

# INTERNET VISIBILITY AND CYBERBULLYING: A SURVEY OF CAPE TOWN HIGH SCHOOL STUDENTS

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## ABSTRACT

The pervasive and open nature of the Internet in the everyday lives of South African children has facilitated benefits such as increased collaboration, learning opportunities and access to knowledge (A2K). However, the online environment's increased visibility has at the same time provided new ways for children to bully each other, and the evidence in the available literature suggests that online bullying – “cyberbullying” – may result in more harmful consequences than offline variants of such behaviour.

This article provides findings from an online survey of cyberbullying experiences among a sample of high school students aged 15 to 21 years in the city of Cape Town. The survey found clear evidence of cyberbullying, as reported by both victims and perpetrators, and it was found that social networking sites (SNSs) were the online spaces most-used for cyberbullying, followed by short message service (SMS) platforms. Among perpetrators, 19% reported that they cyberbullied once or twice a week and 10% said they cyberbullied every day or almost every day. The survey also uncovered gender differences in the length of time it took for victims of cyberbullying to put the incidents behind them, with more females than males taking a long time (i.e., a few weeks, or a month or two or more) to stop feeling “bothered” by the incident.

The authors conclude that the findings show a need for improved efforts, in schools and in student households, towards building learners', parents' and teachers' e-safety awareness and capacity for preventative action.

## KEYWORDS

cyberbullying, online risks, children, South Africa

## INTRODUCTION: CHILDREN AND THE ONLINE ENVIRONMENT

The speed with which children are gaining access to information and communication technology (ICT)-enabled social media, media, Internet content and mobile platforms is unparalleled in the history of technological advancements (Livingstone et al., 2013). The progress and use of digital media have escalated quickly, and improvements in social networking sites (SNSs), mobile media devices, and networked games are finding favour with children (Shipton, 2011). The level of adoption of mobile phones amongst children has increased significantly in the last decade, and along with this there has been an increase in the capabilities of mobile handsets (Lenhart, 2009). Children use their handsets for communications through voice calling, text messages, accessing the Internet, and taking and sharing photographs and videos.

Accordingly, Internet activities amongst children have increased exponentially across the globe in the 21st century (Tokunaga, 2010) and have become embedded in their lives (Livingstone et al., 2013). This is also true of children in South Africa (De Lange & Von Solms, 2011; Oosterwyk & Parker, 2010). The wide variety of platforms for accessing the Internet, and unrestricted access to social networking sites and chat rooms, have been pivotal in the way children's communications have evolved in the 21st century (Badenhorst, 2011; Du Preez 2012). Children are proficient with, and regularly use, technology (Mishna et al., 2010). They are highly dependent on this technology for interaction and connection with others, as well as for activities such as homework and games. The increasing significance of these activities has motivated many conversations about the benefits and risks of this constantly changing technology. The benefits of the Internet relate to the many opportunities available for entertainment and for activities facilitated by enhanced access to knowledge (A2K),<sup>1</sup> such as learning and developing skills of collaboration and creativity (Helsper & Eynon, 2010; Zhong, 2011).

With all the benefits and opportunities made available by the Internet, there are accompanying risks that cannot be ignored (Staksrud & Livingstone, 2009). Associated with the increase in adoption of Internet use by children, fears about children's online risk to harm have become a prominent feature in research and public discussions (De Lange & Von Solms, 2011; Staksrud & Livingstone, 2009).

Because the nature of the Internet is self-regulatory and open or “visible” to everyone (Kopecky et al., 2012; Lorenz et al., 2012), children are offered many diverse opportunities to publish material (Jackson et al., 2007). This openness or “visibility” allows all material and content to be available to anyone with access, and therefore understanding and highlighting risks is often complex (Cranmer et al., 2009). For instance, content that is deemed inappropriate for younger children of six to eight years of age could possibly be appropriate content for adolescent children aged 16 or 17 (Boyd et al., 2009).

1 See AJIC Issue 16, 2015, for more on A2K matters.

Some studies have found that children are often unaware of the dangers of the Internet, which can lead to unsafe behaviour, such as posting personal information on public sites and cyberbullying (De Lange & Von Solms, 2011). However, in other studies (see Livingstone et al., 2013), children have been found to be highly aware of risks, with a long list of concerns related to their online usage.

There can be little doubt that children need to be made aware of the risks from an early age, and be provided with guidance, in order to keep them safe whilst online. However, parents are frequently ill-equipped to deal with the threats, due to lack of experience and education regarding the Internet, and often unaware of the activities that children are involved in. There is often a vast divide between children and their parents with regard to cyber knowledge and activities.

Among the online risks affecting adolescents, cyberbullying has been found to be the one that causes the most harm (Haddon & Livingstone, 2012). Cyberbullying can be defined as intentional and persistent harm to a person caused by a group or person via the use of electronic media (Hinduja & Patchin, 2013). Peer victimisation and bullying have always been an issue for schools and parents alike (Patchin & Hinduja, 2010), but the Internet has the potential to increase the extent and impact of bullying due to the possible anonymity of its perpetrators and the possible wide visibility of the bullying behaviour (Boyd et al., 2009).

Children involved in bullying or victimisation by bullies have reported higher levels of depression across all four forms of bullying: physical, verbal, relational and cyber (Wang et al., 2011). This depression has resulted in an examination of cyberbullying as a phenomenon in several unfortunate cases of teen suicide (Dooley et al., 2009; Patchin & Hinduja, 2010).

Evidence of instances of cyberbullying among school children is of great concern, because schools should be places where young people develop confidence and a strong sense of self-worth. While several studies have investigated the extent of cyberbullying, West (2015) argues that additional research studies related to the details and consequences of cyberbullying are required particularly in the 16 to 19 year age group. However, the West (2015) study investigated cyberbullying in a post-compulsory education context in England, and the findings concluded that while cyberbullying is present in this context it is lower than in a school context. Hinduja and Patchin (2013) investigated cyberbullying among middle and high school students in the US. While evidence confirmed that cyberbullying was prevalent in these schools, occurrences were relatively low. However the study only investigated cyberbullying that had occurred in the previous 30 days (Hinduja & Patchin, 2013).

The purpose of this research was to determine the extent of cyberbullying experienced among students in Grades 10 to 12 (typically in the 15- to 21-year age group) at a set of high schools in South Africa's second-largest city, Cape Town; to determine the potential impact of these experiences; and to examine any possible gender differences in the bullying or in the responses to the bullying.

The next section of this article outlines the research survey that was conducted. This is followed by a section that provides conceptual framing for the research via a review of existing literature on children's exposure to online risks, including cyberbullying. Then there is a section investigating the South African literature. The research findings are then provided, followed by a final section of conclusions and recommendations.

In this study, the term "children" is used to refer to girls and boys of school-going age, i.e., aged 6 to 18 years, but with the upper age limit going higher than 18 years in cases (as in the sample we surveyed in Cape Town) where a student may need to stay in high school beyond the age of 18 years). Many of the dynamics of cyberbullying are particularly pronounced in the teenage years, and that is why our research focused on high school students.

## THE RESEARCH

The population that this study looked at was learners in Grades 10 to 12 in selected classes at selected secondary schools in a Cape Town education district. Grades 10 to 12 in South Africa are the final three years of high school, meaning the students are typically aged between 15 years and 18 years, i.e., in their final years of childhood, with a few students older than that (primarily due to repeating of failed years).

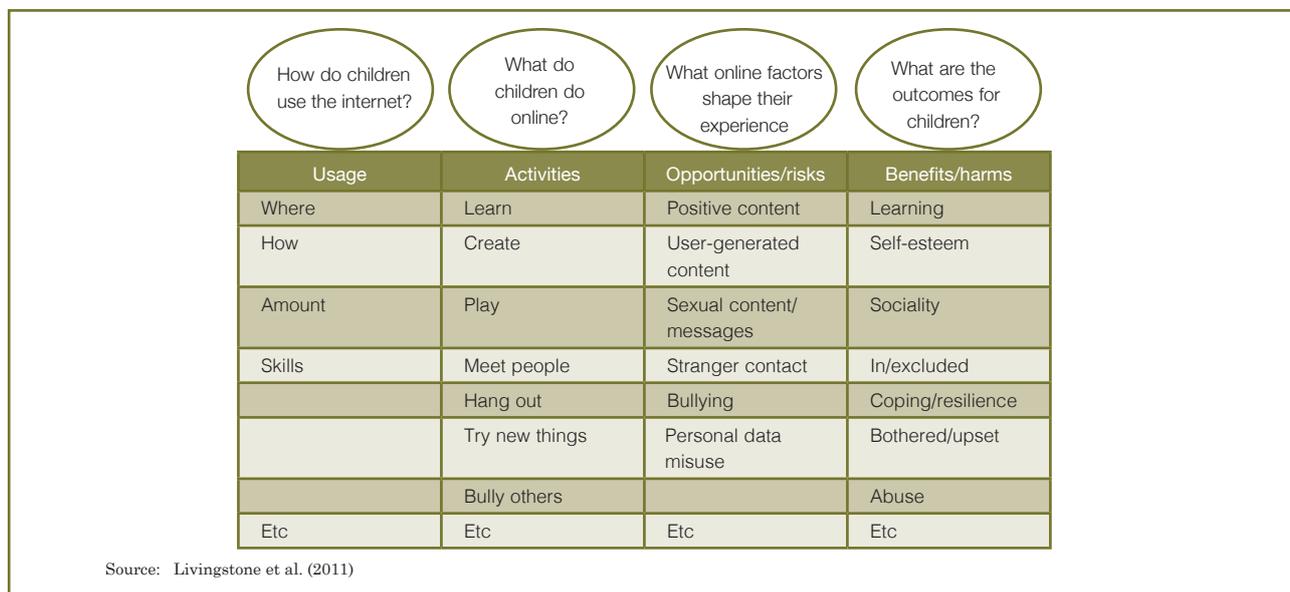
A non-probability convenience sampling technique, based on the purposive sampling method (Saunders et al., 2009), was applied. As the study was exploratory, as well as needing to adhere to time constraints, this method was the most appropriate. Nine schools were selected to participate in the study, with the schools chosen on the basis of the types of activities observed on the ChatSA website (<http://www.chatsa.biz/>). At each school, one class in each grade (Grades 10, 11 and 12) was requested, via the school's principal, to take part in the study.

The learners' home languages were primarily English, Afrikaans or Xhosa, which are the three South African official languages most widely spoken in Cape Town. A total of 324 students, aged between 15 and 21 years, were targeted, and 310 responded to the survey.

We used a post-positivist approach – an approach that allows individuals' instincts, philosophies, morals, beliefs, education and social standing to be taken into account in understanding what influences their perceptions and realities (Guba, 1990). It was felt that use of this post-positivist lens to frame the research would allow children's actions and reactions in the online world to be grasped.

The research adopted a deductive approach to the theory since it used an existing conceptual model: a model published in 2011 by the EU Kids Online research project (Livingstone et al., 2011). The model, outlined in Figure 1 below, traces the possible consequences of children’s online activity according to four sets of elements: (1) how children use the Internet, (2) what they do online, (3) the online factors shaping their experience, and (4) the outcomes for the children.

FIGURE 1: MODEL FOR RESEARCHING CHILDREN’S ONLINE ACTIVITIES



Data were collected and analysed via an online survey based on a survey instrument developed by EU Kids Online that had already been tested and used in 25 countries across Europe to gain insight into the risks and experiences that children encounter online. (Hasebrink et al., 2008). Using this online survey tool allowed the number of respondents to be maximised while minimising the time and labour required to gather the data (Saunders et al., 2009).

The research questions we sought to explore via the survey were as follows:

1. To what extent do high school learners in Cape Town encounter cyberbullying?
2. To what extent are the learners who experience cyberbullying bothered by it?
3. To what extent are there gender differences in the perpetrating or experiencing of cyberbullying?

The study complied with the ethics and confidentiality guidelines of the University of Cape Town (where two of the authors of this article are based). There were some potential limitations to this study. One was that the high schools were not chosen randomly; they were chosen specifically because they were using the aforementioned ChatSA website. Another potential limitation was the relatively small sample size (310 respondents). In addition, the respondents’ parents and teachers were not questioned or interviewed.

### ONLINE RISKS FOR CHILDREN

Children are often portrayed as techno-savvy users of the various technologies (Mishna et al., 2010). A study by Helsper and Eynon (2010) confirmed that young people use the Internet more than their older counterparts. Children tend to use the Internet as their first port of call, have higher levels of Internet self-efficacy than older people, and use the Internet for fact-checking and formal learning activities. But at the same time, in examinations of online risk, children are often portrayed as innocent, vulnerable and in need of protection (Vickery, 2012), and parents are urged to take on the important role of supporting their children’s use of technology and providing guidance (Helsper & Eynon, 2010).

Staksrud and Livingstone (2009) maintain that children are active agents in their own lives, and that they use the Internet to express themselves, to socialise, and to discuss their frustrations. Among other things, children use the Internet to post pictures, fall in love, end relationships, and avenge each other (Livingstone & Haddon, 2009). Children are playful by nature and often use the online environment to experiment with new behaviours, as their offline lives tend to be restricted by parents, teachers and schools. These behaviours can expose children to several opportunities and risks. Such exposure has initiated expectations and dismay from policy communities, the public and private sectors, and parents alike (Livingstone & Helsper, 2010).

While pornography has for more than two decades been seen as the highest of the online risks (Livingstone et al., 2013), additional potential high-risk exposures have emerged, such as exposure to “sexting” (the sending of sexually explicit messages or pictures electronically), self-harm, personal data misuse, interactions with strangers, and the

subject of this article: cyberbullying (Kopecky et al., 2012; Livingstone et al., 2013; Sharples et al., 2009; Staksrud & Livingstone, 2009). Boyd, Marwick, Aftab and Koeltl (2009) point out that the risks children take and face online tend to equal the risks they take and face in the offline world, and that technology merely moves longstanding fears and risks to a digital platform. Livingstone and Haddon (2009) also argue that the medium (the Internet) is not the root cause of the risks that adolescents experience; rather, the message is the key problem. Regardless, online harassment or bullying is typically more visible, to more people, than offline bullying.

The increased visibility of the Internet has provided new ways for adolescents to torment each other, and it has been persuasively argued that online bullying is often more harmful than the offline version, because the Internet amplifies messages and intensifies cruelty by making it more widely visible (Kopecky et al., 2012). (At the same time, however, this increased visibility can potentially make it easier for adults to see the online bullying than to see its offline variants.)

A classification framework created by the aforementioned EU Kids Online project (Hasebrink et al., 2008), classified the various factors influencing online benefits and risks experienced by children. The age, gender and socio-economic status (SES) of participants were used as the main independent variables in examining the variances in benefits and risks. In a 2013 EU Kids Online survey of 10,000 children in Europe (Livingstone et al., 2013), it was found that the primary risks adolescents faced online were pornography, cyberbullying, exposure to sexual content, sexting and personal data misuse (Livingstone et al., 2013). The top three most risky platforms were considered to be, in descending order of risk, video-sharing sites, websites and social networking sites (SNSs). *Content*-related risks were the highest risks mentioned by children, with 58% identifying pornographic, violent or other content risks first. *Contact*- or *conduct*-related risks such as bullying, along with other risks such as viruses, were mentioned by nearly half (42%) of the children in the study as the highest risk. This was the opposite ordering to what parents expect, since they would put contact-related risks at the top of their concerns. The reason that conduct-related risks came second in the children's ranking of concerns is most likely due to the fact that cyberbullying and sexting is linked to the widespread use of mobile, personal and networked devices.

An earlier EU Kids Online study (Livingstone et al., 2011) found that a lower percentage of children reported being exposed to cyberbullying as compared to exposure to other risks (such as sexting or meeting strangers offline), but the children reported that cyberbullying had a more harmful impact on them than exposure to other risks. It must be borne in mind that what adults consider risks (i.e., meeting strangers) can be seen by adolescents and children as opportunities (Livingstone & Haddon, 2009).

Meanwhile, an American study by Lenhart, Purcell, Smith and Zickuhr (2010) found that 26% of US teens and young adults reported being tormented or harassed on their mobile phones, while the percentage reporting that they had received a "sext" text message was much lower at 15%, and only 4% reported having sent a sext.

As shown in the EU Kids Online model (Livingstone et al., 2011) in Figure 1 (in the section of this article entitled "The research"), potential harms that can result from Internet activity include feeling excluded, feeling upset or bothered, and, in more extreme cases, suffering abuse. While confirming the argument that there are risks to children using the Internet and other online platforms, Livingstone et al. (2011) at the same time propose that the margin for harm resulting from the risks is often surprisingly small.

Regardless of their scale, harms experienced online by children cannot be ignored. Adults have attempted to place restrictions and regulations on children to limit online activities, but these have not proved adequate (Staksrud & Livingstone, 2009). Placing increased restrictions on online activity may not be the answer. There is evidence to suggest that the perception that parents and teachers are placing restrictions on their online activity may make children reluctant to request help from parents and teachers if and when they experience a problem online – as such a request would force the child to reveal an element of her / his online activity (Staksrud & Livingstone, 2009). Adolescents fear that punishment, and more restrictions, will result from requests for help. More often than not, they will confide in a friend, rather than a parent or teacher, when confronted with an online issue that bothers them (Hasebrink et al., 2008). Increased e-safety education in schools could increase the trust relationship between learners and teachers with regard to online activities (De Lange & Von Solms, 2011).

Cyberbullying incidents can be classified as *direct* or *indirect* (Bauman et al., 2013). With direct cyberbullying, the bully makes contact with the victim directly, for example by sending him/her a malicious text message. In indirect cyberbullying, the person responsible may not be known. An example of indirect cyberbullying is gaining access to another person's email account or social networking page and either falsely claiming to be that person (and sending out messages or making postings in that person's name); or blocking access to the account so that the person cannot use it.

Cyberbullying behaviour includes the distribution of humiliating pictures or videos about a particular person, making unkind remarks about someone, or cyber-stalking someone online (Mishna et al., 2009). Cyberbullying characteristically involves repetition, as the media (pictures or text) distributed online can be repeatedly re-distributed, and viewed and re-viewed, with no geographical limitations. Specifically on mobile phones, cyberbullying can take the form of sending malicious text messages, sexting, or taking pictures or videos of someone with the intention of distributing the content to others via a mobile network or the Internet (Hinduja & Patchin, 2013).

The characteristics of the behaviour in cyberbullying are to a great extent the same as in its offline counterpart, but with the culprit or culprits able to be anonymous and the offending behaviour visible to many more people (Cowie & Colliety, 2010). Perceived anonymity plays a major role in the ability to harass others online; being able to hide one's identity enables adolescents to act in ways that they would not normally act if their identities were known (Mishna et al., 2009). Individuals can impersonate others online, or set up fake profiles, in order to perpetrate cyberbullying. However, in spite of this perceived anonymity, Boyd et al. (2009) found that cyber victims typically have the ability to figure out who the culprit or culprits are and generally do figure it out. And, in a high percentage of cases the culprit is known to the victim.

In the US, some studies have found that male children are more likely to be cyberbullies (Hinduja & Patchin, 2013; Wang et al, 2009), and that females are more likely to be cyber victims (Wang et al., 2009). But other studies in Sweden (Slonje & Smith, 2008) and in the US (Williams & Guerra, 2007) have found little or no gender difference in cyberbullying or being cyberbullied.

A Canadian study (Mishna et al., 2010) of middle and high school students reported that nearly half (49.5%) of the respondents had been bullied online in the previous three months. And the Hinduja and Patchin (2013) study of middle and high schools in the US found that 5% of participants had cyberbullied others more than once.

Just as reported incidences of cyberbullying vary, so too do reports of the degree of upset that cyberbullying causes. One US study found that children preferred to use the term "drama" rather than cyberbullying, and in this way to allow themselves to be classed less as victims or culprits in the bullying incidents (Marwick & Boyd, 2011). For instance, in this study, a female respondent labelled her victimisation as "drama" even while acknowledging that incidents were affecting her emotionally. The "drama" label seemingly made the actions more acceptable to her, and she sought to brush the perpetrator's actions off as attention-seeking (Marwick & Boyd, 2011).

Because self-esteem plays a significant role in children's development, particularly in their teenage years, the positive or negative outcomes of online interactions are an important facet of their experience that needs to be thoroughly investigated (Patchin & Hinduja, 2010). Teens tend to look for settings where they will be socially accepted, and to avoid places where they could be marginalised or isolated. The negative effects of cyberbullying on teens (both the recipients and the perpetrators) need to be clearly documented (Hinduja & Patchin, 2013).

An EU Kids Online study (Ólafsson et al., 2013) reported that while certain risks (such as seeing intimate pictures or being propositioned online) were encountered by one in eight children (12.5%), not all children were necessarily bothered by the encounter. What did bother the children the most was receiving hurtful messages.

## THE SOUTH AFRICAN CONTEXT

The South African population, according to study commissioned by the United Nations Children's Fund (UNICEF), is one of the main consumers of mobile technology and social networking on the African continent (Beger & Sinha, 2012). Statistics from Effective Measure, the web traffic measurement vendor for the country's websites, has revealed that nearly 49% of South African Internet users are male, compared to just over 51% of users that are female (Slonje & Smith, 2008).

A 2011 study of primary and high school learners in the Nelson Mandela Bay Municipality of South Africa's Eastern Cape Province found that 90% of respondents used SNSs (De Lange & Von Solms, 2011), and that 67% were accessing these sites on a daily basis. Two SNSs, Mxit (a South African mobile social network) and Facebook, were found to be the most popular sites amongst the surveyed youth, and social networking was their favourite online pastime, followed by gaming (De Lange & Von Solms, 2011). This same survey found that 36% of the surveyed learners had experienced cyberbullying to some extent. A survey of 303 learners from Grades 8 to 12 in high schools in Cape Town found that 93% owned a mobile phone (Oosterwyk & Parker, 2010), and that the learners primarily used their mobile phones to access mobile Internet applications (e.g., Facebook) and mobile social networks (e.g., Mxit) to link with peers and family. The Oosterwyk and Parker (2010) study also revealed that with the adoption of mobile phones by learners in Cape Town, there was an increase in the number of learners being cyberbullied. Similarly, Kruger's (2011) qualitative research in one school in the Western Cape Province established that cyberbullying had become a significant issue in schools and educators were struggling to deal with it in the absence of rules or strategies in place to mitigate the problem.

Findings from the aforementioned UNICEF-commissioned study (Beger & Sinha, 2012) found that the main online risks faced by South African 15- to 24-year olds were cyberbullying, sexting, and meeting strangers online. A more recent study (Alfreds, 2013) reported that the full extent of cyberbullying in South Africa is not known, but that it is definitely growing. Evidence from the Alfreds (2013) study has suggested that young people in particular are exposed to cyberbullying.

Accordingly, the South African government and private-sector actors have initiated projects that blend the promotion of both ICT development and online safety (De Lange & Von Solms, 2011). With the number of South African ICT users growing rapidly, especially among low-income user sectors not previously well-connected to the digital world, there is an urgent need for well-structured policymaking in support of ICT development that balances the imperatives of education and e-safety.

## RESEARCH FINDINGS

A total of 324 students were targeted by the study, and Table 1 below provides grade and gender breakdowns for the students.

TABLE 1: GRADE AND GENDER BREAKDOWNS OF TARGETED RESPONDENTS (N = 324)

Grade	Number in Sample (n)	Gender		
		Male	Female	Prefer not to say
Grade 10	83	38	41	4
Grade 11	82	28	52	2
Grade 12	159	53	94	12
<b>Total</b>	<b>324</b>	<b>119</b>	<b>187</b>	<b>18</b>

Of the 324 students in the target sample, 310 completed the survey. The ages of the respondents ranged from 15 to 21 years old, and 87% of respondents (n = 271) were between the ages of 15 and 18. As outlined in Table 2, of the 310 respondents, more than half (60%) were female, 35% were male, and 5% chose the “Prefer not to say” response when asked their gender. It is unclear why these students chose not to identify their gender in a simple binary choice. This reluctance could relate to gender issues connected to experiences of cyberbullying – for example, heteronormativity, monosexuality and homophobia (Pawelczyk et al., 2014). These issues could be addressed in future research. (Research into questions of sexuality in schools is important and necessary, and school children need to be provided with the knowledge and skills to challenge and deal with homophobic behaviour (Pawelczyk et al., 2014)).

TABLE 2: GENDER BREAKDOWN OF RESPONDENTS (N = 310)

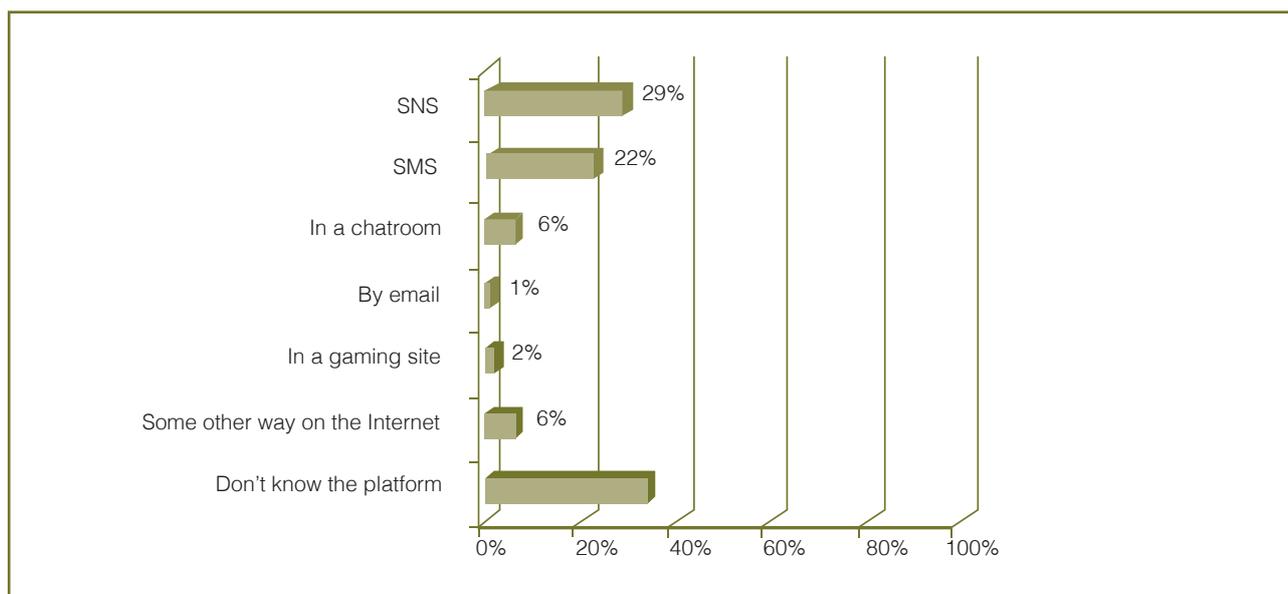
Gender	n	%
Male	108	35
Female	185	60
Prefer not to say	17	5
<b>Totals</b>	<b>310</b>	<b>100</b>

The number of questions answered by participants depended on their experience of cyberbullying. In response to the question regarding if they had been bullied online (on the Internet or SNSs) in the previous 12 months, 42% (n = 131) stated that they had (Table 3). The next question related to specifics of the platforms on which they had experienced cyberbullying. The highest frequency (29%) of response was SNSs, and the second-highest (22%) was SMS (see Figure 2 below). This finding reinforces the results of the aforementioned Nelson Mandela Bay study by De Lange and Van Solms (2011), which also found that SNSs were the most-used platform for cyberbullying amongst South African high school students, with SMS a close second.

TABLE 3: RESPONDENTS EXPERIENCING CYBERBULLYING IN THE PREVIOUS 12 MONTHS (N = 310)

	n	%
Bullied online	131	42
Not bullied online	180	58
<b>Totals</b>	<b>310</b>	<b>100</b>

FIGURE 2: PLATFORM WHERE CYBERBULLYING WAS EXPERIENCED (N = 131)



Respondents were also asked about the specifics of cyberbullying incidents and their experiences as cyber victims. They were provided with a list of possible experiences and could select more than one response. (Out of the 144 responses to this question, 127 indicated their gender, and for purposes of analysis those who did not disclose their gender were ignored.) As outlined in Table 4, among the 127 male and female (M+F) responses to this question, 24 had “nasty or hurtful” messages sent to them.

Of the 24 respondents who said they had received nasty or hurtful messages, three-quarters (n = 18) were female and a quarter male (n = 6). As Table 4 shows, there was in fact a higher percentage of females than males for each of the experiences listed. But a Chi<sup>2</sup> goodness-of-fit test was done (see Table 5) to determine whether the percentages by gender per form of bullying differed significantly from the gender percentage for the sample (i.e., the sample was 63% female and 37% male). The Chi<sup>2</sup> results showed that the gender differences were in fact *not* statistically significant for this sample, i.e., the data did not statistically confirm that females experienced more cyberbullying incidents online than males.

TABLE 4: SPECIFICS OF CYBERBULLYING EXPERIENCE AS VICTIM

	Male		Female		Males + females (M+F)		Prefer not to say		Totals	
	n	% M+F	n	% M+F	n	% Totals	n	% Totals	n	%
Nasty or hurtful messages were sent to me online	6	25%	18	75%	24	96%	1	4%	25	100%
Nasty or hurtful messages about me were passed around or posted online	2	15%	11	85%	13	100%	0	0%	13	100%
I was excluded from a group or activity online	4	29%	10	71%	14	93%	1	7%	15	100%
I was threatened online	3	38%	5	63%	8	89%	1	11%	9	100%
Other nasty or hurtful things online	2	25%	6	75%	8	100%	0	0%	8	100%
Something else happened online	9	41%	13	59%	22	88%	3	12%	25	100%
Don't know	15	54%	13	46%	28	88%	4	13%	32	100%
Prefer not to say	3	30%	7	70%	10	91%	1	9%	11	100%
<b>No. of responses</b>	<b>44</b>	<b>35%</b>	<b>83</b>	<b>65%</b>	<b>127</b>	<b>88%</b>	<b>17</b>	<b>12%</b>	<b>144</b>	<b>100%</b>

TABLE 5: CHI<sup>2</sup> GOODNESS-OF-FIT TEST RESULTS FOR SPECIFICS OF CYBERBULLYING AS CYBER VICTIM

	Chi-square	p(df = 1)	Cramer's V
Nasty or hurtful messages were sent to me online	1.47	.226	n.a.
Nasty or hurtful messages about me were passed around or posted online	2.59	.107	n.a.
I was excluded from a group or activity online	0.42	.517	n.a.
I was threatened online	Sample too small		
Other nasty or hurtful things happened to me online	Sample too small		
Something else	0.15	.699	n.a.

Respondents who reported having been cyberbullied were then asked how long they felt “bothered” by the cyberbullying experience. They were only able to select one response from a list of five possible responses (Table 6). Of the 121 responses given to this question, 25% (n = 30) reported that they “got over it straight away” and 37% (n = 45) said they felt bothered “for a few days”. Only 9% (n = 11) reported that they were bothered “for a couple of months or more”.

TABLE 6: DURATION OF FEELING BOTHERED BY CYBERBULLYING INCIDENT

Gender	How long did you feel bothered for?										Totals	
	I got over it straight away		I felt like that for a few days		I felt like that for a few weeks		I felt like that for a couple of months or more		Don't know how long I felt bothered			
Male	15	38%	11	28%	5	13%	0	0%	9	23%	40	100%
Female	15	21%	31	43%	9	13%	11	15%	6	8%	72	100%
Prefer not to say	0	0%	3	33%	2	22%	0	0%	4	44%	9	100%
<b>Totals</b>	<b>30</b>	<b>25%</b>	<b>45</b>	<b>37%</b>	<b>16</b>	<b>13%</b>	<b>11</b>	<b>9%</b>	<b>19</b>	<b>16%</b>	<b>121</b>	<b>100%</b>

Among the M+F respondents to the “duration of feeling bothered” question, the gender breakdown was evenly split (15 females, 15 males) for those who stopped feeling bothered straight away. But gender differences were found for two of the other possible answers to this question:

- among those who answered that they felt bothered for a few days, a clear majority were females (31 females compared to only 11 males); and
- among those who were bothered by the experience for a couple of months or more, all 11 respondents who gave this answer were females.

A Chi<sup>2</sup> test was performed in order to determine statistical significance of these gender differences and the “Prefer not to say” category of gender was excluded. The results (Chi<sup>2</sup>(4) = 14.29, p = .006, V = 0.36) revealed that the differences in gender groups was statistically significant. It can therefore be concluded that overall females felt bothered for a longer time than males.

Respondents who reported being cyberbullied were also asked what actions they took in response to the incident (Table 7). They were provided with a list of possible responses and could select more than one response.

TABLE 7: ACTIONS TAKEN IN RESPONSE TO CYBERBULLYING

	Male		Female		Males + females (M+F)		Prefer not to say		Totals	
	n	% M+F	n	% M+F	n	% Totals	n	% Totals	n	%
I stopped going online for a while	4	25%	12	75%	16	100%	0	0%	16	100%
I deleted any messages from the person	11	31%	25	69%	36	100%	2	6%	38	100%
I changed my contact settings	2	17%	10	83%	12	100%	0	0%	12	100%
I blocked the person from contacting me	8	24%	26	76%	34	100%	1	3%	35	100%
I reported the problem	2	17%	10	83%	12	100%	0	0%	12	100%
None of these	20	51%	19	49%	39	100%	4	10%	43	100%
Don't know	5	56%	4	44%	9	100%	1	11%	10	100%
<b>No. of responses</b>	<b>52</b>	<b>33%</b>	<b>106</b>	<b>67%</b>	<b>158</b>	<b>100%</b>	<b>8</b>	<b>5%</b>	<b>166</b>	<b>100%</b>

The response with the highest frequency (n = 36) to the actions taken question was “I deleted any messages from the person”, and the second-highest (n = 34) was “I blocked the person from contacting me”. Of the 158 responses to this question who also indicated their gender, 16 stated that they stopped using the Internet for a while, and of these 16 respondents, 75% (n = 12) were female and 25% (n = 4) male (Table 7). In fact, for each of the responses, females had a higher proportion responding in the affirmative than males. But a Chi<sup>2</sup> goodness-of-fit test (Table 8 below) found that the gender differences in these results were not statistically significant given the gender split within the total sample.

TABLE 8: CHI<sup>2</sup> GOODNESS-OF-FIT TEST RESULTS FOR GENDER DIFFERENCES IN RESPONSES TO CYBERBULLYING

	Chi-square	P (df = 1)	Cramer's V
I stopped going online for a while	0.98	.323	n.a.
I deleted any messages from the person	0.63	.428	n.a.
I changed my contact settings	2.12	.146	n.a.
I blocked the person from contacting me	2.62	.105	n.a.
I reported the problem	2.12	.146	n.a.
None of these	3.45	.063	n.a.

Another question in the survey asked respondents to indicate whether or not they had cyberbullied someone else in the past 12 months. Of the 310 respondents, 187 (60%) admitted to being a perpetrator. Of these 187, 10% (n = 18) admitted to “acting nastily” online to someone “every day or almost every day” (Table 9), and 19% (n = 35) of respondents said they were nasty to someone online “once or twice a week”.

TABLE 9: FREQUENCY OF BULLYING AS PERPETRATOR

Gender	How often do you act nastily to someone online?										Totals	
	Every day or almost every day		Once or twice a week		Once or twice a month		Less often		Don't know how often			
Male	7	11%	12	20%	11	18%	21	34%	10	16%	61	100%
Female	11	10%	19	17%	13	12%	45	41%	21	19%	109	100%
Prefer not to say	0	0%	4	24%	3	18%	4	24%	6	35%	17	100%
Totals	18	10%	35	19%	27	14%	70	37%	37	20%	187	100%

Among respondents to this question who also indicated their gender (M+F):

- of those who admitted to acting nastily to someone online every day (n = 18), 11% (n = 11) were female and 10% (n = 7) were male; and
- of those who reported being nasty to someone online once or twice a week, 20% (n = 12) were male and 17% (n = 19) were female.

However, a Chi<sup>2</sup> test was done with “Prefer not to say” excluded and it was found that the results (Chi<sup>2</sup>(4) = 1.86, p = .761) were not statistically significant (p > 0.05) given the gender split within the total sample.

## CONCLUSIONS AND RECOMMENDATIONS

The survey results provide valuable insights into the cyberbullying experiences of a sample of Cape Town high school students. The most noteworthy findings are:

- that 47% of respondents had been victims of cyberbullying;
- that 60% of respondents had been perpetrators of cyberbullying;
- that 19% of perpetrators said they cyberbullied once or twice a week, and a further 10% said they cyberbullied every day or almost every day;
- that SNSs were the most frequent place for cyberbullying to occur, followed by SMS platforms;
- that only 25% of respondents who reported being cyberbullied were able to immediately get over feeling bothered, with 59% of respondents taking a few days, a few weeks, or a month or two or more, to get over the experience;
- that far more female respondents than male respondents took a long time (i.e., a few weeks, or a month or two or more), to get over a cyberbullying experience; and
- that no statistically significant gender difference could be found in the proportions of male and female students who reported that they had been victims of cyberbullying, that they had been perpetrators cyberbullying, or in the actions they took in response to cyberbullying.

A key finding from the literature review was that it is not the online platforms themselves that are at the core of the problem; rather, it is the human behaviours that occur via these platforms. The fundamental problems are thus human not technical. This result confirms the argument that education, guidance and mediation are required in children's use of technology and content (Lin & Atkin, 2014). The results of both our survey and our literature review highlight a need to build e-safety and anti-cyberbullying awareness and preventative action among learners, teachers and parents. Dialogue at home and in schools, between learners and parents and between learners and teachers, needs to be a central component of the awareness-raising and prevention, and the efficacy of such efforts will need to be investigated in future research.

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