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Current trends in cyberbullying

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This discussion gives an overview of the current trends in cyberbullying, a phenomenon for which concern began to emerge in the psychological literature approximately 15 years ago. The major foci include definitions of cyberbullying, forms, prevalence, gender differences, theoretical perspectives and issues of intervention and prevention.

KEYWORDS cyberbullying, gender differences, information and communication technologies (ICTs), Internet, interventions, prevention

Introduction

The computer and other information and communication technologies (ICTs, e.g. androids, iPhones, iPads, etc.) have created a global, interactive communication and social networking community which transcend personal, geographical, sociopolitical, and socioeconomic boundaries. In 2005, there were more than one billion Internet users and two billion mobile phone users worldwide (Privitera & Campbell, 2009). The use of these technologies by children, adolescents, and adults for communication has both positive and negative outcomes. One of the negative consequences of online communities whose existence relies on these technologies is cyberbullying. Concerns about the abuse and misuse of ICTs as well as the harmful effects on victims of some online activity have been discussed in the literature and researched within child/adolescent populations for more than a decade (Bruno, 2004; Cowie & Colliety, 2010; Wolak, Finkelhor, Mitchell, & Ybarra, 2010).

Over the past 15 years, we have witnessed a trend, in which those who bully and those who are bullied in cyberspace through the misuse of ICTs, has become a global phenomenon occurring in countries throughout Asia, Europe, the Middle and Far East, North and South America, Africa and Australia. Moreover, cyberbullying affects a much broader age demographic than conventional/traditional bullying and what was reported earlier in the literature on cyberbullying. It is now occurring among older adolescents, college students, and older adults in the workplace (Aricak et al., 2008; Bhat, 2008; Liau Khoo & Ang, 2005; Muir, 2005; Pellegrini & Long, 2002; Slonje & Smith, 2008; Smith & Williams, 2004; Walrave & Heirman, 2011).

Cyberbullying defined

Cyberbullying has been defined as the intentional and repeated harm inflicted through the use of computers, cell phones, or other electronic devices (Kowalski & Limber, 2007; Patchin, Burgess-Proctor, & Hinduja, 2009; Burgess-Proctor, Patchin, & Hinduja, 2010). It has been compared to traditional bullying by some research which has found similarities in terms of the characteristics outlined in the American Psychological Association document (2004). By definition, it is a form of aggression; however, not all aggressive acts use technology. For example, research has shown that cyberbullies also bully in conventional ways (Smith et al., 2008; Williams & Guerra, 2007). Thus, theories on the psychological processes and consequences of traditional bullying might be applied to the study of cyberbullying.

The defining characteristic of traditional bullying is a strength imbalance between the aggressor and the victim, i.e. bigger, stronger children are more likely to be aggressive than are their smaller, weaker peers (Salmivalli & Nieminen, 2002; Salmivalli & Peets, 2008; Veenstra, Lindenberg, Oldehinkel, DeWinter, & Verhulst, 2005). In traditional bullying, the aggressor is identified, sarcasm is apparent, and the physical pains of the victim are clear. Research has shown that victimization via traditional bullying is related to fear (Eslea, 2010) and depression (Bauman & Summers, 2009). Similarly, research has shown that cyber-victimization is related to anger (e.g. Dehue, Bolman, & Völlink, 2008), fear (e.g. Beran & Li, 2007), and sadness (e.g., Patchin & Hinduja, 2006). Traditional bullies tend to have poor school competence (Andreou, 2001). Similarly, cyberbullies tend to engage in more aggressive behaviors (Hinduja & Patchin, 2008) and also have problems in school (Beran & Li, 2007). Also, some bullying behaviors are similar in the real versus mediated world. For instance, a bully can socially exclude a victim from a peer group on the playground, but may also do so by not inviting them to join a certain Facebook® group.

Other research suggests that cyberbullying is a distinct, separate category of bullying behavior because of the unique psychological processes involved in cyberbullying and being cyberbullied (Beckerman & Nocero, 2003; Harris, Petrie, & Willoughby, 2002; van der Wal, de Wit, & Hirasing, 2003; Willard, 2003; Ybarra & Mitchell, 2004). The cyberbully can act quickly, anonymously without fear of punishment, before a much larger audience, equally anonymous and unimaginably huge, spanning continents, cultures, nationalities, as well as time. The effects of anonymity in cyberbullying are due to the lack of visibility of the bully which further differentiates these two forms of bullying; although a victim of cyberbullying will often know their assailant (Mishna, Saini & Solomon, 2009), this is not always the case in the online world (Vandebosch & Van Cleemput, 2008). Anonymity online operates in other ways. For instance, the aggressor may not see the pain inflicted on the victim. Also, because cyberbullying happens in the mediated world, tone and sarcasm are not able to be recognized. This is important because one may perceive a message to be damning, but the sender may be making a joke that is lost on the receiver.

Additionally, the ‘power’ the cyberbully exerts over his/her victim, in part, is based on the extent of their facility with digital technologies, which enable them to conceal their identity while they harass someone, or expose their target to a community of online bystanders (Patchin & Hinduja, 2006). Since anybody can cyberbully via technology, even physically weak or lower status children can harm others (Vandebosch & Van Cleemput, 2008). Thus, the strength imbalance is no longer a factor due to the non-physical nature of cyberbullying. ‘Strength’ is more a function of the bully’s technological knowledge to send viruses, hack into their victim’s computer, or secretly install spyware.

A final difference concerns the types of behaviors which afforded the online versus traditional bully. In traditional bullying, one may punch, kick, yell, spit, push, etc. This cannot be accomplished in the mediated world. Instead, the online aggressor can send a mean e-mail or instant message, post about someone via his or her status update, or upload private pictures of someone.

Until recently, cyberbullying has been more associated with children and young adolescents (APA, 2004; Kowalski & Limber, 2007; Li, 2007; Snider & Borel, 2004); however, a related phenomenon, cyberstalking, has been identified among older adolescents, and adults. It includes the idea that the behavior ‘would make a reasonable person afraid or concerned for their safety’ and may involve criminal activity (Finn, 2004, p. 469). Research on this type of bullying on college campuses and in the workplace is now emerging in the literature (Finn, 2004; Kraft & Wang, 2010; Lawler, Molluzzo, & Doshi, in press). The findings of these studies may facilitate further clarification and description of this phenomenon in light of differences associated with age-related norms for cognitive functioning, emotional maturity, judgment, peer pressure, risk taking behavior, etc. College administrators are now addressing the need to establish policies and procedures for institutions of higher learning to determine degrees of their accountability in preventing cyberbullying on college campuses (Kraft & Wang, 2010; Lawler et al., in press).

Forms of cyberbullying

The form cyberbullying takes generally falls into one of three categories: (1) direct attacks, (2) cyberbullying by proxy attacks, and (3) public posts/broadcasting humiliating images and/or information (Aftab, 2013).

Direct attacks

Examples of direct attacks include (1) quick dissemination of humiliating/threatening messages or pictures to the targeted individual and simultaneously to a multitude of strangers online, (2) ‘flaming’ (an antagonistic, ‘in your face’ argumentative style of online communication used primarily, but not exclusively by males), (3) online ‘slamming’ in which ‘by-standers’ participate in the online harassment, (4) cheating,

forming roving gangs, and blocking entryways in massive multiplayer online games, (5) shock trolling for the purpose of provoking a response (e.g. mean-spirited, offensive posts or messages in an online community intentionally designed to induce anger, frustrate or humiliate someone in order to provoke a response), (6) ‘catfishing’, i.e. tricking people into emotional/romantic relationships over a long period of time by fabricating online identities and entire social circles, (7) impersonating others online, and (8) stalking people online and threatening violence (Beran & Li, 2007; Espelage & Swearer, 2003; Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Herring, 2004; Menesini, Nocentini, & Calussi, 2011; Mitchell, Becker-Blease, & Finkelhor, 2005; Muir, 2005; Smith et al., 2008).

The venues in which these direct attacks occur are blogs, cellphones, e-mails, instant messages (IMs), Internet polling, massively multiplayer online games (MMOGs), social networking sites (e.g. SNS such as Facebook®, MySpace, myYearbook, Twitter®), text messaging, video chat services such as iChat, virtual worlds like Stardolls, webcams, and websites. The following discussion illustrates in more detail how the cyberbully misuses cellphone applications (apps), MMOGs, texting, and Twitter®.

Cellphone/smart phone applications and bullying

Downloadable applications enable the user to connect directly to the social networking platforms without having to go into the browser. Many of these apps are free; the cost of others range from 99 cents to \$4.99. The developers of these apps intend to create tools that enhance social networking and contribute to constructive use of social media sites; however, some applications wind up enabling cyberbullies to harass people. Hinduja (2012) found the following apps, originally designed for one purpose, used by cyberbullies to harass targets: Ugly Meter, Enemy Graph, Bully Block, Secret Camera, and Anonymous Texting. For example, Ugly Meter has been downloaded more than 5 000 000 times. One scans a photo and uses facial contours and patterns which allow the picture of the subject to be rated on the ‘ugly’ scale from 1 to 100. Some argue that this app will lower self-esteem among already insecure youth.

Massive multiplayer online games

Multiplayer online computer games are more commonly associated with boys; however, boys and girls as well as men and women play these games. A user selects an avatar to represent their identity online; their actions are controlled by the user’s computer mouse and keyboard. The avatar enables the user to interact with other avatars and objects within the virtual world of the game. The type of avatar chosen by the user is typically determined by the role one chooses to play in the storylines essentially predetermined by the game (Palfrey & Gasser, 2008). Cyberbullying can be difficult to glean from a kind of aggressive playing, i.e. bullying which enables the player to win and is part of the game (e.g. trolling). For

example, griefers enjoy causing havoc and distress for no clear purpose, often at the expense of their own in-game characters. They are often powerful players, and can terrorize online communities, as their tactics are difficult to deter and punish. Griefing can manifest as hate speech, team-killing, virtual rape, unprovoked violence, or theft of virtual currency or items (Chesney, Coyne, Logan, & Madden, 2009; Aftab, 2013). Cyberbullying occurs by hacking into someone's account, changing passwords, stealing the gold and loot out of the account, or tormenting friends while posing as their victim.

In 2011, the scientific community unsuccessfully argued before the Supreme Court of the United States (SCOTUS) that violent video games impact youth aggression (e.g. attitudes and behavior) and other at risk behaviors; the Court, upon critiquing the science as flawed (e.g. conclusions not supported by the data, exclusion of data inconsistent with the position presented before the court), ruled that video games enjoy full free speech protections and that the regulation of violent game sales to minors is unconstitutional (Ferguson, 2013). The implications of this decision on cyberbullying intervention strategies will be discussed in the section on prevention.

Texting

Texting is a common form of online social interaction among 'digital natives, millennials, or the Net Generation', the oldest of whom are now in their thirties (Pew Research Center, 2010); indeed for this group, texting seems to be the preferred mode of communication. It consists of its own unique language, a text-based form of communication which helps to forge an identity of membership in a group or community and typically serves a constructive purpose. The following text messages illustrate this: 'OMG thx!! 2day b4 2 c u latr iight' translates into, 'Oh my God, thanks!! Today before 2. See you later, alright?' The following text, ' I h8 u' translates into, 'I hate you'. Users who 'know' the language are sensitive to signs of being accepted or excluded, valued or criticized, etc.

Twitter®

Twitter® launched in 2006 and has become a very popular free micro-blogging and social networking service that enables its users to send and read other users' updates known as tweets, a message using no more than 140 characters. Advocates maintain that 'tweets' allow busy people to keep in touch. However, Twitter® has also become a venue in which people can express inappropriate messages which harass, intimidate, malign, and/or threaten a target. Joseph Cassano, the 23-year-old son of New York City's Fire Department Commissioner, was recently forced to resign his position as an Emergency Medical Service (EMS) employee, because he tweeted offensive, derogatory messages about patients he assisted. While he apologized for the messages, indicating that they did not reflect how he truly felt, his behavior nonetheless reflected poor judgment (Ruderman, 2013).

Two teenage girls, ages 15 and 16, angered by the conviction of two Steubenville high school football players for the rape of a teenage girl, were arrested and charged with sending threatening messages through twitter to the rape victim (Reese, 2013).

Cyberbullying by proxy

Cyberbullying by proxy or third Party cyberharassment involves the cyberbully manipulating unsuspecting others to unwittingly communicate provocative messages to the victim; when action is taken to stop the bullying, the unsuspecting ‘accomplice’ is identified as the bully and disciplined, while the cyberbully who actually instigated the action is not implicated. Some cyberbullies actually manipulate an ISP (Internet service provider) to become the proxy when they set in motion a ‘notify’ or ‘warning’ in which the server mistakenly identifies the victim as the cyberbully and suspends the victim’s account (Aftab, 2013).

Public posts/broadcasting

Cyberbullying on a blog, website, or social networking site can include (i) creating a false Facebook® page to exclude or ostracize a target, or deleting the target from a friendship list and (ii) posting cruel messages or threats on a social network profile (e.g. posting nasty comments on a target’s Facebook® wall). The following anecdotal account shared by an undergraduate student illustrates this type of harassment:

My college roommate chose to air her frustrations with me on her Internet blog. She was kind enough to leave my name out, referring to me as ‘roommate’. At the end of a long letter expressing her frustration that I routinely annoyed her by staying up too late doing homework, she exclaimed ‘I am not talking to you at all tomorrow, maybe then you will get the message.’ I was shocked and upset, because my roommate never said anything to me about how my habits bothered her. I would offer to move to the library at night but she would always tell me to stay, that it was ‘fine’. I wanted to talk to her about the issue, but felt so embarrassed by it. I wrote her a letter, apologizing for keeping her up but also requesting that any future problems be brought to me in person so we could discuss it as two adults. She never acknowledged the letter, or the blog. She rarely talked to me at all for the remainder of the year. (M. S. 2009; Chisholm, 2009).

Is cyberbullying worse than conventional bullying?

The rapid advancement of ICTs, the escalation of school violence and apparent increase in ‘bullycides’ i.e. youth who commit suicide as the result of bullying, have all contributed to public concern and calls for action. There is a growing body of research attempting to determine whether it is the form of the bullying

(e.g. conventional/traditional vs. cyber) or the context (e.g. physical, verbal, and social/relational types of bullying) which cause the targets' distress. This body of research questions what has been an underlying assumption in the research literature, that cyberbullying, by its very nature, is more distressing, harmful, and pernicious than conventional bullying. Bauman and Newman (2013) demonstrated that cyberbullying may not be uniformly more harmful than other types of bullying. Their sample of college students responded to imagined scenarios of different contexts and severity. Interestingly enough, those in their sample reporting a history of being victimized, rated most of the scenarios as more distressing than non-victims. They also found that bullying with sexual material, whether through conventional or technological methods, was the most upsetting kind of incident to targets.

Eslea (2010) investigated the levels of distress from imagined bullying by conventional means among high school and college students. He reported that females found their victimization to be more distressing than males among the college sample, but no gender difference was detected in the secondary school sample. He also found that those who had not actually experienced being physically bullied found the imagined situations to be more distressing than those who had, but this pattern was reversed for indirect bullying (social exclusion and rumor spreading) i.e. those who had personal experience being indirectly bullied reported greater distress than those who had not. As in the Bauman and Newman study, participants in the Eslea study with a history of being victimized rated most of the scenarios as more distressing than nonvictims. The researchers concluded and cited supporting evidence that perhaps a history of victimization leads people to interpret all bullying behaviors as more hostile and therefore more harmful (Salmivalli & Nieminen, 2002; Salmivalli & Peets, 2008).

Another salient trend evident in research on cyberbullying is that ICTs have transformed 20th Century notions of 'inner' psychological experience to 21st Century ideas about virtual experience which is both inner and interactional in nature, unconfined by the conventional, natural laws governing the 'external/outside' physical world with respect to action, person, place, and time. The characteristics of the personal/private sphere, which, in the past, distinguished it from the social/public domain, are becoming less clear. What is required to better understand the significance of this trend on psychological functioning of youth and adults is a more nuanced analysis of how this fluid shifting between cyber/virtual and physical/in person realities constitutes their 'reality' which is vastly different from the 'reality' of older generations. In view of this, the ability of youth to distinguish between online behaviors that pose little or no risk of harm to self and/or others may be compromised by several factors including (1) the amount of time spent online engaged in certain social interactive activities, (2) their cognitive/emotional development and level of functioning, and (3) the extent of parental and institutional monitoring of online activity (Liau et al., 2005; Mitchell, Finkelhor, & Wolak, 2001).

Cybercrime among minors

The media reports of cases in which behavior in cyberspace is considered criminal (e.g. cybercrime) is apparently increasing. Examples of cybercrime which consist of behaviors similar to those involved in cyberbullying but differ by degree, intention, and outcome include impersonation, identity theft, sexting, and threats of violence. Forty-eight states have passed anti-bullying laws, and 31 have adopted laws addressing electronic harassment. The provisions covered by these laws vary with respect to the inclusion of the term 'cyberbullying' or 'electronic harassment' and the inclusion of criminal and school sanctions requiring school policy for off campus behaviors (Hinduja & Patchin, 2013).

Recently in the news, prosecutors successfully mounted a criminal case against two Steubenville teenage high school football players accused of raping a teenage girl, with evidence obtained from social networking sites and text messages in which the teens posted semi-nude photos, videos, and comments about the incident (Oppel, 2013). News commentators have said that evidence of criminal activity obtained from ICTs will do for the criminal justice system and successful prosecution of wrongdoers what DNA evidence had done in the late eighties for successful defense or prosecution in rape cases.

Sexting highlights how youth are vulnerable to sexual pressure from their peers and subject to criminal charges for sending and receiving child pornography. This technology-mediated interaction occurs mostly among children and adolescents not with strangers or adults and is defined as the sending or receiving of sexually explicit or sexually suggestive images or video through a cell phone (Hinduja & Patchin, 2010). The social pressure to comply with demands to 'sext' is coercive in nature and tends to adversely impact girls who fall victim to the double standard about gender difference in what is considered appropriate and normal sexual activity; a sexually active girl (or one who appears to be because she sent a peer a nude picture of herself) is denigrated, while boys may be pressured to show their sexual prowess and intentionally or unwillingly participate in activities which enhance their self-esteem and status at the expense of their female peers (Ringrose, Gill, Livingstone, & Harvey, 2012).

The recent news media accounts of the action taken by the Ridgewood, New Jersey police who extended a period of amnesty to high school students highlights this perplexing issue. Police told students that nude photos of two female classmates sexted to them had to be deleted from all electronic devices by a certain date or they could risk being charged with child pornography. The response to this sexting scandal once they became aware of it (apparently these sexts had been circulating among this high school population for months) illustrates a 20th century way of conceptualizing a 21st century problem. Based on news accounts, two girls sent a boy nude photos of themselves at his request using a cellphone app (Snapchat) that is designed to delete images within 2–10 seconds. However, the boy was able to circumvent

this application by just photographing the screen; he then electronically circulated the photos through an Instagram gallery to the student population (Ivers, 2013). Instructing these youth to delete these photos will probably not permanently erase them from the electronic devices due to the nature of this technology; that is, once material is transmitted in cyberspace, it exists in perpetuity. The broader concerns about criminalizing sexting among minors raise challenging questions. The highly publicized and tragic downfall in 2011 of New York Assemblyman Anthony Weiner, because of his sexting photos of himself reflected, at best, a serious lapse in judgment or worse, emotional problems, and/or immaturity. His case illustrates that the misuse of this technology is unfortunately not limited to minors.

Prevalence of cyberbullying

Menesini et al. (2011) identified the following three general characteristics of cyberbullying which continue to challenge researchers in their efforts to better understand its prevalence, nature, and severity in a given population: (1) classification based on technology used quickly becomes dated because of the rapid development of new technologies, (2) the public/private nature of the behavior as well as the characteristics of the method should be considered in the definition, and (3) cultural differences in the technological device used can affect the frequency of the behavior as well as its cultural meaning. That said, studies have shown that approximately one in five students will be cyberbullied (Hinduja & Patchin, 2010; Wright, Burnham, Inman, & Ogorchock, 2009) and about the same ratio of students will cyberbully others (Hinduja & Patchin, 2010); it is estimated that 19% of youth between the ages of 10 and 18 had been either the perpetrator or victim of cyberbullying (Hinduja & Patchin, 2010; Ybarra & Mitchell, 2004). Slonje and Smith (2008) found that 25% of cyberbullies and their victims were identified as being from the same school, thus more likely to result in a face-to-face encounter. More LGBT youth are reported victims of cyberbullying than other 'minority' groups (Cassidy et al., 2009). Cyberbullies and cybervictims are generally heavy Internet users (Kowalski & Limber, 2007). Over 50% of cyberbullies claim to be expert Internet users, compared to one third of children who do not bully (Ybarra & Mitchell, 2004).

While these statistics offer information about the prevalence of cyberbullying, other studies have noted that cyberbullying records are underestimated (Dehue et al., 2008; Kowalski & Limber, 2007). Typically, prevalence rates are based on questionnaires and surveys, the results of which are affected by the inherent limitations of self-report measures, the nature of self-selected populations and, the ways in which the questions are framed. Underwood, Rosen, More, Ehrenreich, and Gentsch (2012) research design makes a significant contribution in this regard because its methodology allows researchers to actually examine the cyberbullying behavior through one of the mediums in which it occurs, i.e. text messages.

Gender differences in online behavior and cyberbullying

Since the AAUW's (2000) initiative to increase female participation in computer use in schools and the increased use of cell phones among females, studies suggest gender-related differences in online behavior (Herring, 2004; Patchin & Hinduja, 2010). Research findings on gender differences in online use in general and cyberbullying in particular, however, show some inconsistencies. National surveys (Lenhart, Ling, Campbell, & Purcell, 2010; Lenhart, Madden, Smith, & MacGill, 2007) suggest that more girls than boys engage in text messaging. However, Underwood et al. (2012) found no gender differences among teenagers in their study in which usage was determined not by self-report measures but by measuring text messaging from billing records.

Several studies in the USA and Sweden found that teenage girls are equally likely as boys to cyberbully or to be cyberbullied (Patchin & Hinduja, 2009; Slonje & Smith, 2008; Williams & Guerra, 2007; Ybarra & Mitchell, 2004). A Canadian study observed no significant gender difference in victimization, although more boys were found to be perpetrators (Li, 2007). According to a Turkish study, boys are more involved in cyberbullying, both as perpetrators and as victims (Arıcak et al., 2008). However, other UK and US studies conclude that girls are more likely to be victimized, while boys are more likely to perpetrate, and females are more likely bullied by females and males, while males are more likely bullied by males (APA, 2004; Chisholm, 2006; Dehue et al., 2008; Kowalski & Limber, 2007; Li, 2007; Pellegrini & Long, 2002; Wright et al., 2009). There are studies that found no difference in the percentages of victims of cyberbullying by gender. However, clear qualitative gender differences in the experience of being cyberbullied as well as their emotional response to victimization have been noted (Chisholm, 2006; Burgess-Proctor, Patchin, & Hinduja, 2010; Dehue et al., 2008; Smith et al., 2008; Wang, Ianotti, & Nansel, 2009; Wright et al., 2009). Inexperienced, immature young men and women in their efforts to make friends, find companionship, and belong to a group may tend to act inappropriately online out of ignorance or intentional malice.

The literature on gender differences in the expression of aggression finds that girls tend to engage in a passive, relational style of aggression which extends into their online behavior (e.g. spreading rumors, the threat of withdrawing affection, excluding someone from a social network and/or important social function; Crick, Casas, & Nelson, 2002; Nansel et al., 2001, 2003). Relational aggression can also include such behavior as ignoring someone, excluding someone, name-calling, making sarcastic verbal comments toward someone, using negative body language, and threatening to end a relationship if one does not get his or her own way (Dellasega & Nixon, 2003; Mikel-Brown, 2003; Remillar & Lamb, 2005; Simmons, 2002).

This passive aggression is covert and as such, its potential harm tends to be underestimated by teachers, guidance counselors, and parents (Merten, 1997; Simmons, 2002). However, the impact on the targeted girls and adolescents is clearly shown

in their poorer academic performance, lack of confidence, low self-esteem, and higher incidences of depression, loneliness, emotional distress, and alienation (Delasega & Nixon, 2003).

Social aggression is specifically intended to damage self-esteem or social status (Underwood, 2003). These forms of aggression often co-occur, becoming a part of the 'rites of passage' among girls which presumably will eventually be outgrown. In this regard, 'meanness' is seen as a phase that girls are supposed to simply transcend (Merten, 1997). Thus, parents and teachers often dismiss this kind of behavior by calling it 'normal' girl behavior. However, Remillar and Lamb (2005) found that girls are far more likely than boys to perceive this type of aggression as hurtful and damaging. With respect to online bullying, 'Mean Girls' is one kind of bullying done in a group, for 'fun' at the expense of the feelings of the target (STAR-W, 2005).

Students in the lead author's classes were invited to write about any online experiences that caused discomfort for them or others. The following students' anecdotal accounts highlight their personal experiences as well as illustrate what has been reported in the literature on relational aggression and ICT misuse discussed above. The first student's anecdotal account occurred during high school while the second student's anecdote refers to experiences extending over a much longer time period.

Anecdote 1

It happened in high school. I was a part of a large group of girls, we were known as 'The Crew'. There was a guy in the grade above us who hung out with all of us. It all started when this guy started to express his liking for me in a playful manner. At the time it was not known that one of my friends secretly harbored feelings for him. Eventually, one flirting incident too many, and that was it! I was exiled from The Crew. It started at school when I would show up places and my friends would say that they all had to go somewhere, or would get really quiet and stare at one another, giving each other the tacit look. I had no clue what I had done but I knew that I could not approach them when they were in packs at school. In the days following I attempted to instant message just about every one of them, to no avail. At times I would get responses, short-single word responses; other times I was just ignored. I would send long pleading messages online to my friends asking what I did and apologizing. Until finally one message got through. One of the girls, who joined The Crew later on in high school, cracked and told me what had happened, she felt sorry and apologized for following along. I still credit this individual for her courage to stand up to The Crew and start talking to me in school, which was the impetus for others to admit what happened. The irony is that years later I am no longer in contact with this individual but remain in contact with many of the girls who so easily dropped me. (A.Z., 2013).

This student's account of her experience illustrates how the bullying can shift contexts i.e. occur in both cyberspace and face to face. She was shunned both online and offline; her circle of friends excluded her from their IMs as well as conveyed non-verbally, in face-to-face interactions that she was no longer a member of the

group in good standing, despite her efforts to make amends both online and in person for her unintentional, offending behavior; she knew her bullies who acted in ways consistent with research findings on relational bullying, i.e. they were catty, vengeful, deceitful, manipulative, back-stabbing, and just plain mean-spirited (Simmons, 2002). Belongingness theory posits the importance of social affiliation and communication for females (Baumeister & Leary, 1995). While the student does not explicitly acknowledge the extent of her hurt it is implied in the length of time she was excluded. Research on ostracism has demonstrated that simply being ignored and excluded is enough to produce depressive symptoms and lower self-reported satisfaction levels of self-esteem (Smith & Williams, 2004; Williams, 2001; Ybarra & Mitchell, 2004).

Anecdote II

I have experienced cyber bullying throughout my life in all different internet contexts. In middle school, one of my friends would bully me sporadically. It took a while but eventually I started to ignore her and realized she wasn't actually my friend. After elementary school, I hit an awkward stage at puberty and was an easy target. This girl had a lot of family problems that she would talk to me about. I would try to be a good friend to her and advise her, some days she would listen and be appreciative. Other days, she would start telling me she hated me while I pathetically kept asking 'But why? What did I do?' She would proceed by ignoring the question, calling me names and cussing instead. Then maybe two days later, she would IM me again. After the IM trend was MySpace (I was in high school) and Top 8 was a huge outlet for cyberbullying. Users got to rank their top 8 friends and *this order mattered*. I remember one time when I had a fight with my friend and I moved from 1st to 4th and eventually was down to 6th. It hurt to see that someone wanted to show you where you were in their life this way. Then came Facebook when I was toward the end of high school and the beginning of college. Amongst the younger generation I think that Facebook bullying is very prevalent. People in my age group seem to do much less bullying over Facebook. When it occurs it usually is just in the form of flaunting and bragging. For example, you notice that all of your friends 'checked in' to a bar on a Friday night and you didn't get an invite. In the past, a situation like this could have gone undetected, but Facebook can cause people to feel left out, even when it's not necessarily intentional. I think that the Internet has created cyberbullying because this entity allows one to detach from their own identity and act in ways they wouldn't in person. (B.T., 2013)

This student's childhood experience illustrates the interplay between cognitive/emotional stages of development and misunderstandings communicated via ICTs. Her high school experience is consistent with aspects of relational aggression, especially the activities surrounding disputes and the salience of not only being popular but also that others know your status because a social networking site makes it possible for 'friends' to publicly rank order their friends, a ranking that is subject to the vagaries of daily emotional ups and downs among a group of girls. Her college experience reflects her more mature recognition of the limitations inherent in communication via social networking sites in which misunderstandings

and hurt feelings may occur as a function of conflicts, and miscommunications and not necessarily from bullying.

Theoretical perspectives on cyberbullying

Suler's (2005) seminal work describes the features of cyberspace (e.g. altered perception, equalized status, identity flexibility, media disruption, reduced sensation, social multiplicity, temporal flexibility, texting, and transcended space), which affect psychological functioning. Zizek (2004) and Aboujaoude (2011) expand on this perspective and suggest that the psychological functioning of users changes as they develop a 'virtual' personality or 'virtual' identities, which predispose them to act differently online than they do in face-to-face interactions.

A fine line exists between self-expression or creation and outright deception and fabrication, as was reported in the media coverage of the Internet hoax perpetrated on the Notre Dame Football player, Manti Te'o. The Catfish phenomenon refers to identity deception committed online. 'Getting catfished' is when someone unwittingly falls for a fictitious person online whom they have been led to believe is real. As discussed earlier, the hoax can involve pictures, phone calls, social media profiles, text messages, e-mails, and even phony friends or family members. This is what happened to Te'o, when it was revealed that his presumed deceased girlfriend was a fictitious person created by Ronaiah Tuiasosopo, a former male high school acquaintance. While the term 'catfishing' is new, the practice is not. Megan Meier who committed suicide was a victim of this kind of hoax several years ago.

Understanding how children's online experience influences their awareness of the distinction between 'self-creation' and deception is crucial, especially since younger and younger children are exposed to this technology. Children's milestones in affect regulation, cognition, empathy, motivation, object representation, physical growth, self-representation, and self-reflectiveness develop first within the context of their families. As children continue to grow, the environmental support broadens to encompass schools and other institutions within the community that contribute to their educational, physical, and social development (Zelazo, Muller, Frye, & Marcovitch, 2003). Knowledge about the influence of ICTs on the development of emotional self-regulatory and executive function skills is scarce as are empirical studies on how the Net generation wrestles with the expression of powerfully felt emotions (e.g. anger, fear, frustration, hatred, hurt, humiliation, prejudice, etc.) online. This is especially salient when considering the vast range of experiences in ordinary living, which may elicit negative emotions in children, adolescents, and adults. Ong (2002) has argued that 'technologies are not mere exterior aids, but also interior transformations of consciousness' (p. 81). In a similar vein, Wallace (1999) posits that ideas, fantasies, and beliefs, which are all part of the inner world, are more readily and immediately projected into the public symbolic space. The technological phenomenon of the 'screen' and the mechanics of its functioning,

create a logic that impacts other spheres of psychological/social functioning of the user, especially for youth.

Research has examined the relationship between affective empathy and cognitive empathy on bullying (Ang & Goh, 2010). Jolliffe and Farrington (2006) found frequent bullies displayed significantly less affective empathy and total empathy than those involved with bullying only once or twice regardless of the type of bullying and across gender. Crick (1996) found that children who engage in indirect bullying have low cognitive empathic responsiveness and are not able to take the perspective of others, which contributes to increased levels of indirect bullying. The Reduced Social Cues (RSC) model suggests that the lack of feedback about the affective component of communication could result in a deficiency in affective empathy and therefore, contributes to the deregulated behavior of both boys and girls in cyberspace (Kiesler, Siegel, & McGuire, 1984).

The more the time spent using a computer and other ICTs, the less the time can be allotted to face-to-face social interactions. The stimulation hypothesis and the displacement hypothesis have been used to explain the consequences of divided social lives spent online and offline (Maass, Klopper, Michel, & Lohaus, 2011). The stimulation hypothesis presents the case that online social interactions can enhance interpersonal relationships and promote healthy social skills that can then be applied both on- and offline. The displacement hypothesis, considering the same mediating factors, predicts a negative outcome based on the relative displacement of time and energy dedicated to lower quality online relationships, at the expense of stronger real-world interactions. It is presumed that both predictive models will result in the differential psychological wellbeing of individuals (Valkenburg & Peter, 2007).

Behaviors that are believed to contribute to one's peer group status can be categorized as behaviors enhancing social prominence (or visibility) or social dominance (power and influence) in the peer group. With respect to social prominence, for example, popular adolescents are considered to be leaders, athletic, physically attractive, fashionable, and snobby (Closson, 2009; Coie, Dodge, & Coppotelli, 1982; LaFontana & Cillessen, 2002). With respect to social dominance, two subtypes of popular adolescents are discerned. While some popular adolescents are associated with prosocial behaviors, others are associated with antisocial, coercive behaviors towards their peers, such as bullying (Andreou, 2006; Garandeanu et al., 2011; Salmivalli, Kärnä, & Poskiparta, 2011). This latter group of popular 'tough boys' and 'mean girls' is the social peer group that Coie et al. (1982) call 'controversial' popular adolescents. Although generally perceived as popular, they score high on being liked as well as on being disliked when their peers are asked to nominate classmates in one of these categories. Popular controversial adolescents are believed to strategically use both prosocial and coercive behaviors in order to maintain (or achieve) social dominance in the peer group (Pellegrini & Long, 2002). Therefore, bullying can be considered a strategy of popular controversial adolescents to maintain their high status position in the peer group.

Prevention and direction for future research and training

Preventing cyberbullying will prove to be challenging for several reasons. First, whether it is a variant of bullying or a new phenomenon, research on cyberbullying is still relatively new and empirical studies are already citing inconsistent findings. Much more empirical study is needed to further our understanding of this phenomenon. According to Olweus (1993) there are seven different levels within the bullying ladder: the students who want to bully and initiate the action, their followers or henchmen, supporters or passive bullies, passive supporters or possible bullies, disengaged onlookers, possible defenders, and defenders who dislike the action of bullying and help those that are victimized. He argues that breaking up the aggressive portion of this ladder and shifting students to a deterring mindset must be a major part of any prevention program. In 2012, Isabella Griffin, a 9-year-old student from the Alamosa School District in Colorado presented her idea, 'Be a Buddy, not a Bully' to the principal of her school and it was adopted by the district. Students sign a pledge against bullying and receive a bracelet which allows them to intervene to stop bullying (Torres, 2012). If a 9-year-old girl can think of a workable solution, just imagine what can be accomplished by coalitions of youth, parents, educators, school personnel, legislators, businesses/corporations/politicians, social activists, and members of the scientific community.

Results from existing studies need to be replicated and validated. For example, Lawler et al. (in press) demonstrate that ICT misuse might be linked to insufficient online knowledge, or 'a lack of technological sophistication' even among the Internet's primary consumers, those aged 12–32, the Net Generation. They found that a significant majority of individuals that use social networking sites do not read the privacy policies of these sites; if they did, they might learn that many of these sites have policies banning activity/behavior that would harm others. Following this line of research, it has been advised that educational institutions of various levels incorporate safe online practices and privacy modules to existing computing courses (Lawler et al., in press). This seems like a fairly uncomplicated, easily implemented an initiative, especially for those already in educational settings. Several such programs already exist and have been shown to be effective in reducing bullying among school populations (e.g. Olweus Bully Prevention Program, and the programs developed by I-Safe.org and Charactercounts.org).

Further research needs to develop additional measures to determine how to reduce the risk of being victimized, identify, and assist those who have been subjected to cyberbullying, and determine how to prevent it. Achieving these goals will be complicated by the very nature of cyberbullying in which the cyberbully conceals his/her identity and remains anonymous. Implementing technological mechanisms that would create online identity authentication to address online anonymity for all online users regardless of age would undoubtedly raise concerns about freedom of speech, legal issues, and rights of privacy. However, using these filters could lead to more appropriate online behavior thereby reducing online harassment because

one could presumably be held accountable for their online behavior as their identity would be known and their access to sites and information could be restricted.

However, many youth are capable of circumventing these technologies by using proxies to circumvent filters or reformatting their computers to remove parental controls; in fact, devices with Wi-Fi capabilities and unsecured wireless networks can be accessed anywhere. To date, most filtering technologies focus on sexual context and inappropriate language. Some fail to restrict access to violent content, hate content, and self-harm content. They also fail to address the rise of youth-generated problematic content distributed virally as in the case of sexting.

Another factor influencing the impact of prevention strategies is that so much of this activity takes place among minors who know one another or know of one another through involvement in online and offline social networks and are engaging in online activity in ways consistent with their cognitive, emotional, and social level of developmental without, however, the benefit of supervision (Hinduja & Patchin, 2007, 2009; Slonje & Smith, 2008). The age, gender, social class, access to ICTs, and individual preferences regarding online activities of children and adolescents are crucial to understanding the interplay of the online activity and the user's experience of being bullied and bullying. The trend for younger and younger children to have access to these rapidly evolving technologies requires that researchers, experts in these technologies and other professionals collaborate in earnest to promote the safe use of ICTs and facilitate healthy development for children and adolescents.

To date, research findings on the victims of bullying and cyberbullying are inconsistent with respect to the level and scope of the negative impact on their wellbeing. That said, Salmivalli et al. (2011) assessed the effects of a bullying-intervention program that did not include cyberbullying and found that cyberbullying also decreased after the intervention. This finding is hopeful because it suggests that existing effective antibullying programs could be effective in reducing cyberbullying as well.

The SCOTUS decision in the *Brown vs. EMA* is a cautionary tale about what the scientific community researching cyberbullying should and should not do as it gathers evidence which will at some point assist in implementing new laws, policies, and procedures for addressing and remediating the vicissitudes of this problem. In the *Brown vs. EMA* case, the scientific community's 'rush to judgment' in which data from certain empirical studies (e.g. Anderson et al., 2010) were highlighted, while other data presenting contrary findings were overlooked, reflected a lack of objectivity in which professional opinions were seemingly more a function of the zeitgeist of the times (e.g. social pressure to curb the sale of violent video games to minors because of the 'obvious' harm to their psychosocial wellbeing) rather than a balanced view based on the empirical evidence.

Cyberbullying may just be the 'dis-ease' of the 21st Century reflecting the stress associated with living in a digitalized world; it is an international public health problem affecting the wellbeing of children, adolescents, and adults. A cyberbullying-reporting system could be used to (1) identify trends in the incidence

and prevalence of cyberbullying, (2) evaluate initiatives and programs to promote the availability of those that are shown to be effective, and (3) provide information for program planning and development. Establishing a national registry for reporting all cyberbullying incidents and outcomes similar to what was established by the medical community to combat pediatric cancers may lead to a decrease in these incidents as occurred in the decrease in pediatric cancer deaths. The success of the cooperative pediatric clinical trials groups in the USA and elsewhere (e.g. Children's Oncology Group) shows how effective these collaborations are, suggesting they could be used as models for similar initiatives for other health concerns (Jemal et al., 2006).

Existing support services need to become sensitized to the needs of millennials who have suffered abuse and/or are abusing others in this venue to appropriately address their vulnerability and victimization. As discussed in the literature, many youth never report their experience of cyberbullying and cope with the negative feelings or experience on their own. Therefore, additional training for mental health and other professionals is necessary to enable them to recognize the signs of cyberbullying which contribute to psychological distress, interpersonal difficulties, and interferes with the developmental tasks throughout the life span.

Erikson's concept of 'psychosocial moratorium' is as important today as it was when he introduced it more than 50 years ago. Society sanctions culturally and institutionally appropriate activities designed to facilitate the maturational and psychosocial development of adolescents. According to Erikson's perspective, society recognizes that adolescence is a period in psychological development in which youth consolidate earlier experiences of self into a cohesive self-concept through experimentation with opportunities to experience a variety of adult roles without being held fully responsible for the consequences of their actions while trying out those roles. Society, therefore, is obligated to assist youth who upon successful transition through this psychosocial moratorium are prepared to fully participate as adults in the American dream, becoming the emotionally healthy, productive citizens who contribute to and function well within our complex society.

Preventative strategies need to advance Erikson's notion of psychosocial moratorium to cyberspace. For, as the National Crime Prevention Council indicates, about half the adolescent population has been affected by Cyberbullying (Goldsborough, 2010). What can be learned from efforts to comprehend the salience of the 'mean girls' discourse in the media and psychological literature on gender differences in aggression especially as it pertains to cyberbullying? That is, what are the policies and procedures necessary to ensure the safety of all those who use ICTs and how are they to be implemented? Advances in technology have led to the apprehension of perpetrators more quickly after an incident or crime has been committed. What are the ethical, moral, legal ramifications of monitoring cyberspace activity and intervening in 'suspect' activity? More importantly, how do we analyze the societal climate in which bullying has become so prevalent and redress broader social issues contributing to this problem?

In 2010, the United States Department of Education in recognition of public opinion on bullying and its political ramifications, held a “Bullying Summit” in Washington, D.C. where the U.S. Secretary of Education, Arne Duncan, called for governmental and non-governmental partners to devise a national strategy to reduce bullying. The federal government has established an interagency bullying resource website and federal money has been pledged for grants to schools that develop anti-bullying programs. Thus far, the Education Department has awarded eleven Safe and Supportive Schools Grants to states to measure the prevalence of bullying and to implement programs to improve school safety (U.S. Department of Education, 2011).

In conclusion, cyberbullying prevention requires a synergist approach at the local, regional, state, national, and international levels in which continued coordinated efforts across communities and domains including corporations, education, health, justice, and the Internet community develop workable intervention and prevention strategies. These interventions need to be informed by knowledge based on careful evaluations of scientific data as well as backed by a commitment of financial resources to fund them (Palfrey et al., 2009).

Relevant Resources: The following list of websites provides additional information on resources combating bullying/cyberbullying: <http://www.bullyonline.org>, <http://www.cyberbully.org>, <http://www.cyberbullying-news.com>, <http://www.cyberbully411.com>, <http://www.cybersmart.org>, <http://www.digizen.org>, <http://www.ikeepsafe.org>, <http://www.isafe.org>, <http://www.lifeafteradultbullying.com>, <http://www.MARCCenter.org>, <http://www.ncpc.org/cyberbullying>, <http://www.stopbullying.gov>, and <http://www.wiredsafety.com>.

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