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A qualitative analysis of online gaming: Social networking, community and game design.

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Abstract

The popularity of Massively Multi-Player Online Role-Playing Games (MMORPGs) has risen dramatically over the last decade. Some gamers spend many hours a day in these virtual environments interacting with others gamers, completing quests, and forming social groups. The present study set out to explore the experiences and feelings of online gamers. The study comprised 71 interviews with online gamers (52 males and 19 females) from 11 different countries. Many themes emerged from the analyses of the interview transcripts including (i) relationship with social networking, (ii) social interaction, (iii) the community, (iv) learning real-life skills, (v) reinforcement schedules and operant conditioning, (vi) game design and content, (vii) escaping from real life, (viii) playing longer than intended, and (ix) gamers' obligations towards others in online worlds. These findings specifically showed the social networking capabilities of online gaming, the community aspects and the psychological mechanisms within MMORPGs that can lead to excessive online gaming. The implications of these findings are discussed in relation to previous qualitative and quantitative research in the area.

Introduction

Massively Multi-Player Online Role-Playing Games (MMORPGs) are very popular and are now played by hundreds of thousands of gamers throughout the world simultaneously (Kuss & Griffiths, 2012). MMORPGs provide an immersive, dynamic and highly interactive computer gaming experience with a fully developed multi-player universe (Griffiths, Davies & Chappell, 2003). Furthermore, socialisation in MMORPGs is an important aspect of game play and may provide stimulating experiences for gamers. For instance, research by Hussain and Griffiths (2008) showed that 21% of gamers said they preferred socialising online to offline, and more male gamers than female gamers said that they found it easier to converse online than offline. The gamers saw the online worlds as pleasant and satisfying environments that provided equality among players. Cole and Griffiths (2007) explored the social interactions that occurred both within and outside of MMORPGs. An online survey was completed by 912 gamers from 45 countries, and reported that MMORPGs were highly socially interactive environments providing the opportunity to create strong friendships and emotional relationships. Playing MMORPGs offered the opportunity to experience teamwork, encouragement, and fun. However, one of the limitations of the study was that a self-selected sample was used that may not have been representative of the population of online gamers. Most other studies (e.g., Hussain & Griffiths, 2008; Lo, Wang & Fang, 2005; Bessiere, Seay & Kiesler, 2007) can also be criticised for using self-selected samples.

Ortiz de Gortari, Aronsson and Griffiths (2011) investigated immersion in the video game environment and how it influenced game players during and after game play. The researchers were interested in immersion that included fantasies, thoughts and actions that was described as Game Transfer Phenomena (GTP). According to the researchers, GTP occur when video game elements are associated with real-life elements triggering subsequent thoughts, sensations, and/or player actions. A total of 42 gamers aged between 15 and 21 years of age were interviewed. Thematic analysis showed that many gamers experienced GTP with a total of 92 GTP occurrences reported by the gamers either about themselves or their friends. The findings showed that intensive video game play can be associated with the elicitation of automatic thoughts, altered perception of real-life sceneries, alteration of sensory perception, and dissociative experiences. A major limitation of this study was the small sample that participated.

Chen, Duh, et al (2006) conducted 40 in-depth interviews with online gamers and found that social interaction was a key factor that determined the level of engagement. Engaged gamers experienced high levels of enjoyment more frequently, and valued the importance of social interactions more than non-engaged gamers. However, the use of a small sample in this study makes it difficult to generalise from the results. Research examining socialisation suggests that MMORPGs are based around the concept of social interaction and that this has many psychological implications for those who inhabit these virtual environments. MMORPGs allow gamers to express themselves in ways they may not feel comfortable doing in real life, and they are extraordinary social networking tools (Cole & Griffiths, 2007). The development of close-knit online guilds or communities within virtual worlds has caught the interest of many researchers. Axelsson and Regan (2002) investigated how group membership in an MMORPG affects online and offline social interaction. Data were gathered from

5,064 gamers and showed that (i) online groups make gamers more social both online and offline, (ii) they have more close friends online and they participate in social activities more often, and (iii) they have more social contacts with players' offline. However, this study only investigated one specific MMORPG, therefore the effect of group membership in many other MMORPGs is not known. The study failed to examine the effect of solo-play on group membership.

Chen, Sun, and Hsieh (2008) focused on guild dynamics within the *World of WarCraft* (*WoW*). The researchers used the WoW user interface to collect data on in-game player activities. After gathering data for 641,805 avatars on 62 Taiwanese *WoW* game servers, Chen et al (2008) created five guild type categories that have different meanings in terms of in-game group dynamics. The five guild types were; newbie guilds, small guilds, large guilds, elite guilds, and unstable guilds. These guild categories explained the guild life cycle (i.e., the formation of guilds, their membership and development). However, these findings are culturally specific to Taiwan. The same guild types may not exist in game worlds in other countries. Research by Nardi and Harris (2006) examined group structure using participant observation methods and interviews with 26 online gamers. The results showed that MMORPG play was characterised by a multiplicity of collaborations in structured groups making the MMORPG more enjoyable and providing rich learning opportunities. However, the study focused on only one MMORPG.

Judging from the various online gaming studies, it can be asserted that MMORPGs are more than just games (Chan & Vorderer, 2006). MMORPGs represent a different gaming experience with different social experiences, cultural norms, values, and group structures. These virtual environments have different consequences than other types of video games and appear to pose both unique risks and benefits from their use (Smyth, 2007). Significant limitations in the studies, such as the predominant use of self-report measures, self-selected samples, samples consisting of young adolescents or students, and a focus on specific MMORPGs, point to the need for further research. As online gaming becomes increasingly popular it will inevitably bring with it many physical, behavioural and psychological consequences such as excessive play and addiction to MMORPGs. The psychological aspect of online gaming is a much researched area but more focus is needed on the views and experiences of gamers. The present study builds on from previous research and aimed to examine the socialisation, social networking and community aspects of MMORPGs. Not totally convinced how the studies cited in the introduction lead to the study here.

Method

Participants: A total of 71 online gamers (52 males and 19 females) participates in the study in response to the online gaming study recruitment posts on various online gaming forums (see appendices for a list of the forums – I would put these in a footnote) and in-game posts in the *World of Warcraft* MMORPG. The participants ranged in age from 18 to 54 years (mean = 26.03; SD = 8.43 years). Most of the participants were from the United States (n = 32), followed by the United Kingdom (n = 19), Canada (n = 5), and the Netherlands (n = 4), although seven other countries (Norway, Sweden, Portugal, Finland, Australia, Belgium and Greece) were also represented among the remaining participants (n = 11). The mean gaming time per week was 18.9 hours (SD = 15.3 hours). The mean years of gaming experience was

4.7 years (SD = 3.1 years). Gamers were categorised into three gamer types: (i) casual gamer (played 15 hours a week or less; n = 39); (ii) regular gamer (played more than 15 hours and up to 30 hours a week; n = 21); and (iii) excessive gamer (played more than 30 hours a week; n = 12).

Design and Procedure: The aim of the study was to examine whether MMORPGs impact (psychologically and socially) on gamers' lives by exploring attitudes and views towards online game playing. Structured and semi–structured interviews were conducted with online gamers. All the interviews were conducted by the first author using either *MSN Messenger* (an online chat facility produced by *Microsoft*) or email. Participants read the online recruitment posts on the gaming forums or in-game posts in the *World of Warcraft* forum. They then contacted the first author via email to arrange an interview time that was most convenient for them. Some participants preferred to participate in the study by answering the questions on their own with no interviewer. Thus, these participants were sent the interview questions by email to complete.

Transcribed copies of all the interviews were kept by the research team for qualitative data analysis. All participants were ensured that all their data would remain confidential. All the participants had very good typing and written English abilities. Participants were emailed a detailed information sheet before participating in the study, and this provided information about the study's purpose, what was expected from those who participated in the study, and contact details of the first author. Each interview lasted approximately 75 minutes, and after each interview the participants were fully debriefed. The data from the interviews were then imported into *Microsoft Word* and then into QSR NVivo, a qualitative data analysis software tool. The interview transcripts were analysed using thematic analysis (Reference needed).

Paragraph on justification for thematic analysis needed here

In the first stage of the thematic analysis the first author read through all the transcripts twice to become familiar with the data and then searched for the main themes to emerge from the responses to each of the questions asked. The responses to each question were re-read with particular attention being paid to the themes arising from the first stage of data analysis. The responses were then collated under the emerging theme headings and were given provisional labels and definitions. The responses were then re-read to see if they contained any further relevant information to the provisional themes, the themes were then given their final analytical form and definition.

The searching and coding/labelling of themes was done by the use of *QSR NVivo*. This is computer-assisted qualitative data analysis software (CAQDAS) is a useful tool for large-scale projects and is very good when used for a broad level of analysis (Gibbs, 2002). It is particularly suited for thematic analysis where researchers want to ask questions and investigate ideas within the dataset. *Nvivo* provides a number of facilities to help researchers manage the data, and examine features and relationships within the texts. Some of the main themes from the dataset (i.e. excessive play and problems, addiction, psychosocial impact of online gaming, dissociation, time loss, the alleviation of negative feelings and mood states) have been published elsewhere.

This study looks at the remaining themes. I'm just wondering to what extent we should flag up the previously published paper

Results

A number of themes emerged from the analyses of the interview transcripts. These were (i) social networking, (ii) social interaction, (iii) the community, (iv) learning real-life skills, (v) reinforcement schedules and operant conditioning, (vi) game design and content, (vii) escaping from real life, (viii) playing longer than intended, and (ix) gamers obligations towards others in online worlds. The following results section has been structured to convey the most salient themes that emerged from the interviews. The results are presented alongside initial interpretative commentary.

Social networking: Social interaction amongst the gaming community helped many gamers make friends from different countries around the world. Many gamers (*n* = 45; 27 male, 18 female) commented on the social interaction and social networking capabilities of MMORPGs. For instance:

> *Extract 1:* I have also spoken to people from many different countries, learned about their personalities and culture, and have even met some and visited them. I have made new friends. While I am realistic enough to be able to understand that most are not friends in the true sense, some I have met outside the game and we have developed genuine friendships. I am travelling to South America with one person I met in game next year, and…I am dating a girl I met in the game (P48, Male, age 27, UK, regular gamer).
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> *Extract 2:* Since playing MMORPGs eight years ago I have gotten a chance to talk to people from around the world. This has greatly broadened my horizons when looking at issues that arise. I have gotten to speak with people on friendly terms that due to whatever, economic or language barriers, reasons would have prevented our conversation (P55, Male, age 27, USA, regular gamer).
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> *Extract 3:* I have made lots of friends through gaming (both [First Person Shooter] Gaming and MMORPG). I have travelled to LAN Parties, competitions both to spectate and compete and I have enjoyed the time I spent with people. Some of which I remain friends with, others I don't. Through *[World of Warcraft]*, I have been over to Amsterdam with a number of other players to meet members of our guild and others (P60, Male, age 24, UK, regular gamer).
>
> *Extract 4:* I've made contacts in my area, gotten lots of internet-friends, and really – playing a game like *World of Warcraft* brings people together (P65, Female, age 21, Norway, excessive gamer).

Social interaction: The 'social' theme emerged from the interviews where participants spoke about the aspects of MMORPGs that allowed them to interact and perform certain tasks that involved other gamers. Participants (*n* = 19; 14 male, 5

female) spoke about how they played with family members and friends and how they socialised with people in-game. They enjoyed spending time in-game with real life (RL) friends. The responses showed the social aspects of MMORPGs. For instance:

> *Extract 5:* My husband and I play together every single day. My best friend plays with us as well, and often comes over with her laptop to play at our house with us. Further, every year I invite 20 or so people I game with to come to my house from all over the country for four days. We have a website, ventrilo, tshirts….we are truly all friends in real life, even though we met in a game (P13, Female, age 34, USA, regular gamer). What's 'ventrilo'?

> *Extract 6:* One of the main things about playing an MMORPG that keeps me coming back is that it allows me to spend time with my brother and his wife. My brother and I always played games together when we were growing up, and now he and his wife live several thousand miles away. However, they both play *[World of] Warcraft* and that means I get to spend time with them like they never left at all (P72, Male, age 40, USA, regular gamer).

> *Extract 7:* It was more of getting to spend time with real life friends more often than I could with my job. We couldn't get time to go out or even see each other a lot. But we could get on online and using *teamspeak* we could talk and have fun. I even got to know my soon to be wife playing *Star Wars*. I think that sometimes it good for people. Kids mostly to be able to have friends that get to know them for them and not be judged by what they look like (P31, Male, age 33, USA, casual gamer).

> *Extract 8:* I have made some new friends that I have kept in contact for over four years. I think playing MMORPGs has made me slightly more social in school too (P22, Male, age 18, Finland, casual gamer).

The community: The online community in MMORPGs was seen as an important aspect of game play for many gamers. For some gamers (n = 25; 17 male, 8 female), the online community gave them a sense of belonging to a group that had members from many different parts of the world. Many other aspects of the community were discussed by gamers. For instance:

> *Extract 9:* The main thing that led me to keep playing with other people is the positive experiences I've had with the community. Some games required me to party with other people in order to level easily or finish a certain quest (P12, Male, age 19, USA, casual gamer).

> *Extract 10:* I enjoy the community and ended up making long-term friendships. I have a group of friends that have gamed with me as a guild for over six years across a whole host of MMOs. I adore [Player vs. Player], but don't roleplay (P13, Female, age 34, USA, regular gamer).

> *Extract 11:* For each of the games I've played, I've been initially attracted to the world and its concept. What keeps me in a game is the community.

> Gameplay in MMOs is relatively shallow and alone can't hold my interest. The group of friends I have in City of Heroes is the only reason I still play (P22, Male, age 24, casual gamer).

> *Extract 12:* The positive effects of MMORPGs are the buzz of the community and the variation of events every day. Having so many people online creates a new random experience every day as each player you meet will be different in some way. For instance, I met a character yesterday who was teaching me to speak Dutch whilst enjoying the Hallow's end festivities (P71, Female, age 18, England, regular gamer).

Here, the views of gamers focused on the advantages of MMORPGs such as how they can give the experience of belonging to a community. Some of the gamers spoke about the feeling of being very close to other gamers (as if they were neighbours) but in reality they could be in a different country. Bringing people together regardless of geography was seen as a positive aspect of online gaming. This theme showed the experiences of many participants who liked the online community of friends and gameplay.

Learning real life skills: This sub-theme highlighted some of the vital skills that players claim can be learned from playing MMORPGs. Participants (n = 21; 14 male, 7 female) provided a wide variety of skills they claimed had learned or that can be learned (such as problem solving skills, communication skills, and team working skills). Online gaming was seen as more than just games. For instance:

> *Extract 13:* My degree is involved heavily with computers so from playing games I have developed logic, patience and a stem off was to create websites for guild, etc. Gaming has probably given me the skills which got me into university (P49, Male, age 19, England, casual gamer).

> *Extract 14:* I would say that running a guild helped me develop some good management skills and that didn't even take a lot of work... near the end of my *[World of Warcraft]* 'career' I logged in a few hours a day to do administrative duties, handle people, all that, oddly enough my job wants me to take a managing position now (P7, Male, age 25, USA, regular gamer).

> *Extract 15:* MMORPGs have made an extraordinary impact on my life. Though many people don't recognise the fact, they enable you to develop social skills (both written and verbal) as well as the ability to meet like-minded individuals. I have both developed as a person and met new close friends through MMORPGs (P33, Male, age 18, England, excessive gamer).

> *Extract 16:* [Playing MMORPGs] help me work on my ability to come up with creative solutions, improve my imagination, learn routines and sequences a lot faster than I would normally with every day things such as math or science, and I also think that MMORPGs help me learn how to memorize trivial information that literally doesn't matter (P9, Female, age 20, USA, casual gamer).

These quotes show the types of skills that players claim can be learned from playing MMORPGs. Some participants said they had learned about computers and developed their communication skills. One of the key messages here was that players claim online gaming can help with the development of key skills in life.

Reinforcement schedules and operant conditioning: This theme emerged from conversations with a minority of gamers (*n* = 13; 7 male, 6 female). This theme brought out the underlying structural features of MMORPGs. These features were sometimes linked to psychological concepts such as 'operant conditioning' via variable ratio reinforcement schedules (a highly effective conditioning paradigm) (Wallace, 1999 – not in reference list). The theme highlighted the psychology of MMORPG playing and illustrated how variable ratio reinforcement schedules influenced gameplay.

> *Extract 17:* I think it's the 'never-ending' aspect of MMOs. You constantly try to achieve the next thing. So, you want a piece of gear...you set your sights. But you need to get the item from a drop in an instance, but you can't get to the instance yet because you're not high level enough, so you quest and grind to level up...to get to the instance...to get the item. The game mechanics pretty much force you to play excessively in order to progress (P44, Male, age 26, England, casual gamer).
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> *Extract 18:* After all, so much of what you do in life seems to have little point. You go to work each day for what? Repeating the same tasks over and over. MMOs allow you to escape that daily grind with often seemingly no reward. And instead let you do a different grind with a more immediate reward. A level, a new gear, etc (P10, Female, age 20, USA, regular gamer).
>
> *Extract 19:* A quest or mission may take way longer than originally planned, which forces you to play longer. When I played *Maple Story*, a horrible MMORPG, the one thing that kept me going was the reward for the level ups, even though it was small, the mantra of 'being in reach of getting better' was so easy that I just had to play more. The more I play now, the less I can play later (P12, Male, USA, age 19, casual gamer).
>
> *Extract 20:* The perpetual treadmill that game developers put into the games are designed to suck up time, and time only. They want me to keep playing, to keep working towards some goal, so they make a handful of goals nearly unreachable, which makes most players keep trying for a very long time. Thus, more $$$ (P35, Male, USA, age 22, casual gamer).

This theme alluded to mechanics of online gaming, especially the progression factor through the game. MMORPGs encourage gamers to keep coming back and playing in order to progress in the game. The nature of MMORPGs is that there is always something you can improve. They are developed in such a way that they are open-ended and players can never 'complete' it. Gamers spoke about being rewarded for gaming which would keep them playing the MMORPG. Furthermore, it provided a sense of accomplishment and compelled them to continue playing. The opportunity

to upgrade items, weapons, mount (transportation in *World of Warcraft*, a horse, tiger, eagle) at certain levels encouraged gamers to keep playing. For one gamer (P51, Male, age 35, Netherlands, casual gamer) this upgrade in items and reward provided a feeling of greater freedom.

Game design and content: This sub-theme showed the gamers thoughts about the design of MMORPGs and their content. This theme links to the reinforcement schedules theme. Gamer (*n* = 6; 4 male, 2 female) comments highlighted the 'never ending' nature of MMORPGs.

> *Extract 21:* Having been a gamer (offline) for a few years previously, I was attracted to the possibility of being able to play a game and, at the same time, be able to interact with others. Also, with most games, there is usually an end, or a point where you have exhausted most or all possibilities. With online games, they are constantly being upgraded, and their content is much, much larger (P54, Female, age 27, England, casual gamer).

> *Extract 22:* Unlike television, where most programs are a half-hour long or books which have nice well defined chapters where you stop and take a breath, MMOs don't have that property of having clearly defined chunks, [and] the gameplay is continuous. I doubt game setting impacts it much (P10, Female, age 20, USA, regular gamer).

> *Extract 23:* For some people it has a really bad effect on since an MMORPG never ends there's always something to improve/something you can do. Some people will never quit [and] they will play countless of hours always trying to be best and aiming for the goal they set up (P66, Male, age 21, Sweden, excessive gamer).

> *Extract 24:* I love console games because they actually end. Online games rarely end because there is always someone better to compete with or some better item to achieve (P12, Male, age 19, USA, casual gamer).

These extracted quotes show the distinctive nature of online gaming (i.e., the never-ending nature of MMORPGs). This never-ending feature may be one of the main aspects of MMORPGs that motivate gamers to keep playing. With a large online world, the sense of adventuring and exploring can keep gamers playing. In addition, the thought of achieving in-game goals and the game content attracted gamers to playing in online worlds.

Escaping from real life: This theme showed that MMORPGs provide some gamers with the opportunity to escape from problems in their lives. Gamers (n *=14*; 11 male, 3 female) mentioned how they had used MMORPGs for escapist reasons. Sometimes it can be easy for gamers to lose themselves in the virtual worlds of MMOs, and can be treated by some as an escape from reality. No player knows if another player is unattractive or "different" in real life and players do not get judged by their external (i.e., offline) appearance. MMORPGs can be time consuming because of the continual in-game tasks. For instance:

Extract 25: When one of my parents was ill and I was worrying a lot, playing *[World of Warcraft]* was a way to push away the worries. If I feel that people are asking too much of me, I tend to think that they can tire me and maybe hurt me in several ways. But there will always be *[World of Warcraft]* to escape in and have a meaningful existence, unbothered by the demands of daily life (P51, Male, age 35, Netherland, casual gamer).

Extract 26: Although I spend most of my free time with family, friends and girlfriend, I found *[World of Warcraft]* to be a great way to relax and forget about life's difficulties for a few hours during the weekend. *[World of Warcraft]* gives me an actual sense of immersion, of 'being there, in Azeroth'. And while I'm there, I manage to forget my real life (the good and the bad, obviously) and just pretend to be someone else for a while (P67, Male, age 22, Portugal, casual gamer).

Extract 27: I have been mildly addicted to the game when I started playing it. At the time I was going through a rough phase with a previous girlfriend, and I used the game as an escape to my problems. I think this was mostly due to the fact that I needed to forget the bad things I was going through at the time. Gladly, once I overcame my fears and problems about that relationship, my gaming habits got a lot healthier. That is the only way I can understand someone would get addicted to a game such as an MMO: the need to get away from something in real life (P67, Male, age 22, Portugal, casual gamer).

Extract 28: I used to be fairly chubby and got teased a lot in high school, so *[Final Fantasy XI]* was my escape from real life. No one cared about my weight there. I've changed since, am now thin, and I enjoy my life a lot more, so MMOs have lost some of their appeal. They're still fun, just no necessity anymore (P40, Female, age 22, Canada, regular gamer).

These quotes show how MMORPGs can provide an outlet from the real world. They allow gamers to take their minds off problems and stressors. For some players, online gaming serves as a distraction from real life issues and concerns. This theme again highlights the escapist nature of MMORPGs but also shows the individual experiences of escapism from some gamers and potential positive effects of escaping whilst playing. Interestingly, participant 67 [Extract 27] spoke about being addicted to online gaming that raises the issue of addiction and escapism being linked.

Playing longer than intended: This sub-theme was the result of asking gamers how long they played. The responses from some gamers (n = 12; 7 male, 5 female) highlighted some of the structural characteristics of MMORPGs resulted in playing longer than intended;

Extract 29: I always begin with a simple goal, something short and easy. Before I know it, I convince myself that I need to do three other things which will help me reach this goal. Then I need three more things for each of those three things, and then I want to conquer the universe. This never

really ends and sucks up vast amounts of time (P35, Male, age 22, USA, casual gamer). For instance:

Extract 30: Most of the time I will stay about 15 minutes longer online than I intended. This is usually to travel to an inn, sell loot, put up items on auction, and say goodbye to people (P36, Female, age 21, Belgium, casual gamer).

Extract 31: Sometimes it's because a raid runs longer or because I'm close to an in game goal and want to finish before logging off. I'm also an Assistant Guild Master for my guild and sometimes our officer meetings run much later than intended (P45, Male, age 27, USA, regular gamer).

Extract 32: I used to [play longer than I intended to] all the time. Although I scheduled raids in my previous guild, the most important aspect was the objective. If we had a new boss to kill and another guild was at the same stage as us, I would keep us there as long as possible, sometimes until after 1am. I have led raids that have gone on until after 4am in the past (P48, Male, age 27, England, regular gamer).

Gamers' obligations towards others in online worlds: This theme described how a minority of gamers believed that they felt obliged not to let other gamers down or that they felt obligated to help other gamers. Some gamers (*n* = 13; 7 male, 6 female) described how they had a sense of responsibility to others in online worlds. For instance:

Extract 33: I sort of have an obligation to my friends and my 'squad/clan/etc.' to stay online until everything is done. I don't consider it an obligation because I like doing it to begin with (P9, Female, age 20, USA, casual gamer)

Extract 34: Instances are usually scheduled, so I make sure everything is ready beforehand. I get snacks and drinks, take care of the cats, whatever so that I don't have to keep getting up. I don't like to interrupt the group by asking them to wait while I do something. When I solo though, I get up and down a lot when I need something (P30, Female, age 26, USA, regular gamer).

Extract 35: Sometimes I do play longer than intended when I'm in a group with other people, although I try not to overdo it. I do this because I don't want to let down the people I'm playing with (P39, Male, age 31, Greece, casual gamer).

Extract 36: But now, there is still I think a sense of not wanting to leave what you're doing in game, and as much as I'd like to think I don't like stopping because I have other people (in-game) waiting on me (P60, Male, age 24, England, regular gamer).

These quotes show how gamers feel about letting other gamers down if they logged off during a 'raid' or 'instance'. It became difficult to log off. Some gamers

considered it rude to leave an instance, as this was something that was part of the online gaming culture. The psychological guilt about letting other gamers down influenced some gamers to continue playing when ordinarily they would have stopped.

Discussion

The present study investigated the socialisation aspects of online gaming by exploring the attitudes and experiences of online gamers. The qualitative nature of the study enabled an in-depth analysis of gamers' thoughts about playing MMORPGs. The interview data provided detailed qualitative accounts of how gamers experienced different playing and socializing aspects of MMORPGs. For instance, the study revealed the social networking capabilities of MMORPGs, the community elements, the game content, and the inherent psychological mechanisms within online gaming environments.

Social Networking: One of the most commented upon topics was social networking. This is interesting as this is a salient and popular activity in the present time of the Internet and technology. More than half of the gamers (n = 45) talked about the links between online gaming and social networking. Gamers spoke about how they got to know people from different countries and developed strong friendships and connections (Extracts 2 and 3). One gamer (Extract 1) mentioned that he was in a relationship with someone he had met in-game. These findings support previous research findings by Raacke and Bonds-Raacke (2008) who applied the 'Uses and Gratification Theory' (Papacharissi & Rubin, 2000) to social networking site use and found that popular uses and gratifications amongst participants was to make new friends and keep in touch with friends. The interviews revealed that social networking was taking place on a large-scale within the virtual worlds that were inhabited by gamers.

Social interaction: In regards to social interaction, some of the gamers tended to give the impression that online gaming was about being social and about playing with other people, and was not a lonely activity. One gamer (Extract 5) played with her husband and friend and even invited large numbers of gamers to play at her home. For others (e.g., Extract 7), playing online allowed them to spend time with friends who they were unable to spend time with due to commitments such as employment. This gamer also mentioned that he met his fiancé in the online world of the *Star Wars* game. These findings support previous research (e.g. Hussain & Griffiths, 2008; Cole & Griffiths, 2007). In particular, the findings strongly support the work of Cole and Griffiths (2007) who reported that MMORPGs were highly interactive environments that provided gamers with the opportunity to create strong friendships and emotional relationships.

The community: More than one-third of gamers (n = 25) spoke about the online community that emerged from playing MMORPGs. Being part of a community of gamers impacted on the maintenance of gaming behaviour. Some of the extracts (e.g., Extracts 9, 11) showed that it was the community of gamers and the positive experiences with them that led to continuation of gaming for many years. These extracts revealed that the community of gamers within MMORPGs was a factor that maintained interest in online gaming. One participant (P71, Extract 12) described the

'buzz' of the community that she perceived as one of the positive effects of MMORPGs. This experience of a 'buzz' may be indicative of a tendency for some gamers to use online gaming as a mood modifier (Hussain & Griffiths, 2008). This is an area that should be further investigated.

Learning real life skills: Some gamers (*n* = 21) claimed that they had learned important transferable life skills. These included website design, management skills, and/or social skills (i.e., Extracts, 13-15). Previous research (e.g., Faust, Meyer & Griffiths, 2013; Hussain & Griffiths, 2009) has shown that gamers claim to have learned such things as team working skills and computer skills from online gaming. Similarly research by Lee, Eustace, Fellows, et al (2005) reported that students who played an educational MMORPG gained new skills in collaborating online (something which is inherent in most MMORPGs). The evidence presented in the current study and previous research reveals that MMORPGs could potentially be used in educational contexts as has been demonstrated elsewhere (e.g., de Freitas & Griffiths, 2008).

Reinforcement schedules and operant conditioning: One of the most interesting and novel findings that emerged from the present study was gamers' views about the structural features of MMORPGs that had a psychological impact on their behaviour. For instance, one gamer (P44, Extract 17) was aware of the 'never-ending' aspects of MMORPGs that forced him to play excessively to level up, to obtain the item he wanted, and to progress in the game. Another gamer (P10, Extract 18) compared playing a MMORPG to a real-life job, and suggested that the rewards in MMORPGs were more immediate. The Hedonic Management Model of Addiction (Brown, 1997) proposes that people use certain activities to manipulate their arousal and mood to sustain good hedonic tone (i.e., states of relative pleasure and euphoria). Activities with stronger reinforcement effects lead to faster development of addiction (Brown, 1997). A gamer playing a MMORPG may experience positive feelings of pleasure whilst playing. The rewards (i.e., reinforcers) can bring about changes in mood (e.g., reaching a high level in a MMORPG). Skinner's (1953) work found that variable ratio reinforcement schedules produced the strongest behavioural changes that lead to habitual and repetitive behaviour. MMORPGs make use of the same reinforcement schedules (King, Delfabbro & Griffiths, 2010). Brown's (1997) model of addiction proposes a person would be most susceptible to addiction at both the initiation and maintenance of an activity. Therefore, in this case, the rewarding aspects of a MMORPG can shape future behaviour as well as maintain behaviour. Extract 19 highlighted this, as the rewards for 'levelling up' kept the participant playing a MMORPG that they did not like. The participant stated that "being in reach of getting better" compelled them to play more.

Game design and content: The interviews highlighted comments by gamers about the game design and game content. One gamer (P54, Extract 21) touched upon the interactive features of online gaming and how MMORPGs are constantly being upgraded. Another (P66, Extract 23) mentioned that the never-ending nature of MMORPGs meant that some people play for hours and hours trying to be best or achieve the goals they have set themselves. Extract 24 mirrored this comment ("there is always someone better to compete with or some better item to achieve"). Previous research has examined the psycho-structural characteristics of video games (Wood,

Griffiths, Chappell & Davies, 2004; King, et al, 2010; 2011; Westwood & Griffiths, 2010), and the present study supports some of the claims made in these papers.

Escaping from real life: A small number of gamers (*n* = 14) spoke about playing MMORPGs to escape from the real world. For instance, one gamer (P51, Extract 25) spoke about using an MMORPG to push away worries and problems he was experiencing. Another (P67, Extract 27) was interesting as there was mention of addiction and escapism. He admitted that he was mildly addicted to online gaming and used it to escape from the relationship problems he was experiencing. This raises the association between addiction and escapism. Does addiction to online gaming lead to escapism or is it the other way round? These findings add to previous research studies (e.g. Wood, Griffiths & Parke, 2005; Wood & Griffiths, 2007) that have reported experiences of escaping from real life amongst video game players and gamblers. This is another area where further investigation is needed.

Playing longer than intended: The study also showed that some gamers played MMORPGs for longer than they had originally intended. Here, gamers (*n* = 12) spoke about how certain in-game tasks would lead onto other tasks. For instance, one gamer (P35, Extract 29) talked about how a simple goal would lead him to try and achieve another goal that would keep him playing the game. For another (P48, Extract 32), playing longer than intended was a usual occurrence when engaging in a raid or in newly released raids. He described how he used to play until 4am in order to compete against other raid groups. This extract appeared to support the concept of 'social reinforcement' (i.e., the acclaim and attention of others online may lead to online gaming addiction [Charlton, 2002]), and other gamers mentioned that there were many gamers (usually males) who played online in order to achieve the highest kill count and to improve their online reputation. These types of motivations can be related to the real world in terms of how people seek the attention of others.

Some gamers described some of the structural characteristics of MMORPGs (e.g. in-game quests, selling items at the auction, completing a raid, interacting with gamers, etc.). This is directly related to the design of MMORPGs which appear to be inducing increased game playing amongst gamers. Previous research (Hussain, Griffiths & Baguley, 2012; King, et al, 2010; Wood et al 2004;) suggests that the structural characteristics that are inherent in MMORPGs can be an inducement to continue playing. Furthermore, the findings of the study show signs of gamers experiencing psychological absorption that may be induced by the structural characteristics of online gaming (Wood et al, 2004; King, et al, 2010). One of the negative consequences of playing for longer periods of time is that it could lead to excessive game playing and possible addiction to online gaming. Game developers need to consider these consequences when developing MMORPGs.

Gamers' obligations towards others in online worlds: One of the unique findings that emerged from the present study was gamers' feelings of having an obligation towards other gamers (e.g., Extract 33). There were a few quotes from gamers (*n* = 13) that described how they thought they had a responsibility towards other gamers. Gamers mentioned how they would not stop during an instance as they did not want to interrupt the group (Extract 34), There was a feeling of 'letting people down' if they stopped playing (Extract 35). These findings were very interesting as they could be one of the factors that lead to increased playing time amongst gamers. What this also

suggests is that the social aspects of online gaming can create different game playing experiences for gamers that can only be understood by further examining the thoughts and feelings of gamers.

It is also apparent from the qualitative data is the complex mechanics and structural characteristics of MMORPGs. This appears to emerge from gamers' detailed experiences of playing various MMORPGs. The findings of this study will be of benefit to the MMORPG industry (more specifically video game developers), as they show that certain factors are of interest to gamers (e.g., the community, social networking, game content, and design).

This study did not set out to provide generalised findings. It was a qualitative study and thus emphasised the gathering of rich, elaborate, and meaningful data. The semi–structured interviews conducted via the use of *MSN Messenger* and email provided a more in-depth analysis of gamers' perceptions of online gaming. This method can be seen to have many advantages. For instance, Instant Messaging (IM) interviews are cheap to administer, obtain data from geographically diverse samples, and are less time-consuming compared to face-to-face interviews. Research by Stieger and Goritz (2006) showed that IM interviews were a feasible method of data collection, as the quality of data, the contact rate, response rate, and retention rate was good. They also found that the risk of obtaining false responses in IM interviews was small.

There are clearly some limitations associated with the use of IM and email interviewing. The mixture of synchronous and asynchronous data collection may have influenced the findings. Furthermore, non-verbal (e.g., body language) and paralinguistic (e.g., tone of voice) cues were not available making it difficult for the interviewer to know the psychological disposition of the interviewees. However, technologies do exist that allow the incorporation of audio and video capabilities into online real-time chat (e.g., webcams) thus making the setting resemble a face-to-face interview setting. However, there are technical difficulties associated with incorporating audio and video into online interviews such as interruptions due to loss of connections or slow data transmission rates. The interview questions in the present study were loose and unstructured allowing the gamers to talk about what was important to them rather than what we as researchers felt were the salient issues. Therefore, some of the themes that emerged were only discussed by a minority of gamers.

The online interview method used in this study appeared to lead to enhanced levels of candidness from gamers who provided detailed information about their playing behaviour. The anonymity provided by this method could also explain the willingness of gamers to disclose highly personal and sensitive information. The lack of non-verbal and paralinguistic cues may have contributed to the high levels of self-disclosure. Furthermore, past online research has shown high levels of self-disclosure from participants and reduced levels of social desirable responses (Joinson, 1999). The present study revealed a variety of attitudes and experiences of gamers. It showed the social networking capabilities of online gaming and showed the role of structural characteristics that are incorporated into MMORPGs. It can be seen that the IM interview and email interview method, are feasible methods for data collection. The qualitative accounts of gamers prove the suitability of such methods for further research.

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