Gender Swapping and Socializing in Cyberspace:
An Exploratory Study

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ABSTRACT

Massively multiplayer online role-playing games (MMORPGs) are one of the most interesting innovations in the area of online computer gaming. Given the relative lack of research in the area, the main aims of the study were to examine (a) the impact of online gaming (e.g., typical playing behavior) in the lives of online gamers, (b) the effect of online socializing in the lives of gamers, and (c) why people engage in gender swapping. A self-selecting sample of 119 online gamers ranging from 18 to 69 years ($M = 28.5$ years) completed a questionnaire. The results showed that just over one in five gamers (21%) said they preferred socializing online to offline. Significantly more male gamers than female gamers said that they found it easier to converse online than offline. It was also found that 57% of gamers had engaged in gender swapping, and it is suggested that the online female persona has a number of positive social attributes in a male-oriented environment.

INTRODUCTION

Massively multiplayer online role-playing games (MMORPGs) are one of the most interesting innovations in the area of online video gaming. These games have evolved out of the text-based multiuser domains (MUDs) and they have utilized the Internet as a new gaming forum that allows people to link up and play together. The nature of MMORPGs is to offer a rich three-dimensional world that is populated by hundreds of thousands of gamers. Immersion is aided by the use of realistic graphics, sound effects, and enhanced social interaction. Social interaction in MMORPGs is almost obligatory, as players must collaborate with other players in the game to succeed in more complex goals. MMORPGs allow gamers to explore a range of identities by playing a character created by the player. Gamers can choose the gender, race, profession, and morality of their character.

To date, very few studies have examined online socializing. Lo, Wang, and Fang surveyed 174 college-aged online gamers. They found that the interpersonal relationships of online gamers decreased and social anxiety increased as the amount of time spent playing online increased. Furthermore, they claimed that online games provided a sense of brief satisfaction and encouraged overindulgence in virtual social relationships at the expense of real-world friendships. Whang, Lee, and Chang found a strong relationship between Internet addiction and dysfunctional social behavior.

In contrast to these more negative effects, it also appears that virtual environments have the potential to provide short-term comfort, excitement, and distraction. Research has found that online communication allows for the development of computer-mediated social support (e.g., support via e-mail and chatrooms), which could buffer the negative effects of stressful life circumstances, as do types of noncomputer-mediated social support. Ng and Wiemer-Hastings used an online survey to study excessive use of the Internet and online gaming. Their results revealed that MMORPG players...
challenged the social aspect that existed in-game that attracted players to MMORPGs.

Gender differences in online gaming is a relatively underresearched area. Griffiths et al.\textsuperscript{8} found that there were increasingly more females playing online. Almost 20\% of their sample was female. The increase in the number of female players could be because online games tend to cater to a wide audience by allowing players to develop their own character.\textsuperscript{8} Alternatively, it may be that online games are moving away from the traditional video game content that focused on stereotypical representations of females and masculine themes.\textsuperscript{9} Yee\textsuperscript{10} found that males were more likely to play MMORPGs for the achievement and manipulation functions, while females were more likely to play MMORPGs in order to build supportive social networks. Research that examines the experiences and attitudes of male and female gamers is needed. The phenomenon of gender swapping (playing a different gendered character from oneself) is a common practice online. Griffiths et al.\textsuperscript{8} reported that 60\% of their sample of online gamers had played a different gendered character online and speculated that the introduction of game icons such as Lara Croft in Tomb Raider means that it has become quite normal for males to play female characters. Further research that examines the reasons for gender swapping and its effect on video game stimulation is an interesting area for exploration.

To date, there is a relative lack of research on the socializing aspects of online gaming and almost nothing on the reasons for gender swapping online. The studies that have examined online gaming\textsuperscript{1,3,8} tended to focus on the demographics of online gamers or the negative consequences of MMORPGs. Given the relative lack of research, the main aims of the present study was to examine the psychological and social effects of online gaming using an online questionnaire method. The main objectives of the study were to examine (a) the impact of online gaming (e.g., typical playing behavior) in the lives of online gamers, (b) the effect of online socializing in the lives of gamers, and (c) why people engage in gender swapping.

**METHOD**

**Participants**

One hundred fifty-seven participants completed an online questionnaire. Thirty-eight participants’ data were discarded for being under age 18 years, resulting in a sample of 119 participants. There were 83 males (69\%) and 32 females (26\%), with four participants not specifying their gender. The participants ranged in age from 18 to 69 years ($M = 28.5$ years; $SD = 9.6$ years). The majority of participants were from the United States (73\%), followed by those from the United Kingdom (8\%) and Canada (3\%). Participants were recruited from online gaming forums that were specifically for online gamers.

**Design and materials**

An online questionnaire survey was used in the present study for the collection of both quantitative and qualitative data. Specially designed online questionnaire software (Autoform) was used for the collection of online data. The online questionnaire asked questions on basic demographics of online gamers (country of residence, gender, etc.). It also asked questions relating to typical online videogame playing behavior (e.g., amount of time spent playing online per week) and reasons for playing (for entertainment, for stress relief, etc.). There were also specific questions on particular aspects of playing history (e.g., whether they had ever gender swapped their game character) and Likert-scale questions relating to the effects of online gaming (e.g., whether they played online in order to avoid feeling anxious).

**Procedure**

Following a small pilot study, an online questionnaire was publicized and placed on various gaming forums hosted on well-known gaming sites: www.Allakhazam.com, www.eqvault.ign.com, www.womengamers.com, and www.white-wolf.com. The Allakhazam site was used as the main recruitment forum because of its large audience. It also caters for more than five MMORPGs, including Everquest 1 and 2, Final Fantasy XI, World of Warcraft, Star Wars Galaxies, Dark Age of Camelot, and Lineage II. Each fan site had similar structural features (latest news, help guide, site map, forums, etc.).

Postings inviting gamers to take part in the study were placed in the off-topic forums. All participants were informed about the purpose of the study (i.e., to examine various psychosocial effects of online gaming). Once gamers visited the hyperlink address to the questionnaire, they were given clear instructions on how to fill in the questionnaire and were ensured that the data they provided would remain anonymous and confidential. A debriefing statement at the end of the questionnaire reiterated the
purpose of the study and informed participants of their right to withdraw from the study.

RESULTS

Impact of online game playing

Typical playing behaviour. Participants were asked about the number of times per week they played online video games. A large minority of gamers (41%) played 4 to 6 times a week, and almost two in five gamers (39%) played 7 to 10 times a week. A tiny minority of gamers (2%) played more than 10 times a week. On average, males played online nearly 7 times a week compared to the females at nearly 5 times a week. Gamers were also asked about the average length of each gaming session. The results revealed that a large minority of gamers (47%) spent 210 minutes or more per playing session. One-fifth of gamers (20%) played between 150 and 209 minutes per session. The mean playing time per week by gamers was 17.46 hours. There was a significant correlation between the number of times gamers played per week and the length of time per session \( r = 0.39, p < 0.05 \). Female gamers played longer per session \( M = 198 \) minutes, than male participants \( M = 186 \) minutes, although the finding was not significant \( t(112) = -0.509, p > 0.05 \); effect size, \( r = 0.40 \).

The effect of online gaming on the lives of gamers. Over two-thirds of gamers (68%) said that online gaming had a “stimulating” effect, where a stimulating effect was when online gaming had either a social, challenging, and/or interactive effect on gamers. Typical responses included the following:

Extract 1: It provides a different environment to enjoy myself and in which to meet online friends. (P1, male, age 32)

Extract 2: The level of interactivity with others is engaging, similar to if you invite friends over for a multiplayer gaming session. It is also great fun to work with others for a common goal particularly if they are people with whom you’ve been working with (online). (P6, male, age 19)

Extract 3: I like games, always have. I like to socialize, always have. I get both in Everquest. I’m good at games and not one woman I know in real life is. They think it is weird. So I get to play with people more like me in that way. (P16, female, age 38)

Extract 4: It’s challenging and exciting to role play. I keep my character’s personality true and much different from mine. Online I am a completely different person. (P92, female, age 23)

Extract 5: There is a sense of achievement when something is accomplished and a sense of adventure when trying/doing new things and exploring new areas as well as learning about the world that the game takes place in. (P97, female, age 28)

Players were also asked whether online gaming satisfied their social needs that were not satisfied in the real world, and if yes, why that was the case. Almost two-thirds of gamers (63%) said online gaming did not satisfy their social needs, although very few participants gave reasons as to why this was the case. However, 28% said online gaming satisfied their social needs that were not satisfied in the real world. The reasons for this were varied:

Extract 6: I can go anywhere and talk to anyone and not seem strange. It’s in fact expected. In the real world you would be looked at mighty funny if you did that. (P28, female, age 47)

Extract 7: At times I do rely on online gaming as an entertaining way to socialize with long distance relatives and friends. I have recently moved from the West coast to the East coast in the United States. (P36, female, age 39).

Extract 8: I don’t have many friends in real life because I have been moving a lot recently. But my online friends are always in the same place.” (P41, male, age 27)

Extract 9: It gives me a medium to interact with people on an intellectual level without having to qualify myself first. It’s invigorating to not have to prove myself before speaking. (P98, male, age 20)

In relation to the absorbing effects of online gaming, half of the gamers (50%) said that they felt as though they were absorbed into a different virtual environment when they played online. For instance,

Extract 10: Because you are in a different place in online worlds. You are free to do what you want. (P70, male, age 25)

Extract 11: It’s like any other fun experience, to some extent there’s a suspension of disbelief. When watching a movie, reading a book, playing an online game, I become engaged in the experience. (P91, male, age 26)

Extract 12: Things happen in MMORPGs that wouldn’t or couldn’t happen in real life and some-
times the graphics combined with the game play mix together so well and you feel as though you are actually there. (P116, male, age 24)

*Extract 13:* In most MMORPGs you are role playing as someone else. You become your character and thus become absorbed in the world around you. (P20, female, age 24)

**Socializing in online gaming**

Just over one in five gamers (21%) said they preferred socializing online to socializing offline. Reasons were varied. For instance,

*Extract 14:* It’s a very laid back means of communication and more effective, I think. Everyone can speak their mind . . . at the same time if they like, and everyone will still be heard (so no feeling like you can’t get a word in or needing to raise your voice). (P3, male, age 24)

*Extract 15:* I have found over the past eight years of online gaming that people are more open to accept each other. Good or bad, you are judged on how you interact with other online participants, not as a person would be by being judged on physical appearance. (P36, female, age 39)

*Extract 16:* People seem to have less inhibitions when it comes to socializing and conversing [online]. (P41, male, age 27)

*Extract 17:* Socializing in a game setting often takes form around a central purpose. Hunting for some obscure item or accomplishing some perilous journey. This allows a sense of not only friendship but camaraderie to develop. (P43, male, age 19)

*Extract 18:* It is much easier to converse and relate to people in a virtual world. You don’t physically see the people you are talking to. Although this also has a steep drawback, as in you get people who have no will to hold back. (P88, male, age 21)

More than two-thirds of gamers (67%) said they preferred socializing offline to socializing online, although very few participants gave explicit reasons as to why. For those who did respond, there was no typical response. For instance,

*Extract 19:* I think it’s less personally fulfilling to talk about a character or something rather than to a real person. However, I believe that people can be much more candid and open when talking online. (P21, male, age 18)

*Extract 20:* Just want to say that they are both satisfying. They are both different as the relationships are different, so there is no real comparison. (P97, female, age 28)

Significantly more male gamers (60%) than female gamers (19%) stated that they would rather spend time with friends in an offline environment than online ($X^2[4] = 11.57, p < 0.001; odds ratio = 1.1$). In relation to online communication, significantly more male gamers (40%) than female gamers (6%) stated that they found it easier to converse online than offline ($X^2[4] = 17.65, p < 0.001; odds ratio = 0.36$). The majority of gamers (59%) said they did not play online to escape from other things. One-third of gamers (34%) agreed or strongly agreed they used gaming as a way of changing their mood compared to 44% who disagreed or strongly disagreed.

**Gender swapping**

Results revealed that the majority of gamers (57%) had gender swapped their game character. This included over half of all males (54%) and more than two-thirds of females (68%). This finding was significant ($X^2[4] = 18.16, p < 0.001; odds ratio = 2.1$). There were many reasons for gender swapping:

*Extract 21:* It enables me to play around with aspects of my character that are not normally easy to experiment with in real life. (P1, male, age 32)

*Extract 22:* I just felt like it, really. Mostly my characters are female, but I think I made my male character because I was tired of creepy guys hitting on my female characters. It’s utterly ridiculous, very annoying, and not the reason why I play the game. (P39, female, age 32)

*Extract 23:* Because if you make your character a woman, men tend to treat you FAR better. (P49, male, age 23)

*Extract 24:* For fun and to see if it felt any different. (P51, female, age 29)

*Extract 25:* If you play a chick and know what the usual nerd wants to read, you will get free items . . . which in turn I pass them to my other male characters . . . very simple. Nerd + Boob = Loot. (P65, male, age 20)

*Extract 26:* I mostly play female characters, but sometimes I make a male character and don’t let anyone know I’m female in real life. It’s interesting how different people treat you when they think you are male. Kind of like a window into their strange man universe. (P117, female, age 23)
DISCUSSION

The present study examined some of the psychosocial consequences and effects of online gaming, particularly in relation to socializing and gender swapping. Results showed that two-thirds of gamers did not find the socializing aspects of online virtual worlds to be more pleasant and satisfying than offline socialization. However, those gamers who thought otherwise provided good reasons as to why they thought the virtual worlds were more pleasant and satisfying. For example, the socializing aspect of the online virtual worlds was seen as a laid back means of communication. Participant 3 (Extract 14) saw them as a place where “everyone could speak their mind” and where “everyone will still be heard.” This suggests that the virtual world is a place of equality and, together with the breakdown of visual social cues, may explain why one in five gamers found them more pleasant and satisfying than offline socialization. These findings are consistent with the arguments of Morahan-Martin,11 who asserts the ability to change identity online is a liberating experience because you can change the way you are perceived by trying out different ways of presenting yourself and interacting with others. This had a positive effect for Participant 43 (Extract 17), allowing a sense of friendship and camaraderie to develop. These findings are also consistent with the findings of Griffiths et al.8 showing that the social and cooperative elements of MMORPGs are the main reasons people like them.

The study also found that two-fifths of gamers said they played online to escape other things. Furthermore, 34% of gamers stated they used online gaming to change their mood. These characteristics may be indicative of a tendency for some gamers to use online gaming as a mood modifier. The gamers may also undertake online gaming as a means of coping with problems in their everyday lives. These findings support Jacobs’s general theory of addiction12 that suggests people who play excessively are either over-aroused or under-aroused and use online gaming, or other reinforcing behaviors, as a means of escape and to relieve depressive states. Research by Wood and Griffiths13 found that escape was the prime characteristic of the gambling experience that facilitated the continuation of problem gambling. This feeling of escape may be used as a maladaptive coping strategy.14 It can be speculated that online gaming may be used as an alternative method of coping in that some gamers will use it to distract themselves from having to deal with daily problems. Further research is needed in order to support this assertion.

The results revealed that two-fifths of gamers played 4 to 6 times a week and a further two-fifths played 7 to 10 times per week with a mean playing time per week of over 17 hours. Furthermore, nearly half of the gamers spent three and a half hours or more per playing session, demonstrating that MMORPGs appear to require dedication and time. There was a significant relationship between the number of times gamers played online per week and the length of time per session, suggesting that the more times a gamer plays online, the longer the session will be. An unexpected result was that female gamers played online longer per playing session than males, perhaps because of the socializing aspect of MMORPGs, which can be related to the fact that two-thirds of females (68%) said that they played online to socialize with other gamers and for entertainment.

In assessing some of the psychosocial effects of online gaming, the study found that two-thirds of gamers said online gaming had a stimulating effect. The gamers provided a variety of reasons for this, such as the challenging and exciting aspects of role playing online, the level of interactivity with other players, and the opportunity to meet new friends online. This highlights the difference in gaming experience between MMORPGs and other offline gaming formats. However, dedicated gaming consoles such as Microsoft’s XBOX and Sony’s PlayStation 2 have developed the capacity to allow players to compete against other players online. It would be interesting to see how this type of experience would fare against the MMORPG experience.

Just over a quarter of gamers stated that online gaming satisfied their social needs that were not satisfied in the real world. They provided some interesting reasons. For example, Participant 36 said that she relied on online gaming as an entertaining way to socialize with long-distance relatives and friends (see Extract 7). For Participant 98, online gaming provided a medium to interact with people on an intellectual level without having to prove his ability before speaking (see Extract 9). Contrary to the findings of Lo et al.,3 the gamers in the present study showed no signs of having experienced any sort of deterioration in real-world interpersonal relationships. Rather, they were more functional individuals who maintained contact with real-world friends and relatives in a more complex manner online. Further research could examine why enhanced social interaction occurs in MMORPGs. There are many possible explanations, such as greater anonymity online, less importance on physical appearance, and greater control gamers have over the time and pace of their interaction.15
The present study also attempted to explain why gamers engage in gender swapping and whether this has an effect on video game stimulation. Previous research has not considered the reasons people gender swap. Overall, 57% of the sample said they had gender swapped their character (similar to findings of Griffiths et al., who reported 60% gender swapping in their sample). Significantly more females than males had gender swapped their character. This can be explained by the reasons provided by Participant 39 (Extract 22), who gender swapped in order to prevent unsolicited male approaches on her female characters. Participant 117 (see Extract 26) appeared to gender swap out of interest and found that she was treated differently by male gamers when she was playing a male character. However, for Participant 49 (Extract 23), playing a female character meant that male gamers treated him far better. This provides support for the findings of Griffiths et al. that suggests the female persona has a number of positive social attributes in a male-oriented environment.

Some gamers engaged in gender swapping as an experiment. Participant 1 (Extract 21) said that gender swapping enabled him to play around with aspects of his character that would not be possible to explore in real life. Other reasons for gender swapping were that female characters had better in-game statistics, specific tools were only available with a female character, the class of character was only available in one gender, for fun, and just for a change. What makes these findings important is that in most instances, the gamer has the opportunity to choose the gender of his or her character and to develop other aspects of the character before beginning to play. Choosing to gender swap may have an effect on the gamer’s style of play and interaction with other gamers and could even have an effect on guild membership.

From these findings, it can be concluded that gender swapping appears to have an effect on video game stimulation. No previous research has highlighted such findings, and this study provides the foundations for further research in the area of gender swapping. Further research could perhaps examine how gender swapping may affect guild membership when members of the guild discover that a member is not who he or she claims to be. Alternatively, research could be carried out to see whether gender swapping has an effect on the gamer’s gender identity or gender role when they are not playing online.

It is also important to recognize the limitations of the study. First, self-report measures raise questions about the truthful responses that must be taken into consideration. Second, this was a relatively small sample when compared against previous online research that has obtained much larger samples. Third, the sample was self-selected and may not have been representative of the population of online gamers. Finally, the data collected came from only four online forums catering for approximately 10 MMORPGs. This raises the issue of how representative these MMORPGs and their players are. Thus, further research would need to gather data from a larger number of forums that cater for more MMORPGs.

Future research could take a more qualitative approach to data analysis through such techniques as interpretative phenomenological analysis (IPA). Eatough et al. used IPA to gather valuable data about how individuals perceived Everquest in the context of their lives. This type of methodological approach would be useful in examining online gaming experiences such as excessive use or in examining how players construct meaning in online virtual worlds. IPA could also be used to understand how gamers express themselves when they create their own characters and identities.

One of the most important features of MMORPGs is the social communication that occurs between gamers. In the present study, many online gamers enjoyed the socializing aspects of online virtual worlds, but as much as gamers enjoyed the time they spent online, they enjoyed real-life social activities more. Further research that focuses on both the positive and negative effects of socializing in online gaming is clearly required.

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