

“No Girls on the Internet”: The Experience of Female Gamers in the Masculine Space of Violent Gaming

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Abstract

The experience of female gamers in the masculine space of violent videogame playing was explored. Hypotheses concerned identity management strategies used online as well as offline. The study adopts a mixed methods approach. 291 women aged 18-48 were recruited via advertisements on social media. An online questionnaire addressed gaming habits, while a focus group with three women explored the pleasures they take from playing violent games. It was found that those who do play violent games, play video games for significantly more hours than those who don't play games which are violent. In turn, the more hours they play, the more likely it is they will discuss their gamer identity socially. Focus group findings however, showed that, by default, women players stay away from the topic of gaming. Regarding their gaming habits, the results support previous research that choice of games depend on the time gamers have available. Investigating female gamers' reactions to harassment based on their gender identity during online gaming, it was found that those exposed to toxic behaviour probably stopped playing online because of its impact on their psychological well-being. Additionally, the focus group showed participants strategically express their gender identity when they have won. The impact for women to succeed in a male-dominated activity is discussed.

Keywords

female gamers; gender; violent videogames; toxic behaviour

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Introduction

The rise in popularity of social games through Facebook and smartphone use has produced a lot of research into the gaming industry (Juil, 2010). These games became more accessible to previously untapped audiences, including women who had been somehow 'cast out' of the gaming culture (Lewis & Griffiths, 2011). Just as the tendency to couple technology with males created the stereotype that gaming is for boys, this tendency to couple social and casual games with 'newbies' created the stereotype that their players are mainly female. Casual games require less commitment to start to play and are easier to complete (Bogost, 2007). Though there is "nothing casual about playing *Farmville* ... for hours on end" (Shaw, 2011, p. 30) the stereotype associating casual and social games with women still prevails.

Games scholars have argued for a more inclusive view of female gamers as part of the whole gaming community (MacCallum-Stewart, 2009), condemning the poor attempts of the industry to cater to them with so-called 'pink games' that pigeonhole female players into traditional limiting sex roles such as dress-up games (Reijmersdal, Jansz, Peters & Noort, 2013). Pringle (2015) criticises the way games are still marketed to a binary population, segregating motivations and pleasures, such as where men like action and women like exploration. Nonetheless, studies on sex differences in gaming preferences surpass those looking at similarities (Terlecki, Brown, Harner-Steciw, Irvin-Hannum, Marchetto-Ryan, Ruhl & Wiggins, 2011). This leads big companies to make more money in capitalising their 'games for girls' departments, thus reproducing the stereotypes (Fullerton, Morie & Pearce, 2007).

Though female gamer identity, and female participation, have been studied during the last 25 years, they have not received much attention in the literature (Bucholtz, 1996; Dery, 1994; Cole, 2014; Jenson, Castell, & Fisher, 2007; Kiesler, 2014; Rubio, Romero-Zaliz, Mañoso, & Angel, 2015; Schott & Horrell, 2000). The present study attempts to address this research gap by drawing from identity theory described below.

Identities, in general, have been subject to theories for a long time and have been described in relation to the self (psychology), as well as in relation to society (sociology). William James (cited in Stets & Burke, 2008) theorised about multiple coexisting identities, which led scholars to ponder on how these are influenced by individual differences and their environment. Individuals seem to gain self-esteem through identity verification processes, motivating them to create or maintain contexts in which that identity prevails. There are two components of self-esteem that contribute to this motivation: self-worth and self-efficacy (Stets & Burke, 2003). Positive outcomes have been associated with high self-

esteem; thus, if having an identity increases our self-esteem (which includes self-worth and self-efficacy), it follows that the more roles and role identities one has, the greater psychological wellbeing one will experience (Thoits, 2001), unless those roles are competing with each other or are in direct conflict.

Gamer identity

Having defined the theoretical basis in which the present study will analyse identity, it is important to demonstrate how previous scholars have looked at gamer identity. Shaw (2011) makes a distinction between gamer identity and the label of gamer (as one that plays videogames). In contrast, Kelly (cited in MacCallum-Stewart, 2009) defends the extinction of the female gamer identity entirely to avoid gendering of the technology and thus defends the label based on users' actions, "a female who plays games" (p. 227). However, the editors of *Beyond Barbie and Mortal Kombat* (2008) try to find a way to combine both approaches to offer a new perspective for the industry, focusing on finding whether there really are sex differences in videogame play preferences and interests (Kafai, Heeter, Denner & Sun, 2008).

Motivations and agency form the basis of identities, which are constructed by the individual. They have specific purposes, such as self-esteem increase (Burke, 2003). However, Butler maintained that gender identities, specifically, are fabricated and maintained through discourse because it is part of a performance. The concept of gender performativity relates to these repeated acts and gestures that serve to actively construct and maintain the gender identity, creating the illusion of gender as biological. Still, it is questionable to label someone as a gamer based on their actions because an identity carries a lot more meaning than some individuals might want to endorse (Shaw, 2011). One of the reasons one might shy away from identifying as a gamer is the potential for conflict between two different identities (Burke, 2003). Beavis and Charles (2007) illustrate this conflict drawing on their focus group findings. For instance, "in hearing herself speak about her competitiveness and achievement in first-person shooter games, she comments that it 'sounds really violent, I mean for a girl'" (p. 699).

Masculine spaces

Drawing on Fullerton et al. (2007), the present study conceptualises violent games as gendered space, where battle is imminent and land is constantly disputed by opposing forces. First-person shooter (FPS) games are the key example of gendered spaces. They are usually set in war zones and/or place the player as a spy/hitman/sniper. Female appearances in these spaces in the form of avatars or game characters do not change their (masculine) gendered nature, because, as Fullerton et al. (2007) put it, Lara Croft of the *Tomb Raider* franchise (a third-person action/adventure game) "is a male fantasy of Barbie kicking butt" (p. 3). These genres are coded as masculine but their popularity

among male players has been linked to their superior cognitive skills, which the game mechanics activate (spatial rotation and quick reflexes, among others). Notwithstanding, some game researchers looking at motivation cannot pinpoint causal direction; for example, there may be a selection effect, where male players choose these games because they favour those skills, or a cognitive training effect, where male players actually improve those skills because they play more often (Adachi & Willoughby, 2013).

Some studies have considered how violent games are used by male players to practise masculinity (Alloway & Gilbert, 1998; Jansz, 2005). For instance, Jansz (2005) proposes that these spaces provide an opportunity to explore emotions that agree with masculinity (e.g. anger) and some that are at odds with it (e.g. fear). His view incorporates the notion of using games to embody identities that are difficult to reach in the real world or, conversely, that once reached, would be punishable. One participant's testimony in a study by Olson, Kutner and Warner (2008) illustrates this point:

The whole thug thing seems kind of cool, but in real life, I wouldn't really want to have that life. In here, you don't mind just getting out of your car and killing somebody, because you're not going to get in trouble for it. You can just turn off the game system and you're done. (p. 64)

Female gamers in masculine spaces

If femininity is defined as an absence of masculine acts and traits (Paechter, 2006), and these women are seen as surrounded by masculine performances, they might try to resolve this conflict by expressing their femininity while gaming. Gendered avatars and usernames are the traditional forms of expressing one's identity in online gaming. Live streaming gameplay, such as via the Twitch.tv website, contains a more concrete visual cue of gender. Showing a camera feed of the gamer ultimately abolishes the adage "there are no girls on the internet" (Lindell, 2009); at the same time it allows for female gamers to emphasise their female gender identity. An anecdotal example of this exaggeration of feminine performance is the construction of a lipstick game controller to play *Counter Strike: Global Offensive* (Valve, 2012) by a female gamer who usually streams herself playing the game (Ehrhardt, 2016).

The tendency to associate women with games such as *Farmville* because they supposedly prefer games with social interaction (Phan, Jardina, Hoyle & Chaparro, 2012) has been questioned by Yee (2006) when he found that "male players socialise just as much as female players but are looking for very different things in those relationships" (p. 774). The website *Fat, Ugly or Slutty* (2011) documents abusive messages targeting female gamers and their ability to play videogames. An experimental study using observations of gameplay by the researchers

showed that females are three times more likely to be the target of toxic behaviour during the game (Kuznekoff & Rose, 2012). Toxic disinhibition encompasses the things individuals would not say or do outside of the internet; however, it also comprises the negative outcomes of the exchanges (Kwak & Blackburn, 2015). This phenomenon has been observed in a variety of environments where social interaction is possible (Lapidot-Lefler & Barak, 2012).

Albeit documenting an important aspect of the female gamers' experience in online games, the methodology employed by Kuznekoff and Rose (2012) is susceptible to bias. Indeed, the researchers were playing the game themselves while using pre-recorded voices (female and male) to analyse reactions of other players. In comparison, Norris (2004) found that female gamers experience less sexual harassment in online gaming than non-gamers. Indeed, those same women also reported finding the online environment friendlier than women who chose to play games for a less mature audience.

Gender identities

Gender stereotypes become an issue when individuals do not follow normative patterns set by society (Chua & Fujino, 1999). That is, women who are able to assume a very feminine attitude—where they are passive, weak, polite, empathetic, emotional or nurturing—are accepted by society for fulfilling their gender role and confirming to the norms. Conversely, those who adopt masculine norms or abilities—such as strength, independence, aggression or agency—are seen as deviant. Many studies have identified areas in which female masculinities disrupt gender categories by deconstructing traditional gender roles (Cooper, 2002; Rifkin, 2002; Wright, 2008). Female gamers and their relationship to women who do not play games are a key example of this duality and will be an object of analysis in this report.

Gender can thus be seen as a performance, as it was theorised by Butler (1990). In her view, gender is constructed based on a series of acts wherein individuals need resources (such as aggression, in the case of masculine acts) that will aid them in making those performances realistic. This will confirm a gender identity which gives them self-esteem (Burke, 2003) by confirming that they belong to a larger group (Brown, 2000).

In contrast, women who adopt masculine norms could also achieve positive results. For example, geek masculinity was developed by the adoption of technology (electronics and computers) by men through hobbies and professions (Salter & Blodgett, 2012). Males' stereotyped interest in technology and science creates new opportunities of study and employment, as noted by their strong presence in science, technology, engineering and maths (STEM). Gaming is one area where men display their technical knowledge and where women are, unquestionably, seen as a minority (Nakamura, 2012).

Yet, based on the literature reviewed, it seems rare that performing in accordance with the opposite gender identity yields positive outcomes (Fullerton, Morie, & Pearce, 2007; Shaw, 2011; Royse, Lee, Undrahbuyan, Hopson, & Consalvo, 2007). Due to social expectations, individuals will more likely act in accordance with the gender they were attributed at birth. Thus, according to the potential conflict between identities, it is expected that female gamers, already defying social norms regarding their gender identity, will openly discuss their gaming hobby depending on how salient the gamer identity is for them.

The present study aims to address the issues of gender and gamer identities abovementioned through the use of mixed methods from a social psychology perspective. Questions related to identity management (gamer and female) will be investigated, as well as the conflict (or pleasure) arising from their intersection. Specifically, the question of whether women identify as gamers to themselves individually and/or socially. This is relevant because 'coming out' contributes to debunking the stereotype that gaming is a masculine activity. Besides, given the amount of abuse female gamers receive online, the present research will look at the kind of gender identity they present online, thus understanding the management of the gender identity where it intersects with that of the gamer.

To date, no study has analysed the pleasures female gamers take from being in a masculine space using an interdisciplinary framework of identity theory and gender performativity, or adopting mixed methods. The following are the research questions (RQ) the present study addressed and corresponding hypotheses (H) that were tested.

RQ1: Are violent videogames popular among female gamers? Does this affect their gamer identity and how they manage it socially?

H1: Women who identify as gamers will be those who play games more often (with a higher recorded number of hours played weekly) and will, in turn, be more open to publicly expressing their identity as a female gamer (with higher scores on the 'coming out' variable).

RQ2: How do female gamers manage other gamers' reactions to their gender identity?

H2: Women who have been exposed to toxic behaviour will differ significantly in the recorded number of hours played weekly according to gender of username chosen.

H3: Women who have been exposed to toxic behaviour will have significantly different scores on the recorded female gender expression than those who have not been exposed to it (two-tailed).

RQ3: What pleasures do female gamers take, if any, from being in a masculine space?

Methodology

Design

Mixed methods were adopted in order to take advantage (quantitatively) of the very large community (Entertainment Software Association, 2015) and (qualitatively) female experience with examples of harassment, harassment management strategies and the reasoning behind why female gamers persist with male-dominated gaming. Firstly, an online questionnaire was constructed to incorporate relevant items to the research questions. Secondly, a focus group was organised, as RQ3 lent itself to a qualitative method.

Participants

The inclusion criterion was that participants identified as female (or non-binary) gamers. Recruitment was done through internet postings in social media (e.g. Reddit group GamerGirls; Facebook group Videogame Appreciation, among others). Thirty-six participants were removed for not ticking consent boxes at the beginning of the questionnaire. Two participants were removed for being under 18. Eight participants were removed for identifying as male. Twenty-six participants were removed for failing to fill out at least two-thirds of the questionnaire. Three participants were removed after their non-identification as gamers was observed to concur with zero hours of weekly videogame playing. This resulted in a sample of 291 individuals, aged 18-48. For the focus group, participants were contacted after having demonstrated their interest in participating and chosen based on their geographical availability. The purpose of the focus group on the information sheet read: "We will be discussing the role of females in gamer culture and the pleasures they take from being part of it." Five participants were invited, yet only three could meet the focus groups constraints (scheduling and location).

Materials

Online questionnaire

The online questionnaire is part of a larger study (for an adaptation with the variables relevant to this paper, see Appendix below).

Focus group

The materials used in the focus group were the information sheet and consent form. The information sheet included a written description of a focus group and the main purpose was described as the following: "In this focus group you will be asked some questions regarding your experience as a female gamer of violent videogames (games for mature audiences that have the violent label from PEGI, 2013)."

Results

Descriptive Statistics

Statistical analysis was done for 291 cases. Table 1 shows descriptive statistics for the variables of interest.

Weekly hours played (N=263)	Mean 19.18 (SD=13.01)	Median 16	Min 30 minutes	Max 70 hours
Identified as females (N=291)	Identified as gamers (N=287)	Played a violent videogame	Have been exposed to toxic behaviour	
95.2%	93.1%	91.7%	62.2%	
Username gender varies (N=290)	Female username	Ambiguous username	Male username	
25.4%	22.7%	21%	20.3%	
Importance attributed to express female gender identity in gaming				
"I don't really care" 48.8%		"It depends" 21.1%		

Table 1. Descriptive Statistics

Inferential Statistics

Upon inspection of the relevant variables, it was observed that non-normality of the distribution in the majority of the variables dictated that non-parametric tests should be used.

A Spearman correlation was performed to examine whether hours played weekly would positively correlate with how important participants find telling other people they identify as gamers (H1). The test showed a positive significant correlation ($r_s(291) = .21, p < .001$). This means that women who play games more regularly are significantly more likely to tell other people they are gamers, or prioritise their gamer identity when making new acquaintances.

A 5x2 (female, male, ambiguous, it varies, I don't play online) two-way ANOVA was performed to analyse whether those exposed to toxic behaviour and who choose female or male usernames will differ significantly in hours of play (H2). The interaction between the effects was non-significant, $F(4, 251) = 1.65, p = .163$. The main effects of username gender choice were significant ($F(4, 251) = 3, p = .019$).

	Female username	Do not play online	Ambiguous username
Exposed	22.50(16.96) N=37	12.60(9.69) N=11	
Not exposed	22.20(15.98) N=21		9.39(5.69) N=13

Table 2. Pairwise comparisons between toxic behaviour exposure and username gender choices

Pairwise comparisons (Table 2) showed that within the group that had been exposed to toxic behaviour, those who chose female usernames played significantly more hours per week than those who say they do not play online ($p = .029$). Within the group that had not been exposed to toxic behaviour, those who chose female usernames played significantly more hours per week than those who chose ambiguous usernames ($p = .004$). Of the valid cases ($N=291$), 10.2% said they do not play online for various reasons. This question allowed for participants to write freely, so the researcher coded the answers into the most common themes. The results were grouped into four categories: harassment, preference for single play games, social anxiety and unspecified others.

A Mann-Whitney test was carried out to investigate whether there were significant differences in scores of female gender expression between participants who have been exposed to toxic behaviour and those who have not. The test showed a near significant difference on the 2-tailed hypothesis between the groups ($n_1 = 180$, $n_2 = 108$, $U = 8510$, $p=.06$). The mean rank for those exposed to toxic behaviour was 151.22 with a median of 3 and 133.30 with a median of 3 for the other group. This means that women who have been exposed to toxic behaviour find it slightly more important to express their female gender identity in gaming than those who have not been exposed to it.

Focus Group Findings

All three participants identified as female and as gamers. They were aged 24, 22 and 21. Names have been changed to safeguard the participants' anonymity.

Fun and competitiveness were the unanimous answers to the question of what motivates them to play videogames. Other comments on the pleasures they take from playing violent videogames, included the gore visuals, the pursuit of power and strength through the characters and narratives. Additionally, to counter the masculine (violent) aspect of their behaviour, one participant mentioned enjoyment of cuteness in games, saying:

I can like that sort of stuff [referring to gore visuals] and then, at the same time, if there's a game and it's an open world and there's a rabbit or a deer I'd be like, "aw". (Rose, 24)

Toxic behaviour was described by participants as something that is part of the online gaming experience that is not affected by avatar or username gender. However, one participant expanded on their view of toxic behaviour, proposing that male perpetrators of such behaviour see women as less competent players. When faced with toxic behaviour, female gamers try to distance themselves by using various strategies. This includes avoiding games or game modes that focus on socialising or team play, as well as choosing to disclose their gender identity only when they have won a match.

The group discussed their views on female gamer stereotypes and how they manage them. They had distinct notions of gamer identity and how important it is to disclose it. Non-gamer female friends were discussed, whether they talk about their gaming habits, as well as disclosure of their gamer identity to new acquaintances. Participants said that, due to the seeming lack of women who identify as gamers (or who play games other than casual ones), they usually stay away from the topic.

Another key point of the focus group was to investigate the participants' view on the time they spend gaming. They were reminded of the gameplay frequency question and how that affects their choice of titles, which in turn affect the pleasures they take from playing. They said it depends a lot on the time they have available and whether it is a newly acquired game. Regarding quick paced games, participants emphasised the rapid feedback schedule that provides them with the pleasure they were seeking within the time frame available.

Discussion

Quantitative Findings and Hypotheses

H1 investigated whether gamers would have higher scores on the coming out variable, and in turn, coming out would be positively correlated with hours of weekly play. This hypothesis was supported in its entirety.

H2 predicted that those exposed to toxic behaviour and who choose female or male usernames would differ significantly in hours of play; it was supported that participants within the group who were exposed to toxic behaviour and who chose female usernames differed significantly in weekly hours of play from those who do not play online.

Finally, H3 was a 2-tailed hypothesis predicting that there would be a significant difference between the groups exposed and not exposed to toxic behaviour in how important they find expressing one's female

gender identity while playing. This hypothesis was not supported, as there was no significant difference between the groups.

General Discussion

'Coming out' as a gamer

In H1, those participants who identified as gamers were predicted to 'come out' as a gamer when meeting new people more often than those who do not identify as such. The findings supported this hypothesis and in turn, the more hours they played, the more likely it was that they would 'come out' about their gaming habits. These results show how important the gamer identity is for women in terms of their social lives. Identifying as a gamer makes them a part of a group, and in turn, spending hours playing is the identity verification process that allows acquisition of the self-esteem bonus (Stets & Burke, 2003).

The quantitative data support the hypothesis that identifying as a gamer is mediated by the hours they play weekly. However, participants seemed to struggle to answer this question. It has been suggested earlier that women underestimate the amount of hours spent playing videogames (Golding, 2015). The question—to be answered in an open text box—revealed some participants found it hard to pinpoint what is a typical week. In the focus group, participants unanimously agreed that it was hard to gauge how many hours they play weekly, as well as to ascertain what a typical week was in terms of gaming. They also agreed that, if they had been waiting for a new title to come out, they would spend a lot more time on that game upon release. Conversely, participants mentioned that choosing specific game genres for the amount of time they have available and the type of pleasure they want fulfilled. For example, strategy games take longer, but they fulfil a desire to use problem-solving skills; likewise, quick-paced games are appealing for the rapid feedback loop in the mechanics, where one participant explained:

Dynasty Wars have a timer as well. So you have to kill X amount within this time. Kind of gives it a fast pace ... a good stress relief as well. Just banging the buttons. (Violet, 22)

These last points support previous research that gamers' choice of games depend on the time they have available and also on the pleasures they want fulfilled at that specific time (Royse, Lee, Undrahbuyan, Hopson & Consalvo, 2007).

However, research into gamer identity usually mentions types of gamers based on how many hours they put into the hobby (Carr, 2007; Juul, 2010; Shaw, 2011). For example, casual gamers are said to play only a couple of hours weekly whereas a hardcore gamer plays many hours daily (Carr, 2007). These definitions are already complicated to maintain because, as aforementioned, many gamers of 'casual' games such as

Farmville (Zynga, 2009) spend the whole day playing. On the other hand, identity may also depend on how knowledgeable and experienced the gamer is, such as how many titles they have played and/or finished and how much money they spend on them (Juul, 2010; Poels, Annema, Verstraete, Zaman & Grooff, 2012). Still, Shaw (2011) concludes that male players are more likely to identify as gamers despite hours of actual play.

During the group discussion, the topic of 'coming out' as gamers when meeting new people incited a cascade of circular explanations. Firstly, because participants assumed there were fewer female gamers, they do not find like-minded girls who share that interest. Secondly, identifying as gamers means that gaming plays an important role in their social lives, which in turn means for them that friendships with non-gamers are hard to maintain due to lack of shared interests. Besides, gaming culture and being a gamer is about more than playing games (Golding, 2015; Salen & Zimmerman, 2004). So, usually, when meeting new people, the participants stay away from the topic of gaming. Doing that, in turn, means that the female gamers in the focus group continue to think of themselves as a minority, deviant from their gender identity, and will never be part of the larger gaming community or encourage publishers to market violent games to them.

Exposure to toxic behaviour and the online experience

Finally, participants who had been exposed to toxic behaviour and chose female usernames were found to play significantly more hours than those who do not play online (H2). In addition, a two-tailed hypothesis (H3) was tested regarding exposure to toxic behaviour and the importance given to expressing one's female gender identity. It was found to be not supported, as there was no significant difference in female gender expression between those who had been exposed to toxic behaviour and those who had not. This finding contradicted what was earlier hypothesised. It was predicted that female gamers would withhold their gender identity online, due to previous exposure to toxic behaviour. The fact that participants were in a masculine space did not alter their gender expression. Username is a much more interesting point to research than avatar because it is strongly linked to identity construction online (Suler, 2002).

From the focus group findings, avatars are not seen as representative of one's gender because it depends too much on the game's mechanics. The "no girls on the internet" adage (Lindell, 2009) was created as a means to avoid positive discrimination towards women who supposedly lack gaming experience. Thus, avatar gender choice does not seem to affect female gender expression or, consequently, toxic behaviour against them. Thinking back to Fullerton et al. (2007) when Lara Croft was conceptualised as a pretty avatar on the usual third-person violent videogame for the usual male audience, it can be said that these findings support the 'Lara Croft syndrome'. This was mentioned as

another theory for why male players use female avatars—that is, they want something pretty to look at.

Toxic behaviour in the focus group discussion was seen as a normal occurrence in online gaming. Participants repeatedly distinguished their own behaviour from other gamers' (especially male) and characterised them as being too "intense" or taking the game too seriously and thus being toxic when things go wrong. On the one hand, participants say male gamers see gender as just another characteristic with which to insult female gamers; on the other hand, participants think toxic behaviour is more affected by lack of game knowledge and experience. They confessed to having been insulted for their lack of experience and knowledge when trying an online game for the first time.

The questionnaire data showed that the participants who do not play online (10.3%) choose to do so because they prefer single play (N=10), are trying to avoid harassment (N=7) or have social anxiety (N=5). Very similar reasons were mentioned in the focus group and, in addition, the participants said they would limit themselves to only playing online with friends. These findings are relevant when taking into consideration that previous research showed female players preferred games with social interaction (Norris, 2004). However, it may also be a product of Norris' findings that women who play more games experienced less sexual harassment and thus found the online environment friendlier. The present research, however, addresses a limitation of said study; it is possible to infer causal direction through the question about exposure to toxic behaviour and subsequent use of username. That is, the results indicate that the group who has been exposed to toxic behaviour (N=10) probably stopped playing online because of it (looking at the reasons given) and the group who has not been exposed to toxic behaviour (N=17) probably has knowledge of it and wants to avoid it. Even though the most cited reason not to play online is preference for single play, it begs the question: is it because multiplayer games are overrun with toxic behaviour towards female players? Still, the great majority of participants, regardless of whether they were victims of toxic behaviour, expressed their female gender identity and played online significantly more hours than the other username groups (male, ambiguous, varying usernames and those who do not play online at all).

Motivations for playing violent games

The topic concerning motivations and pleasures taken from playing violent videogames was addressed during the focus group, so that participants could discuss it freely amongst themselves. Participants collectively mentioned fun, competitiveness and goal completion as the main motivators. Other aspects that they enjoy in those games are the graphics, the pursuit of power and strength through the characters they play.

Participants seemed to enjoy violent games especially when they can show male gamers they are better at them. One participant in the focus group reiterated this feeling, specifically regarding *Counter-Strike: Global Offensive* (Valve, 2012). Revealing her gender identity when playing with male peers gave her feelings of mastery and self-confidence. Similar to what previous studies have shown (Beavis & Charles, 2007; Royse et al. 2007; Shaw, 2011; Norris, 2004), playing against or even alongside male players increases the pleasure in playing competitively and, consequently, boosts their self-esteem once victory is reached. Self-esteem gain is mentioned in past papers, as well as by participants in the focus group. Like Royse et al. suggest (2007), it could even be inferred that female players seek out to play these games specifically, so that they can rejoice in the fact that they have just eliminated the 'true' (male) gamer.

Limitations

Some of the limitations in the present study are linked to the advertisement used to recruit participants, the variable to measure gameplay frequency and some aspects of the online questionnaire design. These topics will be discussed in relation to the findings and their implications.

Firstly, it is imperative to highlight that the advertisement posted to recruit participants failed to mention that identifying as a gamer was not an inclusion criterion. Indeed, the advertisement said "if you identify as a female gamer", which may have led potential participants who do play games but do not identify with the gamer culture to ignore the research. The strategy employed by Shaw (2011) in her research would have been more far-reaching considering that the advert read "hardcore gamers, casual gamers, and everyone in between" (p. 32). Thus, analyses that looked at gamer identity comparisons should be carefully considered, because although the statistical tests used do not assume equal sample sizes (Field, 2009), it is possible that they picked up a significant result by chance (type II error). This can also be said about tests using the violent videogame playing variable since 91.7% said they enjoy playing them; 93.1% were in the gamer group.

Secondly, although it has been discussed *en passant* earlier in this report, the variable to quantify gameplay was in the item "On a typical week, how many hours do you spend playing videogames?" Participants expressed concern, both in the online questionnaire and focus group, about the difficulty of calculating the number of hours spent playing games in a typical week. Their comments included: "it depends, can range from being about 40 hours a week to none"; "could be everything from 1 to 10 hours"; or even "I don't know." Self-reported data can thus often be under- or overestimated. Besides, the topic at hand (videogames) may be highly influenced by the time when the participant filled out the questionnaire—for example, did they recently acquire a game? Were they waiting for that game to be released? Are they

employed full-time? Are they busy with exams? It was also discussed during the focus group that age could be a potential mediator of weekly hours of play because, as the participants confessed, they used to play significantly more hours when they were younger and had fewer responsibilities.

Thirdly, the questionnaire design had flaws that led to the removal of some participants. Indeed, the reinforcement of consent acquisition through the first question, in the form of multiple choice boxes, allowed participants to progress to the next question without providing full consent. Even though consent in online questionnaires is inferred through their completion, this was a requirement from the ethics committee.

In addition, another number of participants had to be removed for failing to complete at least two-thirds of the questionnaire. This happened soon after the questionnaire advertisement was posted in one of the online forums. The researcher received a series of negative comments on the post advertising the research, mainly accusing her of discrimination for focusing on female gamers. This kind of toxic behaviour is anecdotal, yet ironic proof that the research of this present paper is still very much needed.

Future Research Directions

Future research should attempt to address the limitations of the present study, focusing on the aspects of gender performance and identity management techniques that prevent more women from enjoying violent videogame playing. Aspects of gaming such as frequency of play should be subject to scientific study in terms of attempting a more effective way of measurement rather than the self-reporting of weekly hours of play in typical weeks. Age seems to be a mediating factor that should also be taken into consideration and thus future studies should focus on specific age ranges or occupational statuses (employed/unemployed). Nonetheless, whether hours of gaming are actual valuable data points is questionable. This should be further investigated with regards to gamer identity and self-categorisation as such.

In conclusion, the present report demonstrated that women also enjoy popular violent videogames, which should aid in debunking the male gamer stereotype. Nonetheless, the data showed some women may shy away from 'coming out' as dedicated gamers to new acquaintances because they still see themselves as a minority, thus living that identity in isolation. Curiously, even though the majority had been exposed to toxic behaviour (e.g. harassment), participants said they express their female gender identity when playing online games.

Video game enjoyment has been linked to careers in STEM disciplines, computer science degrees and the gaming industry. Closing the gender

gap in these areas is still imperative (Consalvo, 2012; Natale, 2002; McCollin, 2015). Programmes such as Girls Who Code promote these disciplines among young women, exposing them to potential degrees and careers in programming and computer science that they would not be exposed to otherwise. Likewise, in the UK, the charity STEMNET has, since 2007, promoted degrees and careers in STEM disciplines. Notably, they have a division specifically for videogame ambassadors, who attend career events in high schools across the country. As the present paper demonstrated, video gaming is a key part of resolving the STEM gender gap.

In addition, the study adds to the existing literature regarding sex differences in videogame preferences.

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Appendix

1. How old are you?
2. What is your gender identity?
 - a. Male
 - b. Female
 - c. Other (please specify) [open text box]
3. Would you consider yourself a gamer?
 - a. Yes
 - b. No

4. Do you play any of the following video games?

(Any title from the franchises)

Grand Theft Auto, Call of Duty, The Elder Scrolls, Borderlands, Hitman Absolution, World of Warcraft, Metal Gear Solid, Assassin's Creed, Mass Effect, Fallout, Tomb Raider, The Witcher, Mortal Kombat, The Last of Us, Resident Evil, Manhunt, Deadspace, Alien: Isolation, The Evil Within, Diablo, Watch_dogs

- a. Yes
- b. No

5. On a typical week, how many hours do you spend playing video games? [open text box]
6. If playing online, does your username express your female gender identity?
- Yes
 - No
 - It is ambiguous on purpose
 - It varies
 - I don't play online because [open text box]
7. While playing a videogame, how important is it to express your female gender identity?
- Not important at all
 - A little important
 - I don't really care about it
 - It depends
 - Somewhat important
 - Very important
8. Have you experienced toxic behaviour in online games, based on your gender identity?
- (Note: toxic behaviour includes harassment, sexism, flaming and cyberbullying)
- Yes
 - No
9. Do you have non-gamer female friends?
- Yes
 - No
10. When meeting someone new, speaking about yourself, how important is it to refer that you are a gamer?
- Not important at all
 - A little important
 - I don't really care about it
 - It depends
 - Somewhat important
 - Very important