

Collecting: a way of exploring the difficulty to leave game world

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Abstract:

Digital games have become a part of daily life for people in recent years. they have the capacity of making game users set playing games as top priority in daily life. In this sense, playing digital games can break the balance between the virtual and the reality and it is possible that some people may get lost in the virtual world. However, this thesis argues that it can be inappropriate just equating excessive play with addiction. By discussing and connecting previous literature reviews on games and addiction, as well as adding three game case studies, this thesis finally finds collecting as a different approach to explore the difficulty to leave game world. Through discussing in-game collecting and book collecting in ancient China, this thesis helps answer how people understand the heavy use on digital games and what is hidden behind choosing to stay in game world.

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Table of content:

1. Introduction and methodology:	5
1) Research background	5
2) Gamer type	7
3) Research contribution and research methodology	9
2. Digital games and the roles they can play:	14
1) The definition of digital games:	14
2) Three possible roles that digital games can play:	18
-- As a kind of play	19
-- As a process of construction	20
-- As a way for escaping	22
3. Addiction: when pleasure becomes a burden:	25
1) The discussion on the term addiction	25
2) Previous researches on Internet addiction	28
4. Collecting: a ‘game’ among collectors:	35
1) The definition of collecting and possible motivations for collecting	35
2) The connections among digital games, collecting, and addiction	36
3) Collecting: a desire-driven behaviour	39
5. Case studies on three different game platforms:	44
1) The achievement system in <i>World of Warcraft</i>	44
2) <i>Ragnarok Odyssey</i> on PlayStation Vita	52
3) <i>SanGuoSha</i>	62
6. Discussion and conclusion:	66
7. References:	75

1. Introduction and methodology:

1) Research background:

Playing digital games has become a considerable choice for entertainment and to some extent a part of daily life. In China, based on the presentation of Sun Shoushan, deputy director of the Press and Publication Administration, the Chinese online game market has become a 42.85 billion Yuan industry in 2011, with a 23.54 percent growth compared to 2010 (Sina Games, 2012). From the perspective of Sun, the rapid development of online games is a new opportunity for economy growth and game industry should concentrate on satisfying the demands of the masses, especially adolescents (Sina Games, 2012). Meanwhile, according to the recent 2013 China Gaming Industry Report, new statistics show that in 2013 the number of Chinese domestic gamers has reached 0.49 billion, with the contribution of approximately 83.17 billion Yuan (Game Publication Committee, 2014). Although traditional online games (client games) still occupy 64.5% of the entire Chinese game market, it cannot be ignored that webpage games, mobile games and social games are developing rapidly (ibid.). Games are now can be played in and across multiple platforms, including PC, mobile phone, tablet computer and game consoles such as Xbox One and PlayStation 4. This indicates the increasing popularity of digital games and people are more willing to spend time and money to enjoy engaging in game worlds. Nevertheless, the more time spent on playing games, it is more possible to say that people may get lost in the virtual world. Sometimes playing digital games breaks the balance between the virtual and the reality, and Roberts (2010) argues that it may develop into excessive behaviour which to a large extent affects social relationships, individual health, and jobs. Van Cleave (2010: 197) offers a vivid description which shows how a gamer gradually turning away from his or her original social relationships:

I'll phone you later

Tomorrow

Next weekend

Later

Never

It seems that what Robert and Van Cleave have pointed out means that digital games have the capacity of making game users set playing games as temporarily high priority in daily life. Digital games to some extent substitute some other components of daily life and then become its major part. In this sense, game users feel difficult to leave game world. For example, when playing an online game such as *World of Warcraft*, it is possible that dining regularly is less important than completing one quest with other players, due to the attractiveness of this game world as well as the fact that it is impolite to make others wait in front of the screen. On the other hand, setting playing games as high priority is temporary, and it is certain that it can become low priority in daily life once people gradually

lose interest. A game can easily get people involved; at the same time it is also easy to make them feel bored, because no one can stick to just one game for the whole life. Despite the fact that there is a switch from high priority to low priority when playing games, it is also possible that people may turn to another game to continue enjoying engaging in the virtual world. As a result, there is a cycle with the choice of setting playing games from high priority to low priority, and then from low priority to high priority. This to some extent indicates the difficulty to quit from game worlds; and combining one definition of addiction which defines it as ‘a chronic, relapsing, brain disease’ (Heyman, 2009: 17), it seems that playing digital games to some extent shares with the feature of relapsing. It can be common for players to re-experience the same game or search for a similar game in order to recall their game memory. Nevertheless, I believe that it is doubtful to equate excessive play with addiction. The first point is the withdraw distress. Lindesmith (2008) points out that withdraw distress can be the key criterion to recognize addiction which drives addicts eagerly to obtain drugs without caring the sacrifices. As a result, drugs maintain the highest priority for those drug addicts. When referring to excessive play, it is problematic to say that withdraw distress actually has effect because the high priority is temporary which has been argued above. The second point is the difference of the availability. Lindesmith (2008) notes that drug user often have anxiety concerning the limited drug supply, and he makes a hypothesis that if food and drugs exchange their position on supply it is no doubt that famine would be the central anxiety instead of addiction. On the other hand, as mentioned above game industry is enjoying its rapid development on multiple platforms and it suggests that games are more available to people than drugs. In this sense, it is also questionable to judge whether excessive play is a negative behaviour as taking drugs.

Moreover, when analysing excessive play it is also vital to recognize the relationship between games and players. Games are designed to be addictive because game companies need to make money from attracting more gamers, but players are not necessarily to be addicted to the every aspect in the game world: in other words, they are actually making choices for various reasons, such as searching for happiness and recreating reality (McGonigal, 2011). These reasons to some extent make players stay in the virtual world, and different opinions arise when regarding the loyalty to games. There are two Chinese idioms: sap one's spirit by seeking pleasures (玩物丧志) and be so absorbed as to forget food and sleep (废寝忘食). Both the two are metaphors which show how a person devotes himself or herself into a certain activity. However, the former one stands for the negative and the latter means the positive. At this point, I want to find out whether playing games should only be related with the first idiom while the second idiom belongs to some other contributory hobbies such as collecting.

On the other hand, a famous critic against online games, Tao Hongkai, who claims that online games are spiritual opium, now becomes an image speaker for the online game *Show Sword 2* (Xinhua Net, 2012). Tao believes that this game corresponds with the features of healthy online game: healthy content, strong sense of reality, no involvement of addiction in its operation (Xinhua Net, 2012).

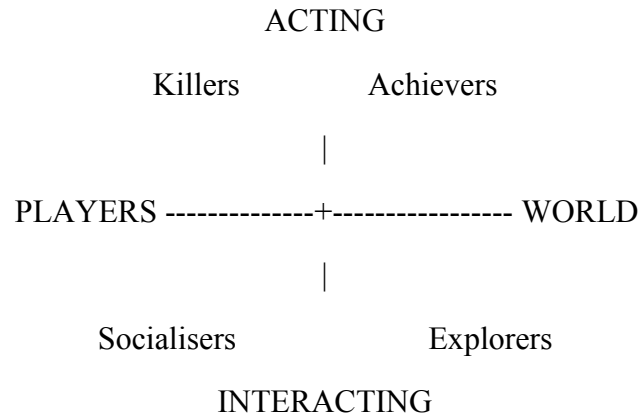
However, according to the investment of Xinhua Net (2012), approximately half of its respondents believe that it is a shame for Tao to become an image speaker for *Show Sword 2*, and his decision loses trust among the masses. Meanwhile, about 40 percent of respondents reply that they will never play this game because Tao becomes depraved just for making money (Net Ease Games, 2012). In this regard, the rapid growth of Chinese online games and the change of Tao both reflect the fact that online games are gradually becoming an important part for the society. In other words, online game nowadays is challenging the perception of the masses, and the criticism on Tao's 'betraying' is just the case. At this point, the conflict between games and the potential heavy use on them raises the question that what can we get from staying in those online games. It is important note that Tao's argument on the so-called healthy game is not the answer. The strong sense of reality and no involvement of addiction in its operation are two contradictory features. The former one means that online games are capable of substituting the reality such as work and study, which corresponds with the game addiction. This conflicts with the latter one, and it is difficult to eliminate the addiction nature from online games, because operators need it to attract more potential customers. At this point, the so-called features for healthy online games are vague, and this causes the question that whether it is applicable to distinguish the healthy online games and those 'unhealthy'. Therefore, this thesis tries to focus on exploring the difficulty to leave game world, not only because it raises the discussion relating to addiction, but also the question that whether we can learn from staying in the virtual world.

2) Gamer type:

Before introducing the methodologies of this dissertation, I think it is necessary to give a detailed description about my gamer type, that is, what a kind of gamer I am. I think that it is an important issue which is needed to be addressed in advance, because it to a large extent has effects on the choices of game cases which I will use in this thesis. Meanwhile, due to the fact that there are so many games now available on different game platforms (for example, PlayStation, Xbox, Nintendo, PC, iOS, and Android), it is impossible for individual to experience all games on all game consoles. The gamer type provides criteria for game selection among these games, and it can also help understand why this thesis chooses the following games as research target rather than other games.

There are many types of gamers, and Bartle (1996) concludes four types of gamers: killers, achievers, socialisers, and explorers. According to his research, killers are those people who enjoy attacking other player in the virtual world, and making others distressed is the source of their pleasure; achievers refer to those who set achieving in-game goals as the priority, other in-game behaviours such as killing, socializing, and exploration are only the methods to achieve those goals if necessary; Explorers are interested in seeking out the unknown part of the virtual world, for them, this can be the biggest concern as well as the reason to stay in the game world; socialisers prefer interaction with other players, and for them games

can be a way to facilitate conversations (Bartle, 1996). Bartle (1996) then further illustrates the four types of gamers by using the following graph:



This graph suggests what these four types of players are interested in. For killers, they prefer acting on players and showing off their killing skills; for achievers, they prefer acting on the world and taking the control of the game world; for socialisers, their main goal is to interact with other game participants and maintaining friendship is their biggest concern; for explorers, their favorite is to interact with the world, in order to acquire the knowledge of the game world (Bartle, 1996). Based on the perspective of Bartle, I think that my gamer type belongs to the achiever, or more specifically, the collector. Firstly, I am not an active killer, and even not good at killing in the game world. When I was playing the online game *World of Warcraft* I chose a PVE (Player Versus Environment) server instead of a PVP (Player Versus Player) server to avoid being killed by other players, and I went to the battle field only if I had to, for achieving some game goals or daily quests. Secondly, I am not an explorer either, and when I play a game my first step is to find some relevant wikis from the Internet to help me beat the game; in other words, discovering the unknown is not my priority, to clear the game is my most important goal. I feel comfortable when I have support from wikis, and I prefer putting the game world under control. Thirdly, I am also not a total socialiser: I need conversation, but it is not the reason I stay in the game world. That is, interacting with other players is a way to help me achieve in-game goals, so moderate communication is enough for me. Finally, I believe that I am an organised achiever who has a strong sense of control, and before I begin a game I often set some goals to arrange my game process. For me, the game world is another reality, which is a part of my daily life.

As an achiever, I prefer role playing games because this type of games provides abundant elements for me to achieve. When I played the game *World of Warcraft*, my concentration was on the achievement system, which for me was an interesting process of constructing my game identity. I spent most of my game

time to unlock achievements and collect those points. During this process, I went to the battle field to take part in the killings which I dislike, joined guild for attending raid, and explored the whole world map. All I wanted was to make my game character special through the achievement system. Even now I no longer play *World of Warcraft*, the achievement system has become a criterion for me to choose a new game, that is, to find out if this game has some similar elements to help me accumulate and construct my game identity. In this sense, I realize that I am a special type of achiever, an organized collector who devotes time to gather components of game identity with efficiency. To some extent, collectors now can be a minority among gamers due to rapid development of casual games, such as *Angry Birds* and *Flappy Bird*; on the other hand, this is a stable group with loyalty, which means that a collector unlikely leaves a game so easily compared with those casual game players who just want to have a glimpse of a game or enjoy games through fragment time. Instead, he or she will not quit a game until finishing their collecting according to the pre-set plan. Even if a game is finished, more games are awaiting for collectors to conquer: in a word, they will not stop.

Meanwhile, I do agree with one point from Yee, that is, massively multiplayer online role playing games (MMORPG) 'are not just games', and here is the reason why Yee thinks so (Yee, 2006a: 325):

There are many ways one can conceptualize MMORPG environments. They are places where alternate identities are conceived and explored. They are parallel worlds where cultures, economics and societies are being created. They are environments where the relationships that form and the derived experiences can rival those of the physical world. They are new platforms for social science research. They are places where people fall in love, get married, elect governors, attend poetry readings, start a pharmaceutical business, and even commit genocide.

The words of Yee suggest that the border between MMORPG and daily life is now blurring. The virtual world indeed can have impacts on the physical world, and more importantly, it is not only MMORPG that go beyond the boundary of a game, all games have the potential. In her book *Reality is Broken* McGonigal (2011) points out that games have the capacity of breaking and reinventing reality, and at the same time the gap between gamers and non-gamers is becoming smaller, which proves that games are now a part of daily life. In this regard, the blurring borderline between the virtual and the real urges to explore the difficulty to leave the game world, and game collectors can be one group for this dissertation to analyse their behaviours within and out of games. As a game collector, both in-game and out-game elements are worthy for collecting. Sometimes from the perspective of game collectors the out-game contents such as the physical version of games, game-related CDs and toys are more valuable than in-game elements. Games are not only games; they can also be a series of collection.

3) Research contribution and research methodology:

By introducing my gamer type this thesis highlights the importance of the involvement of collecting in digital games. As Jones (2008: 47) has pointed out

‘games involve collecting, and collecting itself is games’, collecting has undivided connections with digital games, and this thesis believes that this can be an approach to study why it is difficult to leave game worlds. There are some scholars (e.g., Young, 1998; Clark and Scott, 2009) who have already tried to link problematic gaming with addiction; and at the same time some other scholars (e.g., Belk, *et al*, 1991; Formanek, 1991; Belk, 1988; Belk, 1995; Griffiths, 2013) focused on analysing the relationship between collecting and addiction. However, there is little attention spent on exploring the possible connections between problematic gaming and collecting so as to discuss why it is difficult to stop playing games. Therefore, the purpose of this thesis is to explore connections between digital games and collecting, and by taking this approach I hope to find out an appropriate way to understand why sometimes people may feel difficult to leave game worlds. As a role playing game (RPG) gamer, I think that a game provides a certain level of belongingness which can either be a missing part of daily life or a source for relaxation. In other words, searching for a game to play is just a reflection of human nature, that is, the desire. This makes me think of the collecting, which is also a desire-driven hobby. My father is a collector and I find that there is something that a gamer and a collector shares: we both cannot stop. For a RPG gamer like me, playing the same game never satisfies me and keeping trying different games often becomes my choice; For my father, a collector, there are always something for him to collect, maybe a coin, maybe a book, and even if there is no appropriate target, he will try his best to find one. Therefore, there exist connections between digital games and collecting, which means that it is possible and interesting to find out what a game itself means to its players from the angle of collecting, and then it can help analyse whether playing games is an ‘order’ or ‘disorder’. Digital games have the capacity of absorbing attractive elements in daily life, it can be one reason to explain the addictiveness of games and how games blur the border between virtual life and real life. On one hand collecting is an approach to ‘understand ourselves and the world we live in’ (Pearce, 1995: vii) as well as the representation of ownership, entertainment, and memories; on the other hand, it is a hidden addictive behaviour which consumes a significant of leisure time. In this sense, this thesis tries to focus on one key research question: how people understand the heavy use on digital games and what is hidden behind choosing to stay in game worlds.

In order to answer the above research question, it is important to firstly find an appropriate way to understand and experience the game world, that is, a balance point between the virtual world and the reality. To find the point it is essential to get an understanding about the ‘unbalance’, and this thesis believes that we need to discover it, accept it, and then interpret it in a logical way. It is recognized that more time spent on the virtual world, less attention it may be spent on the real life. This is what the unbalance might be, that is, the game addiction metaphor, or lost in games. Addiction is never a positive thing for both individuals and the society, as it may consume the time spent on necessary activities such as study and work. However, it is noted that the term game addiction has no explicit definition, a related attempt to define it can be the study on Internet addiction (e.g. Young, 1998), and its criteria are borrowed from some similar types of addiction such as

pathological gambling from the *Diagnostic and Statistical Manual of Mental Disorders* (DSM). Therefore, there remains space to discuss what a game can bring us, either positive or negative. This thesis tries to argue that playing digital games to a large extent is a sense of blurring, which is, eliminating borders between the virtual world and the reality as well as the capacity of substituting necessary activities such as study and work. By raising this argument, this thesis hopes to change the perception of people on being ‘addicted’ to games: it can be either positive or negative, and this depends on the extent of blurring. As games nowadays are becoming popular, it is difficult and unpractical to eliminate them from the daily life. Due to this fact, it seems necessary to interpret games in a logical way. Games are capable of absorbing elements from real life, and then recreate them into the virtual life. In this sense, this thesis believes that a game is more likely a series of collecting, and engaging in a game itself can also be a process of collecting.

By pointing out the connecting between addiction and playing digital games, this thesis tries to adapt the following path to answer the research question: 1) Presenting literature review which discusses the relationship between digital games, addiction, and collecting; 2) Case studies will be applied which focus on discussing the influence of collecting in client games, webpage games, and console games. Firstly, we need to get a detailed understanding on how digital games and addiction connects, and how collecting perform in influencing this connection. At this point, it is important to note that in this thesis literature review is a part of methodology, which to a large extent helps link research question and the following discussion in the part of case study. According to Aarseth (2003), game analysis on humanities is a relatively recent research filed, and there still exists space for researchers to develop appropriate approaches on methodologies. In other words, there is no fixed and standard way on designing the methodologies for game studies, which allows this thesis to open up a different way for considering how collecting can have effects on game behaviour. Aarseth (2003) emphasized the importance of the combination of play and non-play in game studies, and I believe that literature review can be a part of non-play analysis, which to a large extent ensures the credibility as well as strengthening the research background for this dissertation. There are three sections in the part of literature review, and the first section focuses on introducing basic background for game studies including the definition of digital games and the possible roles that they can play in our daily life. The second section introduces the term addiction, as well as the attempt of studying the Internet addiction which addressing the problematic use in digital age. The third section will offer a scope on viewing collecting, including 1) the definition of collecting and possible motivations for collecting; 2) the connections among digital games, collecting, and addiction; 3) the introduction of the theory of Freud about how the mind works when collecting something.

Moreover, this dissertation will go on to apply case studies with the aim of offering detailed and concrete analysis on why and how collecting can have effects on making game users be willing to stay in game world. To begin with, it

is essential to note that play holds an important role in game study, and a certain amount of time spent in experiencing game world should be necessary. Aarseth (2003) points out that there are three ways to study a game: 1) focusing on game mechanics; 2) observing others play; 3) self-play. He continues to argue that play is the direct and best way if combined with the other two. Therefore, to identify a game it is essential to play it and get the first hand information, at the same time combined with the study on mechanics and observation. At this point, this thesis will choose three different types of games. They are *World of Warcraft: Mists of Pandaria* (Massive Multiplayer Online Role-Playing Game), *Sanguosha Online* (Webpage card game), and *Ragnarok Odyssey* (Portable action game on PlayStation Network). There are several reasons why choose these three games as case studies: 1) I have played all these games, which to some extent can help ensure the credibility for this dissertation, just as Aarseth has pointed out; 2) These chosen games are well-known among gamers, which can be used as typical examples across different game platforms; 3) most importantly, all of them contain a large portion relating to collecting in their game systems, which can help find out how collecting can have influences on gamer behaviours. At this point, the focuses of the participant observation are experiencing and finding the potential addictive elements relating to collecting. Due to the fact that they are different types of games, the duration for participant observation can be different. The game *World of Warcraft* is a complex online game with abundant play elements, which requires a significant amount of play time. Meanwhile, *Mists of Pandaria* is a new expansion pack for *World of Warcraft* and additional time will be spent on upgrading. As a result, this dissertation plans to spend approximately one month on this game (four hours per day). Field note is the main way for recording first-hand information, which focuses on the achievement system, including two of its features: 1) a rewarding system, which provide a variety of rewards such as mounts and pets, if certain achievements are completed; 2) a collecting system which provides opportunities for players to establish their own collections

The second game, *Ragnarok Odyssey*, is an action game that can be played either single or among multiple players. One important feature for this game is its portability combined with easy network access, which to a large extent ensure its frequent updating. This dissertation tries to spend two weeks (three hours per day) on this game with the focus on experience its game system. Here this dissertation will focus on the following aspects: weapons, cards, the refining system, rare materials dropping from monsters, and addictive elements. The third game, *Sanguosha Online*, although not as complex as *World of Warcraft*, the attractive part is its game rules. It has no detailed story line, and it is more likely a competition game among players. This dissertation plans to spend one week on this game (three hours per day), to experience its game rules and the competition with others. By utilizing the three different games, it is possible to get adequate first-hand information about the game world and the elements that can get people involved.

Finally, this dissertation will try to raise a discussion between experiencing the game world and the case of book collection, in order to find out how collecting is reflected in games, and more importantly, an appropriate way for engaging in the game world. As an intersection for playing games and collecting, addiction itself is not terrible, and the ‘terrible’ thing is that people may think that being addicted to a certain thing is terrible. There are a variety of objects for people to get addicted such as drugs and gambling, but not all of them are negative. Collecting is just the one. It contributes to the society and history, as well as the individual. On the other hand, game addiction is a vague concept which remains for discussion. By making the comparison between experiencing the game world and the case of book collection, it is possible to borrow some ideas or perception from the book collection, and to see whether playing games can benefit us, or just is a waste of time. At this point, through this comparison this thesis does not want to make explicit conclusions; instead, it can be more important to pursue an expectation, an expectation of finding out an appropriate and acceptable way for experiencing the virtual world.

2. Digital games and the roles they can play:

I played *World of Warcraft* (WOW) for almost six years. During this period I left WOW for several times, either due to the pressure of getting my degree, or just because I temporarily got tired of playing this game. However, after several month of the withdrawal, I chose to return WOW with no exception, partly because of the close social connection within this game: when I am away from WOW, some of my friends who also play this game would often discuss what was happening in WOW, like the preparation for the coming raid activity, the joy of completing some difficult achievements. Meanwhile, as WOW always have new patches released with new raids, when I was away from keyboard (not playing games) my friends in the game often tried to tempt me to return: the next patch is coming, it must be very interesting. We still need a healer, would you like go back to help us? As a result, my game life of playing WOW is like drawing a circle: leaving at the end of an old patch and coming back in the beginning of a new patch. Sometimes I kept asking myself: why it is so difficult to completely leave WOW? Maintaining the in-game social connection can be one motivation; however, that is far enough to understand this fact comprehensively. Apart from social connectivity, there is more an online game can provide for its participants to make them involved, such as exploring game world, beating high level monsters, and completing challengeable tasks. Meanwhile, in some single-player game, social connectivity may not be needed, and a good scenario seems to be more important to be a reason to play. By picking out possible reasons to stay in a digital game world, it is important to find out what lies behind them. Firstly, it seems necessary to have a basic understanding on what a digital game might be, and then it is possible to open up the discussion on why it is difficult for gamers to leave game world.

1) The definition of digital games:

It is possible to say that there are differences between different platforms among games such as PC games and console games. However, because of the increase of cross platform games, for example, *NBA 2K series* the border and the necessity to for the distinction to a large extent are blurring. Furthermore, the rapid development of the network accelerates the blurring. The portable game is no longer a purely portable game; it can be an online game as well, just the same as those on the PC platform. A typical example is the game the *Phantasy Star OL2*, a cross platform online games which has been released both on the PC and PlayStation Vita by SEGA. As Buckingham (2006) points out, while PC games and console games to some extent may have differences, there is no necessity to distinguish them. In other words, they can be classified into digital games. Therefore, in this thesis, when referring to the term game, it means those that can be played either on PCs, or a console such as PlayStation Vita, or even both.

Juul (2003) has noted that an appropriate definition of games should refer three features: the game, the player, the world, which can be a way of understanding the core of gameness. The game suggests the game system governed by game rules;

the player means the interaction between the game and its player; the world refers the connection between the virtual world and the real world (Juul, 2003). In this regard, a game is not an isolated term; it interacts with its participants and the real world. There are several previous definitions on the term game, which need to be compared with this criterion. To begin with, according to Caillois (1961: 10-11) a game is:

[...] an activity which is essentially: Free (voluntary), separate [in time and space], uncertain, unproductive, governed by rules, make-believe.

This definition is an early form of trying to find out the nature of a game. It seems that the features of free, separate, and unproductive can be those that can distinguish game from other human activities such as work and study. Mayra (2008) points out that the perspective of Caillois opens the possibility for game scholars to think wide on the study of human activities. On the other hand, this definition to some extent reflects an incompact relation among the game, the player, and the world. The separate, unproductive, and unreal natures of games in this definition indicate that game world isolates from the real world, which suggests the limited interaction between the two worlds. Meanwhile, the connection between the game and the player is free but governed by rules, and this shows a balanced relationship between the two. In this sense, the perspective of Caillois concentrates on the exploration of the game itself and its relations with its participants, but to some extent ignores the potential of games in the dimension of interacting with the real world.

Pearce (2002: 113) provides a detailed definition on the term game, which focuses on the experience of gamers:

A game is a structured framework for spontaneous play consisting of:

A goal (and a variety of related sub-goals)

Obstacles (designed to prevent you from obtaining your goal)

Resources (to assist you in obtaining your goal)

Rewards (for progress in the game, often in the form of resources)

Penalties (for failing to overcome obstacles, often in the form of more obstacles)

Information

- Known to all players and the game

- Known to individual players (e.g. a hand of cards)

- Known only to the game

- Progressive information (moves from one state of knowledge to another, e.g. Chance cards in *Monopoly*)

The idea of Pearce shares with Caillois, that a game is a free play but on the premise of the governance by game rules. Compared with Caillois, the key

difference for Pearce is that a game can be productive with the set of goals. By concentrating on the process of game experience, that is, the set of a goal, facing obstacles, taking advantage of resources, getting rewards or penalties, it seems that a game is an 'identity' or 'avatar' (Buckingham, 2006: 6) play, which is productive of generating unpredictable results. In this regard, the perspective of Pearce can be regarded as an improvement on defining the term game by considering the gamer experience, and at the same time a start of approaching the potential connection between the virtual world and the real world through recognizing the productive nature of games.

Based on the previous seven definitions on the term game (Johan Huizinga, 1949; Roger Caillois, 1961; Bernard Suits, 1978; Avedon and Sutton Smith, 1981; Chris Crawford, 1981; David Kelley, 1988; Katie Salen and Eric Zimmerman, 2003), Juul (2003) offers a model of defining game, which contains six features:

1. Rules: Games are rule-based
2. Variable, quantifiable outcome: Games have variable, quantifiable outcomes.
3. Value assigned to possible outcomes: That the different potential outcomes of the game are assigned different values, some being positive, some being negative.
4. Player effort: That the player invests effort in order to influence the outcome. (I.e. games are challenging)
5. Player attached to outcome: That the players are attached to the outcomes of the game in the sense that a player will be the winner and "happy" if a positive outcome happens, and loser and "unhappy" if a negative outcome happens.
6. Negotiable consequences: The same game [set of rules] can be played with or without real-life consequences.

According to this model, the term game can be systematized, with the coactions of the game, the player, and the world. Rules are the basis for games, and Juul (2003) points out that a game cannot function without rules because the game itself in fact is a removal of the uncertainty from its game rules. He notes that if there is any debate about the game rules, the game will not restart unless it has been figured out (Juul, 2003). One example can be found in the update of the patches for the online game *World of Warcraft*, some of the updates in this game aim at the modification and adjustment on the game rules such as the PvP (player vs. player) system, and the game does not restart until the relevant patch has been updated. This just shows the importance of rules for the game. Meanwhile, variable, quantifiable outcome suggests the consequence of the set of game rules, as well as a reflection of the expectation of players. Moreover, the third and the fourth features can be regarded the two different ways of showing that games are associated with challenges, conflicts and interactions (Juul, 2003). The fifth feature, from the perspective of Juul (2003), is a psychological approach of understanding games, which drives players to the outcome of games. The final feature, negotiable consequences, indicates the interactions between games and the real life. To decide whether a 'game' is really a game, it should fit all the six

features, otherwise it is just a game-like activity, or should even be excluded. For example, pen and paper role-playing games lacks of fixed rules and it is just a marginal game case; hypertext fiction does not have variable outcomes and the potential to link participants to its outcome, which suggests that it is not a game (Juul, 2003). In other words, the approach of Juul in defining games to a large extent is a kind of dichotomy, which creates borders around games to distinguish them from other similar activities. In this sense, Juul (2003) believes that games in fact are ‘rule-based systems’ with the involvement of interactions between players and the real world, rather than a description of ‘fictive worlds’.

Compared with the definition from Caillois and Pearce, it can be argued that what Juul brings us is an interconnected game world with both its players and the real world. The border between the game world and the real world is blurring, this is the point that Juul uncover for us. As a result, through the discussion on the term game (Caillois, 1961; Pearce, 2002; Juul, 2003), it demonstrates the development of the understanding about what the game means for people: from just a sense of play to an integrated part of daily life. This fact calls for the attention to consider the extent of this integration for games. At this point, Juul (2011: 1) raises the concept of half-real, which describes a game as the combination of ‘real rules’ and ‘fictional world’:

Half-Real refers to the fact that video games are two different things at the same time: video games are *real* in that they consist of real rules with which players actually interact, and in that winning or losing a game is a real event. However, when winning a game by slaying a dragon, the dragon is not a real dragon but a fictional one. To play a video game is therefore to interact with real rules while imagining a fictional world, and a video game is a set of rules as well as a fictional world.

Based on this interpretation, it suggests that a game can be a parallel world separated from the real world, but at the same time relies on the logics of the real world. Moreover, as Juul (2011) points out that a game has the ability to make people view things from a different angle, it recognizes the capacity of a game to interact with the real world, although to some extent indirectly. Therefore, the concept of half-real shows that the game, the player, and the world interact together, which constitute the ‘half-real’ world. However, due to the fact that games are always on the process of absorbing new elements from the reality and continuing the updating, it is difficult to give a fixed definition on the term game. Bissell (2011) shares this opinion and based on his research, those game designers that he has interviewed tend to abandon those definitions on games, in order to keep their mind fresh. Despite the fact that the nature of a game can be dynamic and changeable, there is still something that can be ‘fixed’ as the basis to understand what a game might be. In the book *Reality is Broken* McGonigal, a famous game developer who has ambitions to create influential games that can help change the world, wrote that there are four key features that can help understand a game, they are:

1. The goals: the specific outcome that players will work to achieve.
2. The rules: place limitations on how players can achieve the goal.

3. The feedback system: tells players how close they are to achieving the goal.
4. Voluntary participation: requires that everyone who is playing the game knowingly and willingly accepts the goal, the rules, and the feedback.

McGonigal (2011: 21)

These four points, comparing with the definition of Caillois, it shows that the goals, the rules and voluntary participation are the three sharing features of a game. As for the feedback system, according to McGonigal (2011) it can be a source for players to maintain their motivations to stay in game world. As a result, the four traits of a game raised by McGonigal suggests a linear approach to understand how a game may get people involved: 1) firstly, players can freely choose a game to play; 2) this game contains various goals or missions for players to achieve; 3) when challenging these goals, players should follow those game rules (game settings and instructions); 4) then there is a feedback system in game to remind players how much left of approaching the goal, which can help keep motivation for players to stay. Here it is important to note that the feedback system can be the key point make people 'trapped' in game world. The function of the rules in a game is to make the goals clear to be achieved, and following the game rules cannot be a reason to play a game; the goals can be a start point to play a game, however, without being reminded how much left to the goals, it may cause people feel depressed and bored to stop playing. The feedback system is more likely a checkpoint for players to know their progress in a game, which helps them to be certain to overcome the uncertainty in game world. Meanwhile, in her book McGonigal also applied a conclusion of what a game is from Bernard Suits as the convincing definition for games: playing a game is the voluntary attempt to overcome unnecessary obstacles (Suits, 2004, cited in McGonigal, 2011: 22). The interesting point according to the definition of Suits is that playing a game in fact is a process of completing unnecessary challenges, and here comes the question: why people would spend time choosing to do such unnecessary tasks instead of overcoming so-called necessary obstacles in reality? In this sense, this dissertation believes that it is important to understand the role of digital games.

2) The role of digital games:

Generally, what a game can bring us is diverse, some people play games because they want some relaxation, some may be just for fun, or some want to maintain the relationships with their friends. No matter what kind of the motivation might be to play a digital game, one expectation from players can be shared, that is, the seeking for pleasure. Playing a game actually is a period of optimal experience, which can be explained by the concept of flow, which developed by Csikszentmihalyi, a positive psychologist. The definition of flow, according to Csikszentmihalyi (1990:4), can be explained as follows:

--the state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it.

This concept to a large extent suggests why sometimes it is difficult to leave game world. It is driven by the pursuit for maintaining the enjoyable moment, and Turkle (2011) also mentioned that sometimes a game can be so absorbing that few time and energy can be left for do other things. This means that playing a game can make people enter a state of flow, where they can acquire a sense of pleasure. Meanwhile, Keyes (2001, cited in McGonigal, 2011) notes that flow is just a temporary state which cannot last all the time. Therefore, it seems necessary to examine what a game can bring us when people are in the flow and out of the flow. By utilizing some contributions from some game scholars (Huizinga, 1949; Krzywinska, 2006; Malaby, 2007; Calleja, 2010), this dissertation tries to argue that the role of games can be divided into three stages, which are game as play, game as process, and game as escapism.

1) Game as play:

To begin with, the term game is understood as ‘a subset of play’ (Malaby, 2007: 95). In other words, a game is developed by people to be played, which to a large extent generates pleasure. Therefore, when people refer to game, it is often associated with the image of play. The term play, from the perspective of Malaby (2007) owns three inherent natures: 1) it is a separable section from daily life, which is distinctly opposite to work; 2) it is a safe experience, which excludes the responsibility to generate consequences or production; 3) it is also a representation of pleasure, which in most occasions turns out to be positive. These can be what a game initially brings us, that is, a safe but isolated world consists of pleasure and at the same time excludes the pressure from the reality. Huizinga, a famous scholar who explored the nature of play, drew the conclusion that:

[...] we might call it a free activity standing quite consciously outside “ordinary” life as being “not serious”, but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means. (Huizinga, 1949: 13)

This conclusion uncovers how a game can function as the play. It shares with the first two features of play raised by Malaby, but does not mention that the play is certainly an expression of pleasure. From the perspective of Huizinga (1949: 13), play can function as ‘a contest for something or a representation of something’, and by combing the two functions, game can be a representation of a contest, or ‘becomes a contest for the best representation of something’. As a result, in the first stage, a game can function as a ‘safe house’ for its players, and creates borders to separate them from the reality. In other words, in this stage the role of games can be quite simple and direct: just providing isolated space and time as a way of play.

On the other hand, it is important to note that the game is just a subordination of play rather than the play itself, and this suggests that there is unnecessary for a game to follow the logic of play completely. Malaby (2007) shares with this idea and emphasizes that the three natures of play mentioned before are not intrinsically held by a game. At this point, this suggests that although games may share some features of play, it does not mean that the features of play are the features of game. In fact, the intrinsic features of game are more than the three of play as Malaby (2007) previously points out, that is, a separable section from daily life, a safe experience, and a representation of pleasure. In this sense, a game to some extent is a type of play, but more than play. At this point, Malaby (2007) believes that the attempt to simplify the intrinsic features of game as those of play can be inappropriate, because the three inherent natures of play can be culturally or contextually specific to games. He then proposes a definition of game, which labels games as a basic human practice: ‘a game is a semibounded and socially legitimate domain of contrived contingency that generates interpretable outcomes’ (Malaby, 2007: 96). Based on this definition, Malaby (2007) argues that games are semi-bounded sections, with the flexibility of either isolating from everyday life, or completely involving in it. Meanwhile, Malaby (2007) also points out that a game is not only capable of generating pleasure, but also for other emotions such as sorrow and envy. Therefore, based on the perspective of Malaby, it is necessary to argue that the role of a game can be flexible which is capable of developing into the next stage, that is, as a process.

2) Game as a process of construction:

It is important to note that in this stage, what a game brings us can be the construction for blurring the boundaries, for establishing the game avatar, and for generating unpredictability. Firstly, the blurring boundaries for games, from the perspective of Malaby (2007: 97), refer to ‘games without frontiers’, which means the rejection of the separation of games from daily life. He criticises that the stereotype that games are subordinate to the term play creates borders around games, and this explains why nowadays the term game to some extent is still marginalized by the mainstream media (ibid). The term game, from the perspective of Malaby (2007), should be borderless, which suggests that it is not a proposed utopia isolated from daily experience. In this regard, Malaby (2007) argues that it is important to free the term game from the framework of play, and this on the other hand indicates that both negative and positive feelings are included in games, rather than only the positive feelings such as fun and pleasure. Therefore, the idea of the borderless game offers a rethinking about the term game: a game is not only an experience of play; instead, it is approaching the everyday life of people. In other words, it can be concluded that the game is on the process of blurring the boundaries between the virtual world and the real world, which calls for the attention on its potential of substituting some basic activities in reality, such as work and study.

Furthermore, the second feature, the construction of game avatar, suggests the way of the participation of players. Based on the idea of Taylor (2006: 159), it

indicates what games might be, that is, as ‘participatory sites’. In this sense, the game avatar to a large extent is an approach of showing the participatory nature of games, and Hjorth (2011: 84) points out that:

The avatar plays an important part in the construction and ‘presentations of self’ online. The avatar occupies a satellite space in between the player’s sense of self and the community it inhabits.

Meanwhile, Ducheneaut *et al.* (2006) argue that:

For most, playing the game is therefore like being ‘alone together’—surrounded by others, but not necessarily actively interacting with them.

Both Hjorth and Ducheneaut *et al.* explore the features of game avatar, but from different angles. According to Hjorth, the game avatar can be a process of establishing the self in the virtual world along with the interaction with the game community. Meanwhile, the point of Ducheneaut *et al.* is that the avatar play can be a process of establishing the self in the virtual world but does not have to interact with other participants. Therefore, it seems that the construction of game avatar can be an individual behaviour, and the level of its social involvement depends on players themselves. Malaby agrees with the idea of Hjorth and Ducheneaut *et al.*, and he emphasizes the flexibility for construction of the self in the game world. He explains that:

Games can change as they are played, and this passage points to how this can be done intentionally, as the players notice one or another pattern or possibility and attempt (much like a game design would) to calibrate the various unpredictabilities that together constitute a game.

Malaby (2007:102)

Then, it can be argued that a game is a dynamic and flexible artifact, which is ‘in the process of becoming’ (Malaby, 2007: 103). In other words, a game is a social product with the capacity for change, and so it is for the game avatar. As a result, through the discussion on the construction of the self, it shows the importance of the participatory culture in games and its flexibility.

Finally, it is necessary to hold that uncertainty can be an important constitution for games, due to the fact that it to a large extent can generate expectations. Malaby (2007) believes that it is necessary to highlight contingency as one key nature of games. From his point of view, contingency, which can be understood as uncertainty or unpredictability, is an efficient approach to explain why game contains the element of fun (Malaby, 2007). He also holds that games to a large extent are based on daily experience, and what game designers do is to imitate the daily life and put it into the circumstance of games, including its uncertainty (Malaby, 2007). In this regard, Malaby (2007) adds that the contingency of games is contrived, and this offers the possibility to place games with other human practice at the same level. This suggests that game is not an inferior everyday experience when comparing with other human practices such as work.

Krzywinska (2006: 121) takes a different position, and her approach is to view game as a set of text, which ‘provides the environmental, stylistic, generic, structural, and semiotic context for play’. From her point of view, regarding game as text can help scholars understand what the game world really is, by focusing on the game design, style, and culture (Krzywinska, 2006). Krzywinska (2006) also clarifies that although game is not simply a story, it indeed shares the nature of story to some extent. Bissell (2011) agrees with the point of Krzywinska and he believes that storytelling is an important mechanism which attracts players, and it is a way of exploration for discovering the uncertainty of the game world. In this regard, it seems that to regard games as text or storytelling to some extent is also an evidence of uncovering the unpredictable nature of games.

By finding out that a game can be the construction for blurring the boundaries, for establishing the game avatar, and for generating unpredictability, it to a large extent indicates that to the game can be a process of continuous development in the dimension of the game, the player and the world. Games has a strong potential for modeling, and this is a process of ‘being’, that is, the progression.

3) Game as escapism:

According to the discussion above, games can act as a type of play and a process of progression; meanwhile, it is inevitable to hold that a game naturally offers space for individuals to escape from the reality, and in the following part, the term escapism will be explored with the aim of finding out what it brings to people. Before the discussion on escapism, it is important to note that digital game has received many criticisms, due to its increasing popularity and the lack of knowledge on it. For example, Mortensen (2006) points out that *World of Warcraft* had attracted about five million players after a one year release. This, from the perspective of Mortensen (2006), causes the panic towards those popular digital games, which are regarded as new media. Jenkins (2004) proposes eight concerns on digital games, which is listed as follows:

1. The availability of video games has led to an epidemic of youth violence.
2. Scientific evidence links violent game play with youth aggression.
3. Children are the primary market for video game.
4. Almost no girls play computer games.
5. Because games are used to train soldiers to kill, they have the same impact on the kids who play them.
6. Video games are not a meaningful form of expression.
7. Video games play is socially isolating.
8. Video game play is desensitizing.

However, Mortensen (2006) argues that most of the concerns above are raised when a new media appears, and all of them turn out to be wrong. Here is a report from BBC, which can be a response to these concerns (Pratchett, 2005: 24):

1. 59% of 6- to 65-year-olds in the United Kingdom are gamers: this is equivalent to 26.5 million people;
2. 48% of the United Kingdom aged 6 to 65 plays games at least once a week (21.6 million people);
3. 100% of 6- to 10-year-olds consider themselves to be gamers;
4. A quarter of U.K. game players are aged 36 to 50;
5. 18% (or 1.7 million gamers) are aged between 51 and 65;
6. The average age of U.K. gamer is approximately 28;

Combing the eight concerns on digital games and the report from BBC, it is clear that those criticisms on digital game ignore the fact that it nowadays has become one necessary component in the daily life, which goes beyond the limitation of age and gender. However, there is still one criticism remaining, which relates digital games with the term escapism. Calleja (2010) notes that games are viewed as one way for escapism because it is easily to make people lose the control of time and distract them from things that should be done. In other words, it seems that digital games are designed to make people engage as an isolated utopia. Messerly (2004: 29) offers an argument, which can be a support to regard digital games as a place for escaping:

Escapism is the primary appeal. Moreover, as the graphics get better and the game play more sophisticated, playing becomes even more engrossing. It is easy to understand why anyone would want to escape our difficult and complicated world and fall into a vivid, compelling game environment. One can live there with little or no interaction with the ordinary world.

Based on this statement on escapism, it suggests that the game world isolates from the reality, which creates space for individuals escape from the cruel world, and this can be one key feature of digital games to attract potential players. Calleja (2010) disagrees with the point of Messerly and criticizes that it simply equalizes escapism with engagement, which ignores the complexity of the term engagement. The perspective of Messerly implies the following procedure: 1) game world is compelling; 2) players are attracted; 3) they do not want to go back to the real world. This problematic view, according to Calleja (2010), lies in the limited understanding of the game world. In this regard, Calleja (2010) argues that the engagement of games is not only a visual experience, but also a stimulation of emotion. Although digital games to some extent act as a way for the avoidance from the reality, the term escapism is not an intrinsically nature of digital games (Calleja, 2010). In other words, engaging in the game world is not equal to the escapism from the real world. Calleja (2010) points out that the criterion to judge the involvement of escapism lies in the context rather than the activity itself. For

example, working overtime can be a positive activity; however, it also can be a sign of escaping from family or other matters if putting it into certain context, and the same for engaging in digital games (Calleja, 2010). Moreover, Calleja (2010: 348) also notes that the term escapism does not necessarily imply the negative or depressed feelings; instead, it acts as a part of human reality, because when people go back to the reality they are possibly recharged with energy, and at this point escapism can act as ‘a favored antidote of boredom’. In this sense, to regard games as escapism means a temporary way of disconnecting with the real world to get recharged. On the other hand, Yee (2006b) argues that despite the fact that engaging in the game world can be a way of escaping, it is difficult for players to disconnect with the real world completely. Some people use game to escape from work, but they are more likely to find out that a game may also make they work if they devote their efforts to it (Yee, 2006b). As a result, games can act as the virtual world as escapism, it offers the possibility for relaxation and refreshment; on the other hand, it has a close relationship with time control, if too much time is spent on escaping, games can change into a burden for individuals.

3. Addiction: when pleasure becomes a burden:

1) The discussion on the term addiction:

There are many definitions of addiction. For example, from the perspective of Sussman *et al.* (2011: 4), the term addiction can be defined as ‘a disorder in which an individual becomes intensely preoccupied with a behaviour that at first provides a desired or appetitive effect’. This definition suggests one key nature of addiction, which is the heavily physical and psychological reliance. In fact, addiction is more than this. Heyman (2009) points out that addiction is a kind of disease, which currently may be the prevalent understanding of researchers and the media. In clinicopathology, the term addiction is defined as ‘a chronic, relapsing, brain disease’ (Heyman, 2009: 17). By introducing this definition, Heyman (2009) argues that addiction is a problem with drugs, which physically causes damage to health. This idea is shared by Koob and Le Moal (1997, cited in Moreno *et al.*, 2012), who add that drug addiction is a compulsive behaviour which can be regarded disability in self-control. Combining with the ideas of Sussman *et al.* (2011) and Heyman (2009), it seems that the term addiction is not only a disability in self-control caused by heavily physical and psychological reliance, but also a chronic disease that will do damage on the health of individuals.

Moreover, in order to better understand addiction, it is important to explore its nature. Lindesmith (2008) argues that one key nature of addiction is the distress on the withdrawal from addictive substance, due to heavy physical reliance. In this regard, Lindesmith (2008) believes that the formation of addiction does not happen in a short time, but is established in a cycle of time between withdrawal and return. What Lindesmith has pointed out to a large extent explains why addiction is chronic and relapsing. Addicts may feel it difficult to withdraw because of the physical and psychological dependence, which suggests that addiction is chronic. Meanwhile, the generation of addiction on the other hand indicates that addiction to a large extent relapses, after the struggle between the choice of withdrawal and return. Heyman (2009) holds the same position as Lindesmith (2008) and from his point of view addiction can be regarded as substance dependence. The term ‘substance dependence’ is used as a key criterion to judge addicts, which is agreed by the American Psychiatric Association (Heyman, 2009: 27). Heyman (2009) believes that the introduction of substance dependence can be reliable as one distinctive nature of addiction. Firstly, according to the *Diagnostic and Statistical Manual of Mental Disorders* (APA, 1994, cited in Heyman, 2009: 28), substance dependence can be ‘the most extreme form of self-destructive drug use’. Second, substance dependence is also a congregation of conscious behaviours, including tolerance, withdrawal, and relapse (Heyman, 2009). Third, substance dependence is also a form of compulsive behaviour, which is also defined by the DSM (APA, 1994, cited in Heyman, 2009). Therefore, by applying the approach of substance dependence, addiction can be further understood as a self-destructive, dependent, and compulsive disorder.

However, it is necessary to note the difficulty in judging whether an individual is an addict or not. This problem is noted by Heyman (2009: 27), who believes that it is problematic to measure ‘addictiveness’. For example, it is obvious that a large percentage of people have the experience of drinking alcohol, but few of them are regarded as alcoholics. Therefore, it is difficult to distinguish the terms “use” and “addiction”, in relation to drugs. Meanwhile, Heyman (2009) also finds that most people, including experts and non-experts, believe that defining addiction as a disease can be appropriate and reasonable, which is a stereotype. He believes that this definition of addiction needs to be revisited on the conceptual and practical level (Heyman, 2009). Heyman (2009: 91) notes that there are three reasons to define addiction as a disease, and they are broadly used in handbooks and clinics: 1) addiction has a biological basis; 2) addictive drugs have the capacity to transform a voluntary user into an involuntary one; 3) the disease interpretation leads to better treatment for addicts. By listing the three reasons, Heyman (2009) criticizes that the definition of addiction as a disease on account of a limited understanding of the term voluntary behaviour.

Rather than interpret addiction as a disease, Heyman (2009) views it as a disorder of choice, which rightly follows the logic of voluntary behaviour. According to Heyman (2009:118-19), the logic of voluntary behaviour can be explained as follows:

1. Preferences are dynamic.
2. Given a series of choices, there is more than one way to frame the possible options.
3. Individuals always choose the better option.

Firstly, Heyman (2009) claims that choices and values are interdependent, which contributes to the dynamic preferences. On one hand, values are the basis for individuals to make choices; on the other hand, choices in turn change the value of the results (Heyman, 2009). Heyman (2009) concludes that choices and the following results interact dynamically, together with the fluctuation of the value of choices. Furthermore, when referring to the second point, the term local and global choice is raised. Local choice means choosing a certain item one a time from the known options, while global choice denotes a choice from the different sequences which are made up of the available items (Heyman, 2009). Heyman (2009) points out that voluntary behaviour is composed of local choice and global choice, which can be two different types of choice. The global choice is complex, which to a large extent indicates the dynamic interactions between choices and values, and, on the other hand, the local choice is opposite (Heyman, 2009). The better option, which is mentioned in the third point, also has different meanings for the local choice and the global choice. For the local choice, the better option is to select the item with the higher value currently; for the global choice, it means the best sequence of items with higher value. As a result, the three principles indicate that voluntary behaviour can be a dynamic interaction between choice and the outcome, which is influenced by the fluctuation of values. Meanwhile, voluntary behaviour also suggests that individuals are capable of finding their better option from both local choice and global choice.

By raising the concept of voluntary behaviour, Heyman (2009) contends that it shares some key features with addiction. For example, both voluntary behaviour and addiction are influenced by self-evaluation, including concern with family, self-esteem, the cost and punishment (Heyman, 2009). In other words, what Heyman believes is that addiction to a large extent is guided by rationality, which at the same time is an important component of voluntary behaviour. Therefore, based on the assumption of Heyman (2009), the widely accepted idea that addiction is an involuntary, compulsory disease is incorrect, and he points out that there might be a fourth reason to argue that addiction is a disease, which also needs to be criticized. This reason is the view that addiction is assumed by the public to be a disease (Heyman, 2009). In other words, this understanding reveals that addicts make involuntary choices because the outcomes of addiction are out of their control. In this regard, Heyman (2009) is concerned that once people realize that a disorder is beyond control, there is more possibility that this disorder will be regarded as a disease, and this explains why addiction is viewed as a disease by most people, including experts and non-experts.

Therefore, it can be concluded that addiction is not an involuntary and compulsive disease; instead, it is a voluntary, chronic, relapsing behaviour which is viewed as a disorder of choice. Heyman (2009) further adds that ‘in fact, addiction is the psychiatric disorder with the highest rate of recovery’. The reasons addicts cease using a drug are based on voluntary choices, such as the costs of drug use, the disadvantages of further drug use and self-esteem (Heyman, 2009). Actually, Heyman (2009) believes that people avoid becoming addicts, not because they are particularly rational, but due to the stereotype that addiction is a disease, and this is the source that makes people unwilling to be an addict. On the other hand, Heyman (2009) clarifies that voluntary addiction does not mean that an individual is willing to become an addict, and it also does not imply that an addict can easily stop using. By raising the concept of voluntary behaviour, Heyman (2009: 142) points out that it is ‘an engine for change’, for the further exploration of addiction. Because of the rapid development of new technologies and the increase on wealth, it seems the problems and the natures of addictive drugs have extended to new dimensions (Heyman, 2009), and this argument offers the possibility to apply the ideas of Heyman to the study of Internet addiction. At this point, Heyman (2009) emphasizes that if drug addicts can overcome addiction, it is possible that ‘non-addicts can learn to control their natural tendency to take too much’.

Although sharing the view that addiction is a disorder of choice, Lewis (2011) argues that it is wrong to have the debate on whether addiction is a disease or choice, because it makes no sense, especially for neuroscience. He concludes that addiction actually can be a collection of choices in periods from short term to long term. Aiming at the criticism of Lewis, Heyman (2011) reaffirms the importance of distinguishing addiction from disease and responds that it is necessary to challenge and revisit the previously accepted ideas on addiction, and regarding it as a disorder of choice can be a good attempt. In other words, the definition of addiction as a disorder of choice and the introduction of voluntary behaviour can

be important breakthroughs with regard to addiction. After the discussion on the term addiction, I tend to agree with the idea of Heyman (2009), not only because it provides a new perspective in understanding addiction, but also the reason that it offers some new criteria on judging whether Internet addiction really exists. These criteria can be concluded as: 1) addiction is not a disease; 2) addiction is a disorder relating to choice; 3) addiction is voluntary. However, when applying these criteria to the study of Internet addiction, it is important to note that the view of Heyman on addiction inevitably may have conflict with some previous researches (e.g. Young, 1998; Widyanto and Griffiths, 2007; Golub and Lingley, 2008), because it changes the original understanding on the term addiction. Therefore, in order to explore the nature of Internet addiction, I believe that it is necessary to revisit some previous researches on Internet addiction.

2) Previous researches on Internet addiction:

Although not listed in the *Diagnostic and Statistical Manual of Mental Disorder IV* (DSM-IV), it seems that many scholars (e.g., Young, 1998; Young, 2004; Widyanto and Griffiths, 2007; Ko *et al.*, 2009) tend to define the overuse of Internet, or problematic Internet use, as an addictive disorder. With the rapid development of the Internet, Young (1998) believes that there are some online users becoming addicted to it, which to a large extent share the similarity with those individuals who become addicted to substance such as alcohol and drugs. She then chooses pathological gambling, which is included in DSM-IV, as a model to explore the Internet addiction, in order to distinguish it from normal Internet use (Young, 1998). Based on pathological gambling, Young (1998: 237) develops a Diagnostic Questionnaire (DQ) as a set of criteria for judging Internet addiction disorder (IAD), which is listed as follows:

1. Do you feel preoccupied with the Internet (think about previous online activity or anticipate next online session)?
2. Do you feel the need to use the Internet with increasing amounts of time to achieve satisfaction?
3. Have you repeatedly made unsuccessful efforts to control, cut back, or stop Internet use?
4. Do you feel restless, moody, depressed, or irritable when attempting to cut down or stop Internet use?
5. Do you stay online longer than originally intended?
6. Have you jeopardized or risked the loss of a significant relationship, job, educational or career opportunity because of the Internet?
7. Have you lied to family members, therapists, or others to conceal the extent of involvement with the Internet?
8. Do you use the Internet as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)?

According to this DQ, those individuals who fit five or more criteria from above can be called Internet addicts, or Internet dependents (Young, 1998).

Young (1998) then tested the DQ in a survey with approximately 600 respondents and the result was that almost two thirds of them were categorized as Internet addicts. This is the first attempt to systematically define IAD from normal Internet use, and Young (1998) points out that the construction of DQ is not completed and the further research is needed to examine its accuracy and practicability.

Beard and Wolf (2001, cited in Widyanto and Griffiths, 2007) offers a modified model based on the DQ of Young, with the concern of objectivity and practicability. For example, they criticize that some criteria of Young are lack in accuracy, which to some extent causes difficulty for respondents to reply (Widyanto and Griffiths, 2007). Moreover, Beard and Wolf (2001, cited in Widyanto and Griffiths, 2007) also note that the pathological gambling model is not the most appropriate approach as the foundation of exploring IAD. As a result, they put forward the revised criteria (Beard and Wolf, 2001, cited in Widyanto and Griffiths, 2007: 148):

All the following (1-5) must be present:

1. Is preoccupied with the Internet (thinks about previous online activity or anticipate next online session)
2. Needs to use the Internet with increased amounts of time in order to achieve satisfaction
3. Has made unsuccessful efforts to control, cut back, or stop Internet use
4. Is restless, moody, depressed, or irritable when attempting to cut down or stop Internet use
5. Has stayed online longer than originally intended

And at least one of the following:

1. Has jeopardized or risked the loss of a significant relationship, job, educational, or career opportunity because of the Internet
2. Has lied to family members, therapist, or other to conceal the extent of involvement with the Internet
3. Uses the Internet as a way of escaping from problem or relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)

From the modified DQ, the difference compared with the original lies in the subdivision of the eight questions. To judge whether an online users is Internet addicts, the diagnostic criteria of Young just require the tally with at least any five criteria from the eight items, while the modified DQ require the entire first five and at least one of the last three criteria. The reason for this classification is that it can improve the accuracy for the judgment, because the first five questions do not involve issues that may have impairment for the daily life of individuals and respondents are less likely to refuse answering them, while the last three involve those issues and respondents may deny these criteria (Widyanto and Griffiths, 2007).

Ko *et al.* (2009) also propose revised diagnostic criteria for judging Internet addicts among college students, who are vulnerable to Internet addiction because they live without the control from their parents. It is called the diagnostic criteria

of Internet addiction for college students (DC-IA-C), which is made up of three sections (Ko *et al.*, 2009: 380).

Distinguishing characteristics of Internet addiction

A maladaptive pattern of Internet use, leading to clinically significant impairment or distress, occurring at any time within the same 3-month period

A. Six (or more) of the following symptoms have been present

1. Preoccupation with Internet activities.
2. Recurrent failure to resist the impulse to use the Internet.
3. Tolerance: a marked increase in the duration of Internet use needed to achieve satisfaction.
4. Withdrawal, as manifested by either of the following
 - i. Symptoms of dysphoric mood, anxiety, irritability, and boredom after several days without Internet activity.
 - ii. Use of Internet to relieve or avoid withdrawal symptoms.
5. Use of Internet for a period longer than intended.
6. Persistent desire and/or unsuccessful attempts to cut down or reduce Internet use.
7. Excessive time spent on Internet activities and leaving the Internet.
8. Excessive effort spent on activities necessary to obtain access to the Internet.
9. Continued heavy Internet use despite knowledge of having a persistent or recurrent physical or psychological problem likely to have been caused or exacerbated by Internet use.

B. Functional impairment: one (or more) of the following symptoms have been present

1. Recurrent Internet use resulting in a failure to fulfill major role obligations at work, school, and home.
2. Important social or recreational activities are given up or reduced because of Internet use.
3. Recurrent legal problems because of Internet behaviour. (e.g., arrest for disorderly conduct in a game).

C. The Internet addictive behaviour is not better accounted for by psychotic disorder, bipolar I disorder, or other disorder, which is classified in impulse control disorder and paraphilia in DSM-IV-TR.

By introducing the DC-IA-C, Ko *et al.* (2009) believe that this model is efficient to distinguish addictive Internet use from normal Internet use among college students, with well-established specificity and sensitivity. Firstly, it has nine detailed main criteria for Internet addiction and three secondary criteria relating to functional impairment. Moreover, Ko *et al.* (2009) note that the standard for determining Internet addiction in Criteria A reflects the practicability and specifically for college students. Compared with the diagnostic criteria for

substance dependence (at least three from seven criteria) and pathological gambling (at least five from ten criteria), Internet addiction for college students (at least six from nine criteria) requires more characteristic symptoms because college students may use the Internet for studies and other reasonable activities, which to some extent fit some of the criteria (Ko *et al.*, 2009). Meanwhile, from their research, Ko *et al.* (2009) find that there is still lack of proof to suggest that Internet addiction is a kind of impulse control disorder such as pathological gambling. In other words, although sharing some similarities with impulse control disorder from the diagnostic criteria, it is difficult to define Internet addiction as a behavioural disorder and this explains why it is not included in the *Diagnostic and Statistical Manual of Mental Disorder IV, Text Revision (DSM-IV-TR)*.

In a word, the term Internet addiction has received increasing attention and the discussions on the three different diagnostic criteria for Internet addiction suggest the development with continuity in this area. The DQ of Young was established on the diagnostic criteria of pathological gambling, which lacked in accuracy and practicability. Aiming at the limitations of Young, Beard and Wolf modified the DQ with the subdivision of the eight criteria, which brought the increase of accuracy for judging Internet addicts from normal Internet users. Ko *et al.* further developed a more specific model for college students with more criteria, but not limited in the diagnostic criteria of pathological gambling. Ko *et al.* (2009) argue that the first two criteria, which are preoccupation and uncontrolled impulse, utilize the feature of pathological gambling and the rest of seven are based on the criteria for substance dependence. At this point, this fact indicates that because Internet addiction is not included in both DSM-IV and DSM-IV-TR, scholars limit their researches in utilizing the similar diagnostic criteria of some existing disorders in DSM, as the symptoms of Internet addiction. Therefore, it can be argued that the DC-IA-C and the DQ conceal one distinct problem for Internet addiction: whether it is correct to call problematic Internet use as Internet addiction disorder, just for distinguishing it from normal Internet usage. In other words, the debate that whether Internet addiction is ‘a behavioral problem secondary to other disorders’ or ‘a distinct disorder’ remains (Shaffer *et al.*, 2000, cited in Ko *et al.*, 2009:381).

Griffiths (2000a, cited in Widyanto and Griffiths, 2007) notes that Internet itself is not the substance that makes problematic online users addicted to it; instead, they tend to use the Internet as a platform for other addiction, such as gambling. Therefore, Griffiths (2000a, cited in Widyanto and Griffiths, 2007:160) emphasizes that it is essential to make a distinction between addiction ‘to’ the Internet and addiction ‘on’ the Internet. Therefore, the perspective of Griffiths supports the debate raised by Shaffer *et al.* and it seems that all the three diagnostic criteria for Internet addiction ignore the fact that Internet itself is a tool, not the substance that will cause health problem such as drugs and alcohol. At this point, I think that the DC-IA-C and the DQ to some extent are influenced by the technological determinism, which leads to the misunderstanding towards the nature of the Internet.

The technological determinism, from the perspective of Baym (2010), can be a simplistic approach in viewing the relationship between technologies and human beings: the more people take advantage of technologies, the more they are influenced or even changed by the technologies. Meanwhile, Baym (2010) argues that this belief may appear and be accepted by people when one technology is new to them. In other words, technological determinism suggests that the unfamiliarity on a new technology may lead people to think that they are used by this technology rather than take advantage of it. For example, in his essay, Carr (2008) complained that he became struggling in doing the deep reading which he used to do, because of the heavily online usage:

I think I know what's going on. For more than a decade now, I've been spending a lot of time online, searching and surfing and sometimes adding to the great databases of the Internet. The Web has been a godsend to me as a writer. Research that once required days in the stacks or periodical rooms of libraries can now be done in minutes. A few Google searches, some quick clicks on hyperlinks, and I've got the telltale fact or pithy quote I was after. Even when I'm not working, I'm as likely as not to be foraging in the Web's info-thickets' reading and writing e-mails, scanning headlines and blog posts, watching videos and listening to podcasts, or just tripping from link to link to link.

As Carr tells it, it is the Internet that distract him from the deep reading, because it provides convenience for doing researches, which makes the deep reading unnecessary than before. This statement indicates the basic of technological determinism: the outside force, which is the new technology, to a large extent can determine and change behaviours of people. Joinson (2003) criticizes the technological determinism and points out that this concept only concentrates on the effects of technology which fails to consider the involvement of its users. When relating to the three diagnostic criteria for Internet addiction, the nature of technological determinism can be found, because all of those criteria discuss how Internet makes people addicted to it and none of them examine why people become Internet addicts. As a result, the inclusion of technological determinism on the discussion of Internet addiction gives the rise to the following doubt: whether it is necessary to put Internet addiction into the clinical conditions or even the question that whether the so-called Internet addiction really exists.

Some scholars (e.g., Martin, 2005; Wallace, 1999) have already addressed this problem. Martin (2005) holds that the attempt to define behavioural problem (for example, problematic Internet use) as substance addiction can be controversial. To put it more clearly, the introduction of substance addiction from DSM as the main criteria for Internet addiction causes contradiction, because there is no such equivalence between the two terms. Martin (2005) adds that there are mainly three features which play dominant roles in leading the researches of problematic Internet use to seek answers from the studies on addiction: the fear on new technologies; the tendency to pathologise online relationship; and highlighting the therapeutic significance of online interaction. Martin (2005) notes that people are afraid of new technologies because they lack in access to know the consequences that a new technology will bring, and the unprecedented development of the Internet causes panic among them especially those parents who concern the future of their children. However, Grohol (1999, cited in Martin 2005) criticizes the

conceptualisation of Internet addiction and he points out that using the Internet is similar to doing leisure activities such as watching television, which receives less concern as addiction. In one electronic database it records that the citations relating to Internet addiction reach the number of 1047, while the number of citations relating to television addiction is 139 (*ProQuest*, 2003, cited in Martin, 2005: 43). This fact suggests that the fear of new technology should not be used as the excuse to regard the use of Internet as addiction, and further researches are needed to explore the nature of Internet usage without the interference of technological determinism.

Moreover, the second feature, which is the tendency to pathologise online relationship, is caused by the stereotype that online relationship has less quality or even inferior compared with real life relationship. In this regard, this feature follows the simplistic logic, which is that being ‘addicted’ to establishing real life relationship is correct and being ‘addicted’ to the online relationship should be corrected. To point against this feature, Grohol (1999, cited in Martin, 2005: 43) argues:

Researchers seems to have not considered that perhaps people who spend a lot of time online are simply engaging in normal, healthy social relationships with other human beings around the world....There is very little to suggest that individuals who prefer virtual friends over real-world friends are less well-adapted or have a lower overall quality of life. It is a different way of interacting, but is not necessarily a lesser-quality interaction. In fact, because of the unique psychological components of online social interactions, online friendships and relationships may be of higher quality or value to some. (p. 399)

This statement highlights the value of online activities, which urges the correction of pathologising online relationship. On the other hand, Martin (2005) holds a neutral position about this debate, because he believes that for some individuals the online relationship is healthy and for some others it may be not. Cummings *et al.* (2002, cited in Martin, 2005) adds that the future of online relationship relies on the alternative choices, between subordinating to the real world relationship and the replacement of it.

And for the third one, the therapeutic significance of online interaction, Martin (2005) questions that whether it is necessary to cure some problematic online behaviours, because some individuals may feel disgusted to be treated like patients. Wallace (1999) also adds that labeling IAD as a disease can be problematic, because for some Internet users, it means a lack of capability in self-control, or just spending too much time on the Internet during a certain period. Therefore, Martin (2005) raises the doubt that whether it is appropriate to accept the existence of IAD. From his point of view (Martin, 2005), only a small number of people struggle with problems on Internet use, and this is not enough to come to the conclusion that problematic Internet usage is a distinct disorder. Martin (2005) suggests that further studies on Internet use should focus on specific cases rather than the Internet itself, and it is also essential to avoid defining Internet abuse as IAD on account of the lack of evidence. Furthermore, Joinson (2003) argues that the current use of Internet is not yet enough because it can offer more qualified social interaction, which benefits individuals in their daily life.

Therefore, he emphasizes that researches should put efforts on how to develop the access to the Internet, instead of concerning the existence of IAD.

The attempts to put Internet addiction under diagnostic criteria and the debate on its existence suggest the complexity to explore the exact nature of Internet addiction. At this point, I think that the perspective of Heyman on the definition of addiction can be helpful to open up a new approach to discuss what IAD really is. I hypothesize that Internet addiction indeed exists and is becoming popularized. However, it is neither a disease, nor it is an involuntary choice that should be put into the framework of DSM. In other words, diagnostic criteria for Internet addiction such as DQ and DC-IA-C turn out to be meaningless because in the digital world people are more or less 'addicted' to the Internet and it is not a bad thing for many occasions (e.g., working, studying, relaxing). People can find a variety of things to do on the Internet, and the blame for the excessive use of the Internet does not mean that Internet itself should take the responsibility. Online users own the ability to balance the time between the real world and the virtual world, because this addiction is a voluntary choice. I agree with the idea of Martin (2005) that researches on Internet use should focus on specific cases rather than the Internet itself, therefore the next part is the discussion on online gaming in relation to Internet addiction.

4. Collecting: a 'game' among collectors:

Collecting is a normal kind of human behaviour, everything can be collectable and everyone can be a collector. Meanwhile, it is also a kind of identity play to help individuals establish the self. Firstly, the definition of collecting and possible motivations for collecting will be discussed, and then this dissertation will then begin to offer a view on the connections among digital games, collecting, and

addiction. Finally this dissertation tends to introduce the theory of Freud on how the desire works as an approach to understand how collecting interfering our daily life.

1) The definition of collecting and possible motivations for collecting:

It is acceptable to say that playing games, addiction and Internet addiction reveal a certain level of physical and psychological dependence on certain things. At this point, it is important to point out that the term collecting shares this nature (Melchionne, 1999; Case, 2009), and this suggests the necessity to explore this concept. From the perspective of Casserly (2002), collecting can be defined as ‘the total accumulation of materials’. This is a basic definition on collecting, and Case (2009) contends that collecting can be a human nature with the search of pleasure. He then argues that collecting can be regarded as a popular way of spending ‘leisure time’ (Case, 2009: 729). With the estimation of Pearce (1995: vii, cited in Case 2009: 730) that approximately thirty percent of the population in the North America at least ‘collects something’ and the similar situation for other nations, Case (2009: 279) believes that collecting to some extent is a compulsive behaviour, which can be defined as ‘serious leisure’. The point of Case indicates that collecting is a secondary activity compared with study and work, but at the same time have the capacity of consuming a significant amount of leisure time which depends on the choices of collectors. McIntosh and Schmeichel (2004: 86, cited in Case, 2009: 731) offer a definition of the collector, which is introduced as follows:

A person who is motivated to accumulate a series of similar objects where the instrumental function of the objects is of secondary (or no) concern and the person does not plan to immediately dispose of the objects. Thus, a person who accumulates a variety of toasters but does not use them to make toast is a collector of toasters.

This is what a collector might be: accumulating things that fascinates him or her without necessarily using them. This fact causes this question: why a collector collects items that might not be a necessity for the daily? In this sense, it is important to consider the possible purposes for collecting. Case (2009: 748) argues that the purposed and motivations for collectors can be ‘varied’, and Formanek (1991, cited in Case, 2009: 733) offers five purposes for collecting, which are listed as follows:

1) *extension of the self* (e.g., acquiring knowledge, or in controlling one’s collection; 2) *social* (finding, relating to, and sharing with, like-minded others); 3) *preserving history* and creating a sense of continuity; 4) *financial investment*; 5) and finally, an *addiction* or compulsion.

According to the perspective of Formanek, it seems that the purposes for collecting can be divided into two categories, which can be the personal level and the social level. From the personal level, it includes the finding and development of the self, financial investment, and addiction; on the other hand, from the social level, it includes sharing and interaction, documenting and exploring the history, and financial investment as well. In this regards, it can be concluded that the

purposes of collecting are not only for satisfying the self, but also for contributing to the society and history. Basler and Wright (2008) share with this opinion, then by introducing the manuscript collections they point out that collecting has the capacity to act as a basis and a start as well for academic researches.

2) The connections among digital games, collecting, and addiction:

The discussion on the purpose of collecting reveals that collecting can be a secondary activity in everyday life and also a support for the society. On the other hand, according to the exploration on the term game, this dissertation notes that collecting connects with some elements from games, which can be found in the following three aspects: the purpose, the rule, and the definition. Firstly, both gamers and collectors have certain motivations for the participation, and the key difference between them is that the purposes for engaging in games more likely concentrate on the personal level, while for collecting the purposes can be both on the personal and social level. In other words, a game can be played for the self (e.g. relaxation and communication) but lack of evidence can be found to show that it is played for the society, while the purposes for collecting can be either personal or social, or even both. Therefore, collecting is not truly a game, and games are not totally a process of collection. However, they do share some motivations in the personal dimension, such as identifying the self and communicating with others. At this point, it suggests that participating in games or collecting can be a conscious choice rather than a passive involvement.

Moreover, it is important to note that both games and collecting are guided by certain logics. Rules can be essential for a game (Huizinga, 1949; Juul, 2003; Juul, 2005), and the same for collecting (Casserly, 2002). That is, no rules, no games; no rules, no collecting as well. Without rules, a game is just purely a type of play; and collecting without rules is only a way of accumulation. Thirdly, based on the definition of games (see Juul, 2005) and the definition on collecting (see Case, 2009), it can be concluded that both games and collecting are a creation of space, and a consumption of the leisure time. As a result, it seems that collecting can be regarded as a game-like activity among collectors. On the other hand, based on the literature review this dissertation also finds out that there is also a key intersection between collecting and games, that is, the involvement of addiction. The game time, escapism, and Internet addiction to some extent show what game addiction might be, while Formanek and Case note that collecting can develop into a compulsory behaviour. These facts raise the necessity to examine this intersection addiction and collecting, and it is what this dissertation tries to explore.

There are some scholars (Belk, *et al*, 1991; Formanek, 1991; Belk, 1988; Belk, 1995; Griffiths, 2013) who have already contributed to analyse the relationship between collecting and addiction, either from exploring motivations for collecting, or studying the negative impact of collecting. Although Case and Casserly have attempted to define the term collecting, Belk offers a more detailed view. The term collecting, once pointed out by Russell Belk, is a special type of consumption pursuing ‘inessential luxury goods. It is a continuing quest for self

completion in the marketplace. And it is a sustained faith that happiness lies only an acquisition away' (Belk, 1995b: 1). According to Belk (2006: 534), collecting is a 'decommoditizing' consuming which does not fit the literal meaning of consuming, which is using up, or burning; instead, it is 'about keeping, preserving, and accumulating'. However, Belk noticed that this definition of collecting could not distinguish collecting from other accumulative activities such as hoarding; therefore, he put forward an advanced definition for collecting:

The process of actively, selectively, and passionately acquiring and possessing things removed from ordinary use and perceived as part of a set of non-identical objects or experiences. (Belk, 1995b: 67)

Based on this definition, collecting is a process of pursuing objects with purpose and passion. Once an object enters the collection of a collector, its original function is removed and this object becomes enshrined as well as part of the identity of collector. As for the term passion, Walter Benjamin, one famous book collector, had his own perspective on relating passion to collecting:

Every passion borders on the chaotic, but the collector's passion borders on the chaos of memories. More than that: the chance, the fate, that suffuse the past before my eyes are conspicuously present in the accustomed confusion of these books (Benjamin, 1955: 60).

According to Benjamin, discovering hidden memories from collection can be the one key source which triggers the passion of a collector. That is, studying the past, preserving it to the present, and letting the future learn the past. This, according to Belk (2006) can be the ideal of collectors who believe themselves as heroes and saviors of their collections. It can be a social aspect to understand what a collector might be and the meaning of collecting. On the personal level, it is the sense of ownership that becomes the key concern for collectors, Benjamin agrees with this point, and he noted that:

Naturally, his (a collector's) existence is tied to many other things as well: to a very mysterious relationship to ownership....; also, to a relationship to objects which does not emphasize their functional, utilitarian value – that is, their usefulness – but studies and loves them as the scene, the stage, of their fate. The most profound enchantment for the collector is the locking of individual items within a magic circle in which they are fixed as the final thrill, the thrill of acquisition, passes over them (Benjamin, 1955: 60).

In this sense, the argument of Benjamin above suggests the importance of the ownership for collectors. Moreover, on one hand the removal of original function when an object enters the collection of a collector shows the process of acquisition for collecting; on the other hand, it endows collection with special meanings, that is, a part of the collector's fate, and this to a large extent indicates a strong sense of control over collections. As a result, by discussing the definition of collecting together with arguments from Benjamin, I think that the passion for exploring the past memories from collections and the desire for ownership over collections can be two possible aspects where collecting and addiction connect.

It is important to note that the addiction to collecting is still a worthy point for exploration. Belk (1995) argues that because collecting is an approved social

activity, no collector likes to be labeled as a drug addict or a gambler; on the other hand, it is inevitable to say that sometimes collecting can be a ‘guilty pleasure’ when a collector is out of control. Therefore, the relationship between collecting and addiction can be a worthy topic to explore, and there are some relevant researches to discuss their connection. As mentioned above, Ruth Formanek concluded five common motivations for collecting based on her research in a 1991 issue of the *Journal of Social Behavior and Personality*: 1) to the self; 2) to others; 3) as preservation, restoration, history, and a sense of continuity; 4) as financial investment and 5) as addiction (Formanek, 1991: 327). Although mentioning the issue of addiction, Formanek (1991: 333) did not directly point to addiction as the motivation for collecting; instead, the first sentence in the addiction part was ‘an important motivation is the feeling of excitement and elation’, which means that it can be difficult to distinguish passion from addiction when referring to collecting. Belk (1988) shares this opinion, and he notes that:

The search process is clearly a thrill-seeking experience for many collectors, which may engender distress as well as eustress. Collectors often report feeling both a craving and a loss of control with respect to their acquisition habits, and occasionally experience negative consequences in other spheres of their personal and social activity as a result of their chronic collecting. (Belk, 1988: 319)

This to some extent explains the relationship between collecting and addiction, and in a 1991 book chapter, Belk *et al.* attempt to discuss whether collecting should be regarded as an expression of passion, or just a disease, and they found that ‘what apparently is being negotiated in the area between passion and addiction is the definition of whether the collector controls or is controlled by the activity of collecting’. Furthermore, Belk *et al.* (1991) emphasized that collecting can be close to addiction because most collectors interviewed by them tended to purchase additions to their collection, which to a large extent caused a temporary withdrawal ‘followed by a feeling of emptiness and anxiety that is addressed by searching for more’. From their point of view, collecting had the capacity to make a collector ignore other aspects of daily life, which is a form of withdrawal (Belk *et al.*, 1991). As a result, based on the discussion of the relationship between collecting and addiction, it can be concluded that: 1) the border between collecting and addiction is vague because of the passion and the desire towards ownership for collecting; 2) the involvement of self-control is the key criterion to decide whether collecting is an expression of passion or a problematic behaviour; 3) collectors in fact are vulnerable to be addicted to collecting due to the nature of shopping for additional collections constantly; 4) collecting activity is capable of make a collector avoid other activities in daily life, which to some extent can be regarded as a type of substitution and temporary withdrawal from reality.

3) Collecting: a desire-driven behaviour:

After the above discussion, it suggests that both playing games and collecting can be a kind of desire-driven behaviour, and in this sense it is important to introduce the theory of Freud: to know how the desire works. Therefore, in this part, I will introduce some theories of Freud about the unconscious as the

theoretical basis to analyse the collecting behaviour, which include the unconscious and the conscious, two mental principles, the structure of mind, and the Thanatos.

To begin with, the unconscious is one approach that Freud tried to discover how the human mind functioned, which is capable of distinguishing the ‘normal’ and the ‘abnormal’. Firstly, Freud pointed out that consciousness was made up of three states, the conscious, the unconscious and the preconscious (Snowden, 2010: 71-72):

The conscious mind is the part of the mind that is aware of its thoughts and actions. This is where all conscious thought processes occur – it is the source of conscious thinking, ideas and understanding. It is concerned with logical thinking, reality and civilized behaviour.

The unconscious is seen as the part of the mind that is repressed, the place where we put all the stuff that our conditioning does not allow us to look at. Information in the unconscious cannot easily be dug out. A lot of our past history lies here too, some of which can only be recalled under hypnosis.

The preconscious is the region of the mind between the conscious and the unconscious, where information is stored that is not conscious at the moment, but can easily be recalled when needed.

Based on the description of the three states of consciousness, it can be argued that the conscious means those rules guiding our normal sense, with which make people being logical; on the other hand, the unconscious suggests the repressed desire hidden deeply in human mind, which to some extent is unacceptable against the conscious mind; the preconscious can be regarded as the compromise between the conscious and the unconscious, and the buffer between the two states of the consciousness. At this point, the meaning of the unconscious is that it recognizes the repressed desire. Freud mentioned that repression was an important factor which could affect thoughts on the border between the unconscious and the conscious mind, and as a part of the unconscious repression also had the capacity of causing withdrawal (Gay, 1995). Freud also noted that the system of the unconscious had little connection with the reality, and it to a large extent was influenced by the pleasure principle (ibid.). For collecting, I think that it belongs to the category of the preconscious: on one hand, collectors are aware of what they behaviours; on the other hand, collecting can also be a kind of behaviour that unconsciously releases their repressed desire, because sometimes collecting something means making up for something they cannot acquire in reality, and this somehow can help those people gain a sense of pleasure.

As mentioned above, the unconscious is closely related to the pleasure principle. Therefore, in order to better understand this concept here it is necessary to know what exactly the pleasure principle and the reality principle are, from the perspective of Freud (Snowden, 2010: 75):

The pleasure principle pushes people towards immediate gratification of their wishes. This is the tendency behind all natural impulses and basic urges. It is linked to the unconscious and it is impulsive, primitive and disorganized. According to Freud, it rules

people right from birth and is basically to do with the gratification of sexual urges. At first, Freud did not seem to consider other drives, such as hunger, when he was talking about the pleasure principle. Later, he effectively redefined the concept of 'sexuality' to encompass any form of pleasure to do with bodily functions. According to Freud, the pleasure principle is always the main motive force of the unconscious.

As a person matures and has to operate in a social environment, the opposing force, the reality principle, comes into play. It involves conscious, logical thinking, and it allows us to delay gratification in order to get on with everyday life. For example, although the sex drive is so strong, people gradually discover as they grow up that it is not always acceptable or practical to indulge sexual urges at the time and place that they arise.

According to Freud, it is the pleasure principle that guides the unconscious and meanwhile it is the reality principle that shapes the conscious mind. The pursuit of pleasure can be the inherited nature of human beings, it is highly embedded in our unconscious mind; on the other hand, due to the fact that the pleasure principle alone cannot ensure the order for the society, we need the reality principle to make people become conscious and logical. Moreover, it is essential to note that the two principles do not always get along with harmony; instead, conflicts exist between the two, and it is where negative emotions such as repression and depression happen.

Meanwhile, Freud noted that the unconscious was not always a negative component of the consciousness. In other words, repression can be part of the unconscious, but not the whole. As a result, he finally developed a new structure of mind based on the unconscious and the conscious as well as the two mental principles, which was constructed as follows (Snowden, 2010: 125):

Id: the unconscious part of the psyche that is concerned with inherited, instinctive impulses.

Ego: the part of the psyche which reacts to external reality and which a person thinks of as the 'self'.

Super-ego: the part of the psyche that acts like an 'inner parent', giving us a conscience and responding to social rules.

This can be an advanced approach to study how the mind works. Here the unconscious acts as a inherited compulsion of the psyche, which is not necessarily negative as repression; super-ego represents as the conscious mind to make people psychologically order to live in the society; Ego can be regarded as a sense of identity, a response of the psyche to the outside reality, and the compromise between the Id and Super-ego. In other words, the Ego is a mixture of the conscious and the unconscious, and a representation of the identity as well.

Furthermore, special attention should be given to repetition compulsion, a behaviour which happens on some people who continuously force themselves to repeat certain actions in daily life, or relive some of their daily experiences. Freud called this phenomenon Thanatos, a word from Greek which means death. Snowden (2010: 143) summaries some arguments of Freud about Thanatos:

All behaviour is aimed at reducing tension and achieving a previously existing state of stability.

Since we are all originally made from inert matter, then perhaps we are really trying constantly to return to this state.

So the aim of all life is death, a state where there are no tensions at all because no stimuli can impinge from within or without to disturb the everlasting peace.

Based on the summary about the concept of Thanatos, it suggests that the term Thanatos to a large extent can be a negative response to dealing with the reality. Snowden (2010) points out that Thanatos can be a source for causing self-destructive behaviour such as addiction once it is linked to individuals. However, despite the fact that Thanatos potentially has negative impact on people, it cannot be ignored that it is a kind of lifestyle, and I believe that collecting to some extent fits in the description of Thanatos.

After the above discussion, we can now focus on the meaning of collecting for collectors. Collecting to some extent is to understand, the self, the people, and the world. Pearce (1995) has the words 'collecting is close to our social mind and our ability to understand ourselves and the world we live in'. Therefore, collecting has both personal and social meanings for collectors, and at this point I tend to focus on the personal level. I tend to argue that there are three words that are most important for collectors: ownership, entertainment, memory. Collecting objects is the nature of human beings as well as a reflection of desire. Colwell-Chanthaphonh (2004: 572) agrees with this and he points out that 'the urge to collect objects, to pick up something and carry it away, is not unique to our modern condition but very much a part of the human social anatomy'. It is the willingness and more precisely a need to own something, what hidden behind is a strong sense for control. Therefore, ownership is the core for collecting, and to collect something in fact is to own it. Bjarkman (2004) argues that ownership helps collectors build their private worlds, which is not just a quantitative growth of collections. Benjamin (1955) points out that ownership can be the primary connection between collectors and their collections, which creates space for collectors to live with their collections. At this point, it is acceptable to say that ownership creates borders for collectors to distinguish themselves from others, which help protect their personal identity. In other words, collecting is a play of identity, and ownership is a way to present it.

Moreover, collecting to some extent is a kind of entertainment. We human beings need entertainment, and collecting obviously is an option. Newton (1918) has his understanding on why we need such hobbies to kill the time:

If my early training has been correct, which I am much inclined to doubt, we were not designed to be happy in this world. We were simply placed here to be tried, and doubtless we are – it is a trying place. It is, however, the only world we are sure of; so, in spite of our training, we endeavor to make the best of it, and have invented a lot of little tricks with which to beguile the time.

Thus, from his point of view, the physical world itself is a boring place, we have to find and invent something ourselves to turn such tiredness into happiness, and further create our personal reality. This explanation on the other hand indicates that collecting is one expression of human desire, and it is not just the

only one. In this sense, regarding collecting as an entertainment is to recognize that collecting can be a time ‘killer’, which is a necessity for us to live.

Collecting is also a way of recalling memories. Memory is also a necessity for us, and for a collector, it is a source of passion. Benjamin (1955: 60) shares with this opinion and he points out that:

Every passion borders on the chaotic, but the collector’s passion borders on the chaos of memories. More than that: the chance, the fate, that suffuse the past before my eyes are conspicuously present in the accustomed confusion of these books. For what else is this collection but a disorder to which habit has accommodated itself to such an extent that it can appear as order?.....The most profound enchantment for the collector is the locking of individual items within a magic circle in which they are fixed as the final thrill, the thrill of acquisition, passes over them. Everything remembered and thought, everything conscious, becomes the pedestal, the frame, the base the lock of his property. The period, the region, the craftsmanship, the former ownership – for a true collector the whole background of an item adds up to a magic encyclopedia whose quintessence is the fate of his object.

As a collector, memories in fact are tracing the past, and they are hidden in those collections and wait for collectors to find them. It is one of the most meaningful things that a collector can do, and according to Benjamin it is the point that collecting can fake itself as an ordinary behaviour though in fact to some extent it is a disorder. He admits that there remains debate to examine that nature of collecting: ‘there is in the life of a collector a dialectical tension between the poles of disorder and order’ (Benjamin, 1955: 60). Thus, although uncovering the past and recalling memories from collections endow collecting with meanings, it inevitably to some extent makes a collector addicted in his or her own circle with the collections, just because the passion triggered by collecting. This kind of 'disorder', accommodating itself as an 'order' through finding memories from collections, in fact can be a type of isolation from real world.

By discussing the meanings of collecting, I think that these features can also be found in digital games. One of the most distinct examples is the achievement system in the famous online game *World of Warcraft*. It is both a recording system and rewarding system. As a recording system, tiny details such as the earned money and the times of eating some special food are automatically updated; as a rewarding system, some special titles and items are available to players if they can unlock some special achievements. Meanwhile, there are achievement points for players to collect, just by unlocking those achievements. I was at a time a heavy ‘addict’ on collecting the achievement points. When I was checking the interface of the achievement system, I would feel uncomfortable if I found some of the achievements were still get locked, all I thought online and offline were how to unlock them and earned those points. I was not the only one who spent most of my leisure time or even study time on increasing the points. Some of my guild members were also the lovers of the achievement system, the most heated topic among us was how to efficiently highlight some difficult achievements, and we called ourselves 'achievement players'. In the game world of *World of Warcraft*, we do not simply beat those bosses and loot their drops, we also want to establish our own identity, and the achievement system is the

approach. The titles, pets, clothes unlocked by specific achievements, the achievement points and all the accomplished achievements which are available for others to check, these brought us a special sense of honor. Meanwhile, I did not even notice that the achievement system was such a heavy consumption until it took up most of my life, and I could not even spare some time to study. It is a consumption of time, which to a large extent interrupted my regular schedule. However, it is important to hold that playing *World of Warcraft* itself is not a wrong behaviour. Ownership, entertainment, memories, those features of collecting can also be found when playing games like *World of Warcraft*. In this sense, I can say that to some extent collecting and playing games can be the same thing: they both fulfill our mental needs, such as restoring self-esteem and relaxation. Collecting itself is a blurred behaviour wandering between hobby and addiction, so is playing games. Therefore, considering playing games has such a power of penetrating into our daily life while collecting has such an ability to pretend itself as ‘order’, I tend to argue that maybe there is also a way to enjoy addicting to the game world without interrupting the schedule in real life.

5. Case studies of three games on different platforms:

1) The achievement system in *World of Warcraft*:

The achievement system is not the original invention of WOW, actually it firstly appeared on the game console Xbox 360 in 2005, and then in 2008 Blizzard brought this system to WOW along with the patch *Wrath of the Lich King*. In China the situation was a little bit different. Due to the strict censorship, the patch *Wrath of the Lich King* was delayed for near two years for Chinese servers. Despite the fact that achievement system was also open for the Chinese

servers in the old patch The Burning Crusade, many achievements were not available because they belonged to the new patch. Even so, achievement system was few of the choices that were worthy to spend time on this game during the two years, and it was since then that I began to aware the attraction of this system. Actually, the achievement system in WOW is more like a personal portfolio which covers almost every aspect of this game. At this point, it is necessary to take a look at what this game system is.

Figure 1 shows the interface of the achievement system in the patch *Mists of Pandaria*, the fifth path of WOW. This interface is consist of four parts: 1) achievement points; 2) recently earned achievements; 3) progress overview; 4) the category of achievements, which includes general, quests, exploration, player vs. player, dungeons and raids, professions, reputation, scenarios, world events, pet battles, and feats of strength. Every single achievement has achievement points. For example, in figure 1 there is an achievement on the list of recently earned achievements called 'Kirin Tor Offensive', which require players to earn exalted status with the Kirin Tor Offensive. Once this achievement is completed, 10 points are added to the total achievement collection, which is on the top of the interface. The progress overview is a visualized section, which briefly records the ongoing condition for completing those achievements. That is, how many achievements have been finished currently, and how many are still unlighted. From figure 1 it shows that there are 1976 achievements in total and among them 617 achievements are waiting for me to conquer. In this regard, it seems that the achievement system in WOW has the following functions: 1) a notebook, or a diary which records footprints of players in WOW; 2) a convenient way for players to check what they have done in this game world and at the same time to compare with other players.



Figure1, the interface of the achievement system, in the patch *Mists of Pandaria*.

It is no doubt that these functions to some extent shows what this achievement system might be by unpacking part of its features. To better understand this game system, it is necessary to explore more of its possible functions; therefore, I will discuss two key functions of the achievement system, based on the field notes from my self-play:

- 1) A rewarding system, which provide a variety of rewards such as mounts and pets, if certain achievements are completed;
- 2) A game system which contains abundant elements for collecting, which requires accumulation of time;

1) A system for rewarding:

In many RPG games, if a player completes a certain quest from NPCs, he or she will get rewards such as gold and equipment. In WOW, finishing quests from NPCs is a necessary way to survive in the game world. The earned gold is necessary to repair equipment and purchase supply, while the rewarded equipment can be disenchant into materials for enchanting or just simply sold for gold, due to the fact most of high-ranking equipment is looted from raid rather than be acquired from quests. On the other hand, comparing with quests the rewards of the achievement system to some extent can be different. Instead of providing necessities such as gold and equipment, rewards of the achievements are the mainly following three types: mounts, pets, and tabards.

There are over five hundred unique pets and two hundred different mounts in WOW in the current patch, and among them some pets and mounts can only be acquired from completing certain achievements. For example, in figure 2 it is the raid achievement 'Glory of the Firelands Raider', and by finishing twelve of its sub-achievements players can get the unique mount corrupted egg of millagazor as trophy. Another example is the quest achievement 'Rock Lover' in figure 3, this achievement requires players to complete the daily quest 'lost in the deeps' ten times, then the pet Pebble will be sent to the mailbox of players immediately. Actually, this 'daily quest' is not always available every day and it may need more than ten days to get Pebble. Although it seems that getting the two above rewards needs a certain amount of time to complete related achievements, these rewards are not necessities for survival. Mount is a necessary transportation to save time on traveling around the game world, but one or two mounts can be enough: one ground mount and one fly mount, or one mount which can be used as both ground mount and fly mount. WOW provides a significant amount of mounts for players to choose, there are many easier ways to get a mount than through achievement system. If a player's race is human, then he or she can easily buy horse and gryphon in the city Stormwind. Meanwhile, pets in WOW are more like small toys, in the patch *Mists of Pandaria* there are pet battles available as new game element, but before this patch pets are just dispensable stuff, no matter how many of those pets a player may own, it will not affect his or her other game play such as going to battlefields and attending raids. As for tabard awarded in achievement system, it is a symbol which shows that a player has owned certain achievement, but it cannot provide any attributes for player. Figure 4 is the exploration achievement 'Explore Northrend', similar as the achievement in figure 2 it needs to complete all of its sub-achievements to get the award tabard of the explorer.



Figure 2, the raid achievement 'Glory of the Firelands Raider'.



Figure 3, the quests achievement 'Rock Lover'.



Figure 4, the exploration achievement 'Explore Northrend'.

By introducing the three types of trophies awarded from achievement system, it is clear that they cannot provide any bonus attributes which contribute to the functional growth of game characters; instead, those awards encourage players to experience this game in other ways, rather than only focus on upgrading their equipment, although acquiring loots from bosses is one key reason for WOW players to participate in this game. In other words, those awards provided by the achievement system are not necessities for survival in the game world, but they are indeed very attractive: usually, these awards especially mounts have unique appearance which can be easily identified by other players, and this to a large extent can give players pleasure and satisfaction. As a personal example I remember when I completed the achievement 'Glory of the Firelands Raider'(figure 2) with my raid member and got the mount corrupted egg of millagazor, the first thing we did was riding on this mount and staying in the center of the city Stormwind, to make us become the focus of attention from others. At that time, this achievement was very rare in my server and owning this mount was a symbol of strength, which brought us supreme pride.

Moreover, these rewards from achievement system often are related to other achievement, which motivates players to try some new achievements. For example, there are separated achievements which record how many mounts, pets, and tabards a player currently owns. Awards such as the mount corrupted egg of millagazor are also being calculated in the total amount of mounts. If the total amount reaches a certain number, one additional amount will be awarded as trophy along with a new achievement, which may lead players keep on collecting awards from achievement system. At this point, I think that these rewards from

achievement system can be small but attractive temptation which makes players gradually addicted into the achievement system. Actually many achievements are unlighted by chance, it is possible that when a player is doing quests and then suddenly an exploration achievement appears on the screen. Some of these unexpected achievements can be sub-achievements belong to those achievements which provide awards, such as the achievements in figure 5, which in a sense may be a trigger to lead a player to become a game collector for achievements. My personal game experience to a large extent can explain this phenomenon. I am the one who in the past were gradually fascinated by the achievement system. At first I did not believe that this system was so interesting, at most it was a recording system and at the same time may provide some bonus gifts. But after many unexpected achievements were unlocked one by one and appeared on the game screen, I began to check my unfinished achievements, and then I found out that there were so many interesting awards in this system and they could also contribute to other achievements. The achievement system is such a creation, in the beginning players may not care about it, but it is a game element which cannot be ignored. Even if a player does not intend to do achievements, they are still possible to be unlighted if certain condition is reached. And if a player gets some awards from this system, by checking the unfinished achievements he or she will discover that there are more awards which this system can offer. Collecting fifty mounts can get a special mount as a gift, and having one hundred mounts will get another one, there are always more awards wait for players to pursue. Therefore, providing awards is an important function of the achievement in WOW, which can be the first step to attract the attention of players.

2) A collecting system which provides opportunities for players to establish their own collections:

The awards from achievement systems are temptation to draw players' attention, and a further key function of the achievement system is to offer possibility for players to pursue their own collection, which to a large extent help establish game loyalty for WOW. The game loyalty can be regarded as the willingness to spend time in game world; it is an important game psychology, which to a large extent makes sure that a player will not too soon abandon one game. In other words, game loyalty to some extent means good game experience. There can be a variety of ways to illustrate what can be good game experience, and here I focus on the following three aspects: consistently new game elements; clear game guide; flexibility. Adding new game elements is an important way to attract new players to join in game world, especially for online games. No one will play an unchanged game; regular update can help maintain the energy of a game, and even can possibly draw the attention of those players who have already leave this game. Meanwhile, clear game guide here is not simply an instruction to tell players how to play in the beginning; instead, it is also capable to help players to set goals to accomplish. Flexibility means a wide range of choices to enjoy the journey in game world. In reality, people are more or less bound by various social rules; while in game world, it at least may not have so many restrictions, and by providing a variety of options for gaming it is possible to release pressure in

reality. By pointing out game loyalty, it on one hand suggests that game loyalty and game experience are in the direct ratio; on the other hand, it also means that 'addicting' to one game actually can be the satisfaction to this game for offering abundant game experience.

Now back to the discussion of collection in WOW, the point that pursuing game collection can help strengthen game loyalty is based on this following consideration: collecting is a long term process which requires accumulation of time, money, energy, and so on. WOW itself is paid by purchasing game time; seeking collections in WOW can significantly extend time spent in this game, which in a disguised form can maintain game loyalty of players. In the achievement system, almost anything is possible to become a part of collection. Achievement points, mounts and pets, or even the number of gold looted from monsters, all these are collectable and can be reflected in the interface of the achievement system. Among these collectable choices, the following of my personal game experience on completing the achievement 'Battlemaster' can be used as a case to show how the achievement system supports in-game collecting and further contributes to game loyalty.

The achievement 'Battlemaster' (figure 5) is one of those achievements which consumed a large amount of my time and energy to conquer. It is a sylloge which contains achievements from five battlegrounds: Alterac Valley, Arathi Basin, Warsong Gulch, Eye of the Storm, and Strand of the Ancients. Each battleground have more than ten achievements which can be reduced to two categories: one is accumulative achievement, for example, requiring players to complete one hundred victories in one of the five above battlegrounds; the other one is conditional achievement, which needs players to meet certain conditions in a single battle. The accumulative achievements require considerable amount of time. For example, the achievement 'Alterac Valley Veteran' requires players to complete 100 victories in Alterac Valley, and according to my achievement record the first time I won in this battleground was in January 13th, 2009, and finally the time I got this achievement was in December, 16th, 2009, which took nearly one year. I remember during this period my focus was not only on this achievement alone, I have many other achievements to conquer simultaneously, and I at that time just tried this achievement intermittently: sometimes I was approaching this achievement regularly, with the speed of one victory per day; if I won a battle in Alterac Valley easily, I would try for another victory; sometimes I would get tired of doing this everyday work, and the following several days or weeks I would turn to other achievements, this is why I spent nearly one year to finish 100 victories in Alterac Valley. Therefore, these accumulative achievements not only consume significant amount of game time, on the other hand they are also a way to test patience of players, to see if they are qualified as an achievement collector. Meanwhile, considering there are four similar achievements as the achievement 'Alterac Valley Veteran', that is, to win 100 victories each in four other battlegrounds, it is clear that collecting relevant achievements to become a 'Battle Master' is a big project which to a large extent

extend the time spent in WOW, if players are interested in getting this achievement.



Figure 5, the accumulative PVP achievement 'Battle Master'.

As for those conditional achievements, unlike the accumulative achievements only requiring time which are convenient for me to make a schedule to expect when I can get them, the conditional achievements are uncontrollable and unpredictable, sometimes it even needs luck to unlock them. Some conditional achievements are easy ones that do not need special attention, maybe they can be achieved the first time winning a battle in one battleground; on the other hand, some conditional achievements have stern conditions, which are barriers for completing the achievement 'Battle Master'. One typical example I remember is the achievement 'We had it all along 'cough'', which requires players to win Arathi Basin by 50 points or less. Actually, this achievement has been modified by Blizzard. At first the condition was to win Arathi Basin with the score 2000:1990; in the patch *Cataclysm* the finishing score for Arathi Basin was reduced to 1600, and then the winning condition became to win by 50 points or less. Despite the fact that the difficulty of this achievement has been weakened, it is still one of the most challengeable achievements in the Arathi Basin. My character completed the achievement on November 25th, 2011; by comparison, October 16th, 2009 was the date when I got the 100 victories achievement in Arathi Basin, which means that after winning more than one hundred battle in Arathi Basin, I still could not get this 'We had it all along 'cough''. The Arathi Basin battleground in fact is the fight between 15 alliance players and 15 horde players to contest resources, and the winning condition was the side that first got required resource points. When the achievement had not been modified, for several times I won the battle with the score 2000: 1980, and even one time I lost the battle with 1990: 2000, which helped the other side earn this achievement. These game experiences made me very depressed, and after hundreds attempts I began to wonder if I could get this achievement. 'We had it all along 'cough'' is an achievement which to a large extent is beyond my control, it depends on the cooperation with my teammates and more importantly, the performance of the other side. If the other side gives up too early, then the score might be 2000: 0; if the strength of the other side is too strong, then it is possible that I would lose the battle. This achievement bothered me for a long time, even its difficulty was reduced it still took me considerable amount of time to recover the courage to retry it. Finally, in November 25th, 2011,

I got this achievement, the figure 6 was the moment when this achievement appeared on my screen, and it is also the last achievement to unlock the achievement 'Battle Master'.



Figure 6, the moment rewarding the achievement 'Battle Master'.

Through the case of the achievement 'Battle Master', it reveals that both the accumulative achievements and conditional achievements consume considerable amount of time and the main difference between the two lies in that conditional achievements contain uncertainty to finish them, while accumulative achievements are convenient for achievement collectors to check progression and make plan. Doing the achievement 'Battle Master' to a large extent can be a long term process of collecting achievements at different levels, which contains various kinds of game experiences. After completing this series of in-game collection, many awards can be acquired, including achievement points, the title 'Battle Master', and more importantly, the game memories during the period of time: all these contributes to strengthen the game loyalty for WOW. I am willing to spend so much time on this achievement, not only due to the reason that it can give me many achievement points as well as the special title, but also it now belongs to my collection, from which I can recall my game experiences, the process of acquiring a difficult sub-achievement and the excitement after getting it. In a word, I am not regret to collecting such a time-consuming achievement, it is a process of accumulating as real world collecting, and it endow significance for me to stay in the game world.

2) *Ragnarok Odyssey* on PlayStation Vita:

Brief introduction on *Ragnarok Odyssey*:

Ragnarok Odyssey (GungHo Online Entertainment, 2012) is a action video game on the platform of PlayStation Vita based on Norse mythology. It was firstly released in February 2012 with Japanese version, and in August it was also capable of providing Chinese and English version. After five months since its first release, the sales of this game reached 100,000 including both the package version and download version (Gantayat, 2012). The storyline of this game is straightforward, that is, to hunt those monsters and save the world. Based on this fact, it can be easy to finish all the chapters in this game; however, this is just a beginning of experiencing the world of *Ragnarok Odyssey* (RO). Many quests in this game need to be visited repetitively, either for gathering required materials or some rare weapons. Recently, I found an interesting phenomenon from Baidu Post Bar that some game players could not tolerate the endless hunting without any production, and what they attempted to quit the world of RO was breaking the game stick into piece to make sure that they will never return this game. Drawing on this anecdote as prelude, I believe that some addictive elements in this game drive those players to make such a passive decision that can be a waste of money and time. As a result, it can be necessary to explore the game system of *Ragnarok Odyssey*, to find out possible addictive elements. My approach is ten-day duration of self-play from September 29th to October 8th combining with casual observations which target at game forums relate to *Ragnarok Odyssey*. I split my findings and analysis into the following five parts, which are weapons, cards, the refining system, rare materials dropping from monsters, and addictive elements.

1. Weapons in *Ragnarok Odyssey*:

Firstly, some weapons in *Ragnarok Odyssey* (RO) can be bought from the blacksmith, but most powerful weapons are dropped from monsters and giants. Therefore, the main job for our players in this game is to hunt those monsters and giants, for the rewards. There are three ways of taking advantage of these weapons. The first way is for exchanging gold. Most weapons dropping from those monsters and giants have to face this fate, because their attributes are not as good as a powerful weapon. Here comes a question, what attributes should a good weapon have? In RO normally a weapon has three attributes: one is the weapon damage, and another two are skills that a weapon has, such as attack up and poison attack. For example, there is an assassin weapon that my character is currently using, which is called DaegFarbauti. It has a damage of 147 per hit with two skills, attack up lv.5 (raising 35 attacks) and double attack lv.5 (25% probability of inflicting additional damage when attacking). It is noted that the three attributes are presented with green words, which means that they are positive skills. Those weapons can also have negative skills such as attack down, and they are presented with red words; for the weapon damage, green words means high attack, white words means normal attack, and red words means low attack. Therefore, a good weapon in RO should at least has attributes that are all presented with green words, and for those weapons with red words their fate

awaits is to be sold for money. The second way for taking advantage of weapons is to use them to kill enemies, and my DaegFarbauti is just the one. In RO the aim for our players is not only finishing those quests about hunting monsters and giants, but also killing those enemies with efficiency, because those quests need to be achieved repeatedly in order to collect a massive amount of things, such as cards and rare materials. At this point, a good weapon can be essential for improving the efficiency, that is, to reduce the time spent on finishing one quest so that more time can be available for another quest or re-accepting the same quest. However, in fact to get a good weapon for efficiency leads to an unexpected result. Although good weapons can save time for those quests, more extra time is spent to get them, because all of them are rare drops from those monsters and giants. Here is an example when I was playing this game, which to some extent shows this dilemma:

Today is September 29th, 2012 and I begin the play on *Ragnarok Odyssey*. I have already spent 70 hours on this game several months ago, and now what I am playing has a new extension package with additional content. Firstly I try a new quest 'Idle Rhapsody - Crushing Blow', which requires me to defeat a giant called Grendel. When loading the quest, I find that it is nearly the same as one that I have experienced before. About three minutes later, this giant falls and I receive a new assassin weapon 'traitor'. It has 108 weapon damage with red words and two crit attack up lv.5 attributes with green words. I then search threads from Duowan game forum and find out that this is one of the best weapons for assassin, and the highest weapon damage can reach 128. Although the two green attributes are very good, I am still unsatisfied the red weapon damage and I believe that there is space for improving my weapon. I then try to get another traitor. However, what disappoints me is that the following two hours I just get 4 traitors with about 50 times killing Grendel, and none of them have the two crit attack up lv.5 attributes. Now I begin to feel that how lucky I was when I get the right traitor after the first down of Grendel.

Two days later I got another traitor with the two crit attack up lv.5 attributes, after 10 hours struggling with this boss and at the same time receiving 9 inferior traitors. This traitor has 116 weapon damage, but I have no courage and patience to hunt for another one with higher attack. At least my weapon now has all the three green attributes, and that is enough for me to begin the hunt. As a result, 12 extra hours have spent to prepare for the efficient hunt. There is also one extreme example I find in the Duowan forum, one play complains that he spent about 333 hours just to get one traitor with the two crit attack up lv.5 attributes. He is an unlucky player; I got the traitor after the first down, and combined with my case it at least shows the difficulty to get a rare weapon in RO and how this game consumes the time of its players. Moreover, the third way of using weapons in RO is to extract skills into cards, which I will explain in the following two parts.

2. Card system in *Ragnarok Odyssey*:

Card system is the core of RO, and comparing with the weapon system it is another way to improve attributes for the virtual character. Every card has one or two attributes which capture a certain amount of cost, and better skills consume more card cost. Meanwhile, in this game there are many cloths to function as armor, and each of them has a 100 capacity for card cost, with the maximum for placing 8 cards. For example, if a card has 20 costs, then a character can carry 5

same cards at the most. I think that card capacity and card cost are the two key game rules for RO. A character cannot carry more than 8 cards for improving attributes, nor can he or she carry too many high cost cards at the same time because of the limited card capacity. However, these limitations on the contrary can be play elements for RO, because they make players to think about how to fully take advantage of the card capacity. It is not acceptable that a character carry too many low cost cards, because it may waste card capacity, and normally high cost card means high quality; it can also be unreasonable to only use high cost cards because by doing so it cannot place too many cards. Therefore, the ideal condition is to place 8 cards into cloths by fully taking advantage of the 100 card capacity, which suggests that both low cost cards and high cost cards are useful. This involves addition and subtraction, or putting it more clearly, the card arrangement.

By showing the importance of card system in RO, it seems necessary to introduce different types of cards. Normally, there are three types of cards, which are presented as follows:

1. Monster cards: they drop from certain monsters, and they can also be acquired through quest reward.
2. Cloths cards: they are bought in tailor shop together with certain cloths.
3. Extracting cards: cards that are extracted from weapons.

Different monsters drop different cards, and these cards are distinguished with rare degree, ranging from one star to ten stars. In other words, each type of monster can drop ten different cards with different skills. However, it is important to point out that the skills and cost of these monster cards (including those cloths cards) are fixed, which means that there is no space to improve their quality. Sometimes the skills of these cards are not so attractive and useful, some of them are even negative; more importantly, the cost of these cards normally are too high, and only a few are very useful, for example, the Alp Leshy Card with four stars is a card with the skill 'raze', which can be useful to improve the quality of items dropping from monsters. As a result, most of the monster cards and cloths cards are used during the early stage of hunting, and when the character levels up they will be abandoned and replaced by other cards with more useful skills or lower cost. Most cards now I am using are extracting cards. Weapons have one or two skills, and they can be extracted into cards. There are two advantages for extracting cards. Firstly, unlike those monster cards, the skills on extracting cards are diverse and this offers the capacity to find more powerful skills which can be placed in a same card. At this point, it is noted that skills on those cards depend on the type of weapons. For example, if I want a card with two attack up lv.5 skills, then a scorpion hammer can be suitable to extract skill into a card, because some other weapons may not have the two skills simultaneously, or they will become a card with higher cost after the extraction. Therefore, extracting cards to a large extent offer more options and space for players to make choices, which add more attractiveness to card arrangement.

Secondly, cards extracted from weapons have less card cost comparing with monster cards and cloths cards. For example, zephyr is a skill which can shortens the pause after a step or an aerial step. When this skill appears on the Utgarda Loki card, this card has 10 costs, while it is on the rad hermit claw card this card only has 5 costs and at the same time has one more skill, which is ap recovery up lv.4. Meanwhile, in RO all weapons have three types distinguished with rare degree: gold weapon, silver weapon, and cupreous weapon. It is possible that all the three types can have the same weapon damage and same skills. The only difference among them is the card cost when they are extracted into cards. Cupreous weapons are common weapons, silver weapons are those weapons that can reduce 5 costs when they are extracted into cards, and gold weapons are those weapons that can reduce 10 or 15 costs when extracted into cards. If a character can equip with one or more cards extracted from silver and gold weapons, it can save considerable card capacity for placing other powerful cards, and on the other hand facilitates the diversity of card arrangement.

By introducing the card system, especially the extracting cards, it shows that cards determine the attributes of a character in RO, as well as the efficiency to hunt monsters. Meanwhile, the quality of extracting cards lies on the quality of those weapons dropping from monsters and giants. However, acquiring those extractable weapons with high quality is not an easy job, especially for getting silver and gold weapons, because they drop from certain monsters with an extremely low probability. Furthermore, even if they are acquired, it is hardly to say that the skills are the ones that you want. For example, there is one gold weapon called son scorpion hammer. Although it is a gold weapon, its two skills are negative, and it is useless to extract it into a card. Therefore, in this game acquiring suitable and powerful weapons for extracting can be another approach to consume a significant amount of time. Nevertheless, I have to say that it is just a beginning for a player to devote themselves into this game, and the most 'efficient' part for killing time is the way to extract those qualified weapons into cards, which is the refining system.

3. Refining system in *Ragnarok Odyssey*:

The refining system in RO can be understood as the only way to improve the quality of weapons. Based on my game experience, it has three features, which are presented as follows:

1. Increasing more weapon damage
2. Changing skills on weapons
3. Extracting weapons into cards

Firstly, through refining more attack can be added to a weapon, and each weapon can be refined ten times. My daegfarbauti has 106 original weapon damages, and after refining it for ten times, its weapon damage can ultimately reach 147; meanwhile, an attack up lv.5 card can offer 35 weapon damages, which is less than the refining can provide. Through this comparison and

considering the fact that only 8 cards can be utilized simultaneously, it shows the necessity to refine a weapon in RO, instead of just using its original weapon damage.

Secondly, refining can change skills on weapons, either the qualitative change or the quantitative change, and in RO this is called sudden change. Qualitative change is a total change of skill such as from safe DS (lessening the price of Dainsleif Modebut also lessening its power) to blaze DS (boosting the power of Dainsleif Mode but also boosting its toll), while quantitative change is the increase of the level of skills such as from attack up lv.2 to attack up lv.3. Sudden change happens while refining, and weapons with different runes have different rules for the sudden change. As mentioned above a weapon can be refined ten times. In order to better explain the sudden change, here it can be understood that a weapon can be refined through ten stages. In this sense, those weapons with a 'peorth' rune can have three chances for the sudden change, which happen in the stage 3, stage 6, and stage 9, and the probability for the sudden change is relatively high. For those weapons with a 'wyadd' rune can only have one chance for the sudden change, which happens in stage 9 with a relatively low probability. The other weapons in RO can have three chances for the sudden change, which happen in the stage 7, stage 8, and stage 9. The probability for the sudden change in stage 7 is 1 percent, in stage 8 it is 2 percent, and in stage 9 it is 5 percent. Therefore, although weapon with 'peorth' rune can be easier for sudden change, the probabilities of sudden change for other weapons are very low, and the majority of weapons belong to this. To achieve the sudden change, the only way is to try luck by repeating the saving and loading process. This is a boring process, firstly a weapon should be refined to stage 6, and then save the game. The next step is to talk with the NPC to go to stage 7 and during this process if there is no change for skills, quit the game and reload it. If the 1 percent probability is achieved, save the game and try the 2 percent probability (stage 8), and then try the 5 percent probability (stage 9). In order to better explain the difficulty for sudden change, here I list several attempts when I was refining those weapons without the 'peorth' rune for sudden change:

skills for sudden change	time spent on stage 7	time spent on stage 8	time spent on stage 9	date	total time spent
crit attack up lv.2	crit attack up lv.3, 2 hours	crit attack up lv.4, 1 hour	crit attack up lv.5, 20 minutes	9. 29	3 hours and 20 minutes
crit attack up lv.2	crit attack up lv.3, 3 hours	crit attack up lv.4, 30 minutes	crit attack up lv.5, 10 minutes	9. 29	3 hours and 40 minutes
crit power up lv.3 and crit power	crit power up lv.4 and crit power up	crit power up lv.4 and crit power up	crit power up lv.5 and crit power up lv.5,	9. 30	2 hours

up lv.4	lv.4, 20 minutes	lv.5, 10 minutes	1.5 hour		
attack up lv.2 and attack up lv.3		attack up lv.2 and attack up lv.4, 2 minutes	attack up lv.2 and attack up lv.5, 1 minute	10. 1	3 minutes
Zephyr and AP recovery up lv.3			Zephyr and AP recovery up lv.4, 1 minute	10. 2	1 minute
attack up lv.3 and HP up lv.4	attack up lv.3 and HP up lv.5, 40 minutes	attack up lv.4 and HP up lv.5, 3 minutes	attack up lv.5 and HP up lv.5, 40 minutes	10. 2	83 minutes
crit attack up lv.3 and crit power up lv.3	crit attack up lv.3 and crit power up lv.4, 1 hour	crit attack up lv.4 and crit power up lv.4, 30 minutes	crit attack up lv.5 and crit power up lv.5 (unfinished), 3 hours and 17 times of single change	10. 2	4 hours and 30 minutes
continuum of the unfinished part above			Unfinished, 30 minutes and 4 times of single change	10. 4	30 minutes
continuum of the above			Unfinished, 3.5 hours and 33 times of single change	10. 6	3 hours and 30 minutes
continuum of the above			Unfinished, 30 minutes and 1 time of single change	10. 7	30 minutes
continuum of the above			crit attack up lv.5 and crit power up lv.5, after 1.5 hour and 10 times of single change, finally done	10. 8	1 hour and 30 minutes

According to these attempts, it shows that stage 7 are normally the most difficult and time-consuming stage, while stage 8 and stage 9 are relatively easier and cost less time. If a weapon needs sudden change in stage 7, then the total time to complete the refining to a large extent is more than the weapon which just

needs sudden change in stage 8 or stage 9. However, there are also exceptions for sudden change, and in my case, it is the attempt when I tried to change one weapon with the skills crit power up lv.3 and crit power up lv.4. In stage 7, it just took 20 minutes for the sudden change, and comparing with other attempts in this stage which spend several hours this is an attempt with good luck. However, also during this attempt, it cost me about 1.5 hour to finally change the original skills into crit power up lv.5 and crit power up lv.5, and comparing with other attempts in stage 9 which just cost a few minutes, this attempt can be unlucky. As a result, these attempts make me believe that the play of the refining system to some extent can be enjoying the unpredictability that this game brings to its players. As mentioned above, the probability for sudden change in stage 7 is 1 percent, and 2 percent in stage 8, and 5 percent in stage 9. Therefore, it is uncertain when the sudden change happens. It is possible that sudden change happens just after the first try, or hours in vain. For me, if the sudden change happens just after several times of attempts, I will feel very excited. Therefore, the uncertainty of sudden change generates motivation for players, to challenge the unpredictability and get rewards.

The unpredictability of sudden change can be attractive, and based on this fact it is inevitable to mention that in most occasions, achieving sudden change needs an accumulation of time, especially for the double sudden change. The double sudden change here means that the two skills of weapons change simultaneously, instead of happening separately in the three sudden change stages. In this game, the maximum times for the sudden change are three times. If a weapon needs four or more times of sudden change, then the double sudden change is needed to ensure that the sudden change can happen two times in the same stage. Although the double sudden can efficiently optimize the card arrangement because some cards (for example, the card with the two skills crit attack up lv.5 and crit power up lv.5) extracted through double sudden change are both low cost and equipped with necessary skills, it requires more time comparing with the single sudden change. The probability for the double sudden change in stage 7 is 0.001, and in stage 8 it is 0.004, and in stage 9 it is 0.0025. In this sense, the benefits of the double sudden change are directly proportional to making attempts. From the above chart, it records several attempts when I tried to achieve the double sudden change on the original skills crit attack up lv.3 and crit power up lv.3, to change them from crit attack up lv.4 and crit power up lv.4 to crit attack up lv.5 and crit power up lv.5. I spent five days for achieving the 0.0025 probability, and the total time spent on it was 9 hours with 64 times of single sudden change. It is a struggling process, and at one time I nearly gave up. When I thought that if I complete this card then I could save 5 card costs, I just told myself ‘try again, and my character can be stronger’. Finally, when finishing the double sudden change, I feel extremely proud and believe that nothing in this game can stop me now. This is what a game can bring to its users, not only happiness, but also other negative emotions such as a sense of defeat. If those negative emotions can be overcome, then more happiness can be acquired. In a word, the refining system and the sudden change in this system indicate that an accumulation of time is necessary to enjoy the unpredictability that this game brings to its players.

4. Rare materials in *Ragnarok Odyssey*:

In the part of refining system, it mentions that a weapon can be refined for ten times to improve its damage. However, it is not so easy to refine those weapons, because many materials are needed for refining. And for those weapons with high quality, rare materials are required which dropped from bosses. Each chief monster has one or two exclusive rare materials. When these chief monsters are defeated, those rare materials seldom drop, and it needs several attempts to get them. Here is one example when I tried to collect the leaf-hammer shard, which is one rare material dropping from Fenia, one chief monster of the hill giants:

Today is October 5th, 2012. Considering the possible heavy traffic jam on the high way in the next couple of days after the National holiday, I decide to go back to UNNC today. It is a 4 hours journey from my hometown to Ningbo, and also a suitable time for me to play the game *Ragnarok Odyssey*. My second 'traitor' with the two powerful skills crit attack up lv.5 and crit attack up lv.5 needs to refine to get more weapon damages. The process to collect refining materials is very smooth, and it only takes about thirty minutes to complete seven times of refining because I already have most of the required materials and I just need to collect the rest from certain quests. However, when I begin the eighth refining I find that I need twelve leaf-hammer shards and my inventory does not have this material. I then search the place it drops via the Internet, and find out that it is a rare material which drops from Fenia, and only three quests can drop this material: Final Battle 1, Idle Rhapsody – Tomb Flower, and Two in the Light of Dusk. I then begin the first quest, and after one hour play with 26 times of defeating Fenia, I only get 2 leaf-hammer shards. This terribly low drop rate makes me believe that this quest maybe not efficient to collect this rare material, and I begin to try the second quest. However, what makes me disappointed is that this quest is much more difficult than the first one (I fail several times to complete this quest), and the drop rate is also terribly low, or even lower: 5 times of completing this quest while getting nothing, except for some common drops. I have to go to the Internet for some help, to find if the third quest can have the probability to drop more leaf-hammer shards. Fortunately, from game forums some net friends reply that this quest is quite efficient to collect the rare material, and it is also possible to get the legend weapon 'Light Epsilon', the most powerful weapon for Hammersmith. I believe that I find the right quest, and I feel eager to try this quest. It makes me disappointed again. The third quest is the most difficult quest I have ever met. Fenia in this quest has extremely high attacks comparing with the other two quests, and what awaits my character is the mission failure again and again. Even if I can defeat her, it costs me about five minutes, which is far less efficient than the first quest. After three times of defeating Fenia in the third quest without getting anything, I decide to go back to the first quest, and finally when I arrive to Ningbo after 4 hours, I just get five leaf-hammer shards, and I still need seven more to complete the eighth refining. Maybe it will take several days for me to finally complete refining the 'traitor', because the ninth and tenth refining also need rare materials from other chief monsters.

This example to some extent can indicate the difficulty to collect those rare materials in RO. Rare weapons such as 'traitor' need a considerable amount of rare materials, which requires time to collect them. The process of getting those rare materials can be a quantitative collection, and although it is boring and repetitive, the rewards for collecting them can be attractive: those weapons that require rare materials can have more damages through refining; meanwhile, they can also be extracted into cards if they are silver or gold weapons, or equipped with powerful skills. Therefore, I think that collecting those rare materials is a necessary part for

this game, which not only increases the difficulty of this game but also reveals the value of those rare weapons.

5. Addictive elements in *Ragnarok Odyssey*:

According to the findings above, in RO there indeed exist some addictive elements that absorb people into the virtual world, which can be concluded into three words: circle, choice and collection. Firstly, the term circle here means that the weapons, cards, refining, and rare material are interconnected and form as a circle. In RO, weapons are one important source of acquiring necessary cards; meanwhile, the refining system is the only way for those weapons to be extracted into cards; on the other hand, refining weapons need those rare materials, either for strengthening weapons or extracting into cards. At this point, if a good weapon is acquired from monsters, rare materials are firstly needed to complete the ten times of refining, and if the weapon needs sudden change, then some extra time should be spent on the process of refining. This can be an endless circle with the start of getting another qualified weapon. Besides the endless circle among the weapons, cards, refining, and rare material, there is also an unpredictable circle in this game. As mentioned above, the drops of rare weapons and rare materials as well as the sudden change during refining to a large extent can be unpredictable. This can also form into a circle, that is, to repeat certain quests or certain refining stages. In other words, to make the uncertainty as one game rule is to improve the attractiveness of this game. Due to the fact that this set cannot promise anything, for example, when those rare weapons or rare materials can drop from certain monsters, the only way left is the repetition of tasks. If the rare weapons or materials cannot be acquired this time, just try the quest for another time until they drop; if the sudden change does not happen in stage 9, just quit RO and reload it for another try. In this regard, it seems that both the two circles have the capacity of consuming a significant amount of time, which can be addictive elements to get people involved in the virtual world.

Moreover, it is important to note that choices can be another addictive element for this game. There are a variety of choices to have fun in this game. As an action game, a player can either enjoy the exciting feeling of killing monsters, or challenge the shortest time to finish certain quests. Meanwhile, there are six jobs for players to make choices, which are Sword Warrior, Hammersmith, Assassin, Mage, Cleric, and Hunter. It is quite convenient to change jobs, just clicking the job change stone in the room of player. At this point, it is important to note that different jobs have their own advantages, and certain quest requires certain job because this can efficiently save time. For example, the Final battle 2 in chapter 9 can be the home field for Hammersmith, because the boss Surt in this quest is an unmoved target which is suitable for Hammersmith to deal a considerable amount of consistent damage. On the other hand, even the same quest requires different jobs for different purpose. For the final quest Ragnarok Odyssey in chapter 9, if collecting the rare material dusk flame is the purpose, then Hammersmith can be the best choice because the boss Loki is an unmoved target for the first dozens of seconds and during this time it can be enough for Hammersmith to kill Loki; if

collecting the rare material heavenly eye is the purpose, the Assassin can be the primary choice because this job is agile and at the same time has fast attack speed, which is efficient to hunt moving targets. The heavenly eye needs to break the wings of Loki which is difficult to achieve during the first dozens of seconds, after then Loki becomes active and flies all over the battlefield, and in this sense Assassin can be suitable rather than Hammersmith. Therefore, all the six jobs can find their shining points in this game, and the way to enlarge their advantages is to optimize the card arrangement. Different card arrangements stand for different game experiences, some are used for specific quests, some are used for collecting certain materials, and some can be used for killing monsters speedily: all these provide flexible space to make choice. As a result, choices in RO can be diverse, which offers the possibility for players to spend time on experiencing the game world.

Thirdly, while circle and choice are important aspects for RO, it is necessary to hold that the involvement of collecting can also be a key part, especially when all the quests are cleared. As an action game, *Ragnarok Odyssey* does not add abundant game story, it is just a hunting game. At this point, collecting becomes a driving source for players to continue experiencing this game, and the target of collecting can range from weapons, cards, materials, clothes, and so on. As a result, the collecting can either concentrate on quality or quantity. Furthermore, the attempt on some collecting can be recorded as receiving trophies, which endows collecting with meaning. Comparing with PlayStation Portable (PSP), one advantage of PS Vita is that it has the trophy system, which records challenges that a player has completed in games. In RO, the trophy system plays as an index, which records the detailed achievements that a player has completed, when they are finished, and the levels of difficulty (representing with bronze trophy, silver trophy, gold trophy, and platinum trophy). Some collections can be recorded through this system, such as those monster cards. Therefore, collecting can be a vital motivation for players to stay in this game.

3) *SanGuoSha*:

Brief introduction:

SanGuoSha (YOKA games, 2008), according to the description of (Chen, 2012), is a Chinese board game based on the ancient Chinese history during the period of Three Kingdoms (AD 220-280) and the novel *Romance of the Three Kingdoms* written in Ming Dynasty (AD 1368-1644). It has become a cross platform game not only as a physical card game, but also available on webpage, iOS system, and android system. It is recorded that this game has sold approximately 100 million copies in two years since its release in 2008 (Supraner, 2010). The close relevance to history is one key feature of *SanGuoSha*, which enables players to gain a strong sense of cultural engagement when playing this game. In August 2012, UC Berkeley began to offer a course to play *SanGuoSha* (Chen, 2012), which to some extent shows that games are capable as a way of learning. Drawing on the webpage version of *SanGuoSha*, in this part this dissertation tries to focus on the following aspects: game rules, historical and cultural involvement, features of the online version.

1. The game rules of *SanGuoSha*:

Rules is an essential component of games, it provides a game with logics and help construct its definition (Caillois, 1961; Pearce, 2002; Juul, 2003; Juul, 2005). For *SanGuoSha* the play of this game is based on a well-designed game rule system. There are four roles in this game: Monarch (主公), Minister (忠臣), Rebel (反贼), and Turn-coat (内奸). Victory condition is different for the four roles:

Monarch: killing rebel(s) and turn-coat(s)

Minister: protecting monarch by killing rebel(s) and turn-coat(s)

Rebel: killing the monarch

Turn-coat: killing all in this game and the monarch should be the last to kill

At the beginning of this game, each player draws one role card to represent one of the four roles. The identity of players should be kept hidden until they are killed or at the end of this game except the monarch, who should show his or her role card immediately after the pick. Each player can draw four cards firstly after the distribution of role card, and the monarch is the first to start the round. There are two regular sources to acquire cards, by drawing two cards every round and by killing a rebel to receive three cards. Killing a minister or a turn-coat cannot get any rewards, and for the monarch if he or she kills a minister by mistake, all cards on hand and equipped will be discarded. The end of this game is based on different victory conditions of the four roles, which makes *SanGuoSha* become a complex game with a certain level of uncertainty.

Meanwhile, rules can also be found in the card system, and there are several types of cards which represent different functions:

Hero card: representing a role from the history of three kingdoms

Life card: illustrating the current life points of a hero

Basic card: card used most frequently in this game, which can be strike card (deal damage of 1), dodge card (invalidate the effect of strike card), and peach card (recover one life point)

Scroll card: representing strategies available to players, which enriches the game content

Equipment card: card functioning as weapon, mounts, and armor. Once an equipment card is placed in the equipment field, its effect is continuously active unless this card is replaced by other equipment card, or it is discarded by other players, or the hero equipping with this card is defeated

By introducing these types of cards in *SanGuoSha*, it is the rules that offer cards with meanings and make them connected. Hero card suggests a play of identity, a role play to act as an ancient hero. Life card and basic card more likely indicate a simulation of battle, participants of this game use those basic cards to defeat their potential enemies and defending their aliens. Scroll card and equipment card make this battle with more diversity. For example, the scroll card 'something for nothing' (无中生有) enables player A to draw two additional cards which provides considerable power; on the other hand, player B whose game role is the enemy of player A can use the scroll card 'ward' (无懈可击) to disable the effect of 'something for nothing'. As a result, games rules of *SanGuoSha* bring players into a virtual world, a place where a war happens without real blood. In this sense, playing *SanGuoSha* is an engagement of 'half-real' world described by Juul (2005:1) in which a player experiences the unreal guided by a logic set of real rules.

Moreover, through the study on the rules of *SanGuoSha* I find out that uncertainty is a source where offers joy to game participants. Caillois (1961) shares this position, who believes that uncertainty is one feature for conceptualizing the term game. Although game rules are gate keepers to exclude 'any unclerness' to establish the logic of games (Juul, 2003), it does not necessarily mean to wipe out the uncertainty because it helps to generate a variety of outcomes, which is one of the key feature in Juul's definition of games. In *SanGuoSha* the uncertainty can be found in two aspects: identification process and the role of turn-coat. As mentioned above, at the beginning of this game players are required to draw role cards to decide which role to play. Only the monarch is visible, and participants who play the other three roles have to identify the roles of other players based on how they use those game cards. If one player attacks the monarch by using the 'strike' card, then the minister can be sure that this player can be rebel or turn-coat. This is just the simplest example for identification, and often rebels may choose to attack the minister to isolate the monarch. In this condition, it can be difficult for the monarch to identify who is the minister and who is the rebel, and it is possible for the monarch to lose all the cards by killing the minister, which is just what the rebels want. Moreover, turn-coat can be the key role to influence the game process, that is, to make the identification process more complex. In a game with eight participants, there are one monarch, two

ministers, four rebels, and one turn-coat. The role of the turn-coat is to make sure the ministers and rebels die first, and then he or she can fight against with the monarch one-on-one. At this point, keeping the balance between the two sides is vital for the turn-coat, and he or she can either act as a minister or rebel that depends on different situations. A turn-coat can help the weak side, or just pretend as a minister to make the monarch and ministers fight against each other. For the other three roles, turn-coat can be the most difficult role to be identified, and this is where a sense of pleasure arises to find out the unknown. Therefore, in *SanGuoSha* the uncertainty to a large extent is encouraged by game rules, which generates a variety of possible outcomes during the game process and also helps enrich game experiences.

2. A close combination with history:

It is necessary to hold that game rules of *SanGuoSha* alone cannot be capable to persuade people to participate in this game. That is to say, although players are aware of what roles they are to play, there is no involvement of personality to distinguish from others. At this point, a close combination with history solves the problem above, which provides unique identity for each player. It is accepted that the period of Three Kingdoms (AD 220-280) is one of the most frequently used game background in East Asia, and this help create many famous games, including the *Sangokushi series* (KOEI, 1985-2012). It is also the period that heroism and masculinity are highly admired because the troublous times (乱世) need heroes to save people. *SanGuoSha* also takes advantage of this period of history based on the historical novel *Romance of the Three Kingdoms* written by Luo Guanzhong in Ming Dynasty (AD 1368-1644). In this game after the pick of role card players can then choose one hero from three hero cards, and for the player who is the monarch he can choose one from five hero cards, among which three are the historical kings of the three kingdoms (Liu Bei, Cao Cao, and Sun Quan) and two are randomly picked from hero cards. Each hero card is unique and there is impossible to have two same heroes simultaneously. Furthermore, each hero card has its unique abilities, which are based on the life story of this hero in history. These abilities can either represent the famous achievement(s) of this hero, or his or her personality. For example, Liu Bei, the first king of Shu, he is described as a kindhearted king and this personality enabled him to attract many followers to help establish his kingdom, including his two oath brothers Guan Yu and Zhang Fei. In *SanGuoSha* Liu Bei has one ability called 'kindness' (to give other players hand cards while regain 1 life point) which just fits the description about him in both history and novel. Thus, by having a close combination with history *SanGuoSha* offers a strong sense of role play in which players can act a real hero in history to interact with other heroes (players), and those unique abilities of those heroes also enhance the game experience by connecting hero cards with other types of game cards.

On the other hand, it is important to note that *SanGuoSha* is not just a copy of history, instead it mess up the relationships among those heroes which increases the difficulty to identify the roles of other players. In history Liu Bei and Zhang

Fei were oath brothers, and they had solid relationship with each other. However, in *SanGuoSha* it is possible that Zhang Fei can be a rebel against Liu Bei, which makes the identification process more unpredictable. This fact suggests that it should be more cautious for players to confirm the roles of other players, not just rely on the knowledge of history. Therefore, it is accepted that the close combination with history not only provides a necessary background for this game, but also diversifies the game content.

3. The online version of *SanGuoSha*:

Apart from the physical version, *SanGuoSha* also has online version which is available on multiple platforms, including webpage, iOS, and android. The online version shares with the features of the physical version and with the access to the Internet the game experience can be recorded and revisited. That is to say, *SanGuoSha Online* is a digitalized database which collects all the relevant information once logging in this game. There are three aspects which I tend to emphasize: replay system, title system, and the purchase of hero cards. All the three can be regarded as a series of collection in *SanGuoSha Online*, firstly the replay system records every set of the game which is convenient for players to revisit and enjoy the game memory. The title system is similar to the trophy system on Play Station and the achievement system in *World of Warcraft*, which can be rewards for certain challenges. For example, a special title 'big luck' (鸿运当头) can be rewarded when using the scroll card 'something for nothing' for three times in one set of game, and then this title can be used as a signature. There are many titles in *SanGuoSha Online* for players to collect, which can be a reason to spend some time on this game. Moreover, hero cards can be another aspect for collecting. Apart from the basic hero cards which are free, there are also some special hero cards that are only available to those players who pay for them. These cards normally have more powerful skills compared with those basic hero cards, which can help players gain a certain level of advantage when play with other participants. At this point, it is possible to say that the online version of *SanGuoSha* is not only a platform for players to interact with each other, but also a database that records the time and efforts they have spent.

6. Discussion and conclusion:

The three above cases suggests that how collecting make people stay in game world, and at this point it is inevitable to mention that sometimes people may describe this as game addiction. According to Ferguson *et al.* (2011), there are two main approaches to analyse the game addiction, one is based on research on pathological gambling and utilize this concept to ‘reflect pathological gaming’; the other one comes from behavioural analysis, which focuses on ‘the interfering nature of gaming behaviour, rather than on a strict parallel with established symptoms of pathological gambling’. They further conclude that by comparing the two approaches the former approach to a large extent over-measures the number of possible game addicts which includes some non-pathological individuals (Ferguson *et al.*, 2011). Therefore, Ferguson *et al.* (2011) suggest that further research on analysing pathological gaming should consider the ‘interfering nature of symptoms’ instead of taking the approach of pathological gambling. I think one key reason for choosing the ‘interfering’ approach is that it can reduce the hostility towards games. Instead of regarding overplay as a kind of mental disease, this approach to a large extent calls for special attention to understand the nature of games. That is, to learn interactions between game behaviour and daily life: they can be either penetration or conflicts. In this regard, I believe that what the humanities can bring to the study of game addiction is to recognize what a game itself means to its players, and this can be one important premise to understand gaming behaviours. In this regard, I think that it is interesting to call for special attention on a type of hobby prevailed in Qing Dynasty—book collecting, to see how collecting make those ancient book collectors choose to stay in their own world.

China has a long history of valuing the literati, they are the top class compared with the other three (farmers, laborers, and merchants) in ancient China. One important reason for them to enjoy the superiority is that at that time they are the pivot to link the past, the present, and the future. In his famous book *the development of Chinese libraries under the Qing Dynasty, 1644-1911*, Taam (1935: 1) comments that ‘only through them could the truth be transmitted from the past to the present and likewise from the present to the future’, and at this point the literati in ancient China can be regarded as transmitters of history. Therefore, as a precious record of the past, the books from previous dynasties received high attention among the literati. Some of them even devoted their whole life to the collection of books, and they are called book collectors. According to the *Chronicle of Changshu* (2006), there are approximately one thousand literati in ancient China who can be identified as book collectors, and they are mostly centralized in the South of China, with three cities that own the majority: 268 in Suzhou, 198 in Hangzhou, and 146 in Changshu. The centralization of book collectors, to some extent suggests that book collection is not an isolated process; instead, it is a locally social communication among book collectors.

There are several types of book collectors among the literati. The first type is for read, and do the reading for the whole night is a proud thing which is

respected by other literati because of the poor lighting at that time. Zhao Yongxian (1535-1596), a vice minister of the Board of Personnel during the reign of Wan Li (1573-1620), was known as an important book collector in Changshu who initiated the atmosphere of collecting books for read and collation. QianQianyi (1582-1664), who specialized in collecting editions from Song and Yuan Dynasty, commented Zhao as a brilliant and hard-working book collector: he is a knowledgeable person and even in his later years he still read in private library until the next early morning, just with a candle (强学好问, 老而弥笃, 午夜摊书, 夹巨烛, 窗户洞然, 每至达旦). Qian himself is also a 'read-focus' book collector, but he is more famous as book lover, who concentrates on the edition of books rather than the content. It is a second type of book collectors. The focus of the first type is on the reading of books, and this type of book collectors is on the collection of books, especially the Song and Yuan editions. Qian is a heavy book addict, who only does the collection on Song and Yuan editions. The other editions, from his perspective, are only books for read, and are excluded from the bibliotheca of his private library Jiang Yun Lou. In this sense, books are not only reading materials; instead, they are treasures that are worthy for collecting. This type of book lover, to some extent indicates a different approach of using books. Considering the fact that there was far less way for entertainment than the contemporary era (e.g. online games and micro blog), collecting precious books can be regarded as a type of game play at that time, because it offers a sense of satisfaction and superiority. Getting a book of Song edition can be the best moment for those book lovers. For example, when Zhang Rongjing (1803-?) got a Song edition *Ji Rang Ji* (击壤集), he did an inscription with his blood, and prayed the blessing of Bodhisattva to leave this book without destruction: I got this book in November 1845, I love this book very much, and I use my blood to pray Bodhisattva's blessing, with the only hope that it can be handed down forever without any damage (乙巳十一月得之, 爱不能释, 以血书佛字于空叶, 惟愿流传永久, 无水火? 食之灾).

These book lovers, or book addicts (嗜古之士) identified by Weng Tonghe (1830-1904), receives the criticism that their behaviour deviates from the original purpose of using books, which turns out to be unpractical. In this regard, it calls for the rise of the third type of book collectors: those who collect books for share. From their perspective, the circulation of books is the primary purpose for book collection, Zhang Haipeng (1775-1816) argued that collecting books is inferior to reading books, and reading books is inferior to engraving books (i.e. printing books); reading books is just for self, and engraving books can benefit others (藏书不如读书, 读书不如刻书, 读书只以为己, 刻书可以泽人). Therefore, books should be shared and spread, and keeping them as treasures and secrets limits the effects of book collecting. One distinct example is the Tie Qin Tong Jian Lou (铁琴铜剑楼), one of the four most famous private libraries in Qing Dynasty. Qu family, the master of this library, made the library as a public one for collation and copy, in order to endow book collecting with the mission that it deserves: for share and communication.

All The three types of book collectors reveal a shared feature: a sense for seeking. That is, no matter for read, for collection, or for share, the mentality of those book collectors can be the same: it is a belief, a belief of addicting to books. Books are their favorites, and their life. Sun Congtian (1692-1767), a famous theorist in Qing Dynasty, admitted that he is a book addict and books are his whole life, because books can be the same as the personality and spirit of human (夫天地间之有书籍也, 犹人身之有性灵也). In other words, books are the representation of human nature, and this is where fascinates those book collectors psychologically. Sun also has one important contribution, a manual about library economy called *Cang Shu Ji Yao* (藏书纪要). This manual written by him is ‘the only reference book on library economy for private book collectors during the entire nineteenth century’, and it is also regarded as the key guideline, which ‘still has some influence in the shaping of modern Chinese libraries’ (Taam, 1935: 59). It has eight points: acquisition, discrimination between editions, the manuscript copy, textual correction, binding, cataloguing, preservation, and sunning of books (translated by Taam, 1935). The details are categorized as follows:

acquisition	The most difficult thing for book collection; on the other, this process also contains joy and pleasure when successfully acquiring one best edition.
discrimination between editions	An important skill to become a successful book collector, which includes knowledge on books (for example, the author, printing date, the original owner), the ability of finding out bibliographies of other book collectors, and the access to the official publications lists of each dynasty. Meanwhile, the way of judging a real Song edition book is also presented, which mainly lies in the quality of paper and the use of ink.
the manuscript copy	The purpose of the manuscript copy is for read and for share as well. It is a tradition among the literati
textual correction	This is a high level requirement for book collectors, because it needs extensive knowledge and those collectors should be proficient in various fields. If not, it is a waste of time and disrespect to books.
binding	The purpose of binding is not to make books as decorations, but for the convenience of preservation. The style of binding should be classic and elegant, and the practicability should also be valued.
cataloguing	Similar to textual correction, it is the privilege for high level book collectors, and only those people can achieve making the cataloguing. It requires a systematical knowledge to put their books in the right

	classification. In this sense, the term record is essential for cataloguing, not only for books, but also for those who borrow books.
preservation	This deals how to keep books in good condition, including regular inspection, the selection and the use of bookcases, and the way to prevent the fire.
sunning of books	It is also a way of carefully taking care of the books, and it is an appropriate way to keep out white ants, bookworms and rats.

These eight points are the rule and summary for book collector. Huang Pilie (1763-1825) comments that Sun's attempt can be detail and integrated, which to a large extent shows a real book collector. For book collecting, it is difficult to assemble, but easy to scatter (Yang Fuji, 1747-1820). A fire or a war can easily burn the books into ashes, with the contrast that it may take a whole life to collect them. This is the normal end for book collections and the private libraries, only a few can survive. However, it is a faith, a wish for those book collectors that their efforts will be passed down and taken over by other book collectors. It is a spirit of never giving up and regardless of cost, behind this shows a deep love for books, and this is a true book collector.

Furthermore, the massive use of seals is another key feature of book collecting. Usually, it is mainly identified as a way of indicating the ownership of books, as well as an expression of elegance. According to Taam (1935: 62), these Chinese seals were made in various shapes, which 'were usually made of fine stone and cut by skillful engravers'. Meanwhile, he also notes that a book may have several seals for different meanings, such as the name of the owner and the name of his library (Taam, 1935). One typical example can be found in Chen Xing Lou, a private library in the late Qing Dynasty which still remains books. The owner of this library is the Xiao family. One of their representatives is Xiao Zhongyou (1881-1947), the second owners of this library, who has more than thirty different seals for his private library. (See the pictures below, from Guo, 2005: 75 and 77).



1 昭明后裔 (Descendant of Zhao Ming) 2 江南萧氏 (Jiang Nan Xiao Family) 3 晨星楼 (Chen Xing Lou)



4 虎肖印“萧” (the tiger seal ‘Xiao’) 5 松缘 (Song Yuan, a tile of Xiao) 6 冲园金石 (the seal of Chong Yuan)



7 渊渊手痕 (the mark of Zhong Yuan) 8 海虞萧叔 (Hai Yu Xiao) 9 村摩精舍 (the name of Xiao’s study)



10 村摩 (Cun Mo, same as seal 9) 11 萧友大利 (an expression of happiness) 12 松游 (a title of Xiao)



13 萧叔子 (an alias of Xiao) 14 冲居士 (a title of Xiao) 15 萧友校读印 (a seal for proof reading)



16 盅渊 (an alias of Xiao)



17 常熟萧绍^興斗盅友印信 (the seal of Xiao)



18 盅渊 (an alias of Xiao)



19 萧充有 (an alias of Xiao)



20 充叔 (an alias of Xiao)



21 萧 (Xiao)



22 晨星楼 (Chen Xing Lou)



23 萧盅友 (Xiao Zhongyou)



24 绍^興斗 (an a alias of Xiao)



25 盅友过眼 (this book was read by Xiao)



26 萧叔 (uncle Xiao, an alias of Xiao)



27 萧氏叔子 (an alias of Xiao)



28 冲友 (Chong You, an alias of Xiao)



29 冲友 (an alias of Xiao)



30 金石寿 (a love and bless for seals)



31 无垢 (Vimala, a brief in Buddhism)

Among these seals, there are nineteen seals that represent the name of the library owner, including his family name, surname, alias, and title; four represent the ownership of books (seal 7, 15, 17, and 25); four represent the name of study and library (seal 9, 10, 3, and 22); two represent the family (seal 1 and 2); one is to show the interest of the library owner (seal 30); one reflects the happiness of the library owner when getting a book (seal 11). According to these seals, some natures of book collecting can be found. Firstly, the nineteen seals which represent book collectors indicate that the identification is a primary concern for book collecting, together with the value on the ownership of books. Book collectors need these seals as their identities: the more, the better. The example of Chen Xing Lou also support the argument of Taam that a book can have several different seals, even the same words can have two different seals (seal 28 and 29). Meanwhile, from these seals it also shows that they can function as the expression of the mentality of book collectors. The assonance is used as a main approach as alias, or title for Xiao Zhongyou, with the aim of showing his taste. For example, the seal 19 ‘萧充有’ (Xiao Chongyou) is endowed with two meaning by the use of assonance. One tells the name of Xiao, another one shows the optimistic emotion of Xiao that he feels ‘rich’ when surrounded by books. Therefore, the seals here are not only for identification, but also an expression of the mentality of book collectors. Another example is the seal 11, which tells the happiness of the library owner when getting a book. Both the two examples reveal the love for books, and the satisfaction of making efforts on book collecting. Furthermore, by classifying the thirty seals into six items, it proves that book collecting can be a type of game play at that time. Book collectors take advantage of these seals as a window, to tell others their identity, ownership, and taste on books, and then they can get a sense of achievement. This to some extent explains why those book collectors are willing to spend their whole life being ‘addicted’ to books.

When referring to the term addiction, it is inevitable to mention the opium, which put the Chinese people into crisis during the Qing dynasty. Both books collection and opium existed during that period, but received different responses. Book collection is a ‘positive’ addiction derived from the deep love for books, and it can be regarded as an essential cultural inheritance. Opium, on the contrary, turns out to be a disaster, which makes people addicted to it psychically and psychologically, and then destroy them. At this point, both book collection and opium relate to addiction, and their differentiated destinies suggest that the outcome determines their nature rather than the process. Although opium can temporarily bring joys, finally it will destroy the health of people who use it. Unfortunately, some scholars (e.g. Golub and Lingley, 2008) use this dichotomy and apply it to the study of online games, even equalize online games with opium, and regard them as a ‘moral crisis’. They believe that Internet addiction and online games can threaten the development of China, just as the opium did (Goulb and Lingley, 2008), and they conclude that:

Internet addiction has emerged alongside several larger social and political trends in the contemporary People’s Republic of China. Although portrayed as the pathology of the individual sufferer, Internet addiction has become a phenomenon through which Chinese people moot profound moral changes that shape the nation as a whole. The attention given

to the Internet as a source of moral danger reflects Chinese concerns with the recuperation and development of their country and the role youth will play. Just as the Qing empire experienced morally ambivalent accommodation with global modernity, so too people in contemporary China experience consumerist lifestyles and the proliferation of new information technologies as full of both risk and promise. (pp. 72)

Here I want to clarify some points. Firstly, opium is never a reflection of modernity; it is just an evil way of dumping for balancing the trade gap from the angle of economics and a type of addiction in clinical medicine. Online games can be a display of modernity and to some extent shows a sign of addiction; however, in fact it is just a psychological matter of choices rather than a clinical addiction. Therefore, it is inappropriate to equalize online games with opium: they are two totally different things. I think that this wrong perception mainly lies in the determinism of outcome and the ignorance of process. This stereotype to a large extent can explain why workaholics and game addicts, who both consume a massively amount of time on certain target, are treated differently by the public: workaholics can generate benefits, and their ‘addiction’ on work can be meaningful; for game addicts, it may be just a waste of time from the perspective of their parents. In this sense, the process should be valued, and it can be an appropriate approach to reexamine the term addiction and online games. In fact, book collectors are those people who value the process. In the manual *a summary of minutes on book collection*, Sun mentions that acquisition is the most different but most joyful process, and this can be one proof of valuing the process. Meanwhile, Sun also use the Chinese word ‘嗜’, which means the extreme love, to express his reliance on books. In the regard, it to a large extent indicates that those book collectors are proud of being addicted, it is their identity, and their meaning of life as well. Games can also be regarded as process (Malaby, 2007), and I believe that online game is mentally a cultural inheritance of the book collection, rather than an opium like disaster. The natures of book collecting can be found in online gaming; also, book collectors and gamers share the mentality in treating their favorites. Engaging in online games can be regarded as a type of addiction, but it should not be equal to the addiction on opium, or a kind of mental disease. Instead, engaging in online games is more likely a process of finding the self, or an avatar play, just as what those book collectors did.

In this sense, by raising the three games cases as well as the discussion on Chinese book collecting, it suggests that digital games have the potential to benefit us in multiple dimensions, and this has been proved by recent research (McGonigal, 2011; Granic *et al.*, 2013; Clark and Scott, 2009). By comparing the use of games with ancient Lydians, McGonigal (2011: 354) concludes that games can benefit our reality, and she notes that ‘games don’t distract us from our real lives. They fill our real lives: with positive emotions, positive activity, positive experiences, and positive strengths’. Meanwhile, recent research conducted by Granic *et al.* (2013) reveals that playing digital games have the potential of generating some positive impacts, including motivational benefits, emotional benefits, and social benefits. Clark and Scott (2009: 3) also note the positive impacts of games, and they argue that:

Most people today don't understand that video games are here to inspire us to make a better reality. They use today's entertainment to replace reality, rather than to feel its cool uncertainty or face its subtle antagonists. Great entertainment can keep us collected and happy in a world where every day is more complex than the day before, but without understanding it beforehand we risk losing ourselves. (Clark and Scott, 2009: 3)

Therefore, it is necessary to conceptually frame problematic gaming without the use of the term 'addiction'. However, many digital games can easily capture the attention of gamers and make them willing to spend their entire leisure time on enjoying game world. This is why games are so often linked with addiction. Both Clark and Scott (2009) and Roberts (2010) point out that games are capable of making people gradually lose their control. Clark and Scott (2009: 9) note that the sense of balance between gaming and other daily activities to a large extent can be 'a hard-won skill' with the fact that gaming experiences to a large extent satisfy mental needs, which can make people lose the control to withdraw from the virtual world; while Roberts, a gamer who previously suffered from problematic gaming, claims that 'video games and the Internet are not the problem, however. I am the problem' (Roberts, 2010: xiv). Therefore, games themselves are not evils which should be criticized; it is people who play them that lead to problematic gaming. On the other hand, Turkle (2011) notes that relating problematic gaming to addiction is a kind of metaphor which fits the following common logic: the more time people spend on gaming, the more they want from gaming. In this sense, as the addictive substance digital games definitely can be a bad thing if following the logic the above common sense. However, Turkle (2011: 294) points out that it is impossible to totally get rid of gaming, and considering games as a kind of addictive substance can be an inappropriate start for us to deal with the relationship with new technologies, because it sounds like we are the victims which 'makes us feel hopeless'. Actually we are not necessarily victims of digital gaming, and some literature (e.g. McGonigal, 2011) has suggested that we can take advantage of positive impacts of games.

As a result, playing digital games to some extent can be beneficial, but it depends on the capability that people balance the time spent on the virtual and the reality. Playing games does not link directly to addiction; it is its potential effects on social relationship, health, study or work, and family that contribute to make people believe the existence of game addiction. Collecting in-game rewards bring us simple happiness just as those ancient book collectors had experienced. It is a reflection of human desire which cannot be easily denied, that is why it may make us feel difficult to leave game world. However, it is at the same time we human who still have the choice to decide whether stay or leave. And at this point further research should consider the way to find the balance point between the virtual world and the real world, which can make us better enjoy playing digital games.

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