CREATING ANOMALIES
A STUDY IN PLAYER INVOLVEMENT THROUGH NARRATIVE IN ALTERNATE REALITY GAMES

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ABSTRACT

This thesis project aims to explore the relationship between the players and the fictional worlds of alternate reality games (ARGs), concentrating on the aspects of immersion, player involvement and narrative. It investigates the connection between immersion and narrative, as well as to what extent the applying of narrative to physical environments contribute to the overall immersive experience of the players. The theoretical frame incorporates different aspects of game interaction, concerning game boundaries, game mastering and player experience, and includes an analytical presentation of a number of ARGs, challenging the traditional norms of game design. The theoretical framework is accompanied by a design process exploring game mechanics and player involvement through game testing. The assumptions drawn from the research, in combination with the outcome of the design process, suggest that because narrative utilized within ARGs is interactive it differs massively from traditional narration and the fact that it intersects the physical environment gives it properties that urges its users to dynamically collaborate to unfold its discourse.

KEY WORDS

interaction design, alternate reality games (ARGs), game interaction, immersion, player involvement, experiential narrative

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The concept of *elsewhere*, described in the quote above, is probably something most people that are into games can relate to as a way of describing that special feeling that emerges when entering the domain of a fictional realm, not adherent to the rigid structures and impenetrable laws of our everyday lives, but solely constructed out of imagination and a will to escape the unbending shackles of reality. It is a place we venture into, by using advanced computers and gaming stations. These devices function as portals, teleporting us to *elsewhere*. They are *immersive*, which means they have the ability to represent fictional worlds so believable they make us feel that *there* is in fact *here*. The *elsewhere* that they create is often portrayed as totally separate from our reality, with well defined boundaries of where it ends and real life begins. This is most often considered the premises of a fictional world: it exists within the defined space wherein it is created. But there are fictional worlds that are not confined to the digital borders of computers or social rules of tabletop games, that don’t obey the structural frame of play. These are the fictional worlds of *alternate reality games* (ARGS).

ARGS are pervasive in that they are set in the real world and use all of its aspects to create gameplay. In opposite of traditional games, which often have thoroughly defined borders and structures, ARGS defile the notion of predetermined instances and rudimentary goals by introducing the intersecting space of reality into the mix. They do incorporate fictional worlds, but layer these on top of reality, creating a duality for its players to explore. According to Juul (2005), all fictional worlds are incomplete, in the sense that no matter how they came to exist, they were designed, and therefore can never be finished. The fact that fictional
This thesis project aims to investigate the correlation between narrative and immersion in alternate reality games, as well as the role of narrative in ARGs when trying to blur the gap between reality and fiction, by first asking the question of how narrative can be utilized to create player involvement within fictional worlds, followed by the question of how this narrative can be used in ARGs to transform the way players perceive their surroundings, changing their perception of their environment.

2. RESEARCH QUESTION

This thesis project aims to investigate the correlation between narrative and immersion in alternate reality games, as well as the role of narrative in ARGs when trying to blur the gap between reality and fiction, by first asking the question of how narrative can be utilized to create player involvement within fictional worlds, followed by the question of how this narrative can be used in ARGs to transform the way players perceive their surroundings, changing their perception of their environment.
3. THEORETICAL BASIS

3.1 Fictional Worlds & Pervasive Games

The relationship between fiction and reality in virtual worlds is a complex one. Looking at computer games in general, the overall mainstream debate often stigmatize them, criticizing the various acts of violence accessible to the player (Tavinor, 2007). Even though the critique is generally addressing violence and “immoral” behaviour, the medium itself is to blame, with no consideration for the person (player) actually committing these acts. If so, the player is often described as a passive spectator, having no real control of the chain of events. This paper does not intend to address the moral responsibilities of game designers or the ones playing their games, but this debate shows that there is a special kind of duality when it comes to computer games. While playing them, people affect both what’s considered real, e.g. the pushing of buttons to interact with a certain medium, and fiction, in that their interaction influence events, creating a kind of discourse within a fictional world. These fictional worlds sometimes incorporate narrative and story, but always rules. Juul (2005: 121) explains that “[...] it is not possible to deal with fiction in games without discussing rules. The fictional world of a game is projected in a variety of ways – using graphics, sound, text, advertising, the game manual, and the game rules. The way in which the game objects behave also influences the fictional world that the game projects. Though rules can function independent of fiction, fiction depends on rules.” In his discussions Juul most often use physical tabletop games or the virtual worlds of computer games as examples when analyzing rules in games. In those cases rules are structured within the boundaries of the game (explained in chapter 3.3) and upheld either by social intervention or artificial intelligence. But when it comes to ARGs these structures change radically, as they create a virtual world on top of the real, letting the intersecting elements bleed through (Waern et al, 2009).
3.1.1 ARGs & Environment

To get an understanding of ARGs’ intertwining of physical reality and intangible fiction, and the importance of using the features of the environment to do so, having a look at the game *Uncle Roy All Around You (URAY)* is a good start. *URAY* was an ARG created by Blast Theory (2003), in collaboration with the Mixed Reality Lab. The game was played by two sets of players; the first roaming around the city of London with PDAs (fig. 2), and the second accompanying the first over the internet, directing them. The objective of the game was for the stationed players to help the roaming ones find their way to *Uncle Roy’s office*. In order to do this the online players could see the roaming player’s PDA map, and its point of interest, at any given moment (fig. 3). They could also see the location in which Uncle Roy’s office was located, and communicate this to the PDAs through text messages (Blast Theory, 2014). The game was focusing on this relationship between the players roaming the city and their anonymous online conductors, asking questions about trust and compliance. At one point of the game, the roaming players were even asked to enter a specific car in the middle of the street. The car, and its driver, was very much a part of the fictional enactment of the game, but these game elements of blending the fictional environment with the real one can create a great feeling of confusion for the players, making them unaware of what is real and what is really part of the game (Benford et al, 2006). This method of using random objects and un-
knowing bystanders not originally a part of the game as de facto game elements is something Benford (et al, 2006) call blurring the performance frame (fig. 4).

3.1.2 ARGs & Fiction

«In games that strive for a 360˚ illusion, the role of technology is fundamentally different from that of devices for computer or ordinary mobile games. Rather than being the vehicle that realizes the game, the game device becomes a tool and a stage prop within the game. Devices as well as their interaction must be crafted to fit the game world, and all functions of the devices, including malfunctions and failures, should ideally be written into the storyline.»
- Waern et al (2009: 1557)

It is the connecting of the virtual world with the real that makes out the fundamentals of ARGs. Digital devices play an imperative role in creating this link. It is often routine to incorporate these artifacts, such as smart phones and PDAs, as tools of communication between the players and the virtual world. As quoted above, digital artifacts and tools should be assigned a logic role within its environment, to function as a link between the tangible and the abstract, creating a solid and believable platform for presenting narrative. This is proven in the example of Momentum (2006), an ARG/Live Action Role-playing Game (LARP), that took place in central and rural Stockholm. The story of the game revolved around a handful of 30 players and their ability to communicate with spirits, through using electronic artefacts. The game strived to achieve what is called a 360˚ illusion, common when it comes to LARPs, which means to create a state where the virtual is augmented in a way that it is seamless with reality and the two worlds overlap (Waern et al, 2009). To create this illusion, all of the artefacts’ properties, good or bad, played a role in creating the narrative. Waern et al (2009: 1555) argues that “in seamful design, the design exposes the inner workings and limitations of a technology to its users and uses this as a design resource rather than as a problem to overcome. The reason why
it is particularly useful in games that aim for a 360˚ illusion is that in these games, the game continues to run even when the technology fails. Ideally, all fiddling with technology, recharging of batteries, restarting computers etcetera should be meaningful inside the game world – and fun."

Another prominent example of how digital devices can be used in ARGs to create a link between the real and the fictional is the game Blowtooth (Lincoln Social Computing Research Centre, 2010). Blowtooth is an ARG concentrating on the context of environments (in its case airports) and its unaware inhabitants to blur the lines of the magic circle. The goal of the game is to smuggle virtual contraband through airport security when traveling. The players do this by using the game application (fig. 5) on their smart phones to locate other nearby devices, using Bluetooth, and then proceed to plant the virtual objects on their unknowing victims. In order for the players to find their victims, the “mules’” devices must have the Bluetooth function switched on. When the first step is accomplished, the players switch their phones off and walk past security and the second step can begin. Switching their phones back on, the players now have to locate their victims in order for the “contraband” to be reclaimed. If, however, if the players are unable to relocate their victims, the planted items are also stored on the game server, making them available for other players around the world to be claimed (fig. 6). This game mechanic

Fig. 5: Blowtooth application

Fig. 6: Available contraband
makes Blowtooth not only a single player experience, but also social in a viral manner (Kirman et al, 2012). The tools used to play Blowtooth are simple in order for the user context and the real world to play a bigger role within the game. Kirman et al (2012) argue that “the most interesting potential application of pervasive games, in fact, lies in the careful matching of game-world tasks to the particular features of the real-world environment that the player is currently experiencing.” The game is empowered by the fact that, even though it’s not for real, the players are committing a dangerous act. This is something that has the ability to promotes critical thinking and debate about controversial subjects, such as governmental control and paranoia. Pervasive games allow its players to commit actions that are not real, in an environment that attain new qualities by adopting a new context.

3.1.3 ARGs & Player Involvement

One of the properties of ARGs is the ability to create player involvement (explained in chapter 3.3). This is made clear when looking at the example of Year Zero (42 Entertainment, 2007), an ARG created by Trent Reznor, collaborating with 42 Entertainment, in connection to the release of the Nine Inch Nails (NIN) album Year Zero (Interscope Records, 2007), in order to promote the record and accommodate its saga about a dystopian future. The first discovery of the game was connected to a NIN tour shirt (fig. 7) where certain letters were highlighted, forming the phrase “I am trying to believe” (NinWiki, 2013). Fans later discovered that the phrase led to a website, which was the first introduction to the fictional, interactive game world.

www.iamtryingtobelieve.com (2007) was just the beginning of the vast amount of interactive storytelling accompanying the game. Although it was mostly based on websites and unfolded on internet forums, the game creators also used physical technology to leave a trail of clues. Among other things, USBs with information and sound files where left, in association
with NIN concerts, in public places around the world, in order for fans and participants to get access to the game story. There were even clues hidden on the actual CD itself, only visible when heated (fig. 8). Except for just interacting with the game through taking part in the information presented and doing research, the participants were called upon to create a community of “truthseekers” and bring the game into the physical space by spreading anti-government propaganda and create their own posters, stickers, clothing, etc. In addition to this, fans started interpreting and remixing the visual aesthetics of Year Zero by creating their own artwork, accompanying the concept, which also reached the mainstream media and became viral (42 Entertainment, 2013a). This is yet another example of how ARGs not only create player involvement, but also blend the virtual with the real, creating distorted boundaries.

According to 42 Entertainment (2013a), one of the reasons for creating the ARG Year Zero, except for promoting the record, was to bring back a sort of physicality to the music medium, which they address as somewhat obsolete in our age of digital entertainment. This endeavour was probably best achieved when the game culminated with an exclusive NIN concert, on April 18th 2007, in Los Angeles, CA. Days before, fans and players had been led to a “resistance meeting” where they were given “Art is Resistance kits”, containing flyers, buttons, stencils and stickers to be used to promote the movement. They were also handed cell phones, in order for the game creators to give them instruction about where to go to get access to the concert. When players arrived at the location, to create a feeling of fear and mistrust, they had to accept being blindfolded and then put on buses, which transported them to the venue. Once they had arrived and the band started playing, participants were at ease with the peculiar treatment, but to further blur the boundaries of the game, the concert came to an alarming halt, as the premises was stormed by screaming figures, wearing SWAT uniforms (NinWiki, 2013).
3.1.4 ARGs & Advertising

The example of intertwining the release of an album recording with an interactive game experience, such as Year Zero, shows that in some cases ARGs not only blur the line between fiction and reality, but also the line between entertainment and advertising. Rose (2011), using the example of the ARG Why So Serious? (42 Entertainment, 2008), a campaign promoting the feature film The Dark Knight (2008), argues that the way in which these ARGs involve the audience has changed the actual creation of the fictional worlds of traditional storytelling mediums altogether. In the same manner that the world of Year Zero was constructed, 42 Entertainment created a virtual world, based on the Marvel Comics city Gotham, that overlapped the real by encouraging fans and participants to, through ordering game kits (fig. 9) and receiving information from fake phone services, investigate the doings of fictional characters The Joker and Harvey Dent, in a battle of influence over the citizens of Gotham. This resulted in two massive movements, taking to the streets of cities all over the world, promoting either one of the characters (fig. 10) (42 Entertainment, 2013b).

With the game, the creators of the movie made it possible for the moviegoers to not only be passive spectators, but be a part of creating the story altogether. Rose (2011: 15) claims that “conventional narratives – books, movies, TV shows – are emotionally engaging, but they involve us as spectators. Games are engaging in a different way. They put us at the center of the action: whatever’s going on is not just happening to a character on the page or an actor on the screen; it’s happening to us. Combine [the emotional impact of] stories with [the first-person involvement of] games and you can create an extremely powerful experience.”
3.2 What is Immersion?

«Outside of presence theory, immersion finds its most frequent use in the context of digital games. The application of the term, however, varies considerably: It is used to refer to experiential states as diverse as general engagement, perception of realism, addiction, suspension of disbelief, identification with game characters, and more.»

- Calleja (2011: 25)

While the general definition of immersion is the ability of virtual reality technologies to create a sense of presence within projected worlds (ibid, 2011), it tends to define just that: the relationship between a virtual medium (e.g. a computer game) and the person interacting with it. As this thesis paper is addressing ARGs, incorporating the physical realm, the term player involvement (ibid, 2011), although it also concentrates more on computer generated games, tends to be more suitable. If the player in question is already inhabiting the game world, player involvement revolves around the user’s interaction with the game elements and mechanics, layered over reality and in most cases created using digital artifacts and narrative (Waern, 2009), as well as the degree of which a player feels incorporated within the fictional scenario created by the game.

3.3 The Magic Circle & The Framing of Player Involvement

«[...] the frame of a game is what communicates that those contained within it are playing and that the space of play is separate in some way from that of the real world.»

- Salen and Zimmerman (2004: 94)

Salen and Zimmerman (2004: 304) define games, or to be accurate play, as “free movement within a more rigid structure.” The rigid structure being the frame, in which play is allowed to take place, as well as the formal recognition of what the playful activity is and its relationship to its participants and the space it inter-
sects. A metaphor they (ibid: 304) use is that of a car’s steering wheel, where the system it is included in, and the system’s other components, determines its possible movement: “The ‘play’ is the amount of movement that the steering wheel can move on its own within the system [...] The play itself exists only because of the more utilitarian structures of the driving-system: the drive shaft, axles, wheels, and so on. The ‘rules’ created by these elements make the free movement of play possible. [...] Play is an expression of the system, one that takes advantage of the space of possibility created from the system’s structure.” Thus, the rules of a system’s elements create the frame of a game, and what’s considered allowed within it. But when it comes to a game’s boundaries, the definition becomes more abstract and complex, as it has more to do with the player’s perception of where the line between play and everything else is drawn. Fullerton (2008: 78) argues that “boundaries are what separate the game from everything that is not the game,” while Salen and Zimmerman (2004) claim that a game must have a beginning, a middle, and a quantifiable outcome at the end. These arguments become problematic when it comes to ARGs and the involvement they incorporate, which often overlap with the player’s perception of where the game’s boundaries end, and reality takes form (Benford et al, 2006). Furthermore, a player’s involvement with a game could be described as dual, in the sense that it exists within two different layers; the first being directly connected to the game, occurring in a specific place and time, and the second involving the narrative, upon which the player can create her own interpretation, drawn from her own imagination. This kind of layered immersion into a game is something Calleja (2011) refer to as micro-involvement, which builds upon the engagement of actually interacting with the game, and macro-involvement, which incorporates a more holistic aspect of the game world, for instance revolving around the time spent thinking about the game while not playing it. The latter is sometimes referred to as the post game experience, which is arguably a more explanatory term.
«Play is older than culture, for culture, however inadequately defined, always presupposes human society, and animals have not waited for man to teach them their playing. We can safely assert, even, that human civilization has added no essential feature to the general idea of play. Animals play just like men.»

- Huizinga (1949: 1)

An alternative idiom, widely spread, interpreted and often criticised, to describe the imaginary border that encloses the act of play, framing the game experience, is the magic circle, coined by the austrian historian Huizinga. It is important to acknowledge that Huizinga’s definition of play stretches far beyond that of what is considered to be typical games of today. As quoted above, Huizinga argues that play predates human culture and can be described as any kind of ritualistic activity that is “distinct from ‘ordinary’ life both as to locality and duration” (ibid: 9). Further he (ibid: 10) claims that “play [...] is order. Into an imperfect world and into the confusion of life it brings a temporary, a limited perfection. Play demands order absolute and supreme. The least deviation from it ‘spoils the game’, robs it of its character and makes it worthless”. In the case of ARGs, both of these arguments are questionable as the undetermined and chaotic framework of “ordinary” life is let loose within the boundaries of the game world, and the locality and duration of gameplay is often undefined (Nieuwdorp, 2005).

It is important to differentiate between the rules of a physical tabletop game, where the rules are upheld by the players within the magic circle (e.g. the honest recognition of a die’s result), and the rules of a digital computer game, where code and algorithms endorse the rule of law (in this case social intervention does sometimes intervene, but game physics determine what’s considered possible). In ARGs the magic circle and set of rules tend to fall in a sort of in-between, as the game combines the physical world, with its own rules, and the fictional one, where rules are agile. This is in some cases also true for digital computer games, as the game itself could be seen more as an interactive medium, containing a number of different
games at the same time (Juul, 2005). The magic circle and the ability to create player involvement define the player’s interaction with games. It is often argued that it is imperative for a game’s boundaries are clear in order for players to feel safe enough to step into the magic circle and engage in ludic activities (Fullerton, 2008). Once again we encounter a gap between conventional game research and established inquiries on ARGs, where the blurring of these boundaries are considered a crucial part of the game mechanics (Waern et al, 2009).

### 3.4 Creating Narrative & Game Mastering

Looking back, the historical debate on whether games are worthy platforms for storytelling is messy. On one side there were the Ludologists, who sought to focus the dialogue on the mechanics of games, arguing that although “games contain narrative elements, [they are] a conflict between the now of the interaction and the post of the narrative,” (Juul, 1998) and that one therefore “can’t have narration and interactivity at the same time,” (ibid, 1998). On the opposite side of the debate where the Narratologists, who wanted to study games alongside other storytelling media (Jenkins, 2006), arguing that there was a clash between traditional means of telling stories (e.g. literature) and that of games’, as they declared there is a “distinction between the abstracted sequence of events, referred to as story, and the presentation of those events to the reader, most often called discourse” (Calleja, 2011: 114). Juul (1998) further argues that “computer games are not narratives... Rather the narrative tends to be isolated from or even work against the computer-game-ness of the game.” This is not entirely true when it comes to the kind of narrated stories games create, which could be described as a form of experiential narrative. Jenkins (2006), for instance, points out that games most often consist of spatial stories, that revolve around environmental storytelling, very much linked with the player’s subjective perception of the game world. He argues
that “the organization of the plot becomes a matter of designing the geography of imaginary worlds, so that obstacles thwart and affordances facilitate the protagonist’s forward movement towards resolution.” This argument is strengthened by Calleja (2011: 115) who claims that “a player’s interpretation of events occurring within the game environment and his interaction with the game’s rules, human and AI entities, and objects result in a performance which gives game environments their narrative affordance. Interaction generates, rather than excludes, story.” Thus, as the most important and fundamental part of ARGs is the environment, this statement further suggests the value of narration in ARGs. However, as opposed to digital computer games, which can sometimes be described as a number of games within one virtual world (Juul, 2005), the alternate reality game world is set in reality and inherits its aspects and therefore the narrative of these games is constructed both by the players it occupies and the game master, tinkering with the world’s possibilities (Jonsson et al, 2008).

The game master is the overseer and manager of game content and events. Much like in traditional tabletop role-playing games, the game master play a central role in ARGs, managing the unfolding of the game, as well as supplying the players with information about the narrative. But the game master can also almost be seen as a player, taking part in creating the basis of play (Benford et al, 2006). The narrative and context is managed by the game master, but it is in many aspects upheld by the players, interpreting the environment and what goes on within the game. Jonsson et al (2008: 224) argues that “By reacting to player improvisations and interpretation of the game content, the game masters can create an illusion of an unlimited game world.” Therefore the relationship between the game master and the players plays a big part in creating the storyline and game world, and the game master draws inspiration from the player’s imagination. This kind of ludic game mastering can also be seen in early adaptations of the game URAY, where the technical crew, so called performers (fig. 11), manage
the organizing of players in a fashion very similar to a game itself. Also, URAY shows us that the creating and unfolding of game elements in ARGs take place on a number of different levels, by exploiting the ambiguity of real environments (fig. 12) and incorporating both fictional and actual participants (Benford et al, 2006).

Fig. 12: Ambiguous game mastering
4. DESIGN PROCESS

4.1 Methods & Motivation

In addition to my theoretical research, my intentions with this thesis project was to create my own game experiment, including game elements and mechanics. I was motivated to explore the different aspects of ARGs I had encountered in my research and investigate their properties, but also look at the role participants play, not only when interacting with the game world, but when taking part in creating the world altogether. My decision for creating an experimental game environment and letting players inhabit it was based on the assumption that agile game development, drawing inspiration from the players, lets me as a designer choose what parts of the game I want to take a closer look at. This method of creating agile gameplay is common practice when it comes to role playing games, the kind of games ARGs sometimes are heavily inspired by.

The experiment was set in real locations around the city of Malmö and accompanied by a second layer in the form of a fictional narrative, presented through websites and blogs, for the players/participants to explore. The motivation was to further investigate the assumptions drawn from my research into the field, as well as the correlation between narrative and player involvement. I consider this phase of the thesis project to be an explorative process, where I try out different approaches to creating game mechanics and narrative in an agile manner, where the different elements are not necessarily always connected as a whole. It is therefore questionable whether the outcome of this design process could actually be called a game, but to make the discussion about this experiment and its concepts more coherent, I hereby refer to it as a game. The design process was followed by player interviews (the questions are included in the appendix, pp. 34) in order for me to evaluate the outcome and player experience.
4.2 Game Scenario

The main focus of the game scenario was to investigate player interaction with digital artifacts, corresponding with a dynamic web interface, while being situated in a real environment. The idea was to encourage the players to roam the city landscape with mobile phones and mark places using GPS, to establish connections between real locations and the virtual game world. To create this connection I created a narrative partly based on the locations the players picked out. The story itself was intentionally being created in sync with the players’ choices in an attempt to animate a dynamic relationship between interaction and effect.

4.2.1 Initializing

First off, I instructed a number of four participants, all of whom I knew privately, to venture out and explore the city of Malmö and, using their mobile phones, search for open wireless local area networks (WLANs). This was done in a very straightforward manner and even beforehand I had some idea of the effect my personal relationship with the players would have on the outcome of the game scenario. Furthermore, I did not inform them other players would participate, but this was something they found out on their own, which was a welcome progression on my part. I specifically told the participants to look for networks not requiring passwords to get access to, as a way of trying to establish some kind of connection between the player and the specific location of the network. When the connections were set up, I instructed them and use Twitter to communicate their involvement to me. I asked them to activate the GPS-function when tweeting and to get a good overview of their locations I used the website onemillion-tweetmap.com (Maptimize, 2014), which gave me the ability to search for tweets in real time (fig. 13), as well as the Twitter website. I informed them to always use the hashtag connected to the game (#projecte-
The duration of the game was a period of three weeks. By having participants play the game in their own spare time and letting them choose when to participate, I was trying to create a seamless overlap between the micro and the macro of player involvement. Furthermore, I did not initialize contact with all the players at the same time, but divided them into different stages, which affected the overall experience somewhat, as various interactions of some players formed parts of the narrative, changing the feedback for others. An idea that was never executed was the planting of objects within the personal environment of the players. This could for instance be done by smuggling a USB drive with information into the living quarters of a player, in an attempt to have them stumble upon this object and investigate it on their own. My assumption is that this would make the player more intrigued to interact with the narrative and game world, as my identity would be unknown.
4.2.2 Game Mastering

After the participants had conveyed their location, and engagement with the game, they were presented with a link to a website, giving them information about the game and how to interact with it (fig. 14). The website functioned as a sort of HUB between the players and me, the game master. It communicated information directly aimed at specific players, but also an agile representation of the game world, which the choices and interactions of the players helped create. Parts of the narrative and story elements were created by me beforehand, but instances I created by taking the information and locations of the players to draw inspiration from. The HUB also presented clues about further exploration by giving the players a link to a Tumblr blog, introducing them to the first part of fictional element of the game experience – Project Equinox (PE). Except for offering the players a narrative (which will be discussed in chapter 4.1.3), the blog also informed the players about their contribution to the virtual layer
of the game by showing them a map over the city and how their tweeting (establishing of “comlinks”) affected the game state (fig. 15). During the period in which the game progressed, updated versions of this map was constantly uploaded to the PE blog (fig. 16), giving the players a sense of what was going on and how their actions correlated to the game world. As more players connected, new versions were uploaded with new areas marked as “claimed”. This was meant as a way for me to get the players to further mark up the city with “GPS-tags” and compete for influence. A full time-lapse of the game scenario is included in the appendix (7.2, pp. 35).

«The most interesting potential application of pervasive games, in fact, lies in the careful matching of game-world tasks to the particular features of the real-world environment that the player is currently experiencing.»
- Kirman et al (2012: 767)
The reason for using already established means of communicating, such as Twitter and Tumblr, was in part to present the participants with familiar tools of interaction, and in part to draw upon the already fixed context of the environment. I also sought to exploit the fact that existing social platforms already have their place in the user’s everyday context, which, like in the case of Momentum (Waern et al, 2009), further blur the line between fiction and reality.

4.2.3 The Narrative

At a first glance, the PE blog might seem relatively cryptic, featuring strange posts about the game world, and instructions directed to specific alter egos (fake players), but at the very top of it there is an announcement saying “Attention all agents! Make sure you never officially affiliate with Persona Inc.,” with the company name being a link to a different blog, supposedly a

Our employees are doing a great job gathering metadata around your neighbourhood, so that you can have a safer everyday online experience. When everything’s connected, nothing’s out of reach.

Fig. 17: PI blog referring to hacked agent
kind of official, glossy representation of what Persona Inc. (PI) is all about. On this blog, PE is presented as a part of PI’s “venture into the scandinavian market,” and the idea was to have the players understand that they worked for PI, but under cover, as PE agents. I tried to design the aesthetics of the two blogs in two very different fashions in the hope of creating a critical reaction from the players when presented with the juxtaposition of the two factions. If an event occurred in the game, i.e. a player being “hacked”, the situation of strengthening the agent network would be presented in two radically different ways on the two blogs (fig. 17-18).

Throughout the game, player interactions had an effect on the virtual narrative and outcome of the game world. Because player @ID433’s initial tweet, which was the first tweet of the game, was located at Triangeln/Scandic Hotel in central Malmö, I decided the PI headquarters (HQ) was located there. Except for narrative occurring because of player involvement, I also created instances where fictive events would happen to affect the game state. One of those instances was the hacking of player @ID433 (fig. 19). To encourage player involvement when not entirely getting the engagement suspected, and in an attempt to influence the game in a specific direction, I created an event where one of the players would be victimized. Even before the players had started interacting with the game I had created blog posts referring to a rogue agent, antagonizing PI and PE. This agent, @ID1361, posed as a player but functioned as a tool for me to further extrapolate the narrative. Supposed pictures of @ID1361 were posted in situations related to the game area and concerning real events and activities taking place in and around Malmö (fig. 20).

Fig. 19: Player @ID433’s HUB after it’s been hacked

Fig. 18: PE blog referring to hacked agent
4.3 Game Evaluation

One of the biggest issues with the first game was to get the players to engage with it. The interviews show that for the biggest part this had to do with the fact that the application for interacting with the game, the HUB, did not present direct feedback to the users. One of the players stated that he “went out and tweeted, checked the HUB to see how it had been affected, but there was no change.” This led him to believe that he had done something wrong, which just left him frustrated with the interaction altogether. For those who got engaged with the narrative behind their involvement with Project Equinox (not all did, as some did not find their way to the blog), they found the story to be appealing. Although, at times they had little understanding of how they could affect the storyline themselves. One player told me that he was amused to see two of his comlinks connecting to each other, but it didn’t really give him any hint of what that meant or what he was supposed to do next. When asking one player, who stated that Persona Inc. seemed to be an “evil” corporation, why he still followed their instructions he simply replied “it’s just a game.”

Fig. 20: PE blog reporting on the actions of agent @ID1361

[atk]id1361 spotted in the outskirts of Malmö, Sweden. Be on your guard, agents! stick to your duties.

Fig. 20: PE blog reporting on the actions of agent @ID1361
Concerning the relationship between the players and their environment, there was one incident where a player tweeted a picture of the Pi HQ, commenting on the fact that having a corporation dabbling in social engineering in the city was frightening (fig. 21). My interpretation of this is that narrative in some cases have the power to change the way players perceive their surroundings and although they know the virtual story is not real, their actions linked to the specific event are.

Finally, I find that the most important result of the game was that the engagement from the players that found their way to the blogs containing the narrative was very different from the ones that did not. Even though all players had a hard time figuring out the "real purpose" of the game, the ones that engaged with the story had a far more productive interaction. It was important for me as the game master to not communicate or speak about the game with the participants directly, but do this using the tools I had created, i.e. the game HUB. The reason for this decision was to try and distance myself from letting our private relationships influence the game experience. This situation created a couple of problems, namely that when the players had a hard time figuring out what they was supposed to do, they could not turn to me directly for guidance. When they acknowledged there were other players involved in the game and they met in real life, they thought they weren't allowed to speak about the game, which also affected the way they interacted with it and its narrative. My intentions for being cryptic and creating a vague kind of story was to let the players not only contribute to the narrative and its discourse, but to force them to make an effort in doing so. In those cases, collaboration between the players is key, so the fact that they didn't really interact with each other was a problem. Also, the small number of players contributed to the overall lack of collaboration within the game. In the examples of ARGs presented earlier in this paper a lot of game elements are aimed at player collaboration and the sheer size of these games makes this cooperation easily attainable.
As the game master, my intention was to encourage this cooperation by taking part in the creating of the narrative, but also responding to the player choices.
5. EVALUATION & RESULTS

5.1 Discussion

What this thesis project set out to explore is the relationship between the players and the fictional worlds of ARGs, concentrating on the aspects of immersion, player involvement and narrative. I have tried to investigate the connection between immersion and narrative, as well as to what extent the applying of narrative to environment contributes to the overall immersive experience of the player by asking two questions, the first one inquiring **how narrative can be utilized to create player involvement within fictional worlds**.

I first want to articulate that the majority of research within the field of narration and storytelling refer to the realm of literature and traditional drama, where the conveying of the discourse of the story is very much a one way communication (Calleja, 2011). In the case of narrative within fictional worlds and games, I have found that terms like *experiential narrative, spatial stories* and *environmental storytelling* are all very supplementary in explaining how this kind of narration differs from the more traditional one (Jenkins, 2006). Narrative embedded within a physical (or virtual) spaces are in most cases interactive, putting the unfolding of its discourse in the hands of its users, as it evolves in real time through player engagement (Juul, 2005). I would argue that this is the case with the game Project Equinox, where the narrative was not only created in cooperation with the players, but was extrapolated mutually between the participants. Further, the fact that *experience, space and environment* are key words in describing this sort of narration shows that ubiquity is essential when combining ARGs and storytelling. This notion very much shows that the two research questions are strongly linked to each other, and therefore also requires firmly linked answers.

Concentrating on the first question, Juul (2005) firmly declares that narrative and interactivity cannot coexist because of the *now* of the interactivity and the *past* of the narrative. He makes the case that the discourse of the storyline is dependant of the presumption that the story is predetermined. This argument
does simply not apply when it comes to games that build upon the fact that the story itself is interactive and the players inhabiting the game world themselves dictate the outcome of the story. In fact, the game of Project Equinox proves that narrative can play a big part in creating player involvement, as well as creating a borderland, or “magical between”, between what the player conceive as reality and fiction. I would argue that narrative in this case is utilized as the link between the player interactions and the game world, creating feedback and agile storytelling. This occurs when the players understand the outcome of their actions and act with a specific outcome in mind.

In the case of ARGs, where computational devices for fooling the player into believing in a virtual presence has been exchanged by the vibrant and dynamic reality of physical space, the environment adopts the story in the eyes of the player. This leads us to the second question of how narrative can be linked to the physical environments of ARGs, to transform the way players perceive their surroundings, changing their perception of the environment. Regarding ARGs, the most common objects used to mediate narrative, and therefore immersion, are digital devices creating a layer of fiction, superimposing the environment. One of the big challenges with creating immersion within traditional computer games has to do with getting the player to believe that what is happening on the screen is somewhat real (Juul, 2005). Not real in the sense that it happens in reality, but in a parallel world perceived by the player. The fact that the technical objects of ARGs are already inherent within the physical realm makes them believable, and function as links between what is conceived real and fictional (Waern et al, 2009). Having interactive objects tell stories about the environment can also encourage the player to actually apprehend specific properties of the surroundings, making them contemplate certain aspects not necessarily visible at first glance. In the case of Project Equinox, player choices actually affected the environment, manipulating the the way other players interacted with it. The most clear example of this was
the reaction the player @fivansson_ expressed when encountered by the fact that the *Scandic Hotel* building represented the PE headquarters. This was an event fully created by the players, influencing the narrative, driving the discourse forward. Not only did it connect the players, and the players with story environmentally, but it also incorporated my involvement, as I drew inspiration from the players’ choices, creating a cooperative dialogue. This event also contributes to the theories of experiential narrative, as it shows that the environment is a fundamental part of ARGs when it comes to creating the story. Further more, the game *URAY* shows that putting the player in an environment not originally devoted to the constructing of the game world creates an abundance of anomalies that are hard for the players to totally grasp, changing the perception of what the player perceive as part of the game and reality, asking new questions about the actual boundaries of gameplay, as well as the magic circle. This is something I tried to explore with Project Equinox, but never really managed to invoke.

5.2 Conclusion

In order to understand the role of narrative within fictional worlds it is important to acknowledge the difference between traditional storytelling mediums and interactive ones. Narrative can play a big factor in creating player involvement in ARGs, because they are interactive. Storytelling within interactive environments hold properties that urges the user to collaborate with the discourse of the story, dynamically changing the unfolding of events. This calls for a narration related to the environment the player already inhabits, presented in an experiential fashion, requiring player choices and intervention.

Narrative connected to physical space does not only translate into a piece of story, but becomes a part of the space itself. The blurring of the lines between what is real and what is perceived as fictional game el-
elements affects the player's engagement with the ARG. What's unique with pervasive games is that they use physical objects and elements that are actually inherent in the game world - the real world. Placing these objects within the real world, and granting them with believable properties, is imperative when telling stories in ARGs, as it is the key to mending the gap between the physical space and the imaginary. The objects function as portals for making the fictional bleed into the real environment. These portals tend to function both ways, as the real environment also influence the fictional, through cooperative narrative created by player intervention. Additionally, to create a more seamless user experience, these interactive devices for communicating game states should incorporate instant feedback, as the physical realm does so.
6. REFERENCES


Games & Media


*Year Zero*, 2007. USA: 42 Entertainment.

Links


7. APPENDIX

7.1 User Interview Questions

- When did you decide to go out and “tag”? (Did you go out just for that reason?)
- What did you do after tweeting?
- Why did/didn’t you continue tweeting?
- What was Project Equinox?
- How did you interpret the Equinox maps?
- Have you checked the other players on twitter?
- What was Persona Inc?
- Did you connect Project Equinox with Persona Inc?
- Who was player @ID1361?
- What did you think about the story/narrative?
- Was there any other players?
- How did you find the communication device/HUB?
- How often did you check it (the HUB)?
- Did you think about the game at other times, except for when you played it?
- Did you find the activity of using Twitter in combination with the HUB to be a game?
- Any other comments?
7.2 Game Scenario - Time-lapse

01: Players @ID433 and @JIXASHAUSER have connected to the game and acquired zones according to their positions while tweeting. Area “AGENT OFFLINE” indicates story element of previous agent gone rogue.

02: Players @ID433 is hacked by rogue agent @ID1361.
03: Player @ID433 goes offline, following the hack. Players @FIVANSSON_ connects to the game.
04: Players @FIVANSSON_ reestablishes player @ID433's former comlink and incapacitates the rogue agent.