

Perceptions of Women and Gaming: Exploring Implications of Intersectionality through Quantitative Analysis of Blog Comments

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Abstract: This study analyzes the effects gender and race have on the hostility towards and acknowledgement of issues women face in the gaming community. After prompting the gaming community with stimulus material that voices a feminist perspective, the study attempted to see how different profile pictures (White male, White female, Black male, Black female) affected responses. In other words, the study aims to analyze how the same perspective of women in gaming culture is received by the public, despite differences in gender and racial representation. Under the context of intersectionality, comments or public reactions of blog pages were analyzed by conditions of race and gender, which were then coded and used to conduct a qualitative analysis of “hostility” (e.g., vulgar language) and “acknowledgment” (e.g., agreed/disagreed with the blog content). The categorized reactions were then used to produce a quantitative measurement to determine the public perception of women in the gaming culture. Results revealed statistically significant differences in the pattern of hostile and non-hostile responses. Furthermore, an examination of conditions also revealed statistically different patterns related to acknowledgment of a problem. Noted patterns of hostility and acknowledgement may help to further determine implications of the intersecting aspects of one’s identity in an expanding culture and industry of games.

Introduction

Gender continues to be a contentious issue within the gaming community. While gender originally refers to a social construction of one’s identity (Bem, 1993; Shaw & Lee, 2015), within the context of this study for analytic purposes, gender refers to the representation of oneself as a biological female or male. Issues within the community range from hypersexualized visual displays of women in the virtual world (Downs & Smith, 2010; Jansz & Martis, 2007; Ogletree & Drake, 2007; Waddell et al., 2014; Williams et al., 2009) to the degradation, threats, and verbal abuse of women in the gaming community’s real world (Consalvo, 2012; Chess & Shaw, 2015). Academic research parallels the negative valence of real-world occurrences. More specifically, scholars have found that when gamers speak with a female voice in online game play, they are three times more likely than male voices to receive derogatory or negative comments from other networked gamers (Kuznekoff & Rose, 2013). Gender stereotypes may be a reason for this hostile behavior (Aries, 1996).

From feminist studies, critical aspects of intersectionality address interactions between race, class, ethnicity, and gender in comparison to the

dominant White, male category (Shaw & Lee, 2015). Aspects of intersectionality propose that a hierarchy exists in society such that if one does not share relevant characteristics of the dominant group (i.e., White males), then one will be more likely to suffer from some social-level disadvantage, discrimination, or oppression. In this study, intersectionality is used both as theoretical framework and as a basis for quantitative measurements of hostility and acknowledgment based on the visual identifier used in the blogs.

While video games allow for immediate responses in an arousing online forum, blogs tend to be more thoughtful in nature (Baker & Moore, 2008; Baker & Moore, 2011). Blogs allow authors to communicate subject matter difficult to express in regular and immediate social interactions by reducing social constraints that hinder discussion of distressing events in offline life (Baker & Moore, 2008; Baker & Moore, 2011). For instance, bloggers or users of computer-mediated communication may be more prone to display hostility in an online forum than a face-to-face exchange (Kuznekoff & Rose, 2013). This study will use intersectionality to analyze if bloggers leave more hostile comments on blogs that present

a Black (race), female (gender) profile picture, than blogs with male profile pictures. To accomplish this goal, we begin with a literature review that will discuss how perceptions of the gamer identity and how gender stereotypes have come to shape gaming content and culture, reactions towards women in the gaming culture and industry, and previous research on gender and race representations.

Literature Review

Gamer Identity

The term “gamer” has typically connoted a negative cultural identity or stereotype that has been portrayed in various media (Kowert et al., 2014). It is directly associated with someone who plays video games, but as Shaw (2012) states, “labeling everyone who plays video games as a gamer is misguided” (p. 29). Historically, self-identified “gamers” have come to be associated with and stereotyped as White, antisocial, young males, living in the basements of their parents’ homes. Furthermore, per stereotypes, self-identified gamers tend to be part of an exclusive group of people with specific perspectives (i.e., that of young, White males). Despite this image, some studies have cited and challenged this identity as the dominant one (Shaw, 2010). Individuals who do not self-identify as gamers may still play games as much as those who identify as such, but will not have a vocal preference of content or opinion of the games or culture itself. This negative association with gaming and the lack of majority voice within the community’s base has come to marginalize already underrepresented groups such as women, both in the culture and industry (Shaw, 2012; Consalvo, 2012). Online bullying and verbal abuse in games have become part of the normal, virtual landscape, and the industry’s portrayals of violence, hypersexualized women, and lack of racial representations seem to still make up most of the gaming content (Lynch et al., 2016; Waddell et al., 2014).

Initially, the game industry’s target audience was the young male population, which subsequently adopted the term “gamer” (Williams, 2003); however, in recent years, as the popularity of games expanded, it has come to include not just the initial target audience, but both males and females of various ages (Williams, 2003). Furthermore, as Shaw (2012) states, “there was an assumption that if only

the industry could get beyond its myopic view of its market, they could make more money by offering more diversity in their products” (p. 33). The gaming industry seems to have noted the potential to expand its audience. Recent industry statistics suggest that women players now make up about half of the game playing market (Chess & Shaw, 2015). Hartmann and Klimmt (2006) also noted differences in male and female gaming preferences, which may help to continue progressive industry development. While the industry often creates games containing violence and hypersexualized displays for its initial target audience, they found that for women, the social interaction was of greater relevance than gender role stereotyping and violence in videogames. Additionally, paying attention to alternative views will allow for better game creation as well as a deeper understanding of the relationship between gender and gaming (Hayes, 2005). Industry changes and academic research has also allowed the gaming industry to expand into different genres of games, feature female protagonists, and welcome an entirely new audience and generation of gamers. For instance, Sony Worldwide Studio President Shuhei Yoshida commented earlier this year on a project with a female protagonist:

“As an industry, I think we should continue to make efforts to have more females in studios on the development side and to get different perspectives. Games have become more and more popular in terms of who plays, especially in terms of mobile. We have a chance to further increase the reach” (as cited in Dunning, 2015).

Despite the noted attempts for inclusivity and the more progressive evolutions of gamer identity, content, and industry, Kuznekoff and Rose (2013) suggest that negative stereotypes and representations have changed little over recent years.

Public Perception & Reaction

As aforementioned, understanding the portrayal of gender stereotypes may help to understand behavior within the gaming community (Aries, 1996). Gender stereotypes include but are not limited to women being more emotional, submissive, sensitive, and oversexualized (Shaw & Lee, 2015). These stereotypes and tropes commonly used in video games have led to extreme feminist activism

and were a precursor to a recent issue known as the “Gamergate” controversy. It has also been called a conspiracy or movement, but regardless of the name, Gamergate was a harassment campaign. The people involved in this movement are those who have profited from the lack of diversity and those who believe that gaming should remain male dominated (Chess & Shaw, 2015). This campaign was directed toward women in the game industry, feminist activists, and their research that tends to confront the inherent masculinity found within the games and its associated industry (Chess & Shaw, 2015). Since 2007, women such as Kathy Sierra, a game developer, and Anita Sarkeesian, a feminist video blogger, have received numerous rape and death threats. These threats have escalated to the point where events were cancelled and their addresses and personal information were distributed across the internet, forcing them to relocate for safety precautions (Chess & Shaw, 2015). In October 2014, Utah State University received numerous threats, one associated with Gamergate, regarding Sarkeesian’s planned speech and attendance (Chess & Shaw, 2015). Sarkeesian’s appearance was subsequently cancelled for safety reasons.

While individuals from the public who contributed to Gamergate want the industry to remain exclusively male, social justice warriors who oppose Gamergate and similar ideals were quick to point out other events that have reinforced gender stereotypes and excluded women from the industry. For instance, at Microsoft’s Game Developers Conference in 2016, an event where professionals converse on the current gaming climate, Beres (2016) from *The Huffington Post* noted, “women in scanty costumes were hired to entertain guests and attendees.” After video and photos spread to the internet, people quickly voiced their perspective on social media sites, condemning Microsoft for driving women away and reinforcing disrespect for women (Beres, 2016). Microsoft’s Phil Spencer since released an apology, reaffirming they are “committed to higher standards” (as cited in Beres, 2016).

Gender remains a contentious issue both in the real world and virtual world; however, more research is necessary to fully understand the implications of those perspectives and determine what the actual majority perspective is among gamers and their

associated culture in relation to representation, content, and industry.

Gender Studies in Mediated Communication

The gaming industry may be employing more women, and gamers may come across more women online today than in the past; however, Kuznekoff and Rose (2013) suggest that negative stereotypes and hostile behavior associated with the gaming community have changed little over previous years, especially those regarding women. Kuznekoff and Rose (2013) conducted a study at Ohio University, where they measured how gamers’ reactions would differ between male and female voices. Rather than focus on previous research that dealt with stereotypical portrayal of gaming content, the Game Research and Immersive Design (GRID) lab at Ohio University recorded gameplay and audio output from an Xbox 360 console to analyze the reactions of gamers (Kuznekoff & Rose, 2013). This study was conducted using Microsoft’s Xbox LIVE service, a platform where gamers can interact with each other around the globe in real time. Computer technology, like Xbox LIVE Service, has enabled human interaction via voice channels, avatar interaction, and video feeds known as shared virtual environments (SVE), allowing gaming to go from a solitary activity to social one (Kuznekoff & Rose, 2013).

Using the online mode of the first-person shooter game “Halo 3,” identical, prerecorded male and female voice messages were inputted before, during, and after gameplay. Reactions from other gamers online were then recorded. According to the study, the female voice received three times as many derogatory or negative comments than a male voice or no voice, even when the voices communicated the same message. Walther’s (1997) hyper personal computer mediated communication (CMC) states that the characteristics associated with CMC, such as the condition of “anonymity,” can create hyper-negative effects for receivers (as cited in Kuznekoff & Rose, 2013). Specifically, if people in a virtual environment feel anonymous and in control, this can help explain why hostile online behavior and verbal abuse is present; however, this does little to explain why women receive three times as many negative comments as males.

A more recent study conducted by Indiana University's Network Science Institute analyzed "over one billion chat messages from the game-streaming platform Twitch to study how the gender of streamers is associated with the nature of conversation" (Nakandala et al., 2016, para. 1). Large scale analysis of gender inequality in social gaming platforms is limited in number; however, like Kuznekoff & Rose (2013), Nakandala's study focused more on the interaction of the community rather than the content or representations presented to them. Through text and term-based analysis, they identified that gendered language and objectification is significantly more prevalent with popular female streamers, while popular male streamers received more game-related comments. Objectification in this case is defined as "language that reduce women to their body or appearance or as objects to be owned or used" (Nakandala et al., 2016, para. 13). These results support the idea that sexist perspectives prevail in the gaming community, where misogyny is the norm and objectification of women is accepted. While this study could not consider every aspect of context (e.g., streamers' reactions) and looked only at a static representation of comments between August and November, it nonetheless suggests that women receive more comments with gendered language in the gaming community (Nakandala et al., 2016).

Gender & Race Representations & Implications

The game community and the industry still seem to cater to the gender divide (e.g., White males) despite the growth of additional inclusive content. The importance of growth for this inclusive content is not solely for bringing in additional revenue for the industry. If the industry no longer alienated fifty percent of the market with "boys only" content and instead allowed for greater educational opportunities through the use of games, as discussed in Simpson and Elias (2011), the industry may indirectly shape gender relations. According to Williams et al., "there are several reasons why the presence, absence, or type of portrayal of social groups matter in a diverse society, ranging from social justice and power imbalance, to models of effects and stereotype formation" (2009, p. 818). The media, due to stereotypical portrayals of minority groups, tend to reinforce representations of White privilege

or White power (Dietrich, 2013). In other words, minority groups are generally underrepresented, but when they are represented, they are portrayed in a stereotypical fashion. The subject of race in video games has little research and tends to focus only on stereotypes of the virtual character (Dietrich, 2013).

Studies and analyses have shown societal norms, such as White-based representations and gendered stereotypes, have thrived both in content and ideology (Beasley & Standley, 2002; Dietrich, 2013; Dietz, 1998; Downs & Smith, 2010; Jansz, & Martis, 2007; Waddell et al., 2014; Williams et al., 2009). A study done by Provenzo (1991) stated that 92% of game cover illustrations were male (115 characters), while only 8% were female (9 characters) (as cited in Jansz & Martis, 2007, p. 143). The physical attributes and language spoken of the portrayed characters depended on the character's race and gender. The typical White male stereotype and hyper-sexualized female characters were most common. Despite being an older study and the recent progressive movements of the gaming industry, "for minority players, the message communicated here is that along with society, the virtual world is also a place they do not belong" (Dietrich, 2013, p. 97). While this may not be the intended message, the construction of the meaning applies to both reality and virtual spaces interchangeably, which then later can be applied to social relations (Dietrich, 2013).

Another study found similar results along gender and racial representations in games. Downs and Smith (2010) conducted a content analysis of 489 video game characters in the top 20 bestselling videogames from Microsoft, Sony, and Nintendo. In terms of gender representation, females appeared 14% of the time, compared to 86% for males. Of the 14% of female characters, 25% of them were depicted with unrealistic body sizes, and nudity was 10 times more likely for female characters than their male counterparts. Lastly, 41% of females were portrayed in sexually revealing clothing, compared to 11% of males. In addition, representation of minority groups was low—of the 489 characters, 50% were Caucasian, 21% African, 7% Asian/Pacific Islander, 3% Hispanic, and 19% had an unidentified race (Downs & Smith, 2010). In each race category, female gender representation was also imbalanced. Of Caucasian and Hispanic characters, only 13%

and 14%, respectively, were female. Of all African characters, only 9% were female. The aforementioned studies concerning gender and racial representations suggest the continued gender and racial imbalance, stereotypes, and misrepresentation of identities within games. Individuals who engage with the gaming medium, as with television or movies, may be prone to model what they view in terms of gender roles and stereotype formations should social cognitive theory be at the theoretical base (Bandura, 2002), ultimately increasing the frequency of sexism, objectification, and contempt for diversity (Dietrich, 2013; Downs & Smith, 2010; Williams et al., 2009).

The Media School at Indiana University, Bloomington published a 31-year content analysis of female characters in video games, which suggests a potential progressive improvement in content and industry statistics concerning women. Referenced earlier, Shaw (2012) implied that “if the industry could get beyond its myopic view of its market, they could make more money by offering more diversity in their products” (p. 33). The study indicates the industry may be reacting to its critics (Lynch et al., 2016, p. 13). In terms of quantity, the industry still caters to the male consumer market, but female interest in games has grown. This increased interest has made relatively significant improvements in diversity of content and representation in the industry. For instance, the International Game Developers Association (IDGA) noted that 22% of video game professionals are now women (as cited in Lynch et al., 2016). The amount of sexualized characters started to decrease post 2006; however, some genres of games, such as fighting games, still employ overtly sexualized characters (Lynch et al., 2016, p. 13). Furthermore, the number of female characters has increased, though it’s important to note that these characters are often not primary protagonists, which reinforces past research (Downs & Smith, 2010). Heflick, Goldenberg, Cooper, and Puvia (2011) note the associated risks with gender representation, such as objectification and violence against women, remain in media (as cited in Lynch et al., 2016).

Intersectionality: Theory and Measurement Basis

As noted by Shaw and Lee (2015), one of “intersectionality’s critical practices include: exploring the implications of simultaneous privilege

and oppression...and [focus] on how personhood can be structured on internalized hierarchies” (p. 82). Since aspects of one’s identity are not mutually exclusive to another, such that one’s identity is not made up of only his/her race, this study aims to use intersectionality both as theory and a basis for empirical measurements (Shaw & Lee, 2015). As a theoretical basis, intersectionality is essentially the interaction between multiple aspects of what makes up a person’s identity and how those aspects can create hierarchies in society that are institutionalized by groups in power (e.g., White males). As aforementioned, if one does not share relevant characteristics with the group in power, one will be more likely to suffer from discrimination or oppression, as compared to the dominant White, male category (Shaw & Lee, 2015). Using intersectionality as a base for measurements allows this study to further look at how specific aspects of identity impact one’s interactions within gaming culture, since it is unlikely that all females or males receive the same degree of discrimination or oppression in gaming culture.

Assuming a hierarchical structure of identities, within the context of gender and race, one would expect a Black female to receive more negative responses than a White female due to the intersection of both race and gender. Furthermore, looking at the interaction between race (White and Black) and gender (female/male) within the game community will help to explain simultaneous privilege and oppression such that a White female may face discrimination by gender but not by race (Shaw & Lee, 2015). Assuming the theoretical aspect of intersectionality, measurements will be collected by manipulating gender and racial variables. We will be able to compare comments between race and gender and expect to view the following:

H1: Expect to see less hostile comments towards women should the blog author be a White male.

H2: Expect to see more hostile comments towards women should the author be a White female.

H3: Expect to see the greatest number of hostile comments towards women should the author be a Black female.

To further analyze a potential gender hierarchy in terms of the degree of comments, the following research question was asked:

RQ1: Will males, regardless of race, tend to have the least amount of hostile comments despite their perceived position of women in the gaming culture?

Method

Online Material and Participants

For the purposes of this study, the blogging platform, WordPress, was selected to host four different blog pages to be used as stimulus material conditions. This platform was selected because multiple blog pages could be created within the same account, and the platform is not directly affiliated with any outside news networks. Additionally, the platform allowed others to publicly comment, settings permitted, by submitting a random or anonymous email along with their comment. Within the WordPress community, other users could re-blog the specifically viewed page, potentially allowing an increase of readers. Comments directly on the WordPress platform (blog page) and re-blogging were not used in the study, since the blog pages were directed towards specific gaming community forums on Reddit. More specifically, no data was collected directly from the WordPress platform. Finally, this platform allowed for both text and picture material to be presented, a limitation further elaborated on in the discussion section.

As previously noted, while the blogs could be viewed and shared within the WordPress user community, the distribution of the four blog pages were tailored to gaming communities within the website, Reddit. Eight subreddit pages, focused largely on gaming, were selected to distribute the blog pages (Appendix, Figure 1). Prior to distribution, permission to post within each subreddit was granted via the moderators of each specific subreddit page. Moderator(s) are individuals who can remove and change content of a subreddit page to keep content specific to that particular page.

To collect data for this study, an online post was created in each subreddit page that contained a title, a brief post explanation, and a hyperlink associated with a specific WordPress blog page. Clicking on the hyperlink within the subreddit post would bring the

reader directly to the WordPress blog page, where they would engage with the stimulus material and then be prompted to comment their thoughts on the subreddit post.

After the research was reviewed by the IRB, it was determined that informed consent was not necessary, as individuals who decided to post did so of their free will in a known public forum.

Conditions and Design

To operationalize intersectionality, four blog pages were constructed in WordPress and were made accessible to the gaming public. Each page consisted of (1) a visual identifier (profile picture) of the author, (2) the first name of the author, and (3) their perspective of women and content in the gaming culture (Appendix, Figure 4). Of the four blog pages, only the visual identifier and associated name of the author were different in terms of their gender and race. The visual identifier portrayed typical female or male representations, for analytic purposes, and racial identification was either Black or White (Appendix, Figure 3). Each of the four blog pages was assigned a name based on race and gender (Appendix, Figure 2). The study tried to use names that could seemingly fit across racial divides to reduce possible stereotypes that can be associated with names of certain ethnicities or races. For example, the name “James” was used for the Black, male author, while the name “Shaun” was used for the White, male author. While each account had a different visual identifier, the statement on women and content in the gaming culture remained constant over all four blog pages. The text material first addressed the presence of sexism and harassment of women that leads to a hostile game culture and then mentioned the issue of diversity in game content and within the gaming community. Finally, the material mentioned a brief call-to-action to create a more inclusive gaming culture. All previously mentioned aspects were stated briefly within the blog page for the public to become quickly engaged. Both the visual identifier and statement acted as the primary stimuli for participants to formulate their responses.

Procedure

Prior to data collection, each of the four blog conditions were randomly assigned to two subreddit pages (Appendix, Figure 1). Data collection and

dispersal of conditions were completed in two segments, each lasting approximately 36 hours. More specifically, the four conditions were posted to one of their assigned subreddit pages, and then after 36 hours, moderators were messaged to lock the post, so no other participants could comment.

Unit of Analysis

The unit of analysis for the study was the comments participants left in reaction to the blog page material. Qualitatively assessing comments at the response level (per comment) allowed for analysis of the participants’ acknowledgment of blog material as well as the hostile attitude or tone of the message. After using each participant’s user name to determine where comments began and ended, each comment was analyzed based on the content or lack thereof in reaction to the blog condition. Comments were analyzed if they contained whole sentences, parts of a sentence, or singular or multiple words.

Coding

A total of 127 comments were expert coded—completed by the first author—across the four conditions.

Comments and their associated perspectives were first coded in terms of Acknowledgement: positive (yes), negative (no), both, or N/A. “Yes” indicated that the comment, in response to the blog, agreed or stated that issues such as sexism and racism are still present in gaming culture. “No” indicated that those issues are no longer present within gaming culture. “Both” indicated that the comment acknowledged specific aspects of the post or issue. For example, the comment may have agreed that women are still harassed, but indicated that diversity of content is not an issue. “N/A” was coded if the response was completely unrelated to the presented stimulus material or the participant mentioned associated issues not specifically presented in the blog content.

Comments were then coded in terms of Hostility (yes, no, both, N/A). Comments were labeled “hostile” if they contained aggressive language directed toward the presented issue or the individual who posted the blog on the subreddit page. For example, vulgar language or racist remarks would be labeled as hostile. “Yes” indicated that the comment consisted of hostile language, while “no” indicated

there was no hostility in the comment. “Both” indicated that vulgar language was used, but the comment may have offered further insight about the issues or the poster. Finally, “N/A” was coded when the intent or tone of the comment could not be qualitatively identified.

Results

To test for differences across conditions, crosstab analyses were employed to examine frequencies. Examination of condition (Black female, Black male, White female, White male) by hostility (yes, no, both, N/A) revealed statistically significant differences in the pattern of hostile and non-hostile responses: $X^2(6) = 13.38; p < .05, Cramer's V = .23$. Hypothesis 1 proposed that one would see less hostile comments towards women should the blog author be a White male. This proposition was upheld, as the White male received the most non-hostile responses overall ($n = 55$) and did not receive any responses that were coded as hostile. By comparison, the Black male and White female received far fewer positive comments ($n = 20$) and ($n = 9$), respectively, but both had equal amounts of hostile comments ($n = 3$). These results partially upheld Hypothesis 2, which proposed that one would see more hostile comments towards women if the author is a White female. Lastly, Hypothesis 3 proposed that one would see the greatest amount of hostile comments towards women should the author be a Black female. This hypothesis was not supported, considering the Black female had the fewest comments overall ($n = 3$), but none were coded as hostile. Although the Black female condition received no hostile comments compared to the Black male and White female conditions, this difference may be due to the lack of comments overall.

Table 1

Cond * Hostile Crosstabulation

Cond		Hostile			Total
		No Hostility	Hostile	NA	
	Black Male	20	3	6	29
	White Female	9	3	5	17
	Black Female	3	0	2	5
	White Male	55	0	21	76
Total		87	6	34	127

An examination of condition (Black female, Black male, White female, White male) by acknowledgment of a problem (yes, no, both, N/A) revealed statistically different patterns as well: $X^2(9) = 17.54, p < .05$; *Cramer's V* = .22. While most of the coded comments did not apply to the discussion at hand, a pattern emerged such that more commenters were likely to acknowledge a problem when a White male addressed the issue ($n = 12$).

Table 2

Cond * Acknowledgement Crosstabulation

Cond		Acknowledgement				Total
		Negative	Positive	Both	NA	
Black Male		2	0	4	23	29
White Female		5	1	1	10	17
Black Female		0	2	1	2	5
White Male		8	12	13	43	76
Total		15	15	19	78	127

Research Question 1 (RQ1) asked if males, regardless of race, would have the least amount of hostile comments despite their perceived position of women in the gaming culture. Considering the male conditions received ($n=3$) hostile comments between both conditions, RQ1 was upheld. Furthermore, males not only received less hostile comments, the White male condition also received more positive acknowledgment that there are still issues within the gaming community ($n=12$) as opposed to the other three conditions combined ($n=3$).

Discussion

This study sought to examine how the general gaming public perceives issues facing women in the gaming culture differently through analysis of visual criteria in an online forum. Using intersectionality as a basis for measurements and as a theoretical argument, one goal of this study was to determine the reaction of the public when the same argument was presented by both males and females of two different races. Past research (Beasley & Standley, 2002; Dietrich, 2013; Dietz, 1998; Downs & Smith, 2010; Jansz, & Martis, 2007; Waddell et al., 2014; Williams et al., 2009) has focused more on game material and content, rather than individuals who make up the content or gaming culture in general. A quantitative approach was conducted to measure

and categorize reactions. It is necessary to note that there was a clear quantifiable pattern in the lack of acknowledgment and increased hostility to those outside of the dominant White male category under the context of intersectionality. While the Reddit environment seems to be largely non-hostile, it is interesting to note that when hostility does emerge, it is not directed towards the dominant group. In summary, this study's findings suggest that certain aspects of one's identity (including race and gender) increase probability of receiving hostile reactions. As for acknowledgment, while the White male condition received more positive acknowledgement ($n=12$), without significant data, it would be presumptuous to state that the Black female condition received the least amount of acknowledgment simply because of intersecting gender and race.

As with any study, this one is not free of limitations that future researchers should note. The first limitation to the study was the sample size, which may have had a significant impact on the results, as only 127 comments were analyzed. Increasing sample size would allow for a more detailed analysis of trends and significant outcomes. Furthermore, the study did not account for repeat commenters, and any future research may seek to limit analysis to one reaction per participant. Secondly, while coding was done at the response level (per comment), it is worthy to note that comments may be analyzed at the thought or sentence level, allowing for more detailed results within a sample size. More research is warranted, as many comments left by participants within this study were considerably lengthy, with some exceeding a single typed page.

Furthermore, the need to use two separate websites presented additional limitations. The use of a blogging platform allowed the researchers to formulate stimulus material so that both the visual identifier (picture) and text (opinion) was visible simultaneously; however, Reddit formatting limited the researchers to a specific format to distribute the material. Rather than presenting the stimulus material directly in the Reddit post, a hyperlink had to be used to take a participant to the blog material. This is partially because the eight subreddit pages used within the study limited posts to either link-only or text-only formats. While Reddit and blogging sites may result in accumulating significant

data, issues surrounding the formatting of stimulus material are necessary to consider. An additional limitation under formatting was the perspective and portrayal of the stimulus material. Future research could account for visual identifier/avatar realness. More specifically, one could measure differences in responses to real versus animated profile portraits. This study only used real profile portraits obtained through a database that permits the use of listed images. Lastly, because statements in this study were broad and generalized, any future research could account for limiting material to specific, narrow opinions or perceived issues.

Another limitation would be page specificity or genres. This study consisted mainly of posting on first-person shooter or role playing game pages. Results or reactions could differ among genres of games, which may necessitate cross genre analysis. Additionally, while posting content, it is necessary to account for where material is distributed to, and how specific a researcher's content aligns with the content on the website. For example, while the stimulus material consisted of game-related issues and topics, it was not necessarily specific to "r/thelastofus," which only discusses topics related to that specific game.

Finally, by not considering and verifying age, gender, and race, researchers are not able to determine what the majority perspective among the gaming culture is towards issues concerning women and how aspects of intersectionality influence those perspectives. While hostility towards others is not a novel phenomenon on the internet, past research of online bullying takes place largely within younger age groups and adolescents (Duffy & Nesdale, 2009; Park et al., 2014; Seiler & Navarro, 2014). While younger individuals may not be sophisticated enough to create something like Gamergate, demographic information may help to determine future action and perspectives of the gaming culture.

Conclusion

The current study further builds upon past research concerning gender studies and videogames and provides two contributions: the content of study and findings. While many studies have analyzed the content of video games, this study—much like Kuznekoff and Rose (2013) and Nakandala et al.

(2016)—provides an additional context for how individuals of the gaming community react when presented with visual differences in race and gender in a computer-mediated environment. While content analysis will continue to be an important area of research, especially with the advancement in graphics technology, it will also be necessary to further analyze interactions of real individuals to provide an additional angle of analysis. Applying different feminist theories to gaming and gender studies, such as intersectionality, helps to bring further understanding of the intricacies surrounding the intersecting aspects of one's identity and the implications those aspects have within society or the gaming subculture. More specifically, the findings of this study indicate that should one not share similar characteristics with the dominant White male category, they are subject to receive more hostile responses. Additional findings indicate more acknowledgment when a White male mentions an issue, such as the presence of sexism in the gaming community, than with other identities. The full analysis allows for an additional consideration of how race or gender impacts an individual's social experience, as noted in other studies; however, it does not answer concretely why these issues or hierarchies continue to exist even at a subcultural level. The gaming industry seems to be adopting progressive ideals (Lynch et al., 2016), albeit rather slowly; however, there seems to be certain cross sections of gaming communities who are not adopting these progressive ideals as quickly as the industry. It is clear that additional research must be conducted to understand the evolving gaming culture. Potential extensions of this study would seek to determine who these individuals are and the motivations of these individuals who continue to perpetuate dogmatic, hostile ideologies in what appears to be a progressive, evolving, gaming culture.

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Appendix

Page Title	Condition Assignment
r/pokemongo	Black Male
r/battlefield_one	White Female
r/elderscrollsonline	Black Female
r/thelastofus	White Male
r/skyrim	White Female
r/assassinscreed	Black Male
r/AskGames	Black Female
r/ludology	White Male

Figure 1. Subreddit pages.

Female Names	Male Names
Aaliyah (B)	James (B)
Mary (W)	Shaun (W)

Figure 2. Blog-associated names.

Race X Gender	Male	Female
Black	Black-Male	Black-Female
White	White-Male	White-Female

Figure 3. Design diagram. Gender (Male/Female) X Race (White/Black).

Why is it so hard to talk about the issues facing women in gaming culture?

Everyday female gamers face rampant sexism and harassment campaigns simply because of their gender. Many female game characters are hypersexualized and female gamers are verbally abused in online game forums. Feminist scholar and media vlogger Anita Sarkeesian has received threats of violence and death to her and her family just for having an opinion.

It's not just the players that create a hostile culture but many of the games themselves. Misrepresentation of race, gender and hyper-sexualized women cater to a specific gaming audience. Even though video games have become a more popular medium among many, why does the game culture seem so hostile? There is plenty of room for diverse gamers, diverse characters, and diverse communities to make those games. Let's all try to work together to create an inclusive space where we're all just "gamers."

Comment your thoughts on the reddit page.



Figure 4. Condition design.

References

Aries, E. (1996). *Men and women in interaction: Reconsidering the differences*. New York: Oxford University Press.

Baker, J. R., & Moore, S. M. (2008). Blogging as a social tool: A psychosocial examination of the effects of blogging. *CyberPsychology & Behavior, 11*(6), 747-749. doi:10.1089/cpb.2008.0053

Baker, J. R., & Moore, S. M. (2011). An opportunistic validation of studies on the psychosocial benefits of blogging. *Cyberpsychology, Behavior, and Social Networking, 14*(6), 387-390. doi:10.1089/cyber.2010.0202

Bandura, A. (2002). Social cognitive theory of mass communication. In J. Bryant & D. Zillman (Eds.), *Media effects: Advances in theory and research* (pp. 121-153). Mahwah, NJ: Erlbaum.

Beasley B., & Standley, C.T. (2002). Shirts vs. skins: Clothing as an indicator of gender role stereotyping in video games. *Mass Communication and Society, 5*(3), 279-293.

Bem, Sandra Lipsitz. (1993). *The lenses of gender: Transforming the debate on sexual inequality*. New Haven: Yale University Press.

Beres, D. (2016, March 18). Half-naked women at Xbox event not exactly good look for Microsoft. *The Huffington Post*. Retrieved from http://www.huffingtonpost.com/entry/microsoft-gdc-womendancers_us_56ec32e5e4b03a640a6a508a

Chess, S., & Shaw, A. (2015). A conspiracy of fishes, or, how we learned to stop worrying about #GamerGate and embrace hegemonic masculinity. *Journal of Broadcasting & Electronic Media, 59*(1), 208-220. doi:10.1080/08838151.2014.999917

Consalvo, M. (2012). Confronting toxic gamer culture: A challenge for feminist game studies scholars. *Ada: A Journal of Gender, New Media, and Technology, 1*. doi:10.7264/N33X84KH

- Dietrich, D. R. (2013). Avatars of Whiteness: Racial expression in video game characters. *Sociological Inquiry*, 83(1), 82-105. doi:10.1111/soin.12001
- Dietz, T. L. (1998). An examination of violence and gender role portrayals in video games: Implications for gender socialization and aggressive behavior. *Sex Roles* 38(5), 425-442.
- Downs, E., & Smith, S. (2010). Keeping abreast of hypersexuality: A video game character content analysis. *Sex Roles*, 62(11-12), 721-733. doi:10.1007/s11199-009-9637-1
- Duffy, A. L., & Nesdale, D. (2009). Peer groups, social identity, and children's bullying behavior. *Social Development*, 18(1), 121-139. doi:10.1111/j.1467-9507.2008.00484.x
- Dunning, J. (2015, June 18). Horizon Zero Dawn female protagonist concerned Sony, led to focus testing. *PlayStation Lifestyle*. Retrieved from <http://www.playstationlifestyle.net/2015/06/18/horizonzero-dawnsfemale-protagonist-concerned-sony-led-focus-testing/#/slide/1September 10, 2015>.
- Hartmann, T., & Klimmt, C. (2006). Gender and computer games: Exploring females' dislikes. *Journal of Computer-Mediated Communication*, 11(4), 910-931. doi:10.1111/j.1083-6101.2006.00301.x
- Hayes, E. (2005). Women, video gaming & learning: Beyond stereotypes. *TechTrends: Linking Research & Practice To Improve Learning*, 49(5), 23-28
- Jansz, J., & Martis, R.G. (2007). The Lara phenomenon: powerful female characters in video games. *Sex Roles*, 56(3), 141-148.
- Kowert, R., Festl, R., & Quandt, T. (2014). Unpopular, overweight, and socially inept: Reconsidering the stereotype of online gamers. *Cyberpsychology, Behavior & Social Networking*, 17(3), 141-146. doi:10.1089/cyber.2013.0118
- Kuznekoff, J. H., & Rose, L. M. (2013). Communication in multiplayer gaming: Examining player responses to gender cues. *New Media & Society*, 15(4), 541-556. doi:10.1177/1461444812458271
- Lynch, T., Tompkins, J. E., van Driel, I. I., & Fritz, N. (2016). Sexy, strong, and secondary: A content analysis of female characters in video games across 31 years. *Journal Of Communication*, 66(4), 564-584. doi:10.1111/jcom.12237
- Nakandala, S., Ciampaglia, G. L., Su, N. M., & Ahn, Y. Y. (2016). Gendered conversation in a social game-streaming platform. *arXiv Eprint Archive*. arXiv:1611.06459. Retrieved from <https://arxiv.org/abs/1611.06459>
- Ogletree, S.M., and Drake, R. (2007). College students video game participation and perceptions: Gender differences and implications. *Sex Roles* 56(7), 537-542.
- Park, S., Na, E., & Kim, E. (2014). The relationship between online activities, netiquette and cyberbullying. *Children & Youth Services Review*, 42, 74-81. doi:10.1016/j.childyouth.2014.04.002
- Seiler, S. J., & Navarro, J. N. (2014). Bullying on the pixel playground: Investigating risk factors of cyberbullying at the intersection of children's online-offline social lives. *Cyberpsychology*, 8(4), 37-52. doi:10.5817/CP2014-4-6
- Shaw, A. (2010). What is video game culture? Cultural studies and game studies. *Games and Culture*, 5(4), 403-424. doi:10.1177/1555412009360414
- Shaw, A. (2012). Do you identify as a gamer? Gender, race, sexuality, and gamer identity. *New Media & Society*, 14(1), 28-44. doi:10.1177/1461444811410394
- Shaw, S. M., & Lee, J. (2015). *Women's voices, feminist visions: Classic and contemporary readings* (6th ed.). New York, NY: McGraw-Hill Education.

Simpson, J. M., & Elias, V. L. (2011). Choices and chances: The sociology role-playing game—The sociological imagination in practice. *Teaching Sociology*, 39(1), 42-56. doi:10.1177/0092055x10390646

Waddell, T., Ivory, J., Conde, R., Long, C., & McDonnell, R. (2014). White man's virtual world: A systematic content analysis of gender and race in massively multiplayer online games. *Journal for Virtual Worlds Research*, 7(2). doi:http://dx.doi.org/10.4101/jvwr.v7i2.7096

Walther, J. B. (1997). Group and interpersonal effects in international computer-mediated collaboration. *Human Communication Research*, 23(3), 342-369.

Williams, D. (2003). The video game lighting rod. Constructions of a new media technology, 1970–2000. *Information, Communication & Society*, 6, 523-550.

Williams, D., Martins, N., Consalvo, M., & Ivory, J. D. (2009). The virtual census: Representations of gender, race and age in video games. *New Media & Society*, 11(5), 815-834.

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