

# **Social Responsibility on the Internet: Addressing the Challenge of Cyberbullying**

Raphael Cohen-Almagor

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## ***In Memory of Lee Rawls (1944-2010)***

Raphael Cohen-Almagor, School of Law and Politics, University of Hull, Cottingham Road, Hull, HU6 7RX, United Kingdom. **Electronic Address:** R.Cohen-Almagor@hull.ac.uk

### **Abstract**

This article discusses the phenomena of cyberbullying especially among young people. The discussion, based on an interdisciplinary study in the fields of brain studies, child development, psychology, social policy, victimization and Internet studies, probes the troubling phenomenon of cyberbullying which may result in suicide. It is argued that adolescents are more vulnerable than adults because they lack maturity with respect to capacities such as thrill seeking, impulse control, peer pressure, reward sensitivity, cognitive processing, rational decision-making and long-term planning. The article suggests remedies to counter online social ills and argues for responsible cooperation between parents, schools, governments, Non-Governmental Organizations (NGOs) and social networking sites.

**Keywords:** adolescent vulnerability; bullying; cyberbullying; friendship; responsibility; social networking; suicide

## **Introduction**

The Internet has created new markets and is profoundly changing the way people interact, express themselves, relax, find leisure, explore the world and think about their contribution to it. Made possible by technological advances in computer hardware, software, and telecommunications, in the Internet age people often have cyber lives in addition to their offline lives. The two are not necessarily one and the same.

At the dawn of the 21<sup>st</sup> Century, social networking sites were launched. These sites enable users to share information, photos, private journals, hobbies and interests with networks of mutual friends. They provide friends with the ability to email and chat online, connect and reconnect between past and present classmates and game partners. Social networking sites also open ventures by providing forums where business people and co-workers can network and interact, people find love and romance, and families map their Family Trees. While social networking is often used for pro-social activities (Wang and Wang, 2008; Subrahmanyam, Reich, Waechter and Espinoza, 2008; Wright and Li, 2011), such networks might also be abused for negative, anti-social purposes and provide a platform for online bullying.

The objective of this article is to address the growing social problem of cyberbullying. The term "bullying" in the physical world has tended to describe conduct that occurs when someone takes repeated action in order to control another person. Traditional bullying is defined as intentional, continued physical, verbal or psychological abuse or aggression used to reinforce an imbalance of power (Olweus, 1993; Kowalski, Limber and Agatston, 2008). It can involve tormenting, threatening, harassing, humiliating, embarrassing, or otherwise targeting a victim (Lipton, 2011). The term "cyberbullying" refers to online abuses mainly involving

juveniles or students. While it is possible that in any given instance of cyberbullying, at least one of the parties may not be a youth,<sup>1</sup> discussions about cyberbullying generally revolve around school-age children and often call on schools to address the issue (Kowalski, Limber and Agatston, 2008). The novelty of this article lies in its interdisciplinary nature, in bringing together Internet studies, brain studies, psychology and policy studies. This article (a) incorporates brain studies to explain why adolescents are especially vulnerable to the extent that they might be pushed to consider and commit suicide. It also (b) highlights the importance of responsible conduct by all relevant stakeholders and the importance of collaborative action.

Adolescents are particularly vulnerable as they are not fully capable of understanding the relationship between behavior and consequences (Ang, 2015). It is argued that many adolescents lack adequate ability to weigh dilemmas, evaluate choices and make reasonable decisions. Consequently, they take more risks (Steinberg, 2007; Elsaesser *et al*, 2017). Adolescents tend to over-emphasise short-term benefits and underestimate long-term risks. This tendency is reflected in the far higher involvement of adolescents in risky conduct such as fast driving, automobile accidents, excessive drinking, acts of violence, criminal activities, experimentation with drugs, suicide attempts, intentional injury, and unprotected sex that may result in unintended pregnancies and STDs (Steinberg, 2007; Galvan, Hare, Voss *et al*, 2007). Furthermore, adolescent decision-making capacity is lacking especially in emotionally salient situations. They need the support of adults who have a mature prefrontal cortex (Galvan, Hare, Voss *et al*, 2007; Casey, Getz and Galvan, 2008; Steinberg, 2013; Partridge, 2013). It is argued that all relevant stakeholders -- parents, schools, governments, NGOs and Internet companies -- have a societal

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<sup>1</sup> See, for instance, the Megan Meier tragedy: Cohen-Almagor (2015).

obligation to protect adolescents from bullying and cyberbullying as human lives are at stake.

### **Cyberbullying**

Bullying and more recently cyberbullying are complex psycho-social phenomena present especially in schools all over the world (Craig *et al*, 2009; Zych, Ortega-Ruiz and Del Rey, 2015A). Both are forms of interpersonal violence that can cause short- and long-term physical, emotional, and social problems among victims (Vivolo-Kantor *et al*, 2014) and also among bullies (Samara *et al*, 2017). Aggressors in cyberbullying have a lower level of self-perception to use and regulate emotion (Barnocelli and Ciucci, 2014). They are cold, manipulative (Sutton, Smith and Swettenham, 1999) and they demonstrate conduct problems, hyperactivity, and low pro-social behaviour (Samara *et al*, 2017). Bullies tend to report lower levels of guilt, shame and remorse in situations of cyber aggression (Cross *et al*, 2015). They are also less likely to report values related to morality. Cyberbullies have little interest in being trustworthy, fair and honest (Perren and Gutzwiller-Helfenfinger, 2012).

Two important criteria of bullying – imbalance of power and repetition (Olweus, 1995) are not completely clear in cyberbullying (Slonje and Smith, 2008; Slonje, Smith and Frisen, 2013; Zych, Ortega-Ruiz and Del Rey, 2015A). While traditional bullying is a manifestation of imbalance of power, when the powerful side exploits the advantage s/he possesses to humiliate another, in cyberbullying the bullies are not necessarily more physically powerful than their victims (Zych, Ortega-Ruiz and Del Rey, 2015A). One need not be physically fit or with social finesse to launch forceful attacks on one's victim. The Internet provides a levelling effect where strength is not physical but wordy, where brutality is more about the crudeness of the

mind than about the power of the hands, where having social skills to become popular is of little significance (Cohen-Almagor, 2015). Articulating words via the keyboard can be no less harmful than the punching of the fist.

Cyberbullying is defined as using the computer, cellphone, and other electronic devices to intimidate, threaten or humiliate another Netuser (Kowalski, Limber and Agatston, 2008). It involves targeted harm inflicted through the use of text or images sent via the Internet or other communication devices. Cyberbullying includes embarrassing, offensive, degrading or threatening text messages or instant messenger (IM) messages, electronic stalking, password theft or masquerading as another person on Social Networking Sites (SNS); spreading malicious rumors; sending threatening or aggressive messages; sharing private information without permission. Mobile devices facilitate cyberbullying on-the-go. Cyberbullying is not limited to texts. It may also include the distribution of embarrassing, violent (footage of fights and assaults) or sexual photographs or videos (including sexting – sharing explicit texts, nude photos and videos via cellphone); the creation of graphic websites or SNS pages devoted to harassing a person, ranking the fattest or “sluttiest” student, and online death threats (Gerson and Rappaport, 2011: 67-71).

Bullying is not a new phenomenon. Teenagers targeting, humiliating and/or intimidating other minors, typically occurs among teens who know each other from school, a neighbourhood or after-school activities (Shariff, 2009; Kowalski, Giumetti, Schroeder *et al*, 2014). Almost 40% of those who cyberbully report doing so for fun (Raskauskas and Stoltz, 2007). The ease of the Internet and the anonymity it provides, coupled with the lack of direct confrontation may enable cyber bullies to experience less empathy and remorse forwards their victims (Cross, Barnes, Papageorgiou *et al*, 2015). Cyber bullies are less aware of the consequences of their

behaviour compared to face-to-face bullying (Cross *et al*, 2015).

Commonly, vulnerable populations attract the attention of bullies because they are perceived as easy targets who have difficulties fighting back. Children with disabilities and special needs are at higher risk being bullied by their peers (Department for Children, Schools and Families, 2007, 2009). Ethnic minorities are sometimes disproportionately targeted.<sup>2</sup> Children and youth with confused sexuality and those who embrace non-conventional, i.e. not heterosexual sexuality (LGBQ, lesbian, gay, bisexual, and questioning) are also targeted (Beaty and Alexeyev, 2008; Berlan, Corliss, Field *et al*, 2010; Kahle, 2017).

Besides the bullies and their victims, we may distinguish other groups of participants in the cyberbullying activity: **Assistants** who join the cyberbullies and add their insults; **Reinforcers** who encourage and egg the bully by providing positive feedback; **Watchers** who remain passive. They choose to watch the cyberbullying taking place without interfering; **Outsiders** who move away from the situation and withdraw, and **Defenders** who actively intervene to protect and support the victim (Salmivalli *et al*, 1996; Salmivalli, 2010; Maunder and Crafter, 2018). All participants but the defenders are complicit in the cyberbullying activity.

Modern technology facilitates easy and quick dissemination of hurtful and humiliating messages to one or many people. The anonymity of the Internet facilitates disinhibition and is most convenient for spreading malicious unfounded allegations and for backstabbing (Kowalski, Limber and Agatston, 2008).

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<sup>2</sup> While some studies (Fandren, Strohmeier and Roland, 2009; Rodriguez-Hidalgo, Ortega-Ruiz and Zych, 2014; Fletcher *et al*, 2014) report that minorities are more subjected to bullying, other studies (Seals and Young, 2003; Ybarra and Mitchell, 2004A; Hinduja and Patchin, 2008) show no difference between majority and minority groups. See generally Zych, Ortega-Ruiz and Del Rey (2015).

Cyberbullying has desensitizing effect (Anti-Defamation League, 2008). Anonymity facilitates bullying as it helps aggressors to hide their identity, diminishes accountability and increases the level of moral disengagement (Cross, Barnes, Papageorgiou *et al*, 2015). Anonymous victims may be more likely to incur unethical treatment (Yam and Reynolds, 2014). The online bullies may remain oblivious to what they do and are not moved to stop tormenting the victim (Li, Cross and Smith, 2012; Kowalski, Limber and Agatston, 2008; Ang, 2015). Suler (2004) described this mindset as dis-associative anonymity, where the bullies do not own their behaviour and abuse technology to distance themselves. Technology, of course, is merely means to ends. It can be used and abused. *People* are blameworthy for misconduct (Kant, 1959). The infrastructure merely facilitates communication.

Indeed, cyberbullying can be relentless. Images of bullying events can be posted on the Internet on multiple sites thus having lingering painful effect on the victim. Technology can be abused to increase the scale, scope and duration of bullying. The audience for the bullying can be very large and reached rapidly, and the bullying can follow the victims into their home, expressed on the screens of their personal electronic devices (Shariff, 2009; Gerson and Rappaport, 2011). Bullying can now take place around the clock, 24 hours a day, seven days a week, without refuge (Kowalski, Giumetti, Schroeder *et al*, 2014).

### *The scope of phenomenon*

Studies show that cyberbullying is a concrete, persistent and significant phenomenon problem that affects children and youth of both genders (Bulman, 2017; Holt, 2017). Due to measurement differences, time in which the research was conducted as well as the location and age of victims, victimization estimates range

greatly, from 9% in some studies to 34% in other studies (Kowalski and Limber, 2007; Williams and Guerra, 2007; Ybarra, Diener-West and Leaf, 2007; Wolak, Mitchell and Finkelhor, 2007; Ybarra, Espelage and Mitchell, 2007; Kowalski, Limber and Agatston, 2008; Lenhart, 2009). In general, prevalence estimates for cyberbullying victimization range between approximately 10% and 40% (Kowalski, Giumetti, Schroeder *et al*, 2014). Most studies concentrate on youth victimization.

With the increased popularity of social networking sites such as Facebook, Twitter, Instagram and Snapchat, cyberbullying has been on the rise. Roughly four-in-ten Americans have personally experienced online harassment, and 62% consider it a major problem (Duggan, 2017). In a study published by the American Education Development Center 16.5% of 22 high school students in west of Boston during 2008 reported being bullied at school only, 6.4% of students reported being bullied online only; and 9.4% both at school and online. The extensive survey of 20,000 students also found that girls were more likely than boys to report being victims of cyberbullying (18.3% v. 13.2%), and students who did not identify themselves as heterosexual were far more likely to report bullying both online and at school (33.1% v 14.5%) (Powers and Filipov, 2011).

A study among adolescent girls revealed that third of the sample was subject to online harassment which included name-calling, spreading of damaging gossip and warnings. Most victims knew their bully and reported that the bully was a friend from school (31.3%) or someone else from school (36.4%). Some girls were bullied by their former boyfriends (Burgess-Proctor, Patchin and Hinduja, 2009, 2010). These bullies, who often lack social skills, find solace in the cyber world. They exploit the Internet to harm others whom they know from school. They exhibit clear-eyed akrasia, i.e. acting against one's better judgment (FitzPatrick, 2008: 590; Cohen-

Almagor, 2015) and little sense of social responsibility. Bullied people reported feeling “sad,” “angry,” “upset,” “depressed,” “violated,” “stressed,” “hated,” “stupid,” “helpless,” “exploited,” “put down,” “frustrated,” and “unsafe” (Hinduja and Patchin, 2007; Kowalski, Limber and Agatston, 2008; Shariff, 2009; Fisher *et al*, 2016). Having these feelings make the bullied more vulnerable to further harassment, creating a sad, vicious circle. The consequences of cyberbullying can be far-reaching, permanently damaging the psyche of the victims (Hinduja and Patchin, 2007; Kowalski, Limber and Agatston, 2008).

In Europe, cyberbullying is a significant phenomenon. A study from 2011 among European children aged 9-16 who use the Internet indicates that one in five said that someone has acted in a hurtful or nasty way towards them in the past year. One in twenty children was bullied online more than once a week. One in ten was bullied a few times during the past year (Livingstone, Haddon, Görzig and Ólafsson, 2011: 61). 12% reported that they have acted in a nasty or hurtful way to others during the past year (Livingstone, Haddon, Görzig and Ólafsson, 2011: 64). A UK study surveying children aged six to nine reported that 20% children were the victims of “aggressive or unpleasant” behavior online. This is partly because UK children use social networks for longer than any other country (*Daily Mail*, 2011). In Spain, the figure was 25% (*Daily Mail*, 2011).

Similar figures were reported in 2012. 24% of young people experienced cyberbullying and 17% reported cyberbullying others (Patchin and Hinduja, 2012). Another study among children showed that about 18% experienced cyberbullying (Görzig and Frumkin, 2013). In 2014, 12% of European children aged 11-16 year-old reported receiving nasty or hurtful messages. In Denmark, 21% of the teens reported that they experienced cyberbullying. The study showed that Danish parents talk less

to their children about Internet safety than before (Livingstone, Mascheroni, Ólafsson *et al.*, 2014). This may explain, at least in part, the rise in cyberbullying.

The 2016 UK Annual Bullying Survey showed that 50% of young people were bullied and of those who reported bullying, 6 in 10 had experienced bullying online (Ditch the Label, 2016). A recent poll of more than 1,000 girls and boys in the age group of 11 to 18 in the UK found 48% of female respondents had experienced some form of harassment or abuse on social media, such as receiving upsetting messages, having images shared without their consent or feeling harassed through regular contact (Bulman, 2017). Another survey of more than 10,000 young people aged 12 to 20 showed that nearly 70% of youngsters admitted to being abusive towards another person online and 17% claimed to have been bullied online. One in three said they lived in fear of cyber-bullying (Wakefield, 2017).

Studies also show that bullying in its various forms has lingering negative effects on victims. Child bullying victimization is predictive of poor psychological functioning, depression, anxiety disorders, panic disorders, post-traumatic stress and poor educational and occupational achievements (Copeland *et al.*, 2013; Holt *et al.*, 2014; Machado Azeredo *et al.*, 2015; Espelage, Hong and Mebane, 2016).

Lack of social responsibility norms harms the bullies as well as the bullied. Both the bully and the victim may suffer from depression - the number one cause of suicide. Youth who bully others are at increased risk for substance use, academic difficulties, and violence later in life (Smokowski and Kopasz, 2005; Ybarra and Mitchell, 2004; Haynie, Nansel, Eitel *et al.*, 2001). In another study (Cohen-Almagor, 2015) I discussed concrete examples where victims of cyberbullying between 11 and 18 killed themselves (see also CBC, 2010). One study shows that a significant number of bullies tend to be bullied, thus a vicious cycle is created. When asked if

they had been cyberbullied, 17.3% answered in the affirmative. A similar proportion, 17.6%, admitted to cyberbullying others. 12% reported being both a victim and a bully (Hinduja and Patchin, 2009; Hinduja and Patchin, 2009a). It is important to make potential bullies understand that their involvement in such a practice might hit them back very hard.

### **Why Adolescents Are Significantly Vulnerable?**

The short history of social networking shows that the phenomenon of cyberbullying is of growing concern. It challenges people of all ages but is particularly problematic for adolescents as it occurs on a greater scale among adolescents and it might drive adolescents to contemplate suicide. Teens who are bullied are 2.23 times more likely to think about suicide than teens who have not been victimized (Kaplan, 2014). An analysis of 47 studies on bullying and suicide among students in K-12 settings in the United States and several other countries including China, Australia, the U.K. and Finland found that youth involved in bullying in any capacity – both bullies and victims of bullying – were more likely to think about and attempt suicide than youth who were not involved in bullying. Bullying and suicidality are most strongly related for bully-victims: youth who have experienced both sides of bullying, as victim and perpetrator (Holt, 2017). Beatbullying, a bullying prevention charity, found that up to 44% of suicides among 10 to 14 year-olds may be bullying related (BBC, 2010). Why adolescents are particularly vulnerable?

#### *Brain studies and psychology*

Brain research found that teen brains are not fully developed compared to adult brains (Powell, 2006; Strauch, 2003). Although total brain size is approximately 90%

of its adult size by age six, the grey and white matter subcomponents of the brain continue to undergo dynamic changes. Regions enabling primary functions, such as motor and sensory systems, mature earliest. Higher-order association areas, which integrate these primary functions, mature later (Casey, Getz and Galvan, 2008). In particular, the frontal lobe, an important brain region for complex decision-making, is decidedly incomplete.

Around the age of 11, the corpus callosum, where brain fibres connect the left and right hemispheres, thickens and thus enable adolescents to better process information. During this period, there are substantial changes in the density and distribution of dopamine receptors in pathways that connect the limbic system, where emotions are processed and rewards and punishments experienced, and the prefrontal cortex, which is the brain's chief executive officer (Steinberg, 2013: 259). Piaget (1975) called this period the formal operational stage. The amygdala, the seat of emotions such as anger matures but the prefrontal cortex, the highest level of the frontal lobes involved in reasoning, decision-making and self-control does not finish maturing until the emerging adult years, namely until the ages of 18-25 (Santrock, 2012: 119). Thus adolescents who have propensity to bully others are motivated by emotions more than reasoning, and their targets also lack mechanisms to rationalize their predicament and might act upon suicidal impulses. Research has shown that hard-to-manage preschoolers with poor mind skills tend to behave more negatively towards their peers (i.e., they showed more insulting, whining, and controlling behavior while playing games). Children may bully others because they insufficiently comprehend their peers' mental states (Van Dijk, Poorthuis, and Malti, 2017).

Our brains are said to continue maturing at least until persons are in their mid-twenties. The prefrontal cortex that is important for impulse control and abstract

thinking is in the process of development during the teenage years (Giedd, Blumenthal, Jeffries *et al.*, 1999). In the case of most people under the age of 21, subcortical systems fail adequately to be checked by the prefrontal systems that are involved in adult executive decisions. The areas of the brain involved in mature executive decisions, those necessary for the realization of reasonable and responsible choices, are the last to achieve an adult development. Thus adolescents tend to be impulsive and have a predisposition to engage in kinds of behaviour that are risky to themselves as well as to others (Dahl, 2004; Ang, 2015). Cyberbullying is one example for such a behaviour.

### *Risk taking*

Adolescents begin to entertain future possibilities (Santrock, 2012: 16, 24-25) but they still do not know how exactly these goals are accomplished (Piaget, 1975: 147). Most young children do not have particular life ends. Their sense of purpose and goal in life is limited and it might also be quite unstable. They tend to change their minds as they acquire new experiences (Santrock, 2012; Partridge, 2013). Arnett (2000) argued that young adults typically come to form an identity with respect to world views in their late teens and early 20s. It is only at this later stage that they subject norms from parents and loved ones to critical scrutiny and come to act from a more deeply held conception of the good. Because dopamine plays a critical role in our experience of pleasure, these changes result in tendency for sensation seeking that is not always rational and calculated. The combination of not having clear future plans and thrill seeking, might be detrimental to victims of bullying. Adolescents exhibit egocentric thinking and construct personal fables that revolve around them, making them believe they are invincible and cause them to downplay risks (Reyna

and Farley, 2006; Ang, 2015).

As for bullies, sensation seeking, inability to control impulses, irrational judgment and lack of planning might cloud the better judgment of adolescents who contemplate bullying activities (Steinberg and Cauffman, 1996). Bullies may tend to anticipate feeling positive emotions after victimizing others. Such “happy victimizer emotions” are uniquely related to proactive aggression (Van Dijk, Poorthuis, and Malti, 2017). Furthermore, bullies employ moral disengagement mechanisms that allow them to engage with violent conduct (Gini, 2006). The same traits under abnormal circumstances created by bullies might push bullies who are also bullied and bullied adolescents at large to consider extreme thoughts such as suicide.

Wilhelms and Reyna (2013: 271) assert that adolescents perceive rewards associated with taking risks to be particularly great, which can result in decisions that are detrimental to their health. Before adulthood, there is less cross-talk between the brain systems that regulate rational decision-making and those that regulate emotional arousal. During adolescence, impulse control is lacking and so also capabilities to plan ahead and compare costs and benefits of alternatives. Steinberg explains that this is one reason that susceptibility to peer pressure declines as adolescents grow into adulthood. With maturity, individuals become better able to put the brakes on an impulse that is aroused by their friends (Steinberg, 2013: 261). But during adolescent, susceptibility to taking risks and to peer pressure can be detrimental in the bully/bullied setting.

### *Reasoning capacity*

Furthermore, adolescents lack adequate capacity to reason and they are emotionally unstable. Critically, they have not developed the reliance on gist processing that

adults tend to exhibit (Verstraeten, 1980; Partridge, 2013: 288). They might be prone to act upon emotions rather than reason. Wilhelms and Reyna (2013: 270-272) argue that adolescents tend to be emotional and impulsive, that they fail to take into account long-term and short-term consequences, and that they fail to understand the gist of what is at stake. Even when adolescents can intellectually analyse and weigh short-term as well as long-term consequences, they still fail to apprehend what is at stake in the decisions they face (Partridge, 2013a: 251).

Nelson (2011, 2011a) noted that adolescents develop strong emotions but their prefrontal cortex has not developed sufficiently to enable them control their emotions. The brain at this point has not developed the brakes to control or slow down emotions. Similarly, Dahl (2004: 18) argued that adolescents have charged feelings but they are equipped with un-skilled set of cognitive abilities to control their emotions, and Chan and Clayton (2006) argue that adolescents are emotionally unstable, intellectually immature, deficient in relevant experience, impressionable and impulsive. Reasoning deficiency and emotional instability are of major importance in bullying activities, affecting both the bully and the bullied. Bullies are akrastic, acting against their better judgment. Adolescent bullies lack the capacity for rational, well-considered judgment. They lack the intellectual appreciation of the causal connection between their conduct and the likely consequences that will follow. They also lack the capacity to appreciate the weight and significance of the risks they pose to their targets. Whereas victims of bullying and cyberbullying are put in an emotional rollercoaster which they find difficult to mitigate. Being at loss as to how to stop the torment and suffering may push them to consider suicide as a way out.

### *Peer pressure*

The adolescent stage is further compounded by youth susceptibility to peer pressure. Peer pressure and social acceptance are very important for children in the school age. Children are keenly aware of physical and personality characteristics. They come to see themselves as their peers do (Chirban, 2014). A recent survey among UK adolescents showed that 40% said that they felt bad if nobody liked their selfies and 35% said their confidence was directly linked to the number of followers they had on social media (Wakefield, 2017). Peer pressure might influence adolescents to make choices without due diligence. Adolescents who believe that their friends were involved in cyberbullying were more likely to be involved as well (Hinduja and Patchin, 2013). Weiner and Elkind (1972: 132-133) argue that peer group help each child to recognize, sometimes with pleasure and sometimes with pain the unadulterated truth about their physical and personality traits. Bullies target the more vulnerable teens, highlighting the particular trait that distinguishes them from others. They exploit vulnerabilities to undermine the bullied and denigrate their self-confidence. The social status children are assigned by their peer group has a large bearing on whether they are cheerful, friendly, relaxed, sad or touchy. Only at a later stage, individuals develop capabilities to put brakes on impulses triggered by peers (Grosbras, Jansen, Leonard *et al.*, 2007).

Loss of human life is almost always tragic; more so when young people who are embarking on their lives' journey die due to harassment. The overwhelming majority of deaths as a result of bullying and cyberbullying can be avoided. The next section offers some remedies aimed at tackling the problem and saving human life. It provides a framework within which cyberbullying can be addressed and resolved by accentuating the concepts of moral and social responsibility. My approach harnesses

the strengths and capabilities of the public and the private sectors in offering practical solutions to this pressing problem. A unified effort of relevant stakeholders is required to find an Aristotelian Golden Mean (1962) between freedom of expression and social responsibility.

## **Remedies**

According to the FBI, bullying remains one of the largest problems in schools, with the percentage of students reportedly bullied at least once per week steadily increasing since 1999 (Schargel, 2014). Because adolescents are particularly vulnerable to bullying and cyberbullying, and because many victims of such aggression commit suicide (Schargel, 2014; Cohen-Almagor, 2015; Holt, 2017), there is a need to devise programs that address the problem. These programs should promote awareness about the gap between the emotional development and mental development of adolescents, their propensity to risk taking, and ways to address peer pressure. Cooperation between parents, schools, governments, NGO, the Internet companies is needed to combat bullying both off and online. Freedom should come with responsibility. If all stakeholders will act responsibly, the scope of bullying and cyberbullying will become less significant and many human lives will be saved. Relevant stakeholders are required to have ownership over their actions, building foundations for change and improvement in their life chances and opportunities.

The fundamental principle of social responsibility rests on the duty to make humanity itself our end. The way to do this is by promoting the ends that autonomous human beings freely choose as long as they do not harm others (Mill, 1948; Cohen-Almagor, 2017). Responsibility and accountability should be shared by

all involved: Parents, school teachers and administrators, civil society organizations and business, countries and the international community at large. Bullying affects us all. Both children and parents say bullying in all its forms, including cyberbullying, is among their top concerns (Capital FM, 2017). Children and young people need to learn how to cope with cyberbullying. Concerned NGOs need to work with those identified as bullies, addressing their negative behavior, trying to shape attitudes and change manners.

### *Parental responsibility*

Parents have a critical role in reducing adolescent risk taking (Elsaesser *et al*, 2017). Parental monitoring has been connected to reducing adolescence risky behaviors such as alcohol consumption, taking drugs, involvement in violence and victimization (Beck, Boyle and Boekeloo, 2003; Lac and Crano, 2009). Youth rarely inform their parents about cyberbullying, in part because they fear they might lose their Internet privileges or their or cell phone (Kowalski and Limber, 2007; Kowalski, Limber and Agatston, 2008; Juvonen and Gross, 2008; Farrington and Ttofi, 2009; Tokunaga, 2010). Therefore, parents should closely monitor their children's mood and behaviour.

Victims of bullying manifest their distress and suffering in various ways. They tend to be angry, anxious, sad, stressed, depressed, have sleeping problems, lose weight as they lose their appetite, and have problems with family and friends (Espelage and Holt, 2001; Warning signs of bullying, 2013; Witmer, 2014). They might become abnormally withdrawn and distant from people and from their favorite activities. Bullied people often have headaches and complain about physical illnesses as well as psychological problems (Wolpert, 2008). They might also

complain about having frequent bad dreams, appear anxious or suffer from low self-esteem (Ybarra, Diener-West and Leaf, 2007; Martin, 2010). Bullied people try to avoid going to school as often this is where they encounter those who bully them. They might suddenly begin to do poorly in school. Other consequences of bullying are alcohol use, drug use and carrying weapons to school as self-protection (Ybarra, Diener-West and Leaf, 2007).

Cyberbullied people change their attitude toward the computer and/or cellphone. Warning signs include unexpected or sudden loss of interest in using the computer; nervous, jumpy, anxious or scared appearance upon accepting messages. Cyberbullied victims might be visibly angry, anxious, frustrated, depressed or gloomy after using the computer (Fisher *et al*, 2016; Trend Micro, no date).

Parents should be attentive to these signs. They should enquire, ask questions, and try to find the reasons for this behaviour. Parents should be aware that during the formal operational stage, their children might be emotionally unstable and their reasoning deficient and reticent. Knowing that not all children are comfortable talking about bullying with their parents, parents should be proactive and ask questions, offer help, explain risks, discuss their anxieties and concerns with their children's friends. Various programs to raise awareness with parents on bullying and cyberbullying, and also to assist parents who need to cope with their children's suffering are available to parents. These include intensive family preservation programs (Al *et al*, 2012), parent-training programs (Baumann *et al*, 2015), parenting programs (Dretzke *et al*, 2009; Nieuwboer, Fukkink and Hermanns, 2013; Panter-Brick *et al*, 2014; Stevens, 2014), parenting skills interventions (Knerr, Gardner and

Cluver, 2013), family skills programs (Maalouf and Campbello, 2014), and parent management training (Pearl, 2009).<sup>3</sup>

In the United Kingdom, three in ten parents of 3-4 (30%) and 82% of parents of 5-15 who go online have ever talked to their child about managing various types of online risk, with this likelihood increasing with age (Ofcom, 2015: 156). But the same study also shows that only four in ten parents of 5-15 say they talk to their child at least every few weeks about managing online risks (Ofcom, 2015: 182). Half of parents of 12-15s whose child's mobile phone can be used to go online are unsure whether the bar on adult content is in place (Ofcom, 2015: 194). Parents need to learn about technology and its safety feature in order to ensure a safe environment for their children.

Research indicate that family social support and parental warmth are consistently associated with lower cyberbullying, both as victims and as perpetrators (Wang *et al*, 2009; Fanti *et al*, 2012; Hong and Espelage, 2012A; Helweg-Larsen, Schutt and Larsen 2012; Khurana *et al*, 2015; Ang, 2015). Parents who provide emotional support bring about adolescent's disclosure of online activity (Elsaesser *et al*, 2017). Such support reduces the likelihood of online harassment. In contrast, poor emotional bond is associated with higher likelihood for aggression (Ybarra and Mitchell, 2004; Ang, 2015). Adolescents with authoritative parents who are able to exert influence on their conduct (high warmth and control) exhibit the lowest levels of cyberbullying perpetration (Makri-Botsari and Karagianni, 2014). Parents who take the time to explain their children the consequences of engaging in risky Internet activity and who collaborate with their adolescent children to safely navigate the Internet are more likely to protect against cyberbullying than those who implement

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<sup>3</sup> For a comprehensive review of existing programs, see Farrington, Gaffney, Losel *et al* (2017).

restrictions without youth cooperation (Ang, 2015; Elsaesser *et al*, 2017). Parents should carefully discuss with their children the issues of privacy, online anonymity, and online abuse. Together with their children they should set expectations for online conduct and devise mechanisms for online protections.

### *School responsibility*

Schools also have a crucial role to play. To varying degrees, cyberbullying supplements bullying that occurs at schools (Hinduja and Patchin, 2009; Smith, Kwak and Toda, 2016). Victims who are bullied at school are followed to their homes via their computers and cell phones. Schools have the responsibility to fight bullying in all its manifestations first and foremost by discussing the problem, bringing it to the open, explaining the effects of bullying on the victims, working with students and parents to raise awareness and curb the problem. Educators need to adopt risk prevention programs and, with the help of parents, promote healthy support for students. Amicable and supporting environment in schools have positive effects on students and reduce the likelihood of online and offline bullying. Research shows the more youth are connected to their schools, with the climate being trusting, fair, pleasant and positive, the lower is their self-reported involvement in all forms of bullying – physical, verbal and Internet (Williams and Guerra, 2007; Cohen, Espelage, Twemlow, *et al.*, 2015).

I have mentioned the changes that the brain undergoes around the age of 11 during the formal operational stage, and the growing gap between adolescence emotions and the capacity for rational decision-making. This is also the period when many students change schools. Bullying and cyberbullying appear to increase in the immediate transition period from primary school to secondary school (Pellegrini,

2002). Feelings of isolation, the need to adjust to a new school environment and a lack of supportive community contribute to all forms of bullying (Pellegrini, 2002; Pellegrini and Long, 2002; Cross *et al*, 2015).

The core issue in addressing the challenge of cyberbullying has to do with policy, and the policy is directed by the school leadership. They should be proactive in implementing effective anti-bullying programs (Olweus, 1993; National Assessment Center, 2006; David-Ferdon and Feldman Hertz, 2007; King, Walpole and Lamon, 2007). The policy should be a clear and unequivocal. Schools need to explain what online acceptable behavior is. Bullying prevention strategies should declare Zero Tolerance to bullying and cyberbullying both on and off campus, involving tight collaboration with parents and the student council, making parents and student representatives aware of the potential real problem, and creating unity in clarifying to all concerned that comprehensive measures will be taken to stamp out any form of bullying. We need to teach adolescents and adults that silence, when others are being hurt, is not acceptable. Safety should be maintained both online and offline, and studies should be carried out about the connections between the two.

Bullying prevention programs should include extensive discussions that reflect on the above brain studies, address the problem of thrill seeking, promote the importance of peer support and of reporting bullying, analyse the problematic position of bystanders in bullying activity, and emphasising that all forms of bullying must be confronted by speaking about the problem, sharing the burden and combining a unified effort to overcome the challenge. Bullying in all its forms is traumatic. Interventions are crucial and early detection is central to the prevention of long-term effects (Williams and Godfrey, 2011). Psychiatric-mental health nurses can help educate children about resources to prevent or cope with cyberbullying in a way

that will help the victims as well as parents, teachers, school administrators, and the community at large (Williams and Godfrey, 2011). Early and appropriate psychological interventions are necessary and may be effective for the proper management and prevention of the serious consequences that the youth psychopathology can generate in terms of rising mental suffering, long-term problems in socializing and trust building, and lingering feelings of shame (Wolke *et al*, 2013; Takizawa *et al*, 2014; Samara *et al*, 2017; Amianto and Fassino, 2017). Clear procedures to report and investigate reports of all forms of bullying should be established (Agatston, Kowalski and Limber, 2007; Schargel, 2014).

The problem, however, is that often school administrators and teachers do not know how to institute and implement clear procedures (Schargel, 2014). Administrators should ensure that mental health support be available for students. Teachers should ascertain that their knowledge of technology does not significantly lag behind their students' knowledge. Teachers are expected to effectively handle new technologies and understand just how intrusive and menacing social networking sites and mobile phones can be. They are expected to be able to teach digital citizenship classes. These classes should be made compulsory, as suggested by Anne Longfield, the Children's Commissioner for England (Wakefield, 2017).

Multi programs to fight bullying and cyberbullying are already in place. There are whole-school approach to anti-bullying programs (Chan and Wong, 2015), bullying prevention and intervention programs (Salgado, Senra and Lourenco, 2014; Ansary *et al*, 2015; Bradshaw, 2015; Lee, Kim and Kim, 2015), school-based social and emotional learning programs (Durlak *et al*, 2011), and school-based intervention

programs for childhood aggression (Li, Fraser and Wike, 2013).<sup>4</sup> Programs like KiVa are aimed to raise awareness of the role bystanders play in the bullying process, to increase empathic understanding of the victim, and to provide safe strategies to protect victims (Salmivalli *et al*, 2010; Nocentini, Zambuto and Menesini, 2015). Being complicit to all forms of bullying serves the perpetrator and facilitates wrongdoing.

A survey of the literature suggest that the whole-school approach is the preferred option (Ttofi and Farrington, 2011; Maunder and Crafter, 2018). This approach is based on the assumption that bullying is a systematic problem and therefore interventions should go wide and deep. The entire school is targeted rather than just those who bully or been bullied (Smith *et al*, 2004). Bullying becomes part of the curricula. Teachers receive social skills and conflict resolution trainings. They promote awareness to the problem. They explain the relationship between behaviour and consequences, discuss vulnerability and risk-taking and suggest ways to deal with peer pressure. Mechanisms for monitoring bullying are implemented. Furthermore, the whole-school approach goes beyond the school and involves also the family, the neighbourhood and the wider community (Cioppa, O'Neill and Craig, 2015). Given that adolescents are vulnerable, it is crucial that schools work together with parents and the community to provide support to those in need.

Anti-bullying programs are effective. Schools with established rules and regulations against bullying have lower rates of such aggressive behavior (Steffgen *et al*, 2013; Machado Azeredo *et al*, 2015). A systematic review of 44 school-based bullying prevention programs shows that, on average, anti-bullying programs reduce

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<sup>4</sup> For a comprehensive review of existing programs, see Smith (2011), Farrington, Gaffney, Losel *et al* (2017).

bullying by 20-23% and victimization by 17-20% (Farrington and Ttofi, 2009). Bullying prevention programs that focused on older youth (ages 11-14) were more effective than those focused on younger children (ages 6-10). Effective programs included parent training/meetings, disciplinary methods, intensive and long programs for children and teachers (Brown and Lent, 2008; Farrington and Ttofi, 2009; Hong and Espelage, 2012; Swearer, Espelage, Vaillancourt and Hymel, 2010). The British government advises schools on strategies to deal with cyberbullying. This advice includes how to approach victims of cyberbullying and address their needs, and explains the impact of cyberbullying. Teachers can join training programs on internet safety (H.M. Government, 2015).

The UK *Education Act 2011* grants teachers powers to tackle cyberbullying by providing them with ability to search for and, if necessary, delete inappropriate images (or files) on electronic devices, including mobile phones (Department for Education, 2012, 2013). The *Education and Inspections Act 2006 (EIA 2006)* outlines some legal powers which relate to cyberbullying. Head teachers have the power “to such extent as is reasonable” to regulate pupils’ conduct when they are off-site or not under the control of a staff member (*Education and Inspections Act 2006, Section 89/5*). This is of particular significance to cyberbullying, which is likely to take place outside school and which can impact very strongly on the school life. Section 3.4 of the *School Discipline and Pupil Behaviour Policies* guidance provides advice on when schools might regulate off-site behavior.<sup>5</sup> The Guidelines emphasize the unacceptability of pupils using mobile phones and other technological equipment to humiliate or bully others (e.g. sending abusive text messages, cyberbullying, recording and transmitting abuse images - “happy slapping”) (Summers, 2006).

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<sup>5</sup> <http://dera.ioe.ac.uk/11394/1/DCSF-00050-2010.pdf>

In recent years, the British Office for Standards in Education, Children's Services and Skills (OFSTED) has issued e-safety guidelines in order to ensure that pupils attain Internet security skills. High priority given to training and continuation training to all staff, including the contribution of the wider school community (Mackenzie, 2012). The OFSTED School Inspection Handbook (2015) states that schools have a responsibility to promote "safe practices and a culture of safety, including e-safety".

In the United States a health bullying prevention program designed for middle school students has been developed. The social-emotional-learning based program called BullyDown is aimed at engaging youth while also encouraging them to practice safety skills. BullyDown is now to be tested in a large randomized controlled trial to see if exposure is associated with reduction in bullying behaviour (Ybarra, Prescott, and Espelage, 2016).

Various games are available to teach children strategies to prevent bullying and social exclusion. One is FearNot!, an interactive drama/video game that originated from the EU funded research projects Victec and eCircus.<sup>6</sup> It is an immersive learning intervention aimed to help victims escape harassment. Another is QUEST for the Golden Rule which is an anti-bullying prevention and intervention program composed by a game, guide for teachers, curricula and activities. Quest for the Golden Rule is an engaging, effective, and efficient means of raising awareness, fostering positive attitudes, and promoting effective problem-solving for bullying prevention in schools (Rubin-Vaughan, Pepler, Brown *et al*, 2011). A third game is The Labyrinth which teaches students about safer Internet (Nocentini, Zambuto and Menesini, 2015).

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<sup>6</sup> FearNot!, <https://sourceforge.net/projects/fearnot/>

### *Governmental and NGOs' responsibility*

The vast majority of US states have passed laws criminalizing cyberbullying (National Conference of State Legislatures 2010; Sacco, Silbaugh, Corredor *et al.*, 2012; Teensafe, 2017). New Hampshire and Pennsylvania require schools to implement anti-cyberbullying measures including special training of teachers and education programs for pupils (Independent Democratic Conference, 2011). New Jersey instituted an anti-bullying bill of rights.<sup>7</sup> In the United Kingdom, several statutes may relate to cyberbullying: The Obscene Publications Act 1959; the Computer Misuse Act 1990; The Criminal Justice and Public Order Act 1994 defines intentional harassment as a criminal offence; The 1997 Protection from Harassment Act was used by the police to prosecute the posting of threatening statuses on Facebook and for sending of offensive emails (Carter, 2009; Rigler, 2013). The Malicious Communications Act 1998 makes it an offence to send offensive or threatening electronic communications; The 2003 Communications Act includes the use of smart phones and Internet communications in the remit of the harassment laws.<sup>8</sup>

Being aware of adolescents' propensity to take risks, programs like Tweenangels and Teenangels, operated by WiredSafety (<http://www.teenangels.org>), help educate youth about safe and responsible Internet use. Governmental agencies, like US Computer Emergency Readiness Team (<http://www.us-cert.gov/cas/tips/ST06-005.html>), and large corporations like

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<sup>7</sup> NJ Anti-Bullying Bill of Rights, [http://www.njleg.state.nj.us/2010/Bills/PL10/122\\_.PDF](http://www.njleg.state.nj.us/2010/Bills/PL10/122_.PDF)

<sup>8</sup> Communication offences, [http://www.cps.gov.uk/legal/a\\_to\\_c/communications\\_offences/](http://www.cps.gov.uk/legal/a_to_c/communications_offences/)

Microsoft<sup>9</sup> also provide guidance as to how to protect against various Internet threats.

Knowing that adolescents might be reluctant to share their cyberbullying experience with their parents, the American National Crime Prevention Council campaigned against cyberbullying under the heading: Don't Write It. Don't forward It. Stop Cyberbullying. The campaign has a variety of useful resources for parents (<http://www.southelgin.com/index.asp?SEC=C2D8E352-8BA8-4633-811F-DBA524775690&DE=B73B1210-C7FA-4FF9-9F18-2F32D2CB75B4>).

StopBullying.gov provides information from various government agencies on how children, youth, parents, educators and others can prevent and stop bullying (<http://stopbullying.gov/index.html>). STRYVE, a national initiative led by the Centers for Disease Control and Prevention (CDC) takes a public health approach to preventing youth violence before it starts.<sup>10</sup> And I should also mention The Bullying Prevention Initiative (BPI) funded by The Colorado Trust, a private grant-making foundation in Denver, Colorado. The grantees funded by this initiative represent school districts, individual schools, or community based organizations, responsible for implementing bullying prevention programming in 78 schools across Colorado (Williams and Guerra, 2007).

One of the first websites set up in Canada for young people which provides advice as to how to prevent and take action against cyberbullying was Cyberbullying.org (<http://www.cyberbullying.org/>). I should further note the work of Anti-Bullying Alliance (<http://www.anti-bullyingalliance.org.uk/>) which brings together over 60 organizations into one network with the aim of reducing bullying; Kidscape,

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<sup>9</sup> <https://cloudblogs.microsoft.com/microsoftsecure/tag/cyber-bullying/>

<sup>10</sup> <https://vetoviolence.cdc.gov/tools-trainings>

helpline for the use of parents, guardians or concerned relatives and friends of bullied children.

In the UK, the important charities are the National Society for Prevention of Cruelty to Children, established to end cruelty to children,<sup>11</sup> Barnardo's (<http://www.barnardos.org.uk/?gclid=CO3-yti0vKgCFYob4QodJ0M1Bw>), and ChildLine (<http://www.childline.org.uk/Pages/Home.aspx>). These organizations are instrumental in providing information and promoting awareness regarding the possible harms of social networking forums on the Net. Further information is available on MyChild websites,<sup>12</sup> Childnet (<http://www.childnet-int.org/>), Bully OnLine (<http://www.bullyonline.org/>), [www.netsmartz.org](http://www.netsmartz.org), <http://www.getnetwise.org/index.php/about/> and <http://www.wiredsafety.org/>. These sites provide wealth of information about cyberbullying, cyberstalking, and cyberabuse including help line for victims of any kind of cyberabuse.

### *Responsibility of social networking sites*

I have discussed this issue at length in my book (Cohen-Almagor, 2015) and therefore the discussion here is rather brief. Social Networking Sites (SNS) are popular among European children. One in four 9-10 year olds and over half of 11-12 year olds use SNS, with 22% and 53% use Facebook respectively (Livingstone, Mascheroni, Ólafsson *et al.*, 2014). A survey from 2013 found that Facebook, Ask.fm and Twitter were the most likely sources of cyberbullying. 54% of those using Facebook reported cyberbullying on the network (Butterly, 2013). In 2017, Instagram became the most popular vehicle for cyberbullying (Wakefield, 2017). More youths

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<sup>11</sup> NSPCC, [http://www.nspcc.org.uk/what-we-do/what-we-do-hub\\_wdh71749.html](http://www.nspcc.org.uk/what-we-do/what-we-do-hub_wdh71749.html)

<sup>12</sup> [http://www.reputationdefender.com/lp/lp1\\_mc10?gclid=CN6E95Oy36MCFUj-2Aodckch\\_g](http://www.reputationdefender.com/lp/lp1_mc10?gclid=CN6E95Oy36MCFUj-2Aodckch_g)

experienced cyberbullying on Instagram than any other platform at 42%, with Facebook following at 37% and Snapchat ranked third at 31% (Grigonis, 2017).

Seventy-one percent of the survey participants said that social media platforms do not do enough to prevent cyberbullying (Grigonis, 2017). Internet Service Providers should include easy to use safety features on their servers. Netusers should be able to easily remove from their own pages content that is undermining them and/or damaging their reputation. Noticeable buttons should be included in Facebook walls to enable users to easily seek professional assistance when facing abuse. The buttons would direct the bullied directly to one of the NGOs established to fight cyberbullying. Internet intermediaries should adopt effective methods of age verification. ISPs and hosting companies could provide a **uniform channel for user complaints**. Such a channel (which could be as simple as a link to the CyberTipline) could easily be placed on the complaints or customer service page of the service provider (Thornburgh and Lin 2002). Voluntary participation is to be encouraged.

ISPs and web-hosting companies can develop **standards for responsible and acceptable practices for Netusers**. ISPs' terms of service usually grant ISPs with the unilateral right and ability to block service to those who violate the terms. ISPs are reluctant to do this as they wish to maintain business. They are for profit. However, there were instances in which ISPs denied service, commonly due to violation of copyrights. Following complaints about copyright violation, ISPs took the material off their servers.

From an ethical perspective, ISPs can and should have codes of conduct explicitly stating that they deny service to cyberbullies. Sometimes, for whatever reasons (laziness, economic considerations, dogmatism, incuriosity, lack of care,

contempt), we refrain from doing the right moral thing. But we should. This is not a free speech issue as we are not free to inflict harm on others. It is about taking responsibility for stopping those who abuse the Internet for their vile purposes.

Many social network providers enable Netusers to pre-moderate any comments left on their profile before they are visible by others. This can help Netusers prevent unwanted or hurtful comments appearing on their profiles for all to see. Netusers can also set their profiles to “Private,” so that only those authorised by the Netuser are able to access and see the profile. Upon receipt of reports about cyberbullying, social networking sites investigate and can remove content that is illegal or breaks their terms and conditions. They may issue warnings and have the power to delete accounts of Netusers who have broken their rules.

## **Conclusion**

The propensity of adolescents to risky behaviour as part of their identity explorations, the sensation and thrill seeking which is the desire for novel and intense experiences, the relative freedoms they enjoy as they are less constrained by adult responsibilities – all these tendencies undermine adolescents’ capacity to take well-considered decisions for themselves (Arnett, 1994, 2000; Powell, 2006; Galvan, Hare, Voss *et al.*, 2007; Ruhe, Tenzin Wangmo, Badarau *et al.*, 2015). Given their physical, mental, emotional and their social dependence on others, their inability to fully comprehend their social condition and to make complex decisions, bullied adolescents are volatile, vulnerable and emotional. They lack the ability to make fully rational decisions, to assess short term and long term effects, to weigh risks and benefits. Thus they might be more susceptible than adults to consider suicide.

Cyberbullying is a growing concern that should not be ignored (Scheff,

2015). Human lives are at stake, challenged by callous behavior enabled and facilitated by technology. The ethical use of information and communication technologies and the sustainable development of an equitable information society need a safe and public infosphere for all, where communication and collaboration can flourish, coherently with the application of human rights and the fundamental freedoms in the media. Ethical behavior is one that considers the consequences of one's actions and being accountable for it. Ethics is not merely a question of dealing morally well with a given world. It is also a question of shaping the world for the better. This is a proactive approach which perceives agents as world owner, creators, and producers of moral goods (Floridi, 2010). When Netusers produce evil, society needs to develop adequate mechanisms to educate and raise awareness of the harsh consequences that might result from such an irresponsible behavior. We all have a shared responsibility to shape a safe and, if possible, better world for our children.

This article is interdisciplinary, drawing together brain studies, psychology, Internet studies and social policy. Policy makers should invest in collaborative and integrative approaches aimed at combatting harassment on and off-line. Future research will benefit from interdisciplinary and longitudinal studies that analyse the phenomena of bullying and cyberbullying from different perspectives, with sharper focus on comparative analysis of different manifestations of bullying and cyberbullying in different countries and specific age groups. There is a need to study differences between both phenomena as well as differences between countries. Interdisciplinary research that brings together Internet studies and culture studies will shed further light on targeting vulnerable populations (youth with health problems, different sexual orientations, minorities). It is also important to conduct systematic

follow-up evaluations of anti-bullying programs in different schools and cultures. These programs should include treatment options for both bullies and victims.

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## Notes