

CAN'T FIX WHAT YOU CAN'T SEE: PERCEPTIONS OF INEQUALITY IN THE VIDEO GAME INDUSTRY AND COMMUNITY

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Abstract

In this study, the questions regarding the perspectives of people about the video game industry and community are explored. Prior literature has shown that disparities of sex and gender, along with race and ethnicity, exist prevalently through the video game industry and community. This study focused on the presence or absence of diversity in gaming groups and the lack of representation or misrepresentation of women and minorities. The study also looks at the effects on those groups regarding perception of the community and personal impact. Using an online survey, this study sought to investigate any correlation between sexist and racist attitudes and their perception by different groups. This was to obtain information relating to the perpetuation of stereotypes and negative views of the video game industry and community, and possible losses because of that. The possible losses to the industry could be lack of diverse applications from these critical populations due to their experiences and perceptions, and the lack of perception from the dominant population.

Introduction

Video games have gone from an outlier of entertainment reserved for children and the less socially advantaged into a multi-billion-dollar industry within the past thirty years. Looking at pure revenue, Rob Foote writes that the video game industry is bigger than both the music and film industries combined, with 83.6 billion dollars in revenue being generated in 2014. This is compared to the 36.4 billion dollars made by the film industry, and the 15.06 billion dollars made by the music industry. Video games have evolved considerably since their inception; they allow people to explore different types of lives and stories, on a more interactive level than provided by film or television. Their online and off-line cooperation intent provides avenues of socialization and bonding across vast distances and backgrounds and allow for new ways of learning and processing information. However, seeing as video games are a human creation, they may be tainted by the negative attributes of society.

Events such as GamerGate in 2014 or controversies surrounding gaming streamers and their language during play sessions show that there is a disconnect between the ideals of gaming and the types of behaviors that take place. This study was initiated to investigate the perception of these behaviors, attitudes, and feelings within the gaming community and the wider videogame industry. The overarching research question for this study is how does the lack of representation and or/misrepresentation of women and people of color both in video games and among gamers themselves impact gaming outcomes for all in the gaming community? More specifically, does the absence of diversity in gaming networks/groups facilitate negative attitudes towards women and people of color? Also, does the lack of representation and/or misrepresentation of women and people of color in gaming communities and/or in the games themselves impact attitudes,

subjective well-being, and career interests among these groups, respectively?

Previous research in the field of social behavior and representation within video games themselves have been integral for the basis of this study. One in particular, conducted by Breuer, Kowert, Festl, and Quandt (2015) brings important information to mind. They investigated the impact of video game use on real-world attitudes relating to gender roles. Using a longitudinal methodology over 3 years, the researchers used a three-wave panel in survey form on participants in Germany. The researchers found that for both male and female participants, education negatively correlated with sexist attitudes. Age also negatively correlated, but only with the males, leading one to think that the male players became less sexist as they age. The study's main finding was that there was no significant correlation between preference of video game genre and sexist attitudes in the long-term, not necessarily contradicting previous work that found these links, because those findings mostly investigated short term views and effects. The authors also posited that cultural differences make these results difficult to extrapolate or generalize, along with the fact that there are so many different types and genres of video games.

Console first-person shooter games are a very popular source of entertainment for many gamers. As such, it is important to study the ways in which people interact within the highly competitive and high energy environments and situations that they provide. Ivory, et. al's (2017) study was focused on the actions of video game players themselves, rather than the game's possible issues. The researchers specifically focused on first-person shooters, such as *Halo: Reach* and *Call of Duty*.

This study constituted two large-scale systematic content analyses of online video game player behavior. Using different codes for the variable "utterances," (total utterances, the "seven dirty words", other strong profanity, mild profanity, total profanity, racial slurs, gender slurs, sexual orientation slurs, religious slurs, mental illness slurs, verbal aggression, direct insults, direct threats, direct accusations, direct insults, indirect threats, indirect accusations, sexual utterances, drug-related utterances, and alcohol-related utterances), the team found that profanity was high in usage, but that the number of people using racial, ethnic, sexist, etc. slurs during play was low. Specifically, 2.8% of 72 players making utterances used racial or ethnic slurs, 1.4% used a slur related to gender, and 4.2% used a slur related to sexual orientation. However, the researchers also explained that while the numbers were low in their study, a frequent gamer who is playing many different rounds with different people will come into contact with these slurs and antisocial behavior by other gamers more frequently. Finally, Ivory, et. al noted that findings could not be extrapolated to different genres, most likely because of their different goals and surrounding cultures.

Waddell, et. al's (2014) study focused on the depictions of people within video games chosen by players. The research looked at MMOs (massively multiplayer online) and representations of gender and race from various character models within four different popular video games, of the MMO genre. It is important to note that the study focuses on MMOs because of the personalization available to players. The research team also notes that players may have different goals in mind when customizing their avatars, with gender bending being an evident factor. Waddell,

et. al notes that players rates of gender bending differ between games, from 15% of users in *EverQuest* (Huh & Williams, 2008) to more than half of all male players in *World of Warcraft* (Hussain & Griffiths, 2008; Yee, Ducheneaut, Yao, & Nelson, 2011). The research team states that research shows reasons varying from “standing out” Ducheneaut (2009) to simply wanting to see an idealized version of themselves. The investigator’s research questions were: “RQ1: How frequently are male and female characters represented across massively multiplayer online games? RQ2: Does the representation of male and female characters vary between massively multiplayer online games? RQ3: How frequently are different ethnic groups represented across massively multiplayer online games? RQ4: Does the representation of ethnic groups vary between massively multiplayer online games?”.

Waddell, et. al’s (2014) research methods included recruiting five undergraduate students from a student gaming organization, who were then randomly assigned to play two out of the four MMOs (*World of Warcraft*, *Guild Wars*, *Dungeons and Dragons Online*, and *RuneScape*) the research team selected. They coded four variables in particular: gender (male, female, not applicable), race (white, black, Hispanic, Asian/Pacific Islander, Native American), number of appearances, and character type (another game user or an NPC). They found that characters without an apparent gender made up 23.74% of the total number. Of the 318 characters left, 82.08% were male and 17.93% were female. Between games, however, gender representation tended to differ, but with all showing a majority of male characters. Most of the characters who were of a human race were white, representing 43.41% of all unique characters, while black characters were at

3.84%, leaving non-human racial representation at 52.75%. Racial representation across games differed, but still left white representation with the bulk of appearances, never dipping below 30% of unique characters and 18% of total appearances. Overall, Waddell, et. al found that MMO characters tended to be male and white, similar to research on console games. Also, the only racial minority represented at all was black. They also compared representation to data on players and found that the distribution does not line up. Non-human characters were found to be more common than female or non-white characters as well.

These studies, and their information helped to form the following hypotheses:

- **H1-** Diversity in gaming groups will have a negative correlation with racist or sexist attitudes.
- **H2-** Perception of representation in the video game community and/or industry will positively correlate with feelings towards the gaming industry and community.
- **H3-** Feelings of the industry and community will positively correlate with the amount of time invested into the playing of said games.

Methods

Participants

Participants were between the recorded ages of 18-48 years of age, recruited through mostly social media advertisement on the platforms, Twitter, Facebook, and Snapchat in a version of snowball convenience sampling. None of the participants were given credit or payment for their participation.

In this study, 65 (N=65) responses in total were recorded. However, the actual number of respondents' data used was 42 (N=42). This data exclusion stemmed from the non-validity of the remaining 23 (N=23) for the following: not playing video games, not being of the target age (18-89 years of age), and not completing the survey in totality. Most respondents were Caucasian/White at 57.1% (N=24), Black/African American at 33.3% (N=14), Native American at 2.4% (N=1), Asian/Pacific Islander at 7.1% (N=3), Hispanic/Latinx at 4.8% (N=2), and Other at 7.1% (N=3). Most gamers tended to play video games on PCs, Playstation 4, Tablets/Mobile Devices, and Handheld Devices (Playstation Portable, Nintendo DS, etc.). Respective means for each were: 0.68, 0.38, 0.38, and .031.

Measures/Materials

The materials used in this study were provided via the Qualtrics online survey hosting system. The primary variables included in this study were gaming habits and preferences; racial attitudes (feeling thermometers on racial groups); sexual attitudes (attitudes towards women); and perceived diversity (gaming group/gaming industry). In addition to these variables, measures on self-esteem, thriving, perceived inclusiveness and a variety of demographics (e.g. race, sex, age, education, income) were also included.

Results

For **H1**, no statistically significant correlations were found between a gaming group's diversity and their attitudes towards different minority groups or towards women. However, while the correlations were not statistically significant, there was a positive correlation for group diversity and feelings towards Hispanic/Latinx ($r = 0.24$, $p > 0.05$, $N = 32$), Asian/Pacific Islander ($r = 0.32$, $p > 0.05$, $N = 32$), Caucasian/White

($r = 0.09$, $p > 0.05$, $N = 32$), and Native American people ($r = 0.16$, $p > 0.05$, $N = 32$). There was an observed negative correlation between group diversity and attitudes towards black people ($r = -0.00$, $p > 0.05$, $N = 32$), and women ($r = -0.24$, $p > 0.05$, $N = 32$).

Within **H2's** findings, there were a few statistically significant correlations. Gamers of color had a significant correlation between feeling as though their race was represented both in within games and the gaming industry, with thoughts of the gaming industry's overall diversity. ($r = 0.78$, $p < 0.05$, $N = 20$) and ($r = 0.78$, $p < 0.05$, $N = 20$). White gamers however had a negative correlation between these variables, however the findings were not statistically significant. Also, the correlation between whether the industry was doing a good enough job showing different types of people within their stories and gamers of color perception of their race in both games ($r = -0.77$, $p < 0.05$, $N = 20$) and the industry ($r = -0.77$, $p < 0.05$, $N = 20$) was negatively correlated.

On the basis of sex, female gamers had a statistically significant positive correlation with both their sex being represented within games and feeling that the gaming community was diverse ($r = 0.62$, $p < 0.05$, $N = 17$) and their sex being represented within the gaming industry and feeling that the gaming community was diverse ($r = 0.49$, $p < .05$, $N = 17$). The correlation for their perception of representation both in the gaming industry and community was positively correlated with feelings of the video game industry's diversity, however the results were not statistically significant. Male gamers in general had slightly negative but statistically non-significant correlation between their views on gaming industry diversity and their sex being represented in

games ($r = -0.02$, $p > .05$, $N = 23$) and a positive yet also not statistically significant correlation between their sex being represented in the gaming industry and thinking that the gaming industry was diverse ($r = 0.25$, $p > .05$, $N = 23$).

Similar to the second hypothesis, **H3** was surveyed on the basis of sex, but not race. For male gamers, there were no statistically significant correlations. Between thoughts on how diversified the gaming industry was and the amount of gaming sessions (all genres combined) per week there was a positive correlation with a score of ($r = 0.05$, $p > .05$, $N = 23$). For the gaming community and amount of gaming sessions, there was a negative correlation, with a value of ($r = -0.29$, $p > .185$, $N = 23$). There was a positive yet also non-significant correlation between thoughts on the efforts of the gaming industry diversity within their stories and the amount of gaming sessions per week, with a value of ($r = 0.26$, $p > 0.05$, $N = 22$). For female gamers, all correlations between feelings on the video game community and industry regarding diversity and representation and amount of gaming sessions per week, were all not significant, and all negative. In the same order as the correlations for male gamers, values were: ($r = -0.26$, $p > 0.05$, $N = 17$), ($r = -0.09$, $p > 0.734$, $N = 17$), and ($r = -0.08$, $p > .05$, $N = 17$).

Exploratory Findings

Along with the main findings of the study, there were other observations to note in the research proceedings. When responding to the question “How often do you hear racial, ethnic, or sexual insults during play sessions,” respondents answered with a mean score of 2.71. This is based off a 1-5 scale, which indicates that these epithets are heard just a little more than half of the time by our participants during play sessions.

Most of these insults tended to be within the first-person shooter genre, with a mean score of 0.62. The next highest were the action and fighting genres, with mean scores of 0.24 and 0.19 respectively.

Discussion

Major Findings

H1: With the current data, it seems as though having a more diverse group of friends/co-players to play video games with improves with feelings towards most critical groups (save for black people and women).

H2: Gamers of color tended to have more positive views on the video game industry’s total diversity, if they also felt as though their respective race was represented in the video games themselves, and within the gaming industry. However, the perception of race in both negatively correlated with feelings about if the industry was doing a good enough job exploring diverse casts for their stories. White gamers had negative correlations between the variables of perception of race in games and the industry, and thoughts on the industry’s total diversity. However, these results were statistically non-significant. On sex differences, female gamers had a significant positive correlation between perception of sex in the gaming industry and thoughts on the gaming community’s overall diversity. This leads the research team to assume that the higher the perception of sex in the industry, the higher the thought that the community is also generally diverse. When speaking about male gamer trends, they tended to vary and contradict one another, with most stats being non-significant, and varying in views of the gaming industry in both positive and negative directions.

H3: The third hypothesis primarily focused on investigating any correlations between

the amount of gaming sessions and views on industry efforts for diverse characters in stories, along with views of general diversity within the industry and games themselves. Male gamers had two positive correlations; for industry, general diversity and efforts for diversity in stories. However, there was a negative correlation for gaming sessions per week and general diversity in the general gaming community. Female gamers had negative correlations for all three variables, showing a difference.

Explanations

Explanations for the current findings of the hypotheses tested include:

H1: Overall, there seemed to be a positive correlation (non-significant) between gaming group diversity and feelings towards minorities. However, attitudes towards Black people and women were negatively correlated (also non-significant) with gaming group diversity. Assuming that gaming group diversity encourages growth, tolerance, and understanding of different groups is safe to say here, and with more data, the negative correlations are hypothesized to become positive.

H2: While observing the data from the testing of **H2**, the research team could not explain the differences in correlations between race, perceptions, and attitudes. Specifically explaining the negative correlation between perception of race within the video game community and industry, and thoughts about how well the industry was doing to include more diversity in its stories, it could be theorized that gamers of color possibly could see themselves within the gaming community and industry, but still sense a significant lacking within the video games' stories. However, this theory would not really hold up with increasing numbers of game

developers or community members of color correlating with a decline in attitude or thought towards the industry's diversity efforts for its stories. Male gamers conclusions were also contradictory, along with white gamers. For these reasons, explaining the findings is not deemed warranted or appropriate at this time. Female gamers had a significant positive correlation between the view of their sex being represented in the gaming industry and diversity perception of the overall community. This could be explained by female gamers extrapolating their vision of more female gamers being active within the community into more female game developers being in the industry, or vice versa.

H3: Female gamers, overall, had the most consistent findings, with negative correlations (while non-significant) along with gaming sessions per week. The hypothesis here is that increased exposure to an enjoyable hobby like gaming would make female gamers more aware of the lack of women within all three of these realms, which would contradict the offered explanation for the previous hypothesis regarding female gamers. This shows that more data needs to be collected for more conclusive evidence. Male gamers, however, had more contradictory findings. The negative correlations, however, might be explained by a noticed increase in diversity of cast in video games and members of the industry through increased or more prolonged contact with games themselves. The assumption here is that a move from the standard (white males) is more perceptible or the definition of what quantifies as "diverse" differing between white gamers, and gamers of color.

Strengths and Limitations

Because of the low number of respondents, any correlations or results found at this time are deemed to have low statistical power. Also, this low number makes the findings un-generalizable for the entire population of gamers. For example, at this current time, there were three non-binary respondents, three Asian/Pacific Islander, one Native American, and two Hispanic/Latinx. Also because of the small sample size, dividing the responses by sex, gender, and race/ethnicity showed for very few correlations with other variables or gave correlations that were difficult to interpret. For example, there was a negative correlation between respondents of color's life satisfaction and their perception of their being represented in the video game industry. However, there was a significant positive correlation between life satisfaction and respondents of color's perception of their sex being represented in the video game industry. Seeing as this data comes from respondents of color, and based off of anecdotal descriptions, one would be led to believe that gamers of color would find their life satisfaction rise or fall with their perception of their respective race being involved in the creation of video games.

Implications and Applications

Seeing as this study is still currently developing, it would be disingenuous to say that the current findings have real implications or applications. However, if many of the correlations that have been found in this iteration hold with a larger survey population, then there may be something to explore then.

Future Research

For future researchers, changes or additional questions about peoples' experiences while gaming may be sufficient. Also, a distinction between game developers responding to the survey, and gamers who do not develop

games, may be suggested. Participants who dropped out of the survey tended to do so around questions regarding number of hours and number of gaming sessions a week they had. Participants were asked to indicate these numbers themselves with individual numbers. Providing respondents to choose between a range of different times/number of sessions per week for video games may help to improve dropout rates of the study.

Conclusion

Video games have become an extremely important factor in peoples' entertainment and socialization. Due to their variety and interactivity, they are a definitive vector for the transmission of knowledge as well. While video games have their benefits, it is worth investigating how negative behaviors between people may be amplified or given a platform within these digital spaces. Along with large and mostly anecdotal controversies, previous research has concluded that sexism, homophobia, and racism do unfortunately taint the online world for gamers and may possibly be a bar for minorities and women to enter the video game community and development industry. This study sought to obtain information from gamers of all different backgrounds and their own thoughts and perceptions on these various behaviors and habits of both community members and the industry itself, in order to see if there are noticeable discrepancies in how critical populations (women and minorities) and dominant populations (white males) view these issues, or if they are even perceptible to them. As time progresses, more responses will be collected and added to the data pool, so that there may be more consistent results with better statistical power.

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