Playing Along Your Friends

Asynchronity and the Social in

Social Network Games

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ABSTRACT

This thesis investigates the relation between asynchrony in social network games and how this asynchrony is related to the sociability of and the social interactions between social network games and their players. It is argued that social network game designers have adopted and appropriated the core affordances of social networking sites to create asynchronous multi-player experiences. However, looking at the design of these games is only the start as games are both object and process, or in other words, the affordances of the game's design have to be set in motion by the players. Therefore when looking at the characteristics of asynchrony in social network games we need to see the design as affording asynchronous multi-play, while the players' appropriation of these affordances constructs the sociability. This sociability should not be seen as a material quality of social network games, but as a constantly dynamic interaction between, among others, the player, the game design, other players and social networking sites. In order to research the connection between asynchrony and the social in social network games, this thesis will look in detail at fifteen different social network games. These fifteen games can be divided into two broader genres – mastery type and management type social network games – although these two cross over and games can have both mastery and management features.

Asynchrony is embedded within a larger context of time in games and to understand it this thesis will adhere to insights from game studies that time in games is not singular, but can be divided into multiple layers. The models discussed will help foster an understanding of asynchrony in social

network games. It will be argued that there can be distinguished two sides to this asynchrony – flexibility and asynchronous multiplay – that differ in focus, but basically are two sides of the same coin. It is argued that persistence is the key to asynchronous game design as it affords that the game is flexible enough to harbor any playing style, while also affording that multiple players are able to interact with each other in and about the game even when they are not simultaneously present. Finally returning to the different time models this thesis will show that asynchrony has a conceptual impact on playing time and both engine and server time.

The discussion about asynchrony in social network games is mainly focused upon the game design and how it affords certain gameplay behavior. To complement the picture, this thesis will then move on to discuss sociability and social interaction in social network games as experience by the players. It is argued that within our rapidly changing society it is not surprising that our social interactions and our experiences of these interactions are also changing. Through previous accounts from computer-mediated communication research it is argued that even though we might lack non-verbal cues in our mediated interactions, we are still adopting social norms and adapting our communications to the medium. So although social interaction in social network games might be different from face-to-face communication, it is not necessarily less social. To demonstrate this, the main social interactions that are possible in the game will be discussed and it will be shown by looking at insights from social psychology that even though the means of communication might have changed, social interaction is still following the expected social patterns and social norms. Therefore this thesis concludes that even though these social network games might alter what we understand as a multi-player game, it is not necessarily detrimental to our sociability and social interaction.

PREFACE

Especially since the larger public became aware of Zynga's *FarmVille* and its enormous player base on *Facebook*, critics have increasingly uttered complaints about social network games present on social networking sites. Although more and more game companies, seeing new business opportunities, started to design games for and adapt games to the new gaming platform, critics focused upon the simple and repetitive game play, the 'exploitative' business models behind it, the reduction of your social network to a stack of game resources and the general observation that these games are not very social as you do not interact with your friends in real-time. As both a media and a game scholar this commotion around a new type of online game aroused my interest, and drove me to investigate 'what the fuss was all about'. When new technologies and new possibilities arise the public discourse is usually torn between an extremely utopian version that sees new options and possibly monetary gain, and an extremely dystopian version that sees them as reducing core social values because more and more communications and social interactions are now mediated by technology. The truth, as usual, lies probably somewhere in the middle.

Whenever a scholar encounters such polarized views, it is paramount to dive into the matter and sort out the facts from the fiction. In my case, being a game scholar, this involved diving into the phenomenon and see for myself how these social network games operate and whether there are fundamental changes to our social interactions or if it is really more like 'business as usual'. During the past eight months I have been engrossed in these games. I have played lots of them and many hours have been expended on trying to

understand them. I returned to most of them on a daily basis, accepting requests, sending gifts, challenging other players, visiting neighbors and posting achievements. I analyzed what I was doing in the game, asked myself why I was doing it, how the game structured my playing behavior, but also how I appropriated the game's affordances. I also looked into how other player's game behavior impacted my own game play and how their actions sparked responses from my side. You are now reading my account on this very intensive but interesting experience.

Although this thesis project provides the conclusion to my research MA media & performance studies, it has become a truly interdisciplinary game scholar's account on asynchronity and the social in social network games. I have tried to wield both my background in the Social Sciences and my recently gained insights from the Humanities as a double-edged sword, trying to understand a phenomenon that touches both areas. Thereby I hope to have shed some light on how certain games, that are often dismissed for being mere entertainment, can show us that technology and society have an intricate relationship and that there is more to them than meets the eye. Even if we might disagree on whether the gameplay in social network games is too simplistic or not, whether the business model and viral marketing of these games is too dominant in the design, or whether these games turn our friends into resources to be depleted or not, players have been embracing these games by the millions. Therefore it seems that something in the play experience of these games is enjoyable, and I must adhere to this feeling.

I have definitely enjoyed playing these games, even though at times the tasks seemed tedious and repetitive, the overall progress has a certain satisfaction to it. Combined with the flexibility to come and play whenever you like makes them excellent pastimes. Even the asynchronous multi-player part of these games has appealed to me, and I have 'friended' many other gamers. Like the 'strangers' that I have played with in synchronous virtual worlds like *World of Warcraft*, the asynchronous interactions with my social network game friends have been mainly game-related. But unlike the one-time synchronous play experiences with some players in virtual worlds, my

newly found game friends and their game states remain connected to me, always present when I log on to *Facebook*.

Before I can start with the results of my investigation I have to thank several people for their part in this project. First I would like to thank René Glas for being so kind to supervise this project. Although the writing of a thesis can be a solitary endeavor, knowing that you will receive great feedback on your writings is a comfort. Furthermore I would like to thank everyone at the media studies department of Utrecht University, especially Joost Raessens for being my tutor during my research master, and Sybille Lammes for being willing to fill the role of second reader for this thesis. I also want to thank the teachers and students of the media, technology and games master at the IT University in Copenhagen where I spent the fall semester of 2010, and especially Espen Aarseth for his advice to play as much games as you can, especially when they are deemed boring or badly designed. That was one of the reasons that started my inquiry into social network games. I also want to thank my sole media and performance studies class mate Nikos Overheul, who has been a great help in providing me with additional background from the Humanities in general and media studies in particular, complementing my Social Sciences knowledge obtained in my leisure studies master. Of course, I would also like to thank all my 'neighbors' in the various social network games, as it would have been impossible to investigate the social when playing these games alone. And last but not least I want to thank Karin Mol for providing me with the opportunity to pursue my academic interests and complete this second master. I also thank her for her continuous emotional support on the bumpy road of this thesis project. My heart belongs to you.

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1 - INTRODUCTION

> [I]t's about the game exploiting your friends list that you already made, so it's not really about meeting people. And it's not really about doing things with them because you're never playing at the same time.
>
> (Jonathan Blow in: Caldwell, 2011, February 15,n.pag)

The above quote on social network games (SNGs) by game designer Jonathan Blow seems to sum up several of the negative views and prejudices that are often attributed to the games played on social networking sites.[1] Blow deems social games ill-named because in his eyes the games are actually the opposite of sociality or friendship as your "friends" in these games mainly function as resources. Moreover, according to him, you do not even play these games *with* your friends, as your friends do not have to be present at the same time. Instead they are basically single-player games that you play at your own leisure. As such the above quote immediately points towards the two interesting concepts and their relationship that will be the core of this thesis: asynchrony and sociability in social network games.

In the wake of the growing popularity of social networking sites like *Facebook*, *MySpace*, *Bebo*, and *Hi5*, game developers like Zynga and PlayFish (now a part of Electronic Arts) saw opportunities on this new platform. Their game applications appropriate specific affordances[2] of social network sites, like friends lists and the sharing of status updates, and as such were able to spread rapidly as the players needed their friends to play as well in order to advance in the game. These new kinds of games have however been heavily criticized, mainly by game designers. They have been criticized for their rather aggressive 'viral marketing' and business models (e.g. Arrington,

2009; Caldwell, 2011), the fact that the games themselves are rather simplistic and repetitive (e.g. Liszkiewicz, 2010), and the fact that they create the obligation to come back again and again (e.g. Bogost, 2010, McRaney, 2011). However, players do not seem to care as these games remain highly popular: on its peek *FarmVille* (Zynga, 2009) had around eighty million active users on Facebook (see Walker, 2010) and currently Zynga's new hit, *CityVille* (Zynga, 2010), harbored over ninety million active users in April, although they are currently down to 77 million monthly active users.[3] These numbers surpass by far the twelve million players boasted by Blizzard Entertainment (2010) for their Massively Multi-player Online Game (MMOG)[4] *World of Warcraft* (Blizzard Entertainment, 2004).

So, despite the criticism, something is going on here. A lot of players expend a lot of time on these games,[5] and visit them on a daily basis, tending and expanding their farm, mafia, monopoly board, and fair or are trying to beat the high scores of their friends. One of the reasons for doing this is because their friends are also playing and they want to play with them. The multi-player experience of these social network games, however, is usually different from synchronous multi-player experiences, like for instance in most virtual worlds or in 'deathmatch' type first-person shooters. Most social network games harbor asynchronous multi-player experiences where players do not necessarily have to play at the same time as their friends and where basically everyone plays their own game when it fits their schedule. So in essence you are playing *along* your friends instead of with them. This is exactly where Jonathon Blow's criticism as mentioned in the opening quote above is coming from. His view portrays social network games as single-player games wherein the social connections are only used as resources to progress in your own game. In his view you do not fertilize the crops of your neighbor in *FarmVille* because you want to help him or her, but because you get experience points (XP) and a chance on finding fuel that will help you harvest your own crops faster. And of course so that your friends might send you a gift with building materials that you need to expand your horse stable. It might be debated whether this behavior is social or antisocial

behavior, but you are definitely interacting with the game state of someone else and although you might benefit yourself from visiting your friend, your friend also benefits from the same visit.

But 'the social' in games encompasses far more than just the social interactions between players. For instance, there is also a social side to achievement and progress in games and the reward systems in games 'translate the player investments into a more quantifiable, comparable and communicative form' (Jakobsson & Sotamaa, 2011, n.pag). And comparing your progress with your friends is exactly one of the core mechanics of social network games. For instance in the game *Bejeweled Blitz* (PopCap Games, 2010) your high score is saved and immediately compared to all your friends that have also played the game. This essentially turns the single-player game experience into an asynchronous multi-player game experience (Bogost, 2004). So there seems to be a relationship between asynchrony as a game mechanic and the social experience of playing these games.

But how does this come about? How does asynchrony work and why is it such a core mechanic in social network games? To what extent is asynchrony a mechanic that affords sociability and social interaction? Is the criticism on these social network games justified or is it just a prejudice against them (cf. Juul, 2010a)? This thesis wants to investigate these issues by researching to what extent asynchrony in social network games relates to sociability. Its main aim is a theoretical inquiry into asynchrony as a game mechanic and how this mechanic inhibits or promotes social interactions. In addition this thesis also wants to investigate how asynchrony in social network games affords specific appropriations by the players. Apart from these more theoretical aims this thesis also seeks to address the validity of (popular) criticism on this kind of games by looking into how asynchrony in general has become an integral part of our changing society and ways of social interaction.

In order to answer this research question, chapter two will first start with defining and explicating the core concepts in the research question (i.e. social network games, asynchrony and sociability). A large part of chapter

two consists of embedding social network games within the larger context of social networking sites and their affordances, and the theoretical debate around the problems of defining what a game is. The former is largely an elaboration on the theoretical foundations within social media research, like Boyd (2007) and Boyd & Ellison (2007) and the latter builds upon relatively recent insights in game studies that games are not only a cultural object that can be defined by distinguishing formal characteristics, but also involve the process of playing them (cf. Aarseth & Calleja, 2009; Juul, 2010b). In addition to the above contextualization of social network games, chapter two will also shortly introduce both the concept of asynchrony and sociability and social interaction. The concept of asynchrony will mainly be based upon an elaboration of asynchronous multi-play as researched by media and game theorist Bogost (2004). The concepts of sociability and social interaction will be embedded within a more sociological framework focusing on the connections and associations between games and multiple players. Especially the insights from Actor-Network-Theory as laid out by Latour (2005) will prove to be highly relevant in this respect. Chapter three will be used to explicate the research methods used throughout this thesis.

Chapter four will deal with asynchrony and how this is embedded within social network games. As asynchrony is part of the larger contextualization of time in games this chapter will start out with discussing temporality in games following insights from game study scholars like Juul (2004), Hitchens (2006) and Zagal & Mateas (2007). Following this discussion I will argue that asynchrony in social network games consists of two separate branches that both influence social interaction within social network games: flexibility and asynchronous multi-play. My elaboration from Bogost (2004) in chapter two will be used to describe these traits of asynchrony and will finally coincide with the adaptations that Tychsen & Hitchens (2008; 2009) made to the existing categorizations of time in games to incorporate multiple players.

Chapter five will embed the discussion of asynchrony within the larger context of a changing society and will discuss whether the social interaction

in social network games can be deemed social or not. This chapter will start with recently identified changes in society brought about by technological developments (Castells, 2000; Turkle, 2011) and how computer-mediated communication has changed social interaction. In addition it will also link social interactions and asynchronous multi-play within social network games to insights gained from social psychological research into social norms and social interaction. I will end this chapter by contemplating how social interactions in social network games can still be seen as social experiences. Finally, chapter six will provide a conclusion that will summarize this thesis, answer the research question and provide recommendations for further research.

The following pages will provide a rather theoretical inquiry into the concept of asynchronity and how it is linked to social interaction. As such it is a study that most of all wants to make sense of a new form of gaming that is widely popular, yet heavily criticized. It wants to assess how these new type of games work and how they are embedded within a rapidly changing society filled with technology. And although much is changing, it seems that it would be unwise to throw away insights gained from unmediated interactions. Let us therefore get started; there is much to be discussed.

2 – SOCIAL NETWORK GAMES, ASYNCHRONITY AND SOCIAL MULTIPLAY

Social network games are not only games,[1] but also applications that run on social networking sites. As such, those social networking sites provide opportunities and constraints for the design of social network games. It is therefore not surprising that both social networking sites and social network games share similar affordances. As social networking sites are so crucial to the games, I will first spend a fair bit of attention below on distinguishing the core affordances of social networking sites. Only then will I be able to start looking at the games played through social networking sites. As has become clear in about ten years of game studies, defining what exactly constitutes a game is difficult. Therefore I will address these problems and the duality between the design and the playing experience in 2.2. The last part is reserved for a brief introduction and contextualization of the core concepts researched in this thesis: asynchrony and sociability. I will keep those definitions brief as both are extensively discussed and analyzed in chapter four and five, but it will give insight in what I mean when I invoke those concepts.

2.1 Social Networking Sites and Their Affordances

Social networking sites are a relatively recent phenomenon with the website *SixDegrees.com*, launched in 1997, often seen as the first. Although several

others followed in its wake, social networking sites really hit the mainstream from 2003 onwards with sites like *Friendster*, *MySpace*, *Facebook* and various more local[2] forms like *Hyves* in the Netherlands, *Orkut* in Brazil and *Mixi* in Japan (Boyd & Ellison, 2007). The popularity of these social networking sites – for instance *Facebook* now has almost seven hundred million active users according to the website Socialbakers[3] - made them an important phenomenon and they were described as part of a larger shift in the way the Internet operates: the so-called 'Web 2.0' (O'Reilly, 2005). Although this metaphor should be used with caution because of both its origins in marketing and its connotations of a version upgrade and a revolutionary 'new' Internet, it does describe that the Internet has undergone change and that new business opportunities could arise revolving around interactive services. Therefore it is not surprising that some game developers made the move to these new platforms when they allowed the building of applications. It gave game developers a very large pool of potential players and, following the affordances of the social networking sites, different and interesting game mechanics. This section will first discuss what social networking sites are and then discuss the specific affordances of social networking sites.

2.1.1 What Are Social Networking Sites?

Boyd and Ellison (2007) define three characteristics that all social networking sites share: 1) they allow you to create a public or semi-public profile, 2) they allow you to make a list of friends that also have a profile and 3) they allow you to view and traverse other's profiles (ibid., p.211). This might be a useful initial definition, but it is extremely broad and also includes sites like for instance *YouTube* and *Flickr*. As Beer (2008) indicates, defining social networking sites in this way shows likeness to other umbrella terms like user-generated content and the above mentioned 'Web 2.0', and thereby does not help in distinguishing the phenomenon from other web developments. Beer therefore disagrees with Boyd and Ellison's discarding of the term social *networking* site as it points to a certain subcategory within

their overarching definition. I tend to agree with Beer that although sites like *YouTube* and *Flickr* definitely share characteristics with social networking sites, they should be excluded from a definition of social networking sites as those websites are organized around content, while social networking sites are organized around individuals.[4] Naturally these two cross over, blurring the boundaries between the two. Even though social networking sites can also be used around content and *YouTube* can also be used for networking, I focus here on the dominant use of the platform.

A related flaw in the above mentioned characteristics is that they only emphasize the technical properties or affordances of social networking sites, leaving the specific ways in which these are used out of the picture.[5] Boyd and Ellison (2007) explain why they discard the term social *networking* site as it indicates a certain type of use, but I would argue that indeed the networking part is what sets social networking sites apart from other websites. Indeed, as Boyd and Ellison describe, the connotation of networking often points towards making connections with strangers, or at least vague acquaintances. However, some of their own research (Boyd, 2007; Ellison, Steinfield & Lampe, 2007) has shown that people are connected to a large number of 'weak ties' on social networking sites, making networking a highly appropriate term for this phenomenon. Therefore networking, in my view, is indeed the distinguishing characteristic for this specific branch of social media and one of the main reasons for adopting the term social *networking* sites throughout this thesis.

Apart from the above mentioned reason, however, there is another reason to prefer social *networking* sites as a concept above the network version preferred by Boyd and Ellison (2007). Networking emphasizes an activity and a certain type of use. One of the main problems that I have with the three characteristics from Boyd and Ellison is the fact that they leave out the interaction between the users. Social networking sites not only allow the users to view and traverse the profiles of other users, but also afford interaction between the profiles and therefore between users. For instance, someone can 'poke' another user or 'like' certain status updates; they can

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write birthday wishes on each other's wall and comment on or 'tag' pictures.[6] It is not just a network of users, but the users are actually networking. An analogy could be made to Latour's (2005) remark on the word network in Actor-Network-Theory: 'Really we should say "work-net" instead of "network". It's the work, and the movement, and the flow, and the changes that should be stressed' (ibid., p.143). In our case it is indeed these social interactions that are the most important and most interesting part: not the connections themselves matter, but the *way in which* these are connected.

So to summarize the above, I define social networking sites as web-based services centered around individual profiles that allow individuals to network through the connection and interaction with subsequent profiles. As such it excludes sites like *YouTube* and *Flickr* as they are not *centered* around individual profiles but around the content shared through these profiles. On the other hand, it *does* include the networking interactions between individual profiles. Note here that 'individual profiles' is not necessarily limited to an individual per se, although that will be the dominant use. It could easily mean a band profile, a product profile, or fan pages to name but a few. With the above definition clear, we can move on to the specific affordances of these social networking sites. The first two really follow Boyd and Ellison's (2007) characteristics as mentioned above: profile creation and network creation. In addition, I would like to add the affordance of interacting with the profiles, which both incorporates the viewing and traversing of profiles as mentioned by Boyd and Ellison, but also the many ways of communication and interaction between profiles.

2.1.2 The Affordances of Social Networking Sites

The first major affordance of social networking sites is that they afford to create a public or at least semi-public profile, or in other words some virtual representation of yourself.[7] The individual is free to share information about herself, often structured through forms that can be filled in. As these social networking sites have their origins in dating sites the main information usually consists of basic demographic information (i.e. name, gender, age,

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location) and additional information about interests, tastes and preferences (Boyd, 2007). In addition, profiles can be filled with other content like text, pictures, videos and comments from others, making up a complex picture of someone's identity. These profiles usually make it easy to post new content to your profile (on *Facebook* these are called status updates) and therefore your profile is in a constant flux. It is a way of showing what you are doing or what interests you, but also provides a way to point your list of connections towards interesting news, articles, or videos that are available elsewhere on the Internet. This also makes these profiles very important from a marketing perspective as they can point vast amounts of users towards specific content. In other words, it creates the preconditions for viral marketing.

Creating online identities or profiles is not new, of course. Early Internet services, like bulletin boards, chat rooms and text-based virtual worlds already had ways to distinguish users. The major difference here was that most of it was done under anonymous nicknames leading a number of theorists (see for instance Turkle, 1995 or Bolter & Grusin, 2000) to claim that online identity was a rather disembodied experience that allowed for the exploration of new identities. You were only known by your screen name, online behavior and the information that you disclosed online, while your 'real-world' self could remain hidden behind the nickname. Even though the profile creation still affords playing with your identity by relaying 'fake' or semi-true information (cf. Peeters, 2007), it is relatively harder to stay completely anonymous on social networking sites. This is because most people that you will connect to on social networking sites will know you in real life, exemplifying a large social pressure towards sharing correct and true information, or at least letting your connections know that you are using your profile in a different way than most users. This makes social networking sites more likely to be an extension to your offline life instead of a different realm where 'nobody knows you are a dog' and this has implications for playing social network games as well, as we will see later on.

A second affordance, already briefly mentioned above, is the fact that you can set up a list of other profiles from the same social networking site,

indicating that you are related to (the person behind) that profile. According to Boyd (2007) the number of connections that you have, gives others some indication on your associations and provides, especially among younger users, some measure of popularity. On the other hand, however, Boyd also reports that people with a very large number of connections on *MySpace* are usually seen as 'MySpace whores'. So the, mostly unwritten, offline social norms also account for online status and provides users with some basic 'rules of engagement' on social networking sites. It is deemed inappropriate just to invite someone that you do not know in real life without sending some kind of message about why you want to be associated with that person. As such, someone's network of connections becomes another indication about the person behind the profile and it is exactly the act of connecting to other profiles that makes networking such a useful term in social networking sites. It allows you to connect to anyone that you might deem important to have in your network; not only real-life friends and acquaintances, but also more distant high-esteemed or interesting people that you might only know rather vaguely or not at all in real life.[8] The same accounts for people that 'just' have the same hobby or interest.

Again, the connecting between people is not new. People have been connecting to other humans for ages. Not even the *online* connecting between people is new, as individuals have started to organize themselves into virtual communities from basically the first days on the Internet (Rheingold, 1993). What is new here, though, is the fact that networks have become highly visible and are now a way of judging someone. Your online social network has been transformed into another piece of information about you and in some ways it is more important to be connected to certain people on social networking sites than to know someone in real-life. Not accepting a friend request on *Facebook* has become a statement, just like removing previous connections for whatever reason. Like the creation of a profile, this second affordance is also very important for the playing of social network games and has implications for the judging of the value of your own network of connections and also for what your connections think about you.

The third major affordance of social networking sites that I want to discuss is the communication between profiles. As Boyd and Ellison (2007) note you can both view the profiles of your connections as well as traverse profiles. By the latter they mean for instance that you could visit the profile of one of your connections and there click on one of their connections giving you access to yet another profile. All the profiles are intricately linked in this way and the user can traverse this web of connections in multiple ways. This is of course already some form of one-way communication with the profile being the message and you the receiver. But as discussed in the previous section I would like to expand this notion of viewing and traversing profiles to *interaction* between profiles. On *Facebook* you can comment on anything that another user posts on their profile. If someone posts that she is going to a rock concert tonight, people can like that status update, wish them a lot of fun or ask them whether it was worth the money afterwards. The profile holder can then again react to the comments, allowing an asynchronous communication to take place. With asynchronous in this respect I mean that there can be a time delay between the messages of the multiple participants. As I will argue later on in more detail (see 2.3 and chapter four), the key to this asynchrony is persistence. In spoken communication the message is only submitted in real time and although it can be repeated by the sender, or remembered by the receiver, the original communication is lost. In asynchronous communication, like on social networking sites, the original message remains visible (persists) in its original form for others to see and can therefore invoke a response as soon as it is posted, but also much later. In addition it might therefore also be interpreted in a very different context (cf. Boyd, 2007).

Yet again, this affordance is also not new. Communication is vital to social animals and some asynchrony in communication has been possible since the invention of writing. By creating a text,[9] it becomes a separate entity prone to comments about it at any moment, even long after its initial writing or even when the author has passed away. In other words the text becomes separated from the author and gains a form of persistence as it is

no longer bound to the space and time of the author but is 'out there' in the world.[10] This became even more so with inventions like the printing press and other forms of mechanical reproductions, dispersing multiple copies of the same text to a wide variety of people that could then all react to the text, come up with new texts about it, or using it as a source for their own work.

What is new to this affordance, however, is that the communication is shaped by the social networking sites that render it very easy to interact with every addition to the profile. This ease of use and the way in which it is shaped make this way of asynchronous communication the dominant use and this changes the social norms in communication as it becomes expected to receive reactions on your status updates. Another change in the communication through social networking sites is a transformation towards a 'networked publics' as described by Boyd (2007). This concept takes into account the vast potential audience for any expression on social networking sites and, according to Boyd, this also changes social interaction as people constantly have to take into account that their messages are now persistent, searchable, replicable, and can be watched by invisible audiences. Especially persistence and invisible audiences will be dealt with later on as I think that they are at the core of these changing social interactions and definitely present in social network games.

As will become clear throughout this thesis, the above mentioned three main affordances of social networking sites will prove vital in my analysis of asynchrony and the social. The fact that social networking sites afford the creation of a profile, the making of connections with other profiles and the interaction between profiles allow for the networking that is essential to social networking sites. And it is no surprise that game designers have taken advantage of all three as will be come clear in the next section.

2.2 Games on Social Networking Sites

Games have been a part of societies for centuries, with early examples like *Senet*, *Ur* and *Go* dating at least four thousand years back (Egenfeldt-Nielsen, Smith & Tosca, 2008). Compared to these early board games, computer games are relatively young with either *Tennis for Two* (Higinbotham, 1958) or *SpaceWar!* (Russell et al., 1962) mentioned as initiating the history of computer games. It is hard to give a specific date, as the development of computer games is highly intertwined with the development of computers (Malliet & De Meyer, 2005). The link between games and new technologies is still very much apparent. Not only the quality of graphics has enhanced with new technologies, but new platforms like the mobile phone and, more recently, social networking sites challenge game designers to come up with new games appropriate for these new platforms. However, before I can go into social network games in more detail, I first have to take a look at games in general as there has been a lot of debate on what the distinguishing characteristics of (playing) games are. And to problematize this further, changing technologies, changing societies and even changing game mechanics constantly challenge our conception of what a game is. Therefore I will first make clear what I include in my definition of games before I will be able to distinguish what I understand by a social network game.

2.2.1 Defining the Indefinable

It was Wittgenstein (2001 [1953]) who wrote in his *Philosophical Investigations*: 'For if you look at [games] you will not see something that is common to *all*, but similarities, relationships, and a whole series of them at that' (p.27^e, emphasis in original). Although he uses games as just an example in his work, he touches here upon the core of the problem with defining games: we all have some idea what a game is, but if we try to define games we can never come up with one definition that will incorporate

all games. Wittgenstein might well have been right as the number of researchers that have tried is vast,[11] but as both game researchers Salen and Zimmerman (2004) and game scholar Juul (2005) conclude after critically reassessing several of them, they all have flaws or do not describe *all* games. And to emphasize the point, their new definitions are also prone to the same critique as they, for instance, either have to exclude pen-and-paper role-playing games (Salen & Zimmerman, 2004) or at least define them as borderline cases (Juul, 2005).

These problems, however, require me to be specific about how I use the term to prevent misunderstandings. As Juul (2001a) writes in his review of *The Study of Games* edited by Avedon and Sutton-Smith:

> It is generally customary for writers on play and games to first describe their elusive character, discuss impossibility of defining the terms, only then to use them freely and suggestively, indicating that there is after all some meaning attached to the words.
>
> (Juul, 2001a, n.pag)

So we need at least some distinction about what we use than rather stick to the vernacular 'games' word as it might lead to another set of misunderstandings among game scholars.[12] Therefore Egenfeldt-Nielsen et al. (2008, p.4) advise us to 'seek a definition appropriate for our questions, and be quite explicit about the meaning of 'game' when we employ it in important situations'. This might be good advice as it at least discloses which perspective the author has used, but it does not solve the problem as it has a 'shop around until you find an appropriate definition to your conclusions' feel to it, prone to what in experimental science is called confirmation bias.[13]

There is another problem to the definition issue, though, as there is a dual nature to games. As Aarseth (2001, n.pag) already noted: 'games are both object and process; they can't be read as texts or listened to as music, they must be played'. Consider the example of chess; when is chess chess? When someone owns a chess board? When two players use the pieces to play chess? When someone tries to solve the daily chess problem in the local

newspaper? Or how about someone playing blind chess? This immediately makes clear that you do not need the board and the pieces (the objects) themselves to *play* chess. Of course, analyzing the structure of the chess board and how it allows for an interesting game might be useful, but chess does not solely reside in the board or the pieces. It needs players to set it in motion (the process).

So what if we just forget about the board and focus upon the players? Again this would only provide half of the picture, because the players might decide to play *checkers* instead with the chess pieces. You might counter this with the fact that these players are not playing chess, but checkers, as they use the rules of checkers to play the game. Therefore you might come to the conclusion that chess resides in the rules of chess in order for something to be chess. But then consider the following part of the parable of Ivan and Abdul playing chess as invoked by Suits:

> Utterly ignoring the rules governing movement of the pieces, [Ivan] moved his queen to a square which put Abdul in check. […] [Abdul] simply removed Ivan's queen from the board and put it in his pocket. Ivan in turn was quick to respond. In a thrice he had nimbly rearranged the pieces on the board so that Abdul's king was in checkmate, crying, 'I've won!
>
> (Suits, 2005 [1978], p.68)

Of course, Abdul again has a counter-move and both Ivan and Abdul come up with even more cunning moves and breaches of the usual chess rules, finally resulting in a fight. The question here is whether they are playing chess. However, according to them they are, as Ivan comments the following day: "'My friend, that was the best chess game i've ever played'" (ibid., p.69) and Abdul concurs.

This example makes very clear why games are both object and process. Ivan and Abdul start out using the standard rules and pieces of chess, but as soon as they start playing the players transform it into something that most people probably would not classify as chess, but is still chess according to

themselves. So there is a definite connection between the ontology of the game and the phenomenology of playing it. The game as object cannot live without the process of playing the game. When two persons decide to race to their destination, even the traffic on the road that they have to travel through might be seen as part of the game. This makes it rather problematic to formalize anything about games, as basically anything can be turned into one. As Juul (2010b, p.53) rightly claims, this has lead to the fact that basically all studies on game design can be blamed to ignore players, while any account on players is vulnerable to the critique of ignoring design.

Therefore game researchers Aarseth and Calleja (2009) argue that game studies might not benefit from a *definition* of games, and that a definition might even be counterproductive (for instance by excluding a game like *The Sims*, Maxis 2000, as it has no final goal). They offer a sensible solution: instead of *defining* what games are, they opt for a model that *describes* what games have in common and where they differ. This solves a lot of the problems as it avoids the pitfalls of both including games that are not games or excluding games that are. It also shifts the focus to the *interaction* between the player and the game, instead of looking at either one in isolation. We need to take both the object and the process into account in describing games, as well as the interactions between the two. Or in other words we need to look at both the affordances of the design and their appropriation by the players.

Given this dual nature of games, I need to clarify what I will understand by a game. Throughout this thesis I will include anything that is designed or marketed as a game (the object) in my notion of a game and also the way in which these are played and experienced by the users (the process). This allows us to look at both the design with the specific game mechanics, the affordances and the implied player experience, but also at the way in which these are set in motion and experienced by the players.

2.2.2 What Are Social Network Games?

So what, then, are social network games? Put bluntly, I would include as a social network game any game that can only be played through a profile on a social network site and that makes use of the other two affordances as determined in 2.1.2. (the making of connections, and/or the interaction between profiles). This crude definition needs some elaboration though. I will first explicate why I prefer to use the term 'social network game' instead of others like for instance the also popular 'social game'. And second I will elaborate a bit on how we need to interpret this crude definition.

Let us revisit the discussion in 2.1.1 about why I preferred the term social *networking* site above social network site. I argued there that networking is the distinguishing feature of these sites. The same reasoning holds here as I think that the playing of the game with your already assembled social *network* is the distinguishing feature of these games. Of course, you could use these games for active networking as well and it could be argued that you are networking when you share your progress through the game, but the game itself is designed to use your 'social network'. To the game it is irrelevant if there are new additions to your network, it still adheres to the network as a static feature. I also deem the term 'social game' a misnomer. First, because *all* multi-player games are 'social' games; even offline board or card games are social experiences. And second, because it does not indicate the core feature of these games. Other players and sociability are no prerequisites for playing social network games. They can be played individually if preferred, although some of the features might remain locked to you or require more time investment. Therefore I deem the term social network games the most appropriate as these games are played with the social network already assembled through social networking sites. And therefore I define a social network game as a game that is played through a profile on a social networking site using one or both of the other two main affordances of social networking sites.

To all social network games, your profile on the social networking site provides your identity to the game and contains all your playing history and

information. So having a profile allows access to the game, much like the way in which an avatar gives you access to virtual worlds. To the game, any profile is a separate player, whether or not the 'real' player behind the profile has multiple profiles or whether one profile is shared by multiple 'real' players.[14] This distinction between real player versus profile as player, has raised interesting questions about online identity construction and development in computer-mediated communication and virtual world research (see for instance Turkle, 1995; 2011; Bartle, 2004; Peeters, 2007). However, as I am not interested in identity construction but gameplay, and also to avoid confusion, I will, like the games themselves, presuppose that any profile used for playing matches one 'real-world' player. The only minor exception to this will be discussed in chapter five, where I will shortly deal with creating additional profiles to provide in-game friends, which are usually called 'neighbors' in these games.

So social network games have taken the first affordance of social networking sites, the creation of a profile, and turned that into the equivalent of a player character or avatar. But these games also took the other two major affordances of social networking sites and incorporated those in the design. The second affordance is that you can set up lists of connections between your profile and other profiles. Most of the social network games either use your existing list and display others from your network that play the same game, or they let you add your connections yourself into the game. So every player has her own game space within the game itself, but these games allow connections between separate players and thereby between the separate game spaces of those players. You can usually see their scores or achievements, and in most cases you can even 'visit your neighbors' and see what they have been doing in the game (cf. the viewing and traversing of profiles in Boyd & Ellison, 2007).

The third affordance of social networking sites distinguished in 2.1.2 is that there can be interaction between your profile and the profiles of others. Apart from just visiting your neighbors and see what they have been up to, in most games you can also perform a small number of tasks in their game

space. These actions help your fellow player in various ways and of course, your own neighbors can also perform tasks at your game space to help you in the game. Furthermore you can usually send your neighbors gifts and also request gifts back from them. These game requests can then be accepted one by one by your fellow players. In addition, most social network games are set up in such a way that you can share any progress or achievement in the game on your wall through status updates. This enables that everyone that you have given access to your wall posts, can see these achievements. Like any other status update, your friends can interact with these game updates (i.e. there can be comments to it, or they can be 'liked'). But more importantly for other social network game users, they often also contain rewards for your own game space.

In this way all three affordances of social networking sites are present within the design of the relatively new branch of social network games. Game designers have appropriated the new platform of social networking sites and incorporated their affordances in their games. However, not only the prototypical design of these games has changed, but the players' appropriation of the affordances of these designs has also resulted in interesting (new) forms of social interaction. This is in part through the fact that they are played through social networking sites that already affect social interaction, but also through new emerging social norms in how these games should be played. But before I can deal with these issues, I will first need to distinguish between two major strands of social network games, as both strands have a different way of incorporating the affordances mentioned above.

2.2.3 Two Kinds of Social Network Games

Like with other games, there are different kinds of social network games, and genre categories that have been applied to video games in general (like action games, role-playing games, first-person shooters or simulation games) can also be applied to most social network games. However, the larger category of social network games can basically be divided into two

strands of game 'genres', based upon their core mechanic. Game researcher Rossi (2009) typifies these two as *skill/knowledge games* and *truly social games*. Although the names that Rossi chose for these two strands are not the most helpful ones and I have problems with his residuary description of the latter as 'those [games] that seem to be pointless if played alone' (ibid., p.3), it indicates an interesting difference in gameplay. And the differing focus between both strands has consequences for multi-play and thereby also for asynchronous multi-play as well (see also part 2.3).

Skill/knowledge games in Rossi's (2009) description are – not surprisingly – centered on the skill or knowledge of the individual players and are therefore more focused upon the *outcome* of a single playing session. Players measure their skill or success in the game by their high scores or the maximum skill level that they have obtained. So in essence, a single player will play the same game over and over again to improve their scores and performance, gaining mastery over the game. On the other hand truly social games are centered on the continuing management of a progressing game state and the focus is therefore not upon the outcome of the game, but upon the playing of the game itself. Players therefore measure their game 'success' by continuously increasing scores over multiple playing sessions. So here a single player will continue to play the same game and earn more status as they dedicate more time to increasing their scores. So in essence there is a difference between mastery scores in the first, versus dedication scores in the second.

This differing focus has consequences for multi-play. In skill/knowledge games, the social interaction between players stems from a comparison between the individual mastery scores and the outcomes of other players. Here, multiple players compete to get the highest scores. In truly social games, however, the social interaction is not really based upon competition between players. The social interaction in these games stems from challenges that are encountered during the game that can not be overcome without the assistance of one or more additional players. So cooperation is much more apparent in truly social games. Of course, the comparison of

specific dedication scores between players can spark some instantiation of competition, but, as those scores are based upon accumulation, anyone that dedicates enough time and attention to these games will gradually obtain higher scores, without needing additional playing skills.

As mentioned above, I am not very happy with the two terms that Rossi (2009) chose for the two categories. Therefore I would like to propose two different terms for basically the same categories. As Rossi's skill/knowledge games are based upon competition and mastery of the game, I would like to term these games *mastery type* social network games. On the other hand, I would like to invoke the term *management type* social network games for his truly social games, as these games are based upon managing a progressing game state and usually requires more cooperative play. Naturally both cross over and games can have both management and mastery elements, but usually the social network game will gravitate towards one or the other. As these two categories are very different in nature I will try to distinguish between the two wherever possible. The next section, where I will deal with asynchrony and social interaction, will already highlight the necessity for this distinction as the asynchrony and social interaction both result from the differing focus between the two.

2.3 Asynchrony and Social Interaction

This section will deal with the core themes of this thesis, asynchrony and the social. Although my main argument and critical inquiry about these concepts will follow later on in chapters four and five, I will need to establish a theoretical benchmark that will give some idea about what I mean when I invoke these concepts. First I will discuss asynchrony and how I will embed this within the larger debate of time in games. Social interaction and sociability will follow after and how this is embedded within the larger changes in society and insights from social psychology.

2.3.1 Asynchronity[15] and Social Network Games

The etymology of the word asynchronity is related to the Greek word for time (*chronos*). In essence it means 'not at the same time', and therefore asynchronous multi-play refers to games that are played by multiple players, but these players are not required to play at the same time. Most social network games are such asynchronous multi-player experiences, as every player plays her own game and does not rely on other players that have to be present. This is true for both mastery type social network games and management type social network games. In the former you play your own game and only compare the outcome of the game – your obtained mastery score – with a ranking list of scores obtained by yourself and other players. In the latter you manage your own game state and progress within it while help from other players can be accepted without the other player present. As such these games are opposed to synchronous multi-player experiences where players have to be present at the same time for the competition or cooperation to take place, like in multi-player deathmatch games in first-person shooters or in raids or guild events in virtual worlds.

As the etymology of the word indicates, asynchronity in social network games is embedded within discussions of time and the experience of time by players. Within game studies it has been common to distinguish several different time levels, layers or frames (see for instance Juul, 2004; Hitchens, 2006; Zagal & Mateas, 2007). These different models will be discussed and analyzed in more detail in chapter four. For the moment it is enough to see that each player expends time on playing social network games, and that in multi-player games these time layers do not necessarily have to overlap. For *synchronous* multi-play it is essential that there is at least some overlap between the time expended by different players as these players play simultaneously *with* each other. For *asynchronous* multi-player experiences there is no such restriction and players can come and go as they wish, while still being able to interact with other players. In essence these players are playing *along* each other. This makes it essential that the game or at least some part of the game persists where these interactions can be stored and

where they are accessible for the other player(s) at a different time. Game researchers Tychsen and Hitchens (2008; 2009) worked out a model of time for MMOGs, which mainly provide synchronous multi-player experiences. But as I will discuss in chapter four, their model can be adjusted rather easily to provide a model for both synchronous and asynchronous multi-play, which is also helpful in identifying how this is related to the social.

But what do I mean exactly by asynchrony? One of the few researchers that has described asynchrony is the media and games theorist Bogost (2004), who saw asynchronous multi-play as a great opportunity for casual game design.[16] Bogost distinguishes four characteristics of asynchronous multi-play: 1) it supports multiple players that are playing in sequence, rather than in tandem, 2) it requires some kind of persistent game state which both affects and can be affected by all players, 3) in asynchronous play the organizing principle is the break between players, and 4) it does not have to be the core mechanic of the game (Ibid., p.2). The fourth characteristic seems rather self-evident, as games can consist of multiple game mechanics that gain their contextualization within the rules and theme of the game (Björk, Lundgren & Holopainen, 2003). This is also the case in social network games as asynchronous multi-play is an important part of the game, but usually not the core game mechanic. I will therefore leave this fourth characteristic out of my discussion. However, the first three characteristics of asynchrony in games deserve a closer look as I think they do not cover the asynchronous play experience of social network games in full. This is not surprising as social networking sites were only beginning to gain popularity when he wrote his article, and the first wave of social network games had yet to be designed. In addition, Bogost adopts a design approach and focuses on whether the asynchrony is *intended* by the design. Following my approach to games as mentioned in the previous section, my aim is to develop a concept of asynchrony that does look at both the object (the design) *and* the process (what the player does with it); or in other words, the affordances of the games.[17] So the below can be viewed as an update and elaboration of Bogost's notion of asynchronous multi-play.[18]

The first characteristic - that it supports players playing in sequence rather than in tandem - seems like a good starting point for asynchrony as this allows players to play separately from each other. But Bogost (2004) writes: 'in asynchronous play, […] players *never* play at the same time' (p.2, emphasis mine). So, according to Bogost, players will always have to await their turn within this characteristic. In this way turn taking seems a rather dominant mechanic and looking at Bogost's fourth characteristic I think that this would limit the possibilities for asynchrony as a concept and as a game mechanic. For me, a game could be called asynchronous when the game does not *require* you to play in tandem. In other words, asynchronous game design affords the players to decide whether it is played in tandem or in sequence. A possible counterargument here could be that any game could then be played in an asynchronous way. In essence this might be true, but then the playing of the game (the process) becomes again the dominant marker, leaving the design out of the picture. My point is that the design of the game and the players interact and thereby the design affords that players can play it in an asynchronous way.

As will become more clear in chapter four, Bogost's second characteristic - persistence of the game state - is the most important in my view, as it is exactly this persistence that affords the asynchrony. Because all your progress is saved no matter when you play or how long you are away, it creates a huge flexibility for the player to play only when she has the time, but it also creates opportunities for asynchronous multi-play as any player can come and go to your game state as it is always present. It must be noted here, that the persistence in social network games is not only the persistence of the game state. As I discussed in 2.1.2, persistence was also mentioned by Boyd (2007) as part of the 'networked publics' affordance of social networking sites. As social network games are highly linked to the affordances of the platform, they take advantage of the opportunity to post status updates. For every achievement or progress in the game you can opt to share it with your social network, giving the achievement a persistent spot on your profile. Like the high scores from early arcade games and pinball

machines, these then become part of the game and the play experience as they both represent a mark of your performance, but also provide cues to other players on what to aim for, or what else can be done in the game. Especially by sharing a game achievement from a mastery type social network game you basically put up a challenge for the rest of your social network to play as well and match or even better that achievement. So by being constantly displayed on your profile it can motivate others to also play, creating asynchronous game experiences as other players first need to see your status update and then play the game themselves.

The third characteristic – that the breaks between players should be the organizing principle – is also very much apparent in social network games. In most games you are playing your own game and thereby you are not really dependent upon other players. But the break here can be found between all these separate game spaces. In mastery type social network games, again like the high scores in arcade games, everyone plays their own game and then they can compare their performance. But this break is also apparent in management type social network games by another game mechanic. Your 'neighbors' can visit your game space and usually perform a small amount of actions. In most cases you will be notified when someone has visited your game space, and some even require you to approve their interactions. The break between the players becomes apparent here in that you can evaluate what another player has done to your game and act accordingly, usually by accepting their help and reciprocating those actions on your friend's game. A third instance of these breaks between players can be found in the posting of status updates and the accepting of gifts. First the status update is posted or the gift is sent. Then the other players will be notified by either their news feed or their game requests. And finally they can act upon it or accept it. There could be differing amounts of time between any of these steps, making the break in time between players highly apparent.

Summarizing the above, I think Bogost (2004) did a good job in describing the basic characteristics of asynchronous multi-player design, but overall I think his view limited the usefulness of the concept of asynchrony

too much. By seeing the characteristics as affordances instead of intended design choices they become a lot more valuable for academia as it steps out of the implied player approach and incorporates what a player can do with a game In my understanding, a game offers an asynchronous multi-player experience when a game affords multi-play by offering persistent game elements that can be interacted with by different players at different times.

2.3.2 Multi-play and Social Interaction

One of the main criticisms of social network games is that they are *not* very social, as you hardly talk to your neighbors, do not really make new friends and basically because your network is more of a stack of resources than a group of individuals in those games (see for instance Caldwell, 2011). Another often heard argument is that you are basically playing a *single-*player game and that these social network games are not really multi-player games. In both critiques, sociality and multi-player seem to be rather analogous to each other. However, there is a difference between the two as one indicates the assessment of social interactions between players while the other denotes the number of players that a game has. Therefore a multi-player game does not have to be social and a social game is not always required to be multi-player.[19] I will explicate the differences in a bit more detail below.

Multi-player, of course, refers to playing a game with more than *one* player, although in most cases it has a connotation of playing a game with more than *two* players. In their attempt to categorize games by distinguishing different dimensions in games game researchers Aarseth, Smedstad and Sunnanå (2003) distinguish six-different player structures: single-player, two player, multi-player, single team, two team, and multi-team (p.51-52). Looking at this division it is rather easy to distinguish that there seem to be only three possible strategies for multi-player game design: competition, cooperation or a combination of the two. Again, however, this categorization is a rather formal one which basically only looks at the design of the game and the make-up of the required players. In an update to the

model, Elverdam and Aarseth (2007) even seem to imply that playing a first-person shooter in single-player mode is a different game than playing the multi-player deathmatch mode or the multi-player cooperative mode of the same game. I admit that the gameplay experience will be completely different for these modes, but the game's mechanics and theme are mostly the same. In addition, these different modes are affordances included within the same game. The game affords playing the game alone, but also to play it with other players.

For the purposes of this thesis, I am therefore more inclined to adopt game designer Fullerton's (2008) adaptation of Avedon's (1971) interaction patterns in games, because although Fullerton presents them as design options, these patterns already incorporate the possible interactions between the players and/or the game. She distinguishes between single-player versus game, multiple individual players versus game, player versus player, unilateral competition (several players against one individual player), multilateral competition (individual competition between three or more players), cooperative play and team competition (Fullerton, 2008, p.51-56). Especially the multiple individual players versus game interaction pattern seems useful for describing social network games, as everybody plays their own game and 'no interaction between participants is required or necessary' (ibid., p.53). This is extremely true for mastery type social network games as you can play the same game over and over attempting to beat your high score – given that it does not have an energy system or something similar. The ranking list provides some context about your own skill in comparison with your friends, but these friends are usually not required to play the game. The matter is a little more complex for management type social network games, though. Still, players play their own game and advance their own scores within it, based upon dedication. But during play you usually need other players to send you gifts, building materials, energy or other items that are useful in the game. These items are, however, almost never required or necessary to advance in the game, but function to speed up progress or to grant bonus items. And when these items *are* required, there

is usually a way to circumvent it by buying them with real-world money, erasing the need for other players.

From the above it should become clear that the playing of a multi-player game is not always a social experience, as the game can usually also be played alone to a certain extent. Indeed several multi-player games, mainly MMOGs, have been found to harbor a lot of 'solo' players that only group up when they feel like it (Ducheneaut, Yee, Nickell & Moore, 2006; Olivetti, 2010), basically turning a lot of the gameplay experience into a multiple players versus game interaction pattern.[19] Therefore we need to separate the fact that a game is multi-player from the fact that a game can be social. As Latour (2005) shows us, the social is not some kind of material quality of something and a social network is therefore not a network made of socialness. Rather, the social is actively constructed in an ongoing process of interactions. The social originates in the active connections or associations between multiple agents, both human and non-human, according to Latour. And therefore the social in social network games is not the playing with other players alone. Rather the social is constructed by our interactions with the game, our interactions with other players and also by *their* interactions with our game and even by interactions that occur outside the game.

Therefore Juul (2010b) is right when he claims that 'players play for personal goals, are aware of the goals of other players and [this] shared understanding of intentionality makes game actions socially meaningful' (p.126). During the moment of play sociality is constructed, time and time again. And to complicate it even further "playing videogames is not an activity undertaken in a vacuum but rather […] one that is informed by and situated within the contexts of other players and their analyses and playing" (Newman, 2008: in Gazzard, 2011, n.pag). The social is embedded within the social context and depends on all kinds of other issues, inside as well as outside of the game. In order to clarify some of the messiness of the social, game researchers Stenros, Paavilainen and Mäyrä (2009) make an analytical distinction between *social play,* which contains the social interactions related to the playing of the game itself, and *sociability*, which contains the social

interaction about and around the game and its experiences. However, they also admit that both can become very muddled, especially in massively multi-player games where players can talk in the game about things outside the game.

Sociability and social interaction in general have changed due to larger changes in society, mostly related to new (communication) technologies. Sociologist Castells (2000) wrote about how we now live within a network society where everything is connected to each other and where the growing importance of communication technology has changed our society. According to Castells, societies are organized by *relations* between human and matter, humans and themselves and humans and other humans and that these relationships have gained in importance in the network society. It is no longer about who you know, but about who you are connected to and the fact that you are connected. In social network games, the game itself does not matter who your neighbors are, as long as you have neighbors. This has lead several players to ask for neighbors in the forums for the specific games, thereby inviting complete strangers into their social network. Others create dummy profiles to create additional neighbors in the game. Social networks are therefore cluttered with fake profiles and strangers we usually do not care to know or meet in real life. As long as these strangers play the game, and play it well.

However, this seems a rather bleak perspective on our current society, something that is extensively apparent in the latest book from Internet and technology researcher Turkle (2011). She describes a society wherein people are victim to the possibilities and options that technology brings and she describes how people's ideas about technology are shifting from 'better than nothing' to 'better than anything'. She calls this the robotic moment and denotes an emotional readiness in people to consider robots and networked connections as valid substitutes for real people and 'real-time' connections. People started out adopting networked communication as a way to communicate with people who were not around. Nowadays, however, people have stopped to call or visit people as it might interrupt other activities or

provide awkward moments as there is no time to think about your response. As Turkle sums it up: 'We don't want to intrude on each other, so instead we constantly intrude on each other, but not in "real-time"' (ibid., p.280). We keep our connections tentative to make sure that we do not shoo them away.

In her book, Turkle (2011) seems to imply that solely communicating through networked means makes us less social, and she seems to yearn for a return to human touch and face-to-face communication as these are the things that make us human. Although her book is very insightful and shows us an often omitted shadow side of the growing importance of technology in our lives, I tend to disagree here with Turkle. We *are* still interacting with each other and we *are* still associated to each other, even though the connections now run through technology. Latour (2005) points out that technology might mediate and change our interactions, and thereby our experience of interactions, but it does *not* make it less social. I will use chapter five to discuss this in more detail and I will show that specific social norms and strategies still operate within the player interactions in social network games. By analyzing the possible interactions in these games from a social psychological perspective, I will argue that, although our interactions might have altered somewhat, social principles that guide unmediated or offline social interactions are still guiding our mediated and online interactions.

2.4 Conclusion

This chapter has introduced the core variables and concepts within this research. It was argued that the terms social *networking* sites and social network games were preferable over other alternatives as these terms cover the in my view distinguishing characteristics of the concepts. Furthermore the three main affordances for social networking sites were introduced: they afford the creation of a profile, they afford the creation of connections with

other profiles and they afford the interaction between different profiles. It was argued that these three affordances have been adapted in the design of social network games, by making the profile the equivalent of a player character, and by adopting the other two affordances into the gameplay.

Following my discussion that games should be seen as both object and process, I considered any game designed or marketed as such that could be played through a social networking site and adopts the other affordances of social networking sites to be a social network game. We saw that social network games could be divided into two large categories: 1) mastery type social network games, where scores measuring mastery of the game are the most important and where the player interactions are based upon competition on those scores, and 2) management type social network games, where scores measuring dedication and time investment are the most important, and where the player interactions mostly resides in helping each other progress (faster) in the game.

Then I introduced the concept of asynchronity and how this has links to time in games. I argued why we should look at asynchronity as a game mechanic that is both designed by game designers and appropriated by players and by elaborating on Bogost's (2004) concept of asynchronous multi-play three key characteristics were described. A game can be seen as asynchronous when it 1) does not require players to be playing at the same time, 2) has at least some persistent elements and 3) emphasizes the breaks between players. Asynchronity in games give players the flexibility to come and go as they like and gives rise to asynchronous multi-player experiences.

I also spoke about the difference between multi-play and sociability. It was argued that we should not see the social as some material quality or something given, but something that is constantly reassembled and highly fluid and that originates from social interactions. So for social network games the social is constantly reinforced by interacting with the game state, the social networking site, other players and other related actors. It was also argued that the social interactions between the game and the players, even though these interactions are now often mediated by technology, can not

really be seen as less social. The next chapter will elaborate on how I have researched the above described concepts of asynchrony and the social in social network games. There I will also introduce the games that I researched and why I deemed these interesting or important to research. The research results will follow in chapter four and five.

3 – RESEARCHING SOCIAL NETWORK GAMES

This chapter will deal with the way in which I have researched asynchrony and the social in social network games. Next to the usual method of literature study to establish a critical theoretical understanding of the concepts and variables, I have chosen to invest a large amount of time in playing several of the social network games on the social networking site *Facebook*. I will first elaborate on why playing the games was deemed the most informative for my purposes as it fits the view of games as object and process. The second part is reserved for an introduction of the games that I researched and my reasons for choosing those. I will conclude this chapter with a few critical notes about being both a player and a researcher.

3.1 Choosing a Research Method

Asynchrony is embedded within the design of social network games. So in order to analyze how it works there are basically three ways to find out: 1) talk to the designer and find out how he or she has intended the asynchrony to work, 2) talk to the players and find out how they experience asynchrony in the game, or 3) to play and experience the game firsthand and see how asynchrony takes shape within the game (cf. Aarseth, 2003). The first option, looking at social network games by interviewing designers will shed light on how the designer intended the asynchrony to work. A designer usually works with an implied player base in mind and researching

social network games from this angle might give insight in how specific parts of the design allow certain actions by players and this could result in interesting conclusions about the design.

However, by only looking at the design of social network games, the process of playing them and the resulting player experience is basically left out of the picture. Depending on your goals and purposes, this might not be a problem, but as I am not interested in the design alone – given my earlier discussion on games being both object and process – a large part of the interesting interactions and appropriations that asynchrony can bring might be lost to my research. Only during play itself do all the mechanics and rules interact in full and it is therefore not surprising that several authors (for instance Salen & Zimmerman, 2004; Sykes, 2006; Fullerton, 2008) propagate play-centric game design through iterative design. By continuously playtesting multiple iterations of the game in development with players that are ignorant of the intended design, the designers hope to lay bare how the game will play and how the play experience will be shaped by their game.

The second option, asking the players, is also a viable option for research into social network games. The players have experienced the design and appropriated it to their needs and wishes. The players set the design in motion and thereby encounter all the interesting interactions with the game mechanics, but also the bugs and flaws of the game. Talking to players might reveal a lot about how a game really operates and what players like or hate in the game. Again, however, I want to look into *both* the asynchrony in the design as well as the appropriation by the players. Therefore, for this particular research, only asking the players would not be enough as it would tip the balance of my research towards the process of playing. Even though some instrumentally oriented players are known for practices like 'theorycrafting' or 'rule mining' – which is trying to uncover and understand the hidden algorithms of the games (see for instance Glas, 2010; Mortensen, 2010) – most players do not really care about the exact design and how the game is structured. Moreover, theorycrafters usually have a different motivation than most researchers. They want to know how the game works,

because they want to gain an advantage in the game. Like studying the design by asking the developer, asking the players about their experiences will probably reveal interesting results, but again the interesting interactions themselves might be lost as the players are basically just that, players. They appropriate the game as it is presented by using the affordances within the design and then decide whether they like it or not.

Therefore, I will adopt the third method in this research: playing the games myself. Within game studies, playing the games one studies is basically seen as mandatory, just like the reading of a book in literary studies, or the viewing of a movie in film studies. As Aarseth (2003) notes: 'If we have not experienced the game personally, we are liable to commit severe misunderstandings, even if we study the mechanics and try our best guess at their workings' (p.3). Only when we have firsthand experienced the games we research, can we be certain that we are not emphasizing mere decorative parts of the game or minor mechanics, while we are trying to explain or analyze the core gameplay mechanics. Therefore I have started to play a number of the social network games and have analyzed them in terms of the asynchronity and the social interactions. Obviously playing as a researcher and using your subjective experience as a research method has implications for the validity, reliability and generalizability of the results. I will address those later on.

Apart from these three research methods, one could also combine the insights of different methods. Although my research would have benefited greatly from using a combination of two methods or using all three maybe, the obvious time constraints and the scope of this thesis would have prevented me from doing so extensively. Therefore I have chosen to take the most useful approach that would both adhere to the research goals of this thesis as well as give me the right framework for understanding the social interactions within these games. Below I will elaborate which games I chose, and why I deem those interesting from an asynchronity or a social perspective.

3.2 Which Games to Research?

Before I started this research project I had never played one of the social network games. Although I had a *Facebook* profile and am an avid PC gamer all the 'spam' on my news feed[1] coming from these games and the rumored simplicity of these games had made me wary of joining them. But still there are millions of players playing these games, and most of them on a daily basis, so obviously these games somehow succeeded in compelling players. As my curiosity won over my reservations, I just had to start playing them and experience firsthand what was so compelling about them. As I was not about to bother all of my already assembled connections on *Facebook* with my gameplay research, and was keen on keeping my own profile and wall clean, I decided to create a separate gaming profile. I posted a message on my normal profile that I was planning on doing some research on social network games and that the ones that were playing games on *Facebook* were free to add my gaming alter ego as I would be needing neighbors in these games. Several of them responded and so I was ready to start playing.

With the popularity of *FarmVille* (it had almost eighty million active players on its peek, see Walker, 2010) and some of the negative attention around its developer Zynga (see for instance Arrington, 2009; Terdiman, 2010) *FarmVille* was an interesting starting point. Soon into my research, however, the popularity of *FarmVille* started to decline (there are, however, still almost thirty five million active monthly players playing the game in August 2011).[2] According to the usage data of the game applications on *Facebook*, Zynga's newer game *CityVille* had surpassed *FarmVille* and was now the most popular game with around ninety million monthly active users. I have played both games extensively during my research.[3]

But this analysis of asynchrony and the social in social network games would be rather one-sided if I had just limited myself to these two, and those being from the same developer, too. Therefore I had to find out other interesting games that could shed light upon the interesting interactions between asynchrony and the social. In finding new games I followed

Latour's advice and Actor-Network-Theory's slogan '"to follow the actors themselves"' (Latour, 2005, p.12). I started looking at the games that my 'gamer friends' were playing[4] and those that came up in the advertisements on my profile or that featured in the popularity list already mentioned before. As such I started playing over forty five games. Some I played only once or twice, but I played several more actively for a period of time when they seemed to shed an interesting light on the asynchrony and sociability of social network games. I tried to find a balance between mastery type and management type games, ensuring that both featured in my research and would enable me to compare them. Table 3.1 gives an overview of the games that I have played more actively and the dominant measure(s) of success[5] that I reached, giving some information about my involvement in the games mentioned throughout this thesis. The below two paragraphs will shortly introduce the games and their most important mechanics.

Table 3.1: Overview of the played games and the highest obtained level and/or subsequent mastery scores.

Name of the Game	Type	Dominant Measure(s) of Success
FarmVille	Management	Level 71
CityVille	Management	Level 56 / Reputation: 22
Ravenwood Fair	Management	Level 24
Monopoly Millionaires	Management	Level 17
Mafia Wars	Management	Level 21
Vampire Wars	Management	Level 22
Café World	Management	Level 15
Zombie Lane	Management	Level 9
Empires & Allies	Management	Level 14 / Reputation: 6 / Infamy: 2
Snake	Mastery	High Score: 480
Robot Unicorn Attack	Mastery	High Score: 60120
Uno Boost	Mastery	Level 5 / High Score: 83 / Streak Score: 6605
Bejeweled Blitz	Mastery	Level 5 / High Score: 148600
HotShot	Mastery	Level 22 / Badges: 62 / Pro Scores: 21
Gardens of Time	Mastery	Level 13 / High Score: 677470

3.2.1 Management Type Social Network Games

Management type social network games are games that are more based upon continuous resource management and cooperation between players. These games are not centered around the outcomes but on the process of playing itself. Even though you can play these games alone without neighbors, it will often feel like the reminder often displayed to you in *Ravenwood Fair* (Lolapps, 2010): "Making the best fair is really hard without your friends".[6] So, true to the criticism, they might be *played* as single-player games as you do not *need* other players to play. But they definitely afford (and encourage) to have friends that also play in order to progress at a more steady pace. Below I will introduce the management type social network games that I played for this research.

FarmVille (Zynga, 2009)

FarmVille is a simulation game where you are given a virtual farm that you can run. You can plant, grow and harvest crops, tend animals, grow trees and build farm buildings, sometimes directed by quests. The whole game is based upon the continuing process of farming, crafting items to sell and harbors a continuing progress in money, mastery[7] and levels. The game is centered around the process of playing itself, and so there is no final level or goal in the game (one of my neighbors had reached level 285, and was still progressing in levels). Every player runs their own farm, but you are able to visit the farms of your neighbors and there is a continuous interaction with the other players by sharing gifts, goods, animals, building materials and more, mainly through status updates and requests. By sharing your progress and achievements on your news feed, you help your neighbors as they are usually rewarded by clicking on those 'news' stories. In addition, players can not complete buildings like sheep pens, horse stables and bakeries without the help of their friends. You can start building them, but in order to finish (or upgrade) them you need building materials that can only be sent to you by your friends. So building something is not just paying the coins for it, but takes additional time as you have to wait until others have sent you the

materials.[8] *FarmVille* focuses on dedication and effort rather than on skill or mastery of the game. You gain XP, coin and crop or tree mastery whenever you perform certain actions, and these are based upon the *amount* of actions and not on the skill needed to perform these actions. So even though you have some sort of progress and some sort of achievement, it is based upon time investment and dedication to the game.

CityVille (Zynga, 2010)

CityVille is a simulation game where you are made the mayor of a city and can create and manage a thriving city with citizens, businesses and government buildings. Like in *FarmVille* the whole game is centered around continuing management and progress. You also have to farm crops to get goods for your businesses, and with *CityVille* being developed by the same game company as *FarmVille* the mechanics for plowing, planting and harvesting are rather the same in both games. There are three major differences between *CityVille* and *FarmVille,* however. First *CityVille* has an energy system that determines how many actions you can perform during a playing session. This will slowly replenish over time, but it effectively prevents a continuous play experience. Second, *CityVille* also uses, next to a building materials system, a staffing system for government buildings. To complete these buildings you need a certain number of friends to act as staff members in the building. And finally *CityVille* offers a reputation score for helping friends. Apart from your scores associated with your own city, you also have a 'reputation' score which indicates how many friends you have already helped in the past. The more neighbors you visit and help, the higher your reputation level becomes.

Ravenwood Fair (Lolapps, 2010)

Ravenwood Fair is a game in which you are requested to build the best fair with the most fun that you can manage. You become responsible for a piece of wild forest that continuously grows back and threatens to 'thorn your attractions'. So managing your fair regularly is in order. You start out with

only a small clearing within the forest and by chopping away trees you make space for your fair. Like in *FarmVille* and *CityVille* all the scores in the game are based upon dedication and accumulation. There is an XP-based level system and a 'fun' level, which is just related to the amount of present and active games, decorations and protectors. Like *CityVille*, *Ravenwood Fair* has an energy system which is replenished over time in the same way. A difference in *Ravenwood Fair* is that you can use food, which becomes available through several game actions, to regain some energy. This provides you with an in-game version of spending money to bypass the waiting for energy replenishment.

Monopoly Millionaires (Electronic Arts, 2011)

Monopoly Millionaires is an interesting adaptation of the classic board game *Monopoly*. Electronic Arts have taken the multi-player game *Monopoly* and turned it into an asynchronous multi-player game. Every player manages his own *Monopoly* board where she can build houses and hotels that generate income through rent over time. Houses can be build with in-game money, but hotels need your friends as investors to complete. You can also send gifts to your friends. To get XP, property cards (that are used to upgrade houses on your own board) and additional coins you can 'roll' on the *Monopoly* boards of your friends and of course they can roll on your board. A recent change in the game introduced a 'leaderboards' mechanism that keeps track on which boards you and your friends have rolled the most, and who has managed to expand their net worth the most, generating additional bonuses.

Mafia Wars (Zynga, 2008) and Vampire Wars (Zynga, 2008)

Although different in theme both *Mafia Wars* and *Vampire Wars* are very similar from a game mechanic perspective. In the first you are a mafia boss and in the latter you are a clan leader. In both cases the main goal is to become the most powerful mafia or clan in the game. You gain experience by doing jobs (*Mafia Wars*) or missions (*Vampire Wars*) and you can recruit your friends to be a part of your mafia or clan. Unlike the above described games,

these two games are rather 'text-based'. The action of doing a job or a mission is not animated, but is reduced to the clicking on one button. The success or failure and subsequent bonuses or losses of the actions are then relayed to you through text. What makes these games interesting is the fact that you can take on other mafias or clans (and not just the ones of your friends, but any player that has one) by fighting them, gaining reputation and status and additional bonuses. It is even possible to declare war upon another player in *Mafia Wars* or to set a bounty on another player in *Vampire Wars*. Your opponents do not have to be online; all players are just listed with their level and mafia or clan size and you can attack them and the game AI will decide whether you won. So whenever you return to your game, you might get the message that you have been attacked and lost some money (*Mafia Wars*) or blood (*Vampire Wars*). This makes it highly interesting from an asynchronous multi-player perspective.

Other Games

In this section I want to briefly discuss the other games that I sampled more actively, as I think that these are rather similar to the above described games and have basically the same characteristics. However, there are some interesting mechanics or characteristics within these games that warrant some more attention. So rather than describing in full how these games are played, I will briefly introduce them and describe what is interesting to note on these games.

In *Café World* (Zynga, 2009) you are a cook in a cafe and you need to serve your customers interesting meals. The reason for including it here is that within the game you need to choose one of your friends that will serve as your waiter. In addition, the customers sometimes bear name tags displaying the first names of your *Facebook* friends, pretending that your friends are coming to sample your food. In *Zombie Lane* (Digital Chocolate, 2010) your neighborhood has been overrun by zombies, basically destroying the whole neighborhood. You fight zombies and try to rebuild your house and neighborhood. The mechanics are rather similar to most of the other games,

like *CityVille* or *Ravenwood Fair*, but *Zombie Lane* introduces the fact that 'Rob' (an AI neighbor) also visits your neighborhood on a daily basis and performs actions that help you out. It also offers the option to hire both Rob and/or other friends to perform some tasks once a day for in-game money.

Empires & Allies (Zynga, 2011) is the most recent addition to the games developed by Zynga and was launched in June 2011. In *Empires & Allies* you are the manager of an empire. Your friends also manage empires and you can either help them or attack them. Apart from a reputation score which is similar to the reputation score in *CityVille*, *Empires & Allies* also has an infamy score, which is a score gained by invading neighbors. This changes the gameplay from cooperative only to something approaching competition. Therefore this game is pretty interesting from a multi-player perspective. Unfortunately due to its recent release I had ample time to research this game. What I have learned will be dealt with especially in chapter five on social interaction.

3.2.2 Mastery Type Social Network Games

Mastery type social network games are games that are centered around skill and mastery of the game. Therefore the outcomes of these games are rather important as these form the basis for multi-player interaction. Whenever you play a mastery type game, your scores and achievements are continuously compared to your friends making competition and achievement the core drivers for play. Usually you can at least compare your scores with your friends that have also played, but sometimes you can also compare them to all players or to a segment of those players, like for instance those also living in your country. Below I will discuss the mastery type social network games that I played.

Snake (MindJolt, 2008)

Snake is basically a reincarnation of the classic *Snake* game that could often be found on (early) cell phones. This version is played through *Facebook* and uses your profile and your list of friends. The goal is to eat as many dots as

possible while avoiding collisions with both the walls and your ever growing self. It is a relatively short game as there are no lives involved. As soon as you die, your final score is recorded and the game ends. The only way to keep playing is starting a new game. Your scores are saved and your highest score for the current week and your all-time high score is compared to your friends in ranking lists on the *Facebook* page that runs the game.[9]

Robot Unicorn Attack (Adult Swim, 2010)

Robot Unicorn Attack is in essence a hybrid between a side-scrolling game and a platform game. You are a robot unicorn and the goal is to keep yourself alive for as long as possible by jumping from platform to platform and dashing through obstacles.[10] As long as you remain running you earn points while the game gets faster and faster. You get three lives and the scores of each life are accumulated to come up with a final score. Like in *Snake* your highest final scores are compared to your friends in both a weekly tournament and an all-time high score list.

Uno Boost (GameHouse, 2010)

Uno Boost is an online variation upon the card game *Uno*. You play your game against a computer opponent. The one to empty their hand first, will win the round, rewarding coins and experience points (XP). This game has a bit more complicated scoring system than just one high score. It *does* measure a score based upon the points of all the cards that your opponent still holds when you play your last card. That high score is displayed on the high score list and like both *Snake* and *Robot Unicorn Attack* have a weekly 'tournament' score and an all-time score. But in addition the game also has an experience-based leveling system, a currency of coins and calculates a winning streak score. For every game that you play you receive XP (which is the above mentioned score multiplied by the difficulty of the level) and if you win you also get some coins. When you win, you also receive a winning streak score equal to the amount of XP gained. If you then win again, the game adds up these scores and as long as you keep winning your winning

streak score will rise. The winning streak is only reset when you lose a game. As such *Uno Boost* provides a interesting hybrid between scores of mastery and scores of dedication, something we will see in most of the following games as well. I still consider these game mastery type social network games, however, as the main focus remains mastery of the game and competition between profiles.

Bejeweled Blitz (PopCap Games, 2010)

Bejeweled Blitz is a variation to the older game *Bejeweled* (PopCap Games, 2001) and adds a timer to the gameplay. In *Bejeweled* you get a square filled with differently colored gems and you have to swap one of the gems with an adjacent one to put three or more of the same colored gems in a vertical or horizontal line. The linked gems will then disappear awarding you points, making all the present gems drop down to fill the gap, while new ones are added at the top. You get additional points for making lines larger than three, for making more lines with one swap, causing a 'chain reaction' or when you include special gems. *Bejeweled Blitz* adds a one-minute timer to the game, making it a short game based upon scoring as many points as possible in the short time span. Like the already discussed mastery type games your high score is saved and displayed in a ranking list with all your friends. *Bejeweled Blitz* also has a score-based leveling system where just playing the game will eventually level you, but it also has a different leveling system based on 'benchmark scores'. Every time that you score higher than 25.000 points, 50.000 points or any subsequent 25.000 points mark, you will gain a point on those subsequent levels. So like *Uno Boost* there is a difference between scores based upon experience and scores based upon mastery of the game. *Bejeweled Blitz* also has two other interesting mechanics related to asynchronous multi-play. The game allows you to compare your scoring trend over the past five weeks to any of your friends' scoring trends. In addition, all the high scores of your friends are accumulated into a 'friend score' which can provide you with additional coins for your profile once a week if it is high enough.

HotShot (PlayQ, 2011)

HotShot is a game based upon *Peggle* (PopCap Games, 2007). Each level consists of a field full of pegs that you then have to clear by firing a ball from a cannon. The standard pegs come in two colors, blue and red. In most levels you are only required to clear the red pegs, but some require you to clear all the pegs, or to score above a certain number of points. When you successfully complete the challenge, you obtain a badge and if your score above a certain benchmark, you gain a pro score trophy. The competitive part is in the number of badges earned and the number of pro-scores scored. *HotShot* does have an experience-based leveling system, but that only functions to unlock new levels and boosts that can be used in the game. The gameplay is not unlimited in *HotShot*, as it harbors an energy system that expends energy for every challenge you play.

Gardens of Time (Playdom, 2011)

Gardens of Time is basically a 'find it' type of game where you either have to find a number of objects in a very cluttered picture, or have to find the differences between two pictures. You score points by finding the objects or differences and get additional 'combo'-bonuses for finding them in quick succession. In addition you gain XP and currency for every completed scene. At the end of each game scene you see the list of your friends with their high scores for that particular scene. You can then challenge them to beat your high score. These relatively short games are embedded within a larger framework of building a high reputation garden of time for yourself, progression through levels and a storyline, unlocking new 'find it' scenes to play. Playing scenes expends energy, and when you have used it all you can only build your garden or visiting your friends for some additional bonus levels. In order to finish some wonders and gaining the reputation bonus needed to unlock new scenes, you need your friends to help you. Therefore *Gardens of Time* comes close to a management type social network game, but as the core gameplay is really centered around the short 'find it' games, it is essentially more skill-based and competitive.

3.3 Critical Notes on Playing Research

Even though playing seems the most ideal research method it brings with it a double nature as you are both a player and a researcher. Especially when the research also involves the multi-player component of games and the social interplay between yourself as a researcher, other 'normal' players and the game design. Previous ethnographic accounts of virtual world research (like Taylor, 2006; Corneliussen & Rettberg, 2008; Glas, 2010) already make apparent some of the problems that could haunt a playing researcher. For one, 'just playing' is not enough as you are interested in how and why. Like a film scholar that not only appreciates the engaging storyline but also looks at the lighting, camera positions and editing, a game scholar should not confine her analysis to the playing itself, but also look at how the game mechanics afford or inhibit certain gameplay behavior. In the current research, just going about building a farm in *FarmVille* might already provide some insight, but it will require looking at how the game affords you to build that farm by offering you the opportunity to plow plots of land and set up sheep pens. And similarly when researching the building of a city in *CityVille* you have to look at how building a community building is socially shaped by having to ask your neighbors to be an employee in your building and how *not* building government buildings limits your population size.

As my main interest is the asynchrony in the games itself and how it is appropriated by the players, I have refrained from going into a in-depth study of the specific players themselves. Of course, prolonged play could merge individual players of specific social network games into game communities, providing interesting research objects, but this has not been my main interest. As I am looking into a whole bunch of games to make the findings more generalizable, the specific communities are of less importance to my research, even though it became apparent that some of my 'neighbors' played multiple of the researched games. Therefore the social interaction part of this research has basically nothing to do with being part of a community, but more with the social interaction experienced in the day-to-

day playing of the game. Although this might be seen as a flaw, my main focus is upon how the game affords these social interactions by affording asynchronous ways of playing. As such, the social interaction ans sociability part of this research will be embedded within larger developments in society and with very general insights from social psychology into human behavior and social interaction.

So the core of my research has been on how this asynchrony mechanic works in various social network games on *Facebook*. I am aware of the limitations of this approach as my only experience is based upon this one social networking site. Nevertheless as mentioned in chapter two, social networking sites have a number of comparable affordances that are the defining characteristics of social network games. Moreover, the same social network games are usually available on multiple social networking sites. Therefore I think that the games played on *Facebook* for this research can be seen as prototypical to the games available on other social networking sites. This is both because *Facebook* is the leading social networking site on a global level and thereby provides a benchmark for game developers, and because the social network games drive upon the same affordances. Having said that, it is now time to look at both asynchrony and the social in more detail.

4 – ASYNCHRONITY IN SOCIAL NETWORK GAMES

As mentioned briefly in chapter two, asynchrony has a lot to do with time and especially with how different time frames are *not* synchronous to each other. So in order to deal with asynchrony I need to contextualize this within a debate on time in games. Therefore I will start with an introduction to the theoretical debate surrounding temporality in games. By discussing several categorizations of time it will become clear that asynchrony can come in two guises, flexibility and asynchronous multi-play. Flexibility affords that a single player can decide when and where they will log in to the game and asynchronous multi-play affords that players are not required to be present at the same time as other players, but are still able to interact with them. Both of these forms of asynchrony are linked to each other, and provide opportunities for social interaction. Moreover these two forms of asynchrony provide the core of most social network games.

4.1 Time in Games

Like any other activity, playing games expends time and social network games are no exception to it. To get anywhere in these games you need to invest a lot of time. Most 'traditional' games only require your commitment and your time while you are playing. Even in open-ended MMOGs, play is paused when you log out, even though the virtual world itself persists.[1]

However, in most social network games this is slightly different. As media and games theorist Bogost (2010, n.pag) pessimistically writes on his blog, these games 'also destroy the time we spend away from them'. For example, in *FarmVille* your crops take time to grow, in *Ravenwood Fair* your protectors run out of energy and your games continue to use stock, and in *HotShot* your energy is replenished over time and all this happens in a 'real-time' frame, whether you are present in the game or not. In order to see how time is used in games and how this is linked to asynchrony, I will first discuss the previous literature and models of time in games, before I will dive into the matter of asynchrony in more detail.

4.1.1 Different Times in Games

Several authors (among others Juul, 2004; Lindley, 2005; Hitchens, 2006; Zagal & Mateas, 2007) have written about how time in games works. During the early years of Game studies dealings on time and temporality in games originated from the wish to distinguish games from narratives (see for example Aarseth, 1999; Eskelinen, 2001 or Juul, 2001b). Especially the temporal difference between linear textuality (like for example in movies or novels), and various other nonlinear or multilinear forms of text (like hypertext novels or games) were at the core of the debate. When traversing a linear text the reader can only take one path and as such the narrative unfolds itself in the same way with every subsequent reading and for every reader. As a reader you can still determine where you start reading, but the overall narrative remains the same. Nonlinear or multilinear text forms, called ergodic literature by Aarseth (1997), is different as the reader is required to use 'nontrivial effort [...] to traverse the text' (ibid., p.1). The ergodic text presents a multitude of different ways through the text, affording the reader to actualize her own personal version of it.

Game scholar Juul (2001b) provides a description of the way in which time in games differs from time in narratives and why it would be problematic to apply a narratological model of time to games. In narratology there is a well-known distinction between *story time* and *discourse time*

(Abbott, 2008). The first denotes the chronological unfolding of the events in the story, while the latter stands for the order in which these events are narrated. Discourse time therefore presupposes that the events have already happened and can then be narrated in any particular order. As Juul (2001b) points out, this raises problems when we apply this to games as the player can act in the game and thereby affects the events in real time. Therefore the story has to unfold at the moment of playing, making it difficult to order the events in a different way as the player's choices can not be taken into account beforehand. This is also the reason why flashbacks and flashforwards are very uncommon in games, or relayed in cut-scenes where the player has no influence on the game state (ibid.). To address this problem, Juul (2004) comes up with a division between *event time*[2] (which is relatively analogous to story time) and *play time* (which implicitly seems to follow Genette's (1980) additional *reading* or *viewing* time in narratology). Play time is the time that you expend playing the game and event time is the time that the events take inside the game world. Discourse time or something similar seems absent from this model.[3]

There are two main problems with Juul's (2004) distinction between play time and event time. Juul's model remains a fairly linear approach to game time, and although he talks about save games and replays, they are not really dealt with in the model. Another problem is that Juul excludes cut-scenes and other instances where control is taken away from the player, like loading screens, from his notion of play time. Therefore Hitchens (2006) comes up with *four* different time layers instead of just two: *playing time, game world time, game progress time* and *game engine time*. Playing time is fairly similar to Juul's play time, but does incorporate *all* the time spent on the game, including cut-scenes and load screens. As such it is analogous to the real-world time as long as there is some interaction with the game state at some point. Hitchens touches only briefly upon game world time which he describes as the 'chronological time within the game world' (Hitchens, 2006, p.49). As such it is fairly similar to Juul's event time. Yet, Hitchens argues that 'game world time is not a satisfactory concept for understanding all

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player progress through the game world' (ibid., p.47). Therefore he focuses more on his notion of game progress time instead which incorporates the nonlinearity of save games and replays that mark a progression in player time, but not in game world time. His final time is engine time, which refers to the running of the game engine as a result of some player interaction. Although this remains fairly similar to playing time during single-player games, the usefulness of this time layer becomes especially apparent in multi-player games as there the game engine might be running almost continuously while different players can come and go.

This multi-player complexity was addressed in more detail by Tychsen and Hitchens (2008; 2009). By empirically testing the above model on various forms of multi-player role-playing games Tychsen and Hitchens identified that there needed to be three additional layers: *server time*, *story time*, and *perceived time*. Server time indicates the time that the server is running. This is different from engine time, as the engine time is basically the interaction between a single player and the client software, while server time is the interaction of all the separate clients (or engines) with the server software. While any single player can log off at any moment, the game server itself will continue to run. Story time is the time of the story and is as such only useful if the game contains a storyline. Perceived time is rather related to the experience of time in games. Players might differ on their experience of certain game actions. While some consider them boring and time seems to drag out while they are performing them, others might become so engaged in the game that time seems to fly. Both the server time and perceived time layers will be useful later on in this research.

Coming from a different genealogical angle, Zagal and Mateas (2007; 2010) also provide a model of time in games. Their work is rooted in the games ontology project which aims at 'creating a framework for describing, analyzing, and studying games, by defining a hierarchy of concepts abstracted from an analysis of many specific games' (Zagal, Mateas, Fernandez-Vara, Hochhalter & Lichti, 2005, p.1). Therefore it has links to classification and typology frameworks like Aarseth, Smedstad and Sunnanå

(2003), Björk, Lundgren and Holopainen (2003) or Elverdam and Aarseth (2007), and is intended to describe and classify games along certain temporal frames. However, the model of Zagal & Mateas (2007; 2010) shows similarities to Hitchens' (2006) model and consists of four temporal frames: *real-world time*, *game world time*, *fictive time* and *coordination time*. The real-world temporal frame consists of all the events that happen in the physical world and is therefore more inclusive than Juul's (2004) play time or Hitchens' (2006) playing time. It addresses *all* events, whether you are playing or not. Represented events in the game world make up the game world temporal frame. In my view this time is rather similar – or at least shows some overlap – with Zagal and Mateas' fictive time. They note, however, that the main difference between the two is the fact that game world time includes *all* events in the game, while fictive time only includes '[r]epresentational elements that strengthen the fictive frame' (Zagal & Mateas, 2010, p.851). Thus fictive time is the mere application of socio-cultural labels and use of narrative frames, while game world time also includes specific game play actions. Their model is concluded by coordination time, which is 'established by the set of events that coordinate the actions of multiple players (human or artificial intelligence[AI]) and possibly in-game agents' (ibid., p.850). So this is every event that is determined by the mechanics and rules of the game, like taking turns or completing rounds.

Table 4.1: Summary of the different time models

Juul (2004)	Hitchens (2006)	Zagal & Mateas (2010)
Play time	Playing time	Real-world time
	Engine time	Coordination time
Event time	Game world time	Game world time
	Game progression time	Fictive time

As can be abstracted from the above, there is a lot of overlap in the subsequent models and all provide useful tools for analyzing and describing games. To shed some light on the differences between them table 4.1, that summarizes the models, can be consulted.[4] Although it does not hold

completely, the two-way distinction as found in Juul's model between real-world/player experience and fiction/game world still seems apparent and as such strengthens the argument made in 2.2 about games being both a designed object and a process of playing. Juul's (2004) model contrasts the player interaction with the events that take place in the game and thereby only looks at the chronological progression of play time when a player can actually interact with the game. Hitchens' (2006) model is more inclusive and also incorporates non-game events as well as nonlinear progression. The interesting part of his model is, however, that he also includes engine time which can differ from playing time and as such appoints the game an independent role apart from the player. Zagal and Mateas (2010) are again more concerned with the player experience and therefore lack an engine time. Their coordination time somewhat takes over this position as it contains the game state influencing the gameplay. In addition they *do* include non-playing time within their real-world temporal frame.

Both this non-playing time as well as some kind of engine time and/or server time are highly relevant for describing the temporality in social network games. Overall, as will become more clear at the end of this chapter, I think that the model provided by Hitchens (2006) and the updated version by Tychsen and Hitchens (2008;2009) are the most useful for my purposes of describing how asynchrony works in social network games as they emphasize the persistent state of the game. But let us first dive into the issue of time in social network games.a

4.1.2 Time in Social Network Games

As mentioned slightly before in the introduction, social network games are an interesting phenomenon from a time perspective. Not only because there are so many people 'wasting'[5] large amounts of time on them, but they also use time in an interesting way that is relatively novel in games. Within the industry there is the well-known distinction between casual gamers/games and hardcore gamers/games, which is largely grounded in a hypothetical difference in time investment (Bateman & Boon, 2006). The stereotypical

casual gamer is unwilling (or unable) to invest a lot of time in a game, while the stereotypical hardcore player is playing or wants to play almost non-stop (Juul, 2010b). Therefore the stereotypical casual game is short and simple, while the stereotypical hardcore game is long and complex. Social network games are usually classified as (very) casual games (see for instance Rao, 2008 or Chen, 2009) and it is therefore odd from the above stereotypical point of view that social network game players are investing so much time when they are playing 'casual' games.

According to Juul (2010b) the explanation for this discrepancy lies in flexibility rather than in the time investment itself. Hardcore games are usually *inflexible* and demand a large number of hours and dedication to play. Therefore hardcore gamers have to be flexible towards the game, adapting their playing and time investment to what the game demands. On the contrary, casual games are designed to be flexible and fit into the schedule of basically anyone. This fits casual gamers, because these are usually more constrained in terms of available time. But this flexible design also explains why casual games can be played in hardcore ways as the flexibility inherent in the design affords both casual and excessive play. According to Juul's research, a lot of previous hardcore game players that have undergone large changes in their lives like a marriage or full-time employment seem likely to play casual games in hardcore ways as these afford them the flexibility to play in long strides, but also provide the flexibility to walk away from the game at almost any moment without dire consequences.

As mentioned above, most people would qualify social network games as casual games and indeed most of them seem to share the five elements of casual game design as explicated by Juul (2010b, p.50): *positive fictions* (farming, building a fair, playing monopoly), *high usability* (clicking is usually the main mechanic, see also Järvinen, 2010), *high interruptibility* (they can be left alone without dire consequences like dying or losing all your progress), *sufficient level of difficulty* (the theorem easy to play, difficult to master holds sway for most social network games) and they have a high

level of *juiciness* (players are constantly rewarded with positive feedback). The one that is the most important from a time perspective is of course interruptibility. Most social network games work like what Egenfeldt-Nielsen et al. (2008) have called process-oriented games where you continuously expand and develop something in a kind of 'from rags to riches' fashion. The interruptibility in these kinds of games is created by the fact that the game continuously saves your progress. Therefore you can basically leave play at any moment and all of your accomplishments are safe on the server and accessible at any later point in time; even if you decide to stay away for weeks. Persistence of the game state in this way – making the game highly interruptible and giving the player the flexibility to come and go – is very important for social network games. I will deal with this in more detail in the next section as it is also a part of the asynchrony in social network games.

But first I briefly need to address another issue of time relatively unique to social network games: the fact that they use real-world time into the design. As mentioned slightly in the introduction, in most 'traditional' computer games, gameplay ends when a player exits the game and restarts when the player returns. Even in virtual worlds where the world itself is persistent and can be accessed at all times, game progress is, at least in most cases, halted when the player is absent. However, in most social network games the game continues to run and generates progress on your game state, even when you are away from the game. Crops will grow in *FarmVille*, the forest will grow back in *Ravenwood Fair*, energy will be replenished in *Zombie Lane* and you can be attacked in *Mafia Wars* or invaded in *Empires & Allies* even when you are not there. In terms of the above described time models, this is an interesting mechanic as it falls outside of play or playing time as described by Juul (2004) or Hitchens (2006). It also cannot be contained within Zagal and Mateas' (2010) real-world time as this only includes all the events in the *physical* world, while all these events take place in the *virtual* world (on the game server) while you might be doing something else in the physical world. Therefore the most useful time layer for this time seems to be Hitchens (2006) engine time,

maybe in combination with the additional server time introduced by Tychsen and Hitchens (2008;2009), as it affords that the game state is continuous, and can operate whether the player is present or not. And again persistence is the key here, as the continuous running of the server provides the means for this asynchrony.

Looking at the above discussion on time in social network games, it becomes clear that asynchrony is inherent in the design of social network games *and* in the playing of the game. This asynchrony can be divided into two parts: flexibility for every player to come and go as she wishes and play the game in her own way and asynchronous multi-play that affords other players the opportunity to participate in the same game, but whenever they feel like it or have the time. Although all three characteristics of asynchrony mentioned in chapter two are valid for both parts, persistence of the game state is the most important characteristic. Persistence affords that players are not obliged to be online at the same time as their friends, but can still play with them in an asynchronous way. Below I will discuss this asynchrony and how it operates in social network games in more detail

4.2 Asynchronity in Social Network Games

As mentioned in chapter two, I see asynchrony as the sum of three characteristics: 1) the game affords that they do not *have to* be played in tandem, 2) the game has persistent elements and 3) the game should emphasize the breaks between players. Social network games are highly asynchronous in this respect as they can be played with multiple players, have persistent elements and emphasize the breaks between players. As has become clear in the above there are two sides to asynchrony: flexibility and asynchronous multi-play. Both are basically two sides of the same coin. Flexibility is mainly important from a single-player perspective, while asynchronous multi-play is mainly important from a multi-player perspective.

Therefore it must be noted that these two also interact with each other and can not be fully separated. Flexibility for any single player in the game is the core affordance for asynchronous multi-play for all players. Therefore it must be kept in mind that I must allow some overlap between flexibility and asynchronous multi-play in the following sections.

4.2.1 Flexibility in Social Network Games

As mentioned in the discussion on the distinction between casual and hardcore games and players, flexibility is a large determinant of how a game can be played and whether or not a player is willing to bend towards the game's demands. Flexibility is therefore something to take into account during the design of a game, but can also arise from how players appropriate the design. For instance, the design of a game might grant the player the option to save her progress, giving the player the possibility to quit play and resume playing at a later point in time. On the other hand, by allowing save games, players might use saving right before a dangerous encounter in order to reload the game if things go awry. So while the save option might be intended for flexibility in play time, players might appropriate the save option for flexibility in experimenting and exploration or as a safety net to prevent having to start over from scratch. So like in games there is a duality between flexibility in the design and flexibility of the player (cf. also Juul 2010b). So in order to discuss flexibility in social network games, we need to look at how the games afford more or less flexibility in how they can be played, but also at how the player appropriates what the game demands of her.

Let me elaborate on how flexibility is incorporated in the studied social network games, by explaining how asynchrony depends on flexibility for the players. All three characteristics of asynchrony discussed in chapter two rely on giving the player the option to use the game in the way the player wants. Firstly, the game *affords* to be played in sequence, or in other words, the game is flexible towards the player, who can decide when the game is played. This is also because the game state is persistent and available at all times. The games are not relying on the availability of other players, but

instead rely on the availability of the game allowing players to play whenever they wish. However, even though the game affords this playing in sequence, the game can also be played in tandem as well because the game is set-up in such a way that it does not matter whether or not there are other players present.

Let us take the example of *Monopoly Millionaires*. You can visit your monopoly board basically at any moment of the day and you can see whether the rent for your properties can be collected. When your property is ready to be collected, indicated by a cash sign on the houses, you can collect the money, but you are not forced to. The amount of rent to be collected will accumulate – up to a certain point – until you decide to collect, even if this is a day, a week or a month later. The game does not force you to collect and they will remain collectable until you decide to do it. The same accounts for the multi-player parts in social network games. Whenever you go to whichever game it usually loads the 'free gifts' tab first. In *FarmVille* it will display the persons that recently visited their own farm and will allow you to send them a gift directly through this screen, given you have not already sent them a gift recently. If the other players have *Facebook* open, they will receive a notification that you have send them a 'request' and they are able to collect it immediately. But they do not have to do that. They may also just leave the gift for the moment and only accept them at their own time. Therefore, usually game playing at *Facebook* starts off by dealing with all the requests and accepting all the gifts that you have received during your absence. Given a few exceptions that need to be collected within a certain time frame, you can accept them at any time. When you have been on a holiday, your game requests tab of *Facebook* is usually filled with requests, rather similar to a mailbox that overflows with e-mails during a prolonged absence.

The third characteristic of asynchrony, breaks between the players, is also linked to flexibility. By tending your own 'game' (whether this is a city, a fair or a mafia, depending on the game your are playing) you are not dependent on people being online at the same time. Your game space is

separate from those of your friends, and even though they might be able to visit or help you, this happens in its own time frame. For instance in *CityVille* your neighbor may come to visit you and perform some actions in your city. Whenever you return to your city, it will display the portrait of your friend where she performed the actions, and you only make these actions permanent by clicking on 'accept'. Even when you are online during the time that your neighbor is performing the helpful actions, you only see her portrait when you reload the game. So there is a definite break between the players. Another example is *Snake* where every players plays their own game of *Snake*. Players can play that game whenever they like and without having to take others into account. The multi-player part is only apparent outside the specific *Snake* games in the obtained scores, which can then be compared as these high-scores persist over time.

From the above account on flexibility it seems that it only has positive consequences for the players as it allows the players to play whenever they like. However, as Juul (2010b) indicates, the flexibility in casual games affords a casual game experience with 'no strings attached', but also allows for a hardcore game experience by affording to be played for long stretches of time, or maybe a large number of short bursts during the day. When we look at the studied social network games, the flexibility in their design is usually able to accommodate both type of players. However, there are some parts in the design that do not seem to be very flexible, creating two 'problems' for the players: 1) once you have done everything within the game or expended all your resources you are 'done' for the moment, and this basically halts gameplay, and 2) when you fail to return soon enough you might lose opportunities or incur penalties.

Let us start with the first, which indicates a flexibility problem from a hardcore point of view. Consider a play session in *Zombie Lane*. You might slay some zombies, harvest a bit of food, clear a bit of rubble or repair your fence. Any action you perform costs one energy, and at some point your energy supply is depleted. Your supply is slowly replenished as you regain one energy every five minutes. Apart from this normal rate, there are only a

few other ways to obtain additional energy. The most useful is leveling up, as you will regain all your energy at once. But as you grow in levels, this will happen less often. Additional energy is sometimes obtained from slaying zombies or performing other actions, from exchanging food, from performing actions in the neighborhoods of your friends and by receiving it as a gift from your neighbors. However, visits to a neighbor only reward energy once a day and gifts also have a daily 'cool-down'. So at one point you will be out of energy and then you can only wait until the energy supply slowly replenishes, allowing you to perform only one action for every five minutes. So basically this does not allow you a continuous play experience. The same is the case in basically any game that uses an energy system, like *Empires & Allies*, *Mafia Wars*, *Gardens of Time*, or *Ravenwood Fair.*

There is a slight difference between the games based on mastery and the games based on management, however. Most of the games discussed under the heading of mastery games in chapter three do not have an energy system, and can be played indefinitely, with the only exceptions being *Gardens of Time* and *HotShot.* But except for *FarmVille*, which has a different way of limiting continuous play,[6] all the games discussed in chapter three under the heading of management games have an energy system and thereby limit the possibilities for continuous play. It is therefore not surprising that I found a lot of players who were very active in for instance *CityVille* to also be very active in *FarmVille* or actively playing other games, displaying 'hardcore' tendencies. When they were completely done in one game, they went to another game and managed everything there as well.

The second problem for players, that they might miss out on opportunities, is more along the lines of casual play. This is also in part where Bogost's (2010) criticism comes from when he argues that these games not only waste the time we spend playing them, but also destroy the time that we spend away from them. Crops in *FarmVille* (and also in *CityVille*) take a certain time to grow. At some point these are ready and can then be harvested. Unlike the buildings, trees and animals in *FarmVille*, which will stay ready to harvest until you come back – not unlike the above

described example for collecting rent in *Monopoly Millionaires* – crops can wither when you fail to come back in time, losing the opportunity to earn money, crop mastery, and XP. I found that you could usually harvest a crop for more or less the same amount of time that it had cost to grow. So when a crop takes four hours to grow, you would need to come back within eight hours, as from then onwards they would start to wither. A similar problem occurs in *HotShot* with energy replenishment. Your energy supply is maxed out with four energy, and you regain one energy every hour. Every challenge you play in *HotShot* uses up one energy, so basically you can play four games. If you use up all your energy, you would be at full energy in four hours after that. However, if you come back eight hours later, you still only regained four energy, basically losing the opportunity to use the other four energy on four additional challenges.

In addition, most social network games try to invoke a daily playing habit upon their players and they use a few different tactics to do so. For instance some actions are limited to once per day. In *FarmVille* you can buy only one good from every neighbor every day, in *Ravenwood Fair* you can only visit your neighbors once a day and in *HotShot* you can only collect additional coins from your neighbors once a day. Another technique is to reward the players when they play every day, usually with increasing rewards for coming to the game at least once for a number of consecutive days in a row. For instance in *Uno Boost* you receive 25 coins for the first day, 50 coins for the second day and more additional coins for every subsequent day. When the player comes back five days in a row, the player receives a mystery gift. The same mechanic is present in most of the other studied games like *Empires & Allies*, *Monopoly Millionaires, Zombie Lane* and *Gardens of Time*. Usually the maximum number of consecutive days is five, but sometimes more, after which either the reward is reset or remains at the highest reward level, depending on the game. Although these bonuses are great for players that play daily, it makes missing a day feel even more like a 'punishment' or 'missed opportunity'. So as such the game is really inflexible to casual players that are unable (or unwilling) to play every day.

However, I must be critical about these negative consequences for players as they are usually mere trivialities within the larger flexibility offered by social network games. Yes, you might not be able to continue playing at some point and therefore be forced to leave the game to itself and, yes, you might miss out on opportunities. But due to their persistence, the games are usually rather forgiving towards the failure to come back. In most games you only miss out on *additional* opportunities. And usually they are either things that can be gained through other means as well, or are mere decorations, or in-game currency. And most games provide additional flexibility options that allow you some leeway. For instance in *FarmVille* you can choose to plant crops that need four hours to grow, but also crops that need sixteen hours, or even four days to grow. This gives you the opportunity to fit the time of harvest within your own schedule. The same accounts for crops in *CityVille* or recipes in *Café World*. In *Ravenwood Fair* you can build protectors that stay active for four hours, but also ones that will stay active for two days. Not only do these latter ones save energy as they only need to be recharged once every two days, but also give you a way to protect your fair visitors to stay happy and comforted spending their coins on your games.

So these games are highly flexible and allow you to play when you like and how often you like and even provide ways of steering the game to fot into your own time schedule. And if the small inflexibilities of these games really bother you, there is even another way out: you can purchase basically anything with the help of real-world money. You can purchase for instance game currency to buy boosts in *Bejeweled Blitz, HotShot,* or *Uno Boost*. Or you can purchase more energy in *Zombie Lane, Vampire Wars* or *Gardens of Time*. And you can even revive withered crops in *FarmVille,* or *CityVille.* These games provide ample opportunities for flexibility, even though some people will consider this last option cheating as it gives players an unfair 'advantage' over other players. Although this is part of the social negotiation between players, I see less of a problem with this practice for two reasons. Firstly, the games of players, at least in the games that tend towards management,[7] are really separate entities (cf. the breaks between players as

part of asynchrony) and so you manage your own game and other players can not damage it by spending real-world coin. Of course, the dedication scores that might function as some form of competition might be skewed, but as they *are* only based upon dedication, everyone can still compete by working a lot. Secondly, there are also a lot of 'decorative' game items on sale, and some people are really keen on getting those items. These do no really affect the game progress. For instance in *FarmVille* all players can buy a small pond with in-game currency, but you can buy a serene pool, or a lake with real-world money. Both provide the same object, a decoration for your farm, but they are only that: a decoration. It gives the developer a way to earn some money, gives players that want continuous play-time the options to do so and gives players that are unwilling or unable to sacrifice months of playing (which it takes to really make a flourishing fair, mafia, café or neighborhood) a way to play the game as they see fit. As such it is a way to make the game flexible for any type of player.

4.2.2 Asynchronous Multi-play in Social Network Games

So let us now move on towards the asynchronous multi-player experience of social network games. As mentioned above flexibility for *all* the players is essential to asynchronous multi-play. This becomes highly apparent in the first characteristic of asynchrony: the game must afford both the playing in sequence as well as in tandem. In other words, the game must afford all players to come and go as they wish and still interact with each other in a meaningful way, even though there might be a time difference between two or more players. This again points towards at least some persistent parts in the games or somewhere outside the game where all communications and interactions that are relevant for a player are stored and available to the player when he or she wants to start playing. There is a definite difference here between the management type social network games and the mastery type social network games as they have differing meaningful interactions. In management type social network games the interactions between players are about the state of your game and helping neighbors. In mastery type social

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network games the interactions are based upon the outcomes of separate games and the comparison between your skill and that of your friends.

In the studied management type social network games, both the games and *Facebook* itself function as persistent parts where the interactions between players are stored and kept available for the player at any time. *Facebook* has a separate games tab where all requests[8] of all the games are collectively displayed, ordered by game. So, as mentioned briefly above, most playing sessions will start with dealing with all these requests on *Facebook* before the game itself is accessed. All requests are basically structured the same. It will display a small profile picture of the person that sent the game request, contain the message and have both an 'accept' and an 'ignore' button. When the accept button is clicked a page appears that displays what you just accepted and from whom. In the case of receiving gifts this page usually also has a 'return the favor' button, as long as you did not already send the person a gift recently, affording you to quickly reward those people that send you gifts. In most cases this page also asks whether you have more pending requests or not. If you click 'no' you will usually be redirected to the game, and if you click 'yes' you will be redirected to remaining game requests on the games tab of *Facebook*.

In most games the game itself also has a way to deal with its subsequent game requests or see whether friends have performed some actions in your game. In *Ravenwood Fair* there is a 'messages' tab and when you click it all your game requests are displayed and can be dealt with from inside the game and *Gardens of Time* has a similar tab. When neighbors performed some actions on your farm in *FarmVille*, their avatar with their profile picture hovering above them will be displayed, and when you hover over them with you mouse you can see which actions they performed and whether you want to accept their help or not. A similar system is in place in *CityVille*, although there you will only see their profile picture at the place of their first action on your game. Both these systems, after having performed the actions, will allow you a quick way to visit *their* game and return the favor. Although game requests will persist for a very long time and can

usually be accepted long after the initial request was made, the helpful actions on your game by neighbors are usually only available for twenty four hours or until the same neighbor comes along again to perform some new actions. So these actions are less flexible and need to be accepted as soon as you are able in order not to miss out on them.

There is a third way for meaningful game interactions between players, although they are not exactly part of the games themselves: *Facebook* status updates. In basically all management type social network games you can share your progress, your need for help, and how you helped others through status updates posted on your *Facebook* wall (or on the ones of your friends when you help them) and thereby will appear on the news feed of all your *Facebook* friends. As you can share basically everything this will generate a lot of messages and if someone of your friends does not play, or does not care about your game playing,[9] their news feed will be cluttered with meaningless messages that are more like spam than status updates. But these meaningless messages to outsiders are gold mines for game players. Almost every automatically generated game status update harbors additional items for other players. For instance in *FarmVille* if you have nurtured a mystery seedling into a special tree you can share one of those with your friends through a status update, or when you are halfway building your sheep pen you can share some additional 'leftover' materials with your friends in the same way. In *CityVille* you can catch robbers and celebrate your catch by sharing donuts – needed to keep your cops awake – with your neighbors through a status update, or when your police squad is out of donuts, you can ask for donuts in the same way, thereby also helping the friends that answer to your request as they will also receive a donut for helping you out.

As such, as a player you want to scan all these updates and try to obtain additional bonuses for your game. *Facebook* made this easy for you, because all these game-based status updates can also be found on the game request tab and you can even filter them by game. These are basically the best source of additional building materials and other required items for

these games, but also these are the least flexible ones. First, although the request will still be visible, they will no longer give bonuses when they are older than twenty four hours. Second, there is usually only a limited supply of items (sometimes there is only one) to be gained from one status update, rendering clicking on it useless as it would just display that all items have been given out or that this promotion has ended. And third, especially if you have a lot of active neighbors and therefore a lot of messages, it is very cumbersome to keep up with the steady stream of status updates. Therefore I found that scanning these status updates was the first thing that I would skip when I was short on time.

As mentioned above, mastery type social network games work a bit differently in their persistent parts than management type games. In most cases these games do not have cooperative play and even though some also harbor dedication scores, the scores on mastery are the ones that are the source for multi-player interaction. Like in so-called 'hot-seated' multi-player games, where only one player plays the game, while others watch and await their turn to play, the players are usually competing for the highest scores. Therefore the outcome of a single game is what counts, and will provide social interaction. Therefore not the cooperative interactions, but these mastery scores are the things that need to persist over time. And indeed most games harbor ranking lists displaying the high-scores obtained, almost like arcade games or pinball machines. The difference here is however that players do not have to await their turn to play, as every player plays the game on their own computer at their own convenience.

These games usually also have ranking lists for different time frames; one for the scores of this week and one all-time high-score list, and sometimes also lists for the previous week. Examples are *Snake, Robot Unicorn Attack*, or *Bejeweled Blitz*. The latter also allows you to compare your scores of the last five weeks against those of one of your friends. In addition other games provide multiple ranking lists that display different mastery scores. For instance in *Uno Boost* you can either see the high-score list or the winning streak score list, which displays the accumulated scores

for every won game in a row. Or in *HotShot* you can both compare yourself on the badges earned (earned for successfully completing a challenge) or on pro-scores (earned when you successfully complete a level above a certain benchmark score). *Bejeweled Blitz* adds another layer to this with their 'friend score' which is basically the accumulation of all the high scores of you and your friends that is compared to a benchmark and might provide you with additional coins for your profile when you and your friends together have scored more than the benchmark score in the previous week.

Some of the mastery type social network games also have another way of interacting between players by allowing you to post your high score to your profile by means of a status update. For instance in *Robot Unicorn Attack* you can share your score and it will be embedded within a challenging message about how good you have done in the game and whether your friends can beat that score. *Bejeweled Blitz* even adds the option to include a video replay of your game in your message. So unlike the status updates in management type games that are usually meant to help other players, these are meant to provoke and show-off skill. Therefore these are definitely used in a different way than those in management type social network games. Usually, a player will only show off when they have gained a very high-score, or at least bettered themselves or maybe one of their neighbors. This makes the decision to post this score a very deliberate one, which will be used with care. In management type games, this is not the case. Almost any game-related status update will give something to another player and therefore the default is to just share everything.

In the above, I mainly discussed the first two characteristics of asynchrony in the relations between players. So how about the third characteristic: the breaks between the players? As mentioned in the flexibility part, in social network games you basically play your own game. In mastery type games this is the most apparent as the multi-player interaction results from the outcomes of these separate games. Every player that has a high-score has played the same game at another moment in time or at least in a different place. So the game itself is basically a single-player game, but

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is made multi-player by comparing your scores to all other game outcomes. This is basically the same with an athlete trying to beat a world record that was set two years ago. In management type social network games this is slightly more complicated as players can influence each other's games to a certain extent, making the breaks between them less apparent. However, as I discussed in the flexibility part, players can only influence your game state with your consent. Their actions will only become permanent when you click on accept. One exception[10] here is invading an empire in *Empires & Allies* raising the costs to harvest or collect rent in that part of your empire until you manage to defeat the invasion. However, even here there is a definite break between the players. When someone decides to invade your empire they will fight their battle against your automatically defending forces, and if she manages to win she will invade your empire. You will only see this when you load or re-load the game. You are then able to repel the invaders in the same way. You decide to attack the invader and fight against her automatically defending forces. Although you know that the player really invaded your empire, you are both basically fighting an AI battle, making the break between the players very much apparent.

Summarizing the above, asynchronous multi-play also arises from the three identified characteristics of asynchrony. It must be noted however, that I have mainly described the ways in which the game (and *Facebook*) affords these asynchronous interactions. I have left the question whether these asynchronous multi-player interactions are social or not out of the debate. I will use chapter five for a thorough discussion on that. But as might have become clear, there are multiple ways in which players are able to interact with each other in these games, and that even though they might be online at the same time, the games that they play are rather separate from each other. Linking back to the earlier discussion of time in games, this raises some interesting observations and I will deal with the links between asynchronous multi-play and the above described time models in the below section.

4.3 Asynchrony within a Time Model

So after we have seen how asynchrony operates within the game, we are able to address where asynchrony can be placed in the earlier discussed time models. When we look at the playing time (Hitchens, 2006; Tychsen & Hitchens, 2009) and real-world time (Zagal & Mateas, 2010) frames or layers, we can see that both have something to offer in the case of asynchrony. The first includes *all* time spent playing, which would also incorporate dealing with game requests, scanning game-related status updates, lag between the server and the browser window or when someone is basically just waiting for their energy to replenish to perform another action in the game. So playing time is useful in analyzing how the time spent using certain *Facebook* features to get bonuses in the games complements the time that is truly spent on the game. The latter however, incorporates all events that happen in the *physical* world, so also incorporates non-playing time as well, basically making it a continuous time line. This is also useful in analyzing social network games, because, as we have seen above, a lot of social network games, especially management type games, are process-oriented and therefore do not provide a final outcome. This means that these games continue to persist, given, of course, that the developer keeps the game online. Therefore it will always be waiting on you to come back, whether you are thinking about it or not. However, should we then incorporate the time that we spend away from the game as playing time as well, something Bogost (2010) implicitly seems to suggest?

When you plant crops in *FarmVille* or *CityVille* and need to wait for them to grow, you will usually not stay in the game to wait two, four, or eight hours until they are ready. You will probably spend that time outside the game on something else, maybe another game, maybe some real-life obligations, or something completely different. It remains arguable then whether you can still be considered playing. To the game, however, you are still playing as you performed actions in the game and are now waiting for your crops to grow. I have argued elsewhere (Van Meurs, forthcoming) that

this non-playing time could be seen as a new form of dead time, following Juul (2004) who described it as the time 'when you have to perform unchallenging activities for the sake of a higher goal' (p.138). The waiting for crops to grow or energy to replenish is essentially an unchallenging activity, even though the time waiting can also be spent by doing something else. In order to progress in the games you will *have* to wait. At least for the time that it takes for those crops to grow or that energy to replenish, you could argue that you *are* playing the game and as such the waiting could be incorporated as playing time.

However, playing time itself does not incorporate multiple players. Following Tychsen and Hitchens (2008) we need to add a layer for every subsequent player, because any player can be doing very different things in the game and it would therefore be useless to crop that into one playing time. So in essence there is an indefinite number of playing times, but 'some of these, for example bartering or negotiating, can temporarily align the activity of the players' (ibid., p.6), and thereby cause some overlap between players. For most social network games this is untrue. All the interactions go through the asynchronous means of *Facebook* or the game itself. There is no real-time interaction going on. This is also the break between players as mentioned in chapter two. There will always be some time delay before an interaction between player one and player two will be completed.

And this makes persistence so important for these games. And this is also the reason that both the engine time layer from Hitchens (2006) and the server time layer from Tychsen and Hitchens (2008) are useful in analyzing the social network games as these layers are affording the persistence. Even though the games on *Facebook* require no specific client software to install and therefore might operate a bit differently as Tychsen and Hitchens had in mind, there is a duality between the separate game states of the players and the server that runs all these separate games. As mentioned in the asynchronous multi-player part, players can only indirectly influence the game state of their neighbors, requiring acceptance of the player herself before the actions become permanent. The server will remember which

actions someone performed on your game and will present these to you whenever you start (re)loading your own game state. So server time will run indefinitely – with usually the only exceptions being maintenance or technical problems – and players can then come and go as they like, invoking their own game state based upon the information on the server. During the playing time of any player the game state will remain active and all progress is continuously saved on the server. Therefore I deem these two time layers more useful to describe asynchrony than Zagal & Mateas' (2010) coordination time frame. Although their coordination time frame can be used to describe how the game experience for any single player is modeled by the events from the game itself, it does not stress the continuity of operation and persistence of the game state which is the root cause for both the flexibility and asynchronous multi-play.

So basically all the characteristics of asynchrony are afforded within the server time layer, as it affords the access to all the players at any time they like. This leaves the other time layers less relevant for asynchrony itself, as these other layers only provide the specific game experience. The game world is different in any game, as well as the story (if there is one) and the game progression. The only exception that I can make here is the way in which game progress time will look extremely different between a mastery type social network game and a management type one. In the mastery type games, game progression is all about skill and mastery of the game and therefore its time track/depiction will contain a lot more loops and replays of the same content, especially in short games like *Snake* or *Bejeweled Blitz*. The game is played over and over to get better at it. In management type games, however, the progression will be a single time track as there is no way back in these games. They cannot really be saved or started over. The difference between these two types is, however, only slightly related to asynchrony, and far more about a difference in game experience.

So far I have mainly spoken about the asynchrony in the design and how this is related to different time layers. But, as indicated in chapter two, games also harbor a game experience. Therefore Tychsen and Hitchens'

(2008) perceived time layer, however trivial it may seem, is very useful, because every player experiences the playing differently. I argued that from a game perspective we should include the waiting time, in which the game grows your crops or replenishes your energy, into playing time as the game is still adhering to your earlier interactions. However, a player might not perceive this time as really 'waiting' as she might be doing other things, like playing another social network game, or something more mundane as having dinner, that puts her mind of the waiting task and therefore is not bothered by long grow times. In addition, these waiting times might even be convenient. Consider for instance that you would be away for the weekend, but still want to grow some crops in *FarmVille*. You might then decide to plant some water melons that take four days to grow. In the time you are away these crops are growing and you will not have to think about the game, effectively speeding up the perceived time. On the other hand, when you are eager to complete a building in *CityVille* to complete a quest and your neighbors keep failing to send you the right parts, waiting for these parts becomes a nuisance, making the perceived time stretch out. So the same is true for the experience of asynchrony in social network games. They might allow interactions between the players, but are these interactions used as interactions between players or are these interactions seen as resources for their games? Or maybe both? I will deal with that in the next chapter.

5 – THE SOCIAL IN SOCIAL NETWORK GAMES

In the previous chapter I have mainly talked about asynchronity and asynchronous multi-play from the perspective of the game and how the game affords this particular form of multi-play. In this chapter, I will focus more on how the players appropriate these affordances of social network games and whether these games are truly multi-player and social experiences or whether these games are essentially single-player endeavors. I will start this chapter with the changes in society and the appropriation of (communication) technologies into everyday social interaction. This will provide insight into the way in which these games fit our current society and communication habits. I will then switch to the games themselves and look at the interactions that are enabled by the games and how some of the behavior in the game interactions resemble insights from social psychology. The last part will provide a preliminary conclusion on the matter, and give an indication about whether I deem social network games social or not.

5.1 Changing Society, Changing Sociability

We live in a very fast-paced time where old technologies are constantly being updated and new technologies are being invented. It is therefore not surprising that our society has also undergone change as a result of the availability and the use of new technologies. Several authors (among others

McLuhan, 2001 [1964]; Williams, 2003 [1974]; Castells, 2000; Turkle, 2011) have tried to put these changes into a larger perspective and see how our relation with technology and media has affected business models, identity formation, and social interactions and society in general. Especially the Internet has received its fair share of attention in the last two decades, as it is seen as paramount in our current network society (Castells, 2000). There have been several positive accounts about the new possibilities of interaction through the Internet (for instance Rheingold, 1993; Turkle, 1996), but there also has been anxiety about how time spent online - and sitting alone at a computer in general - would lead to reduced sociability or loneliness (see for instance Putnam, 2000). The evidence to date is rather mixed although a recent representative international study in thirteen countries seems to point out that using the Internet can enhance the number of contacts and social interactions (Amichai-Hamburger & Hayat, 2011). However, the number of interactions and the social contacts itself does not give us an idea about the quality of these interactions and how they are experienced by the users. Therefore, I will first dive into some insights from computer-mediated communication in general and how sociability is experienced by players.

5.1.1 Computer-Mediated Communication and its Discontents

Even though our written culture is now thousands of years old, face-to-face communication has long been the major form of communication between people. Even the invention of the first telephone over a century ago did not change it much, because even though the communication was no longer face-to-face, it was at least communication in real time and still created by the human voice. When computers became available and were linked to each other the technological limits made text the most appropriate means of communication through computers. Therefore one of the main questions in the discipline of computer-mediated communication (CMC) has been how the nature of communication is affected by text-based communications through computers. An early conceptualization of the problem by media researchers Short, Williams and Christie (1976) lead them to coin the concept of *social*

presence, indicating a measure of sociability for communication. They argue that communication between people causes a psychological distance when they are not communicating face-to-face, and this reduces sociability. As such it is about the awareness of the other person or at least the degree to which we perceive that we are communicating with another human being.[1]

Sproull & Kiesler (1991) elaborated and extended the social presence theory by arguing that we lack certain social cues (both verbal and non-verbal) in computer-mediated communication and this affects how we behave towards one another. When social cues are obscured by the means of communication the person might feel less inhibited and more likely to be rude or outspoken. In terms of games this can be seen in grief play or flaming where people are consciously annoying or insulting other players (see for instance Foo & Koivisto, 2004; Bakioglu, 2009). The reduced social cues theory therefore predicts that when we lack visual presence to each other, and thereby lack non-verbal bodily cues, people will be more self-oriented and less aware of others. However, anonymity as a concept is neutral and other research (like Turkle, 1995; Walther, 1996; Tanis & Postmes, 2007) shows that reduced social cues can also have positive effects as it might lead to less concerns about self-presentation and performance and making it easier to disclose information about yourself.

So it seems clear that networked communication has an impact on social interaction and the experience of sociability, even though the evidence on whether this is positive or negative remains mixed. According to CMC researchers Tanis and Postmes (2007), most computer-mediated communication research is rather singular because the 'effects of mediation in classic theories of CMC have always been attributed to the inevitable decrease of non-verbal or bodily communication when compared to [face-to-face] interaction' (ibid., p.958). According to them, however, the picture is much more heterogeneous and complex and therefore the inevitable reduction of bodily cues does not necessarily mean that social interactions are less social. In an earlier study by them (Tanis & Postmes, 2003), they

showed that even a small amount of biographical data or a portrait picture already has consequences for the impression of a person.

As already mentioned in chapter two Internet and technology researcher Turkle (2011) tends towards the negative side of the effects for sociability, even though her earlier accounts (2005 [1984]; 1995) on the possibilities of technology, networked communication and identity formation through computers and the Internet had been very positive. Her latest book is full of accounts from people feeling that they use technology as substitutes for real social interaction. People text or email each other constantly and leave messages on *Facebook* and other social networking sites. In addition, people are reluctant to call or speak face-to-face. As such it seems that we are substituting real-time interaction for asynchronous messages that are deemed less intrusive on the other person. Because we cannot see where they are at the moment and whether we are intruding, we rather make sure we are not interrupting something and leave the person to respond at their own convenience.

This is what Turkle (2011) means when she says that we expect more from technology and less from each other, the subtitle of the book. As our face-to-face and real time interactions might be intruding upon each other, we use technology to be on the safe side. Yet, Turkle also describes that someone who sends a text expects a reply within minutes. As you can be reached by your cell phone – which you are 'supposed' to be carrying around constantly – there is really no reason *not* to reply; or at least it feels that way for the receiver. This creates a lot of anxiety about being able to reply, but also about managing the constant stream of messages, emails and texts. As Turkle notes: 'Increasingly, people feel as though they must have a reason for taking time alone' (ibid., p.202). A time wherein they are not required to be 'on-call' twenty-four hours a day, seven days a week.

Following her argument, Turkle (2011) seems to claim that the communication through technology is somehow less social. I tend to disagree with that conclusion as I think it adheres to a rather narrow notion of social. As I explicated in chapter two, following Latour (2005), I noted that the

social is constructed through interactions, whether these are face-to-face, by telephone, by email or by pigeon. Even an automated out-of-office reply is a social act, as someone has activated it to let people know that an answer might be delayed. The same accounts for the anxiety and stress mentioned above. The fact that we *feel* anxiety and stress about *having* to reply to someone is very much social. It is the norm to reply to a message – especially when it comes from friends or family – and so we feel uncomfortable when we fail to do so. So, I agree with Turkle that technology has greatly affected social interaction, but these technologies and their uses shape and are shaped by society itself, leading to new social norms. And social network games are not that different as will become clear in the remainder of this chapter.

5.1.2 Games and Changing Sociability

All these technological developments have of course also affected computer games and gameplay. Game consoles have become faster, graphics have become better and business models have changed. Where games were once sold on floppy disk or cartridge, they are now sold on DVD-roms and even online through game networks like *Steam* and the *Playstation®Network*. Sociability in games and social play have also changed over the years, mainly due to changing multi-player games. As I discussed in chapter two, however, there is a difference between a game being multi-player and a game being social. As Stenros, Paavilainen and Mäyrä (2009) point out, there is a socialness to single-player games as well. There is the knowledge that you are playing a game that others are also playing, granting the player the social capital to talk about the game and consider how they performed in relation to another player. But in addition, a game session can be watched by spectators, turning play into performance. This form of sociability comes even more to the fore since the Internet and the possibility to share screen shots, game replays and scores within a much larger community.

On the other hand, a multi-player game can be a highly solitary experience. For instance Olivetti (2010), in an online column, claims to be

part of a growing group of MMOG gamers that are rather 'playing alone together' than being forced to group up. These players like to experience most of the stuff in MMOGs by themselves, at their own pace, and they really hate it when other players are *needed* to progress. On the other hand, these same players like the fact that the game has other players in it, and that they *can* group up whenever they feel like it. For these players the flexibility of being able to play the game as you like it is far more important than the multi-play per se. Quantitative research on *World of Warcraft* (Ducheneaut, Yee, Nickell and Moore, 2006) already confirmed that a lot of players play 'solo' for a large part of their game experience. What is interesting to note about this, is that apparently the design of virtual worlds has also changed. For instance Jakobsson and Taylor (2003) emphasize that the design of *Everquest* (Sony Online Entertainment, 1999) was very much centered around group and guild activities that required the right combination of complementary classes. Although this class system is still the basis of most MMOGs, the grouping has become less compulsory and only really required for tackling the high-end content of the game. As Ducheneaut et al. (2006) claim, the game is now more casual in nature, with a larger flexibility for players as to when and how they play the game.

Ducheneaut et al. (2006) also make another important observation about MMOGs in relation to social play and sociability. Other players in the game are not necessarily sources of support or camaraderie alone, but 'they also provide an *audience*, a sense of *social presence*, and a *spectacle*' (ibid., p.5, emphasis in original). So first, other players can be seen as observing you and you can use that to flaunt your skill in the game. Ducheneaut and his colleagues make an analogy with playing pinball in a crowded arcade where the best players are observed by spectators and admirers.[2] Second, other players create the sense that the game is populated with other players. Even though you do not interact with all other players, it creates the feeling of being in a public place, not unlike sociologist Oldenburg's (1999) third places.[3] And third, the other players are a source of additional pleasure as they might do things that are unexpected or funny and usually not

specifically part of the game objectives. Although social network games are organized differently than MMOGs, they have inherited quite some characteristics from them. Therefore it is not surprising to see that social network games have also adopted the above mentioned casualness and sociability. As mentioned in chapter four, social network games are very flexible to the player, allowing you to play them whenever you have the time and without the need to wait for your friends to be online at the same time. And even though other players might function as resources in the games, the additional social factors from Ducheneaut et al. (2006) can also be present in social network games as I will elaborate below.

In social network games, your whole assembled social network can function as an audience, and in some cases, depending on your privacy settings, your audience may be even bigger than just the people you are connected to. This works a bit different than in virtual worlds though, as you would there encounter avatars of other players in real-time making the factor of a live audience far more apparent.[4] On social networking sites and in social network games this works more like what social networking site researcher Boyd (2007) has called invisible audiences (see also chapter two). We are aware that everything we post upon our *Facebook* wall is basically public and accessible to people. However, we never know when, where, and by whom these messages are viewed. And of course, someone might be online when you post your status update and see it in real-time, but most will only see it later. This asynchrony leads to the fact that we never know in which context our message is encountered. And this in turn leads to a certain self-disciplining not unlike the panopticon metaphor as invoked by philosopher Michel Foucault (1995). As we never know when someone is watching, we will perform as if we are before an audience. But even though a large part of the audience in social network games might be invisible, we now and then encounter the fact that people have seen our post or have visited our fair or city. People may like your status update or comment on it, they might fertilize your crops in *FarmVille* or restock your games in *Ravenwood Fair*. This ensures us that we might be playing our own game, but there are others

out there that might admire what we do, but can also be intimidated by your game achievements: your high score in *Snake*, the number of badges or pro scores in *HotShot*, or the beauty or size of your city in *CityVille.* Even though we do not play simultaneously, we perform our play for others to see.

Also the social presence of other players can be distinguished in social network games. Not in the way that you see others at your farm or see other people play their games as such. But as all social network games are part of the larger social networking site, we can also see other players that are available for chat and we see status updates about other things than the games you are playing. As such the social network site operates as a larger context in which gaming is embedded; much like being in a bar and playing a board game with a few others while other people are talking to each other in the opposite corner. As indicated in 5.1, social presence is the degree to which we perceive the ones that we are interacting with as other human beings. Social networking sites and social network games in general are very good at creating a sense of social presence. When we post something on *Facebook* it is always accompanied by your profile picture giving the indication that there was a real person involved in posting that and giving that person a face.[5] And if you want to know more about that person, you can click on it and you will see the profile information of that person. So even when you are not online, your profile is accessible. Turkle quotes a thirty-six year old nurse that adheres to the feeling of being with friends on *Facebook*:

> "I log onto Facebook and feel less alone. Even when people are not there, like exactly when I'm there, it seems like they are there. I have their pictures, the last thing they were doing. I feel caught up"
>
> <div align="right">(Turkle, 2011, p.203)</div>

Some of the games even use your social network in the game, creating another form of presence. When you start playing *Café World* you are asked to select someone from your friends as your waiter or waitress. The avatar in the game that is your waiter will then carry a name tag and when you hover over her with your mouse you will see her profile picture. This in no way

affects the person you choose and is only displayed when you play your own game, but it gives a personal and social touch to your café. In addition, the customers of your café in *Café World* sometimes bear the name tags of your friends. As such it looks like your friends are coming to your café, again adding a personal touch to it. In *CityVille* you must hire friends to staff your community buildings and whenever you enter a building you can see who is hired on what position, displayed with their profile picture. One special building in *CityVille* is your police station. When you have employed your friends as staff in the police station, you can then see them patrolling the streets of your city. The cops have an overhead badge displaying the *Facebook* picture of your friend. So it looks like your friend is playing as well and catching bandits in your city. However, your friend is not there at all, it is just an animated character with your friend's face on it. This is like the experience that Pippin Barr (2011) describes on his blog where he was playing *Skate 3* (EA Black Box, 2010) and was surprised by an AI version of a long lost friend that started skating beside him. Your friends appear in your game while they are not really there, giving your game a social touch.

The last part of the additional social factor mentioned by Ducheneaut et al. (2006) is the fact that other players are seen as spectacle. This is like the reverse of the other players as audience, where now *you* are the audience for the performance of other players. This is less about status though, and more about performance and fun. Therefore the below is mainly applicable to management type games, as the focus is not on the outcome of the game, but what can be done with the game itself. The option to visit your neighbors' games affords you to see and assess what others have done to the same game that you are playing. Especially games that allow you a large amount of freedom in how you shape your virtual place – like the city in *CityVille*, the fair in *Ravenwood Fair*, or the garden in *Gardens of Time* – can operate like a spectacle for the visiting player. It shows what others have done with the game, and might inspire you to do something different with yours. *FarmVille* users found out that you could use small decorations (usually hay bales) to create intricate 'pixel drawings' on your farm and this made players to regard

their farm as a blank canvas to create artworks.[6] *FarmVille*'s developer Zynga has even acknowledged that people want to make their farms look pretty and issues a weekly 'farm of the week' contest. Everyone can leave a picture of their farm on the *FarmVille* forum, and the winning farm is displayed at the *Facebook* page for *FarmVille*. So these players do not only become a spectacle through their in-game actions, but they also become something like paratexts (see Genette, 1997; Lunenfeld, 1999) to the game and thereby embed the gaming within a larger contextual framework.

Therefore I think that it is rather short-sighted to deem social network games not social because the connections are mediated by the games and the overarching social networking sites. Or to deem them not social because you are not meeting new people or because you do not play with your friends in tandem (see the opening quote of the introduction). Rather these games harbor a negotiation between new forms of social interaction, playfulness and a complex social context. People accommodate themselves to the affordances of technologies and in doing so create new social norms that are again adaptations of more 'traditional' – or unmediated - social norms. And to support this, I would like to discuss the social interactions themselves in more detail and demonstrate the evolving social norms around it in the next section.

5.2 Social Interactions in Social Network Games

In this section I will discuss the multiple forms of social interaction that can be found in social network games, using the games that I studied and my experience of playing these games as examples. I must add a critical note here though, because the below is mainly based upon *my* game behavior and *my* experience of the other players' behavior. But in my experiences I found a lot of coherence in the responses of my neighbors and these behaviors often complied with predictions of social behavior from social psychology. So

the below will discuss in what ways there can be interaction between players and how social psychological insights can help us see that the online social norms in these games are still following older conventions found in offline social norms.

There are many ways in which players can interact with each other in social network games,[7] even though this interaction is usually asynchronous as explicated in chapter four. Even though there is a slight difference in orientation and motivation between management type and mastery type social network games, all social interactions in social network games adhere to relatively the same three basic categories. These are: 1) connecting to other players (neighboring), 2) helping out other players (with gifts and other actions), and 3) the sharing of achievements (for instance high scores or mastery levels). I will discuss these three in the below subsections.

5.2.1 Connecting to Other Players

A practice common to basically all social network games is finding and adding other players to your games. In mastery type social network games these other players usually provide a competitive context and therefore these players are usually ordered in ranking lists. Most of the management type social network games, however, feature the concept of a neighbor, indicating another player that has their game space 'right next door'. Two exceptions to this neighbor feature can be found in *Mafia Wars* and *Vampire Wars.* However, in these games your associated friends provide the members of your mafia or clan, so you still need to connect to other players that are willing to be a part of your game experience. Therefore, throughout this section, I will use the term neighbor to indicate someone in your social network that is connected to your game state. In basically all social network games the theorem 'the more the better' applies, although after having a fair number of neighbors the usefulness of every additional neighbor declines somewhat. For instance, in *CityVille* you need neighbors to send you building parts and to become the staff in your community buildings (see also the next paragraph). However, you only need a given number of building parts and

community buildings can only hold so many staff members. Once you pass that threshold, an additional neighbor can still provide you with gifts and other benefits, but these are no longer crucial in progressing through the game.

So having neighbors in the game is basically mandatory in order to progress at a steady pace. But how do you find neighbors that are willing to help you progress in the game? Most players start playing the game because they are invited by someone in their social network that already plays the game. This provides a new player usually with at least one neighbor. *Facebook* also harbors a games tab that also displays the games that others are playing, and most of the games have an in-game option that shows which other friends in your network are already playing.[8] So consulting that information might lead to a few additional neighbors if they accept your invite. In the early stages of the game, this will usually be sufficient to get started. When you progress however, you will need additional neighbors. So most games also have a feature that lets you invite people from your social network that are *not* (yet) playing and thereby maybe persuade them to come play the game as well.

At some point in the game, you might need more neighbors to progress in the game than you have players in your social network. For instance in *FarmVille* you need thirty five neighbors to enlarge your farm to a 26x26 farm size and forty five neighbors for 28x28. So basically any player that is serious about the game eventually confronts a dilemma. Either you will have to be satisfied with your game state as it is, or you will have to find new neighbors. Persuading even more players from your existing social network to start playing the game is usually hard, because if they have not been tempted by your invites before, they will not be likely to start playing now. Therefore a player is forced to find other solutions. There are two common solutions to the problem, 1) create one or more additional *Facebook* profiles, or 2) add strangers that also play to your social network.[9] Which solution is chosen – some even choose both – depends very much upon the player's goals and preferences and how they view their social network on *Facebook.*

But where to find more neighbors if they are not already part of your social network? A first way might be to ask you existing neighbors if they know others that are also looking for more neighbors. Another way might be through looking at the game status updates from your existing neighbors and see if someone comments on those, or 'likes' it. That would indicate that that person is also a player in that specific game. Both these options are basically a form of networking through people, as you use the connections of others to get into contact with other players and thereby extending your own social network. Others, however, turn towards the official *Facebook* pages of the games and/or developers and ask – or occasionally beg – for people to add them as their neighbor. Zynga, the developer of several of the games that I researched, is aware of the need for neighbors and they now provide a solution in the form of specific 'finding neighbors' forums per game on their website,[10] where it is allowed to ask others to add you as a neighbor. This is a strategy that is more related to networking through looking for commonalities.

So there are multiple ways of finding more neighbors, but if you do not choose to create additional profiles for yourself, all these involve adding strangers to your existing social network. People that you basically only added to your network because of the game. This is also in part the source for the criticism that these games use people as resources instead of as fellow players. Although it could be argued that an additional profile created for gaming reasons alone might definitely function as a resource only, in the case of active players, both players benefit from the in-game connection. These players possess a commonality through them playing the same game, even though they might be miles apart and/or completely different persons.

This might hardly seem like a social connection, but insights from social psychology and especially group dynamics provides us with a different view. One of the principles that guides people to associate with others or join groups is the *similarity principle* or 'the tendency to affiliate with or be attracted to similar others' (Forsyth, 2006, p.127). However, counter to what most people think, the similarities that can exert a social bond between

people can be very trivial. As research by Tajfel & Turner (1986, in: Forsyth, 2006, p.468) has pointed out, the mere perception of being connected to someone is enough to favor your own group members above other persons. Randomly give out red and blue markers and people with a red marker will favor people that also received a red marker above other people which received a blue one. So even a small similarity like playing the same game can be enough to forge an initial connection and a favorable evaluation of the people that also play.

Even though this minimal similarity is enough to provoke at least some connection, in social network games this connection becomes reinforced over time through continuous interactions by playing the game. People are solving the same quests, need the same building parts and pursue the same progress in the game and in most cases interactions between players happen on a daily basis. This strengthens their view that they belong to a group of FarmVillers or CityVillers or HotShotters and that they are all working towards the same game goals. This shared purpose also strenghtens feelings of social connectedness (cf. also Köbler et al., 2010). So, like in synchronous virtual worlds where people over time come to connect to other players, social network game players also identify with the profile holders that are playing the same game.

My own experience confirms this. When I decided to find some new neighbors in *FarmVille*, I randomly added people that were in the latest 'add me' thread on the *FarmVille* forum. These people were complete strangers to me. Yet in continuously playing the same game with the same people, I built a connection with these people through the additional social interactions. And connecting to these people had a subsequent benefit as well, as several were also playing some of the other sampled games in this thesis, providing me with additional neighbors in those games as well. I saw them rise in levels, solve quests, finish buildings and master crops and in turn they saw me accomplish things in the game. But outside of the game, I saw other status updates that were more related to their offline situation. At one point I saw a post of a mourning 'neighbor' whose mother had suddenly been hit by a

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stroke, and even though I only knew this guy from *Facebook* and *FarmVille* you feel a connection and mourn with them and offer them support by commenting on that post. So they might be resources to my game state, but they are also truly social connections and fellow players to me.

5.2.2 Helping Out Other Players

Sending gifts to and requesting gifts from your social network is basically the most important form of social interaction in most management type games. And even in some of the mastery type games sending each other energy or (coin) bonuses is very common. In order to steadily progress in the games it is vital for players to receive gifts from their neighbors as these can be used to complete quests or buildings, or mean additional play time or bonus items. Therefore players are motivated to send each other gifts on a daily basis, or sometimes even more often (for instance in *FarmVille* you can send gifts every six hours). The same applies to requesting gifts or favors from other players. When a player needs specific items, she can usually either post a request on her wall, asking her whole social network, or select a number of game neighbors and request it from them individually.

Even though I use the word gifts in this context, following the general terminology of most games, some of these requests are not really about gifts, but more about helping out. In *CityVille,* for instance, you can request players to become a staff member in your community buildings or in *Monopoly Millionaires* you can request players to become an investor in your hotel. Even though these are not gifts in the usual meaning of the word, the mechanism for these requests is basically similar to requesting gifts. The player requests help and you can decide to help out and accept the request. When you do so, your profile picture will be displayed whenever the player opens up the building's details. So in essence you have sent your picture to the other player. So it must be kept in mind that when I use the word gift in the below I mean this in a very general way that designates both the sending and requesting of specific items, but also the acceptance of other kinds of requests like becoming a staff member in a building.

In addition there is a third way of helping out, although this is mainly a feature in games that offer land management like for instance *Zombie Lane*, *Café World*, or *Gardens of Time*. Here you basically visit the game of someone else and are able to help out by performing a limited amount of tasks that help the other player. In *Ravenwood Fair* you get a daily supply of five energy per neighbor which can for instance be used to restock games, chop down trees, or recharge protectors. A similar idea can be found in *Zombie Lane* or *CityVille* and in *FarmVille* you are able to fertilize five farm plots of your neighbor. In all these instances you receive bonuses that are useful for your own game state, like in-game currency.

As already briefly discussed in chapter four, *Empires & Allies* provides an interesting case for helping other players. *Empires & Allies* also has the above mentioned visiting system, but in addition you can also decide to invade the empire of another player. Although this sounds more hostile than helpful, in essence it does benefit the other player. While you will receive bonuses when you succeed in the attack, the one which you successfully invade *also* receives bonuses when they succeed in repelling your forces when they come back to the game. Here the asynchrony in this social interaction becomes highly apparent as the invasion is not really one fight, but two. Both players compete against an automated AI system. And to complicate the social interaction, a third neighbor might decide to come to the aid of the one invaded and try to repel the attack for additional bonuses as well.

Sending gifts to fellow players and helping each other out is basically about prosocial behavior, or actions that are intended to benefit someone else. As players are basically all working on their own game state, why would they be motivated to send gifts to another player? The main reason here is probably not because they feel better doing so, even though that might provide a partial explanation. No, the real culprit is probably the fact that people adhere to our socially ingrained norm of reciprocity that holds that we should repay others with likewise behavior (Kenrick, Neuberg & Cialdini, 1999, p.214). As we send out gifts to our fellow players we basically ask

them unobtrusively to reciprocate the behavior and send us a gift back. In addition, we are more likely to accept the requests from others, when we feel that we might need their help in some of our own requests later on. The same accounts for the visiting of the game of another player. As the returning player sees that another player has performed some actions on their game state, they are more inclined to return the favor.

This norm of reciprocity is often exploited in marketing and sales situations, where people are offered small favors that are meant to persuade them to return the favor. This is called the foot-in-the-door technique. Social network game requests often adhere to this same principle. Table 5.1 displays a few of the requests that were sent to me. As you can see most offer you a gift and end with the request to send one back. Sometimes the reciprocity is already made apparent in the request as it displays that you get the gift because you sent a gift earlier. Not all requests are framed like this, but a large part is. But even when the request itself is not as straightforward about you receiving a gift as well, in *FarmVille* accepting a request usually leads to receiving the same item for yourself as well. So players are in a social relationship that adheres to the uncomfortable feeling that you are a bad neighbor when you are failing to comply with such a small request.

Table 5.1: An overview of several game requests, showing adherence to the norm of reciprocity and use of the foot-in-the-door tactic.

Game	Request
FarmVille	Here is a Special Delivery for your farm in FarmVille. This gift expires soon so be sure to accept it fast. Could you help me by sending a gift back?
	Thank you for your gift. Here is a Special Delivery for your farm in FarmVille as a Thank you gift. Could you help me by sending a gift back?
	Thank you for visiting my farm. Here is a Special Delivery for your farm in FarmVille as a thank you gift. Be sure to visit my farm again tomorrow!
CityVille	[name] just sent you a Mystery Gift! They're different every time so be sure to give one of your CityVille friends one too!
Ravenwood Fair	Thank you for sending me a Platinum Ore! Here is another one for you in return!
Café World	Have some Special Delivery as a thank you for helping me out!

Economic game theory is a theory that predicts how people will behave when confronted with certain dilemma's.[11] Game theory assumes that players are both rational and selfish and therefore will always choose the most beneficial strategy for themselves, regardless of other players. However, when these dilemma's are presented in 'real' situations, anomalies occur, which are facts or observations that are not consistent with the theory (Thaler, 1994). According to Thaler, social psychological research into these games reveals that people are far more concerned about 'doing the right thing' than in gaining some economic benefit and therefore people are far more likely to cooperate when it could be beneficial to be selfish. Especially in infinite multi-stage dilemma's, people are likely to adopt a tit-for-tat strategy. Basically a player starts out with cooperative behavior on the first trial and then constantly matches the previous behavior of the opponent, matching cooperativeness with cooperation and competitiveness with competition.

Social network games, and then especially the continuous need for gifts and other support from other players, can be seen as such an infinite multi-stage decision dilemma. My own experience in these games matches the above described tendency. When I sent out many gifts I also received many gifts back. On the other hand, when I was absent from the games for a number of days, the number of gifts would slowly decline. And when I again reciprocated the earlier requests that were still waiting on my games tab because of the game's persistence, the amount of gifts would again go back up. The same could be observed in the visiting of my neighbor's games. When I visited all my neighbors and performed the helpful actions that I could, I would receive several visits from neighbors to my game. However, when I was short on time or otherwise unable to visit all my neighbors, I would find less help within my own game the next day. However, there might an additional explanation to this last observation, albeit related to the tit-for-tat strategy. Visiting all your neighbors is a very time consuming practice, especially with a large number of neighbors (some of my neighbors in *FarmVille* had three hundred neighbors). This makes it basically impossible to

visit all of them on a daily basis. By using the tit-for-tat strategy you reward players that take the time to visit your farm, but prevent yourself from expending large amounts of time on the games of others where there is no certainty that someone will reciprocate.

5.2.3 Sharing Achievements

The last form of social interaction that I would like to discuss is the opportunity to share basically any progress in the game through status updates. Especially in management type social network games a pop-up will appear whenever you complete (parts of) a building, complete a quest, gain a level, or basically anything else that might be worth mentioning, allowing you to share it with your friends. These automatically generated status updates usually contain items and bonuses for other players. Therefore the main reason for posting these updates is to provide your friends with gifts that can help them in their game, and it is therefore not really surprising that basically publishing everything that the game proposes you to publish becomes the social norm. Unlike traditional status updates that are composed and posted by yourself, these game posts are not really considered to be indicating your status, but are seen as resources. This is different, however, from seeing the other *players* as resources as some of the critics have said about social network games.

These status updates usually contain one or more items that can be retrieved by clicking the link below the message. Especially in the case of *FarmVille* these links can provide you with very rare and exotic trees and animals. A typical status update about a new fully grown tree would be: "[name] put in a lot of hard work to get this new tree! They want to celebrate with friends by sharing *only one* of these trees, so you better act fast!" (emphasis mine). So there is only one additional tree and the first one to click the link of this status update will get that tree. Any other person that clicks the same link after that will only get a message that displays: "Sorry, [name]'s event has expired. Try again next time." For players that only play once a day and do not have the time to continuously pay attention to their

news feed with game updates it would be rather annoying to have to click on any single game update, just to see that the items you hoped to get is no longer there. The players have found a solution to this by the implementation of an implicit rule: whenever you take something from these status updates, you should hit the 'like' button of that post. Especially for the status updates that give out only one item, a 'like' directly shows that the item has been taken. Sometimes these likes are also accompanied by a comment, thanking the original poster, but the 'like' is enough to do the job, giving others the opportunity to save a small amount of time in the tedious process of scanning all the status updates of all your neighbors for rare game items. In addition it also provides the original poster with the knowledge of who has taken the item. Especially in the case of rare items, trees or animals, some players are inclined to know where their bonus item went. Someone might just sell the item back to the in-game 'bank' instead of using it and this does not adhere to our sense of fairness.

So as can be seen from the above, sharing achievements is basically the norm as it will help your neighbors. Therefore this adheres to basically nothing that has to do with identity performance. However, it has to do with the social norm of following what everyone else is doing. The only exception to this that I could find were in the 'level up' status updates from *FarmVille* when you gained another level. These never have a bonus for your friends, and the link below the post will just display 'Play FarmVille now'. Yet, these posts often received 'likes' as well. We seem happy when players progress on their games, just like we want to see our game state progressing. This adheres more to the feeling that we are playing well together (DeKoven, 2002), where all players just have fun playing the game, while there are no real losers. Playing these management type social network games is highly rewarding, as the progress is always forward. With dedication you *will* eventually level up or you *will* master those crops. Therefore we play in what DeKoven has termed a fun community where everyone has a willingness to play and because this willingness is shared by all the players we feel ready to find out how we can have the most fun *together*.

The above is mainly focused upon management type social games and there the dominant gameplay is cooperation. Sharing achievements takes a different social meaning when we apply it to mastery type social network games, however. Here communicating about your achievements basically involves challenging your fellow players to beat your achievement. Challenging can be done by using an in-game feature that allows you either to post your high score on your wall for all to see or specifically to challenge another player by posting to their wall. Table 5.2 shows the specific challenges and invites offered by the games that I played. Note that *HotShot* is missing from this list, as it has no competition on high scores, but on obtaining badges and 'pro-scores'.

Table 5.2: Generated messages in mastery type games when you challenge/invite someone in particular, or when you post your score on your own *Facebook* wall.

Game	Challenge/Invite	Wall Post
Snake	Come play Snake.	**Can you beat my high score in Snake?** [name] just set a new weekly high score of 480 points! Can you beat that?
Robot Unicorn Attack	Show me that our friendship means something to you with this unicorn game.	**Robot Unicorn Attack: Facebook Edition** [name] just scored 60120 in Robot Unicorn Attack and intends to donate half the score to the study of unicorn robots.[10]
Uno Boost	Join me in Uno Boost, the fast-paced card game.	**[AI opponent] is Defeated!** [name] has defeated [AI opp]. They scored 56 points and earned 1400 experience points.
Bejeweled Blitz	All new players get 25,000 FREE Bejeweled Blitz Coins! Come join the fun!	**I stayed on course and earned a Star Medal for scoring over 100k in Bejeweled Blitz!** Watch my Bejeweled Blitz video and see if your strategy will have you sailing past my score!
Gardens of Time	[name] challenges you to beat a score of 677470 Points on the [scene name] in Gardens of Time.	**[name] just beat [next friend on ranking list]'s score on the [scene name] in Gardens of Time!** [name] scored 677,470 points, crushing [next ranked friend]'s measly score of 674,430.

If we look at the list we see that the first four challenges/invites mainly focus upon getting someone to play, even though it is called 'challenge' in both *Snake* and *Robot Unicorn Attack*. The only exception here is *Gardens of Time* where you can specifically challenge someone on a scene with your high score. However, when we look at the wall posts, it is far more about challenging others to beat your score and at the same time a way of showing off your mastery to your whole social network. Whenever you have a score, you can show it off on your wall, but in practice, unlike the continuous stream of status updates from most management type games, these invites and status updates are scarce, and used sparingly when someone scored a *high* score. During the roughly six months that I was playing these games, I have only occasionally seen a challenge or a wall post like that. The few challenge posts that I saw were basically ones where someone had just started playing the game and was trying to persuade others into playing as well.

A possible explanation might be that these mastery type games are played less frequently than the very popular management type games. However, both *Gardens of Time* (#4) and *Bejeweled Blitz* (#8), as well as *Diamond Dash* (Wooga, 2011, #9) and *Bubble Island* (Wooga, 2010, #10) – both also mastery type games – all rank in the top ten of most popular game applications on *Facebook*.[12] Therefore it seems that there should be some other reason why players are not challenging and inviting other players. Two specific reasons can be mentioned here that could provide an explanation. First, the interactions do not provide in-game benefits for other players, except for the status update from *Gardens of Time* which offers in-game coins. Even the invite for new players of *Bejeweled Blitz,* offering 25,000 free coins, is applicable to *all* new players and not only to the ones invited through this system. So posting such a score or specifically challenging someone to play is only relevant for players that either want additional neighbors or in-game friends or for the supposed status that such a message might give. As such it is a relatively self-praising act to post a high score or

challenge a friend on one. This also provides the second explanation: people are continuously managing the impression that their online presence broadcasts (cf. Boyd, 2007; Barash et al., 2010) and a continuous stream of posts with scores on a social network game might give off the wrong impression. So basically, people already restrict themselves in posting these challenge messages. The true motivation behind this can only be guessed.

In my playing of the games I usually refrained from posting my scores as 1) my scores were usually not a new high score so it did not seem right to 'brag' about it, and 2) I would rather not spam my profile with useless scores. The latter reason seems a bit strange, both because I *did* share a continuous stream of posts from most of the management type games and because I was using a separate 'gamer profile', which should reduce my concerns about my image as a social network game player. However, I found that it *did* matter for me. These high scores can also be found in a ranking list in or around the game and therefore posting it as a separate status update would not give new information to other players. In addition, as mentioned above, these status updates do usually not provide benefits to other players, so posting them would only provide me with the awareness that I was broadcasting my skill. Indeed as Barash et al. (2010) show, following Goffman's (1959) inquiry into performances of the self, people usually have a fair idea about the impression that they are providing and therefore they already filter what they want to show.

Even though there are not many players posting all their scores and they usually do it to lure other players in, there could be another social reason why some players are very keen on continuously posting their improvement and their performance in the weekly tournaments of these games. Insights from social psychology show that the mere presence of others might enhance our performance if the task is well-mastered, while performance suffers when the task is not familiar to us (Kenrick, Neuberg & Cialdini, 1999). The effect of this social facilitation is enhanced when people feel that they are evaluated by others. So people that have the skills to play the game well are fairly comfortable with performing in the presence of

others and even benefit from that, while less skillful others suffer from the attention. In order to invoke the benefit of this effect, people might try to get a sense of being evaluated by posting it to the invisible audience of *Facebook*. Indeed Köbler et al. (2010) found that people that post more status updates on *Facebook* feel more connected and aware of a possible evaluation. But most players, possibly afraid to be judged as a bad player, refrain from this public evaluation. These players compare themselves with the already present score in the game, and might only be tempted when they score really well in comparison to their friends.

5.3 A Final Word on Social Interaction

Looking back on the insights of the previous sections it becomes apparent that all three different forms of social interactions are following predictable social patterns that can mostly be explained from longstanding insights about how we interact with other individuals. The fact that we communicate less in real-time situations, and more in asynchronous ways might be altering the specific interactions, but the guiding principles, most deeply ingrained in our social being, are still underpinning our behaviors. This ensures in my view that computer-mediated communication, although maybe different in form, can never be deemed *not* social. We, being social animals, need to interact and relate to each other and to the world around us. We will always do so and therefore reconstruct the social and what it means to be social. Therefore it is undeniable that whenever two or more persons interact with each other it will be a social experience, and it does not matter if that interaction is mediated by one, two, or a dozen mediators, the social in constructed in the interaction itself. Therefore the asynchrony in social network games does not inhibit socialness, but actually reinforces it, giving us a way to communicate in new ways with the people in our social network.

6 – CONCLUSION

Following the criticism that social network games are not social because you do not play them together with your friends, I started this thesis by questioning how this asynchrony in social network games is related to sociability and social interaction. Before we were able to even try to answer this question, I started in chapter two with a conceptualization of the core ingredients. As social network games are a part of social networking sites, I began my discussion by explicating what I understand by a social networking site and which affordances social networking sites provide. I defined social networking sites as web-based services centered around individual profiles that allow individuals to network through the connection and interaction with subsequent profiles. I then moved on to social network games and argued that the three core affordances of social networking sites – affording a profile, affording a list of connections, and affording interaction – also provide the foundations for social network games. I also distinguished two genres within the larger category of social network games: mastery type and management type social network games.

I elaborated why I deemed it so important to analyze games both as object and as process and I then discussed what I understand by asynchrony and also what I understand by the social. Elaborating on Bogost's (2004) description of asynchronous multi-play I distinguished three core characteristics for asynchrony in social network games: 1) they afford that players do not have to be present simultaneously, 2) they should have some kind of persistence, and 3) there should be breaks between the players. I then made clear that there is a difference between multi-player as

an affordance of the games and the social as the result of the interactions between players, game, and social networking site. Following Latour (2005) it was argued that the social is not some material quality but denotes the complex web of highly dynamic and constantly changing interactions.

Chapter three elaborated the research method and this introduced fifteen games that have provided the core information on social networking games. Using these fifteen games I used chapter four to describe asynchrony in social network games and chapter five to describe the social and social interaction. Embedding the asynchrony in social network games within the larger discussion on time in games, it became clear that asynchrony has two sides, flexibility and asynchronous multi-play, and that both this flexibility and asynchronous multi-play rely heavily upon the persistent parts of the games. Therefore it was argued that the server time layer and the engine time layer from Tychsen & Hitchens' (2008) model provide a useful foundation for researching asynchrony. After looking at asynchrony in more detail I turned my attention towards the social. It was noted that our current society is filled with technologies that change our interactions in fundamental ways. However, all these interactions still adhere to the same principles that guide our face-to-face and real-time interactions. It was therefore concluded that although social interaction and sociability might be changing, it can not be concluded that these new forms of interactions are somehow less social.

So, looking back upon the above, it becomes clear that asynchrony in social network games is indeed related to the social and to social interaction. However, asynchrony in our multi-player interactions is not just related to the social, but actually the fact that we *are* interacting already makes these games definite social experiences. As we are social animals, we are able to connect to each other in a multitude of ways, and by doing so create an interesting picture of our society. Yes, interactions change, but no, these are not less social when they are not performed in real-time. Having said that, however, this does not mean that our experiences of these social interactions

might be deemed less true when conveyed through an asynchronous medium instead of in real time. But that is a whole different question.

This research has tried to shed some light on asynchrony as a concept and how it is an important part in the multi-player experience of social network games. It has also looked at how the different social interactions between the players in these games still adhere to the principles of social interaction as theorized in social psychology. As such it is a rather theoretical and conceptual account on the links between asynchrony and the social and therefore it is mainly an exploratory account of a new technological phenomenon in our constantly evolving society. Further research might benefit from focusing more on the specific multi-player experiences that players encounter while playing these games and also the motivations behind their decisions. That will validate further whether my subjective observations indeed hold true when put to the empirical test. The same accounts for research that might analyze how exactly the asynchrony is appropriated by the players, as my account has mainly shed light on the conceptual characteristics of it, and how the games afford the asynchronous interactions. Furthermore, as my research is rather exploratory, it might benefit from true social psychological experimentation on how asynchronous interactions adhere to the larger social principles as laid out here. Do players really share more status updates in management type games and do players that visit each other's game space doing this for selfish or for social reasons.

I think that the above report provides a fairly robust initial account on asynchronity and the social in social network games. But, especially because this form of gaming is relatively young and technology is changing faster everyday, it is vital to see how our changing social interactions are shaped by new technologies and asynchronous communications. My prediction is that the social will be adapted to our needs, but that it will never go away.

NOTES

1 – Introduction

1) See chapter two for the reasons why I prefer using the terms social *network* games and social *networking* sites instead of other often used terms as social games and social network sites.

2) I use the term affordance following Norman (2002 [1988]): 'the term *affordance* refers to the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used' (p.9, emphasis in original).

3) *CityVille* is currently still the largest game on *Facebook*, while *FarmVille* ranks third with a monthly active user base of almost 34 million ([http:// statistics.allfacebook.com/applications/leaderboard/-/-/m/desc/5/](http://statistics.allfacebook.com/applications/leaderboard/-/-/m/desc/5/), data from August 14, 2011).

4) To avoid confusion, let me state here that I will use the term MMOG only for the large scale graphical virtual worlds like *World of Warcraft* or *EverQuest.* Social network games have a lot in common with these MMOGs and they are also played online by a massive amount of players, but I want to keep these two categories apart for the sake of clarity.

5) A fun fact that was once displayed when I played *Bejeweled Blitz* (PopCap Games, 2010) was that 'in the amount of time people have spent playing Bejeweled Blitz you could have walked the entire Great Wall of China 261,780 times!' (Bejeweled Blitz Fun facts #121).

2 – Social Network Games, Asynchrony and Social Multiplay

1) Even though it might be argued from a formal game definition perspective that some of these games are not games as they lack clear and final outcomes. See for instance Salen and Zimmerman (2004) or Juul (2005).

2) To use the word 'local' might seem a bit strange within global network systems like social networking sites, but I mean here that these social network sites gained a large critical mass of users in these countries.

3) Facebook is globally closing in to 700 million users! (2011, May 30). *Socialbakers*. Retrieved June 06, 2011 from: http://www.socialbakers.com/blog/171-facebook-is-globally-closing-in-to-700-million-users/.

4) Of course, you could argue that 'the individual' can also be seen as content, and advertising companies thankfully use all the freely shared information as such, but I still think that there is an important difference between the two.

5) This problem is relatively similar as the one apparent in my discussion of games being both object and process later on in 2.2.

6) The nomenclature of the specific interactions and parts might differ per social networking site. Like I did here, I will use the ones from *Facebook* throughout this thesis for consistency, both because it is the leading social networking site world-wide and also the one researched in this thesis.

7) As mentioned before, these profiles can also be used to represent groups or products instead of an individual. One of the main ways in which MySpace became popular has been because it allowed artists and bands to create profiles (see Boyd, 2007). However, these kind of profiles are usually more marketing-oriented and as I am mainly interested in how the affordance of profiles on social networking sites is related to the playing of social network games, these fall outside the scope of this thesis.

8) Turkle (2011) describes how she had to decide how to use her Facebook profile: "I had to decide between 'friending' plan A (this will be a place for people I actually know) and plan B (I will include people who contact me because they say they appreciate my work)" (ibid, p.182).

9) I use text here in the broad sense, not only referring to written text, but to any culturally produced sign system.

10) This is one of the reasons for the Greek philosopher Plato (2002) in his *Phaedrus* to claim that speech is superior to writing as writing lacks the context of the moment of performance. A more recent version of this argument can be found in Barthes' (1977) essay *The Death of the Author.*

11) Since the inception of Game Studies as a separate academic discipline around 2001 (cf. Aarseth, 2001) various authors have tried to define games: among others Wolf, 2001; Smed & Hakonen, 2003; Salen & Zimmerman, 2004; Juul,

2005; Malaby 2007 and Tavinor, 2008). All this work usually builds upon even earlier work by authors like Huizinga (1955), Caillois (2001 [1961]), Avedon (1971), Gadamer (2004 [1975]) and Suits (2005 [1978]).

12) Two major misunderstandings or verbal disagreements have already haunted the short history of game studies, the 'narratology versus ludology debate' and the 'magic circle debate'. Both can mainly be attributed to differing attitudes towards what part of the game we are analyzing, what method or perspective we use in our analysis or what we include or exclude from our game definition. I lack the space to elaborate on both debates here, but for those interested in the narratology versus ludology debate see chapter eight of Egenfeldt-Nielsen et al. (2008) for a comprehensive overview. For those interested in the magic circle debate see chapter nine in Salen and Zimmerman (2004) for the original adoption of the magic circle concept based upon Huizinga (1955) and then see for instance Copier (2007) for some of the critique and for instance Juul (2008) for a defense.

13) The confirmation bias is the interpretation of the data as supporting the hypothesis. An example related to games would for instance be a study that employs the hypothesis that games will lead to violence. Any result that resembles violent intent (for instance arousal) will then be interpreted as supporting the hypothesis. Of course, the opposite is also true: When you deem games harmless beforehand, you are more likely to attribute changes in behavior to other causes than the playing of a game.

14) See Lanier (2010) for an interesting take on how technology presumes to know things about us.

15) It must be noted here that with asynchrony I do not mean the interaction between nodes in a network known as asynchronous network I/O, which is the term for one possible way in which network traffic is handled by socket connections. I reserve the term asynchrony throughout this thesis for the affordance that a game does not require synchronous interactions.

16) Bogost (2010) argues in hindsight that maybe his game company (Pervasive Games) should have used this potential for asynchrony in casual games more, even though he now considers social network games as 'bad'.

17) The difference between my approach and Bogost's (2004) becomes clear in the following passage from his article: 'I would argue that board games deemphasize the breaks between individual player's turns. [...] Indeed they

may facilitate strategic reflection on the state of the board, but such matters are […] not an outcome-motivated design decision' (p.3-4). I would argue, however, that this strategic reflection on the board is an affordance of board games and thereby qualifies as asynchronous game design.

18) Note here that I deviate from Bogost by my use of the term asynchrony instead of asynchronous multi-play. I do this on purpose, as I will subdivide this larger category of asynchrony in flexibility and asynchronous multi-play in chapter four.

19) See for example Stenros, Paavilainen and Mäyrä (2009) on an account how sociability can even be found in single-player games.

20) See chapter five for a more thorough description of 'solo' play in multiplayer environments.

3 – Researching Social Network Games

1) Nowadays *Facebook* allows you to hide or block certain applications, leaving your wall much more convenient and manageable and without unwanted 'spam' from social network games.

2) http://statistics.allfacebook.com/applications/leaderboard/-/-/m/desc/5/, data from August 14, 2011.

3) After careful consideration I left Zynga's and *Facebook*'s second most popular game, *Texas HoldEm Poker* (Zynga, 2007) with around 35 million monthly active users (same source as in note 2), out of the study as the game itself is centered around synchronous instead of asynchronous multi-play and therefore is one of the few exceptions harboring real-time multi-play.

4) *Facebook* has a games tab on your profile, that lists, among other things, the games that your friends are playing, up to a maximum of three.

5) In most games this will be the maximum obtained level. However, depending on the game and its ranking lists, this might also be a certain type of score. It must be noted here that all these measures are fairly subjective, as the level or high score is not always a good measure for the time investment in a game. Yet, it gives some indication on the time that I invested in researching these games.

6) I must add here, that there is a way out of the need for neighbors and that is spending 'real-world' money. This money can basically bypass any multi-player

act or quest objective that requires additional time. This is an interesting mechanic as most multi-player games (usually large MMOGs) prohibit 'real-money trade' as it is frowned upon by a large part of the player base and termed as cheating (see for instance Castronova, 2005; Consalvo, 2009; Glas, 2010). I will deal with this in a bit more detail in my discussion on flexibility in social network games in 4.2.

7) I need to distinguish here between the mastery scores as emphasized in mastery type social network games and the mastery of crops and trees in a management type game like *FarmVille.* In *FarmVille* you gain 'mastery' by harvesting crops or trees. In essence it is based upon the amount of crops or trees that you harvested and not on a specific skill in harvesting.

8) Again, you *can* pay your way out of this by spending Farm Cash, which is usually bought as you only receive one Farm Cash for leveling up and in rare cases as quest rewards.

9) Before recently there was also a comparison ranking list with all the players on *Facebook*, but possibly they removed those because it was headed by players with the highest score possible, possibly resulting from a cheat displayed on YouTube (Deadmystery1, 2009, December 26): [http://www.youtube.com/ watch?v=09RuIFULN3M](http://www.youtube.com/watch?v=09RuIFULN3M).

10) There are two versions of the game, both playable on *Facebook*. In the default version you are 'chasing the dreams' and get three 'wishes' as lives. The whole theme is very colorful with pink platforms, stars as obstacles and very calm and soothing music. In the so-called 'Heavy Metal version' you are 'preparing for agony' as you get three 'nightmares' as lives. This version has a red and dark colored theme, pentagrams as obstacles and a heavy metal song as music. The mechanics in both version are completely the same.

4 – Asynchrony in Social Network Games

1) Exceptions do exist of course. One example in this respect is the auction house in *World of Warcraft*, where goods that you put up for auction remain available for sale during a fixed (real-)time period, whether you are playing or not.

2) In a later version of this model (see Juul, 2005, p.141-162) Juul calls this fictional time, as he deems it a more descriptive term (ibid., p.208). This is probably due to the fact that Juul reserves event time to games with a story

world. Therefore, according to him, a game like *Tetris* (Pazhitnov, 1985) only has play time as it lacks a fictional world. As I disagree with him on this point, however, I deem event time the more useful term.

3) In his later version of the model (Juul, 2005) he notes that play time is rather similar to discourse time, although he notes five crucial differences. However, discourse time in narratology is really about the ordering of events and in games, as Juul notes justly, this must be chronological as the player is the one setting the events in motion. Therefore I find it more valuable to see play time as the chronological real world time expended on playing the game like Hitchens (2006) does, as this emphasizes the linearity of expending time. It must be noted here, however, that Lindley (2005) *does* distinguish a discourse time level for games in a rather unproblematic sense. However, he does not elaborate on how this should work.

4) I left Tychsen and Hitchens' (2008;2009) update of Hitchens' (2006) model out of the table because Tychsen and Hitchens (2008, p.6) write themselves: 'that not all seven layers are applicable to all kinds of games.' The model would have a lot of overlap with Hitchens (2006) model anyway.

5) At least that is how a lot of the critics see the time spent on these games, see for instance , Bogost (2010), Liszkiewicz (2010) or Caldwell (2011).

6) In *FarmVille* you plant crops and even though different crops take a different amount of time to grow, the fastest growing crop can only be harvested after two hours, essentially doing the same as an energy system does.

7) Although I won't go into this in detail, I do see more of a problem with spending real-world money in mastery type of games when you can buy things that boost the measure of skill. As such it *does* provide unfair competition. But when you can buy energy to play more, like for instance in *HotShot* or *Gardens of Time* I do not really see a problem as the mastery scores remain 'clean'.

8) Like basically all games do and like *Facebook* does I will continuously use the word 'request' for any kind of interaction between two players that is displayed on the game requests tab, even though it might be a gift for instance, instead of a request for help.

9) As the spam increased with more people playing social network games several *Facebook* pages started to appear that made clear that these people were annoyed by all the messages and could not care less about someone else's game status. See for instance the 'I don't care about your farm, or your fish, or

your park, or your mafia!!' page (see: http://www.facebook.com/pages/I-dont-care-about-your-farm-or-your-fish-or-your-park-or-your-mafia/102844296425449).

10) Another exception is *Ravenwood Fair* where you will not see the specific actions that your neighbor has performed on your fair or in your mine.

5 – The Social in Social Network Games

1) This seems highly similar to the Turing test (Turing, 1950) with people trying to decide whether the one with whom they are communicating to is human or not.

2) A similar experience can be observed in the documentary *The King of Kong: A fistful of quarters* directed by Seth Gordon (2007). Here, two players compete for the world-record on the arcade game of *Donkey Kong.* When the protagonist Steve Wiebe is playing live in the arcade hall people flock to look over his shoulder as it becomes apparent that he might reach the 'kill-screen'.

3) Although Oldenburg mainly speaks about 'brick-and-mortar' third places like bars and bookstores, several authors have tried to apply the notion to virtual places and games (See for instance Ducheneaut, Moore & Nickell, 2004; Soukup, 2006; Steinkuehler & Williams, 2006; Rao, 2008).

4) Of course, although it might feel as a 'live' audience, the presence of an avatar is not the same as having a real audience as the person behind the avatar could be away from her keyboard, in another window, or in some cases even operated by a computerized script instead of a human being.

5) People might not have their own picture on their profile, but in most cases it will be a picture that the person herself has chosen and thereby says something about the person behind the profile.

6) If you want to see some examples of what people have done with their farms, execute a Google pictures search on 'farmville art'.

7) Di Ines & Abdelkader (2010) describe twenty-three different game features in social network games that adhere to social interaction. However, seen from a broader perspective these match the four that I will discuss in this section.

8) It must be noted that this option in the game usually only shows that someone has started to play the game and therefore has an available persistent game state. It provides no indication, however, whether someone is still playing the game or when she logged in last. There could be two reasons for this. The first is technical as the game can not distinguish between someone that has stopped

playing or is just taking a break from the game (see also my discussion in chapter four on whether the waiting time would constitute playing time from the game states perspective). The second reason could be marketing related as inviting a player that has stopped playing, might persuade her to come back.

9)   It must be noted here that I have left out the option of bypassing the need for neighbors by spending real-world money. Whether you see this as a viable solution or cheating provides a moral dilemma of its own.

10) http://forums.zynga.com/, and then you can click on the forums for the specific game.

11) The most famous dilemma is the prisoner's dilemma (Rapoport & Chammah, 1965 in: Thaler, 1994). Two players have jointly committed a crime, but have been caught and placed in separate cells. If both players cooperate with each other by telling nothing they both get a minor sentence of one year. If either one defects and decides to confess and testify against the other, he will go free, while the other receives a ten year sentence. If both confess they both receive a five year sentence. This is an interesting game in theory, because the dominant strategy (or the best choice for a single player) is to confess as it will either get you free or a maximum sentence of five years instead of ten. However, 'real' people are far more inclined to remain loyal to their partner in crime, risking ten years in jail.

12) The additional comment varies, but the score is always displayed. In the heavy metal version of the game, the comments are a bit more provocative though (for instance '…and thinks you could use a little toughening up')

13) http://statistics.allfacebook.com/applications/leaderboard/-/-/m/desc/5/, data of August 14, 2011.

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