

Research Into Cyberbullying

Context

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Technology continues to develop rapidly and is changing our ways of functioning in society. New doors are opening, bringing opportunities but these also lead to questions about the ethical use of technology in schools. The Internet, mobile phones, and other communication technologies, while providing us with convenience, also potentially expose our students to dangerous interactions which put their safety and emotional wellbeing at risk. One negative use of technology is cyberbullying, a relatively new form of bullying, with some overlaps but also some distinct differences from traditional bullying.

School bullying has been recognized as a serious problem worldwide for some decades now. Many children are likely to experience aggression in their relationships with schoolmates (see Jimerson, Swearer, & Espelage, 2010). But with the advent of modern forms of communication, children are now able to harass their peers using electronic tools. This form of aggression involves the use of information and communication technology such as mobile phones, videoconferencing, emails, and web pages to post or send harassing or embarrassing messages to another person.

Research studies have shown that a substantial number of students are victims of cyberbullying, with various international studies demonstrating a significant level of cyberbullying in schools, which leads to the increased recognition that cyberbullying is becoming a serious problem (Willard, 2006; Li, 2006, 2007; Cross, 2008; Smith, 2011). One of the most devastating outcomes of cyberbullying victimization is suicide. It is reported that, in the US alone, at least three teenage children have committed suicide linked to cyberbullying (Hinduja & Patchin, 2009). Because cyberbullying can occur anywhere, anytime, it blurs the boundaries for adult supervision and responsibility, and introduces unprecedented legal and

educational concerns for schools. The development of effective policies and practices to reduce cyberbullying requires a sound understanding of how it differs from face-to-face bullying, including the potential harm caused by cyberbullying; the barriers and misconceptions that have enabled cyberbullying to flourish; as well as ways this issue can be effectively addressed by schools, families, and students. Most importantly, since cyberbullying occurs in a network that connects the globe, geographical limits no longer exist. An international perspective, therefore, has never been so critical.

In this chapter we document the increase in use of the new communication technologies that make cyberbullying possible; give some definition of terms; summarize some distinctive features of cyberbullying, compared to traditional bullying; and mention some issues around research findings and research design.

Technology Use

The technological revolution, particularly in digital communicational tools such as the Internet, has brought significant changes to our lives and blurs real and virtual worlds and spaces. The drastic increase of handheld devices and mobile phones, quickly embraced by young people, enables today's youth to live in a highly mediated world and always stay connected.

Research conducted by the US government in 2002 indicated that at that time, about 90% of adolescents used computers (National Telecommunications and Information Administration, 2002). The Organization for Economic Cooperation and Development (OECD)'s 2006 study, analyzing the first international comparative data of 41 different countries in youth technology use based on PISA (Program for International Student Assessment) 2003, showed that almost all 15-year-old students have used computers and, in particular, over 90% of US or Canadian youth used computers almost every day for a wide range of purposes. In Canada, about 95% of the students had access to computers at home or at school (OECD, 2006).

In the US, the Pew Internet Project regularly conducts large-scale surveys that provide information on issues and trends related to online technology. Their 2006 survey (Madden, 2006) indicates that the proportion of active online users increased from 66% in 2005 to 73% (i.e. 147 million people) in 2006. Of these online users, about 42% (84 million) use broadband connections at home. A more recent Pew study (Lenhart, Arafeh, Smith, & Macgill, 2008) showed that 94% of American teenagers (12–17-year-olds) now use the Internet, while 89% of them have Internet access and 66% have broadband Internet access at home. In addition, 71% of teenagers owned a mobile phone and 58% had a social network site profile. Teens and young adults (aged 18–28) lead the way in using Internet services, and are more likely than older users to use instant messaging (IM), play digital games, create blogs or use a social network, download music, and search for information. The number of teenagers using the Internet has increased by 24% in the past four years, and 87% of those between the ages of 12 and 17 are connected.

Several large-scale studies (Rideout, Roberts, & Foehr, 2005; Lenhart et al., 2008; USC, 2008) indicate a steady increase in teen Internet use, from 73% in 2000, to 87% in 2004, and 95% in 2007; and a rapid increase in mobile phone ownership, from 45% in 2004 to 71% in 2007. Pew's 2007 survey (Lenhart et al., 2008) found that 63% of teens go online daily, 36% send text messages, and 35% talk on a mobile phone. The nature of social communication in cyberspace means the increased likelihood of being contacted by strangers. In fact, Lenhart and Madden (2007) discovered that about one in three online teens reported being contacted by complete strangers while close to one-fifth include people, whom they have never met face-to-face, as their "friends" on their social network profile.

Rideout, Foehr, and Roberts (2010; see www.kff.org) sampled a section of US 8–18-year-olds in 1999, 2004, and 2009. The average number of hours the teens spent in a typical day on a computer was 0.27 in 1999, 1.02 in 2004, and 1.29 in 2009. Time spent talking on mobile phones was 0.33 hours in 2009, and time spent texting was 1.33 hours (in 1999 there was no question about mobile phones at all, and in 2004 only one about talking on mobile *or* landline phones).

The Australian Bureau of Statistics conducted a survey of 15,233 randomly selected private dwelling households across Australia in 2008–2009 (Pink, 2009). The data found that 78% of households had computers and 72% had home Internet access. From 1998 to 2008, household computer access increased from 44% to 78%, and Internet access from 16% to 72%. In addition, about two-thirds (62%) of all households in Australia have broadband access, and 94% of Australian youth aged 15–17 use the Internet.

European countries share similar patterns. For example, a survey (Eurobarometer, 2008) was conducted in 29 European countries in 2008. About 12,800 randomly selected parents of 6–17-year-olds participated in the study, describing their children's Internet activities. The report suggests that more and more children are using the Internet and use it more frequently. In general, three-quarters of the parents indicated that their children aged between 6 to 17 go online, although the number of children using the Internet varied considerably across different European countries. The lowest proportion of children online was in Italy (45%) and the highest in Finland (94%), with in-between countries such as the UK (91%), Spain (70%), and Portugal (68%). Older children (15–17-year-olds), compared to younger ones (6–10-year-olds), were more likely to use the Internet on their own computer at home (47% versus 22%), at school (57% versus 49%), at friends' homes (32% versus 16%), or in Internet cafés (6% versus 1%).

Not only has the number of users increased, but the variety of technological tools that teens use to support their communication, research, and entertainment desires has also grown. For example, in the US, for online users aged between 18 and 35, about one in five have used Twitter or similar services (Lenhart & Madden, 2007). In a similar vein, cellular (mobile) phones have become more popular. In the mid-2005, the number of total cell phone carriers reached 2.4 billion. In the US alone, the number of text messages sent each month was 7.2 billion in 2005, but this number had jumped to 75 billion by June 2008 (CTIA, 2008). These numbers have

continued to multiply steadily over recent years, and cell phones are increasingly commonly used by young people aged 10–19 (McKeown, 2008). European countries share a similar trend, with almost two-thirds of the parents of 6–17-year-olds reporting that their child had a mobile phone, an increase from 48% in 2005/6 (Eurobarometer, 2008).

These numbers paint a picture of how new technologies are used by youth, both in and out of schools, suggesting an augmentation of our traditional activities and behaviors. While providing invaluable tools to enhance student learning, these new technologies can also be used for deviant purposes such as cyberbullying (Patchin & Hinduja, 2006). For example, the anonymity, the lack of supervision in chatrooms, the possibility of allowing people to contact others anytime, anyplace, all contribute to increased opportunities for cyberbullying. This calls for further exploration of this relatively new phenomenon.

Cyberbullying: Some Definitions

Just like traditional bullying (Rigby, Smith, & Pepler, 2004), no universally agreed definition of cyberbullying is available. Although cyberbullying can be briefly defined as “sending or posting harmful or cruel text or images using the Internet or other digital communication devices” (Willard, 2006), a more detailed definition is:

Cyberbullying involves the use of information and communication technologies such as email, cell phone and pager text messages, instant messaging, defamatory personal websites, and defamatory online personal polling websites, to support deliberate, repeated, and hostile behavior by an individual or group that is intended to harm others. (Belsey, 2004)

Another widely adapted definition is proposed by Smith and colleagues, who define cyberbullying as “an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself” (Smith et al., 2008, p. 376).

It is generally agreed that cyberbullying can take various forms ranging from flaming, to harassment, to cyberstalking. Although several research studies have explored different forms of cyberbullying, the most comprehensive categorization to date is provided by Willard (2006), with the following formal definition for each form:

flaming—sending angry, rude, vulgar messages directed at a person or persons privately or to an online group;

harassment—repeatedly sending a person offensive messages;

cyberstalking—harassment that include threats of harm or is highly intimidating;

denigration (put-downs)—sending or posting harmful, untrue, or cruel statements about a person to other people;

masquerade—pretending to be someone else and sending or posting material that makes that person look bad or places that person in potential danger;

outing and trickery—sending or posting material about a person that contains sensitive, private, or embarrassing information, including forwarding private messages or images. Engaging in tricks to solicit embarrassing information that is then made public;

exclusion—actions that specifically and intentionally exclude a person from an online group. (Willard, 2006)

In general, the terms “cyberbullying” and “cyber-harassment” are used interchangeably. The fact that Willard’s definition above includes cyber-harassment as one sub-category of cyberbullying suggests that cyberbullying is a term that has been used to include cyber-harassment in most research studies of young people, if not all.

Cyberbullying can occur in blogs (interactive web journals), websites, emails, listserves, chat, instant messaging, and text/digital image messaging via mobile devices. It can relate to racial, religious, and cultural biases.

Aggressiveness, intention, repetitiveness, and the power imbalance are commonly accepted as the core characteristics of cyberbullying (Dooley, Pyzalski, & Cross, 2009). As with face-to-face bullying, aggressiveness and intention are easily understandable. The issues of repetition and power imbalance applied in cyberbullying, however, are more intricate than first appears. For example, one can post a nasty message on the Internet which can last forever: would this be considered as a single aggressive act or a repeated act? Similarly, how can one determine power imbalance in cyberspace? Is it merely a measure of technology skills, or there are other factors to be considered? Dooley and colleagues (Dooley et al., 2009) have discussed such issues in more detail, yet a unanimously accepted conclusion is still lacking, and the distinction between cyberbullying and cyber-aggression can be argued to be less clear than that between traditional bullying and aggression (Smith, 2011).

Distinctive Features of Cyberbullying

Cyberbullying has some particular characteristics that distinguish it from most traditional bullying, despite some similarities between them. These can be important in considering the impact of cyberbullying, and in finding effective coping strategies (Smith, 2011). These include the following:

1. Cyberbullying depends on some degree of technological expertise: although it is easy enough to send emails and text messages, more sophisticated attacks such as masquerading (pretending to be someone else posting denigrating material on a website) require more skill.

2. It is primarily indirect rather than face-to-face. Thus there is some “invisibility” of those doing the bullying. Perpetrators of cyberbullying have more opportunity to remain anonymous, minimizing the risk they will be caught. A perpetrator may try to withhold identification in text or Internet postings, to maintain anonymity.
3. Relatedly, the perpetrator does not usually see the victim’s reaction, at least in the short term. On the one hand, this delayed gratification can enhance moral disengagement from the victim’s plight (Hymel, Rocke-Henderson, & Bonanno, 2005) and thus might make cyberbullying easier; without such direct feedback there may be fewer opportunities for empathy or remorse. On the other hand, many perpetrators enjoy the feedback of seeing the suffering of the victim, and would not get this satisfaction so readily through cyberbullying.
4. The variety of bystander roles in cyberbullying is more complex than in most traditional bullying. There can be three main bystander roles rather than one: the bystander is with the perpetrator when an act is sent or posted; the bystander is with the victim when it is received; or the bystander is with neither, but receives the message or visits the relevant Internet site.
5. One motive for bullying is thought to be the status gained by showing (abusive) power over others, in front of witnesses (Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukiainen, 1996). The perpetrator will often lack this in cyberbullying, unless steps are taken to use more public cyber-places such as a chatroom or to tell others what has happened or publicly share the material.
6. The breadth of the potential audience is increased. Over time, cyberbullying can reach particularly large audiences in a peer group compared with the small groups that are the usual audience in traditional bullying. For example, when nasty comments are posted on a website, the audience who may see these comments is potentially very large.
7. It is difficult to escape from cyberbullying—there is “no place to hide.” The victim may be sent messages to their mobile or computer, or access nasty website comments, wherever they are. Unlike traditional forms of bullying, where once the victim gets home he is away from the bullying until the next day, cyberbullying is harder to escape from; the victim may continue to receive text messages or emails, or view nasty postings on a website, wherever he is.
8. Cyberbullying is more likely to be experienced outside of school than in school (Smith et al., 2008), but it is a foreseeable risk to schooling, with consequences often washing back into the school and affecting student learning (Bhat, 2008).

These are important distinctions; but they should not be overstated, as some forms of traditional bullying (such as spreading rumors) are not face-to-face, for example. A case can be made that these are differences in degree rather than differences in kind (Pyzalski, 2011).

Basic Research Design

Although increasingly more scholars are starting to examine cyberbullying, the research, as a field, is still relatively new. This is reflected in various aspects, ranging from the number of studies conducted, to the limited existing guiding theories. Specifically, most, if not all, studies conducted to date employ qualitative research design, exploring the issues through online or face-to-face surveys, with many either using small sample sizes or convenience samples (Griezel, Craven, Yeung, & Finger, 2008). For example, a study by Raskauskas and Stoltz (2007) used a small sample size of 84 adolescents to explore the relationship between involvement in cyberbullying and traditional bullying. Patchin and Hinduja (2006) conducted an online survey of 384 respondents who were under 18 at the time they completed the questionnaire. This study, however, used convenience sampling, with 84.6% of female respondents.

Although several large-scale studies exist, many are not carefully designed using field-tested instruments. Even for the limited available quantitative research studies, our search of existing literature confirms the conclusion by other scholars (Griezel et al., 2008) and points to the need for the further development of research methodology in this field: there is a lack of measurement tools that are based on sound theoretical frameworks and empirically validated, and little psychometric evaluation of instrumentation is employed.

Cross-cultural psychological and sociological concerns

Previous research about traditional bullying has identified, with ample evidence, various psychological and sociological consequences for those victimized and the perpetrators. Such negative consequences range from deterioration in academic performance (Gini & Pozzoli, 2006), feelings of humiliation and anxiety (Olweus, 2003), to depression, low self-esteem (Salmon, James, Cassidy, & Javaloyes, 2000), and health problems (Rigby, 2003). Many scholars express serious concerns for similar negative impacts of cyberbullying, although only limited evidence is available to date.

Parallel to the negative effects of traditional bullying, many victims of cyberbullying, especially the younger ones (preadolescents) and those who are chronically victimized are emotionally distressed (Ybarra, Mitchell, & Finkelhor, 2006). Also, cybervictims report increased levels of anxiety (Nishina, Juvonen, & Witkow, 2005; Ybarra et al., 2006) and feelings of humiliation (Breguet, 2007). Other emotional/psychological consequences include frustration and anger (Beran & Li, 2005; Hinduja & Patchin, 2007; Ortega, Elipe, Mora-Merchan, Calmaestra, & Vega, 2009), low self-esteem and feelings of hopelessness (Strom & Strom, 2005; Vandebosch & van Cleemput, 2008, 2009). For example, a Canadian study conducted in 2005 involving a survey of 432 high-school students showed that

over half of cyberbullying victims report feeling angry on several occasions and over a third experience sadness and hurtful feelings (Beran & Li, 2005). As well, a significant gender difference is identified: male cybervictims, compared to their female counterparts, are less likely to feel frustrated or angry (Hinduja & Patchin, 2007). Further, a few research studies (Ybarra & Mitchell, 2004; Ybarra et al., 2006) report that clinical features of depression are correlated to cybervictimization. Vandebosch and van Cleemput (2009) discovered that cybervictims are three times more likely to report depression than others.

Sociological concerns are another important consequence of cyberbullying. The victims of cyber-harassment report feelings of loneliness and insecurity (Breguet, 2007). Not only are they more likely to experience poor relationships with people other than their non-cyberbullied counterparts, but they also often have difficulty making emotional and social adjustments (Hinduja & Patchin, 2007).

In a nutshell, it is argued by many scholars (Hinduja & Patchin, 2007; Heirman & Walrave, 2008) that the consequences of cyberbullying go far beyond hurt feelings. Rather, its effects can be far-reaching and have the potential to permanently damage young people, both psychologically and sociologically. Nevertheless there is a continuing argument about the relative impacts of cyberbullying and traditional bullying, which we return to in Chapter 14. There is no doubt however that it is a serious problem, one that is worldwide, and one that continues to develop as cyber-technologies develop. The “global playground” is truly international and, like the traditional playground, can be a place of danger as well as fun and excitement.

References

- Belsey, B. (2004). *Cyberbullying*. Retrieved July 15, 2004 from www.cyberbullying.ca
- Beran, T., & Li, Q. (2005). Cyber-harassment: A new method for an old behavior. *Journal of Educational Computing Research*, 32, 265–277.
- Breguet, T. (2007). *Frequently asked questions about cyberbullying*. New York: Rosen.
- Cross, D. (2008, July). *Cyberbullying: International comparisons, implications and recommendations*. Paper presented at the 20th Biennial International Society for the Study of Behavioural Development Conference, Wurzburg, Germany.
- CTIA. (2008). *Wireless quick facts*. Retrieved December 19, 2008 from CTIA: The Wireless Association website: www.ctia.org/consumer_info/service/index.cfm/AID/10323
- Dooley, J., Pyzalski, J., & Cross, D. (2009). Cyberbullying versus face-to-face bullying. *Zeitschrift für Psychologie/Journal of Psychology*, 217, 182–187.
- Eurobarometer. (2008). *Towards a safer use of the Internet for children in the EU—A parent's perspective*. Luxembourg: European Commission.
- Gini, G., & Pozzoli, T. (2006). The role of masculinity in children's bullying. *Sex Roles*, 54, 585–588.
- Griezel, L., Craven, R., Yeung, A., & Finger, L. (2008, December). *The development of a multi-dimensional measure of cyberbullying*. Paper presented at the Australian Association for Research in Education Conference, Brisbane.

- Heirman, W., & Walrave, M. (2008). Assessing concerns and issues about the mediation of technology in cyberbullying. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2, 1–18.
- Hinduja, S., & Patchin, J. (2007). Offline consequences of online victimization: School violence and delinquency. *Journal of School Violence*, 6, 89–112.
- Hinduja, S., & Patchin, J. W. (2009). *Bullying beyond the schoolyard: Preventing and responding to cyberbullying*. Thousand Oaks, CA: Corwin Press.
- Hymel, S., Rocke-Henderson, N., & Bonanno, R. A. (2005). Moral disengagement: A framework for understanding bullying among adolescents. *Journal of Social Sciences*, 8, 1–11.
- Lenhart, A., Arafeh, S., Smith, A., & Macgill, A. R. (2008). *Writing, technology and teens*. Washington, DC: Pew Internet & American Life Project.
- Lenhart, A., & Madden, M. (2007). *Teens, privacy & online social networks: How teens manage their online identities and personal information in the age of MySpace*. Washington, DC: PEW Internet & American Life Project.
- Li, Q. (2006). Cyberbullying in schools: A research of gender differences. *School Psychology International*, 27, 157–170.
- Li, Q. (2007). New bottle but old wine: A research on cyberbullying in schools. *Computers and Human Behavior*, 23, 1777–1791.
- Madden, M. (2006). *Internet penetration and impact*. Washington, DC: Pew Internet & American Life Project.
- McKeown, D. (2008). *Cell phone use by children and youth* (staff report). Toronto: Medical Officer of Health.
- National Telecommunications and Information Administration. (2002). *A nation online: How Americans are expanding their use of the Internet*. Retrieved July 17, 2011 from www.ntia.doc.gov/ntiahome/dn/anationonline2.pdf
- Nishina, N., Juvonen, J., & Witkow, M. R. (2005). Sticks and stones may break my bones, but names will make me sick: The psychosocial, somatic, and scholastic consequences of peer harassment. *Journal of Clinical Child and Adolescent Psychology*, 34, 37–48.
- OECD. (2006). *Are students ready for a technology-rich world? What PISA studies tell us*. Paris: Organization for Economic Cooperation and Development (OECD).
- Olweus, D. (2003). A profile of bullying at school. *Educational Leadership*, 60, 12–19.
- Ortega, R., Elipe, P., Mora-Merchan, J., Calmaestra, J., & Vega, E. (2009). The emotional impact on victims of traditional bullying and cyberbullying: A study of Spanish adolescents. *Zeitschrift für Psychologie/Journal of Psychology*, 217, 197–204.
- Patchin, J. W., & Hinduja, S. (2006). Bullies move beyond the schoolyard: A preliminary look at cyberbullying. *Youth Violence and Juvenile Justice*, 4, 148–169.
- Pink, B. (2009). *Household use of information technology: Australia 2008–09*. Sydney: Australian Bureau of Statistics.
- Pyzalski, J. (2011). Electronic aggression among adolescents: An old house with a new facade (or even a number of houses). In C. Hällgren, E. Dunkels, & G-M. Frånberg (Eds.), *Youth culture and net culture: Online social practices* (pp. 278–295). Hershey, PA: IGI Global.
- Raskauskas, J., & Stoltz, A. D. (2007). Involvement in traditional and electronic bullying among adolescents. *Developmental Psychology*, 43, 564–575.
- Rideout, V. J., Foehr, U. G., & Roberts, D. F. (2010). *Generation M2. Media in the lives of 8–18-year-olds*. Washington, DC: Henry J. Kaiser Foundation. Available online from www.kff.org

- Rideout, V., Roberts, D., & Foehr, U. (2005). *Generation M: Media in the lives of 8–18-year-olds*. Menlo Park, CA: Kaiser Family Foundation.
- Rigby, K. (2003). Consequences of bullying in schools. *Canadian Journal of Psychiatry*, 48, 538–590.
- Rigby, K., Smith, P. K., & Pepler, D. (2004). Working to prevent school bullying: Key issues. In P. K. Smith, D. Pepler & R. K. Rigby (Eds.), *Bullying in schools: How successful can interventions be?* (pp. 1–12). Cambridge: Cambridge University Press.
- Salmivalli, C., Lagerspetz, K. M. J., Bjorkqvist, K., Osterman, K., & Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior*, 22, 1–15.
- Salmon, G., James, A., Cassidy, E. L., & Javaloyes, M. A. (2000). Self reported anxiety, depression, and self-esteem in secondary school children. *British Medical Journal*, 317, 348–352.
- Smith, P. K. (2011). Cyberbullying and cyber aggression. In S. R. Jimerson, A. B. Nickerson, M. J. Mayer, & M. J. Furlong (Eds.), *Handbook of school violence and school safety: International research and practice*. New York: Routledge.
- Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. *Journal of Child Psychology & Psychiatry*, 49, 376–385.
- Strom, P. S., & Strom, R. D. (2005). When teens turn cyberbullies. *The Educational Digest*, 71, 35–41.
- USC. (2008). *Finds shifting trends among adults about the benefits and consequences of children going online*. Los Angeles, CA: University of Southern California.
- Vandebosch, H., & van Cleemput, K. (2008). Defining cyberbullying: A qualitative research into the perceptions of youngsters. *CyberPsychology & Behavior*, 11, 499–503.
- Vandebosch, H., & van Cleemput, K. (2009). Cyberbullying among youngsters: prevalence and profile of bullies and victims. *New Media & Society*, 11, 1–23.
- Willard, N. E. (2006). *Cyberbullying and cyberthreats*. Eugene, OR: Center for Safe and Responsible Internet Use.
- Ybarra, M. L., & Mitchell, J. K. (2004). Online aggressor/targets, aggressors, and targets: A comparison of associated youth characteristics. *Journal of Child Psychology and Psychiatry*, 45, 1308–1316.
- Ybarra, M. L., Mitchell, K. J., & Finkelhor, D. (2006). Examining characteristics and associated distress related to Internet harassment: Findings from the second youth Internet safety survey. *Pediatrics*, 118, e1169–e1177.