The Virtual World: An Investigation of Players’ Social Interactions in and out of the Online Game

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by

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Abstract

Online game players start to face the advantage and disadvantage in many aspects brought by addicting in the virtual world. Throughout the advantages and disadvantages brought by playing online games, the most serious one is the change of social interactions for players. It impacts players’ social network not only in the virtual world but also in real life.

The aim of this research is to investigate the motivations for playing online games and players’ social interaction in and out of the game.

There are three parts in the literature review stage. The first part is to introduce the MMORPG in three fields. The second part introduces the motivations and types of online game players. The last part discusses deeply about the core elements of online communities, online game communities, and the issues about offline interactions and the impacts of social networks for players.

The questionnaire survey examine players’ demographics in and out of the game, their motivations and types for playing MMORPG, and the ways they extend their virtual relationships into real life. The results gathered from the survey identify the key issues done by literature review.

This research found that different players may have different motivations and playing types. The main differences come from genders, demographics, and personality traits of players. Moreover, the game designs and online game
communities also influence players’ social interactions critically. Finally, playing online game will create positive effects of players’ social network online but present negative effects on social relationships in real life.

This research concludes that MMORPG provides a new world for players to socialize, help with each other, and escape from real world issues. However, it also impacts on players’ social networks and time managing in real life by means of long-term game playing.
Acknowledgement

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Chapter 1 Introduction

The introduction chapter is to point out the aims and background of this research, the motivations, and the outland of this research will be presented in this chapter.

It comes with following structures. Section 1.1 is an introduction of the background of the study. Section 1.2 will introduce the aims and the objectives of this research. Section 1.3 will present the methodology and Section 1.4 is the outline of the research.

1.1 Background of the Study

The entertainments are no longer only played outside. Internet and computer let people to gain knowledge, information, news, and communicate with each other at home. As Franzen (2000) mentioned, the internet has made everything – including socializing – more efficient. We may consider internet as a tool like the invention of the telephone which lets us to communicate without any limitations by means of e-mails or online chats. It helps social activities more efficient and freezes up additional leisure time (Wellman & Haythornthwaite, 2002).

Throughout all functions provided by network today, entertainment function has created a big amount of business opportunities and nowadays online game, which also be known as MMORPG (Massive Multiplayer Online Role-Play Game) has become a main stream of the online game recently.
From a report of a professional game website in Taiwan called BAHAMUT shows that the output of online game market in 2006 is more than 10 billion NTD, and there are about 5 million online game populations in Taiwan. More than 500 thousands of players play online game at the same time (http://gnn.gamer.com.tw/5/27295.html). Another report shows that there are more than 100 millions online game populations in China 2007. The output of online game market in China is 11.35 billion MCY, and grows 74.6% (http://gnn.gamer.com.tw/6/30566.html). Hence, the populations of online game players grow rapidly in recent years, especially in Asia.

Among this online game market, MMORPG has gradually become more and more popular and has attracted millions of people to play it as a daily leisure activity. However, some of them start to addict on playing online game rather than manage their daily life or spend their times on their activities for relations. Some fights or argues between players and their relations then happen and become more and more serious recently. However, some players had announced that it helps them to make more friends in both online and offline instead of getting nothing good from playing it.

Online community is a core element of MMORPG. Unlike normal offline game previously, MMORPG gives a chance with a virtual world where allows people to compete, to venture, to play, and to organize with their friends and strangers online. Does this phenomenon provide good influence for online game players? Or it simply impedes online game players’ life?

Some of video game studies far from now, have ignored the fact that why people choose the media they consume and the reasons for doing so (Sherry, 2001; Sherry &
Lucas, 2003). The interactions between players and their friends, no matter played online games or not, are also influenced by the online game culture. Most of people do think if people play too much online game, they will lose their social capital gradually.

Most of reports are to research about the online game designing rather than to emphasis on what will happen after they met with each other in the virtual world. Is there any connection between virtual world and real world? And how will people feel after they cross virtual world to meet with each other in the real world? Do they continue to keep their new relationships or just abandon the relationships for some reasons?

Therefore, why people keep play online game and how people interact in both online and offline have become critical issues for study.

1.2 Aims and Objectives

The aim of this research is to investigate the influences of online game players.

To finish the aims, the objectives will be achieved as follows:

1. To understand MMORPGs in the aspect of the definition, history, virtual environment, avatars, and game designs.
2. To identify the motivations for play MMORPGs.
3. To find out the types of players and the reasons why they keep play MMORPGs.
4. To understand the online communities and online game communities in the aspect
of players’ interaction.

5. To investigate how online gamers develop meaningful relationships outside the game.

1.3 The Methodology of the Research

The methodology of this research contains two parts: primary research and secondary research. The primary research is quantitative approach by means of questionnaire, and the secondary research is from literature review.

The primary research is to analyze the data collected from the questionnaire. The questionnaire will be distributed on the websites which involved with the online game in Taiwan.

The secondary research is to research from literature review. The literature review will provide this research plenty background knowledge of the research area and the information of human behaviors in the cyberspace.

1.4 Outline of the Research

A framework of the research structure is presented in Figure 1 in order to show the outline of this research.
Secondary Research (literature review)
- To briefly discuss the types of online games, the history of MMORPGs, and the game designs.
- To introduce the types of players and the motivations for playing online games.
- To know the way players interact in and out of the virtual world.

Primary Research (questionnaire survey)
- To get information about online game players’ demographics
- To find out the motivations for play MMORPGs and types of online game players.
- To investigate the players’ social interaction in the virtual world
- To know the way players extend their online relationships into real life.

Data analysis from questionnaire survey

Finding and Results
- To analyze the demographics, the motivations, and types of players in the aspect of social interactions.
- To analyze the influences of players’ social interactions in both virtual world and real life.

Discussion, Conclusion, and Recommendation
Chapter one is the introduction of the dissertation. It includes background knowledge of the study, aims and objectives, and methodology of the research. It also provides the outline of the research.

Chapter two is the literature review. It provides deeply and widely understanding about the currently online games. Moreover, it also presents an overview about players’ types and their motivations for play online game. Finally, the online communities and social interaction among players will be discussed, and the way players extend online relationships into real life will be examined.

Chapter three introduces what methodology is used in this research. The reasons of why the methods are chosen for this study will be presented. Finally, how the questionnaire is designed will be described, and the processes of the survey will also be introduced.

Chapter four is the data analysis and findings for the questionnaire survey. The survey results will be shown in chats combine with description for each question. It is divided into three parts: demographics and motivations of players, social interactions of players, and the relation between virtual world and real life.

Chapter five will discuss the results and findings in chapter four by combining with the knowledge described in chapter two. The discussions will also cover the social interactions among players, the comparison for each data in the survey, and the impacts for playing online games.

Chapter six is the conclusion, recommendations, and research limitations. A general
conclusion will be presented in this chapter, and the achievement of each aims and objectives will also be described. Recommendations for further research will be given.

A fully references, glossaries, and appendix for research questionnaire are provided in the end of this research.
Chapter 2 Literature Review

In order to get more knowledge and understandings related to online games, online communities, issues about the players’ motivations, and online game communities, the literature review is provided in this chapter as a form of secondary research.

Section 2.1 will briefly introduce the online games. Firstly, the type of online games will be presented. Secondly, the background information of MMORPGs will be presented. In the third part, more details about MMORPGs will be introduced. Finally, a summary will be given.

Section 2.2 is an overview of motivations of people who play MMORPGs, and types of online game players will be introduced.

In section 2.3 will briefly introduce the types and the core components of the online communities. Moreover, several elements of the online game communities will be introduced, and finally, the issues about offline meetings will be discussed.

2.1 Online Games

2.1.1 The Types of Online Games

It is necessarily to have a general understand of the online games in order to future study of the online game communities, why people like to play online games and the interaction between players with players. Online game, then, has become a place to
test hypotheses about civic engagement, social capital, and the displacement of face to face interactions (Williams, 2006). Thus, online games are considered as the most promising environment and theoretical implication of social interaction in the collaborative virtual environment.

According to several researchers, online games can be categorized into three main types: Online games or The Massive Multi-player Online Role Playing game (MMORPG), Match Game or Network game, and Web Game (Nielsen, 2006; Laird & van Lent, 2000; Niederberger & Gross, 2002; Chen & Chen & Hwang & Korba & Song & Yee, 2005).

1. Online Game / MMORPG: An online game which allowed people to interact with each other in the virtual game communities for their different goals, skills, and interests (Mulligan & Patrovsky, 2003). There are several types of online games such as action, role-playing, strategy, simulation, and team sport games. Normally players have to pay the “charge fee” in order to continue to play online games. The examples of this kind of games are: World of Warcraft, EverQuest, Star Wars Galaxies, and Ultima Online.

2. Network Games or Match Game: Some of them are named as MRTSGs. Network game allows players to play individually or to group from 2 to 16 other players to competitive with each other to win a match. It gives players a platform to play real time battle environment. In order to play it, players should buy the game software and connect with each other by either internet or LAN (Local Area Network). Warcraft III, Counter-Strike, and Age of Empire are typically examples of this kind of games.
3. Web Game: The characters of Web Game are: easy to play, and mainly for leisure activities. The main purpose of Web Game is for fun. Most of them are board games (chess, checkers...etc.) and classical little games such as car race and billiards.

Among them, one of the most famous online digital constructs known as MMORPG, which attract millions of users participate in the virtual environments (Woodcock, 2004). Hence, it is critical to discover the essences of MMORPGs in order to gain more opportunities to understand the ways which people interact, use, communicate, and live in these virtual environments.

Further descriptions of the definition and history of MMORPGs will be presented in the next section.

2.1.2 History and Definition of MMORPG

2.1.2.1 The History of MMORPG

It is unavoidable to describe the history of the MMORPGs in order to find out some key elements and settings which lead players to interact naturally in the virtual environment. Despite the seeming novelty of the MMORPGs, it can be traced back to several older traditions both in gaming and virtual multiuser spaces. Tabletop gaming, most notably Dungeons and Dragons (D&D), provides some of the basic structure of many multiuser table games (Taylor, 2006). While it is commonly thought that MUDs (Multi-User Domains) descended from table-top role-playing games (RPGs) such as
D&D, the two genres emerged around the same time and co-evolved beginning in the early 70’s (Koster, 2002), and become popular during the 80’s. Hence, as Yee (2006) described, MMORPGs are a new class of MUDs-online environments where multiple users can interact with each other and achieve structured goals.

MUDs are a virtual environment which composed by text-based hosted on the computer that allows players to play with each in the virtual text-based world, and provide a model of virtual physical places as well as face to face interaction. The first MUD is created by Roy Trubshaw and Richard Bartle, students at Essex University in 1979 (Bartle, 1999). It is an adventure game that allows players to join a persistent world by using Telnet or any of the client programs. People (players) in the MUD became one of the first online communities which were soul bond inside of the game world.

As the graphical and new technology of the modern computer and network boomed in the mid-90s, and widely accessibility available of the internet, the online game had a big chance to change itself from MUD (text-based environment) into graphical front-ends. In 1997, the graphical multiuser game world, Ultima Online, was emerged and is recognized to be the first MMORPG. Ultima Online is often seen as the milestone of a way to distinguish the MMORPG from other existing graphical MUDs because of its popularity, persistent, graphical social spaces, genre in online environment, and lively player cultures. The second MMORPG, EverQuest, launched in 1999 and quickly achieved a sustained user base of 400,000 and remains the most popular MMORPG in North America as of 2004 (Corpnews.com, 2004). In 2004, one of the most popular MMORPGs to date, World of Warcraft (WoW), took the big storm of the online game world.
2.1.2.2 The Definition of MMORPG

As mentioned above, MMORPG has become a very successful industry, new novel application, and become the leader in the 3D entertainment of the world. It combines not only multimedia, sound effects, and computer interactions, but also a variety of communication functions. Moreover, MMORPG is the only existing naturalistic setting where millions of users voluntarily immerse themselves in a graphical virtual environment and interact with each other through avatars on a daily basis (Yee, 2006). Thus, it is necessarily to give MMORPG a definition in order to do further researches.

There are a lot of definitions for MMORPG. According to several studies, the definition of MMORPG is: By definition, MMORPG users are part of a persistent world of at least 128 up to 2000 users. A persistent world is a world that exists independent of the users. More importantly, events and interactions occur in the world (driven by other users) even when the user is not logged onto the persistent world. The players online by the fact that they are played by multiple gamers naturally at any one time whilst connected to a network of some form and games as they have some aspect of fun or enjoyment to them (Yee, 2006a; Taylor, 2006; Mulligan & Patrovsky, 2003; Slater, 2004; Newman, 2002).

Hence, players can evolve in a never-end world by means of their avatars. The activities of MMORPG are very lifelike, highly dependent on players’ activating, and mainly focus on players’ interaction in both NPC (Non-Playing Characters) and other flesh players. The social networks and communities get formed almost automatically in the virtual world. Thus, for MMORPGs players, communication abilities and
cooperation abilities are really important in the online virtual world (Kolo and Baur, 2004). Hence, this leads to the questions of this dissertation, “Why and what kind of players choose to play MMORPGs?”

In the following section, it would focus on introducing the game design of MMORPG in the case of WoW in order to get more concrete ideas about how the game designs influence players’ interactions in MMORPGs.

2.1.3 Game Designs of MMORPG

MMORPGs are vast worlds with their own intriguing characteristics and specific features. These worlds may, for example, be about adventures taking place in magical realms, or social interactions in virtual environments (Kujanpaa & Manninen & Vallius; 2007). In this section, the most famous MMORPG: World of Warcraft will be taken as an example of the game designs from three aspects: The Avatars, Game Play and Interface in MMORPGs.

World of Warcraft (WoW) is one of the most complex MMORPGs among the online game. However, it also inherits most of common design elements from its ancient masters – D&D, RPGS (Role Playing Games), and the MUDs. Much like previously MMORPGs, WoW encompasses several classical formulas, such as features, characters, races, skills, monsters, NPCs, and dungeons. Players can create a virtual avatar and adventure freely across the world in real-time 3D graphics, alone or together, “…forming friendships, slaying monsters, and engaging in epic quests that can span days or weeks. (Blizzard, 2008a)” In order to view and play WoW, players must purchase or download the specific client software and install it on the computer.
Then, players must pay the monthly subscription fee to access the realms (servers).

### 2.1.3.1 Realms

There are several realms created simply because it is impossible for millions of people to play *WoW* in the same place. Different types of realms may critically influence the players’ motivations in adventuring the virtual world. According to the game settings of *WoW*, there are two types of realms: Normal and PvP.

1. Normal realms: In normal realms, the focus of the players tends to center on player vs. environment objectives, such as defeating monsters and questing in the world. Normal realms offer a more accessible way to experience the player vs. environment content of *World of Warcraft* (Blizzard, 2008b). In other words, normal realms are more emphasis on the interaction between people to the environment. Players can group and adventure together to defeat every encounter, and to social safety in all areas of the virtual world. For example, female players who like to socialize and role play are much like to choose this kind of server.

2. Players vs. Player Realms: Contrast with Normal realms, Player vs. Player realms have the same PvE objectives and content as Normal realms, but have the added element of perpetual faction vs. faction combat in most of the world. Various regions of the world are considered contested areas, meaning PvP combat is possible at any time (Blizzard, 2008b). This kind of realm somehow is very attractive to people who like to combat or willing to fight against with the other faction players.
Player must to pick a “fiction” from the biggest two factions in the *WoW*: the Horde and the Alliance. The Horde is comprised of the Orcs, Trolls, Taurens, Blood Elfs, and Undeads; the Alliance is comprised of the Humans, Dwarves, Gnomes, Draenei, and Night Elfs. Choosing a faction affects a player’s experience and social interaction significantly, because different faction cannot allow communicating with each other.

### 2.1.3.2 Avatars

As mentioned above, the game designs of MMORPGs are inherited from D&D and RPGs. Both games allowed users to create characters based on numerical attributes and template roles with different strengths and weaknesses (Yee, 2006). Once players choose their realms and log in into the *World of Warcraft*, the first thing they have to do is to control over the different settings for their avatars. Players are given large degree in selecting their avatars, such as appearance, classes, and races. MMORPG character generation systems are usually limited to dealing with two factors: Avatar appearance and character stats/skills (Tychsen & Tosca & Brolund, 2006).

There are nine character classes and ten races in the *WoW*. The character classes can be roughly divided into types using familiar MMORPG archetypes (Ducheneaut & Moore, 2005): the “melee” classes that have to take damage from monsters or damage monsters via melee weapons (e.g., Warriors, Paladin, and Rogue), “ranged” classes that attack monsters from a distance with range weapons (e.g., Hunters), “casters” using various forms of magic to make damages to monsters (e.g., Mage and Warlock), “healers” using defensive magic or healing magic to help other party members (e.g., Priest, Shaman, and Druid).
The player inhabits the avatar in the gaming (James Newman, 2002). The avatar works as an empty shell in the virtual world and allows player to enter the shell to become a soul of the avatar and makes it vivid for player’s traits and abilities. Kromand (2007) categorized avatars into four types: the central-open avatar, the central-closed avatar, the acentral-open avatar, and the acentral-close avatar. Among them, role-playing games are typically belonged to central-open avatar, which means that this kind of avatar is highly depended on player’s abilities and knowledge of the game mechanisms, and is allowed player to control its progression of skills, levels, social interaction, and the emotional aspect. Hence, players can personalize their playing experience, which is a key factor in making players feel involved in the virtual world. Personal experience in game will influence player’s social interaction in both online and offline.

2.1.3.3 Game Play

After players’ avatars (characters) are created, they can begin adventuring in Azeroth, a vivid 3D graphic environment and fantasy world which is full of magic, dangerous creatures, multiple cities, questions, and three huge continents. Players can either explore the world alone or in the company of others in order to doing questions and taking adventures in the “instances” (dungeons). After completing quests, players will earn “experience points” and some rewards, such as gold, equipments, and reputation from factions in the game. Once players reach progressively highest levels (70), the main reasons for them to play MMORPGs will change. Some of players will keep improving the abilities and skills of their avatars, some of them will start to socialize more frequently with other players, some of them will try to discover new areas in the virtual world, and still others may simply quit or leave their main characters and try to
level up their twinks (or called Alts, please see the Glossary). For instance, a raid officer in a guild may need a break and play an alternative avatar that only be known by his / her close friends.

At the individual-player level, there are both mechanisms to facilitate making new connections with other players as well as sustaining them (Taylor, 2004). Normally the game allows players to form temporary groups of up to 5 people in order to solve some quests. Moreover, player can form temporary “raid groups” from 10 up to 40 people for high-end instances and battleground. Although these teams above are temporary grouped by players, they still play very important roles in communicating function among the players. More specific about the how group affect social networks in online game will be discuss in Section 2.3.2.

The world of Azeroth is divided into two main continents, and there is still another continent called “outland” in the World of Warcraft. There are three capital cities (Ironforge, Shattar, and Orgrimmar) separated in these three continents. The capital cities allow players to auction their stuffs for commerce, to transport to other areas, and to see with each other. Thus, they tend to be popular for players and they also provide communication function indirectly.

WoW also provides world PVP, battlegrounds, and arenas that allow players to compete with each other in both Azeroth and some specific instances for battlegrounds and arenas. Since the history settings for WoW are highly depended on the famous MRTSG called “Warcraft III”, WoW challenges not only the ways in which conflict is played out in the game, but also draws the player into an awareness of consequences of being at war (MacCallum, 2007). This kind of game design
typically attracts people who like to taunt, harass, and complete with other players.

2.1.3.4 Interface

Figure 2 The interface of *World of Warcraft*

![Image of World of Warcraft interface](source:image_url)

Source: World of Warcraft® provided courtesy of Blizzard Entertainment, Inc.

The interface provides a gateway for players to interact with both game and other players as seen in Figure 2. There are several rows of buttons located in the bottom and right of the screen, which allow players to control their avatar that can be seen in the middle of the screen. Once players log in, they will automatically join some channels according to their previous settings in the game world. For example, the general channel, trade channel, local defense, and LFG (Looking for Group) channel are belonged to zone channel. In addition, players can use “say” or “yell” functions as a communication gateway that can be heard by all players nearby or in a certain radius. Players can communicate with each other by texting words in the specific
channel. Moreover, players can communicate in private by using “tell” to create one-to-one communication, and players can create their own private channels that only allow players who know these private channels. Finally, there are plenty of emotion functions that provided by the game designs for players to express their emotions by not only texts but also some actions and sounds played by avatars, such as “sit”, “jump”, “laugh”, and “dance”. For instance, some players may operate their avatars to dance with each other or make some rude emotions to taunt other players.

The reason why most of players who like to play online game instead of offline game is simply because of its communication function. For a MMORPG, the key point is that game mechanics and social architectures have an immense impact on the resulting social formations and interactions within these spaces (Williams & Ducheneaut & Xiong & Zhang & Yee &Nickell). The interface designs of MMORPGs hence critically influence players’ social interaction in the game.

2.1.4 Summary

In summary, online games have become big storm in the game market and MMORPGS have dominated the online entertainments. As three types of online games are introduced into the online entertainment field, players can choose whatever online games which attractive them. Moreover, the history and background of MMORPGs could provide several critical elements for us to understand the inherences of MMORPGs and how these inherences affect the game designs of currently MMORPGs. Finally, through the brief glance over the game designs of WoW, it is not hard to find out that game designs significantly impact players’ social interaction on the virtual game world.
2.2 The Motivations for Playing MMORPG

Apart from exploring a previously unmapped territory, the Norrathian Scrolls demonstrated that different players play EverQuest for very different reasons (Yee, 2002). For example, male players are more likely to achieve their goals in the game while female players are more emphases on interacting with other players. Different players are triggered by different personalities and motivations to play the online games. In order to understand different players’ motivation in social interacting in the online games, it is necessarily to find out the types of players and their motivations for playing online games.

In this Section, the types of players, the motivations for them to play online games will be discussed briefly, and a summary will be made.

2.2.1 The Types of Players

To identify a player’s type is hard and ambiguity. A well-known player taxonomy is Bartle’s elaborate Player Types. In Bartle (1999) analysis of player behavior in MUDs, he tries to identify four different player archetypes and two dimensions of playing style. Four approaches to playing MUDs are identified and described. These approaches may arise from the inter-relationship of two dimensions of playing style: action versus interaction, and world-oriented versus player-oriented (Bartle, 1999). By merging the two dimensions of playing style, it is easy to create a graph of axe with four quadrants which represent the source of players’ interest in the MUDs. The
X-axis represents an emphasis on players (left) to an emphasis on the world (right); the Y-axis goes from top to bottom representing as acting to interacting. These four quadrants are the basic definitions for four types of players as shown in figure 3:

**Figure 3 the twin axes graphic of four types of players:**

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<table>
<thead>
<tr>
<th></th>
<th>Acting</th>
<th>Interacting</th>
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</thead>
<tbody>
<tr>
<td><strong>Players</strong></td>
<td></td>
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<tr>
<td><strong>Killer</strong></td>
<td></td>
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<tr>
<td><strong>Achievers</strong></td>
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<tr>
<td><strong>World</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Explorers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socialisers</strong></td>
<td></td>
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</tr>
</tbody>
</table>
```

Resource: Bartle’s Player Types.

Here are some descriptions for four types of players:

1. Achievers: Achievers regard of treasure (e.g., money, experience points and equipments), gathering and rising in levels rapidly. They are very driven by in-game goals. They desire to gain powers for their avatars as soon as possible. Some explorations are necessary only to find new resources that help for them. Socializing is only a way for them to find out what other players know about the method to accumulate their treasures in a rapid way.

2. Explorers: This kind of players are try to seek as much knowledge, such as mapping the geography, finding new areas, discovering new way to understanding
game mechanics in the game as they can. They delight to try progressively esoteric actions in dungeons or in wild. Moreover, they like to catch up some interesting pictures (e.g., bugs), and find out some new ways to defeat hard dungeons. Socializing can be a tunnel for them to gather the information they like in order to help themselves in creating new ideas.

3. Socialisers: Most of them interest in people. They like to role-play and to converse with other players in the backdrop of the virtual world. Interactions are meaningful to them, such as joking, listening, and entertaining. They like to observe people. The ultimate goal for them is to form a wonderful relationship to other players and may probably want to elongate the meaningful relationships into real world. Female players tend to become Socialiser because they like to interact with people naturally.

4. Killers: Killers usually gain their own satisfaction by harassing or inflicting anxiety on other players. The more massive the chaos caused the more killers’ pleasures at having caused it. Many killers are likely to require some killing score points for them to calculate their “hunting”. In WoW, most of killers are staying at battleground and arena in order to compete with each other and gain reputation (even if it is bad) from slaying either other faction players or companions.

2.2.2 Motivations for play in Online Games

There are plenty of motivations for players to play online games. Typically, the reason why people play online game comes from two categorizations: the players’ personalities and motivations, and the game designs. In the previous section, the game
design has been discussed. The main purpose of this section is to discuss briefly about the players’ personalities, and then categorize their motivations base on the ideas of Yee (2002, 2006b).

2.2.2.1 Personality Traits

There is little research on personality trait and life satisfaction among online games. Fortunately, a recent research done by Chen & Tu & Wang (2008) has compensated this gap. Personality trait is the sustained and consistent characteristic reaction of the individual under different situations (Costa & McCrae, 1989). Personality traits are extremely influence the way players act on their avatars and their social interactions on the online games. The most acceptable categorizations of personality traits recently and be applied to psychology, sociology, pedagogy, and management is the “Big Five personality trait factors” --- neuroticism, extroversion, openness to experience, agreeableness, and conscientiousness (Mount & Ilies & Johnson, 2006; Pirog & Roberts, 2007).

Neurotic persons are normally living under the negative experiences, such as fear, anger, guilt, and grief. They are hardly in controlling their emotions and dealing with their impulses under the pressure. Costa and McCrae (1992) assumed that neurotics demonstrate personality traits such as anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability. In some cases, killers will like to taunt or annoy other players simply because of their neurotic.

Extroversion persons are likely to social and talk with other people. They are social propensity. They are happiness, active, and also feel more self-confident, talkative and
more interest in initiative to social events. Players will this kind of trait tend to become a socialiser in the game and will like to develop their relationships to online friends into offline.

People who are openness to experience are more interested in imaginative. Individuals open to a variety of experiences are generally imaginative, more focused on feelings of heart, inclined to fine arts, appreciative, fond of diversity, hungry for knowledge, strongly curious, very independent in their thinking and judgments, unbiased, full of fantasy (Barrick & Mount, 1991; Thomas & Moore & Scott, 1996), and inclined to aesthetics, feelings, actions, and their own ideas and values (Costa & McCrae, 1992). A typical type of player who seeks to explore the game world could be counted as this categorization.

People who are agreeableness are easy to communicating with others. They are kindness, very enthusiastic, reliable and trustworthy. It’s an easy job for them to build meaningful or long term relationships with others (Digman & Inouye, 1986). Such kind of players may become leaders in the guild or group.

Conscientious individuals are usually very determined, disciplined, strong willed, and trustworthy (Chen & Tu & Wang, 2008). They are very achievement oriented, self-disciplined, and deliberate in their thinking (Costa & McCrae, 1992). If we try to merge it with Bartle’s player types, achievers will be the best example of conscientious people.

The results of Chen & Tu & Wang (2008)’s study shows that neuroticism has significant negative influence on game playing and life satisfaction. Both openness
and conscientiousness have significant positive influence on game playing and life satisfaction. Although this study is more emphasis on players’ satisfaction, it is still important because the satisfaction of players may also be influenced by their leisure activities and degree of satisfaction in their motivations on playing online games.

2.2.2.2 The Motivations

According to Su (1996)’s case study about the MUDs, the study found out that there are four kinds of motivations for people to play MUDs. They are: Self Approval, Anonymity, Social Learning, Avoidance, and Social Intercourse.

1. Self Approval: Players may try to satisfy themselves by means of exploring the virtual world, challenging their intelligence in dealing with quests and monsters, leveling their characters in order to enhance its powers, and dominating others (Rieber, 1996; Rouse, 2000; Su, 1996).

2. Anonymity: In the online game world, players can act different avatars. By means of playing different avatars, players may interact with others in different positions, such as raid leader, healer, or simply a member of thieves’ guild comparing with the real world. In one words, players can role-play identities which are differently with their real world identities (Bartle, 1990; Su, 1996).

3. Social Learning: online game is much like a tiny community. Because players can interact on time in the online game, they may learn or join some activities in the virtual communities (Rouse, 2000; Su, 1996).

4. Avoidance: Players do not have to obey some rules for the real world while they are playing online games. They are freely in doing anything in the virtual world. In doing so, they may forget some troublesome temporally. In one word,
Escapism.

5. Social Intercourse: Players can interact with new friends they meet in the online games, and maintain their social ties and activities at the same time (Ryan, 1995; Su, 1996).

These are basic four types of motivations for players to play online games. However, Yee (2002, 2006b) had developed a better way to understand player motivations concretely. In the first, Bartle assumed that there are four types of people who are motivated in playing online games. However, Yee tried to argue Bartle’s motivational types because most of information was not constructed from empirical data, but rather, from a long discussion among MUD wizards (Yee, 2002). He thought that 4 types model may overlap and it is better to understand player’s motivations through a method that observes players as flexible components rather than fixed types.

Yee pointed out five components (factors) to characterize player’s motivations: Relationship, Immersion, Grief, Achievement, and Leadership.

1. Relationship: In this categorization, the main reason of this factor is to desire to develop meaningful relationships with other players in the online game – usually in the form of a supportive friendship (Yee, 2002). Players in this factor usually tend to make good relationships with friends online. They usually like to talk about real-life personal issues and support emotional supportiveness for their online friends.

2. Immersion: this factor measures the desire to become immersed in a make-believe construct (Yee, 2002). They may enjoy being immersed in the virtual world or the avatars they play. They like to role-play their avatars, and enjoy to group with
other role-players. They also like to explore the history of the virtual world and the story about their avatars.

3. Grief: This factor measures the desire to objectify and use other players for one’s own gains. Their means may be both outward and subtle (Yee, 2002). On the outward, they may enjoy killing, harassing, annoying, and taunting other players in order to dominating them. On the subtle side, they tend to command other players for they own goals, and manipulating other players to satisfy their main satisfaction.

4. Achievement: this factor measures the desire to become powerful without the construct of a game. Players who score high on this factor try to reach the goals as defined by the game (Yee, 2002 & 2006b). They may optimize their actions to reach their goals as soon as possible. They love to gain powerful magic or weapons in order to dealing more damage on monsters or to conquer all encounters in the virtual world. The main satisfaction comes from feeling powerful while they are playing their avatars.

5. Leadership: This factor measures the gregariousness and assertiveness of the players. Players who score high on this factor prefer to group rather than solo (Yee, 2002). They tend to be drifted to leaders in the group, and assertive individuals in the game.

Bartle emphasized conversing, interacting and role-playing in his Socializing type (Yee, 2002) and the four types may correlate to a high degree (Yee, 2006b). With these five motivations validated, it becomes easily for researchers to categorize players’ motivations in playing online games.

Recently, Yee (2006b) re-categorized motivations into three main areas: achievement,
There are several subcategories divided from three main areas that depict different elements of each area in more detail. However, it is quite similar with the five factors mentioned above.

Table 1: Motivations of playing online games.

<table>
<thead>
<tr>
<th>Achievement component</th>
<th>Advancement:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Progress, Power, Accumulation, Status</td>
</tr>
<tr>
<td></td>
<td>Mechanics:</td>
</tr>
<tr>
<td></td>
<td>Numbers, Optimization, Templating, Analysis</td>
</tr>
<tr>
<td></td>
<td>Competition:</td>
</tr>
<tr>
<td></td>
<td>Challenging Others, Provocation, Domination.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social component</th>
<th>Socializing:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Casual Chat, Helping Others, Making Friends</td>
</tr>
<tr>
<td></td>
<td>Relationship:</td>
</tr>
<tr>
<td></td>
<td>Personal, Self-Disclosure, Find and Give Support</td>
</tr>
<tr>
<td></td>
<td>Teamwork:</td>
</tr>
<tr>
<td></td>
<td>Collaboration, Groups, Group Achievements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Immersion component</th>
<th>Discovery:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exploration, Lore, Finding Hidden Things</td>
</tr>
<tr>
<td></td>
<td>Role-Playing:</td>
</tr>
<tr>
<td></td>
<td>Story Line, Character History, Roles, Fantasy</td>
</tr>
<tr>
<td></td>
<td>Customization:</td>
</tr>
<tr>
<td></td>
<td>Appearances, Accessories, Style, Color Schemes</td>
</tr>
<tr>
<td></td>
<td>Escapism:</td>
</tr>
<tr>
<td></td>
<td>Relax, Escape from Real Life, Avoid Real-Life Problems</td>
</tr>
</tbody>
</table>
2.2.3 Summary

In summary, different types of players may have different motivations when they are playing online games. These motivations will help players to fill full their satisfactions by means of individuals’ desires and goals to play online game. Section 2.2.1 firstly reference four types of players from Bartle’s model. In section 2.2.2.1, it looks briefly personality traits in the aspect of psychology and how it influence players’ game play. In section 2.2.2.2, more details about players’ motivations are presented, and adopting Yee’s five factors model to make a clear explanation and an understandable way to categorize players’ motivations.

2.3 Players’ Communication and Interaction

Communication function probably becomes a biggest gap between online games and offline games because there is no chance for players to communicate with others while they are playing offline games. For many players, interaction among players is more important than actually playing the online game (Griffiths & Davies & Chappell, 2004). For example, players who are categorized into the relationship factor may feel that it is more important to interact with other players than simply to play the online game only.

In this section, the key points in both online communities and online game communities will be introduced and how players develop their relationships from
virtual world into real world will be discussed.

2.3.1 Online Communities

Online games incorporate most of the characteristics of internet communication functions. Players interact with others anonymously and instantly, and even form virtual interpersonal relationships and organize virtual communities (Shao-Kang & Chih-Chieh & Wenchang, 2005). In order to get more information about social interactions in online game, it is important to discuss online communities and online game communities first.

There are too many definitions and names for online communities, such as virtual communities, network communities, and online communities. In this project, it will be unified as online communities.

A community has been defined as "a social grouping that exhibits to varying degrees: shared spatial relations, social conventions, a sense of membership and boundaries, and an ongoing rhythm of social interaction" (Schlichter & Koch & Xu, 1998). As it becomes virtually, the definition of it may change. The most common acceptable definition is Preece’s definition of online communities: an online community consists of people who interact socially as they strive to satisfy their own needs to perform special roles (Preece, 2000).
2.3.1.1 Key Components of Online Communities

The key components of online community are broad enough for examining. From its landscape, texts, graphical worlds (e.g., online games, avatars), identity, social issues (e.g., social control, order, and change), dynamics, and its systems (Smith & Kollar, ed., 1999) could be discussed individually, and the basic components that related with online game community are:

1. People and Awareness: People who interact socially on the online community in order to satisfy their needs, such as sharing, learning, buying, and performing some special roles. People must perform enough awareness in order to join the online community. Awareness is an essential precondition for making contact with other members of a community, since we need the information of who is in the same virtual place, who shares common interests with us, and who is available for collaboration when we join a community (Schlichter & Koch & Xu, 1998).

2. Trust and Share: The stability of a community depends on the right balance of trust and distrust (Abdul-Rahman & Hailes, 2000). Trust is the basic element of the social interaction. As community becomes virtually, people are highly depended on the trust mechanism when they face uncertainty and risk increased by modern life and internet. In the other hand, thirsting in learning differences in knowledge also encourage people to communicate online. They also have shared purpose, an interest or needs, information exchange, or service that provides a reason for community (Koivisto, 2003). Since knowledge sharing becomes an extremely common way online, it becomes an essential role in maintaining and thriving on online community.
3. Anonymity and Privacy: Identity is the basic building block of social interaction (Smith & Kollok ed., 1999). Every individuals and interactions people meet on the internet are anonymous, and can only be shaped by our sense. People deeply rely on their own abilities to recognize other people and to judge who they can depend on by merely online trust mechanism. Anonymity could harm people, but it also provides people a shelter by means of privacy. People normally do not post too much information of them online. Exposing personal information may reduce individuals’ security and safety online. However, people can protect their privacy with anonymous identities. In other hand, people bring their real-life problems and personalities with them to their "virtual" lives (Brittney, 1998) By means of anonymity function, people would talk sensitive topics and sexuality lies in the ease of anonymity.

4. Collaboration: Collaboration and team work are required to reach community goals. In some online communities, people have to collaborate effectively, develop ideas, strategies, assess the competition, and pursue group goals in order to meeting community goals. Working together is required to form a community because each individual in the community has their own strength and weakness. Collaboration on the online community can be directly and indirectly since internet provides anonymity and privacy components. If we take a look at this component in the online game, for example, there are some high-end instance raid group works which require 25 people to participate for the event. They have to plan every details and strategies in order to conquer the task.
2.3.2 Online Game Communities

It is possible to identify specific mechanisms within the structure of the game that facilitate various forms of social interaction and interdependence (Taylor, 2006). Online game community can be counted as a type of online community. They share some commons but the in some aspects they are quite different with each other. This Section will discuss briefly about the structure of online game communities in the example of MMORPGs and highlight the core elements of online game communities.

2.3.2.1 The Structure of Online Game Communities

Except avatars, game play and motivations for players to play online games, the in game communication system is the very real, very personalities for players to immerse themselves in the game world and is a way to develop their relationships from online to offline. Communication in the game is also a central feature of how social life is supported and in addition to public communication methods (Taylor, 2006).

Past research in organizational behavior (Mintzberg, 1987) shows that social groups, like work groups (Miles & Snow, 1995), can be organized in very diverse way base on a combination of their members’ objectives and the group’s environment (Williams & Ducheneaut & Xiong & Zhang & Yee & Nickell, 2006).

There are two kinds of groups in MMORPGs: The Groups (teams) and the Guilds. Because of game designs, there are a lot of difficult quests and high-end instances that only can be encountered by groups. Thus, MMORPG is a big community naturally.
The first social interaction in the online games comes first from grouping small, temporary groups which provide a directly way to connect players. Groups may act as a micro-level, short-term social network (Taylor, 2006). It has become a primary method for players to make new friends, to find out trustworthy partners, to learn new things, to cooperate with different classes, and to participate in the social life of online games. In addition, many groups have their own private channel which has been mentioned in section 2.1.3.4. This kind of private channel can be controlled by particular group members. For instance, players who want to join a unique group channel may need to get the permission or agreement from the group members.

Another type of online game group is the Guild (Clan). Williams & Ducheneaut & Xiong & Zhang & Yee & Nickell (2006) tried to create a typology to account for the fact that guilds differ by goals, size, and membership. I summarize it in table 2:

**Table 2: the typology of guilds**

<table>
<thead>
<tr>
<th>Goals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Social Guild (family Guild)</em>: the guild’s goal is social interactions. In many of these, the social interactions were extensions of real-world social bonds. Social Guild may group by kinship, and real world friends.</td>
<td></td>
</tr>
<tr>
<td>2. <em>PvP Guild</em>: the primary goal of this guild is battle with other faction. In WoW, their activities are chiefly belonged to battleground, arena, and world PvP.</td>
<td></td>
</tr>
<tr>
<td>3. <em>Raiding Guild</em>: it is the most glamorous within WoW. It highly depends on complex team-based work within MMORPG. Additional requirements such as royalty,</td>
<td></td>
</tr>
</tbody>
</table>


| Size       | Discipline and teamwork are needed for guild members.  
| 4. **Role-Play Guild:** this kind of guild allows members to role play their characters, fully immerse themselves on a meta-level such as PvP, raid, and socialize. |
| 1. **Small Guilds:** they tend to be more focused on social bonds.  
| 2. **Medium Guilds:** it shows the progression from the small guild to large one. Members in this stage still emphasize on social bonds and families, but they tend to start to conflict in styles and ethics with guild growing.  
| 3. **Large Guilds:** they focused more on game goals. Some of them also feature strong player relationships. |

| Membership | **Faction Differences, Guild’s Formal Practices and Guild Churn** |


In the aspect of big guilds / raid guilds, even the most ambitious and dedicated guilds rely on deeply social mechanisms, such as chatting and hanging out, and the membership in a guild offers players admission into a broader social network (Talyor, 2006). Moreover, players form their own guilds to suit their social style, or to play with others with similar personality, motivations, and real-life demographics. Such kind of guilds will become family / small guilds with the strongest bonding social network in and out of games.

Organizations arise from people able to communicate who want to work toward a common goal (Barnard, 1938). There are some common formal practices within guilds to cohere guild’s members, such as guild’s announcement board, official
websites, regular recruitment, and celebration events (e.g., one year celebration). Many guilds hold regular offline meeting which allow members to meet physically and talk about the issues both in games and in real life after eating in some geographic location. Such kind of activities may influence not only players’ online social interactions but also offline ones as well.

2.3.2.2 The core elements of online game communities

The three core elements of online game communities are: Reputation, Trust, and Responsibility (Taylor, 2006).

1. Reputation: The reputation can be divided into external and internal. Reputation plays a significant role in a player’s success because at a basic level reputation determines both being able to secure groups over the long term, as well as being admitted into a guild (Taylor, 2006). In the aspect of internal of the guild, if a raid guild wants to recruitment new members, the very first step of guild members is to inspect some potential players who are willing to join them. Reputation is extremely important for avatars. For example, after new members join the raid guild, they have to spend more time on interacting with other members in order to gain trust or to pass process of evaluation. In social guilds, members’ reputation may vet through private channel conversations. After members’ reputation once accepted by other guild members, the next step for them is to learn how to maintain their status. Underlying this issue of reputation is an implicit construction of social hierarchy (Taylor, 2006).

In the aspect of external of the guild, players who belong to a guild with good
reputation may often welcome to be grouped with others. Thus, they gain more opportunities and advantages to meet other players. In addition, players usually admire some skillful players or hardcore guilds because of their reputation. Such kind of social interaction may be indirectly.

2. Trust: With reputation comes obligation, and one of the first areas that shows this dramatically is the area of trust (Taylor, 2006). Much like the trust mechanisms in online communities, players must trust their online friends. As in a group, players constantly risk their avatars’ lives because they trust their fellows. Trusting group-mates is a common theme throughout the game (Taylor, 2006). Players tend to think someone is reliable if they perform a success adventure together, and they will interact with each other more frequently. Finally, the meaningful relationships are created between them. In the other hand, players share their accounts despite this movement is generally forbid by game rules, simply because that they trust their online friends (or they are good friends in real life). Generally account sharing is rooted in trust first and foremost, and operates a new social network (Taylor, 2006).

3. Responsibility: Players do have responsibilities to their online friends and guild members. In many raid guilds, it is typically to require members to pay more attentions on their raid responsibility. For instance, players may require ignoring their physical dating and participating raids according to regular raid schedule. It is notable that responsibility plays an interest role in small guild or among online friendships. Since small guild is strongly on social bonds, players may be considered it is their responsibility to help other guild members. Having responsibility to online friends is not from an instrumental purpose, but from
respecting their reciprocal social value for some players.

Comparing with online communities and online game communities, they share some commons but the most critical difference between them is online game communities extremely rely on players’ obligations, play time, and constraint while online communities are emphasis on freedom and privacy. Online game community shows strongly links between players since the game design of it naturally encourages players to group together. Players have to spend more times on establishing their avatars’ reputation and trust and they somehow have some responsibilities on their online friends.

2.3.3 Offline Interaction and Connection

Online communities may resemble to real-life communities, (Wellman & Gulia, 1999). Here are some brief lists of reasons for why people want to extend their relationships from online into offline.

1. CMC may impersonal: Theory and research suggests that CMC (Computer-Mediated Communication) are ineffective because inter-personal exchange is needed and online communication is “scant social information” (Dubrovsky & Kiesler & Sethna, 1991). Inter-personal exchange still stands an immovable stand for human beings. Even if CMC now provides strongly face-to-face interaction, it is still not the “real interaction”. This kinds of phenomena we’ve seen in the Net meetings as well, so it is not surprise that people have meaningful relationships in the games may want to develop them offline in order to pursue more inter-personal interactions. For example, females
were significantly more likely than males to have physical dating with online friends in real life.

2. Social Network: Analysts have demonstrated the social network can provide interpersonal support and socially-meaningful relationships (Wellman, 1996). The units in social network called “ties” (Garton et al., 1997). Ties connect one to another with one or more relations. Ties that are weak mean non-intimate connections by infrequently maintained. Ties that are strong mean intimacy, kinship, self-disclosure, frequent contact and provision of reciprocal services (Garton et al., 1997).

In family guilds, members concern more about relationships and present strong ties to each other. They may kinship, real world friends, or people in the same demographics so that they can hold offline meeting more frequently as well. For instance, players may introduce their friends, family members, and coworkers to play and group their own guild. They can work together and start to develop a bigger in-game social network by continuing recruiting their real world friends. Considering about distance issues, online communities provide communication function, people can connect with each other more frequently as it can only be communicated by cars, telephones, mails, and meeting. Because friends or family members may live far away with each other, it becomes very convenience to maintain their ties if they meet regularly in online games.

As it was mentioned in previous section, players will share their accounts’ information or virtual assets even they never meet with each other before. However, in order to gain trust to other, some online friends will exchange their
real world information. This will increase their ties and start to connect them into the real world. For example, players may get more information about their online friends’ demographics and they may try to connect via telephone or offline meeting. In addition, group members met in online games cooperate to conquer tasks can also develop strength social ties.

3. Time Issue: It is evitable to concern about online game addiction when evaluating time issue against offline interaction. Whang et al. (2003) has found that online addicts show close feeling for strangers and high degree of loneliness and depression, and try to escape from reality. Supporting by anonymity, players are more willing to share their secrets and eager to obtain emotional supports with people they never meet before or not real friends, and tend to perform reciprocity and altruism to strangers after playing together a period of time. However, online game users also tend to suffer from increasingly weak real-world interactions with their friends, families, and social activities after they start to play online games (Young, 1996). Time, therefore, has become a method and a practical way to measure the players’ interaction between online and offline.

Far from now, there is no exactly method to measure the “degree” about the impacts on online game players’ social life. The most common method in the aspect of time is “hydraulic model” (Norman & Hillygus & Erbring; 2002). In hydraulic model, time is a zero-sum phenomenon, which means that people can only be assumed to do one thing at one “time space”. If playing online games is counted as a time space which people will normally take it on social activities such as dating and talking, players must trade off from their time spending on social activities in order to play online game. For instance, playing online games
may usually be considered as a leisure activity and if players spend too much time on it, it will disturb players’ daily schedule because there are only 24 hours in a day. Therefore, if players spend 5 hours a day on playing online game, they may spend less time on interacting with their real world fellows. And if they do not sacrifice their spending on social activities, they may spend less on other activities such as sleeping, eating, and working. Therefore, playing online games may bring players a negative affection on their real life.

2.3.4 Summary

The more reputation and times players’ avatars spend in a guild or in a game, the more chances they may develop their online relationships. In the contrary, if players spend more time on playing online game, they may present weak ties on their real world friendships. People will feel more safeties if they meet their online friends who have excellent reputation in the guild or game. Furthermore, players are willing to extend their social networks from online to offline if they trust their online friends. In addition, players are soul bond once they feel they have responsibility to their online friends.

Online interactions influence offline ones are crucial. Although it is hard to categorize the way they influence with each other, this project has pointed out three areas to measure the interaction among online and offline in the section 2.3.3.
Chapter 3 Research Methodology

3.1 Introduction

In this chapter, the research methodology which is used in order to finish this research will be introduced. This research involves two research methods: the literature review and online survey on players’ information to online games. The methodology is a guideline of the whole process of a research, it includes data collecting, results analyzing, and conclusion summarizing (Hart, 1998).

Firstly, the research approach will be introduced in section 3.2. Secondly, the methods of the investigation are described in section 3.3, and finally, the ideas about how to design the questionnaire will be presented in section 3.4.

3.2 Research Approach

The research of online games is base upon the inductive research approach, which is suitable for collecting and analyzing relational data (Robson 2002). The methodology in this research contains both qualitative and quantitative approaches, but mainly focuses on quantitative ones. As Strauss (1990) states that quantitative research refers to the research that finds out findings by means of statistical procedures or other means of quantification. And qualitative research refers to the research that aims to find out causal determination, prediction, and generalization of findings.
3.3 Methods of investigation

Researchers of games should play the games they are studying (Williams & Skoric, 2005). If not, researchers may not decipher the information, local game mechanics and special languages that be used in the game.

3.3.1 Primary Research

The primary research in this research is online survey questionnaire. The online questionnaire investigation is the most convenience way to gather huge data from large number of respondents in a very short period of time. The results of the questionnaire are both subjective and objective. Hence, by using the questionnaire investigation as the primary research method in this research, the motivations and the interactions regarding of players will be clearly identified by statistics. The questionnaire will be distributed on a famous BBS named “PTT bbs” in Taiwan, and they will also be posted on an in-game guild’s official website.

3.3.2 Secondary Research

As Hart (1998) mentioned, “The literature review is integral to the success of academic research”. Therefore, the secondary research method is mainly focus on literature review. There is no doubt that the literature review is quite useful to provide concretely background knowledge relevant to the field of study. The ideas about how to structure the questionnaire for this study mainly come from the secondary research. Hence, the data gathered from the literature review could be very useful to compile
with the results of the primary research.

3.4 Questionnaire Design

3.4.1 MMORPG Selection

The main goal for this research is to find out the way of players interact within both online and offline. There are too many types of online games in the market far from now. Therefore, it is very important to select a type of online game among them. The MMORPG owns perfect online communication function which is satisfied with the aspect of social interaction by this research. Moreover, MMORPG was publicly available, and different MMORPGs are comprised clearly by bulk of all users (Woodcock, 2005).

*World of Warcraft* stormed not only North America but also Southeast Asia (Included Korea, Taiwan, and China). *WoW* far surpassed the pioneering *EverQuest* to place itself at the top of U.S. charts, claiming more than 6 million subscribers worldwide (Blizzard, 2006). In 2008, Blizzard Entertainment, Inc announced that subscribers for *WoW*, its award-winning MMORPG, have continued to climb, recently passing 10 million worldwide. *World of Warcraft* now hosts more than 2 million subscribers in Europe, more than 2.5 million in North America, and approximately 5.5 million in Asia (Blizzard, 2008).

Hence, the game was chosen in this research is *World of Warcraft*. 
3.4.2 Formulation of Questionnaire

There are four parts in the questionnaire. The first part is the demographics of the sample population, including real life and virtual environment. The second part is the motivation of players. The third part is the interaction between players, and the last part is about the issues between real and virtual life of players.

The first part of the questionnaire will provide information about participants’ age, gender, occupation, time spending on online games, experiences of MMORPGs, and their avatars in the WoW.

The main purpose of the second part is to identify the motivations for participants to play online game. Firstly, the types of players according to Bartle’s Player Type are examined. It is useful to identify different types of players in order to further compile with other data come from survey. Secondly, the motivations for participants to play and to feel enjoyable are measured by means of Yee’s motivation factors. It will be clearly to find out an empirical framework of players’ motivation, and will be helpful in comparing their interactions with other players. Finally, the reasons why participants join the virtual world are examined. By examined these reasons, it will point out the impact of participants’ social network in both real world and virtual world as well and how it influence players’ motivations.

The third part of the questionnaire concerns more about the social interactions among players. Do they have ever developed meaningful relationships with online friends? How and where do them first engagement with their friends in the virtual world. Have they ever talked about their secret issues that they have never discussed with their real
life friends? Have they ever attracted by other online game players? And do they agree that virtual relationships are more trustworthy than real relationships. The main purposes of questions above are to examine the development of the social interactions / networks for players in the virtual world. The last question in this part is to ask about the reasons why participants feel their relationships are reliable / trustworthy. By evaluating the result of this question, some issues about the online game communities would be figured out in a statistic way.

The last part of the questionnaire is mainly focus on reality and virtual world. Firstly, the question is about whether participants have face-to-face meeting with friends that they met online or not. Secondly, it continues to ask about how participants maintain their virtual relationship once it crosses from virtual world into real life. The main purposes of these two questions are to help this research examine the combination of social ties and key components of online game communities. Then, a question about the reasons why participants attend the face-to-face meeting with online friends is presented. It is useful to understand players’ opinions on extending their virtual relationships into real life in the aspects of CMC, online game communities, and social ties. In addition, further examine the phenomena of players’ social network caused by playing online games in the aspect of time usage. There are two questions provided in question 20 and question 21 involve of it. Finally, a self-report question about the impacts and problems occurred to participants is presented in order to find out the social issues caused by playing online games.

### 3.4.3 Sample Selection

It is important to select sample in a survey method. MMORPG users are recruited
through a famous BBS in Taiwan and an in-game guild’s official website. The target population of the questionnaire is focus on players who over 18 years old. The main geographical area of the survey is targeted in Taiwan, because there are a lot of subscribers who play online games regularly in Taiwan. The survey is base on a MMORPG: *World of Warcraft*.

The questionnaires are firstly posted on a survey website. Then the address of the website is sprayed out to the BBS and guild’s official website in Taiwan. The durations of this survey are 11 days.

**3.4.4 Data Collection**

There are totally 918 samples are collected in this research. In these samples, around 100 respondents are guild members of the author, and around 800 respondents are players who play *WoW*. All the respondents are over 18 years old.
Chapter 4 Survey Results

Introduction

The main purpose of this chapter is to present the survey results. In section 4.1, describes the background of respondents, their motivations for playing online MMORPGs and the types of they were. In section 4.2, the social interactions of online game players are examined and section 4.3 will focus on the relation between virtual world and real life.

4.1 The Background of Respondents

This section describes respondents’ demographic and social background, such as their gender, age, occupation, the history of playing online MMORPGs, motivations of playing MMORPGs, and the types of players they were. There are totally 918 respondents who answered the questionnaire.

The ages of respondents

The Figure 4 shows the distribution of respondents’ ages. There are totally 918 samples from the players who played World of Warcraft. About 37 per cent of respondents were age 18 to 22, 49 per cent were 23 to 27, 12 per cent were 28 to 33, and 1.3 per cent were over 34.
The gender of respondents

The distribution of gender of respondents is shown in Figure 5. There are totally 918 respondents, and 87 per cent were males and 13 per cent were females.
Occupation

Figure 6 shows the occupation proportion of online game players. 58 per cent were students, 22.5 per cent were employment, 18 per cent were unemployed (between jobs), and 0.8 per cent were homemakers.

Figure 6 Occupation proportions of online game players
Average times spent on online games weekly for online game players

Figure 7 shows a pie chart for average time spent on online games weekly for players. The highest one is about 27 per cent of players who spend 11-20 hours per week. The second highest one is 19 per cent of players who spend less than 10 hours per week. Then, the following ones are 41 hours and above (18.6%), 21-30 hours (18.5%), and 31-40 hours (16.3%).

Figure 7 Average times spent on online games weekly for players
The history of playing MMORPGs

There were totally 918 respondents in this sample and 781 (85.0%) of them played MMORPGs while 137 (14.9%) of them have never played MMORPGs before they touched *WoW* (Figure 8).

Figure 8 players’ history for playing MMORPGs

![Pie chart showing 85.0% of 918 respondents played MMORPGs, and 14.9% did not.](image)
Experience of playing MMORPGs

Diagram 9 describes respondents’ experiences (the length they played) of playing MMORPGs. It shows that 634 (69%) of respondents have experience in playing MMORPGs for over 3 years. It is a signification number that bigger than other answers in this question. The second highest one is 2 to 3 years experience.

Figure 9 Respondents’ playing experiences in MMORPGs
The avatars distribution for respondents

Figure 10 shows the avatar which respondents play most in the WoW. There are totally 9 classes in the WoW. Players choose avatars may present their playing trend and motivations.

![Figure 10 The distribution of avatars](chart)

Where A = Druid
B = Hunter
C = Mage
D = Paladin
E = Priest
F = Rogue
G = Shaman
H = Warlock
I = Warrior
The types of players

This research designed four kinds of descriptions in this question and asked respondents to choose one answer that may describe them best. The main purpose of this question is to find out the distribution of four types of players according to Bartle’s Player Types. The results show in Figure 11. The type A is Achiever. The type B is Explorer, type C is Socialisers, and type D is Killer.

Figure 11 Four types of players

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Focus on powering up my character as soon as possible and try to get the most powerful (high-end) equipments / weapons in the WoW.</td>
<td>351</td>
</tr>
<tr>
<td>B</td>
<td>I like to discover esoteric areas, and looking for interest feather in WoW.</td>
<td>224</td>
</tr>
<tr>
<td>C</td>
<td>I would like to know events happen to the friends / guild / world, and I often interact with people in the WoW.</td>
<td>200</td>
</tr>
<tr>
<td>D</td>
<td>I enjoy the feeling of killing enemy players. No matter whom they are and no matter what they do.</td>
<td>63</td>
</tr>
</tbody>
</table>

A = Focus on powering up my character as soon as possible and try to get the most powerful (high-end) equipments / weapons in the WoW.

B = I like to discover esoteric areas, and looking for interest feathers in WoW.

C = I would like to know events happen to the friends / guilds / world, and I often interact with people in the WoW.

D = I enjoy the feeling of killing enemy players. No matter whom they are and no matter what they do.
**Players’ motivations in playing online games**

In this question, participants may allow to click 4 reasons that will make them enjoy playing online games. The result shows that the main motivations for people to play online game is to group with others rather than solo in the virtual world (13.6%), to meet new friends online (11.9%), to get powerful weapons and equipments in the game (10.8%) and to explore the virtual world (10.7%). The results are shown in Figure 12.

**Figure 12 Players’ motivations**

![Bar chart showing percentages of reasons for playing online games](chart.png)

Where:

A = I would like to meet new friends by means of playing online games (422).

B = I can to chat and share my feelings / emotions with other online game players (271).

C = I would like to share my experiences in game with other online game players (310).

D = I like to explore the virtual world and I am very interesting in doing questions in the WoW (380).

E = I like to try out different roles and characters (300).

F = I can create my personal story and my own life style in the WoW (350).
G = I like to dominate other players (57).
H = I like to fight with people in the arena or battleground instead of exploring the new dungeon or raiding the new instance (152).
I = Taunting or annoying people will make me feel happy (55).
J = I like to optimize the XP gained for my character as soon as possible while I am leveling (223).
K = I like to gain high-end gears in order to make me feel powerful in the game (384).
L = I like to group with people rather than solo in the virtual world (485).
M = I am a very effective group leader (54).
N = I am often assertive and drift to be the leadership position in a team/guild (101).

**Reasons for respondents to play online games**

The main purpose of this question is to examine the reasons why players start and continue to play online games. The result is shown in Figure 13. It shows that most of players were likely to count playing online games is one of their leisure activities (34.3%) and to play with their real life friends (22.7%).
Figure 13 Reasons for respondents to play online games

Where:

A = Only for leisure activity (733).

B = My real life friends invite me to play WoW with them (487).

C = My boy / girl friend play WoW and I play with him/ her (73).

D = I just like to play online game (enjoying in game designs, feathers…etc.) (434).

E = My family members play WoW and they introduce me to play it (82).

F = The friends who I met in other online game before invite me to play with them (96).

G = To meet more new friends online and chat with them (232).
4.2 The Social Interactions of Online Game Players

This section will examine more about the social interactions and relationships for online game players in the virtual world.

Meet meaningful friends

There were totally 917 samples in this question, and 76 per cent of them admitted that they met their meaningful friends in the virtual world while comparing with 42 per cent of them didn’t (Figure 14).

Figure 14 Have you ever met meaningful (good) friends in the MMORPGs
Where to meet new / good friends on the MMORPG

The question explores the way players meet their new friends in the virtual world. The result shown in Figure 15 presented that most of players meet their new friends in the guild (32.1%), and in the group (26.4%). It is also interesting to note meet their new friends by means of their old online friends (15.4) and real world friends (12.6%).

Figure 15 How do you meet your new / good friends on the MMORPGs

Where:

A = In guild (708).
B = In Team / Raid (583).
C = Introducing by other old online friends (340).
D = Introducing by other real life friends who play WoW with you (279).
E = In some public spaces where people will stay there often in the game (e.g. auction house, main city…etc.) (109).
F = In some channels that offer chat function (e.g. private channels, LFG channels…) (185).
Secrete and sensitive talks existed between players?

The main reason for this question is to find out whether anonymous influences players’ social interaction in the virtual world. 585 (63.7%) respondents answered no and 332 (36.2%) respondents answered yes in Figure 16.

Figure 16 Secrete and sensitive talks happened between players?
Attraction between players?

In this question, the attraction among players is examined. The result shows that 349 (38%) players have been attracted by another online game player (Figure 16) and 568 (61.9%) answered No.

Figure 17 Have you ever attracted to another online game player?

![Pie chart showing the distribution of Yes and No responses. Total: 917. 61.9% answered No, 38.0% answered Yes.](chart.png)
Online friends versus real life friends

In order to examine more about the trust function and social interaction for players, it is important to find out the trust function on online and real life friends in players’ views. The result shows in Figure 18. It shows that 368 (40.1%) players in this survey think both online and real life friends are all trustworthy to them in 917 samples. However, there were 293 (31.9%) players disagree that online friends are trustworthy than real life friends, and there are only 66 (7.19%) players think online friends are more trustworthy than their real life friends. About 190 (20.7%) players answered “unsure”.

Figure 18 Are online friend trustworthy or comparable with real life friends?

<table>
<thead>
<tr>
<th>Total: 917</th>
<th>40.1%</th>
<th>31.9%</th>
<th>20.7%</th>
<th>7.19%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = Yes (66).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B = No (293).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C = My online friends and offline friends are equally trustworthy (368).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D = Unsure (190).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Why online friendships trustworthy?

According to question 15, it is unavoidable to find out the reasons for players to feel that their online relationships are trustworthy in order to find out how and why players are willing to trust and interact with online friends. The result shows in Figure 19. It will help this research in examine online game communities’ components and social ties among players.

Figure 19 the reasons why online friends let respondents feel trustworthy

Where:

A = We are in the same guild in the MMORPG and it makes me feel trustworthy than other online game players (185).

B = We are in the same private channel which belongs to close friends only (328).

C = We have conquered many tasks and risks together in the virtual world, and they are really good group mates (513).

D = They have good reputation in the virtual world / server (36).

E = We have tried to share our game account before (108).

F = We knew each other in the game and chatted for a long time (388).
G = I don’t think the friends I meet in the online game are trustworthy (222).

4.3 Extending Relationships into Real Life

By examining the social interactions in the virtual world and online friendships, this research will focus on find out the way players extend their relationships from virtual world into real world in this section.

Face to face meeting with online friends

Face to face meeting is a way to know whether players extend their friendships into real life or not. 528 (57.5%) respondents have physical dated with online friends and 389 (42.4%) respondents haven’t this kind of experience (Figure 20).

Figure 20 Have you ever physical dating with friends that you met in the MMORPGs?
Continue to keeping in touch

It is very important to maintain relationships by means of frequently connecting. Thus, the main purpose of this question is to examine whether players still keep seeing with the online friends after they meet in real life or not in order to find out some evidence for this research. Around 407 (44.3%) respondents answered yes while 125 (13.6%) answered no (Figure 21).

Figure 21 Continue seeing online friends after meeting face to face first time

<table>
<thead>
<tr>
<th></th>
<th>Total: 918</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

Where:

A = I haven’t date with my online friends before (386).
B = Yes (407).
C = No (125).
The motivations for face to face meeting

By examining the motivations for players to physical dating and interactions with their online friends into real life in Figure 22, the top reason which let players want to meet with each other in real life is the group meetings hold by guilds (24.4%). The second highest one is that they are already good friends in virtual world and would like to extend their relationships into real life (23.7%).

Figure 22 The motivations for face to face meeting with online friends

![Figure 22](image)

Where:

A = I was attracted by him/her (186).
B = We feel mutual with each other (245).
C = We have regular guild / channel meetings and I will attend the meeting (443).
D = I am seeking for face-to-face interaction (176).
E = I have meaningful (good) friends on the MMORPGs and we would like to extend our relationships in real life (430).
F = We have some common real life friends and they invite us to have a physical dating (239).
The effect on virtual world relationships

578 (63%) agreed that playing MMORPGs have a positive effect on online relationships while 112 (12.2%) disagree with that, and 227 (24.7%) chose “Unsure” (Figure 23).

Figure 23 Do you agree or disagree that MMORPGs have a positive effect on online game players’ relationships with those who play the same MMORPG?
The effects on real life relationships

413 (45%) of them disagreed that playing MMORPGs has negative effects on players’ relationships with those who do not play the same MMORPG or online games, 294 (32%) agreed that it has negative effects on players’ relationships with those who do not play the same MMORPG or online games, and 210 (22.9%) respondents answered “Unsure” (Figure 24).

Figure 24 Do you agree or disagree that MMORPGs have a negative effect on online game players’ relationships with those who do not play the same MMORPG or online games?
The impacts of playing MMORPGs on the offline relationship

This question explores the social problems and issues brought by playing online games. The results are shown in Figure 25. It shows that most players have troubles in be disturbed their daily schedule by playing online games (21.8%), online game addiction (21.3%), and spending less time on their real life social interactions (15.7%).

**Figure 25 Problems and issues caused by playing online games**

![Bar chart showing percentages of issues]

Where:

A = Disturb my daily life, work, study and rest time (602).

B = I feel I was gradually addicted to the online games (588).

C = Arguing or fighting with family or friends about the time spending on the online game (297).

D = Spending too much time on online games instead of interacting with friends, social activities, and family for the leisure time (436).

E = The schedule of your timetable is primarily limited by online games (i.e. every time you have dating with your friends, you have to consider the raid schedule...
first) (327).

F = Spending too much time on online chatting with your online friend in the virtual world / on the internet (334).

G = You become less likely to interact with real life people and start to seek for internet chatting (176).
Chapter 5 Discussion

Introduction

This chapter discusses the findings from data analysis. The structure of this chapter is as follows. In section 5.1, the findings of the demographics of players will be discussed. In section 5.2, the motivations for play online games and types of players will be compared and discussed. In section 5.3, there will be discussed the findings of players’ social interaction in and out of the virtual world. Section 5.4 will discuss about the impacts brought by playing online games according to the data found in the survey.

5.1 The Demographics of Online Game Players

5.1.1 Out-Game Demographics

One of the biggest misunderstandings of online computer game playing is that players are mostly adolescents. The data of this research shows that the 23-27 years old players are the biggest group which almost dominates 50% in the field of online game playing, while the group of teenagers whose ages between 18-22 is 37.3%. In other words, 62.7% of players are over 23 years old. This finding is in line with the Yee’s (2007) finding, which shows that the mean age of MMORPG players is 26.57 years and there are only 25% of players are teenagers.

In the aspect of gender, male players still owns the territory of online game playing. The mean ages of them is also similar (Males = 23.72 years, Females = 24.83), and it
is quite different from Yee’s (2006) finding which suggested that female players were significantly older than male players. This is because that a lot of people whose ages below 25 in Taiwan are still students, and the result in question 3 shows that 58.1% players are student. If players remain students, their demographics may not change a lot from 18 to 25 years old.

The mean number of hours spent in online game weekly is 23.8 hours, similar to the Yee (2007)’s report (22.72 hours). However, the older the players, the less time they spent weekly in playing MMORPGs. It suggests that older players may spend their time on other social activities instead of playing online game only.

### 5.1.2 In-Game Demographics

Among avatars, Mages, Druids, and Rogues are most popular as shown in result of question 7. As it has been categorized as central-open avatars in section 2.1.3.2, it is simply that most players tend to play the most “powerful” and “soloable” classes they think in the game designs because avatars may highlight players’ abilities in game playing. If we categorize the avatars into three classes settings according to the section 2.1.3.2, the numbers of melee classes are 285, ranged and caster classes are 339, and healer classes are 294. Female players were significantly likely to play healer classes (47%) than male players. The main reason is that female players are tend to be Socialisers in the game and healer classes are natural weak in fighting with monsters as in most role-play game settings. Hence, these classes may require to group with other players in order to continue leveling, and mostly Socialisers are likely to group with people they meet in the virtual world.
5.2 The Motivations and Types for Players

5.2.1 The Types of Players

According to Bartle’s Types of Players mentioned in section 2.2.1, different types of players show different attitude, social interaction and motivations in playing games. It is meaningless to compare the number of four types players without referring them with other data found in this survey. However, it will provide an empirical framework for measuring individuals’ motivations if we try to relate it with players’ demographics.

In Bartle’s player types (Achievers, Socialisers, Explorers, and Killers), male players are likely to be Achievers (40.5%) and Socialisers (27.6%) while female players are likely to be Socialisers (48%), Achievers (23%) and Explorers (23%) in the game. It shows a significantly difference in player types between males and females. In the aspect playing times and player types, the result shows that Achievers tend to spend more times than other three types of players (Table 3).

Table 3: Average playing times

<table>
<thead>
<tr>
<th></th>
<th>11-20 hrs</th>
<th>21-30</th>
<th>31-40</th>
<th>&gt; 41</th>
<th>&lt;10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socialisers</td>
<td>80</td>
<td>56</td>
<td>47</td>
<td>50</td>
<td>47</td>
<td>24.03</td>
</tr>
<tr>
<td>Killers</td>
<td>25</td>
<td>12</td>
<td>6</td>
<td>8</td>
<td>12</td>
<td>20.71</td>
</tr>
<tr>
<td>Achievers</td>
<td>78</td>
<td>59</td>
<td>61</td>
<td>87</td>
<td>66</td>
<td>25.71</td>
</tr>
<tr>
<td>Explorers</td>
<td>68</td>
<td>43</td>
<td>36</td>
<td>26</td>
<td>51</td>
<td>21.6</td>
</tr>
<tr>
<td>Sum</td>
<td>251</td>
<td>170</td>
<td>150</td>
<td>171</td>
<td>176</td>
<td></td>
</tr>
</tbody>
</table>
This is mainly because motivations for Achievers desire to gain powerful treasures, to level up rapidly, and to drive by in-game goals. The more time they spend on the virtual world, the easier (or faster) they achieve their goals. It is notable that about 30% of Socialisers only spend 11-20 hours per week in the game. This could be because Socialisers not only spent their time with their online friends but also actively participating social activities offline.

### 5.2.2 The Motivations

Despite of categorization players into four types, the main purpose of the motivation factors is to measure what trends players prefer most. In particular, male players are significantly higher on the Leadership and Relationship, while female players are higher on Relationship and Immersion. According to Kuttler & La (1999), women were likely to intimacy and personal conversations in social interaction while men were likely to talk about abilities and working with others instead of chatting only.

Because men and women value different in the aspect of social interaction, the gender difference is also reflected in the online game. Hence, female players tend to interact with people more, and enjoy themselves in the virtual world for role-playing whereas male players are focus on their avatars’ abilities. While mentioned in Chapter 2 (i.e. 2.2.2.2, 2.3.1.1, and 2.3.3), anonymity and CMC will make gender differences disappear in the cyberspace. Moreover, Casell & Jenkins (1998) argued that generally gender differences do not exist in the computer gaming preferences. That is, female and male players may act their avatars in the same way in the virtual world. However, the result shows that male and female players have different motivations for playing
online games and this may result in different social interaction and preferences for them.

5.3 Players’ Social Interaction

5.3.1 In-Game Social Interactions

According to chapter 2, it is easy to assume that players have vivid interactions because online game provides an environment to bring people together. The results of question 10, 11, and 14, show that most players (76.6%) did agree that they made good friends and had good interactions within the game, and notably 53% female players were attracted by other players. This suggests that MMORPGs provide a platform where players may emotionally be involved with others.

As the results in question 12, most players meet good friends in the guild (32%), group (26.4%), and introducing by other online friends (15%). It highlights that online game communities provide successful gateways for people to meet with each other in the cyberspace. Moreover, there are around 14% of players who meet good friends in some public spaces and private channels in the games. It shows that game designs can influence the way people meet (section 2.1.2 and 2.1.3).

36.2% of respondents and among them, there were 47% of female players said they had discussed sensitive issues with their online friends that they may not discuss with their real friend. These findings resonate the literature review (section 2.3.1.1): online community provides anonymity and privacy components which let the people are
willing to communicate with strangers (online) contrasts with in-person situations (Latane & Darley, 1976). Anonymity and privacy ease the sexual differences and players can seek advices from players with variety of background in regarding of sensitive topics.

There are 40% of respondents admitted that online friends are equally trustworthy with real friends. Again, it suggests that online game communities provide a social activity environment for players to develop their social ties. 28.8% of respondents think online friends are trustworthy because of trusting them in adventure together and they have knew with each other for a long time. It reflects to the trust, reputation and responsibility elements in section 2.3.2.2. However, there are only 10.3% respondents met trustworthy friends in guilds. It suggests that guilds, especially raid (big) guilds discussed in section 2.3.2.1, are more likely to act as big companies where players think they just “work” with colleagues, and their ties may not as close as good friends’ ones.

5.3.2 Out-Game Interactions Extending

In question 17 shows that 57.5% respondents had met with online friends they meet in online games and there were around 24% of respondents who want to meet online friends in real life because they were already good friends in virtual world in question 19. The significant positive effects on extending virtual relationships and social ties into real life are found in this survey.

In the other hand, female players are significantly more likely to meet up with online friends offline. The gender difference here could be because of the differences in
motivations for playing MMORPGs but also social interactions between males and females. It suggests that female players may be more likely to accept emotional supports from online friends, and would like to extend their relationships into real life.

Though most respondents keep in touch with online friends after face to face meeting, there were around 14% of respondents who try to end up the physical contact. According to the respondents, time and distances were the most critical issues to prevent players from developing relationships offline. Some respondents said “We do not match with each other in real life, but we were good friends in virtual world.”, or “I do not satisfy my net friends’ looking”. These do not support Walther’s (1996) argument that CMC provides impersonal, interpersonal and hyper-personal interaction. Indeed, CMC still cannot replace inter-personal interactions in some cases.

The data shows that guild meeting is the main motivation for players to meet their virtual friends in the real life. It highlights the function of guilds and online game communities discussed in section 2.3.2. In fact, group meeting far from now still the most popular way for people to physical date with online friends.

The data shows that 22.7% of respondents play MMORPG with their real life friends, and 12.6% of respondents meet their new online friends by means of introducing by real life friends. Furthermore, 13.1% of respondents whose mainly motivation in physical dating with online friends are triggered by their real life friends. It suggests that players may, somehow, by means of playing online games to enhance their real life social ties and extend their social networks from virtual world into real life as it is discussed in section 2.3.
Finally, about two third (63%) respondents believe that playing MMORPGs has a positive effect on extending their social networks with virtual friends, while only 32% of respondents think that playing MMORPGs has a negative effect on their social networks in real world friends. The best way to support this possibility is time and social network issues mentioned in section 2.3.3. Players spend many hours weekly on the virtual world has a positive effect on extending strong social ties in virtual world but has a negative effect on maintaining ties with their real world friends, because this research assumes that people can only be allowed to do one thing in a time zone.

5.4 The Impacts of Playing Online Games

A possible consequence of playing online games is addiction. In the survey result, there are 21.3% respondents admit that they tend to feel themselves addicting in online game. Moreover, 21.8% respondents think their daily life and work schedule are disturbed by playing online games. The results above may mainly cause by time issue in section 2.3.3.

Although many respondents admit that they spent too much time on chatting with online friends (12.1%), and spent their times on playing online games instead of participating leisure activities in real life(15.7%), most of them (45%) still disagree that playing online games did have negative effects on their real life relationships. The possibility of this result is because playing online games does not cause fatal damage to players’ social networks in real life, although it does impede on their relationships.
Finally, 6.37% of respondents show that they have become to prefer to interact with people online instead of offline. According to the search results, a negative correlation between internet usage and communication with relatives and real world friends is found by Kraut (1998), and Anderson (2001) also found that higher internet dependency has a negative effect on interpersonal relationships. Hence, such kind of social anxiety may be occurred by long-term playing online games and it may also lead to decrease the amount of interpersonal relationships. This result is also consistent with literature review in section 2.3.3.
Chapter 6 Conclusion

This chapter will conclude and summarize the findings and results of this research. In section 6.1, it will conclude about how the aims and objectives are achieved by this research and with following conclusions for this research in section 6.2. In section 6.3 will present the limitations of this research. In section 6.4, there will be some recommendations and suggestions given for further studies.

6.1 Aims and Objectives

The aims and objectives are very important in this research. They help this research to investigate the social interactions among players in both virtual world and real life. Through finishing this research, the aims and objectives are satisfied and are listed as follow:

1. To understand MMORPGs in the aspect of the definition, history, virtual environment, avatars, and game designs.

   The objective has been achieved in the literature review in chapter 2, and it has also satisfied by examining it in its history, game settings, and interfaces. In addition, there are some options listed in questionnaire are also help this research to achieved the objective.

2. To identify the motivations for play MMORPGs.

   The objective has been achieved in the literature review in chapter 2. Moreover, by combining with data analysis and samples gathered from survey, the objective
has gained more concrete examples on the motivations of play MMORPGs for players.

3. To find out the types of players and the reasons why they keep play MMORPGs.

The objective has been accomplished by both literature review and the survey results found in questionnaire. Supporting by literature review, this research gains a general idea about the types of players. The data in survey gives plentiful information in helping analyze and compare in chapter 5 in order to satisfy this objective.

4. To understand the online communities and online game communities in the aspect of players’ interaction.

The objective has been satisfied in chapter 2, chapter 4, and chapter 5. A general idea about the online communities and online game communities is given in chapter 2, and the survey results also support this objective in chapter 4. Finally, an analysis is discussed in chapter 5 to achieve this objective.

5. To investigate how online gamers develop meaningful relationships outside the game.

The objective has been accomplished in chapter 2 and chapter 5. In chapter 2, three aspects for how extending offline social interactions provided by this research are discussed. By analyzing the survey data, chapter 5 has given more details and ideas about this objective.
6.2 Conclusions

Online game is information technology application which can not be easy to categorize into any research field because it has several functions, such as anonymity, media richness, social interaction, and never end that hardly identified by scholars far from now. Probably the most interest thing happen in the virtual world is player’s interactions. Thus, this research try to find out some critical issues related with players’ social interaction.

The most different between offline games and online games is the communication function. Communities do not exist without communication (Koivisto, 2003). On a simplistic level, MMORPGs could be considered as a scenic chat room which provides a variety of interactive tasks (Yee, 2006a). Players control their avatars to join the virtual world and interact with each other without any limit. Hence, a plenty of interactions happen every day in every second that connect players with other strangers in both directly and indirectly ways in the virtual world supported by online games’ potential design function – online communication.

McKenna and Bargh (2000) suggested that there are four factors that enable positive social interactions online: Anonymity, reduce of physical appearance, the widely spread of internet, and time control. However, the social interactions in online games are more complex because normally players have to care more about their avatars’ reputation, trust, and responsibility. It shows the differences between online communities and online game communities.
Furthermore, without an empirical framework to identify individuals’ motivations and types of differences among MMORPG players, it is impossible to find out individuals’ meaningful social interactions in the virtual world. Although different types of players perform different interaction in the game, they still overlap some motivations to play and interact with other players. This research try to mix and analysis the findings about out-game, in-game demographics, players’ types and their motivations. The results shows there are too many differences for players to play MMORPGs in the aspect of genders and motivations. However, it also means that MMORPG shows its possibility to create a world in order to promote a real-world look-and-feel, which allows both genders to play equally with different motivations, and attracts players from a variety demographics who are soul bound in it in order to interact with other players in many ways.

In the aspect of online communities and online game communities, both of them support strongly in communication function in the online games. As players try to group with other players, their ties then are created. Players not only meet their online friends in group and guild, but also in some private channels and public places. Players have surrounded by others in the virtual world supported by game designs so that they have many chances to create their virtual relations. Some players even have attracted by other players online, and talked secretes to online friends, especially female players. This kind of evidence proves that online games can also provide emotional supports, anonymity, and invisibility (Suler, 2004) which cause players to self-disclose themselves in a safety way.

Play online games also help players to maintain their relationships with real life friends who play with them. Moreover, they also start to develop their trustworthy
friends in the virtual world, and then try to extend their relationships into real life. However, the way they extend relations from online to offline is also impeded by traditional barriers such as distance and time issues.

The problems which brought by playing online games are discussed in the aspect of times, CMC, and social networks. Time is the most critical issues for players because they usually have to sacrifice their time in playing and chatting with their online friends instead of participating social activities in real life. Moreover, their social network ties become stronger with their online friends and real friends who play with them but become weakness in their relations who do not join their online adventure together. Finally, some problems such as social anxiety and disturbing daily life are also happened while players start to addict on playing online games.

6.3 Limitations

There are some limitations of the research. First, the scope of the samples, as this research only chooses a online game (World of Warcraft) to research, it may not considered about players who play other types of online games. Although MMORPG makes lots of people to play it, there are still other types of online games which attract people such as The Second Life, Lineage II, and Warcraft III. Second, the mainly research area and the questionnaire are base on players who played WoW in Taiwan Servers, which means that most of data I expect to collect comes from a geographical area only. Finally, the online questionnaire may still led impede the data collection. People who join this survey should be frequently users of game websites and guild members only.
Another limitation is about the questionnaire design. For example, the answers for question 9 should be designed to ask participants to answer “like” or “dislike” rather than ask them to choose what they like from the answers. Moreover, questions such as question 13 and 21 are designed for self-respond ones, which mean that they may not objective.

6.4 Recommendations and Suggestions

There are some recommendations and suggestions for future studies according to the contexts and limitations of this research.

This research only discusses about little in game designs and avatars. Since avatars play a significant character in the online game research, it will be very useful to research the game designs in the aspect of avatars and its interactions with players or virtual world.

Moreover, the genders of participants should be balanced. It is recommended to take games such as *The Second Life* in order to find out the more critical issues about the gender differences and the way female players interact online.

Finally, some interest issues can be researched for further studies. For example, the social structure of guild in the online games and the virtual economy in MMORPGs.
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Glossaries

NPC: Non-Playing Characters are computer controlled artificial intelligences, designed to mimic the actions of human players. Their purpose is to provide some challenge to the players or to populate some otherwise unpopulated virtual world.

RPGs: Role Playing Games are games which ask the player to immerse themselves in another role. It does not have to be an online game, board based RPGs like Warhammer5 were popular long before computer games became popular. This paper refers regularly to MMORPGs -Massively Multiplayer Online Role Playing Games.

PVE: Player versus Environment: While players play in the PVE server, they can do questions, fight monsters, trade and gain experience…etc. It tends to center on player vs. environment comparing with player vs. player.

PVP: Player versus Player. Players have the same PVE objectives and can act as PVE server. However, they also have to face the perpetual faction vs. faction combat in most of areas of the WoW. In other words, PVP combat happens at anytime.

Twink (Alts): A similar definition comes from an official MMORPG strategy guide: a twink is “a character that owns items that are normally above their capability of obtaining on their own”. In some MMORPGs, twinks means the character that players do not play often or do not consider as their main character.
Appendix

*Questionnaire (English Version)*

To participant:

I honestly appreciate it if you could please to help me fill in this questionnaire. The data will be an important research resource for my dissertation of “The Virtual World: An Investigation of Players’ Social Interactions in and out of the Online Game” All the documents are only for the academic research, and all of your personal and confidential information will not be spread.

There are totally 22 questions in this questionnaire, and it will take you approximately 5-10 minutes to finish it.

Again, I honestly appreciate for your participation in this survey.

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Section 1: the demographic and background information of the online game players

Question 1:

Your ages:

- [ ] 18-22
- [ ] 23-27
- [ ] 28-33
- [ ] 33 above
Question 2:
Your gender:
□ Male
□ Female

Question 3:
Your occupation:
□ Students
□ Employment
□ Unemployed (between jobs)
□ Homemaker

Question 4:
How many hours you play online games per week?
□ Under 10 hrs
□ 11-20 hrs
□ 21-30 hrs
□ 31-40 hrs
□ 41 above

Question 5:
Have you ever played other MMORPGs before playing WoW?
□ Yes
□ No
Question 6:

How long have you played MMORPGs?

☐ Less than half year
☐ Half to 1 year
☐ 1-2 years
☐ 2-3 years
☐ More than 3 years

Question 7:

What kind of avatars you play in WoW (If you have more than one avatar in the game, please consider this question as what your MAIN avatar is?)

☐ Druid
☐ Hunter
☐ Mage
☐ Paladin
☐ Priest
☐ Rogue
☐ Shaman
☐ Warlock
☐ Warrior

Section 2: The motivations for play online game and types

Question 8:

Please choose one of the following sentences which may represent you while you are playing WoW. You may only click one box.
Focus on powering up my character as soon as possible and try to get the most powerful (high-end) equipments / weapons in the WoW.

I like to discover esoteric areas, and looking for interest feathers in WoW.

I would like to know events happen to the friends / guilds / world, and I often interact with people in the WoW.

I enjoy the feeling of killing enemy players. No matter whom they are and no matter what they do.

**Question 9:**

Please choose the top 4 reasons which make you feel most pleasure / enjoyable while you are playing MMORPGs:

- I would like to meet new friends by means of playing online games.
- I can to chat and share my feelings / emotions with other online game players.
- I would like to share my experiences in game with other online game players
- I like to explore the virtual world and I am very interesting in doing questions in the WoW.
- I like to try out different roles and characters.
- I can create my personal story and my own life style in the WoW.
- I like to dominate other players.
- I like to fight with people in the arena or battleground instead of exploring the new dungeon or raiding the new instance.
- Taunting or annoying people will make me feel happy.
- I like to optimize the XP gained for my character as soon as possible while I am leveling.
- I like to gain high-end gears in order to make me feel powerful in the game.
- I like to group with people rather than solo in the virtual world.
☐ I am a very effective group leader.
☐ I am often assertive and drift to be the leadership position in a team/guild.

Question 10:
Please choose the main reason for you to play MMORPGs (You may tick more than one box).
☐ Only for leisure activity.
☐ My real life friends invite me to play WoW with them.
☐ My boy/girl friend play WoW and I play with him/her.
☐ I just like to play online game (enjoying in game designs, feathers…etc.).
☐ My family members play WoW and they introduce me to play it.
☐ The friends who I met in other online game before invite me to play with them.
☐ To meet more new friends online and chat with them.

Section 3: the social interactions of online game players

Question 11:
Have you ever met meaningful (good) friends in the MMORPGs?
☐ Yes
☐ No

Question 12:
How do you meet your new/good friends on the MMORPGs? (You may tick more than one box)
☐ In guild
□ In team / raid
□ In some channels that offer chat function (e.g. private channels, LFG channels…).
   Please specify:______________________________________________________________
□ Introducing by other old online friends
□ Introducing by other real life friends who play WoW with you
□ In some public spaces where people will stay there often in the game (e.g. auction house, main city…etc.)

**Question 13:**
Have you ever discussed your personal secrets or sensitive issues that you have never discussed with your real life friends?
□ Yes
□ No

**Question 14:**
Have you ever attracted to another online game player?
□ Yes
□ No

**Question 15:**
Do you agree or disagree that the friends you met in MMORPGs are comparable to or even trustworthy than your real life friends?
□ Yes.
□ No.
□ My online friends and offline friends are equally trustworthy.
□ Unsure.
Question 16:

Please choose the reasons why you feel the friends you met in MMORPGs are trustworthy (You may tick more than one box below).

☐ We are in the same guild in the MMORPG and it makes me feel trustworthy than other online game players.

☐ We are in the same private channel which belongs to close friends only.

☐ We have conquered many tasks and risks together in the virtual world, and they are really good group mates.

☐ They have good reputation in the virtual world / server.

☐ We have tried to share our game account before.

☐ We knew each other in the game and chatted for a long time.

☐ I don’t think the friends I meet in the online game are trustworthy.

Section 4: The virtual world versus real world

Question 17:

Have you ever face-to-face meetings with friends that you met in the MMORPGs?

☐ Yes

☐ No

Question 18:

Do you keep face-to-face meetings with your online meaningful (good) friends frequently after the physical dating?

☐ Yes

☐ No (If No, please specify the reasons:__________________________)  

☐ I haven’t date with my online friends before.
**Question 19:**

Please choose the reasons why you would like to face-to-face meetings with friends you meet in the MMORPGs (You may tick more than one box below).

- [ ] I was attracted by him/her.
- [ ] We feel mutual with each other.
- [ ] We have regular guild / channel meetings and I will attend the meeting.
- [ ] I am seeking for face-to-face interaction.
- [ ] I have meaningful (good) friends on the MMORPGs and we would like to extend our relationships in real life.
- [ ] We have some common real life friends and they invite us to have a physical dating.
- [ ] Other reasons (Please specify):______________________________

**Question 20:**

Do you agree or disagree that MMORPGs have a positive effect on online game players’ relationships with those who play the same MMORPG?

- [ ] Agree
- [ ] Disagree
- [ ] Unsure

**Question 21:**

Do you agree or disagree that MMORPGs have a negative effect on online game players’ relationships with those who do not play the same MMORPG or online games?

- [ ] Agree
Question 22:

Please select the problems and issues which occurred when you played MMORPGs (You may tick more than one box below).

☐ Disturb my daily life, work, study and rest time.

☐ I feel I was gradually addicted to the online games.

☐ Arguing or fighting with family or friends about the time spending on the online game.

☐ Spending too much time on online games instead of interacting with friends, social activities, and family for the leisure time.

☐ The schedule of your timetable is primarily limited by online games (i.e. every time you have dating with your friends, you have to consider the raid schedule first).

☐ Spending too much time on online chatting with your online friend in the virtual world / on the internet.

☐ You become less likely to interact with real life people and start to seek for internet chatting.