Parental Regulation and Online Activities: Examining factors that influence a Youth's potential to become a Victim of Online Harassment

Robert Moore[1]
Troy University, USA

Naga Tarun Guntupalli[2]
Troy University, USA

Tina Lee[3]
University of Tennessee – Martin, USA

Abstract
Online harassment has been defined as an overt act of aggression committed against a person through use of a variety of online communication tools (i.e. e-mail, website, etc.). The current study examined adolescent Internet-related behaviors and parental regulations to determine which, if any, factors influenced a young person's reporting of online harassment victimization. The results of this analysis revealed that adolescent females were more likely to report being a victim of online harassment. There were no differences in the victimization reporting among youths based on race and family income. In examining the Internet behaviors that were found to influence online harassment victimization, youths who used the Internet to engage in instant messaging, chatting, blogging, and downloading music files were more likely to report online victimization. Factors related to parental regulation of Internet use were found to have no effect on a respondent reporting victimization from online harassment. Possible explanations for these findings are discussed, as are recommendations for future research in this emerging area.

Keywords: Online harassment, Cyber bullying, Harassment, Internet Crime.

Introduction

Interest in research related to Internet-based deviance has increased dramatically over the last decade. One area in which interest has increased equally among both academics and practitioners alike is the realm of online harassment, which is sometimes referred to as cyberbullying. With some estimates claiming that as many as 97% of all youth use the Internet on a regular basis (Ybarra & Mitchell, 2007), it is easy to understand why the topic is gaining interest. It is believed that these

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[1] Assistant Professor of Criminal Justice, Division of Criminal Justice and Social Sciences, Troy University, Troy, Alabama, United States of America. Email: RMoore8668@troy.edu
[2] Graduate Assistant, Division of Criminal Justice and Social Sciences, Troy University, Troy, Alabama, United States of America. Email: Nguntupalli@troy.edu
[3] Assistant Professor of Criminal Justice, Department of Sociology, Anthropology, Social Work and Criminal Justice, University of Tennessee – Martin, Martin, TN, United States of America. Email: Tlee@utm.edu

youths are using the Internet for playing games and communicating with friends (Ybarra & Mitchell, 2004b; Subrahmanyam & Greenfield, 2008), maintaining online blogs concerning their lives and interests (Mitchell, Wolak, & Finkelhor, 2008), and using social networking sites to develop and maintain relationships (Ybarra & Mitchell, 2008; Dilmac, 2009). Each of these behaviors could potentially lead a young person to encounter harassment or bullying. The Internet behaviors of young people could potentially cause them severe harm, with some recent media reports linking cyberbullying and online harassment to suicide-related deaths and attempted suicides among juveniles (Bhat, 2008; Ruedy, 2008).

In discussing online harassment and cyberbullying it is important to understand what is meant by the terms. Hinduja and Patchin (2008) define cyberbullying as "willful and repeated harm inflicted through the medium of electronic text" (p.131), while Ybarra and Mitchell (2004) define online harassment as "an overt, intentional act of aggression towards another person online" (p.1308). For purposes of the current work the term online harassment will be used, but it should be noted that studies in this area have used the terms interchangeably, with the exception being Wolak, Mitchell, and Finkelhor's (2007) argument that online harassment does not meet the traditional definition of bullying because of an absence of repetition and a lack of physical aggression in terms of the online behaviors. The current work seeks to add to an emerging body of literature by examining several Internet-related activities and parental regulation behaviors in order to determine whether these factors influence the likelihood of a youth indicating that they have been a victim of online harassment. Before examining the current analysis, however, it is important to briefly examine the literature on online harassment and the various factors that have been found to influence online victimization.

Past Studies of Online Harassment

Past studies on the frequency of online harassment have found differing rates of victimization and offending. For example, Bhat (2008) reported that studies of Australian youth indicated as many as 42% of youth had been harassed online, while Hinduja and Patchin (2008) found that 36% of girls and 32% of boys indicated that they have been victims of online harassment. Wolak, Mitchell, and Finkelhor (2007) were more conservative in their findings, indicating that approximately 9% of their nation-wide sample indicated that they had been victimized by online harassment. These differences could be attributable to sampling methodologies but it also just as likely that these differences could be attributed to what Wolak, Mitchell and Finkelhor (2007) discussed as a lack of "standard definitions of online harassment" (p. S51).

With the increasing numbers of youth moving their activities to the Internet there is believed to be a growing number of potential victims being introduced to the technology every day (Gillespie, 2006). Keith and Martin (2005) noted that parents have begun providing cellular telephones to their children in an effort to make them more accessible and better prepared to handle emergency situations. In the course of doing this, however, they may have unintentionally provided a new tool to be used in the electronic harassment of their child or someone else's child. While historically online harassment may have been viewed as a nuisance or a mere inconvenience there is a growing acceptance that online harassment may move beyond mere annoyance and actually cause serious psychological harm to youthful victims, up to and including a deterioration of their physical health (Ybarra & Mitchell, 2004; Wang, Iannotti, & Nansel, 2009). Shariff (2005) has noted that cyberbullying and online harassment may even sometimes be viewed as more traumatizing than offline harassment. The argument is that an individual who is victimized in person may be embarrassed or become upset, but at least the victim knows who has harassed them and they have an awareness of who witnessed the incident. With online harassment the identity of

the perpetrator may be unknown and the number of witnesses may be in the millions, depending on which website or web forum is involved in the harassment of the victim (Shariff, 2005).

These authors would add an additional consideration given that online harassment involving the posting of a harassing comment, picture or video may result in recurring victimization in the sense that the image or comment may never be completely removed from the Internet. Therefore, years after the initial incident a person could still suffer from harassment associated with posting harassing materials on the Internet. Perhaps the best example of this would be Ghyslain Raza, the Canadian teenager whose filmed version of himself portraying a Star Wars Jedi knight engaged in a light saber fight (while holding a golf ball retriever as his weapon) was uploaded to the Internet. As a result of this video Raza was labeled 'The Star Wars Kid," and was on the receiving end of numerous criticisms and embarrassing parodies of his activity. The young man reportedly suffered from such severe emotional distress that he was forced to withdraw from school and seek treatment at a juvenile psychiatric facility (Auerbach, 2009). In considering the timelessness of the Internet, the video was uploaded in 2003 and is now over 7 years old. However, the video is still occasionally encountered on television programs that conduct countdowns of the more popular Internet videos to be viewed or downloaded – most of which include comedians or commentators making crude comments about the young man. One could easily argue that Raza is still being harassed almost a decade later, and while his original harassers may have forgotten the incident there appears to be a number of comedians and television hosts who continue to take their place.

This is not to say that all victims of online harassment will respond in a similar manner. Cassidy, Jackson, and Brown (2009), found that 91% of youth who encountered online harassment indicated little or no fear associated with the behavior. Interestingly enough 42% of the respondents in their study indicated that cyberbullying and online harassment had become a routine part of online communication, and as such they did not maintain much fear that the behavior would carry over into their offline activities. More troublesome was perhaps their finding that 32% of these youth indicated that they saw nothing wrong with online harassment, although many of the respondents did indicate that if the behavior was going to be addressed then the best approach would be for school districts to develop education and awareness campaigns. Agatston, Kowalski, and Limber (2007) found that female students, more than their male counterparts, viewed cyberbullying as a problem but did not often report victimization to teachers or educators. Their reasoning for not reporting the harassment was that the majority of the behaviors reportedly occurred after the school day had ended, and as such was not a problem for the school to handle and was not perceived as serious enough for law enforcement to become involved. Any harassment that occurred during the day was primarily committed by cellular phone – an electronic device that the students were not supposed to have in their possession while on the grounds of the school. Therefore, reporting the harassment would have required admitting that the victim was violating school rules as well.

The lack of concern for online harassment in the above studies is troubling and perhaps indicative of a dangerous shift in attitude towards the acceptance of such behaviors. Dilmac (2009) found that 22.5% of surveyed youth indicated that they had engaged in cyberbullying or online harassment at least once in their lifetime, with 87% of these individuals claiming to have first been a victim of online harassment themselves. Ybarra and Mitchell (2007) found similar results with 29% of respondents indicating that they had harassed someone online within the last year, with 82% of these harassers indicating that they were victims of online harassment prior to their becoming a perpetrator of the behavior. Should these trends continue then it would not be inconceivable for the problem to continue to increase in frequency as more and more online opportunities are presented to young people.

One final factor worth examining involves the impact race and gender has had on past studies of harassment behaviors. Researchers have found differing results in terms of which youth are more often victims of online harassment or cyberbullying. Li (2006) and Hinduja and Patchin (2008) found no significant differences between the rates of victimization when comparing male youth with female youth. However, Dilmac (2009) and Kowalski and Limber (2005) found that a greater percentage of females were victimized by cyber bullies. Hinduja and Patchin (2008) also noted no differences in victimization when considering for race of the youth, while other studies either found similar results or did not include race as a variable in their analysis. These studies are excellent foundations for future research on differential experiences with online harassment when considered for gendered and racial differences. With that being stated, these early studies have certainly indicated that there are some interesting differences between victims of online harassment and victims of traditional victims of school-yard bullying. It would appear that each of these past studies agree that victims, and sometimes perpetrators, of cyberbullying and online harassment may be more diverse than victims of more traditional forms of bullying.

If the problem of online harassment is so great, and the frequency of the behavior is increasing, then the question becomes one of what can be done to prevent the behavior. With an increased number of online harassment and cyberbullying incidents being reported in the media there are some organizations that have developed recommendations for preventing victimization. The U.S. Department of Health and Human Services has released several recommendations through a website developed by the Health Resources and Services Administration (HRSA). These recommendations for parents include: 1) keeping home computers in public family rooms, 2) have rules about Internet use and consequences, 3) monitor your child's online communications, and 4) install monitoring programs on children's computers (HRSA, 2010). Hinduja and Patchin (2008) have recommended the use of filtering programs to monitor activity, but have also noted that communication between parent and child should also be used to prevent victimization. Others have recommended that school personnel such as resource officers become more involved in prevention and awareness given that many harassment situations may begin at school (Wolak, Mitchell, & Finkelhor, 2007). All of these individuals, however, agree that none of the above recommendations are likely to be effective if they are used alone. Instead a program that combines these factors with increased awareness and education of potential victims has been mentioned as a possible solution.

The Current Study

Data for the current analysis was obtained from the Pew Internet and American Life Project. The data making up the dataset was collected from October to November of 2006 as a part of Pew Internet's Teens and Internet project. The data was collected by Princeton Data Source, LLC and was part of a nationwide telephone survey. Interviewers initially obtained 3514 cooperating households to be considered for inclusion in the data collection procedures. However, of that 3514 households only 1182 households were determined to be eligible for inclusion in the survey. Reasons for exclusion included lack of an adult in the household, difficulty in obtaining someone in the household who could overcome a language barrier and the absence of a child between the ages of 12 and 17 in the household. Of these 1182 households, 935 households were able to provide meaningful data by completing the entire survey without interruption.

Questions asked of respondents were designed to collect data on the parents' age, race, sex, marital status, and education level. Additionally, each parent who took part in the survey answered a series of questions on geographic location, the numbers and types of computers in the residence, the location of these computers, the presence of rules for Internet usage, and the types of Internet

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filters or Internet monitoring programs in operation on these computers. Questions asked of youth included requests for information related to the kids' age, gender, race, number of electronic communication devices used, activities engaged in while online, experience with various online harassment behaviors, and what type of information they made available to others on their web pages and social networking websites.

The data for this survey was collected and analyzed using a variety of descriptive statistical analyses in the Pew Internet and American Life's report "Cyberbullying" (Lenhart, 2007). For the purpose of the current analysis the dataset, made available to us in SPSS format, had to be recoded for more advanced analysis. Many of the questions were worded and answered in a format designed to elicit "yes" or "no" responses. These responses were converted into a series of dichotomous variables (0 = no, 1 = yes). Several questions asked respondents to respond "yes" or "no" to a selection of questions that were closely related. For example, one question asked respondents to indicate whether or not they: owned a computer, owned a laptop, owned a cellular phone, or owned a Smartphone device (i.e. Blackberry, iPhone, etc.). Each individual question was converted to a dichotomous variable (0 = no, 1 = yes) and a sum variable, labeled "Computers Used" was created, with values ranging from 0 to 4 – each yes answer to the aforementioned technology ownership questions increased the "Computers Used" variable by a value of 1. Higher values for this variable were indicative of a respondent who utilized multiple forms of computer technology in their Internet activities. By recoding the data in this format the current analysis was able to move beyond descriptive analyses to include a series of logistical regression models designed to examine which factors associated with demographic variables, parental regulation of Internet activities, and actual Internet activities influenced a respondent's likelihood of reporting online harassment victimization.

In determining whether or not a respondent was a reported victim of online harassment, participants were asked a series of questions relating to whether or not they had experience with: 1) someone spreading a false rumor about them online, 2) someone posting an embarrassing picture of them on the Internet, 3) someone sending the respondent a threatening or aggressive electronic communication, or 4) someone spreading a private and embarrassing communication to others without permission. Each of these questions were converted to a dichotomous variable (0 = No and 1 = Yes). A new dichotomous variable labeled "Online Harassment Victim" was created and coded with a "0" if the respondent had experienced none of the aforementioned behaviors and with a "1" if the respondent had experienced any of the aforementioned behaviors. The questions asked by Pew Internet and American Life, as well as the use of dichotomous variables for logistic regression analyses, were consistent with the methods employed in other studies of online harassment and cyberbullying (see Marcum, 2009; Mitchell, Wolak, & Finkelhor, 2008; Hinduja & Patchin, 2008).

Results of the Current Analysis

In examining the youth respondents in the study, 94.8% (n = 886) indicated that they used the Internet, with 90.3% (n = 844) of the respondents' parents also identifying themselves as Internet users. Respondents were relatively equal in terms of gender, with 50.4% (n = 471) being male and 49.6% (n = 464) being female. The majority of respondents indicated their race as being White (84.7%, n = 789), while the remaining respondents were 6.8% (n = 63) Black, 5.5% (n = 51) Hispanic, and 3.1% (n = 29) classified themselves as Other. The median age for youth surveyed was 15 years of age, with the youngest respondent being 12 and the oldest being 17. When examining other demographic variables, the majority of respondents indicated that they lived in suburban communities (51.8%, n = 484) with family incomes less than $75,000 (50.9%, n = 476).

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In terms of online harassment victimization, the majority of respondents indicated that they had not been harassed online (71.3%, n = 667), while the remaining 28.7% (n = 268) indicated that they had experienced at least one behavior indicative of online harassment. For more detailed information on these demographic data please see table 1 below.

Table 1: Demographic Data for Respondents

Variable	n	%	Variable	n	%
Gender:			Age:		
Male	471	50.4	12	140	15.0
Female	464	49.6	13	134	14.3
			14	157	16.8
Race:			15	149	15.9
White	789	84.7	16	183	19.6
Black	63	6.8	17	172	18.4
Hispanic	51	5.5			
Other	29	3.1	Community Type:		
			Rural	221	23.6
Income:			Suburban	484	51.8
Less than $10,000	20	2.1	Urban	230	24.6
$10,000 to under $20,000	30	3.2			
$20,000 to under $30,000	60	6.4	Adult Internet User:		
$30,000 to under $40,000	90	9.6	No	91	9.7
$40,000 to under $50,000	91	9.7	Yes	844	90.3
$50,000 to under $75,000	185	19.8			
$75,000 to under $100,000	164	17.5	Child Internet User:		
$100,000 or more	204	21.8	No	49	5.2
Refused Answer	91	9.7%	Yes	886	94.8
Parents Married:					
No	193	20.6			
Yes	741	79.3			
Refused	1	.1			
Victim of Online Harassment:					
No	667	71.3			
Yes	268	28.7			

Next, a series of cross-tabulations were conducted to examine online harassment victimization when considering for the variables race, age, gender, and family income. The results of these cross-tabulations revealed that there was a significant difference when comparing reported victimization of males versus females. Thirty five percent of female respondents (n = 161) indicated that they had been victims of online harassment when compared with 22.7% (n = 107) of male respondents ($X^2_{.05(1)}$ = 16.408, p < .001). There were no significant differences in harassment victimization when comparing respondents' race ($X^2_{.05(3)}$ = .314, p = .957) or respondents' family income levels ($X^2_{.05(8)}$ = 5.872, p = .662).

In examining respondents' age and online victimization, significant differences were found among respondents. Generally, older respondents in the current analysis were more likely to report being a victim of online harassment than were their younger counterparts. Specifically, respondents

who were 15 and over indicated greater levels of online victimization than did respondents between the ages of 12 and 14. Thirty eight percent (n = 57) of 15 year old respondents indicated that they had been a victim of online harassment, 29.5% (n = 54) of 16 year olds respondents indicated that they had been a victim of online harassment, while 32.6% (n = 56) of 17 year old respondents indicated that they had been a victim of online harassment. Only 18.6% (n = 26) of 12 year old respondents, 25.4% (n= 34) of 13 year old respondents, and 26.1% (n = 41) of 14 year old respondents indicated that they had been victims of online harassment ($X^2_{.05(5)}$ = 16.225, p = .006). For more information on these analyses please see table 2 below.

Table 2: Cross-tabulations of Victimization by Gender, Race, Age, and Income

	No n = 667	Yes n = 268	Chi–Square	p
Gender:				
Male	45.4	22.7		
Female	54.6	34.7	16.408	.000★★★
Race:				
White	71.0	29.0		
Black	71.4	28.6		
Hispanic	74.5	25.5		
Other	72.4	27.6	.314	.957
Age:				
12	81.4	18.6		
13	74.6	25.4		
14	73.9	26.1		
15	61.7	38.3		
16	70.5	29.5		
17	67.4	32.6	16.225	.006★★
Income:				
Less than $10,000	80.0	20.0		
$10,000 to under $20,000	63.3	36.7		
$20,000 to under $30,000	73.3	26.7		
$30,000 to under $40,000	70.0	30.0		
$40,000 to under $50,000	80.2	19.8		
$50,000 to under $75,000	70.8	29.2		
$75,000 to under $100,000	69.5	30.5		
$100,000 or more	70.1	29.9		
Refused Answer	70.3	29.7	5.872	.662

All values reported are percentages
★ significant at .05 level   ★★ significant at .01 level   ★★★ significant at less than .001

Finally, a series of logistic regression models was created to examine the impact various demographic variables, parental regulation factors, and Internet-related activities had on respondents' harassment victimization. In examining demographic variables the only significant predictor of online victimization was gender, with female respondents being 1.7 times more likely to report being a victim of online harassment (Odds Ratio = 1.752, p = .007). Race and Income, two other demographic variables normally discussed in the online harassment literature, were found to be non-significant in the current models. In

examining factors associated with regulation of household computers, the number of computers owned was found to be a significant predictor of online harassment in the second model. However, this variable was found to be non-significant in the final model, which included a variety of Internet activities (Odds Ratio = 1.159, p = .233). However, the other regulatory variables such as: having monitoring programs installed on the computer, having Internet filters installed on the computer, maintaining and enforcing rules associated with Internet use, and the presence of parental oversight were not found to be significant variables in either of the models these variables were included in.

The final logistic model included a series of Internet activities that were examined for their influence on the reporting of online harassment victimization. Four variables were found to be significant predictors of the increased likelihood of adolescent exposure to online harassment. Respondents who used instant messenger programs were 2.9 times more likely to report being a victim of online harassment (Odds Ratio = 2.951, p = .001), while respondents who used chat software or engaged in online chat room sessions were 2.1 times more likely to indicate victimization (Odds Ratio = 2.151, p = .003). Another online communication activity, which involves maintaining an online blog, was found to be a significant predictor of online harassment with respondents who engaged in the activity being 1.3 times more likely to report being a victim of online harassment (Odds Ratio = 1.388, p < .032). Downloading music was the fourth Internet activity found to increase the likelihood of victimization, with respondents who downloaded music being 1.7 times more likely to report being a victim of online harassment (Odds Ratio = 1.742, p = .015). For more information on these analyses please see table 3 below.

Table Three: Logistic Models for Online Harassment Victimization

	Model One			Model Two			Model Three		
	B	S.E.	O.R.	B	S.E.	O.R.	B	S.E.	O.R.
Constant	-2.585	.858	.075	-2.501*	1.037	.082	-2.901*	1.156	.055
Demographic Variables:									
White	.036	.282	1.037	.094	.286	1.098	.154	.319	1.166
Income greater $75,000	.117	.184	1.124	.077	.193	1.080	.229	.213	1.257
Female	.699***	.185	2.011	.714***	.188	2.042	.561**	.209	1.752
Youth Age	.093	.056	1.097	.058	.060	1.060	-.008	.070	.992
Parental Regulation:									
Number Computers Owned				.316**	.112	1.371	.148	.124	1.159
Presence Monitor Program				-.223	.208	.800	-.314	.225	.730
Presence Filter Program				.199	.215	1.221	.210	.231	1.234
Rules for Computer Use				-.108	.117	.898	-.128	.124	.880
Computer in Private Area				.131	.174	1.140	.158	.167	1.171
Parental Check after Use				.173	.199	1.188	.150	.212	1.162
High Speed Internet				-.060	.242	.941	-.194	.262	.824
Online Activities:									
Shop Online							-.279	.207	.756
Browse Informational Websites							.143	.124	1.154
Use Instant Messenger							1.082**	.330	2.951
Use Chat Software							.766**	.262	2.151
Use Social Networking Sites							-.052	.252	.950
Engage in Blogging							.328*	.153	1.388
Create Websites							.218	.142	1.244
Download Music							.555*	.228	1.742
Cox & Snell R^2		.030			.053			.153	
Nagelkerke R^2		.042			.074			.214	
-2 Log Likelihood		690.561			677.145			613.783	
Hosmer-Lemeshow Significance		.421			.790			.424	

* significant at .05 level   ** significant at .01 level   *** significant at less than .001 level

Discussion

The results from this analysis provide continued support for several past studies, while providing several new insights into factors that can influence online harassment victimization. In support of Hinduja and Patchin's (2008) work on cyberbullying and online harassment the current analysis found that there were no differences in victimization rates when considering for the racial makeup of the youth, providing support for the argument that online harassers and cyber bullies do not appear to discriminate on the basis of their victim's race. These results are not surprising given the anonymity associated with most online behaviors. Individuals may maintain long term relationships with people they meet online and never know the other person's race until a picture is transferred or the individual's race is discussed during a conversation. With this in mind it is possible that perpetrators of online harassment may not know, and may not care to know, their victim's racial identity. Hinduja and Patchin (2008) also found that there was no difference between victimization rates for males and females, where the current analysis supported Dilmac's (2009) and Ybarra and Mitchell's (2007) findings in that female youth in the current analysis were more likely to identify themselves as victims of online harassment (although Ybarra and Mitchell did note that males were more likely to engage in higher rates of victimization).

These findings concerning female victimization could potentially be linked to the fact that females generally view the spreading of gossip and rumors as a more legitimate means of harassing other females. Past studies on female bullying have found gossiping and the generation of rumors to be tools used more often by female bullies (Boulton, Trueman, & Flemington, 2002; Liepe-Levinson & Levinson, 2005). Harassment via electronic communications is more verbal and not physical. As such it is possible that female victims of online harassment are encountered at greater rates because perpetrators may more often be female. It is also possible that females engage in the behaviors that lead to victimization at greater rates than their male counterparts, in that females are more likely to engage in more hours of blogging, chatting, and other more high risk Internet-related behaviors.

Although in the current analysis age was not found to have a significant influence on reported victimization, there were slight differences found between victimization rates when respondents were broken down into age groups. Youth in the current study who were of high school age (15 to 17) were more likely to indicate that they were victims of online harassment. These findings are similar to Ybarra and Mitchell's (2007) finding that frequency of harassment increases with age. Unlike traditional schoolyard bullying, engaged in by youth on the playground, teenagers may opt to use electronic communications to embarrass a victim rather than use physical force to harm the individual. Older teenagers may be more familiar with the technology and may have access to more electronic communications tools, resulting in increased potential for online harassment.

Examining Internet-related activities is important in understanding potential online victimization. Several studies have recently been conducted in order to test whether increased online participation is linked to increased likelihood of victimization. The results of these studies have found support for routine activities theory as an explanation for online victimization, finding that increased participation in a variety of online behaviors has an impact upon victimization by harassers or online bullies (Marcum, Higgins & Ricketts, 2010; Marcum, Ricketts & Higgins, 2010). Routine activities theory argues that for crime or deviant behavior to occur there must be a convergence of three factors: 1) a

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motivated offender, 2) a suitable target, and 3) an absence of a capable guardian. Each of these three factors can be examined in relation to a variety of different online behaviors (Marcum, 2009).

In examining the specific Internet activities that influence harassment victimization, past studies have found that youth who engage in blogging-related activities are as much as 2.5 times more likely to become a victim of online harassment (Mitchell, Wolak, & Finkelhor, 2008). Results from the current analysis provide some continued support for these results, with respondents who engaged in blogging being 1.3 times more likely to indicate being a victim of online harassment. As noted by other researchers who have studied online blogging (Godwin-Jones, 2003; Jordan, 2005), the activity brings individuals into contact with a greater number of people who may or may not agree with the opinions expressed in the blogs. The individuals who make up a blogger's audience may come from a variety of backgrounds and many of these individuals may find themselves at odds with the blogger's opinions and views. When a disagreement occurs then the offended party may turn to various electronic communication tools as a means of furthering the disagreement.

Also found to increase the likelihood of a respondent reporting victimization was the downloading of music to a user's personal computer or MP3 player. Respondents who downloaded music were 1.6 times more likely to report being a victim of online harassment. While there have been several studies to address digital piracy and online file sharing (Higgins, 2007; Hill, 2007; Hinduja, 2007), there has been little in these studies to indicate how the behaviors could lead to online victimization. That being stated, anecdotal evidence by these authors could provide some insight into these findings. Many bit torrent websites, which are websites designed to allow users to download music and movie files without charge, as well as many other file sharing programs allow users to communicate with others who are downloading files. Past experience has shown that individuals who do not upload music or movie files are frowned upon and may even be labeled by some file sharers as "leeches" because of their desire to take from others without giving much new material back to the group. Some websites may go so far as to remove individuals who do not share files of their own. With this in mind it is possible that youth who use these services are becoming introduced to a more aggressive online element, many of which who may become upset with the activities or behaviors of youthful users and therefore may engage in online harassment of these youth. This is especially true if the young person is a frequent file sharer. Certainly, future studies on digital file sharing should examine online communities in an effort to determine how applicable this argument could be to the problem of online harassment.

While blogging and downloading music were found to be significant predictors of online harassment victimization, the two best predictors in the current analysis involved synchronous communication tools. The use of chatting software was found to be the second best predictor of online harassment victimization, with respondents who used chat software being 2.1 times more likely to identify themselves as being a victim of online harassment. These findings are consistent with what others who have studied cyberbullying and online harassment have found (Ybarra & Mitchell, 2004; Patchin & Hinduja, 2006). Because the use of these programs introduces youth to a variety of individuals with varying personalities it stands to reason that they could interact with someone who does not agree with their comments, ideas, or shared beliefs. It is for these same reasons that it was not surprising that the best predictor of online harassment

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victimization was the use of instant messaging programs, with users of the technology being almost 3 times more likely to report victimization if they used instant messaging programs. As the number of persons that a youth interacts with online increases, their chances of coming into contact with someone who develops a level of dislike or anger for them also increases. If the anonymity factor is present then there is the development of a situation in which two or more parties could become embroiled in a heated discussion or debate that could lead to one or more of the parties becoming a target for future harassment.

Perhaps the most important contribution of this analysis lies in the examination of parental regulation factors that protect young people. Websites and training materials often recommend that parents take an active role in protecting their children from online harassment by ensuring that the use of the computers are monitored and regulated. However, findings from the current analysis support an argument made by Marcum, Higgins, and Ricketts (2010) that regulatory behaviors do not impact online victimization. At first these findings may be confusing given that so much focus in the past has been on regulation and monitoring of Internet activity. However, if we examine the one variable that was found to be significant in the second model (number of computers owned and used by respondents) then at least one possible explanation can be found. Parents may maintain software controls on their children's computers and they may develop and regulate the rules of those devices being used. However, the fact that today's cellular phones allow for more online activities, as well as the fact that there are more places that youth can gain access to computers, means that such programs and rules at home may have little or no impact on behaviors outside the home.

Take for example the current capabilities of smart phones. Blackberry has its own built in instant messenger program, and while the program requires users to add contacts before they can communicate there are many youth on social networking sites who post the access codes to their blackberries and other Smartphone devices. This means that anyone who can see the young person's page can get the access code and add that person to their instant messenger program. Youth would then have to approve the new contacts but if they post the information on a public page or public profile page then it would stand to reason that they may approve almost any request for a new contact connection. Also, even if a youth is monitored at home that does not mean that they will be monitored at school or at their friend's house or at the local coffee house that provides Internet connectivity.

With this in mind the results of the current analysis support a belief that perhaps it is time to begin re-evaluating how to address online harassment and cyberbullying. The answer may not lie in regulating our children's access to these programs or even regulating access to the Internet. After all, not all Internet activities were found to impact a young person's likelihood of becoming a victim. Individuals who used the Internet to gather information on news, movies, or educational materials may not expose themselves to the types of individuals who would engage in online harassment. If the answer does not lie in physical regulation, and the use of computer-based regulation is also not very effective, then the answer may lie in education and awareness. Given that this analysis, as well as others, have found some support for the role of age in victimization it is recommended that educational programs not be generic and instead be customized to particular ages (Wolak, Mitchell, & Finkelhor, 2007) and gender. Making young people more aware of the potential long term consequences associated with engaging in these behaviors, could potentially increase young people's understanding of the behaviors and thereby increase

reporting of victimization (Cassidy, Jackson, & Brown, 2009). Then, it would be up to adults to respond to these complaints and work with children to minimize any harm that comes from online harassment.

Limitations and Conclusion

The current analysis was conducted on data that was collected by the Pew Internet and American Life project. As such we had little control over the questions that were asked and the methods associated with the collection of data. However, the techniques used by Pew Internet and American Life were very similar to techniques employed by other researchers who have conducted research on the topic of online harassment (specifically see Ybarra & Mitchell, 2004a, 2004b; Wolak, Mitchell, & Finkelhor, 2007; Mitchell, Wolak, & Finkelhor, 2008). Further, this methodology resulted in a relatively representative sample in terms of gender, regional location, family income, and age. Future studies on online harassment could benefit from an increased focus on youth Internet users of varying races. The vast majority of the current sample was White and therefore results should be interpreted accordingly.

The current analysis provided support for several past studies on online harassment, while providing insight into new areas for future research. Using Internet software to engage in chatting and blogging activities increased the likelihood of online harassment victimization in the current study, while age, race, and family income had little impact on reported victimization. Further, youth who used the Internet to engage in activities that introduce them to more people or introduce them to a more deviant group appeared to increase their likelihood of becoming a victim of online harassment. On the other hand, activities that are more private and related to activities of education or awareness, such as reading online news articles or using the Internet to shop for materials goods appeared to have little effect on a young person's likelihood of reporting online harassment. Of perhaps greater importance was the finding that none of the parental regulation factors commonly discussed in relation to prevention of online harassment were found in the current analysis to have any impact on online harassment. It is argued here that future solutions to the problem should seek to ensure that young people are more aware of the consequences of their behaviors and more aware of how to properly use the various Internet technologies available to them. The answer to regulating these behaviors appears to lie less in the area of enforcement and perhaps more in the area of education.

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