent relationships between the game developers and the game players as co-producers of content.

When we begun to develop *Scoot*, we decided to include authentic inhabitants of the site as part of our design team. We did this expecting to insure the game afforded authentic connections to the site. Our first iteration of *Scoot* was designed and played at the Creative Industries Precinct in Brisbane, Australia. This Precinct included a University of which a number of students joined our design team and have been designing other iterations of the game in other cities. Other stakeholders of the site became involved. There were music and theatre production departments and the Precinct's marketing department that all contributed to the design of the game. As a group we produced our own version of the CIP as a kind of real world mod.

The first iterations of *Scoot* were designed as game events that occurred over one to three days in technologically rich environments. Later we created a second version of *Scoot* (*Scoot Curatorial*) that was a web form that acted a game event curatorial tool.

SCOOT 1 AS A LOCATION-BASED GAME EVENT

Scoot is a location-based game that has been designed and hosted in two different cities in Australia in an attempt to observe peoples responses to the game as an experimental intervention in their everyday cultural places. *Scoot* has been designed with maximum potential for moments of delight. These moments occur when a clue is found, a puzzle is resolve, a physical challenge successfully overcome. But mostly these moments occur when the user realizes a new use for a familiar device or space.

The locations

The Creative Industries Precinct (CIP) in Brisbane, Australia, was the first location for *Scoot* and the second was designed and hosted at Federation Square, Melbourne. In many ways the two sites are very similar except that Federation Square is a much more public place "the size of an entire city bock, Federation Square is a living, breathing focus for Melbourne and Victorian community life" [14]. The CIP is part of the "Kelvin Grove Urban Village" (KGUV) project set in the suburb of Kelvin Grove, on the very edge of the Brisbane CBD "where a government and university have come together to plan and build a new integrated community" [14] As well as being a place of urban renewal with various opportunities for community engagement, this is a site that boasts some of the most advanced digital facilities and is therefore a rich technological

'node' whose infrastructure is connected to multiple remote partner 'nodes' throughout the country and overseas. The KGUV imagineers state that: "It (the CIP) provides a unique opportunity for designers, artists, researchers, educators and entrepreneurs to easily connect and collaborate with others to create new work, develop new ideas and grow the creative industries sector in Queensland." [14]

However, we were not convinced that the existent communities were aware of the potentials of the site. Even if they were, it is not apparent how they were to access these global digital facilities. It became our desire to design a location-based game that would explicitly intervene in and reveal the physical and telematic infrastructures of the site in an effort to increase a sense of access and agency for the local inhabitants.

Pre-play

In order to inform potential players of the pending *Scoot* game event, we placed postcards in the area, emailed community groups and advertised in various local publications. These initial texts introduced the game concept, the narrative motivation to play, the game aesthetics and possible prizes involved. *Scoot* 1 at CIP offered I-pods and *Scoot* 1 at Federation Square promised a Nintendo DS and complimentary games to the highest scorers. These prizes were supplied by local stakeholders in the sites. The registration instructions were also available in these texts. The registration information was fed to a database which gave the design team the ability to send emails and mystery SMSes as game teasers.

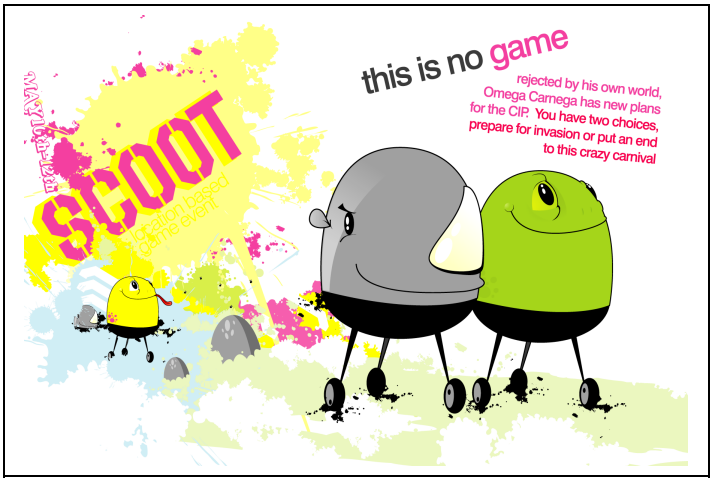

Figure 1: One of the postcard designs for *Scoot* 1 at the CIP. Event details and registration information was printed on the back.

In-play

When the game begins, the players received a mystery SOS in the form of an SMS that led them to the virtual world of *SCOOT* situated on-line. There, they soon discover that a parallel world exists that is distorted facsimile of their local environment. The buildings and grounds are similar yet mutated and it is inhabited by a number of odd characters. Early in the game the players realise that there is a tear in the fine fabric that separates the world of *SCOOT* from their real world. Players also soon discovered that some *SCOOT* inhabitants are planning to bring their

sinister carnival to the real world. They have begun by sending strange objects from the virtual world into the real world. In order to repair the damage and avoid invasion players must seek out help, solve clues, and complete various challenges. Some of these challenges were in the physical world where the players had to seek out these strange objects (interactive sculptures) and SMS particular solves back to *SCOOT*, while other challenges occurred in the virtual world of *SCOOT* in the form of puzzles and games.

Figure 2: This is a corner of Federation Square as seen from the centre of the Square.

Figure 3: This is the interface of one of the Flash games, "Juggler", that illustrates how the site is represented in the parallel virtual world of *Scoot*.

Figure 4: The "Alert Drone" is placed in a prominent position in the site.

According to the game narrative, "Omega Carnega", the carnival leader of *Scoot*, has sent it. The scrolling LED text only reveals a clue if the player holds down the button on the top. But in doing so, a random sound blasts from the inside.

Scoot provided various means for players to communicate both online and in the site. There were discussion forums where players would discuss difficulties in finding or resolving clues. In both sites there were large public displays that we used to indicate directional prompts with character animations. Other uses for public displays included SMS message boards, which allowed players to communicate on site. Naturally they began using it to express gratuitous textual graffiti, but soon started to use it strategically to assist or decoy other players.

Post-play

During play, the players are introduced to a number of *Scoot* characters (see figure 5), either as non-player characters in the virtual world or as animations displayed on screens in the site. At the end of the game players are invited to draw there own *Scoot* character ideas (see figure 6) and submit them to the designers for possible development in the next *Scoot* event. This was a very popular activity as the young players were more than willing to contribute creatively. It provided many opportunities for moments of delight, as some players were excited at the realization that you could get jobs as character designers.

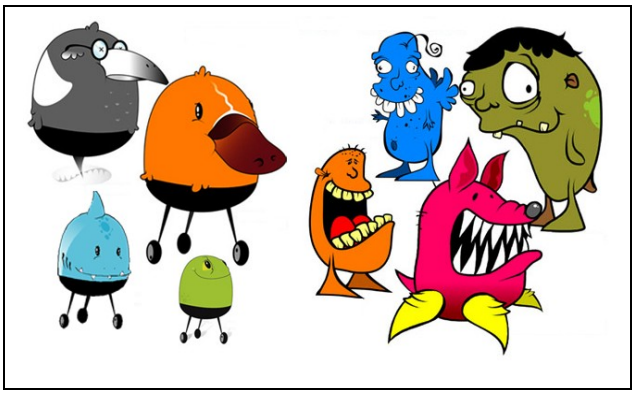

Figure 5: A sample of some of the *Scoot* Characters. The 4 characters on the left are player avatars that can be moved around the virtual world in search of clues. On the right are the 'dodgy' non-player characters that present the players with challenges.

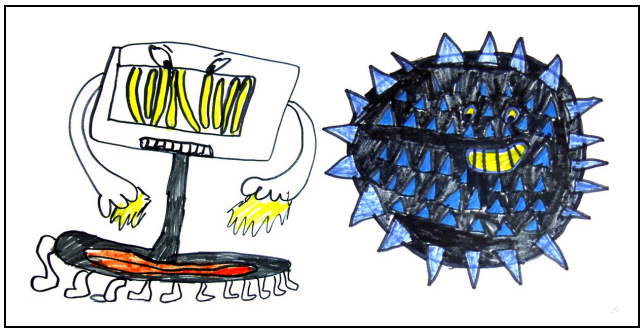

Figure 6: Images designed by young players of *Scoot* 1 at Federation Square.

Since this *Scoot* version is an event that is played and completed within a set time, there are not tools in place to enable players to continue participating as individuals or as collectives. *Scoot* 1 at Federation Square was targeted to a family demographic during school holidays. Both the parents and the younger players were interested in how they may be able to design a SMS game set in their own neighborhoods. This partly inspired the development of the next version of *Scoot*.

SCOOT 2 AS A CURATORIAL TOOL

Dungeons & Dragons (D&D) was another long time inspiration for designing a complimentary *Scoot* curatorial tool. D&D requires a Dungeon Master (DM) to curate the game experience and a group of players to complete it. D&D provides a dynamic example of how a simple framework can inspire players to cooperatively design complex narratives and quests of game characters, environments and events with the intention to then collaborate to compete against imagined foe.

In this vein, this version of *SCOOT* is a web site that allows individuals and groups to create a customized set of puzzles (clues and solves) that can be instantly distributed to others via SMS. *Scoot Curatorial* is much less mediated by the design team but has a much higher potential for increased player agency. This is done by creating a more complicated system (but much less complicated game interface) that acts as a framework to support participatory design methods. There is little rich media and a very simple interface consisting of instructions and text fields to fill in. The information entered into the fields later becomes the SMS content that drives players through the site.

The important difference in the design approach is that the 'players' become co-designers. By having knowledge of *Scoot* they are equipped with a formula for analysing their location as a game world and their mobile phones as a play device.

CONCLUSION.

Scoot has been successful in encouraging players to consider their local places as sites for creative engagement and for also imagining their mobile phones as potential game play devices. Ultimately, we plan to combine the versions into a single game interface that can be used by players to both play and design a *Scoot* mod in any location. This would require that the virtual world of *Scoot* that now resides on the web, can be accessed on a mobile device that allows players to create and submit creative content while on location.

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