Player Behaviour in Pervasive Games – using the City as Game Board in Botfighters

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Abstract
Pervasive gaming is a young genre of digital games that reaches out into the real world. In the game Botfighters, which is played using mobile phones, players have to move in the city to move their characters in the game world. The actual physical positions of players are known to some extent by other players, and they have to be in the vicinity to shoot each other.

In the field of game research, Johann Huizinga’s (1948) “Magic Circle” is a popular theoretical concept which forms the boundary between play and the real world. One aspect of pervasive games is that they challenge the Magic Circle; suddenly it is no longer obvious where and when the game begins. To challenge the traditional boundaries between play and reality in this way can be somewhat controversial, and the question is how players experience this. The purpose of this master’s thesis is to investigate how Swedish players have played and experienced the game Botfighters. The investigation is accomplished through interviews with experienced players and the people behind the game. A new model for analysis of these games is evaluated, based on a combination of Salen’s and Zimmerman’s player types (2004) and Fine’s framework for analysis of role playing games (1983). The conclusion is that Botfighters is a game which has engaged its players in a way few games do, but the player population has so far been so small and homogenous that the more deviant kind of player behaviour has not emerged. Huizinga’s theory of the Magic circle appears to be problematic when applied to this type of games, and the new framework used in this thesis shows to be a useful complement to the Magic Circle.

Spelarbeteende i pervasive-spel - med staden som spelplan i Botfighters

Sammanfattning
Pervasive-spel är en ung genre av digtala spel, som sträcker sig ut i den riktiga världen. I spelet Botfighters, som spelas med mobiltelefonen, måste spelarna röra sig ute i staden för att förflytta sina karaktärer i spelvärlden. Spelarna får reda på varandras fysiska positioner, med viss felmargin, och måste röra sig så att de befinner sig i närheten av varandra för att kunna skjuta på varandra.

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1. INTRODUCTION

Ralph is on his way out of the department store, running. Just a moment earlier, he was in line to buy some groceries. Then he heard the sound he is always dreading to hear, of his phone receiving a message. Now he is on his way out of the store, he has left the groceries on the floor and his wallet is gone too. But those things don’t matter anymore, because a missile will hit the department store in a few minutes. It is true, he just learned it from the message he received. It is a big one too. Time is limited and he will have to move fast if he wants to be clear of the blast radius when it strikes.

Crossing the street, he hears screeching tires and people cursing. If they only knew what he knows, he thinks as he continues down the street. He knows he will have to cross the bridge over the water to get enough distance between him and the missile. He has done this before. He knows that he can make it, just as he avoided the missile that nearly got him a couple of nights ago.

Starting up the sloping bridge, he feels that he is losing his breath. Can he really make it? It is a longer run than he remembered, and the sun is blazing hot today. He checks his watch; it is only a matter of seconds now. This will be a close one.

He has crossed the bridge and is still running when the phone makes that sound again. Checking the message, he collapses on a seat. He is still alive. Exhausted, with sweat trickling down his spine, he is already planning his retaliation.

As the reader might have suspected, it was no real missile that Ralph was running from. It was a virtual missile, and Ralph was actually playing the game Botfighters, one of the first location-based mobile games in the world. The story about Ralph is not a story of something that has actually happened. Rather, it is a very plausible scenario in the game, where things stranger than this has happened many times, as the reader will see later on.

Botfighters is a part of a young genre of digital games: pervasive gaming. As shown in the scenario, pervasive games are games that reach out into the real world and intrude into the everyday lives of its players at all times. These games use modern mobile technology in ways not contemplated before and may put players in situations new to them. To this day, not many pervasive games have existed on a commercial level, and the genre is still breaking new territory.

1.1 IPerG

IPerG, Integrated Project on Pervasive Gaming, is an EU-sponsored project led by Swedish Institute of Computer Science (SICS) and with a total of ten contributors from four different countries. The objectives of IPerG are to develop infrastructure, tools and methods for pervasive games, in order to enable rapid and cost-effective creation and staging of pervasive games, create good designs, understand the intended audience and to understand the societal impact of games.

The organisation of IPerG consists of five core work packages (Management, Business and Organisation, Design and Evaluation, Infrastructure, Tools) and five showcases (Crossmedia, Socially Adaptable Games, Massively Multiplayer Reaching Out, enhanced Live Action Role Play and City as Theatre).

Within the five showcases, a number of pervasive game prototypes have been designed and tested in various extents. Notable examples of these games are the position-based Garden of
1.2 Purpose

Games that challenge the traditional definitions of play often tend to become somewhat controversial. Role-playing and Live-action role-playing games, for example, have been exposed to a lot of negative publicity, rumours and myths. Online games and Massively Multiplayer Online Games often give outsiders bad associations; that they are addictive and lead to asocial behaviour. Pervasive games have a lot in common with both live-action role-playing games and online games, and might be exposed to the same kinds of prejudices.

It is an outspoken ambition of the Integrated Project on Pervasive Gaming (IPerG), to create ‘good games’, games that have a high social and cultural value. One goal for the project is to be highly visible in public, and this makes it important for the games developed within the project to avoid being regarded as dangerous or unethical (McPheat et al., 2004). Of course, this is something that would be desirable to avoid for any creator of pervasive games, not only IPerG.

To achieve this, it is necessary to learn to know the players of pervasive games and to understand how they behave within them, which is not necessarily the same as with other multiplayer games. If game designers have that knowledge, they can be aware of potential pitfalls and address them as early as the design phase.

The purpose of this thesis is to investigate how people play and experience pervasive games. More specifically, I will investigate how Swedish players have experienced the pervasive game Botfighters. In this thesis I want to answer these questions: How was the game Botfighters played? How did players experience the intermingling of real life and play in the game? A significant part of the study will be to evaluate how the popular concept of the Magic Circle first introduced by Huizinga (1948) can be applied to pervasive games, and to come up with a possible alternative.

This will be investigated through interviews with experienced players from the game. I will collect stories and anecdotes of things that has happened in Botfighters to get an understanding of how the game is played, and how the players have experienced it. The game of Botfighters is one of the first pervasive games and one of the very few that has been commercially active for several years. When studying player behaviour, this seems important; it is doubtful that a game-test participant in the IPerG prototypes would have performed some of the extreme acts in the game that will be described below. Also, nobody has ever assembled the anecdotes and stories of all the exciting things that have happened in the game, and since the game is not playable anymore and the community has dissolved, this information would be forgotten otherwise.

The thesis is done at the request of Daydream Software AB which is the publisher and developer of Botfighters and a part of the EU-sponsored project IPerG.
2. BACKGROUND

An introduction and background to pervasive gaming is presented together with the relevant theoretical models that will be used in this thesis.

Pervasive gaming is a new genre of digital games, with only a few commercial games having existed to this date. It can be discussed if the term ‘pervasive gaming’ is ever going to find a widespread use. Probably it will not, since no game so far has been marketed as a ‘pervasive game’, but rather a ‘location-based game’, ‘augmented reality game’ or ‘not a game at all’ as in the case of some alternate reality games that will be described below. However, until a better term is invented, this is an adequate name for the type of games that are to be studied in this thesis.

2.1 Pervasive gaming

Because the genre is quite new and includes a variety of games that are very different from each other, it is hard to find a good definition of pervasive games that covers them all. The term ‘pervasive’ is originally adopted from the concept of ‘pervasive computing’ which is used to denote that our environment is being filled with increasingly smaller and more invisible computer devices. In ‘pervasive gaming’ it is implied that the game pervades into the real world in some way. Within IPerG, a design-oriented definition has been proposed: ‘A pervasive game is a spatially, temporally, or socially ambiguous game’ (Björck et al, 2005). A further explanation of this definition can be found in Markus Montola’s article ‘Exploring the Edge of the Magic Circle: Defining Pervasive Games’ (2005).

The first pervasive games emerged around the year 2000 (the Nokia Game 1999, Can you see me now 2001 and Botfighters 2001). These games can be divided into the main sub-genres ‘location-based games’ and ‘alternate reality games’. Location-based games involve positioning in some way; in the case of Botfighters, mobile positioning with cell phones is used. The players have to move physically in the real world to move in the game. The game can take place anywhere and anytime and is therefore according to the definition presented above spatially and temporally ambiguous. Also, you cannot know if people you encounter are players or not until they are revealed through the game, which makes the game socially ambiguous.

A subgenre of pervasive game called Alternate Reality Games (ARGs) involve problem-solving that requires the players to scour the internet, other media and even real life locations to find clues. The most famous ARGs are the AI Game (also known as The Beast), the Nokia Game, Majestic and I Love Bees. The idea of these games was that they would intrude the daily lives of the players, who had to collect clues from midnight calls to their home telephones, anonymous mails and faxes and fake websites among other things. These games were spatially ambiguous in that they took place in many different places, even on websites that was not created by the game developers, and regular newspapers and television. They were temporally ambiguous in that players could be contacted by the game and given important clues on any hour, often in the middle of the night. Some ARGs have also incorporated actors that players were supposed to meet at specific locations (not knowing which people were actors and which people were just innocent bypassers). More information about ARGs can be found in the very comprehensive book ‘This is Not a game- A guide to Alternate Reality Gaming’ by Dave Szulborski (2005).

2.1.1 Previous research

In ‘This Is Not a Game’: Immersive Aesthetics and Collective Play (2003), Jane McGonigal describes how the AI Game generated a new sense of social agency in the players and how the
collaboration of players can instruct real-world problem solving. An example of such collaboration is the online group Cloudmakers, which was formed to solve the AI Game and has had a membership of more than 7000 people. Using quotes from Cloudmaker forums, McGonigal shows how the sense of community became very strong. The belief in the capabilities of the community was so strong that many members wanted the Cloudmakers to try to solve real-life problems such as the terrorist attacks on 11th of September 2001.

Another paper concerning ARGs is Taylor and Kolko’s ‘Majestic and the uncertain status of knowledge, community and self in a digital age’ (2003), where they have studied the Electronic Arts game Majestic. Released in 2001, Majestic used fake websites, midnight phone calls and mysterious e-mails and faxes to create an intricate story of worldwide conspiracy. Taylor and Kolko show how players had to learn to evaluate the status of the information they received and how the uncertainty on what was part of the game and what was real actually generated a sense of unease among players.

The fuzzy boundaries between the games and the reality are common in pervasive gaming and are probably often what makes the games exciting. In the paper ‘A Real Little Game – Performance of Belief in Pervasive Play’ (2003), Jane McGonigal investigates how players deal with the boundary between pervasive games and real life. McGonigal focuses on two games, the AI Game and an urban superhero game called the Go Game. In these games she traces the emergence of what she calls ‘the Pinocchio effect’, defined as “the desire for a game to be transformed into real life, or conversely, for everyday life to be transformed into a ‘real little game’.” (McGonigal 2003:1). The interesting point she makes is that gamers maximize their game experience by performing belief, pretending even to themselves that they believe in the game context, contrary to actually believing in it.

In the paper ‘All the world’s a Botfighter stage: notes on location-based multi-user gaming’ (2002), Olli Sotamaa investigates how Botfighters challenges the traditional game and play, and how the game can be seen to redefine how we use and inhabit urban spaces. The conclusion is that elements brought from the real world into the game maintain some of their real life meanings and effects inside the game, but the game can also give real life elements new meanings. Locations brought into the game will have memories and feelings attached to them, but the game will also give the locations new meanings.

2.2 Botfighters

The year is 2105. The world-spanning Global Nation controls 99% of our planet’s resources. It is a sprawling bureaucracy, bloated and corrupt. The bureaucrats wield total power over 17 billion people, and only a few dare to oppose.

But still a war is being waged, a war where rebels fight for the freedom to control their own lives and where corporate loyalists strive to uphold the system that once saved our planet from extinction. You start as a newly graduated bot pilot, and then the action begins as you join the ferocious battles of the botfighters.

(Botfighters.com 2005)

Botfighters was launched in April 2001 by Swedish developer It’s Alive. The purpose of the game is to control robots (from now on referred to as bots) in a persistent game world, and to defeat other bots to gain ranking score and virtual money (‘robucks’).

Botfighters is based on mobile positioning and played on mobile phones via SMS (in newer versions it is played using a Java application and GPRS communication, but the version studied in this thesis was solely played via SMS).

The game world in Botfighters is overloaded on the real world – all locations in the game world correspond to locations in the real world, which means that to move his bot in the game world, a player has to move physically in the real world. The distance between players affect their ability to fire at each other; a player must get within a certain distance of another player to fire at him,
and the distance also affects the effectiveness of the weapons. The game uses cell-based positioning with the help of Ericsson’s Mobile Positioning System (MPS) to determine where players are. This means that the accuracy of the positioning is fairly low, and that it depends on the density of the cell network (i.e. the distance between radio base stations). Normally, the accuracy of the positioning is a few hundred meters (Ylianttila, 2004; Ericsson, 2003).

Botfighters existed in Sweden for about three years, and was then brought offline, to be replaced by Botfighters 2, which has not yet been launched at the time of writing this report. The game was also launched in Finland, Ireland, Russia and China, and is still being played in Russia and China. In Sweden, the game gained a population of about 7000 registered players, 90% male, with an average age of 26-27 years. The world total has been about 22000 players (Ylianttila, 2004).

To play the game, simple commands are sent via SMS, for example to scan the surrounding area and see if there is anyone to fire at, or to locate or fire at a specific bot. When fired upon, a player receives an SMS with the details (range and direction) of the attack, and he can then respond to the attack in any way he likes. Players also receive warnings when someone in the vicinity is scanning for bots. A fight is resolved by the bots firing at each other until one of them has lost all his energy and is defeated. The bot never actually dies, but can be recharged and brought back in the game.

The game goes on all the time, 24 hours a day, and everywhere; there are no safe locations. If a player does not wish to be disturbed, he can pause himself from the game. When paused, the bot will still remain at the location it was paused. This means that other players can still fire at the bot if they know where it is, but in that case the player who owns the bot will not be alerted of the attack.

To encourage players to remain un-paused and active, a weapon called Long Distance Missile (LDM) was introduced. This weapon can only be fired once every 24 hours, and only if the player has not been paused during the time. The LDM can be fired from any distance, but will take some time to traverse the distance between the players (the actual flight time depends on the distance, but would normally be in the range of 5-10 minutes). When fired upon, a player will receive a warning that an LDM has been fired at him, and then he will have to move out of the ‘blast radius’ of the missile to avoid being hit (normally a few kilometres). The reader has already seen an example of this; in the opening scenario of this text, the fictive player Ralph was fleeing from an LDM.

An important part of the game is the website where players can configure their bots, buy equipment or recharge their bots using the game currency, robucks, and chat with other players (figure 2.1). There is also a function on the website that shows recent events in the game, for example that a player has shot another player and where it happened. Positions on the website are shown on real maps.
The ranking system at the website, as shown in figure 2.2, is an integral part of the game. This is the only way for players to compete with each other and compare their success. A new bot will always start up with 1000 ranking points and then gain or lose points by fighting other bots. The system works such that if a low-ranked bot kills a high-ranked bot it will “take” a large amount of points from the high-ranked bot. Bots with a score of 2000 or more will gain only 1 or even 0 points killing a bot with a score below 1000, while a kill between equal bots might yield 50 points.
2.3 Game theory

In this chapter the theories relevant for this study are presented.

2.3.1 Virtual worlds

A considerable part of pervasive games still takes place in virtual worlds, even though they might be connected to the real world. The first virtual worlds were text-based and called MUDs (Multi-User Dungeons) and were all inspired by the very first MUD, MUD1, which was written by Roy Trubshaw and Richard Bartle at Essex University 1978-1980 (Bartle 1990). With the rise in popularity of the World Wide Web in the 1990s, the number of public MUDs rose dramatically. At the time this report is written, 1820 active MUDs can still be found through the Mud Connector, which is a regularly updated listing on the Internet (Mud Connector, 2005).

What makes these games virtual worlds is that they try to simulate an entire world, with players and entities living their lives and interacting with each other. One important aspect is that life in these worlds goes on around the clock, day after day, regardless of the individual players. They are persistent; life in the world will still go on when you log out.

As computers evolved, the virtual worlds started to become graphical instead of text-based. These were often online games based on traditional role-playing games like Dungeons and Dragons, and are therefore called Massively Multiplayer Online Games (MMOGs) or Massively Multiplayer Online Role Playing Games (MMORPGs). One of the first MMORPGs were Ultima Online, which has later been followed by some very popular games like Everquest, Star Wars Galaxies, Lineage and the still growing World of Warcraft, which had more than 5.5 million users in January 2006 (Blizzard, 2006).

Since virtual worlds are not only games, but also social activities, there has been a lot of research on how people interact in these games. One common problem with the social activity in online communities is that the anonymity of the players might lead to abusive behaviour, something that can actually be very upsetting for the victim. Julian Dibbell first showed this in his article A rape in cyberspace where he described how a player in LambdaMOO committed ’rapes’ on several other players, something that evoked a considerable upset in the community and eventually led to the offender being expelled from the game (Dibbell, 1993). This event led to the emergence of an organized legislative system in this online community (Mnookin, 1996).

Abusive behaviour in these games is often called grief play or griefing and is defined as intentional game styles where the ’griefer’ purposefully tries to disrupt the game activity for other players (Foo, 2004; Foo and Koivisto, 2004).

2.3.2 What is a game?

What is a game? What is the definition of a game? Dutch anthropologist Johann Huizinga’s book Homo Ludens is among the most important work on this subject. In Homo Ludens (1949: 13) he stated that:

‘[Play is] a free activity standing quite consciously outside “ordinary” life as being “not serious”, but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings, which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means.’

Huizinga’s book was a groundbreaking study of the play element in culture and many concepts that he defined has been used by later game researchers. There are however many other definitions of games and play that do not completely agree with Huizinga’s description.
In *Rules of Play* (2004: 79), Salen and Zimmerman list a few definitions of games originating from important theorists including Huizinga, and establish that there is no general consensus about the definition. Salen and Zimmerman compare the definitions according to fifteen key elements that they have identified in the different definitions. Not one of these elements appears in all the definitions.

The most common element is that games ‘proceeds according to rules that limit players’, which appears in seven out of eight definitions. Other suggested elements are that games include some conflict or contest, that they are goal-oriented/outcome-oriented and that they are voluntary and outside ordinary life. But none of these appears in more than five out of eight definitions.

After putting together elements from the definitions mentioned and ‘whittling away the unnecessary bits’ Salen and Zimmerman presents their attempt at a unified definition: ‘A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome’ (Salen and Zimmerman, 2004: 80).

Some problems with this definition can immediately be found; the authors agree that Role Playing Games (RPGs), for example, might be hard to fit into this definition (and consequently, MMORPGs too). This is because they seldom have a single overriding quantifiable goal. Are not RPGs games, then? Salen’s and Zimmerman’s position is that RPGs can be defined either as having or not having a quantifiable outcome, because even if there is no overriding end goal, there are goals that players set up for themselves.

### 2.3.3 The Magic Circle

When and where do games begin, and what does it mean to enter a game? The notion of play standing outside ordinary life, proceeding within its own boundaries of time and space is summarized by the idea of the ‘Magic Circle’ which has become widely used and was first proposed by Huizinga in *Homo Ludens* (1949: 10):

> All play moves and has its being within a playground marked off beforehand either materially or ideally, deliberately or as a matter of course. Just as there is no formal difference between play and ritual, so the “consecrated spot” cannot be formally distinguished from the play-ground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart.

*Inside the playground an absolute and peculiar order reigns.*

According to Salen and Zimmerman (2004: 95), the Magic Circle is the space within which a game takes place. To play a game means entering the Magic Circle, or creating one as the game begins. Also, the circle defines who is taking part in the game and who is not. The Magic Circle does not have to be a physical boundary but can also be a boundary in time, or even less distinguished. ‘Magic’ is a good description of what happens when you enter the circle, because within the circle, the reality that the players inhabit is defined by the rules of the game instead of the rules of the real world.

A fitting example of this is sports; in a hockey game, players can use a good amount of violence against each other, even if it leads to injuries, without being penalized. If the players would tackle people in the same way outside of the game, however, they would be arrested and punished. Once they are on the pitch (the physical boundary) and the referee makes the signal (the boundary in time), other rules apply. If they use more violence than is allowed by the game rules they will still be penalized, but within the game, and thus the magic circle remains intact despite this breach of the rules.
There is a limit to this; if they use an amount of violence that is deemed to be too far outside the boundaries of the game rules, they can still be prosecuted and punished by the society. Thus we see that there is a delicate balance between game rules and the reality outside of the circle.

When entering the Magic Circle, a player has to enter a state of mind called the *lusory attitude* (Salen and Zimmerman 2004: 97). This means that the player accepts and endorses the limitations and inefficiencies caused by the game rules. If we look at the game of golf, for example, the goal of the game is to move a ball from the starting point to a hole on the other side of the course, using only a golf club. The most efficient way of achieving the goal would be to just pick up the ball and drop it in the hole. For the game to work, all players must adhere to the limitations of using only a golf club, even though it is not the most efficient way of achieving the goal. This is the lusory attitude.

As mentioned earlier, a pervasive game can be defined as a spatially, temporally or socially ambiguous game. By this definition, the very nature of pervasive games is to challenge the Magic Circle. If a game is ambiguous in these aspects, there will be no border to cross and no Magic Circle to enter to begin the game. This problem with the concept, the openness or closed-ness of the Magic Circle and the separation of the game from everything else, has been addressed by Marinka Copier who argues that the use of the term in game research is problematic. In ‘Connecting Worlds. Fantasy Role-Playing Games, Ritual Acts and the Magic Circle’ (2005), Copier questions the interpretation Salen and Zimmerman makes of the Magic Circle, claiming that it is often misunderstood, because it was originally written in old-fashioned Dutch and partly incorrectly translated to English in 1949. There is for example no difference between the words ‘play’ and ‘game’ in the Dutch language; they are represented by the same word, ‘spel’. This explains why Huizinga makes no difference between play and games in his definition of play mentioned above.

Copier also identifies a paradox in Huizinga’s definitions in that while he claims that play has distinct boundaries in time and space, at other places he claims that it becomes an integral part of life in general. Additionally, Copier claims that Huizinga’s original use of the Magic Circle was as a *ritual space*; an example of the play element in culture, the ritual space as playground and vice versa. (Copier, 2005: 7).

**2.3.4 Rules of play**

As mentioned above, most definitions of games include the existence of *rules* that limit players. Salen and Zimmerman (2004: 130) propose a three-part system for understanding game rules:

**Operational Rules** are what we normally think of as rules: the guidelines players require in order to play. These are for example the ‘rules’-sheet that accompany board games.

**Constitutive Rules** are the underlying logical and mathematical structures that exists ‘below the surface’ of the operational rules. In a digital game this can be the logic embedded in the game when it is programmed, and in a board game like Chess this is for example the number of different moves possible for a player.

**Implicit Rules** are the ‘unwritten rules’ that often emerge in games, concerning good sportsmanship and proper game behaviour. Implicit rules can change from game to game, and with different players.

Salen and Zimmerman argue that face-to-face interaction is very important to the way people relate to the rules. When a group of players all obey the rules, they implicitly police and enforce proper play. This is because all players have invested the game with meaning in order to play, and because of this it is in everyone’s interest that the meaning of the game is held intact (Salen and Zimmerman 2004: 269). In which ways can these rules be enforced, then? In *CODE and other laws of cyberspace* (1999), Lawrence Lessig argues how things can be regulated; by the use of architecture, law, norms and market. In a game like Botfighters, fundamental rules like how players can move in the game are actually decided by the physical laws and the placement of radio base stations, which then form the architecture of the game. Laws, on the other hand,
are the rules stated by the game designers, and norms are the implicit rules as mentioned above. Finally, the market has some implications on the game, since price structures and the salaries of the players actually decide how many shots they will be willing to fire. This is an interesting thought, since it might imply that a player with a strong real-life economy will have a clear in-game advantage on a player with less real-life money.

2.3.5 Playertypes

When studying games and social interaction within them, it is often possible to divide the player population into different categories, defining playertypes. Several models have been proposed and used in the field of game studies, but in this a model by Salen and Zimmerman will form the main theoretical framework.

Salen and Zimmerman

In Rules of Play (2004), Salen and Zimmerman define five types of players in games. These player types differ from each other in three aspects; adherence to rules, interest in winning and degree of lusory attitude. These player types are: the standard player, the dedicated player, the unsportsmanlike player, the cheater and the spoil-sport.

The standard player is the typical rule-following player; he adheres to the game rules, has a moderate interest in winning and possesses the lusory attitude. Salen and Zimmerman argue that this player type might just be a theoretical fiction, but that it is still important to acknowledge because it stands in contrast to the other four types (Salen and Zimmerman, 2004: 284).

The dedicated player differs from the standard player in the dedication to the game. He still follows the rules and possesses the lusory attitude, but has an extra zealousness towards winning. Examples of dedicated players are professional athletes and gamblers, and hardcore gamers. Since the dedicated player will invest such energy into succeeding in the game, he often possesses a stronger sense of immersion and lusory attitude compared to other players. This belief in the game is needed to motivate the time and energy the dedicated player invests in it.

The unsportsmanlike player also has a strong interest in winning. So strong, actually, that he is prepared to do anything to win except actually breaking the game rules. He will follow the operational rules, but not the implicit rules that define proper behaviour in the game. The unsportsmanlike player will be trying to find shortcuts and exploits to make it easier to win. By doing this, he refuses to completely surrender to the lusory attitude; he accepts the inefficiencies of the game only when they are clearly defined by the rules.

A common behaviour of both dedicated and unsportsmanlike players is to make use of degenerate strategies or exploits. These are ways of playing the game that takes advantage of weaknesses in the game design; to achieve success in the game in ways not intended by the game designers. Degenerate strategies do not actually violate the rules of the game and are therefore not categorized as cheating. Whether or not the use of these strategies is defined as unsportsmanlike or ‘proper’ ways to play depends on how the game experience is framed. Sometimes, these exploits are accepted by players as valid ways to play the game, and sometimes they are not (Salen and Zimmerman, 2004: 271).

A good example of unsportsmanlike behaviour is offered by Salen and Zimmerman (2004: 271): A player who realizes that he is going to lose in a game of Tic Tac Toe might simply refuse the implied, but not explicitly defined time limit between turns and take a very long time to make his next move. This might in the extreme case postpone the game indefinitely; effectively letting the unsportsmanlike player avoid a certain loss since the game never ends. The notion that a player should take a reasonable amount of time for his move in Tic Tac Toe is just a implied rule, not an actual rule of the game.

The cheater also possesses a strong interest in winning and will break any rules, operational or implicit, to achieve his goal. The cheater is still participating in the game, though, and acknowledges the magic circle in some ways even though he will not adhere to the lusory attitude.
The spoil-sport will do anything to ruin the game. He will not acknowledge the Magic Circle, any rules or the lusory attitude. While a cheater might hack a computer game to give him an advantage, the spoil-sport will try to bring down the server and end the game for everyone. According to Huizinga the spoil-sport differs from the cheater in that while the cheater pretends to play the same game as the other players and acknowledge the Magic Circle, the spoil-sport does not. This makes the spoil-sport much less accepted by the society, because he shatters the play-world itself and robs the play of its illusion (Huizinga 1949: 11).

When considering this model, one has to be aware that the boundaries between the types are fuzzy, and players can move between them, sometimes even within the course of a game. The player types are summarized in table 2.1:

<table>
<thead>
<tr>
<th></th>
<th>Degree of lusory attitude</th>
<th>Relationship to rules</th>
<th>Interest in winning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard player</td>
<td>Possesses lusory attitude</td>
<td>Acknowledges authority of rules</td>
<td>Typical interest in winning</td>
</tr>
<tr>
<td>Dedicated player</td>
<td>Extra-zealous lusory</td>
<td>Special interest in mastering rules</td>
<td>Intense interest in winning</td>
</tr>
<tr>
<td>Unsportsmanlike player</td>
<td>Sometimes resembles the Dedicated player, sometimes resembles the Cheat</td>
<td>Adherence to operational rules, but violates implicit rules</td>
<td>Intense interest in winning</td>
</tr>
<tr>
<td>Cheat</td>
<td>Pretends to possess lusory attitude</td>
<td>Violates operational rules in secret</td>
<td>Intense interest in winning</td>
</tr>
<tr>
<td>Spoil-sport</td>
<td>No pretense about lack of lusory attitude</td>
<td>No interest in adhering to rules</td>
<td>No interest in winning</td>
</tr>
</tbody>
</table>

Table 2.1: Salen’s and Zimmerman’s player types (Salen and Zimmerman, 2004: 276)

Bartle

Another model for categorizing players was proposed by Richard Bartle in his paper *Hearts, clubs, diamonds, spades: Players who suit muds* (Bartle 1997). In this model, Bartle defines four categories of players based on their motivations. Bartle’s player types have been widely used by game researchers, but will not be further described in this thesis. Instead, I have chosen to use Salen’s and Zimmerman’s player types mentioned above, because they cover more aspects of playing, such as cheating.

2.3.6 Levels of meaning

In this thesis I will also use a model for analyzing role-playing games proposed by Gary Alan Fine in the book *Shared Fantasy* (1983). The model is an adaptation of Ervin Goffman’s discussion of frame analysis. In *Frame Analysis* (1974) Goffman assumes that we define situations in accordance with the principles of organization that govern events – at least social ones – and our subjective involvement in them. He uses the word *frame* to refer to these basic elements which form the principles of organization. (Goffman 1974; 10-11).

Frames

Goffman claims that when recognizing a particular event, an individual tends to imply one or more frameworks that might be called primary, and does not depend or hark back to some prior
or ‘original’ interpretation. He makes the distinction between two broad classes of primary frameworks: natural and social. Natural frameworks identify occurrences that can be seen as ‘purely physical’, while social frameworks, on the other hand, provide background understanding for events that incorporate the will and guidance of some intelligence (most often a human intelligence). Further, Goffman makes the conclusion that at any point, an individual is likely to apply several frameworks, but sometimes a particular framework is the most relevant and will provide an answer to the question ‘What is going on here?’ The answer to the question would be ‘an event or deed described within some primary framework.’ (Goffman 1974: 25).

In ‘“HMMM…Where’s that smoke coming from?”: Writing, Play and Performance on Internet Relay Chat’ (1997), Brenda Danet uses a model with five frames to analyze an online party at IRC (Internet Relay Chat). Using a log captured from an IRC ‘party’ she shows how the participants moved from one frame to another as the party proceeded. The frames described are nested within the preceding ones, starting with the ‘real life’ frame. Nested within the real life frame is the ‘IRC frame’; within which the ‘party’ frame lies. From the party frame, the participants moved into the ‘pretend’ frame, where they made a simulation of smoking marijuana. The party culminated when they moved to the ‘performance’ frame, using third person descriptions to show the results of their smoking. When logging off, they all moved back to the real life frame again.

Levels of meaning

In the model I am going to use, Fine (1983: 186) is using a similar concept as Goffman and Danet but simplifies matters by focusing on three frames, which he calls levels of meaning.

The first level is defined by Fine as the primary framework, which is the commonsense understanding that people have of the real world. This level does not depend on other frameworks (like game rules) but on the rules of reality; the natural laws. According to Goffman’s model, this would be a natural framework, and is indeed primary since it is the ‘original’ interpretation of the universe we live in. Actors on this level will from now on be called persons.

Secondly, we have the level of players whose actions are governed by the game rules and constraints. Here, they do not act in light of their primary frameworks, as persons, but as players who can act only in terms of what is possible within the game.

The rules on the lower levels often constitute a limitation of the first level rules (natural laws), which forces the player to act in a way less efficient than the natural laws would permit (compare this to the concept of lusory attitude described above).

On the other hand, these rules can also allow the player to do things that are not possible on the first level, for example using magic or levitating. The fact that the second level allows the use of magic will of course not make it possible to do this on the first level; the propagation of rules works only one-way, from the first level and downwards. Any act on the second level that breaks the first level rules will only be a simulation of the real thing.

Finally, players control characters in the game; separate from the player identity. The character forms the alter ego (in MMORPGs often called ‘avatar’) of the player in the game world. It is separate from the player identity, which makes it possible for the player to control several characters in the same game world; sometimes even at the same time. Contrary, characters in the game world might also not be controlled by any player at all, which makes them Non-Player Characters (NPCs).

Awareness contexts

An important part of role-playing games is the necessity for players to keep the different levels apart from each other; i.e. to isolate their characters from the knowledge they have as persons. Fine (1983: 187) present several possible awareness contexts which originates from Glaser and Strauss (1964, in Fine 1983). The original analysis by Glaser and Strauss is limited to the awareness of others, but Fine argues that it can also be applied to the awareness of selves in
such activities that involve several selves in one individual, for example with actors, storytellers and role players.

An open awareness context is present when each identity is aware of the others, and one might argue that this must be the case when all the selves are located in the same body. Fine argues, however, that an open awareness context requires the denial of the other frames as realms of experience, which would be denial of the engrossing character of fantasy.

A closed awareness context exists when one identity does not know of the other identities and a suspicion awareness context is when one identity suspects the other’s. These are equally rare when considering identities in the same body; split personalities and recovering split personalities are examples of when these states can occur.

Finally, a pretense awareness context is when the identities are aware of each other but pretend they are not; the individual assumes an unawareness of his other selves, pretending that a closed awareness context exists. This is the most general type of awareness in role-playing games and other situations where several identities share the same body. The actor’s character pretends not to know anything of the actor’s self and a character in a game must only know that information which is available within the game frame and not what the player or person identities knows.

A good example is that a player might for example know how to drive a car, something that his medieval knight character in the game could not possibly know. The character identity will therefore have to pretend not to know about these things. On the other hand, the character identity would know things that are not necessary or even possible for the player to know, like how to handle a sword or details of medieval life.

2.3.7 Framing player types - a model for analysis of pervasive games

The model with Salen’s and Zimmerman’s player types mentioned above can be combined with Fine’s levels of meaning to constitute a framework for analysis of player behaviour in games. For example, the difference between a position-based game like Botfighters and an online game like Everquest is that interaction in the position-based game is not only possible on the character or player level, but also on the first level. In Everquest players can not easily reach each other on the first level, unless they voluntarily reveal information about their real life. This means that conflicts has to be resolved using the means provided by the game. In a pervasive game like Botfighters, players must interact as persons, on the first level. It might be unlikely that they will actually encounter each other in real life while playing, but to play the game they have to be relatively close to each other (except when using the Long Distance Missile) and they need to move physically to outmanoeuvre other players. Even though the probability of physical encounters is low, the game is all about interaction in the physical world, contrary to normal online games.

If we combine the two models of player types and levels of meaning, we get a matrix of 15 possible ways to act in the game. To illustrate how each player type may behave on different levels, I have added examples of possible comments for each combination:
<table>
<thead>
<tr>
<th></th>
<th>1:st level (people)</th>
<th>2:nd level (players)</th>
<th>3:rd level (characters)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard</strong></td>
<td>“I need to visit the bathroom.”</td>
<td>“It doesn’t matter if I lose, as long as I’m having fun.”</td>
<td>“I’m going to walk over to that tree.”</td>
</tr>
<tr>
<td><strong>Dedicated</strong></td>
<td>“I need to visit the bathroom” (but I will do it really fast, not to miss too much of the game).</td>
<td>“Playing is all about winning.”</td>
<td>“I’m going to walk up that hill because I know that will give me an advantage.”</td>
</tr>
<tr>
<td><strong>Unsportsmanlike</strong></td>
<td>“I need to visit the bathroom” (but perhaps if I’m losing I will really take my time, to annoy the other players and stall for time).</td>
<td>“I’m exploiting this flaw in the game rules to get an advantage. It’s not against the rules so you can’t stop me!”</td>
<td>“I’m climbing up this tree, because from there I will be able to hit other players without them hitting me.”</td>
</tr>
<tr>
<td><strong>Cheat</strong></td>
<td>“I need to visit the bathroom” (and fetch some of the Monopoly money that I have hidden in case of emergency).</td>
<td>“No one is going to notice if I take some money from the bank and hide it for later use.”</td>
<td>“If I drop this item on the ground and then immediately pick it up, it will magically duplicate itself. That can’t be right, but I don’t care because I’m getting rich doing it.”</td>
</tr>
<tr>
<td><strong>Spoil-sport</strong></td>
<td>“How can you waste your time on this lousy, boring game?”</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Table 2.2: Framing player types*

First of all, we can see that some of these combinations are not possible; a spoil-sport refuses the magic circle and can never act on the 2:nd or 3:rd level, since this would be paradoxal to the definition of a spoil-sport. We can also see that some of these combinations have a potential to result in awkward situations, most obviously unsportsmanlike players, cheats or spoil-sports acting on the first level, in the physical world and involving non-players.
3. METHOD

The scientific method and object of study chosen for this thesis is presented, and possible problems with the method discussed.

The work on this thesis was never a straight road. While constantly accommodating to the (changing) plans of Daydream and IPerG, I had to try to keep progressing without straggling too far from the original topic. Since the goals of IPerG and especially WP4 kept changing, I had to change my plans several times on how to carry through with this. From the very beginning, I intended to build the entire thesis on interviews with experienced Botfighters-players. Botfighters is one of the few pervasive games that have actually been commercially active for several years, so this would be a very good way to find information on how people play pervasive games.

Apart from this, a minor involvement in a play test of the game City Mission, my participation in an IPerG plenary week helped to give me a broader and more practical knowledge of pervasive gaming. Also, having access to the IPerG intranet made it possible to learn a lot about the game prototypes that was being developed within the project. I also spent a lot of time at Daydream’s office in Stockholm and learned a lot about Botfighters from the developers working there. This was a great help in the beginning of my work since I knew very little about the game at that time.

3.0.1 Object of study

As mentioned, Botfighters was eventually chosen as the sole object of study for this thesis. Also, the study was limited to Botfighters in Sweden, disregarding the other countries it has been launched in. The reason for only studying Swedish players was mostly because of the fact that there was no budget for travelling or for phone-calls to other countries. Also, the fact that Daydream could not even find Swedish players for me to contact made it doubtful that they would have been able to get me in contact with any foreign players.

3.0.2 Method of study

The method chosen for this study was to interview players of the game. The reason to choose a qualitative method like this before a quantitative method such as a questionnaire was mainly because I wanted qualitative, descriptive results to learn how the game was played. A statistical survey might have been useful to broaden the results, but was not possible due to the low number of players available.

3.0.3 Finding players

Finding players turned out to be a very hard task, much harder than one would think; mainly because the game was played through mobile phone operators like Telia and not directly through Daydream. Daydream did not themselves keep any databases of their players, and getting contact information from Telia was more or less impossible due to privacy reasons. Botfighters had never had a huge player base, at most 7000 registered players or so in Sweden (Ylianttila, 2004), but the number of active players at any given time was much lower, and there were no active community around the game anymore at the time this study was made.

In the end, I managed to make contact with six players through Tom Söderlund, one of the founders of the game, who was also interviewed. I also got in touch with and interviewed a former community manager of the game, Mariancila Kim.

I contacted these people and asked for interviews, and got positive responses from four of the players and Mariancila Kim; one player turned down the proposition and one player never ans-
wered, even after reminders were sent (quite possibly due to an old email address). Later, I got in touch with one additional player who was a friend of one of the others. The number of players eventually interviewed was 5, plus Tom Söderlund and Mariancila Kim who had experience both as players and staff members at It’s Alive.

3.1 Interviews

The five Botfighters-players that were eventually interviewed were some of the most notorious players in the game. All of them had been at the top of the ranks and had spent quite a lot of time and money on the game (several players mentioned costs in tens of thousands of SEK). Ideally, I had wanted to interview more players, but since it proved impossible or at least very hard to get in contact with more players, I had to make the most out of these five players. A rough estimate (according to the players) says that the number of active players (that played the game regularly and were active in the community) in the game was at most 50-100 players at any given time, so five players actually constitute a fair share of the active population. I was quite sure that no major events have happened in the game that these players did not know about.

All interviews with players except for one were carried out via telephone, since the players were located at many different places in Sweden. One interview was carried out via ICQ (a popular chat client), since the player had expressed that he would be more comfortable with that. The ICQ interview was the first one I did and it worked well, especially since the player brought his friend who was also a player of the game, and let me interview both at the same time (making the total number of players interviewed 5). I still felt that it would be preferable to do the rest via telephone, however, since it is easier to catch moods and nuances that way.

The player interviews were carried out during one week in November. The interviews ranged from about 40 minutes to 1 hour in time and were open-ended in character. I had a template with questions that I wanted to have answered, but I also wanted the freedom to react with more questions on any answers that I found interesting, and also to let the players tell their stories as they liked. What I thought was most important was to hear about things that had actually happened in the game, and to hear the players’ thoughts and feelings about these events. I also asked for some background information such as players’ ages, computer gaming habits, for how long and at which time they had been playing Botfighters.

The interviews with Tom Söderlund and Mariancila Kim were carried out in person on two different occasions in November. The templates for player interviews and interviews with the staff differed a little, but not much, as the staff had also been active players.

Since it is hard to take notes on phone, all telephone interviews were recorded using a device connected to the telephone and a MiniDisc recorder. The interviews with Tom and Mariancila, which I met in person, were also recorded, using a microphone and the MiniDisc recorder. Before I started recording, the interviewees were always asked for their consent, which they all gave without hesitation.

I began all interviews by asking the player if he could tell me of his favourite anecdote from the game, which I thought was a good way to start out and get the interviewee to talk. After this it would differ how the rest of the interview was carried out; some players had very interesting stories to tell which I could delve deeper into and constituted a base for further questions. With other players it was harder to get them to speak freely, or they could not remember any particular story at that time, so I was forced to carry on with other questions. I found, though, that it was still useful that I had asked for stories in the beginning, because several players went back to this question later in the interviews, when they started to remember interesting events. During the course of the interview I followed a template with topics (presented in appendix A), to make sure that all topics of interest were covered. Because the number of players that I was able to interview was so small, there would have been no point in using a quantitative method since it would not have yielded any statistically significant results.
As soon as possible after the interview I listened through and transcribed the recordings I had made, and on some occasions this lead to more questions. In such cases I contacted the player again via e-mail and got the answers I needed. The transcriptions showed very useful in the analysis of the interviews later on.

### 3.2 Problems with the method

One of the main problems with this method was to find people to interview. The reason for this was that Botfighters was not up and running in Sweden anymore, since Daydream had closed it before the launch of Botfighters 2, and that this launch had not occurred yet. The game was still running in Russia and China, but there were no websites on the game in English to be found from those countries, and I did not have the budget to actually travel there and observe the game on location. This meant that no live observation of the game was possible, so I would have to rely on interviews with people in Sweden that had played the game. As mentioned above, the number of players eventually interviewed still constituted a fair share of the players that had been active in the game, though.

#### 3.2.1 Reliability

Reliability is the measure of how a method or an instrument will give the same results at different occasions, when the circumstances are otherwise similar. In the case with interviews as in this study, a concrete question that would yield different types of answers in different situations would be unreliable (Bell, 2000: 89). It is not easy to measure the reliability in an interview study; Bell describes some ways of doing it, for example to divide the group in several parts and use the same questions with different wordings on the different groups (Bell 2000: 89). Most of these methods were not applicable or even necessary in this case since the interviews were qualitative in character and the questions were often answered within the course of the conversation and not explicitly asked.

Another problem with reliability is that the interviewee might have been affected by outside factors that cannot be controlled. For example, they might have read an article in the newspaper the same day, which affects their opinion of the subject of the interview. In this case the questions mostly regarded how the players had played and experienced the game, which is probably not as sensitive to outside influences as their opinions of something.

Even though a fairly small number of players were interviewed, it has to be considered that these players were some of the most active players in the game and knew most of what had happened in the game. A similar study should therefore yield much the same results.

#### 3.2.2 Bias

A constant problem with personal interviews is that the interviewer will unconsciously affect the interviewee in one way or another. This may lead to biased results, for example if the interviewer has a strong will to verify his theories and thus affects the interviewees to give the answers he wants. To avoid this in my study I checked my questions so that they would not be leading, and tried to have this in mind during the interviews so as not to impose my views on the people I interviewed.

Another factor that might have affected the answers is that the interviews were recorded. Even if someone has given his consent to being recorded, the awareness of this might still affect the outcome. Since none of the interviewees expressed any concern about being recorded and they gave their consent happily, I felt, however, that this was not a problem. During the phone interviews the fact that I was recording was not obvious in any way, so it is quite possible that they forgot about it after a while.
3.2.3 Validity

Validity is a complicated concept that measures if a question measures what you want it to measure (Bell 2000:90). In the case of interviews it might be that the questions were misunderstood by the interviewees and that the answers given concerned other things than the questions asked. In that case I could hopefully notice the problem and try to rephrase the question.

The greatest concern here is probably that the players were asked to retell things that they had experienced several years ago, and it should be taken into consideration that people’s memories of events change with time. Some of the events in the game was mentioned and discussed by several players, however, which makes it more likely that the events have occurred in the way described.
4. RESULTS

The results of the interviews are presented in the words of the players interviewed.

4.1 Interviews

The players interviewed were encouraged to retell stories of events that they personally had experienced in the game. Many exciting stories were told and it is obvious that the excitement of hunting and being hunted was a great part of the game:

"There was a guy named Silver; this was in the first weeks of the game. I had joined in the online chats and talked a little, and I had understood that this Silver who was down in Stockholm was a big one. And then I was out on a trip, and I don’t know Stockholm, I’m not at home there. But for some reason I ended up in Solna, the only place in Stockholm that I know, because I’ve been working there. So when I had finished my work and was about to go home I threw a scan, and I saw that this Silver was at just a couple of thousand meters away. So I thought ‘let’s give it a chance!’ I wasn’t big at all then, didn’t have any good weapons or anything but I thought I’d give it a try. So I started searching and in the end I got within shooting distance. I threw my shots as fast as I could and received confirmation that I had killed him. So I started the car and blasted away from there in a hurry. To my surprise I started to receive incoming shots. Botfighters works in a way such that you get both range and direction of the attacker. And in this case the attacks were just getting closer. But I got out on the E4 and started going north towards Gävle. And he kept chasing me, and at the same time he was sending messages asking about all kinds of things, at the same time as the shots were raining down on me. And I drove like a maniac, full speed at the E4. I think he gave up at Arlanda. When I got home I could see in the chat forum that that he had posted about the attack. And Taxi31 from Gothenburg wanted to congratulate me for shooting Silver. Silver had posted in the forum and told that he was getting ready for the night with his girlfriend, and had prepared with snacks and a movie. He had put the telephone in quiet mode and placed it on the TV. Suddenly his girl saw that the phone was vibrating, ‘Someone is shooting at you’ she had said. And that was true – he was already dead at that point. So he got mad, told the girl ‘let’s go!’ and the girl had driven the car while he was operating the phone.” (Story A, Donnri 2005).

Something that is common in all interviews is how players did extraordinary things to achieve success in the game:

"There was a player that I had shot a few times in Borås, 60 kilometres from here. Once I had parked my bot between Gothenburg and Borås, in Bollebygd. This player, who was a younger person, and really wanted to shoot me, had ridden his bike these 30 kilometres to Bollebygd and shot me, and then 30 kilometres back to Borås. Those were well deserved points. That was probably one of the stronger feats to shoot me that I have heard of. On the other hand, I drove 60 kilometres to Borås just to shoot him.” (Story B, Taxi31 2005).

“It was thought of as somewhat cowardly to pause from the game, and that meant you had to be active 24 hours a day, and then it could happen that the phone beeped in the middle of the night and you simply had to get up and into the car and drive away.” (Story C, Muppkungen 2005).

“We were chased one day in the middle of the town, during rush hour, by another bot which we had shot earlier. And it was a mad ride through town, we were eating when the phone beeped,
and then we just dropped everything and ran to the car. We got him again.” (Story D, Voice and QPBamse 2005).

The notion of unsportsmanlike play, implicit rules and behaviour towards other players was also discussed. Even though there were few implicit rules in the community, players still had strong feelings about some occurrences of dubious tactics:

"There was a guy who got to taste it, that we ganged up when the missiles were introduced. Then you could shoot over the entire country, and you could gang up and fire at the exact same time at the same person. I myself got to taste it sometimes, it was often that I woke in the middle of the night and had to throw myself in the car and scramble away from here, because I knew that I had x minutes to get 5 kilometres away. Many times you jumped out of bed and the girlfriend wondered what you were doing. And you thought it was somewhat unsportsmanlike when you got a bunch of messages that perhaps 10 people had fired missiles at you.” (Story E, Donnri 2005).

"I’m thinking about a certain person. He posted rude things at the forums. You could send personal messages from the web page to the phones, and he took a long text and pasted into the textbox, and this arrived to your phone as 30 separate messages. At the same time he fired his missile. So he thought I wouldn’t see it in the barrage of messages.” (Story F, Muppkungen 2005).

"There was one thing you could do, that was considered unsportsmanlike, to have two bots and use one as ‘waste-bot’ that you shot at with the other just to generate points. On the other hand, when you had more than 2000 points as I had, you only got 1p if you shot a fresh bot. But for someone who just started playing, this would be convenient.” (Story G, Taxi 31 2005).

"A game is a game, but perhaps some people thought it unsportsmanlike with several bots on the same player when the LDM was introduced. This was a long distance missile which you could fire at an indefinite distance, but you had to be online for 24 hours per missile. It wasn’t always enough with one missile, and then it would be convenient with another bot to also fire with. Then at the same time as it was introduced there was a bug in the game, you could shoot an unlimited amount of missiles instead of one every 24 hours. A person in Stockholm exploited this, and many people on the forums thought it unsportsmanlike. It was more or less impossible to catch up with that bot’s ranking score.” (Story H, Voice and QPBamse 2005).

The night when Donnri exploited the Long Distance Missile bug seems to be one of the most memorable events in the game, and was mentioned by several players, for example in story H above. This is how the perpetrator himself describes it:

"I call it the night of the missiles. You were only supposed to be able to launch one missile at a time, and then wait 24 hours. The first night when it was introduced, I got in at 1 A.M to test the weapon. So I fired at a guy, and it was a hit, but it didn’t kill him. And I thought, ok, this was not a good weapon. But for some reason I tried again, even though I knew it shouldn’t work. To my surprise another missile was launched. Why I tried, I have no idea, but it worked. And then I sat for three or four hours and sent missile after missile. And I shot all of Sweden. So when people woke up in the morning they saw that Donnri had shot them. […] I went through the
entire list, maybe taking out the top 50 bots. Then I got so few points per bot that it wasn’t worth it anymore.” (Story I, Donnri 2005).

Obviously, it is sometimes hard to draw a line between innovative tactics, unsportsmanlike play and cheating. Many players were very innovative and endeavoured at all times to find new ways of getting at each other, but there were few implicit rules in the game, forcing the players to individually decide whether a tactic was unsportsmanlike or not.

"Another event I remember was when a guy in Piteå was fairly high ranked and threatened my place in the rankings. He was almost never online, but did as most people did and activated his bot, shot the local bots and then paused again. And there were no other players living that far north who could take him. So I found a guy on the Internet who lived in Piteå, and contacted him on ICQ, and asked if he could help. So I transferred my bot to his phone so that he could shoot the guy, and then I transferred it back to my phone. So this was perhaps a form of cheating, that I could move my bot through the entire country in seconds.” (Story J, Muppkungen 2005).

"When we were going to shoot Taxi31; he was so incredibly hard to get at. Nobody managed to shoot him. He was driving a taxi down in Gothenburg and was always on the move. It was very hard to shoot him. This started when Tubaman began to look for people and created a webpage where we discussed the topic on how to kill Taxi 31. More and more people joined, and we made up lists on how to shoot the missiles so that they would arrive at the same time. But the problem was to make him stay still in the same place for a while so that the missiles would hit. I suggested that I tell my brother in Gothenburg to call the taxi company and ask for Taxi 31, and then just ask him to stay still for a while. We could pay the taxi bill for my brother. Everyone agreed on this, to make him stay at one place. So this was a conspiracy spread over the entire country. But now it didn’t work out in the end.” (Story K, Donnri 2005).

"Cheats? There was one thing: It’s Alive had, for testing purposes, created quick commands for switching the bot’s equipment. Normally you did this at home on your computer, but this way they tested doing it using the phone. So they had told a few players how they could use these commands on their phones to switch weapons and stuff. And people were confused, wondering how I suddenly could switch weapons when I was down in Stockholm and people knew I was living up here. I don’t know if this should be considered a cheat but it wasn’t commonly known. [...] I used it to my advantage, then, I had incredibly much money in the game. So for my part it didn’t matter economically if I bought 10 new batteries. I took advantage of this when I was in a fight, if my battery level was low and I realized that I might die, I sent a quick command to buy a new battery.” (Story L, Donnri 2005)
5. DISCUSSION

The results of the study are discussed in context of the theoretical models presented in chapter 2.

5.1 How was Botfighters played?

Everyday play in Botfighters depends much on where it is played. Many players in Sweden were located in small towns where they normally played with a few friends. In such locations, there might be only a few radio base stations, which effectively give the player only a limited choice of areas to move between in the town. The players learned to know exactly where they need to go to move between the cells.

In some towns the positioning worked in the way that players were either represented as being more than a thousand metres from each other (out of weapon range), or they were at the exact same position, at a distance of zero meters from each other. This of course gave birth to quite different tactics compared to cities with better positioning. One example is a hit-and-run-style of play where players would start out of range of their targets and run forwards a short distance, for example cross a street, so that their phones switched radio base stations. After the switch they would instead be positioned as zero meters from the target, which let them fire their weapons and then retreat a short distance to again be positioned as out of distance for any retaliation.

All of the players interviewed, and a majority of the player population, were male, which is the reason that players and this thesis are generally referred to as males. Many players mentioned that the game could be very demanding at times, both socially and economically. It was trying to be constantly attacked with LDMs (the Long Distance Missiles that could only be fired once every 24 hours) and having to abandon anything at hand to flee from the missiles. Of course, this behaviour was also trying on social relationships, and several players mentioned that their girlfriends or wives were somewhat disturbed when the game took over too much of their lives. It was also economically heavy on active players – the cost of an SMS in Sweden at that time was most often 1.50 SEK and playing Botfighters actively meant sending vast amounts of messages.

"You had to have a job to pay the phone bills. The worst bill I got was just over 15000. Just for the fun of it, I asked for a specification, and it was 80 pages with “SMS 6688”. I could send several hundred SMS a day." (Donnri 2005)

This of course limited the possible target group of the game – to be a successful player you had to have an income and be able to spend thousands on the game. This effectively excluded most youths from the game.

One key aspect for a game like this, that requires players to be in the physical vicinity of each other, is the density of players. A ‘critical mass’ of players has to be achieved for the players to be able to encounter enough other players when playing. A couple of the players interviewed had tried Botfighters 2 during the short period when it was playable, and mentioned that the game was not much fun to play because they never found other human players. It is possible for the game designer to make up for this by introducing virtual characters or ‘NPCs’ (Non Player Characters), and this was done in Botfighters 2, but in a game where the entire experience is based on interaction with other human beings, this will only be a complement to real players, not a replacement.

A major problem with Botfighters seems to have been the low density and total number of players, which forced It’s Alive to introduce measures like the LDM for players to be able to interact at unlimited distances. As mentioned above, players could pause from the game to avoid
being attacked. The brought other problems instead, for example that top-ranked players had to be paused from the game most of the time because they were constantly attacked when active.

5.1.1 Hunting for inactive bots

The low density of players led to a lack of real targets for active players and was a major factor in how the game was played. Because it was free to register and try the game, there were thousands of bots in the game that belonged to players who had registered but were not active anymore. There was no removal of inactive accounts in the game, so these bots actually remained in the game. These bots were possible to attack but were paused, so the players who they belonged to did not receive any messages of what happened to them. Especially for players in small towns with few ‘real’ opponents, a significant part of the everyday play was hunting these inactive bots. Players marked out on maps where they had found bots and returned regularly to shoot them (the inactive bots were automatically recharged and could be attacked again after a week).

This was a routine kind of play that was expensive both in time and money, since each kill did not yield many ranking points (most often only 1 or even 0 points). The paused bots lost ranking points every time they were killed which made them very low-ranked. Considering that killing an equally ranked bot might yield 40-50 points, it was of much greater worth to hunt for active players, but the low density of active players made this a complementary but often used way to gain points. The players utilizing this kind of tactics are probably what Bartle (as mentioned in chapter 2.3.3) referred to as achievers; the main motivation for them was to gain points in the game contrary to killers or socializers who would have wanted real human players to shoot or interact with.

5.1.2 Using several bots

If several players where hunting together, or a player had several bots, a common tactic would be to ‘sacrifice’ a lesser bot to scan for opponents and fire the first rounds. It was prudent to let the primary bots remain unrevealed until it was time for them to deal the killing blows. The ranking score was then given to the bot that made the kill, so this was a good way to gain score with the primary bot while at the same time avoiding getting it killed.

5.1.3 Long Distance Missiles

The game was tweaked several times to make play more balanced. The introduction of the Long Distance Missile (LDM) changed play quite a bit; it made it possible for players to engage other players all over the country, but also made it more risky to be un-paused in the game. As mentioned above, it was common for players to be attacked in the middle of the night, and it also happened that several players ganged up and fired their missiles simultaneously at one player. The LDM also brought the unintended consequence that many of the top ranked players became tired of being constantly fired upon and remained paused most of the time, which of course had a bad effect on the activity in the game. One player mentioned that lower ranked players complained a lot in the forums that the higher ranked players were cowards who were paused all the time, not giving the lower ranked players a chance to catch up. Many higher ranked players, on the other hand, claimed that the LDM effectively made it impossible for them to be un-paused all the time because they got tired of having to dodge incoming missiles at all times.

5.1.4 Non-players

It is easy to think that interaction with non-players is an integral part of a game that takes place out in the real world. In Botfighters, however, it seems that non-players were actually not a big influence on the gameplay. When asked about this, several players mentioned that when immersed in the game they did not reflect on how surrounding people reacted. Other players mentioned that they did not think that surrounding people could even tell that they were doing
anything unusual. A couple of players mentioned, though, that they felt somewhat awkward at times; for example when ‘driving around with the car in residential neighbourhoods in the middle of the night’ (Donnri, Interview). Another player mentioned that he had some favourite spots where he used to park his car and shoot inactive bots, and that people probably recognized him after a while and should have wondered what he was doing. No player interviewed had ever experienced any conflicts with non-players when playing the game.

The main reason that non-players became such a small influence on the game can relate to several aspects: the game was played on normal mobile phones through SMS messages, something that is very common; the game also seems to often have been played from cars – the players did not actually run around on town as one might think. When a player is moving in a car instead of running, it is harder for surrounding people to recognize that something unusual is happening. Playing the game from a car simply seems to be a lot more effective than doing it on foot, and the relatively high age of the player population ensures that most players had access to cars.

5.1.5 Interaction

Except for the game-related shooting and locationing of each other, players could interact through SMS messages which were sent through the game (no phone numbers were visible to the players). This seems to have been the most common way of interacting in everyday play. It happened that players did share phone numbers with other players and call each other up – at least a few of the players interviewed had done this, but this sharing was of course completely voluntary.

The forum on the web site was also a central place for players to communicate with each other. One player mentioned that there were a few ‘secret’ forums on the web site that not all players had access to, for example a feedback forum where some experienced players had the chance to discuss the game with developers. Some players obviously also formed groups outside of the game, as the group mentioned above which was formed to defeat a legendary player.

5.1.6 Unsportsmanlike play and cheating

One thing the interviews clearly showed was the absence of strong implicit rules and norms in the game. This might relate back to the fact that the community was relatively young and very small. With the absence of implicit rules it is impossible to define what kind of play is unsportsmanlike. Still, some of the actions performed in the game were obviously regarded by most players as unsportsmanlike, and these were mostly exploits of loopholes in the game mechanics, like the infamous Long Distance Missile exploit and the abuse of the messaging function on the web pages.

In a game where the rules are built into the architecture and more or less unbreakable, it is hard to cheat. Of course, any system has weaknesses and according to Tom Söderlund, players always tested the system to try to find ways of getting advantages. At one occasion, It’s Alive received an abnormally large bill from their map provider. The maps were used to show the locations of game events on the website. When investigating what had happened, they discovered that some person had made thousands of requests on the web page during the month, way too many requests for normal surfing. Probably, somebody had made a script and tried to log what happened in the game. It’s Alive never discovered who it was, but it is a good example that players would do almost anything to find weaknesses in the system (Söderlund 2005).

5.1.7 Acting on the level of persons

One of the factors that make Botfighters and other pervasive games unique is that the players need to act a lot in the physical realm play the game. This also has the effect that players may want to act on other players’ persons to affect them in the game. One example of how this might
be done is the story about how a group of players planned to bring down another player by letting one of them hold his taxi, as told by Donnri above.

This plan was never carried out, however, probably due to the logistical problems involved. Instead a legend seems to have emerged, probably originating with this story, that a player travelled with Taxi31 and shot him from the back seat of the taxi. Taxi31 later told me that he had heard about this rumour but as far as he knew never experienced it. He was always paused when he had customers, and this would have made the attack impossible. Still, this is a good example of how players could have manipulated other players on the personal level to get advantages in the game, and it is definitely possible to do similar things in the game even though this particular event never happened.

As mentioned in chapter 2, the framework I am using in this thesis consists of three levels of meaning. When acting in the physical realm – the real world – it might be hard to see the difference between action on the level of persons and the level of players, i.e. the first and second level. Players moving physically to position themselves in the game are still acting as players. But what happens when they need to cross a street? In these cases they need to act not only as a player but also as a person, paying attention to other people and events that are not taking part in the game. For their own safety the will need to switch frequently between personal decisions and in-game decisions. And perhaps most importantly, they will seem as normal persons to the people – non-players – who surround them. This is an important issue when studying pervasive games through the framework I have chosen, because it somewhat ambiguous to decide when a player switches frames and starts acting as a person. To outsiders, he may seem like acting on the first level while he is still in the player frame, and it is not obvious to the surrounding world when he switches frames.

5.2 Botfighters and the Magic Circle

Is it possible to study Botfighters in context of the Magic Circle that Huizinga proposed? If not, does this imply that Botfighters is not a game, or is it Huizingas way of defining games that needs to be updated? This is how Huizinga describes play as mentioned in chapter 2:

‘[Play is] a free activity standing quite consciously outside “ordinary” life as being “not serious”, but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings, which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means.’ (Huizinga 1947:13).

One of the interesting things about Botfighters and other pervasive games is the fact that they do not stand outside ordinary life in the way Huizinga describes it, or at least it requires players to switch frequently between the player and personal mentalities. Additionally, they do not proceed within their own boundaries of time and space, but are always present in the player’s life. In Botfighters, even if the player has paused the game, it still proceeds and the player is still vulnerable to attacks; for a dedicated player the game must always be somewhat present in his thoughts.

In other ways, the game does fit Huizinga’s description. It does absorb the players intensely, as some of the stories told above shows. It also strongly promotes the formation of social groupings, as it was a relatively unique activity that encouraged the players to find others with the same interest. This even led to the players arranging a get-together which some players travelled long distances to visit.

The Magic Circle that would separate the game from ordinary life, is however hard to find. Even if paused, a player would not completely step outside the Magic Circle but rather remain at the border. The game would still go on around him; he would always be aware that his bot could still be attacked, and he might still regard the world in game terms, as a player. He would
still know if he happened to pass a good spot where he used to shoot many bots, or a spot where he knows strong opponents used to be. He would still carry the game with him, since most people always bring their mobile phones everywhere. To step back completely into the game would be very easy.

Contrary to this, even when a player is playing the game he is not completely inside the circle; he is not separated from ordinary life. The game is often played parallel to other activities, or even part of the activities. The game does not have any boundaries in time and space; there is no special time and place where the game is going on. When playing normal computer games, the player is located in a specific spot – in front of the computer. If he is immersed in the game, he might disregard his body almost completely while playing, and the real world will not disturb the immersion much. That is, the player or character identities will be dominating, and not disturbed by the first level identity.

In Botfighters, even if immersed in the game fiction, the player will still have to pay attention to the real world, since as a person he can not withdraw completely from the outside world and immerse himself in the game world. When forced to move around in the real world, he will have to consider aspects that are not part of the game such as other people (non-players).

Nevertheless, most people would probably still agree that Botfighters is a game, so does this imply that the Magic Circle concept is flawed? At least, it seems that pervasive games do not fit the theory completely. As Marinka Copier states in the article mentioned in chapter 2.3.1, the concept of a circle might be too stiff, too ‘on/off’, ‘inside/outside’. Copier instead suggest that the concept of a ‘Net’, a ‘porous, flexible, gatherer; a flexible, three-dimensional, dynamic flow-through container’ might be better (Copier 2005).

5.3 Framing player types in Botfighters

As mentioned in chapter 2, this model consists of five player types and three different levels: Standard players, Dedicated players, Unsportsmanlike players, Cheaters and Spoil-sports, that could act on the level of persons, players or characters. To see how Botfighters would fit into this model, I will go through the different types and levels from a Botfighters perspective.

One thing to keep in mind, though, is that players can and will move between the categories; a standard player might turn into a dedicated player under the right circumstances. A dedicated player might also very well turn into an unsportsmanlike player or a cheater, if he gains enough advantage from it.

5.3.1 Standard players

None of the players spoken to or heard of through the interviews can be called standard players. As Salen and Zimmerman mentioned, this category might not even exist in practice (Salen and Zimmerman, 2005: 269). In Botfighters a standard player would be the player who plays the game for other purposes than being successful, for example as a pastime or to keep a friend company, and cares more about these aspects than performing in the game. This might be a player who stays paused most of the time but decides to play a little while waiting for the bus, while travelling or when a friend asks him to play.

5.3.2 Dedicated players

All of the players interviewed mainly belong to this category, at least most of the time. The main aim for these players was to gain points and climb the ranks. As shown earlier, sometimes they might set up other goals like shooting a certain player or performing a feat that will impress other players. Regardless of which goal they were pursuing at a certain time, they were all quite notorious when pursuing it.
What signifies a dedicated player in Botfighters is that he will literally go out of his way to achieve his in-game goals. He will not just play when on the move, but will be on the move to play. These players often make up maps and charts to keep track of where they have found other players. They have their favourite spots to which they return regularly to shoot the inactive bots they are located there.

Many of these players have accomplished feats within the game that might seem extreme to outsiders. These are the players who travelled 60 kilometers by bicycle, or more than 100 kilometers by car just to shoot another player. These are also the players who would fly from their beds in the middle of the night and get into their cars just to avoid an incoming Long Distance Missile (LDM), or actually stay up late just to fire a missile at another player when he is asleep.

5.3.3 Unsportsmanlike players

When does a strong dedication to the game tip over into unsportsmanlike behaviour? If a player is dedicated enough to win the game, he might be tempted to play ‘ugly’ to get the advantage that he needs. In Botfighters and most other games, most players are not unsportsmanlike by default. There seem to have been no players in Botfighters who resorted to unsportsmanlike behaviour all the time. Instead, these are dedicated players that need an advantage, and when the opportunity arises they might just fall to the temptation. In fact, the unsportsmanlike player might be the player who is always ready to fall to this temptation.

By definition, an unsportsmanlike player possesses some of the lusory attitude and accepts the game rules, but will not submit to the unwritten rules, or ethics, of the game. After speaking to some players that have used unsportsmanlike measures in the game, my feeling is however that it is not always that simple. The players I have spoken to did not disregard all unwritten rules, in fact they probably just disregarded the rules who applied to themselves. Just because they resorted to unsportsmanlike behaviour at some occasions, they would not accept this behaviour from other players. They were aware that what they did could be considered as unsportsmanlike, and would probably not have been too happy if other players had done the same thing. For them, the ends justified the means, however, and they chose to disregard the unwritten rules when it helped them enough. A good example is the player who used a bug in the LDM missile to shoot the entire community during one night. When asked if he did not regard this as unsportsmanlike he answered in a jokingly manner that ‘of course it could be considered very unsportsmanlike, but this time it was me who benefited from it!’

Another player who used a method that might be regarded as unsportsmanlike is the player who used loophole in the game mechanics to move his bot to a mobile phone to northern Sweden to shoot a player that nobody could otherwise reach. This was never discussed by other players since he never mentioned to anyone how he had done it, but the method must be considered an exploit since the designers had intended people to move physically to move their bots, not just transfer them to other phones. This player also seemed to submit to the unwritten rules of the game most of the time, and was annoyed when another player used exploits on him, but still used this exploit to get at another player when he had the chance. The purpose of the stunt might actually have been just as much to overcome the system, to outsmart the game, as to actually shooting the other player. The player got enough satisfaction from knowing that he had beaten the system, and did not need to brag about it to other people.

A third example of unsportsmanlike play is the ‘tactic’ to use the messaging function on the web page to spam players with SMS messages while at the same time attacking them. This has evidently happened to several players before It’s Alive fixed it.

The concept of unsportsmanlike players might me problematic to apply to Botfighters, considering the fact that very few implicit rules had emerged in the player community. If no implicit rules are broken, there should be no unsportsmanlike players in the game. Still, some of the deeds that players actually did in the game must fall into this category since they were regarded by the rest of the community as unsportsmanlike. It seems, however, that it will generally be hard to define unsportsmanlike play in a relatively young game where no strong norms
have emerged, such as Botfighters. In this game we only have a few isolated events that we can call unsportsmanlike, but no general rules or guidelines that, for example, new players could use.

### 5.3.4 Cheaters

To fall under this category, a player will have to actually break the game rules. One example mentioned above, that is hard to know if it falls under the unsportsmanlike category or cheating, is the unknown person who had tried to use a script to scan the map on the Botfighters-site for some purpose. If it was not explicitly stated in the rules that players cannot use scripts or programs to hack the site, then it is perhaps only unsportsmanlike play. In most games, however, it is stated in the rules or ‘End User License Agreement’ that such measures are not allowed, so this should be considered cheating in most cases.

In Botfighters it might actually be hard to break the rules of the game, since most of the rules are embedded in the architecture of the game. In a game like Chess, for example, a player might move his pieces in ways not allowed by the game rules. This would be cheating, but in Botfighters it is not possible to break the rules of movement, as these rules apply on the personal level. This means that the laws players have to obey when moving in the game are the natural laws of our physical world, and they are impossible to break.

Secondary to the natural laws are the laws of society, and these might be broken by players while playing the game. An example of this, which has probably happened many times, is players exceeding speed limits and breaking traffic laws while playing. A speeding player is perhaps not a serious problem, but what if a speeding player gets into a car accident and injures other people?

When asked if It’s Alive had considered the potential problem of players breaking the law, Tom Söderlund responded that they had indeed put some thought into this. The developer had prepared some answers to questions that might arise, but ultimately they thought that they should not overload their own rules on the laws of society; that the players themselves were ultimately responsible for playing within the confines of the law.

The question is if breaking real life laws should be considered cheating in the game. Since the rules broken are not game rules, and the punishment will be outside the game, this might be considered not to be a part of the game. Still, it should at least be considered unsportsmanlike play to get advantages in the game by breaking laws.

Another question is what to do if the laws of society are broken. In a normal online game it is easy to address cheating, as long as it is discovered. Normally this will just infer a penalty within the game, for example a suspension or a fine of game money. In the worst case the offending player might be banned from the game. But what should be done if a player is discovered breaking public laws when playing? In location-based games it might be theoretically possible to, for example, measure how fast a player is moving and actually find evidence that he has broken traffic laws while playing. Another possibility is trespassing. The positioning is however so inaccurate that this evidence would never hold in court, but should the player still be punished within the game for breaking public laws and is the game provider obliged to report such offences to the authorities?

### 5.3.5 Spoil-sports

A spoil-sport is not a player at all, but a person who refuses to acknowledge the game as it is and if possible break the entire illusion that the game is based upon. This can be one aspect of grief-play as mentioned in chapter 2, but at its most extreme since the spoil-sport is not even playing the game. To this day, there are no known occurrences of spoil-sports in Botfighters; the Swedish game community was so small that these elements probably never emerged.
But how might a spoil-sport manifest himself in Botfighters? This would be the person who does not care about ranks or score at all, but whose purpose would be to ruin the game for others. This might include harassment of other players, getting hold of passwords to hijack other players’ bots or hacking the servers to bring down the game. A more likely spoil-sport might be a non-player who is disturbed by the game. For example, this could be a shop-keeper who suddenly finds that his or her shop has become a haven for kids playing some game, and throws them out. Another likely spoil-sport is the principal or teacher who forbids the students to play in school.

5.3.6 Levels of meaning and player types combined

As mentioned above, the most significant difference between pervasive games and ordinary MMOGs is that they involve action on the first level of meaning; the level of persons. In Botfighters it is necessary for players to interact on this level to play, to move in the world as a player you also need to move as a person.

The rules that apply on this level are not a part of the game; they are the natural laws, which are unbreakable, and the laws of society, which are not enforced within the context of the game. This is a significant difference compared to other computer games; if a designer wants his player to move at a certain maximum speed in his game he will just build this into the architecture of the game. The difference is that rules programmed into the game can still be broken, by hacking the game client. The rules of movement in Botfighters are impossible to break, or at least it would take a supernatural ability to do it. Of course, the bad precision of the positioning will allow players to jump around in the game world in ways not possible in reality, but this is only possible to some extent; in the end it is still the physical movement that limits what is possible.

The most disturbing possibility is when spoil-sports and unsportsmanlike players (and grief-players as mentioned in chapter 2) act in the real world, among non-players. It has already been established that players in online games abuse each other and that it can be very upsetting to the victim, but what if this abuse also carried with it a physical threat? In Botfighters, the positioning is so inaccurate, that the players interviewed claimed they had never felt this to be a problem. On the other hand they had never been exposed to abuse in the game at all so the question if such abuse would be more upsetting remains unanswered.

It is very possible that this abuse would be felt a lot more serious if the victim knew that his position was somewhat exposed, even if not accurately. Imagine being threatened within the game, for example because of a disagreement regarding the implicit rules. This threat would probably feel more real if the victim knows that the offender is in the vicinity and knows the victim’s position, even if not very accurate. There is a risk that if pervasive games grow to the extent that online games have, grief-play might become a serious problem. It might be argued that this is still taking place on the second level, since the victim is still a player taking part in the game and knowing the risks. On the other hand, if the play becomes too real, and the player does not want to take part in the game anymore, then the action has spilled over into the first level of meaning. Another risk is if non-players not partaking in, and probably not even knowing of the game become involved. This is also action on the first level.

In Botfighters, the player identities are very much entangled with the person identities. If a player wants to move his bot in the game world, he has to move as a person too; and if he moves as a person his bot will inevitably move also. Of course, not all actions made on the first level affects the second level, but as long as a player remains un-paused, many decisions that he makes as a person will be affected by his awareness as a player (for example, one player mentioned that he used to avoid being in central Stockholm while un-paused because this was dangerous territory to him). Also, any activity at the first level might be interrupted at any time by the game and the necessity to make a decision as a player.

There has been some intentions by It’s Alive to make Botfighters more of a role-playing game, and this will be more apparent in Botfighters 2. The characters, or in this case bots, in Botfighters gained game money that could be used to buy better equipment, and the ranking
points were also tied to the bots. The impression from the interviews was however that the players did not really distinguish between their player and character identities. To them, it didn’t matter that while playing the game they were also guiding a fictional war machine in some future rebellion, but the important part of the game was that they as persons were hunting some other person’s bots in real life: “I thought like this, that I am shooting at him; you played a role. At the same time you didn’t think of yourself as a robot, you saw it more like ‘I am shooting him with my mobile phone […] The thing with the robots wasn’t such a big deal, you didn’t put much thought into that. What you thought was fun was the whole thing with the positioning and that you met other people.” (Muppkungen, interview).

5.3.7 Awareness contexts

As mentioned in chapter 2.3.3, there are several possible awareness contexts that might exist between the identities on different levels. The identities in Botfighters are not as separated as in role-playing games, which is the kind of games Fine studied when he defined the model. In role-playing, the most general awareness context between the layers is the pretense awareness context; where the identities are aware of each other but pretend a closed awareness context. In Botfighters, the player and the person identities are tightly connected and can not be totally unaware of each other. This is because the reality that the person identity lives in, the first layer in Fine’s model, will constantly affect the decisions and actions of the player (one might argue that this is also true in a role playing game, because the player needs to obey his bodily needs, but he is still not required to switch between the first and second levels very often compared to Botfighters). Because of this, an open awareness context will be the natural connection between these identities.

What about the player and the character identities? Do they also require an open awareness context? In the case of Botfighters, a pretense awareness context may exist between these identities, but it is not the general case. This depends on the willingness of the player to immerse himself in the game fiction; it is possible to assume a pretense awareness and to play the game with only the knowledge that the character possesses, but this is not the general way to play. A player might have knowledge that his bot character does not have which originates from the person identity, such as the infrastructure of the city the game is played in or the usual locations of other players in the game.

Assuming that the bot does not know the location of other players until he has made a radar search and found them, a pretense awareness context would not let the player make use of the fact that he knows where another player works or lives. Also, the player will normally always make use of his knowledge of the city infrastructure; mainly the locations of radio base stations for the positioning but also how to use shortcuts, roads and public transportation to move in the city. For the player to not let his character use this information, he would have to be very dedicated to the immersion in the game fiction. The player interviews has showed, however, that these ways of playing the game are the most normal, and that the players rarely even consider the bot characters they are controlling, which is why an open awareness context between all the identities seems to be the general case in Botfighters.

5.3.8 Interaction between different player types

One important reason for dividing the player population into different types is to see how they interact with each other and if there are any potential problems in the game design that relates to this interaction. The main purpose of Richard Bartle’s model presented in ‘Hearts, clubs, diamonds, spades: Players who suit muds’ (1997) was to describe the dynamics between these types and how to create a balanced MUD. Interaction is also an important aspect when considering Salen’s and Zimmerman’s player types, because the definitions of the types often require the presence of other player types. For example, the unsportsmanlike player disobeys the implicit rules which are formed by other players; if all players were unsportsmanlike, one might wonder if any implicit rules exist at all. In the same way, if all players were cheaters it would be
uncertain if they were not actually playing a totally different game than the game defined by the rules they are all breaking. Finally, it is pointless to consider a game where all players are spoil-sports; this game would not exist at all because all participants would refuse it.

In Botfighters, as mentioned, most players seem to be dedicated players, but we have seen some examples of interaction between these dedicated players and unsportsmanlike players or cheaters. When subjected to the effects of degenerate tactics (as mentioned in chapter 2.3.3) such as SMS-spam or repeated mid-night LDM strikes, a dedicated player seems to have reacted with defiance rather than giving up. This was the case with the player who was continuously attacked by mid-night LMDs by another player who also tried the SMS-spam strategy on him. The subjected player could have paused from the game during nights to avoid these attacks but instead reacted by not giving up. A standard player in this case might have just given up.

There are no examples of interaction between unsportsmanlike players or cheaters in Botfighters, but it seems that even though they were themselves breaking rules they would probably not accept other unsportsmanlike or cheating behaviour (consider the player who exploited the LDM bug mentioned above).

5.3.9 Regulating player behaviour

As mentioned in chapter 2.3.2, Lawrence Lessig has proposed four ways of regulation that might be applied to Botfighters: architecture, laws, norms and market (Lessig 1999). In Botfighters some of these regulations might be ambiguous; the architecture of the game is partly the natural laws of our physical world, but also the infrastructure of the society we live in. A very important aspect of the game is the density of radio base stations, and roads and public transportation basically form the game board for the player. Additionally, these regulations can be separated into three levels meaning the same way as Salen’s and Zimmerman’s player types in chapter 2.3.3. The architecture on the level of characters (the specifications of weapons and bot equipment, for example) is not the same as on the level of players as mentioned above. Market regulations can also be separated; on the character level, it is the in-game market with roebucks as currency. On the player level, it might be the cost of SMS messages and other equipment needed for the game. On the personal level it is the aspects of real life economy of the person playing the game that have indirect impact on the game; a player with a high salary would for example be able to fire missiles more freely. The application of Lessig’s ideas on pervasive games, perhaps in combination with Fine’s model, seems to form a very interesting starting point for further research.
6. CONCLUSION

The main results and conclusions of this thesis are recapitulated, the generalizability is discussed and suggestions for game designers are presented.

Botfighters is a game that becomes involved in the players’ real lives in a way that not many digital games are able to. This is a source of considerable excitement and enjoyment of the game, but can also be very distressing to players, both economically and socially. Since the player population of Botfighters was relatively small, there have been few occurrences of such deviant behaviour as can be found in larger online games and communities.

Because Botfighters is so intertwined with everyday life, the concept of a Magic Circle separating the game from the rest of the world is not entirely applicable to the game. The game is always going on, everywhere, which makes the concept of a border separating the game from real life hard to apply. Instead, the theory of three levels of meaning, or frames, has proven to be better suited for these kinds of games and is a very interesting new way of analyzing all kinds of digital games. It is very well suited for the study of pervasive games because action in these games often tends to spill over to the personal level, something that traditional games seldom do. This is a tool that should prove useful for game creators to use in the design phase of pervasive games – a way to see the possible ways to play the game from different perspectives in all phases of the development. In fact, the model used in this thesis and first presented in chapter 2.3.4 should be seen as one of the main results of the thesis.

Botfighters is a game that has attracted a very dedicated, ‘hard-core’-style kind of players. This explains why there are so many examples of seemingly extreme behaviour in the game, despite the fact that a relatively small number of people have played the game. Everyday play in Botfighters seems to have involved a lot of routine hunting for inactive bots, however, and not the action on the personal level that the game was designed for; but it was the encounters with other human players that were the attraction of the game.

The kinds of games where people have to be in the vicinity of each other to play require a critical mass of players to work. Without the critical mass, players will seldom encounter other players and the whole attraction of the games is lost. This was the case with Botfighters 2 during the short period when it was publicly available to play, as mentioned by a couple of the players who tried it. The first Botfighters seems to have achieved critical mass in some towns and cities but on the whole one of the major problems with the game was the lack of players.

6.1 Generalizability

Can the knowledge gained in this study be applied to other pervasive games? The results of this thesis should be comparable to other location-based games such as, and the versions of Botfighters played in other countries. It has to be taken into consideration though that Botfighters in Sweden had a small and homogenous player population and a billing style that excluded most youths, which certainly must have affected player interaction in the game. A higher player density would probably lead to other kinds of behaviour than described here.

Pervasive gaming is a broad genre, and it is uncertain how much the other subgenres can learn from this study. Alternate Reality Games (explained in chapter 2.1) for example do not have much in common with location-based games. The model for framing player types should still be useful for ARGs, which is an interesting topic for further research.
6.2 Suggestions for game designers: what to consider

It should be useful for game designers to consider their game in light of the models presented in this thesis, when designing it. The designers should ask themselves where the different player types fit into their game and how they may act in it. Are there possible degenerate strategies? Can they be avoided? How might players cheat or try to cheat, and how will this affect the game world? Are there ways for spoil-sports to ruin the game for others, and how can this be avoided? Is there a place for both standard players and dedicated players? Which rules will form the operational rules and which implicit rules do you want in the game? Try to come up with a system that discourages grief play and unsportsmanlike play, perhaps using penalties or making regular play so much more beneficial that unsportsmanlike play will not be an option for most players.

Also, designers might consider the different frames and how player types can act within them. Will interaction on the personal level be possible and encouraged as in Botfighters, and what implications might this have on player interaction? How will the game deal with awareness contexts, if at all? Will the game require specific awareness contexts, as in role-playing games?

It will show important to consider how many players are needed to achieve the critical mass required for the game to work as intended, and how to achieve this density of players.

6.3 Further research

A natural continuation of the studies in this thesis would be to use the same model to study how the game has been played in other countries, especially in Russia or China where it is still being played. It should also be interesting to study the other established pervasive games mentioned in chapter 2, such as the AI Game or I Love Bees, and the games developed within the IPerG showcases, using the same theoretical framework as has been used in this thesis.

If, or when, pervasive games achieve widespread use in the future, more studies on the interplay between player types on the different levels of meaning should prove interesting. Games with a critical mass of players will see more interaction on the personal level than Botfighters, and most likely an emergence of more frequent deviant behaviour. If so, further studies might be done on player interaction and motivations, where the framing player types model is incorporated. This model also has a very interesting potential for the study of many other types of games.

One very interesting aspect that was briefly mentioned above is the legalities of pervasive games; how game providers should react on information they log that points to crimes, and how they should consider the fact that the game can be an incentive for breaking laws (mainly, traffic laws). Also, there might be many issues with personal integrity laws when, for example, player positions are logged. The legal aspects has been briefly mentioned in IPerG Deliverable 4.1, Business Guidelines (McPheat et al. 2004) but could be investigated much deeper. Close to the topic of legalities is Lessig’s ways of regulation, which was mentioned in chapter 2.3.2 and 5.3.9.
7. REFERENCES


DIBBELL, J. (1993) *A rape in cyberspace or how an evil clown, a Haitian trickster spirit, two wizards, and a cast of dozens turned a database into a society*, Village voice vol 38 issue 51, pp. 36-42.


REFERENCES


APPENDIX A

Interview template (in Swedish)

Hur gammal är du?

Har du spelat några andra onlinespel/multiplayerspel?

När var det du spelade Botfighters?

Hur länge ungefär?

Har du någon kul historia om något som hände när du spelade? (t.ex. folk som har slängt sig ur sängen mitt i natten och jagat folk på motorvägen ut mot Arlanda etc.)

Om du kommer på fler historier under intervjuens gång så får du gärna berätta dem också.

Hur tyckte du det var att springa eller köra runt på stan och spela, tror du att folk undrade vad du gjorde?

Brydde du dig om att folk kanske tyckte att det verkade konstigt?

Fanns det sätt att spela på som ansågs som ”fult” eller osportligt?

Vad fanns det mer för ”oskrivna regler” i spelet?

Om någon t.ex. bröt mot trafikregler eller andra lagar för att få en fördel i spelet, tycker du att det var ok eller gick dom för långt? (eller gjorde du själv det kanske?)

Hur kändes det att veta att andra kunde se ungefär var du var någonstans när du spelade?

Var det viktigt för spelupplevelsen att din motståndare var en riktig person, som ofta också fanns i närheten? Kunde det t.o.m. vara obehagligt, eller var det bara kul?

Brukade du pausa dig eller var du alltid ”med” i spelet?

Om ja: hur kändes det att veta att du alltid kunde bli attackerad?

Fanns det något sätt att fuska, och var det vanligt att folk fuskade i så fall?
Hur identifierade du dig med din robot; när du spelade, såg du det som att ”nu skjuter jag på honom” eller ”nu säger jag åt min robot att skjuta på den roboten”?

Hur kommunicerade du med andra spelare: bara genom spelet eller på andra sätt, t.ex. att ni ringde upp varandra eller ICQ, mail, eller t.o.m. träffades?

Hände det någon gång att du blev osams med någon annan spelare? Om ja: kändes det obehagligt att den personen då hade koll på ungefär var du befann dig?