Cyberbullying: a Virtual Menace

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School bullying attracted considerable attention worldwide as it became apparent that this widespread behavior was neither innocuous nor stamina-building but harmful and insidious. A considerable and growing body of research has examined the prevalence and consequences of bullying, and has evaluated the effectiveness of various strategies for reducing the behavior. Recently, technology has been added to the arsenal of strategies that can be employed by bullies to harm others. As most middle and high school students in developed countries use the Internet and other technology, such as mobile phones, the potential for hurtful behaviors is great (Keith & Martin, 2005). Cyberbullying, a term coined by Canadian Bill Belsey, has increased very quickly and educators and researchers are understandably concerned that this problem is growing more rapidly than is educators' and parents' ability to respond effectively. This paper will review what is known about cyberbullying and what can be done to prevent it. The issue of using technology by sexual predators seeking victims will not be addressed in this paper.

Definitions

First, it is important to be clear on the meaning of terms to be used in this discussion. Bullying has been defined as behavior that is intentional, harmful, repetitive, and reflects an abuse of power. Bullying behaviors can be physical (hitting, kicking, pushing), verbal (teasing, threatening), or relational (social exclusion, harming friendships, spreading rumors). Although physical bullying cannot happen via technology, both verbal and relational bullying can be accomplished using a variety of technological tools. Thus, cyberbullying shall be defined as verbal or relational bullying accomplished using electronic or wireless media. That is, cyberbullying is "covert psychological bullying conveyed through the electronic mediums" (Shariff & Gouin, 2005). The most complete definition is that of Bill Belsey (2004):

> Cyberbullying involves the use of information and communication technologies such as e-mail, cell phone and pager text messages, instant messaging, defamatory personal Web sites, and defamatory online personal polling Web sites, to support deliberate, repeated, and hostile behaviour by an individual or group, that is intended to harm others.

Methods of Cyberbullying

The perpetrators of cyberbullying have a range of tactics with which to inflict harm. Educators must be aware of the ways in which technological can be used to bully others (Burgess-Proctor, Matchin, & Hinduja, 2006; Shore, 2005; Willard, 2006). Educators should also become familiar with the unique conventions of communication in cyberspace; normal rules for spelling, grammar etc., are discarded in the interest of speed. Rules for capitalization and punctuation give way to shorthand style (e.g., “u” for “you”) so that dialog and chats and text messages can be as rapidly sent as possible (Merchant, 2001).

Flaming refers to angry confrontational messages, often using explicit and vulgar language. Flaming often occurs in cyber-fights, and can result in a “flame war.”

Harassment can be inflicted via email, text messages, instant messages, bulletin board postings, and in chat rooms. It involves repeatedly sending cruel or offensive messages.

Denigration is the process of making derogatory statements about the target and disseminating them electronically. The statements are often lies concocted to hurt the target. The goal is to damage the target’s reputation or friendships.

Masquerading requires some advanced technical skills. The bully pretends to be the target and sends offensive messages that appear to come from the target.

Outing and **trickery** often go together. The bully manipulates the target into disclosing information or making statements that the bully then publicizes to embarrass the target. This is

the tactic that former friends use to share secrets or embarrassing photos that were provided in confidence.

Social exclusion can occur online just as it does in real life. Targeted persons are not allowed to enter a chat room, or are not included on various "buddy" lists.

Cyberthreats and **cyberstalking** are particularly frightening forms of cyberbullying. The latter involves repeatedly sending messages that include threats of future harm, while the former may be threats to others, threats to harm a third party or parties, or threats to harm self. These types of messages are typically associated with emotional distress.

Cyber-Environments

Instant messaging (IM) is similar to email except that it is synchronous, i.e. both parties are online at the same time and send messages back and forth. It is a real-time written dialog via the Internet. Several IM programs are available at no cost, and most also allow chats with several participants. When a person signs up for IM service, they create a user profile, which can be searched by other registered users. These programs also allow the user to create "buddy lists," or lists of screen names of contacts. The program then alerts the user when one of the buddies is online. In fact, IMs can only be exchanged between subscribers who have listed each others as contacts or biddies (Willard, 2006). Users can conduct several IM dialogs at the same time. They can choose to invite some buddies to join a chat, while excluding others (Bolton & Graeve, 2005). In the U.S. at least 13 million teenagers use IM, which is particularly appealing to middle school youth, perhaps because they are highly social and familiar with technology, but are not yet as mobile or free to socialize in other ways as are older teenagers. One of the concerns about instant messaging is that although the conversation is between two persons (or more in a chat), the text can be copied without the sender's knowledge and sent on to others who were not the

intended recipients. This is termed “outing,” described above. Some naïve users may disclose their passwords in an IM, which then allows unscrupulous users to masquerade and send embarrassing or offensive material. Although one can block a sender (prevent the screen name’s messages from getting through) youth easily evade this strategy by getting a new screen name. The anonymity of this environment allows users to be more disclosing than they might be in person. Although for a shy youth whose social skills might be lacking, this can be a way to practice engaging socially with others, for others it is license to be too willing to reveal personal information. One study cited by Bolton and Graeve found that 37% of youth admit to saying things in this context that they would not say in person.

Chatrooms are also real-time written conversations, except that the content is public to everyone in the chat at that time. However, within a chat room, it is possible to “move” to a private chat that is essentially an IM conversation (Willard, 2006). This is how social exclusion can be implemented. Someone in the chat room invites some, but excludes others, from a private chat. An interesting study of chat room use by 40,376 ninth grade U. S. students found almost half of students with home Internet access accessed chat rooms (Beebe, Asche, Harrison, & Quinlan, 2004). Compared to those who did not visit chat rooms, visitors reported significantly more emotional distress and environmental stressors than did those who did not visit chat rooms. In addition, chat room users were more likely to exhibit risky behaviors (e.g,. using tobacco, alcohol and/or other drugs, engaging in sexual intercourse) and were more likely to be victims of sexual abuse and/or have run away from home than those who did not participate in chat rooms. This pattern found in chat room users was not found for other Internet use (such as email). The researchers hypothesize that teens in need of support seek to find it in online chat rooms. This

suggests that chat room participants might be particularly vulnerable to harmful consequences from cyberbullying.

Some chat rooms have a feature where persons can anonymously post comments (true or false, cruel, harmful) (Belsey, n.d.) MUDS (Multi-User Dungeons) are similar to chat rooms in that there are a number of users engaged online simultaneously. Unlike chat rooms, people typically do not know each other outside of that environment (Grinter & Palen, 2002). In a MUD, there is a visual environment or room in which participants use *avatars* (small icons) to represent themselves. Some of the MUDS are very involved fantasy worlds where participants create roles and have adventures in these roles (Suler, 2005). Unlike online gaming, the interactions in MUDS occur as text.

Trash polling sites (Strom & Strom, 2005) are websites devoted to voting for youth with the particular traits. This could be the "ugliest" in the grade or other hurtful or demeaning categories. They are often in the form of message boards, which are places where visitors post comments devoted to particular topics (Suler, 2005).

Blogs are similar to diaries, except that they are posted online for public view and comment. The term *blogs* is a contraction of "weblogs," and can include video as well as text. The popularity of this medium is apparent in the usage rates: 38% of U. S. teens read blogs, and 19% have their own (Willard, 2006). Huffaker and Calvert (2005) observed that 52% of all blogs are those of youth adolescents ages 13 – 19. They often include such unique communication devices as acronyms and emoticons (described elsewhere in this paper). Blogs can also be linked to other blogs to create communities of bloggers. The blogs can be platforms for cyberbullies to post comments, thoughts, or secrets of others. It is also possible for those who read the blog to make cruel or hurtful comments in responding to a blog. Many bloggers provide personal

information that could be misused by others, with more than 54% including some demographic details including real names. Huffaker and Calvert performed a content analysis of 70 blogs found on blog hosting sites, and reported that 20% of teen bloggers provided a full real name, and 44% listed an email address or IM username. No gender differences in the type of information revealed were significant. They also found that 63% of bloggers used emoticons, and 49% discussed their romantic relationships.

Email is used to send messages, and is widely used by adults as well as teens. It can be employed to send offensive messages, to harass, and to do harm via masquerading. The author experienced a serious incident of masquerading before she knew the term or that it was possible.

Text Messages are particularly popular in Australia, where texting is the preferred communication method for youth 14 to 17 (Brown et al., 2006). Australia is the world leader in mobile phone use, with usage increasing about 5,000% (!) between 2000 and 2005. Almost half of youth ages 10 - 14 use text messaging daily, and among 15- to 17-year olds, 80% send text messages daily. Text messages (also known as SMS messages) are typically short messages using words and abbreviations, but many mobile phones can now send digital photos to other phones or to email sites. More sophisticated users can send messages to mobile phones from Internet sites in an effort to be anonymous.

Happy Slapping was started as a joke in London in 2004 (Kraft, 2006), and has become a particularly nasty form of cyberbullying. The initial incident involved a target who was approached and lightly slapped on the face while a third person videotaped the event on a mobile phone. The video was then uploaded to a website. The “slapping” has escalated to increasingly violent events. Four teens were prosecuted in the U.K. in January 2006 for fatally beating a man in such an incident. In one week in January 2007, two such videos (both involving female

teenaged combatants) received national news coverage in the U.S. A survey conducted on cyberbullying in the U.K. did not inquire about this but respondents who provided additional methods of cyberbullying in a space provided for that purpose most often mentioned "happyslapping" (Smith, Mahdavi, Carvalho, & Tippett, 2006).

Bluetooth bullying (similar to jacktoothing) was mentioned by participants in Smith et al.'s (2006) study. It refers to sending a text message by mobile phone to everyone in a certain vicinity. It is often employed to solicit sexual encounters in a room, bar, etc. and to shock and upset others, who do not realize where the message originated.

Social networking sites like MySpace.com include many of the features above (email, blogs, etc.) and have the same potential to be mis-used by cyberbullies as do the other methods.

Face-to-face Bullying vs. Cyberbullying

It is helpful to know how cyberbullying compares to face-to-face bullying. The intent of the behavior in both forms is to hurt the target. Both forms are repetitive. One might question whether the power imbalance is necessarily present in cyberbullying, as cyberbullies can be youth who are disempowered in the physical world. In their daily existence, some youth may be physically weak and possess little in the way of social power. However, when using technology, their power derives from their proficiency with technology (Patchin & Hinduja, 2006), and thus all three elements of the definition of bullying are present whether the context is face-to-face or in cyberspace.

There are unique elements of cyberbullying that create the potential to magnify the damage caused to the target. The most obvious difference is that in cyberspace, cyberbullies may believe they are anonymous that their identity has been disguised (Brown, Jackson, & Cassidy, 2006). In reality, there are "cyberfootprints" that can be clues to the bully's identity, although

with considerable difficulty (Willard, 2004). The perception of anonymity is what emboldens the bully, however. Their belief that they cannot be identified can remove social inhibitions and norms, allowing bullies to behave in ways they would never behave in person (Patchin & Hinojosa, 2006). In addition to this release from social conventions (Ybarra & Mitchell, 2004), the cyberbully may believe he or she will not be caught or punished (Brown et al, 2006), so the element of fear of discovery that may act as a behavioral control in person is absent in cyberspace.

There are other important ways that cyberbullying differs from face-to-face bullying. In person-to-person exchanges, one can interpret non-verbal cues to augment the message communicated verbally. Body language and tone of voice communicate essential information (Willard, 2004). In an electronic communication, however, those cues are absent. Despite the invention of emoticons to provide extra-textual information, the receiver of the message does not have as many additional cues about nature of the message. Further, the lack of tangible feedback means that the bully does not have to witness the effect of his or her behavior on the target (Belsey, 2005; Brown et al, 2006; Kowalski et al., 2005; Willard, 2004). The absence of the experience of seeing the harm reduces the likelihood of an empathetic reaction (Willard, 2006).

Perhaps the most obvious difference between face-to-face and cyberbullying are the speed with which the harmful messages or images can reach an audience of literally millions. Cybercommunication is instantaneous, the number of recipients unlimited, and the bully is not constrained by the need to be in the same place at the same time as the target. The bully can do his harm from the anywhere he has the technology and at any time.

Prevalence of Cyberbullying

Because this area of research is so new, there are only a few studies of the prevalence of this behavior. It is important to keep in mind that these data were collected using different surveys, so the difference in rates may well have to do with the way questions were worded. Further, different age groups may have been sampled, adding to the challenge of comparing findings.

Kraft (2006) reviewed 14 studies conducted in Australia, the U. S., the U.K., and Canada. Ages of participants vary considerably, as does the year in which the studies were conducted, and the methods of sampling. The questions assessing cyberbullying were also quite different, so that comparisons are not meaningful. The highest rate of cyberbullying was reported in a study conducted in the U.S. in 2003-2004, in which 42% of a national sample of students in grades 4 – 8 agreed that they had "been bullied online," 25% had experienced more than one incident of cyberbullying, and 35% have been threatened online (Cyberbullying, n.d.). The other studies reviewed by Kraft reported rates of cyberbullying from 6% to 33%.

Several studies have been conducted in Australia. An unpublished study by Campbell and Gardner (Campbell, 2005) found that over 25% of the 120 8th grade students in Brisbane who were surveyed knew someone who had been bullied by a technological means, 11% revealed they had engaged in cyberbullying, and 14% said they had been targeted, most often by text messages. The Australian Psychology Society conducted a survey of 258 Melbourne and Sydney students in years 7 to 12, and found that 83% of the sample had mobile phones. Ten percent of participants reported receiving threatening messages on their mobile phone (Australian Psychological Society, 2004).

Kraft (2006) did not include the findings of Kowalski and her colleagues (2005) at Clemson University in the U. S., who conducted a U. S. national survey of 3,767 students in

grades six though eight in several locations around the country. The revised Olweus (1996) bullying questionnaire was modified by the addition of 23 items about electronic bullying. In this study, 35% of girls and 11% of boys reported at least one incident of cyberbullying in the two months prior to the survey. In addition, 13% of girls and 9% of boys bullied someone else in the same time frame. For in person bullying, 12% of girls and 14% of boys had been bullied at school; 5% of girls and 8% of boys reported bullying someone else. The same time frame was used in both sets of questions, which provides a way to compare the frequency of cyber- versus in-person bullying. Rates of cyberbullying were not trivial, and in fact approach and/or exceed rates of traditional bullying. This study also provides more information about the methods employed in cyberbullying, with IM being the most often reported method by both boys and girls, with chatrooms, email, and websites being the next most frequently used. The targeted students indicated that the most frequent perpetrator was another student at school, with the next most common perpetrator being a friend. More than half of the targets did not know who did the cyber-bullying. Also of interest, of those who admitted cyber-bullying others, 60% admitted to face-to-face bullying also, and 57% acknowledged bullying a friend.

Peter Smith and his colleagues in London (2005) reported findings from a questionnaire completed by 92 students between 11 and 16 years old. Results showed that 22% of participants had been victimized by cyberbullying, compared to 46% who had been bullied face-to-face. Again, although the incidence of cyberbullying was less than that of in-person bullying, it is a significant problem. This study also gathered information about the types of technology used, and reported that phone calls, text messages, and email were the most common methods, with more incidents occurring outside of school than inside. In addition, girls were significantly more

likely to be cyberbullied than boys. Students in this sample believed that cyberbullying using digital photos or video was the most distressing.

A study of 10,800 female respondents in the U. S. found that 92% access the Internet primarily from home, with most of the time spent IMing friends (58%) and 16% of time spent in chatrooms (Berson, Berson, & Ferron, 2002). Berson and Berson (2005) also reported on a sample of 347 females in New Zealand who took the same survey reported in their earlier paper. Although the New Zealand sample spent more total time online than the U. S. sample, both accessed the Internet primarily at home and both spent the majority of their time in IM activities. Keith and Martin (2005) reported on the findings of the National i-Safe Survey completed by 1,566 U. S. students in grades four through eight. Even in this younger age group, cyberbullying experiences were quite common. Hurtful or angry messages had been received by 57% of respondents, with 13% saying this occurred "quite often." Fifty-three percent of respondents admitted sending hurtful messages, with 7% acknowledging they did so "quite often." An alarming 35% of respondents said they had been threatened online, with 5% saying it happened "quite often." These researchers noted that there appear to be some gender differences in cyberbullying strategies. Girls prefer IM, email and chat as a vehicle to conduct their bullying, whereas boys are more likely to make online threats and create websites to malign others.

Patchin and Hinduja (2006) surveyed 384 youth under 18 from around the world who visited a teen-oriented website. Six percent of the sample was from Australia. Of this group, 29% indicated they had been bullied online, 47% had witnessed online bullying, and 11% admitted to bullying others online. The bullying events occurred most often in chatrooms, with IMs and email the next most frequently named. Interestingly, in addition to the general questions about bullying, the survey also inquired about specific experiences, such as being ignored or being

threatened. Results show that 60% had been ignored, 50% had been disrespected, 30% had been called names, and 21% had been threatened! Further, 19% had been made fun of, 20% were "picked on," and 19% had rumors spread about them. The multiple bullying roles found in face-to-face bullying were evident in this study as well: 75% of those who victimized others online were also targets of cyberbullying.

Li (2006) surveyed 264 Canadian 7th through 9th graders of diverse ethnic and racial heritage. Similar to the studies described above, the rate of cyberbullying was about half that of traditional bullying; 34% had engaged in traditional bullying while 17% had cyberbullied others. No significant differences by gender were detected for being targeted in traditional or cyberbullying situations, but males were more likely to both bully and cyberbully others than females. Most targets experienced cyberbullying events one to three times (62%), but 38% had been cyberbullied more than three times. An important additional finding from this research is that 36% of the students sampled believed that adults in schools did not try to stop cyberbullying when they were informed it was happening.

Teen Appeal

Adolescence is a developmental period characterized by rapid physical change, cognitive advances, and psychosocial growth. Although adolescents are now able to engage in abstract thinking, the area of the prefrontal cortex that governs decision-making is not yet fully developed. In addition, the cyber-environment is often replete with multi-sensory inputs, which creates additional difficulties when attempting to focus on making an important decision (Berson & Berson, 2005). Psychosocially, adolescents are engaged in a process of self-definition leading to increased independence and autonomy. What is it about this period that makes them particularly vulnerable to cyberbullying?

First, adolescents are eager to fit in with peers and to be “current” in their clothing, music, and activities. Electronic technology is very appealing to these youth, who not only want to have the basic equipment, but often insist on having the very latest innovations. Even the language conventions of technological communication is unique, and youth prize having such specialized knowledge, even more so because it is one of few areas where their knowledge exceed that of most adults.

Early adolescents are beginning to shift their focus from family to peers, so peer approval is highly prized. At this age, many adolescents want to spend more time with peers than is possible given their limited independence (e.g. lack of transportation) and this technology fills the need to stay connected with social groups beyond the confines of physical proximity (Grinter & Palen, 2002). Much of cyberbullying is perpetrated form home computers, where youth may be physically away from friends while being almost constantly connected.

The need to establish friendships is paramount in middle school (Gianette & Sagarese, n.d.) and fitting in is crucial. Cyberbullying events may appeal to those who believe they can garner friendships with a desired group of peers by damaging the social status of competitors. Jackson (n.d.) observed that the need for establishing friendships and to belong to a peer group renders the risk of being cyberbullied a risk worth taking. For some adolescents, the electronic environments allow them to experiment with aspects of their identity in a context in which physical features, gender, race, or age are not evident (Brown et al., 2006).

Even those adolescents whose decision-making cognitive structures are well-developed have little experience assessing risk and weighing the potential consequences of various outcomes (Berson & Berson, 2005). Further, while cognitive abilities are advancing, the moral

domain may lag behind somewhat, leaving adolescents without a solid moral compass by which to navigate cyberspace.

Consequences of Cyberbullying

Of those who had been targeted by online bullying in the Patchin and Hinduja (2006) study, 32% said they were affected at school by these events. Several researchers (Brown et al., 2006; Campbell, 2005)) observed that features of cyberbullying portend even greater psychological consequences than have been found with traditional bullying. One aspect is that the insults or comments can be preserved, so that the target may revert to reading them repeatedly, re-wounding the psyche with each review. The potential for serious consequences is illustrated by several suicides, a murder, and unknown numbers of school dropouts that were responses to cyberbullying (Brown et al., 2006). In addition, the size of the audience expands the degree of humiliation experienced by the target, which is likely to also increase the psychological impact of such events. When the cyberbullying is anonymous, the target's trust in others is undermined, so that he/she cannot be certain that friends are really friends. If the content is threatening and anonymous, the degree of fear is understandably high, and an ongoing anxiety can result (Campbell, 2005).

Several youth have found themselves in the legal system as a result of cyberbullying. Police in Australia have charged children for cyberbullying actions (threats, stalking, harassing others) (Owen & Starick, 2006). Several countries have enacted legislation that makes this type of online (or mobile phone) behavior against the law.

Another consequence of cyberbullying is that the hostilities may be continued in person when students are in the school building. Cyberbullying that occurs off school grounds can easily

have a negative effect on school climate the next or subsequent days. For some students, fears and embarrassment affect school attendance and academic performance.

What Adults Need to Know

Based on the foregoing, the first thing adults need to know and understand is that there is the potential for cyberbullying, and that adults, both parents and teachers, must be much more involved in monitoring the technological activities of young people. Many adults believe that by installing filters on computers, they are protecting their children from unwanted contact and sites. Schools do the same. However, youth are quite adept at circumventing these filters, and leaving it to such measures to protect children is foolhardy. At home, it is recommended that computers be in a public area of the home rather than in a child's bedroom in order to facilitate parental monitoring. Parents should know their children's passwords, and regularly check that they are current. At school, teachers and other staff need to circulate to be sure that Internet use is for the expected purpose.

Adults need to understand that not everything youth say online is true. In a face to face interaction, when a child says to a peer or a sibling "I'm gonna kill you," the adult observer can generally assess the intent of the threat. The ability to make this assessment is dependent on knowledge of the child, and knowledge of the context. The same statement made in a text message is out of context, and the adult does not always have sufficient information to know whether the threat is real or is an expression of anger and frustration. This means that, if any concerns for safety are aroused by a cyber message, the adult must take steps to identify the source in order to make an informed judgment about what, if any, intervention is needed.

Adults also need to be aware of what actions can be taken if cyberbullying occurs. There are some cyberbullying actions that are illegal, but most are at a lower level. There are ways to identify seemingly anonymous bullies that allow adults to intervene.

What Schools Can Do

Because cyberbullying is such a recent phenomenon, there is no empirical evidence regarding effective interventions. Some strategies are modeled after programs for traditional bullying, while others employ logic and conventional wisdom in designing approaches to this problem. What is essential is that as programs are developed and implemented, rigorous evaluation measures are employed to determine effectiveness. In this way, best practice guidelines can be promoted that are data-based. At the current time, however, educators must heed the advice of experts.

There are several actions schools can take to reduce the likelihood of cyberbullying. First, all staff need to be educated about the problem (Brown et al., 2006; Campbell, 2005; Willard, 2006). Because of the rate at which innovations in technology occur, yearly workshops would ensure that staff information is current, new teachers are included, and all staff up-to-date. Because so much of the cyberbullying takes place off school grounds, schools can help by providing workshops for parents and enlisting their assistance in monitoring their children's use of technology. Parents also need to be alerted to possible financial liability if their child is involved in certain types of cyberbullying. Such information must reflect local laws.

It is also essential that students be educated about cyberbullying, and instructed about how to handle incidents if they occur. They need to know how to print complete email headers, how to take screen shots, and other strategies that increase the chances of identifying the perpetrator. Students should also be encouraged to tell adults when they witness or are targeted

in cyberbullying. One of the reasons many youth do not tell adults is that they fear the consequence will be the loss of their technology (Brown, et al., 2006; Campbell, 2005). To young people today, losing their technology is akin to being banished from their social world, and they often would rather risk being a target than losing their technology. As with traditional bullying, bystanders have an important role, and making certain to articulate that in any educational intervention will encourage more students to report problems to concerned adults.

Policy solutions

In addition to educating staff, parents, and students about cyberbullying, whole school policies may be effective (Campbell, 2005). Many schools and districts have existing policies regarding traditional bullying, which can be modified or amended to explicitly include cyberbullying. Having a clear policy provides guidelines for practice, but also makes a statement about the importance of the issue. The policy should permit confidential reporting of cyberbullying, as the fear of retaliation, or being known as a dobber, serves to inhibit youth from getting help. In addition, it is essential that consequences be individualized to the situation. Policies also need to be individualized to the school context, and must consider carefully whether they wish to make policies that extend beyond the school building and school day (Brown et al., 2006). Willard (2006) recommends that when schools can establish a “nexus” or connection between off-campus Internet use and the ability of a targeted student to participate fully in his/her educational experience, the school disciplinary mechanisms be employed. This expert also urges attention to the complexities of any given cyberbullying event; the student who is identified may have been retaliating for previous harassment, for example, and this should be treated differently than an unprovoked attack. Given that Internet and mobile phone use can occur outside school, it is important to involve and enlist the cooperation of parents when

students are involved in cyberbullying. Parents who are aware of problems can take measures to more closely monitor the student's use of technology. Willard also recommends that all staff be alerted when cyberbullying has occurred, so that monitoring efforts can be increased, and more importantly, other evidence of hostilities between the students be avoided.

One component of a school policy should be an Acceptable Use Policy (AUP; Brown et al, 2006). Most internet service providers (ISPs) have such policies, although subscribers may not read or attend to them very carefully. ISPs do not readily respond to complaints of AUP violations, sometimes citing free speech protections. A school's AUP would do well to couch the policy in terms of user (student, staff, and administrator) rights and responsibilities. The policy should clearly state what behaviors constitute criminal code violations, and link the policy to existing protections against discrimination. Brown and colleagues(2006) advise that the entity charged with crafting a policy be composed of representatives of all stakeholders, including parents and students.

An AUP should be linked to the mission of the school, and stress that value of technology in learning. It should specify what constitutes inappropriate material, state how students' personal information will be protected, and include a statement requiring the reporting of cyberbullying. It has been recommended that students and parents be required to sign the AUP at the beginning of each school year.

Technical solutions

A notice that the AUP applies on every school computer at log-on is a useful suggestion (Willard, 2006). Signs above computers with reminders that the AUP policy will be enforced serve as additional reminder. Willard (2006) provides suggested wording for such reminders.

These measure draw attention to the seriousness of the problem, inform students that the adults are aware, and reminds them of their responsibilities when using school computers.

School district Internet use can be monitored in a number of ways. Visual monitoring of screens in computer labs is the first level, and may be surprisingly effective. School districts can require students to print a browser history before they sign-off on a school computer (Willard, 2006). This provides a list of every website the student has accessed while online. There are also "intelligent content analysis monitoring technologies (Willard, p. 63) that can detect patterns of inappropriate online activity, prompting staff to look more closely at that particular person or computer.

One technical solution that is helpful but cannot be relied upon as the sole method of reducing inappropriate Internet activity is the use of filters and blocks. Some filters block everything other than sites identified as safe. This approach is considered a step above the software that requires the user to identify sites to be blocked. While these types of software are useful, tech-savvy students know how to get around them.

Conclusion

Cyberbullying is a widespread and growing concern that affects students and overall school climate. Because of the nature of the technology, students feel immune from ordinary social norms and may behave in uncharacteristically cruel ways. Adults must become educated, and schools must be proactive in reducing the damage from this activity, which potentially could be more harmful than traditional bullying. School and district policies, Acceptable Use Policies that are carefully created and signed, and a clear procedure for how to intervene when cyberbullying is discovered, will alert students that the adults are not nearly as "clueless" as they assume.

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