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In this issue:

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Causes of cyberbullying in multi-player online gaming environments: Gamer perceptions

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Abstract

Cyberbullying has received much attention in recent years due to a variety of resulting tragic events, including cyberbully victim suicides. However, research on cyberbullying in online gaming environments is relatively new and limited. Furthermore, existing research primarily focuses on young adolescents, leaving research gaps for analyzing cyberbullying among older gamers. This is particularly important since it is estimated that 68% of gamers are 18 years of age or older. Finally, causes of aggressive behavior, such as cyberbullying, are still unclear and cannot simply be linked to violent video games. Therefore, in order to develop strategies to mitigate cyberbullying in online gaming environments, we need to better understand what the biggest causes of cyberbullying are in this environment. This exploratory research investigates gamer perceptions regarding the causes of cyberbullying in online multi-player gaming environments. A survey was developed for this study and 936 respondents answered several open ended questions related to causes of cyberbullying in gaming environments. Content analysis of these questions revealed that gamers perceive the biggest causes are: anonymity, the cyberbully not seeing the real life effects of their behaviors, and no fear of punishment.

Keywords: cyberbullying, online gaming, aggression, MMORPG, cyber abuse, electronic bullying

1. INTRODUCTION

Cyberbullying has received much attention in recent years due to a variety of resulting tragic events, including cyberbully victim suicides. Research in this problem space began in the 1990s as technology ownership and Internet access became more ubiquitous. Cyberbullying victimization and research has increased during the last decade as social networking use has skyrocketed (Beran & Li, 2005; Kowalski & Limber, 2007; Mesch, 2009; Ortega et al., 2009;

Patchin & Hinduja, 2006; Raskauskas & Stoltz, 2007; Ybarra, 2004). Early studies on cyberbullying focused primarily on prevalence in adolescent populations (Lenhart, 2010; Patchin & Hinduja, 2006; Yardi & Bruckman, 2011).

In recent years, cyberbullying research has extended to older populations (Aricak, 2009; Dilmac, 2009; Molluzzo et al., 2012; G. Rivituso, 2012; J. Rivituso, 2014; Smith & Yoon, 2012), including cyberbullying in college and in the workplace (Bond et al., 2010; Chapell et al., 2004; Cowie et al., 2002; De Cuyper et al., 2009; Keashly & Neuman, 2010; Lester, 2009; McKay et al., 2008; Privitera & Campbell, 2009). Additionally, cyberbullying in gaming environments has been investigated (Fryling et al., 2014, 2015). However, there is still limited research addressing the connections between bullying, cyberbullying, and gaming (Qing, 2015) so further investigation is warranted.

2. PSYCHOLOGICAL IMPACT OF CYBERBULLYING

It has been well established that cyberbullying triggers social problems and impacts victims negatively psychologically and emotionally (Blair, 2003; Fryling et al., 2014; Juvonen & Gross, 2008; Patchin & Hinduja, 2006; G. Rivituso, 2012; J. Rivituso, 2014). Cyberbullying may even more profoundly negatively impact its victims than traditional bullying because the details of such bullying behavior are publicly visible to a large audience for extended periods of time, allowing the victim to be re-victimized over and over (Campbell, 2005; G. Rivituso, 2012; J. Rivituso, 2014; Strom & Strom, 2005). Therefore, it is important for research to be conducted to offer a better understanding of why it happens and develop strategies to mitigate.

While theories vary as to the cause of cyberbullying (T. Anderson & Sturm, 2007) (Bandura, 1989, 1990; Diamanduros et al., 2008), it has been found that victimization not only has long-term negative psychological effects but it can cause victims to become cyberbullies themselves (Berthold & Hoover, 2000; Fryling & Rivituso, 2013; Katzer, 2009; Wong & Xio, 2012; Ybarra & Mitchell, 2004). Some research has found that young bullying victims are more than three times as likely to become a bully than individuals that have never been bullied themselves (Berthold & Hoover, 2000).

While cyberbullying research has focused primarily on adolescents, some researchers have begun to investigate cyberbullying in college and

in the workplace. Nonetheless, there is much still left to understand about adult cyberbullying behavior since there is much less research in this area (Lester, 2009). Organizations need to consider information systems that coworkers use in the workplace, including social media platforms (e.g. Facebook, Twitter), and the possibility of cyberbullying activity that may negatively impact employees.

3. CYBERBULLYING IN ONLINE GAMING ENVIRONMENTS

While there is little research on cyberbullying in gaming environments, there are many existing theories regarding video game violence and increased aggressive behavior. This section summarizes some of that research.

Some researchers believe that violence in video games has been shown to increase hostile behavior and decrease supportive behavior (C. A. Anderson & Bushman, 2001; C. A. Anderson et al., 2007; C. A. Anderson et al., 2010; Bushman & Anderson, 2002; Hasan et al., 2013; Power, 2009). Yang (2012) found an association between male adolescent online gamers and a preference for violent games, increased hostility, and aggressive behavior.

However, other researchers report that there is simply no concrete evidence of a causal relationship between violent video games and violent behavior (Ferguson, 2010; Ferguson & Kilburn, 2010; Przybylski et al., 2014; Sherry, 2007). Whether or not violence in video games is the cause of bad behavior continues to be hotly argued in the academic literature (Bushman et al., 2010; Ferguson & Dyck, 2012) and beyond (Valleskey, 2014).

The specific aggressive behavior of cyberbullying in online gaming environments has begun to be investigated by researchers (Fryling et al., 2015; Yang, 2012). Not only has cyberbullying been found to exist in online gaming environments but it can have negative psychological effects, similarly to other types of bullying (Fryling et al., 2015).

There is research to support that repeated online gaming cyberbullying victimization of male gamers increases the likelihood of observable aggressive behavior in their non-gaming lives (Yang, 2012). Lam et al. (2013) found that students that have been a cyberbully or a cyberbullying victim were twice as likely to have been exposed to violent video games.

Recent research has looked beyond a simple casual relationship between violent video games and aggression. For example, Przybylski et al. (2014) concluded that a lack of player competence in a game environment is a cause of aggressive behavior. While this research was not specifically on cyberbullying, there are opportunities to extend the concepts to this domain.

Other research on cyberbullying has identified sexual orientation and revenge as causes of victimization (Varjas et al., 2013). If victims are perceived as exhibiting bad behavior, bullies and bystanders may justify their cyberbullying victimization (Varjas et al., 2010). There is much room to explore additional causes of cyberbullying.

Research on cyberbullying in online gaming environments is relatively new and limited. Furthermore, existing research primarily focuses on young adolescents, leaving research gaps for analyzing cyberbullying among older gamers. This is particularly important since it is estimated that 68% of gamers are 18 years of age or older (MediaCT, 2013). Finally, causes of aggressive behavior, such as cyberbullying, are still unclear and cannot simply be linked to violent video games. Therefore, in order to develop cyberbullying mitigation strategies for online multi-player gaming environments, we need to better understand what the biggest causes of cyberbullying are in this somewhat unique and under-researched environment.

4. METHODOLOGY

This exploratory research investigates gamer perceptions regarding the causes of cyberbullying in online multi-player gaming environments.

A survey was developed by the researchers and it included questions from previous cyberbullying studies (Molluzzo et al., 2012; Smith & Yoon, 2012), in addition to questions specifically developed to address research objectives. Respondents were asked several open ended questions related to causes of cyberbullying in gaming environments.

The survey was pilot tested by a small group of online gamers prior to releasing and minor modifications were made based on feedback from the pilot testers. The final survey consisted of 42 questions, including demographics and several questions related to perceptions regarding potential cyberbullying mitigation strategies.

This paper presents the content analysis of an open-ended question which asked participants "What would you say are the biggest causes of cyberbullying within multi-player video games?" In addition, the results from one multi-answer question "Why do you think cyberbullying behavior within multi-player games occurs" containing nine categories are offered.

Population and Sample
The survey was distributed via an online gaming forum that hosted 564,166 total members and was completed by 1033 respondents. Of these respondents, 936 responded to the open-ended question "What would you say are the biggest causes of cyberbullying within multi-player video games?" and were used in the analysis presented in this paper. Participation was encouraged in two ways. First, forum members were presented with the survey link immediately upon login and respondents were offered a chance to win a $50 Amazon gift card. These two factors likely encouraged the high response rate.

The forum's gender distribution was approximately 62% female and 38% male. This distribution was similar to the sample used for this analysis (i.e. less than 1% difference). The average age of respondents was 22 with 73% of respondents reporting that they are 18 or older.

Results

Cause	Overall
Anonymity online	805 (86%)
The Cyberbully does not see real life effects on other players	713 (76%)
No fear of punishment	681 (73%)
Cyberbully crave attention	605 (65%)
No punishment for cyberbullying behavior available	524 (56%)
Cyberbully have stress anxiety and/or depression that is causing them to act out	432 (46%)
Cyberbully need to take out frustrations from being bullied themselves in real life	424 (45%)
Not enough methods to deal with it	285 (31%)
Too much freedom online	281 (30%)

Table 1: Results from multiple selection question "Why do you think cyberbullying behavior within multi-player games occurs?"

The results from the multi-answer question "Why do you think cyberbullying behavior within multi-player games occurs" presented in Table 1 show

that the highest percentage of participants reported anonymity (86%), the cyberbully not seeing the real life effects of their behaviors (76%) and no fear of punishment (73%) as causes of cyberbullying.

To supplement these findings a content analysis was performed on the 936 responses to the open ended question "What would you say are the biggest causes of cyberbullying within multi-player video games?" To start, two coders independently developed a code dictionary based on the literature and frequent word analysis of the survey responses and performed the initial coding of the a sample of 100 (11%) responses. This process yielded an 81% agreement between the coders. The coders then refined the coding dictionary (Appendix A) and completed another pass of 100 responses, this time yielding a 96% agreement, exceeding the suggested final intercoder agreement for qualitative data analysis of over 90% (Miles & Huberman, 1994). The rest of the responses were then systematically analyzed using NVivo 11 (QSR International) with the goal of gaining a deeper understanding of the participants' perception of the causes of cyberbullying specific to online gaming environments.

As shown in Table 2 (see Appendix A for full results), and somewhat similar to the multi-answer question, the most frequently cited reason for cyberbullying in online gaming environments is anonymity followed by personal character and then the lack of consequences. Twenty-four percent of the respondents mentioned anonymity in their response to this question. One participant reported that "Anonymity causes the illusion of no consequences creating (in the cyberbulliers opinion) a lawless environment where they can do whatever they want" while another participant expressed a deep concern surrounding anonymity citing that "I think it's because no one really knows who is who so the anonymous cyberbully can't really be identified. They don't really have anything to lose within a game." While others expressed concern by saying "The idea that you could be playing against anyone at any time is really quite frightening. The internet has grown so big that it is "unpoliceable" now." Other participants offered personal accounts of the impact of anonymity on cyberbullying and shared the following comments:

> I would say the biggest cause of cyberbullying within multi-player video games is the fact that most of the players who play online do not know each other in real life. I know this

for a fact, because my own relatives who play multi-player games are cyberbullies. They will ridicule and verbally abuse some person for not having as high of a score as them and place no boundaries as to what they say to them verbally, because they don't know the person so it doesn't matter to them. It's hard to convince them to stop, too, because they don't care whether they hurt someone they don't know (they don't feel it will affect their lives afterwards so they don't care).

> Lack of accountability in an anonymous environment. Someone actually said to me 'I don't have to be nice because it is online and doesn't count in real life'.

Eighteen percent of the respondents reported that it was the cyberbully's character that caused this behavior citing that "…lack of compassion, lack of understanding about others, selfishness" as well as "there are some people that just enjoy harassing others" as reasons for cyberbullying. Another participant said:

> Some people are just complete and utter inconsiderate innates who have not been taught properly, or rather have not learned properly on how to be respectful and polite to fellow people. These people troll and cyberbully often, perhaps, since they do not realize that it actually can hurt another person's feelings.

Sixteen percent of the respondants mentioned the lack of consequences as a reason for cyberbullying behavior in online gaming environments. Upon personal reflection one participant offered that:

> There is no accountability! I can call people names (or others can do the same to me), demeaning them for their sexual orientation, race, accent, GENDER, whatever. These are things I don't truly believe, but it doesn't matter because someone made me angry and I have no accountability to anyone on the internet. This is the truth I am ashamed of and want to commit to changing."

Others spoke of the lack of impact of not having any real consequences by stating "… the lack of 'real' consequences. Being banned from a game doesn't have the same impact that an arrest makes in real life for similar actions." Another participant shared that bad behavior is encouraged due to not having consequences by saying:

> There are no consequences. Cyberbullies are

free to do as they will, and they often are encouraged and receive praise from trolls. Victims are bullied more by the general trolls. Bad behavior is encouraged and applauded. It's been that way for years now.

Reason	Percentage Responding	Sample Quotes (Some excerpted)
Anonymity	248 (24%)	"The act of "trolling" is now the "in" thing." "The anonymous feeling people get makes them feel powerful." "I think people just get confident when their names and faces aren't attached to their words."
Character	169 (18%)	"People who ignore the rules of decency and courtesy online, and feel that since no one can "get them", they can get away with anything they want." "People just being jerks. Gaming and nerd culture is seriously jacked up right now in general."
No Consequences	147 (16%)	"People feel like they can do whatever they want because no one knows who they are." "People say

Reason	Percentage Responding	Sample Quotes (Some excerpted)
		things and do things they might not in real life- it's an outlet and there are no real consequences."

Table 2: Top three reasons cited for cyberbullying

5. DISCUSSION

Only 424 or 45% of participants in the multi-answer question and 31 (3%) of the participants responding to the short answer question support the findings of (Berthold & Hoover, 2000; Fryling & Rivituso, 2013; Katzer, 2009; Wong & Xio, 2012; Ybarra & Mitchell, 2004) in that being a cyberbully victim is a cause for bullying behavior in online gaming environment. However, 53 (6%) of the participants cited that the game design was a cause of cyberbullying which support the research of (C. A. Anderson & Bushman, 2001; C. A. Anderson et al., 2007; C. A. Anderson et al., 2010; Bushman & Anderson, 2002; Hasan et al., 2013; Power, 2009). Participants citing the game design and game company as a contributing factors of cyberbullying state that the games are designed in a way that encourages cyberbullying as a comeptitive advantage. Furthermore, one participant states that "The owners/programmers either allow for it, refuse to deal with complaints and in some cases engage in it themselves" and "Gaming companies are a big cause." Another study participant shared the perspective that having "sides" encourages cyberbullying by saying:

The implementation of "sides" in MMO's [Massively Multi-Player Online games] and open world combat was the stupidest thing they have ever done. In World of Warcraft, I am hunted down and killed repeatedly just because they can get a few points out of me for better items and gear. And then harassed if I call in my guild to back me up. If they got rid of the open world combat and being able to kill anyone who isn't on your "side" outside of pvp [player(s) versus player(s)] arenas. I quite WoW [World of Warcraft] because of being bullying by the "other side" and haven't gone back in fear of not being able to enjoy the game. I'm not a pvp person and you shouldn't have to be forced to pvp if you don't want to.

As previously discussed, Przbylski et al. (2014) found that the lack of play competence independent of the game design as a cause of aggressive behaviors. Expanding on this work, in this study 90 (10%) of the participants surveyed indicated that a player with a novice skill level attracted cyberbullying attention in gaming environments. Participants in this group cited that players classified as "NOOBS" along with newbie's are easy and frequent targets for cyberbullying. It should be noted here, that there is a distinction between the terms. NOOB's are characterized as "knowing little without any desire to learn more" (Urban Dictionary, 2016). However, a newbie is a beginner who is willing to learn and improve. One participant cited that "especially if they are new to the game they are generalized into the 'noob' category", while another participant shared that "If your new to the game, a PoC [Person of Color], or a sexuality other then straight, then you will most likely be bullied." Two repondents added "People who have more experience points pick on the newbies" and "The strong picking on the weak because they like that feeling of power." Finally, another respondent stated:

> The bully feels like they are hidden behind the internet, and they can take out their anger or feelings of superiority onto people they feel are "less worthy" or less experienced. Because advanced players can remain anonymous, they often bully weaker or newer players for the sake of fun and in-game rewards.

Limitations
All respondents were members of the Animal Crossing Community. While forum members report playing a wide variety of online games, it is hard to know if this population accurately represents the general online gaming population. The age and gender distributions of the Animal Crossings Community forum (62% female; Average age 22) is not the same as the online gaming populations (45% female; average age 30) (MediaCT, 2013). Additionally, as with all anonymous surveys, it is also unknown if respondents were completely truthful in their responses.

While there are a few generally accepted cyberbullying definition variations, the gaming environment is unique and may not align well with those definitions. Therefore, the respondents were asked to answer the survey questions based on what they perceive as cyberbullying in the gaming environment.

Future research will include additional analysis of the existing survey data to better understand the causes of cyberbullying in gaming environments, perceptions regarding what constitutes cyberbullying, and mitigation strategies. Further, the survey may be distributed via other channels. This may increase the diversity of respondents and reduce any unknown bias members of the Animal Crossing Community gaming forum may have.

6. CONCLUSIONS

This study sought to better understand the causes of cyberbullying in online gaming environments so that mitigation strategies can be developed and implemented. The analysis presented here revealed that gamers perceive the biggest causes are: anonymity, the cyberbully not seeing the real life effects of their behaviors, and no fear of punishment.

This study's findings extend existing research by exploring causes of cyberbullying in online gaming environments, including adult gamer populations. Future research can include developing strategies to help mitigate the three biggest causes of cyberbully, reported in this study. These mitigation strategies can include both technical implementations and policy enhancements. Once implemented in a gaming environment, cyberbullying activities can be re-evaluated to confirm the study's findings and access the value of these strategies.

7. ACKNOWLEDGEMENTS

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Appendix A: Coding Dictionary

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What are the biggest causes of cyberbullying within multi-player video games?		
Percentage	**Code**	**Description**
45 (5%)	accepted behavior	This is accepted behavior, bullying in gaming environments has become the norm.
44 (5%)	anger	The player exhibits cyberbullying behavior because of anger.
248 (26%)	anonymity	Cyberbullying is caused because the person's name is unknown.
4 (0%)	anonymity -> leading to feeling of untouchable	In situations where the cyberbullies name is unknown gives the feeling of being untouchable
22 (2%)	arrogance	The player exhibits cyberbullying behavior because of arrogance.
34 (4%)	attention seeking	The player exhibits cyberbullying behavior as a way to gain attention.
31 (3%)	being a victim of bullying	The player exhibits cyberbullying behavior because of being a victim.
10 (1%)	bias	The player exhibits cyberbullying behavior because of some sort of bias.
14 (1%)	bias/age	The player exhibits cyberbullying behavior has an age bias.
53 (6%)	bias/gender	The player exhibits cyberbullying behavior has a gender bias.
24 (3%)	bias/race	The player exhibits cyberbullying behavior has a race bias.
63 (7%)	boredom	The player exhibiting cyberbullying behavior is bored.
34 (4%)	can't see effects	The player exhibits cyberbullying behavior because of not seeing the effects on the person being bullied.
169 (18%)	character/ respect/ unethical	The persons' character, not caring or understanding the harm caused, or lack of respect of others is the cause of the bullying behavior.
69 (7%)	competition	The player exhibits cyberbullying behavior as a result of being competitive.
8 (1%)	confidence	The player exhibits cyberbullying behavior because of high levels of confidence.
6 (1%)	depression	The player exhibits cyberbullying behaviors because of depression.
27 (3%)	don't know	The participant responded with: I don't know
44 (5%)	frustration	The player exhibits cyberbullying behavior due to frustration.
53 (6%)	game design	The player exhibits cyberbullying behavior due to the design of the game.
3 (0%)	high self-esteem	The player exhibits cyberbullying behavior due to a high level of self-esteem.
8 (1%)	ignorance	The player exhibits cyberbullying behavior due to ignorance.
17 (2%)	lack of moderators	The player exhibits cyberbullying behavior due to lack of moderators.
4 (0%)	lack of self-control	The player exhibits cyberbullying behavior due to lack of self-control.
56 (6%)	low self esteem	The player exhibits cyberbullying behaviors due to low self-esteem.
69 (7%)	maturity	The player exhibits cyberbullying behavior due to a lack of maturity.
147 (16%)	no consequences	The player exhibits cyberbullying behavior due to lack of consequences.

6 (1%)	no one reporting	The player exhibits cyberbullying behavior due to no one reporting.
8 (1%)	not educated in what cyberbullying is	The player exhibits cyberbullying behavior due to lack of education of what cyberbullying is.
90 (10%)	novice player/NOOB	The player exhibits cyberbullying behavior due to the novice ability level of the player. The player exhibits cyberbullying behavior due to the novice ability of the player along with the lack of desire to learn.
5 (1%)	personality	The player exhibits cyberbullying behavior is cause by personality factors.
13 (1%)	personality -> aggressive	The player exhibits cyberbullying behavior due to aggression.
56 (6%)	power	The player exhibits cyberbullying behavior due to the desire for power.
7 (1%)	real life bully	The player exhibiting cyberbullying behavior is a real life bully.
121 (13%)	real life personal issues	The player exhibiting cyberbullying behavior has real life personal issues.
9 (1%)	too sensitive	The victims of cyberbullying are too sensitive.
11 (1%)	too serious	The reason players exhibiting cyberbullying behavior is due to taking the game too seriously.
47 (5%)	unsupervised	The reason there is cyberbullying is due to unsupervised minors.