Emotional and Social Effects of Cyberbullying on Adolescents

by

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Abstract

With an even greater number of adolescents depending upon digital technologies to satisfy their social and interpersonal needs an indirect consequence of this participation have been the negative social and emotional repercussions of cyberbullying behaviour. Cyberbullying has become an unfortunate consequence of increased online participation and interactions. The current literature review utilizes Robert Agnew’s General Strain Theory (GST) and the General Aggression Model (GAM) to explain what motivates perpetrators to cyberbully and understand the impact these acts have on victims. Research findings suggest youth exposed to cyberbullying behaviour exhibit both short and long term effects having both significant and severe emotional and social repercussions. These repercussions include but are not limited to the following: social anxiety, depression, anger, substance abuse, eating disorders, self-harm, suicidal ideation and in some cases suicide. The purpose of this analysis is to raise awareness and support for the introduction and instalment of digital citizenship training at the secondary school level. To effectively navigate the intricacies of the online world youth must be equipped with proper skills and strategies. Based on research findings adolescents must be given applicable ground rules and actively supervised to ensure appropriate use. If it is expected that youth engage appropriately online it is important that adults model and reinforce appropriate behaviour at home, in schools and in the community.

Keywords: Cyberbullying, digital citizenship, victimization, general strain theory (GST), general aggression model (GAM), adolescence, information and communication technology (ICT), Internet.
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Chapter 1

1.1 Introduction

Online victimization and cyberbullying have become an unintended outcome of increased student participation in the digital world. The exponential growth of the Internet and its related digital technologies over the last decade have undoubtedly revolutionized the way students, companies and organizations communicate, exchange ideas and stay connected worldwide (Chisholm, 2014). The benefits of such systems and advancements in technology have created the potential for greater levels of efficiency as it relates to education, communication and access to information. The advent of email, websites, forums, social networking sites, blogs and text messaging have created a digital environment where information and access is instantaneous and immediate (Hinduja & Patchin, 2015a; Palfrey & Gasser, 2008).

For many of our youth, technological advancements have had educational benefits, but are primarily used as “critical tools for social life” through online interactions and socialization in virtual communities (Kowalski, Limber, & Agatston, 2012, p. 2; Mishna et al., 2010). Although many of these interactions remain positive, media sources and academic research suggests with more students gaining access to the digital world than ever before (Li, 2007b; Shariff, 2009), the incidences of online inappropriateness are becoming increasingly more common and rates of cyberbullying are rising rapidly (Ferguson, 2015; Hinduja & Patchin, 2015a; Kowalski et al., 2014; Mishna et al., 2011). The exact cause of cyberbullying behaviour cannot be easily identified as each case is unique, but with over 98% of Canadian youth accessing the Internet and communication technologies on a daily basis (Mishna, 2012) it appears that
the rate of cyber aggression or cyberbullying acts are not going to decline in the near future. Despite the complex and sometimes detrimental psychological impacts on social behaviour that the Internet affords, we must equip students with the ability to identify and overcome victimization in order to learn from and excel in the digital world. By understanding the motivation and complexity by which acts of cyberbullying occur one can start to develop strategies for how to best limit them.

1.2 Background of the Problem

Students living and learning in the 21st century are not accustomed to a world without Internet access or digital devices. With little to no structure or guidance on how to best maximize these devices, students can browse, text and tweet without limitations. The online world has become a such a draw for today’s youth that some individuals have developed what researchers call, “pathological technology use (PTU)” (Gentile, Coyne, & Bricolo, 2013). This obsessive behaviour describes an individual who exhibits “addictive behaviours in response to technological media, such as the Internet or [games]” (Kowalski et al., 2014, p. 1074). Individuals with this level of technological dependency exhibit characteristics similar to that of a person who is addicted to alcohol or drugs (Kowalski et al., 2014). Furthermore, a national study which sampled 1,178 youth’s ages 8 to 18, revealed that students suffering from PTU “spent twice as much time playing non-pathological gamers and received poorer grades in school; pathological gaming also showed comorbidity with attention problems” (Gentile, 2009, p. 594). This further suggests the importance in monitoring the duration and supervising the intensity of digital use among our youth.
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At school, through new ministerial learning outcomes, students are encouraged to make use of digital devices or use their own through Bring Your Own Device (BYOD) initiatives (British Columbia Ministry of Education, 2015). Within some of these learning environments, inconsistencies exist where students are not being given adequate support, guidance or direction on what constitutes proper use and appropriateness. Further to that, rules on digital technology use within schools are often inconsistent to those within specific classrooms, as teachers will often modify guidelines for mobile devices so that they can be used as educational tools within their individual learning environments.

At home students often greatly surpass their parents with respect to their knowledge of digital devices, online social networks and messaging services. Marc Prensky refers to this generational gap as a differentiation between “digital immigrants and digital natives” (Prensky, 2001). Regardless of the gap, the complexity of digital technology has made it somewhat of a moving target with respect to monitoring, supervising and regulating use. A lack of structure and guidance can be blamed for the rampant nature of inappropriateness in the digital world as school curriculum has yet to be appropriately designed to educate students on how to appropriately use the Internet and its lengthy list of digital technologies. Adolescents, in their cognitive developmental state, often lack the ability to self-regulate or to successfully regulate each other with respect to acting appropriately in the online world (Deursen et al., 2015). As a result, we are left with an environment where youth replicate, retaliate and repetitively abuse each other online which leads to drastic interference within the learning environment. This is not specifically an adolescent problem as victims of cyberbullying consistently report
“emotional, social and psychiatric problems” that often persist well into adulthood (Mishna et al., 2010, p. 363, 2011).

Further to these issues, youth often misconstrue the nature of the online world with respect to privacy and anonymity. The permanence of the digital world is often one that youth cannot comprehend, as they are commonly unaware of the security or network parameters that constitute use. In what John Suler (2004, p. 321) refers to as the “Online Disinhibition Effect”, youth frequently self-disclose, act more “erratically or intensely” and participate in activities that they may not partake in a face-to-face offline setting. The repetitious and reproducible nature of the Internet also makes it a hazard for adolescent users. One inappropriate image or comment can be duplicated and redistributed within seconds. The very nature of this act allows text or pictures to be viewed far and wide and distributed by anyone who has access to what is becoming increasingly more public information (Mishna et al., 2011). An unfortunate consequence for the victim is that these images or comments are nearly impossible to remove as they have been engrained within the digital footprint of the digital world.

1.3 Statement of the Problem

The proliferation of digital devices now available to students has only compounded and complicated the cyberbullying problem. With the work that students complete becoming increasingly more digital it is becoming increasingly more common that students may be in class, on-campus, but they are operating online in the digital world. With the creation of the Khan Academy (2015), Coursera (2015) and other virtual schooling programs like them, students are becoming increasingly more dependent on the Internet for educational purposes. This furthers the point that the Internet is changing the
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face of education to a system where youth are online more often than they are not. In a recent talk entitled, “Teaching and Learning in an Age of Abundance,” Will Richardson (2014) refers to this technological shift in education as a way for educators to “build trust, relationships and promote curiosity” (Richardson, 2014). Richardson (2014) also reiterated that “[teachers] are no longer the smartest [people] in the room if students have access to the Internet” and as a result instruction needs to be based less on delivery and more on discovery.

As a result of increased access and improved usability, bullying can no longer be considered specifically a school-based issue, as inappropriate and harmful behaviours are now rampant off-campus and in the digital world. Recent studies suggest many of our youth do not comprehend online communication and virtual communities as “virtual realities or technological subcultures,” but see them more as a seamless extension of their offline life (Chisholm, 2014, p. 77). Further research suggests that youth feel they must remain “always on” or “connected” to their Information and Communication Technologies (ICT) even when participating in offline activities (Osgerby, 2004). Being online for many adolescents has become a huge part of their personal identity. An online presence, for many youth has become an important part in establishing and maintaining ones social status. Therefore, when acts of cyberbullying occur this is seen as an attack on their identity that hits youth at an existential level. The pervasive, targeted and repetitive nature of cyberbullying allows victims to be bullied “beyond the schoolyard” and is said to have even stronger consequences than traditional bullying (Patchin & Hinduja, 2006; Tokunaga, 2010, p. 279). With over 75% of school-age children experiencing cyberbullying aggression at least once in the last year (Kowalski et al.,
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2014), and one in five in last three months (Mishna et al., 2008), it appears that this level of connectedness comes with its own set of significant and potentially life-altering consequences.

School-aged youth will often accept the social, emotional and psychological side effects of being bullied online just to stay connected with their peers or to gain access to information (Agatston, Kowalski, & Limber, 2007; Tokunaga, 2010). This further demonstrates how important being online and maintaining an online presence is for today’s youth. To risk one’s health and overall well being to simply stay connected seems unnecessary and entirely avoidable but to those entrenched in the adolescent world it is a necessity in order to maintain status quo.

For many youth the Internet and its related digital devices are seen as tools to explore, interact and experiment without moral or principle boundaries (Mishna et al., 2011). As educators, we have not done an effective job in preparing youth for the challenges of living and learning in the digital world. The generational gap is partly to blame, as is the “digital divide” that exists between today’s educators and adolescents (Sciadas, 2002, p. 2). As a result of not being entirely well versed in the digital world, most educators have failed to keep up with youth and therefore are unable to prepare students for the digital challenges that they currently face. Rapid and constant changes in technology through new and improved programs, applications and social network sites, combined with the ability of individuals to develop their own platforms makes the technological world somewhat of a moving target for educators and parents. Also contributing to the divide are technological innovations combined with a “digital native” generation who is constantly seeking out the latest advancements in order to establish
their own identity that is separate from their parents and other generations (Prensky, 2001).

Digital technologies have given youth an unprecedented opportunity to communicate with their peers inside and outside of their face-to-face social networks (Mishna et al., 2012). Despite the social, cross-cultural and educational benefits of these cyber interactions, many youth are choosing to use digital technologies inappropriately in their efforts to harass, extort, intimidate, threaten, and intentionally exclude one another (Berson & Berson, 2002; Gasser, Maclay, & Palfrey, 2010). The social and emotional ramifications of this systematic victimization have greatly contributed to a list of short and long-term social and emotional consequences in North American school-age youth (Schäfer et al., 2004).

Of those victimized by cyberbullying, many youth report serious to severe health issues such as strong feelings of vulnerability, sadness, anxiety, fear and an inability to concentrate within the school learning environment (Mishna et al., 2010). An inability to concentrate due to acts of cyberbullying can also been linked to poor academic performance (Faryadi, 2011; Ybarra, Diener-West, & Leaf, 2007) and directly connected to deficiencies in student socialization levels (Gross, 2004; Mishna et al., 2011). Other severe complications of cyberbullying include social isolation, depression, self-harm, suicidal ideation and increased use of illicit substances (Bauman, Toomey, & Walker, 2013; Litwiller & Brausch, 2013; Moore et al., 2014). Reports also suggest that students who are cyberbullied are more inclined to then participate in cyberbullying, cyber stalking and other forms of cyber aggression behaviour, thus perpetuating the online problem (Campbell et al., 2013b; R. Kowalski et al., 2014).
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1.4 Purpose of the Study

Cyberbullying has become an unfortunate consequence of increased digital use among adolescents and with little being done at the Ministry and district level to help mitigate these problems rates of inappropriateness will continue to rise (Wahab, Yahaya, & Muniandy, 2015). It is hoped through an in-depth review of the research literature that school board officials, school administrators and teaching staff will become more aware of the impact, the seriousness and the immediacy of cyberbullying, and the potential solutions. Through greater awareness of the problems associated with cyberbullying and the promotion of digital citizenship training programs (Hollandsworth, Dowdy, & Donovan, 2011) it is hoped that all school staff, parents and students can work collectively toward minimizing acts of inappropriateness and maximize the educational potential that the Internet and its devices provide to students. Through the provision of digital citizenship training initiatives, it is hoped that students will learn to live in compliance with various expectations and that they can be trusted to act appropriately when in a non-supervised, unstructured online environment. It is also hoped that we can move away from restricting access and enforcement so that more students can develop the skills and abilities to self-regulate and improve the rate and occurrence of positive social exchanges in the online environment. This comprehensive literature review should serve as a valuable resource for students as they navigate the online world. It should also act as a guide to help educate support staff, teachers, administrators and parents about the complex issues surrounding cyberbullying in hopes that we can reduce and avoid acts of cyberbullying.
1.5 Statement of the Hypotheses

This report attempts to assess the social, emotional and psychological impacts of cyberbullying behaviour based on Robert Agnew’s General Strain Theory (GST) (Agnew, 1992, 1995, 2001). GST outlines several categories of strain which contribute to acts of delinquency and deviance. The following reactions, according to Agnew’s theory, are identified as having an impact on levels of strain: (i) “failure to achieve positively valued goals” (for example, difference between expectations and actual achievements), (ii) “loss of positively valued stimuli (for example, parental loss or loss of close friend),” and (iii) “the presence of negative stimuli (for example, [cyber]bullying victimization or emotional abuse)” (Agnew, 1992; Baron, 2004; Hay, Meldrum, & Mann, 2010; Jang, Song, & Kim, 2014, p. 86; Sharp et al., 2001). Agnew argues that various strains can create feelings of anger, frustration or other emotional states that lead to inappropriate, or more severe criminal activity (Agnew, 1992, 1995, 2001). GST is proposed as an essential theoretical framework from which to develop and improve our understanding of cyberbullying. GST can also systematically make sense of the broad array of empirical data and research in order to design assessment measures and interventions that can then target and limit these acts.

In addition to Agnew’s GST, the general aggression model (GAM), proposed by Anderson et al., will be used to understand the nature and extent of cyberbullying perpetration and victimization (Anderson, Deuser, & DeNeve, 1995). GAM has previously been used to explain the impact of media violence (i.e., video games, television, and movies) on aggression, specifically as it relates to child and adolescent users (Bushman & Anderson, 2002; Gentile et al., 2004). However, for the purposes of
this analysis, GAM will be used to help understand the situational factors at play in identifying what motivates varying youth to cyberbully. GAM will be utilized by examining “cognitive knowledge structures” (i.e. scripts and schemas) and centers around three areas of emphasis: motivational causes of cyberbullying, situational factors affecting cyberbullying and decision-making as it relates to perpetration and victimization during cyberbullying acts (Fletcher et al., 2014; Kowalski et al., 2014, p. 1110-1111; Mishna et al., 2011).

On the basis of General Strain Theory (GST), which argues “stressful life events produce negative effect that can lead to delinquent coping responses” (Hinduja & Patchin, 2007, p. 90) and General Aggression Model (GAM), which argues that aggression is a “behaviour directed toward another individual and carried out with the intent to cause harm,” (Anderson & Carnagey, 2004, p. 171), three hypotheses are being proposed. The first, is based on an emotional perspective, where it is believed that strain-inducing experiences (Agnew, 2001) generated by cyberbullying greatly contribute to feelings of sadness (Hinduja & Patchin, 2007), anxiety (Sharp et al., 2001), anger, (Piquero & Sealock, 2000), frustration (Brezina, 1998) and depression (Hawker & Boulton, 2000). The second of these hypotheses identifies the psychosocial perspective, where it is believed that strainful (Agnew, 2001) circumstances generated by acts of cyberbullying greatly contribute to increased incidents of eating disorders (Sharp et al., 2001), drug and alcohol abuse (Hinduja & Patchin, 2013), social isolation (Moon et al., 2009), self-harm (Carter Hay & Meldrum, 2010) and suicidal ideation (Hawton, Rodham, & Evans, 2006). The final hypothesis, which examines the GAM, looks to make a connection between the rate and type of cyberbullying that exists across sexes but also
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evaluates the relationship, motivation and intentions between perpetrators and those victimized by cyberbullying acts.

GST tests reveal strain can drive victims to seek revenge through delinquent acts of inappropriateness, and this theory will also be used to identify and verify the connection between cyberbullies and those victimized by cyberbullying acts (Ybarra & Mitchell, 2004a). Furthermore, reactions to strain differ among males and females, as males, who are more exposed to “criminogenic strains at higher levels” (Baron, 2004; Hay, 2003, p. 6) react by externalizing their responses whereas female emotional reactions are often more conducive to internalizing responses (Agnew, 1995; Broidy & Agnew, 1997). Acts of externalizing deviance are defined but not limited to, aggressive, violent acts against others and their property (Hay, Meldrum, & Mann, 2010). Internalizing responses can be recognized as “acts of deliberate self-harm” which include but are not limited to “cutting, burning oneself, jumping from heights, running into traffic, poisoning, and self-battery, with each of these acts sometimes resulting in suicide” (Hay & Meldrum, 2010, p. 448; Hawton et al., 2006). Although acts of cyberbullying by both male and female perpetrators have extremely adverse effects, recent studies suggest that more passive, subtle forms of cyberbullying demonstrated by females can be existentially more damaging when assessing the short and long-term psychological and social impacts of these acts (Favela, 2010; Smith et al., 2006). It has also been determined that males who are said to cyberbully less when compared to their female counterparts (Lenhart, 2007; Smith et al., 2008a), do demonstrate more aggressive, vicious and confrontational acts of online harassment (Li, 2006; Smith et al., 2008b). The overall impacts of these acts are situational but pose both short and long
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term psychological and social effects. A more in depth evaluation and investigation of
gender differences and cyberbullying will be carried out in Chapter 2.

Regardless of gender differences and how they relate to the impact of
cyberbullying, the prevalence and persistence of online acts of inappropriateness and
misbehaviour have led to ever-increasing emotional and social side effects among
adolescent victims. These acts and the consequences of such acts further support the need
for greater education on topics related to digital citizenship and digital literacy training.
Through these programs it is hoped that students can develop a well-rounded and
improved ability to exercise self-control and that when combined with more authoritative,
supervisory parenting improvement can be observed (Carter Hay & Meldrum, 2010, p. 456).

Furthermore, results from a meta-analytical review will synthesize findings from
both qualitative and quantitative research studies in order to accurately assess the social,
emotional and psychological impact that cyberbullying has on victims and address the
impact that these incidents have on individual students and their learning environments.

A primary goal of this investigation will evaluate and assess the social
consequences and isolation that cyberbullying creates for school-aged students (K-12)
through an investigation of the literature and pertinent research studies. Specifically, what
impact does cyberbullying have on the emotional, social and behavioural development of
adolescent student victims? What are the social repercussions that are observed when
individuals are cyberbullied? Finally, how can administrators, teachers and parents work
collaboratively to minimize the incidents and extent of these online acts of
inappropriateness? This evaluation is based on the assumption that digital citizenship
training programs have a positive influence on student achievement in school and beyond; without these programs adolescents are not equipped to properly mitigate the negative social, emotional and psychological effects of cyberbullying. In an effort to provide workable solutions, an overview will also be presented which outlines feasible intervention strategies for students, parents and teachers in order to limit the occurrence of cyberbullying. These ideas will be centralized around research findings that will be linked to the importance of digital citizenship training and its effect on reducing the frequency and occurrence of cyberbullying acts.

1.6 Scope of the Study

It is evident that educators, parents and students need support, structure and guidance for how to best deal with increasing problems in cyberbullying and cyber aggression. To limit online victimization, digital citizenship programs must become an essential component of our elementary, middle and secondary school curriculum. If educators expect to hold students accountable for their actions we need to provide them with a level of support and guidance that allows them to learn and improve their online appropriateness through digital citizenship training initiatives. Incidences of online misbehaviour can be linked to a variety of different factors, but arguably the gap that exists between “digital natives” and “digital immigrants” plays a significant role (Palfrey & Gasser, 2008). If adults are not engaged enough in the digital world to properly supervise, guide and direct our adolescent users, or lead by example, youth are more likely to look to their peers for direction. Invariably when this happens, acts of inappropriateness create more acts of inappropriateness and the vicious cycle begins.

Beyond the digital capabilities needed to direct adolescents in the online world we must
first equip them with a set of core values and beliefs. If we educate our youth about what it means to interact digitally, respectfully and thoughtfully through the use of appropriate language and by understanding what is acceptable and what is not it is hoped that these initiatives can be carried into the digital world. Further to that, if we equip youth with the proper tools to better protect themselves and respect each other’s privacy it is expected that we can collectively limit the occurrence of inappropriate cyberbullying acts.

The pervasive nature of the Internet, and its many facets, make holding individuals accountable for inappropriate acts a very difficult task. It is hoped that when students are monitored and trained to self-regulate through digital citizenship programs, that the Internet can be used as an educational resource rather than a conduit for abuse and misuse. To the credit of many countries and states, several digital citizenship programs have already been implemented worldwide with great success in school districts across South Korea (South Korea Ministry of Education, 2015), Europe (Ferrari, 2013), Australia (New South Wales Department of Education and Community, 2014) and in the United States (“Common Sense Media”, 2014), but few examples exist in Canada (Media Smarts, 2015) and more specifically in British Columbia. In South Korea several education-based digital citizenship models are built upon Bronfenbrenner’s (1995) Ecological System model where five environmental systems: i) macrosystems; ii) exosystems; iii) mesosystems; and iv) Microsystems are considered and used to explain how, what and why individuals interact, react and influence each other in the varying relationships that they engage in. Bronfenbrenner’s well-rounded model provides an excellent foundation for a digital citizenship program as it considers the environmental influences on human development and interaction (Bronfenbrenner, 1979).
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In the United States, Roger’s (1983) model of adoption is also used to explain and develop understanding for why the digital divide exists between older and younger generations as it relates to technology use and misuse. The model of adoption is a “theory that seeks to explain how, why and at what rate new ideas and technology spread through cultures” (Shelley et al., 2004, p. 258). By developing a theoretical framework that is considerate of the emotional and psychological components of human behaviour and interaction a sound digital citizenship program can be developed with ultimate success. Curran (2012) argues that “in an age where information and communication can be done instantly, being able to consume and produce electronic media as a socially responsible [and an emotionally and spiritually mature] citizen is imperative” (Curran, 2012, p. 5). Ohler (2010) further promotes the installation of K-12 digital citizenship through a revised version of character education: “the digital age beckons us to usher in a new era of character education, aimed directly at addressing the opportunities and challenges of living a digital lifestyle” (Ohler, 2011, p. 26). Whatever option one chooses to take as they design a digital citizenship curriculum it must be supported by a solid foundation and backed by a sound theoretical framework that everyone is in agreement with. With an ever-increasing number of elementary, middle and secondary schools accessing the digital world, a comprehensive approach to digital citizenship needs to be implemented across school districts in the province of British Columbia.

1.7 Definition of Terms

a) Bring Your Own Device (BYOD) is the process by which staff and students may bring their own devices to school and use the provided Internet/Wi-Fi connection.
b) Character Education is a learning process that encourages students and teachers in a school community to understand, care about and act on core ethical values such as caring, awareness, respect, responsibility, integrity and teamwork. A demonstration of good character is something you do when nobody is looking.

c) Cyber-Aggression can be identified as negative words, terms and/or statements directed toward another on the Internet or through the use of mobile devices or messaging services.

d) Cyberbullying is an intentional act or behaviour that is carried out repeatedly, using electronic forms of communication (e.g., email, blogs, instant messages, text message et al.) against a person who cannot easily defend him- or herself (Smith et al., 2008).

e) Digital Citizenship or a Digital Citizen is a person, who regularly, effectively and appropriately navigates the digital world safely, responsibly and ethically.

f) Digital Divide refers to the gap between those who have access to modern information and communication technology and those who do not. The divide often refers to differences in demographics and geographic location as it relates to access to the Internet, digital devices and other forms of technology.

g) Digital Native is a person born or brought up in the age of digital technology and as a result has become familiar with the workings of the Internet and its related digital devices.

h) Digital Immigrant is a person born or brought up in an age prior to the widespread use of digital technology and as a result are often less familiar with the specific workings of the Internet and its related digital devices.
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1.8 Summary

As we progress into life in the 21st Century the digital world is becoming increasingly more hazardous for our adolescent users. In response to these increasing threats, students need to become better educated on how to best navigate and interact
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with the available material in as respectful and as responsible a way possible. Our
students need to be equipped with the proper skills and strategies to mitigate incidents in
the online world so as to encourage greater digital citizens and avoid acts of
inappropriateness. Students need to be given direction and support for evaluating and
being critical of sources, information and individuals that they interact with. School
districts need to give students the opportunity to develop skills on how to best identify
hazards and educate students on how to report and avoid acts of online inappropriateness.
Students should also be encouraged and trained on how to avoid the types of thinking,
emotional responses and behaviours that contribute to acts of cyberbullying. With an
even greater number of elementary, middle and secondary school students engaging in
the digital world on a more regular basis, digital problems are not going to disappear any
time soon. The purpose of this meta-analysis is to review the literature and recent
research studies on the emotional, social and psychological impact of cyberbullying on
adolescents. Through this analysis it is hoped that greater awareness can be generated on
the prevalence and seriousness of such acts of inappropriateness and that steps can be
taken toward responding and preventing such occurrences. With the support of
administrators, teachers, parents and students it is hoped that improvements can occur
and that life in the digital world can become more hospitable for all of our digital users.

1.9 Outline of the Remainder of the Paper

In the following chapters a review of the research literature will be conducted to
identify the nature and extent of cyberbullying acts in Canada and throughout the world.
Research findings and statistics will also be used to identify the existence and limitations
of supervision, monitoring and reporting. Careful consideration will also be directed
toward understanding factors associated with cyberbullying acts. Further to that, an in
depth evaluation will be conducted to aid in understanding the psychological, social and
emotional repercussions of cyberbullying acts and those affected by such incidents. The
role that gender/sex and age play in acts of cyberbullying will also be evaluated in order
to develop a well-rounded, comprehensive understanding of the cyberbullying problem.
In an attempt to develop a response to such incidents, intervention and prevention
strategies will be evaluated and developed through the continued promotion of digital
citizenship programs. To promote further analysis of this ever-changing problem it is
hoped that greater direction can be provided to steer future research in this extremely
important area.
Chapter 2

Review of Literature

2.1 Introduction

With the accelerated growth of the Internet, electronic communication and information sharing, as well as the increasing number of youth using these digital mediums, the negative outcomes of this exponential growth are becoming apparent (Wanda Cassidy, Faucher, & Jackson, 2013). The impact of cyberbullying has intensely unfavourable consequences and attributes connected to a variety of social and psychological maladies (Caputo, 2014; Hinduja & Patchin, 2007, 2013; Mishna et al., 2010). In an effort to understand the origins and complexity of such acts of inappropriateness and develop strategies for how to best respond to youth engaged in this behaviour, an integrative review of the research literature must be completed. Numerous research studies and peer-reviewed journal articles and textbooks have been published pertaining to cyberbullying and therefore both the complexity and intricacy of this digital problem is evident. It is hoped that through such a comprehensive evaluation that greater light can be shed on the seriousness of cyberbullying and its lasting effects on adolescent victims. In order to suppress the proliferation of such events, the research provides insight and direction for how to best deal with increased levels of cyber aggression and acts of cyberbullying. To clarify, this is not a review of what youth are doing wrong on the Internet, or with their digital devices, but a review of the effects of cyberbullying and a plea for the creation of educational resources for schools and students which provide a checkpoint or a guide for online student behaviour. As soon as online misbehaviour becomes part of the conversation and is recognized as a contributor to social and
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Emotional distress among students, those who are most affected may feel better supported; at the very least, such recognition is the beginning of effective responses to reduce or eliminate cyberbullying. If students begin to recognize the impact that cyberbullying behaviours are having on their peers, hopefully they will reduce these acts and improve their online appropriateness. This situation is two-fold in that students might be given greater responsibility and independence online if they prove they are more capable, mature and trustworthy in the skills they develop through digital citizenship training programs.

2.2 Purposes to be served by Review of Research Literature

The purpose of this review is threefold: (i) to provide a descriptive review of the existing research on cyberbullying among adolescents which includes a look at the social and emotional impacts of cyberbullying; (ii) more specifically, to identify and synthesize new findings as they relate to the relationship between cyberbullying and the impact this has on the social and emotional well-being of students and in turn what effect this has on student learning environments; (iii) to present findings and strategies for how to best deal with acts of cyberbullying with a primary focus on the promotion and installation of digital citizenship curriculum in local districts.

2.3 Nature and Extent of Cyberbullying

Over the last decade, youth have developed a greater level of proficiency as to how they use computers, the Internet and the variety of digital devices available to them. Increased accessibility has without question improved efficiency and has led to positive social and relational changes in the ways in which youth communicate, socialize and interact (Amanda Lenhart, 2015). However, increases in digital use have also resulted in
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a substantial number of youth being exposed to acts of interpersonal violence, harassment, aggression and overall mistreatment (Caputo, 2014; Grigg, 2010; Hinduja & Patchin, 2013). These events, classified as cyberbullying, refer to the intentional act or behaviour that is carried out repeatedly, using electronic forms of communication (e.g. email, blogs, instant messages, text message et al.) against a person who cannot easily defend him- or herself (Hinduja & Patchin, 2007; Kowalski & Limber, 2007; Smith et al., 2008b). Cyberbullying occurs in varying forms but common examples include the sending of threatening messages using a computer or cell phone, posting defamatory or harassing messages on an individual’s social media site, uploading unflattering or humiliating pictures or videos to the Internet without an individual knowing or without permission (Kowalski & Limber, 2007). More specifically Chisholm (2014) identifies ten common types of cyberbullying that are frequently used online: i) *Catfishing* – when individuals are tricked into emotional/romantic relationships over extended periods of time through fabricated identities; ii) *Cheating* – used in multiplayer online gaming situations when ‘gangs’ of players prevent entryway into specific game sites; iii) *Flaming* – an antagonistic/argumentative style of communication used in an online setting commonly used by males (Urban Dictionary, 2015); iv) *Impersonation* – when someone is misrepresented or falsely represented in online setting; v) *Slamming* – when individuals known and not known to a victim participate in online harassment; vi) *Ratting* – when a user remotely takes control of another person’s computer or webcam via remote administrative tool software without gaining the permission or consent of the targeted individual; vii) *Relational Aggression* – when an individual spreads rumours, creates fake profiles, deletes targets from group lists or posts cruel or threatening pictures or posts in
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order to ostracize or exclude the target from a group; viii) Sexting – when embarrassing, humiliating and/or sexually explicitly photographs are intentionally distributed or circulated; ix) Trolling – when offensive messages or posts are made within an online community or forum in order to anger, frustrate, humiliate or provoke a response from a target; and x) Stalking – when an individual follows or exhibits violence toward one target in an online setting (Chisholm, 2014). Online harassment or cyberbullying can include the aforementioned but are definitely not limited to such acts.

What motivates individuals to cyberbully can often be an easy determinant but in many cases the processes and avenues by which individuals carry out such acts are much more complex and sophisticated, especially among adolescents. At this developmental stage many behavioural choices made by youth are influenced and conditioned by the role that peers, family and teachers play in their lives (Hinduja & Patchin, 2013). Much research has been completed on identifying the nature and extent of cyberbullying but very little has been carried out to determine the root causes or motives of such acts. How and why individual’s cyberbully is often very situational but research has identified some very common and consistent occurrences as they relate to causes or correlates of cyberbullying participation. According to findings, individuals will often cyberbully as a method to stay in power or as a way to gain power over others (“What are the Causes of Bullying,” 2015). Other research suggests that cyberbullying can occur as a result of social pressure, a way to alleviate boredom, a method for coping with low self-esteem, a lack of empathy, based on the belief that the victim deserved it, or carried out under the misconception that everyone cyberbullies (Hoff & Mitchell, 2009; Mishna et al., 2010; Smith et al., 2008a). Such acts might also be carried out because the attacker believes
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they will remain anonymous or as a form of retaliation or reaction to being cyberbullied by others (Aoyama, Saxon, & Fearon, 2011; Suler, 2004). Furthermore, the physical and emotional detachment gained in the online setting often leads individuals to carry out actions that they might not perform in the face-to-face on-campus setting as defined within Suler’s (2004) the Online Disinhibition Effect. Englanger and Muldowney (2007) describe cyberbullying as “an opportunistic offence, since it results in harm without physical interaction, requires little planning, and reduces the threat of being caught” (Tokunaga, 2010, p. 279). These acts could be carried out as a frustration or an act of jealousy or in an effort to fit in with a particular peer group. Whatever the motivation the end result is not positive and with a long list of social, emotional and psychological repercussions our youth need to be educated and made aware of the potential consequences of being exposed or participating in such behaviours.

Without question the Internet and its related digital devices have greatly altered the way adolescents operate in the 21st century. Within Canada, 87% of households are connected to the Internet in some capacity (Canadian Internet Registration Authority, 2014). Globally, Canada continues to be one of the most “wired” countries in the world and one of heaviest users of the Internet through mobile technology (2014). In 2013, six out of ten Canadians accessed the Internet via mobile devices and in the same year, smartphone use increased by 57% (2014). When surveyed about mobile device usage, 93% of Canadians stated that they use their mobile devices for texting, 91% take photos and/or video, 82% browse the Internet, 77% use calendar functions on a regular basis (2014). In 2014, results from a multi-year MediaSmarts study, “Young Canadians in a Wired Word,” surveyed 5000 Canadian youth across the country and found that youth
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Ages 9-17 spent 41.3 hours per month online and the most frequent online activities reported by students centralized around: playing video games (59%), reading or posting on someone else’s social network site (52%) and downloading or streaming music, TV shows or movies (51%) (MediaSmarts, 2014). Research from this multi-year study also revealed that youth are turning to more portable forms of digital technology when compared to results from previous years (2014). Findings from 2013 revealed that 24% of Grade 4 students and 85% of Grade 11 students have their own phone (2014).

Mobile device use and online interpersonal interactions pose greater supervisory challenges than traditional media as adolescents have “access to any form of violence, advertising, or sexual behaviour that may be considered risky with regard to health” (Donnerstein, 2012, p. 265). As a result of increased access and even fewer restrictions on digital use youth have an even greater opportunity to participate in inappropriate acts.

Phase three of the “Young Canadians in a Wired World” survey found that 25% of youth have instigated acts of cyberbullying, one in three teens had actually reported that they have been cyberbullied and nearly 50% of Canadian youth are in distress as a result of traditional or cyberbullying acts (Craig & Mishna, 2014; Steeves, 2014). 65% of students from this survey reported their victimization started over a year ago and 20% of students reported that they had been cyberbullied within the last month (Craig & Mishna, 2014; Steeves, 2014). According to the Canadian Institute of Health Research, cyberbullying has seen a notable increase over the last ten years (“Canadian Bullying Statistics,” 2014). According to statistics, incidents of the cyberbullying have grown exponentially from 18.8% of youth reportedly effected by cyberbullying in 2007 to 34% of youth in 2015 (Hinduja & Patchin, 2015). These statistics further emphasize the importance of
promoting and developing global citizens who demonstrate empathy online, responsibility and the skills to deal with inappropriateness in the digital world. When digital devices are used appropriately they can serve as a valuable educational and communicative tool for many of our youth (Hammick & Lee, 2014). These digital forms of interactions are more convenient and efficient in their delivery and in their capacity to immediately communicate and share information. However, when youth misuse or abuse these avenues of communication and interaction the consequences can be harmful and psychologically damaging. Therefore, do the positives of these digital interactions outweigh the negative consequences? When our digital citizens are properly trained and supervised to use these devices in a positive manner I believe the answer is yes.

2.4 Theories Associated with Cyberbullying

A major challenge in understanding acts of cyberbullying is in identifying why these acts occur or what motivates cyberbullies. It is often the ease and appeal of cyberbullying which is further propagated by the frequency and accessibility of “online communications, including reproducibility, lack of emotional reactivity, perceived uncontrollability, relative permanence, and 24/7 accessibility” (Kowalski et al., 2014, p. 1074). Often cyberbullying at a secondary school level is said to be driven more by internal motivation based on students seeking attention, exacting revenge and making themselves feel better than on external factors such as the lack of consequences and direct confrontation (Varjas et al., 2010). These findings are consistent among many North American research studies on cyberbullying (Agatston et al., 2007a; Hinduja & Patchin, 2013; Kowalski et al., 2012; Mishna, Saini, & Solomon, 2009; Smith et al., 2008a).

However, when cross-cultural comparisons are made (Barlett et al., 2014), notable
differences in motivation and the frequency of cyberbullying behaviour can be observed. Within a European American cultural context, research suggests when samples are raised and reinforced to behave in an independent self-construal manner, meaning that they are more self-focused and autonomous within the social parameters of society, samples tend to demonstrate “a variety of social behaviours, including aggression” (Barlett et al., 2014, p. 301; Singelis, 1994). Whereas, in Japanese culture individuals are raised to be interdependent self-construal and often see the broader context of society before considering themselves (Barlett et al., 2014; Singelis, 1994). Differences in self-construal types can cause samples to interpret and react to social situations in entirely different ways. For example, interdependent samples are likely to consider the situational factors which lead to an apparent act; an aggressor having a bad day (Barlett et al., 2014). Whereas, an independent self-construal sample might interpret an act of aggression as a personal attack and react accordingly.

According to research by Mesquita and Leu (2007), interdependent self-construal samples “process emotional information from the perspective of others, whereas those primed with an independent self-construal gather emotional meaning about situations from their own perspective” (Barlett et al., 2014, p. 302). These findings are supported by Bergeron and Schneider (2005), who suggest that aggression levels are lower in cultures that promote “collectivistic values, high moral discipline, a high level of egalitarian commitment [and] low uncertainty avoidance” (Bergeron & Schneider, 2005, p. 116). Finally, a more recent study by Cetin et al., (2011) using the structural equation model (SEM) determined a negative correlation between relational-interdependent self-construal and cyberbullying misbehaviour. These and other findings further promote and support
the importance of developing interdependent self-construal citizens as a way of reducing the incidence of cyberbullying.

2.4.1 General Aggression Model (GAM).

The General Aggression Model (GAM) is being used to help conceptualize what motivates and drives individuals to participate in acts of cyberbullying. The GAM has previously been used to assess the negative effect violent video games have on players (Anderson & Bushman, 2001). However, the theoretical framework of this model can also be applied to help understand the personal and situational factors involved in cyberbullying perpetration and victimization (Kowalski et al., 2014). The domain-specific factors associated with the GAM help to identify the behaviours and path of action demonstrated by those involved in cyberbullying activity (see Figure 1). The GAM is centralized around knowledge structures and focuses on three main areas of influence as outlined by Kowalski et al. (2014) and Anderson and Bushman (2002): personal and situational inputs; routes of arousal that influence present internal state; and the appraisal and decision-making processes that leads to distal outcomes. For the purposes of this assessment a brief summary of the GAM will be described in order to show its effect and purpose in evaluating the motives behind cyberbullying acts. The personal and situational factors, as described by Bushman and Anderson (2002) and Kowalski et al. (2014), on cyberbullying behaviour as discussed within the GAM will be addressed in more detail within the following sections of this paper.

Knowledge structures form the basis of the GAM and describe the varying personality characteristics individuals use to navigate social situations in day-to-day life (Kowalski et al., 2014). In terms of cyberbullying, knowledge structures refer to “varying
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backgrounds, experiences, attitudes, desires, personalities and motives that intersect to determine the course of interaction” between perpetrators, victims and bystanders (Kowalski et al., 2014, p. 1111). Knowledge structures can be used to identify and describe the course of interaction and identify possible influences of aggressive behaviour.

**Figure 1:** An overview of cyberbullying interactions through the General Aggression Model (Kowalski et al., 2014)

Inputs build on the foundation of knowledge structures and describe the personal and situational factors which can be linked to aggressive behaviour (Anderson & Bushman, 2002). Personal factors include the following: age, gender, motives, personality, psychological states, socioeconomic status (SES) and technology use, values and perceptions and other maladaptive disorders (Kowalski et al., 2014). Whereas,
situational factors include the following: provocation and perceived support, parental involvement, school climate and perceived anonymity (2014). Routes, as identified within the GAM, describe the three different paths: cognition, affect and arousal (2014). These routes are derived from the social, cognitive, emotional and behavioural outcomes determined within the person and situational inputs (2014)(see Figure 1). The structure of the GAM recognizes that not all perpetration and victimization are the same. Therefore, various routes are provided to ensure multiple scenarios fit within the model.

Proximal processes within the GAM consider the assessment and decision-making processes carried out during acts of cyberbullying. Within this stage, the GAM is used to determine if previous psychological or behavioural factors may have influenced, or lead to, acts of cyberbullying (Kowalski et al., 2014).

2.4.2 General Strain Theory (GST).

Agnew’s (1992) General Strain Theory (GST) is being used as a guiding framework to help recognize how strainful acts not only lead individuals into retaliatory criminal and deviant acts but also significantly contribute to a list of negative social and emotional consequences. GST is unique in that it recognizes strain from more than just a socioeconomic deprivation perspective. Strain, according to GST, can be generated within any relationship or event where an individual feels mistreated or when the outcomes of an experience are undesired or unanticipated (Hay & Meldrum, 2010). However, when categorizing strain, GST does not consider acts of cyberbullying. This can be attributed to the date in which GST was established. It was a period in time when social media use was not yet popular and laws had not yet been formed to mitigate Internet use. Now that cyberbullying is a punishable crime GST should be revised to
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reflect these changes and upgrade the status and categorization of strain. Hay et al. (2010), contended that traditional bullying should be recognized as strain and it is believed that cyberbullying should also be inclusive of this categorization for much of the same reasons: “(1) It should be perceived as unjust (because [cyber]bullying often will violate basic norms of justice), (2) it should be perceived as high in magnitude (because peer relations often are central in the lives of adolescents), (3) it should not be associated with conventional social control (because [cyber]bullying often will occur away from adult authority), and (4) it should expose the strained individual to others—the [cyber]bullies themselves—who model aggressive behavior” (Hay et al., 2010, p. 3). Therefore, for the purposes of this evaluation cyberbullying will be considered a strainful act that comes with similar repercussions to others identified within Agnew’s (1992) GST.

Examples of strain linked to cyberbullying are far-reaching but could range from inappropriate comments posted on a social media website to the distribution of an inappropriate photograph without a person’s consent. How one perceives strain within the offline or online environment might be entirely different from someone else. An accurate observation of strain in the online world is made even more difficult by the lack of face-to-face interaction. What one sees as a failure to achieve a positively valued goal, a negative stimuli, a disjunction between expectations and actual achievements, what is deemed unfair or unjust, or the removal of positively valued stimuli might be difficult to observe across the expanse of the Internet (Agnew, 1992). These forms of strain as Agnew describes them, are entirely personal and made even more so by the lack of emotional connection people have with each other when they interact online. Agnew
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(1992) suggests special attention be given to causes of strain that appear unjust or unfair to the supposed victim. In the context of cyberbullying, this type of strain might consist of someone being digitally attacked or threatened for little to no apparent reason. These types of acts, where strain is seen as unnecessary or unfortunate, according to GST, are the most dangerous and create the greatest consequences for deviance (Agnew, 1992; Hay & Meldrum, 2010).

GST also references the hazards associated with repetitive or the cumulative impact of negative relations (Agnew, 1992). In addition to unjust attacks, victims experiencing repeated perpetration, as outlined within the GST and the “accumulation theory,” are also susceptible to elevated levels of strain (Agnew, 1992; Linsky & Straus, 1986). The impact that strain has on resultant acts of delinquency or deviance cannot be ignored. Adolescents who are experiencing or are predisposed to low self-esteem or low-efficacy are also at an even greater risk of strain-induced deviance (Hay & Meldrum, 2010). When strain is reduced to feelings of anger the most critical emotions of GST can be observed (Agnew, 1992; Hay & Meldrum, 2010). Agnew refers to outward anger or elevated levels of aggression as an externalizing acts which often lead to acts of deviance (property crime and/or violence) (Agnew, 1992; Hay & Meldrum, 2010). However, GST can also be used to explain when victims direct their strain internally, or in an “internalized” act (Agnew, 1992, p. 49). Internalizing deviance refers to negative emotions such as: guilt, eating disorders, depression, anxiety and other impulse control or addiction disorders (Hay & Meldrum, 2010). The strains as outlined within the GST are very consistent to that experienced by those who are cyberbullied.
Revisions to Agnew’s GST (2002) suggest types of bullying might be linked to increased levels of strain but only among adolescents who are preconditioned to delinquency. Hinduja and Patchin (2007) and Ybarra and Mitchell (2004a) offer a slight modification to Agnew’s (2002) revisions by stating that patterns of bullying and repeated bullying are directly linked to increased levels of crime and deviance among adolescents. More recent findings (Barlett et al., 2014; Hinduja & Patchin, 2008; Mishna et al., 2010; Perren et al., 2012) suggest acts of cyberbullying often leads victims to retaliate or confront their aggressor, to cyberbully others or to partake in other, more illegal forms of behaviour in order to regain their status within certain social circles. The nature of these actions further perpetuates strain and creates a dangerous cycle of abuse that leads to greater levels of delinquency and violence.

Both the GST and the GAM are useful in helping us understand the motives and repercussions of cyberbullying activity. Although GST does not formally categorize cyberbullying as a strainful act when the theory is applied it can be successfully used to explain how and why perpetrators, or those victimized by cyberbullying, are so inclined to engage in reoccurring delinquent acts. GST proves how ones perception of strain can be seen as very individualistic and how repetitive or cumulative acts of strain can be very harmful to victims. To limit acts of cyberbullying one must work toward limiting the levels of strain in an adolescent’s life. Students must be equipped with effective coping mechanisms and conflict resolution strategies in order to avoid or deal with strain-inducing situations before they elevate. If strain is eliminated or at the very least limited delinquency will be lessened. The GAM works well with the GST in this analysis as it helps identify and explain the source of frustration and anger exhibited by cyberbullies.
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In a recent study, 43% of cyberbullied victims knew the identity of their aggressor (Hinduja & Patchin, 2015a). With this knowledge, apparent victims can be educated on how to best avoid or ignore such aggressive personality types and avoid acts of aggression. When adolescents are equipped with the skills and abilities to recognize potential aggressors and hurtful situations they can become more self-sufficient within the digital world. Before this can occur they need adequate practice, support and guidance from the caring adults in their lives.

2.5 Social and Emotional Influences on Adolescent Behaviour with Respect to Cyberbullying

A typical secondary school living and learning environment is one entrenched in peer-pressure, gossip, teasing and rumours in order to assert power over each other. The volatility of the on-campus, face-to-face environment contributes to a lengthy list of social and emotional problems. However, with the advent of modern technology adolescents have 24/7 access to their friends, forums and online content. This level of accessibility, from a cyberbullying perspective translates to youth not being able to escape the wrath and repercussions of online harassment. At the same time, this level of accessibility has fueled a need for many youth to stay connected to the online world. Adolescents look at modern technology as an extension of their personal and social lives. Without digital access many youth have a fear of missing out and run the risk of missing an important social interaction or event. This type of need brought on by more convenient, more mobile forms of technology has created an overarching dependency on technological devices. The repercussions of use are seen not only in the addictive
personalities that exist around technology use but in the peer interactions and clinical disorders that are created with this level of use.

2.5.1 Addictive technology behaviour.

Admittedly many youth cannot go anywhere without their mobile devices. This level of use and dependency has brought about clinical diagnoses such as Pathological Technology Use (PTU) (Sim et al., 2012), Compulsive Internet Use (CIU) (Gámez-Guadix et al., 2013) and Cyber Relationship Addiction (Griffiths & Szabo, 2014). Research suggests that Internet addictions are subsets for broader addiction issues and are a contributing factor in one’s exposure to cyberbullying acts. Those individuals who use the Internet on a more frequent basis are more likely than non-users to be exposed to acts of cyberbullying (Feinberg & Robey, 2009). With an even greater percentage of the adolescent population using the Internet on a more frequent basis this increase has translated to an increase in the frequency and occurrence of cyberbullying acts (Gibson, 2015). It is often the lack of regard students have for their own privacy and safety that translates to youth becoming more vulnerable or susceptible to cyber attacks. Within the realm of 24/7 accessibility youth are more inclined to disclose personal information under the assumption that this information will remain private (Gross, 2004). Unfortunately, these routines and practices combined with an increased level of use have translated to youth becoming increasingly exposed to harmful online acts.

2.5.2 Peer pressure or influence.

The ability to stay connected with peers in the 21st century has been made even more convenient with the invention of modern technology. Connections have become so convenient that these interactions have become somewhat of a distraction for many of our
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adolescent users. Specifically, various social media programs and text messaging services have notification software imbedded within them which allows users to see if messages have been delivered, read or if a recipient is responding. The instantaneous nature of these interactions has led some users to become dependent on immediate feedback. The pressure to respond to messages or texts soon after they have been delivered has contributed to youth becoming detached from life in the offline world. Often youth can be heard saying that they have to respond to a text or message so that the sender knows that everything is okay or that if they do not respond to the sender in a timely manner they might offend them. When users become dependent on this level of immediate feedback stress, anxiety and in some cases depression becomes an unfortunate side effect (Rosen et al., 2013). When youth with predisposed self-esteem, self-confidence or depression issues are left waiting for a response they will often internalize their sender’s response time and this can often further perpetuate these problems. A lack of emotional connection or understanding generated by online interactions also contributes to these problems. Often, inflections or differing tones that would normally be detected in face-to-face interactions are misinterpreted in online or text messaging situations. As a result messages can be taken the wrong way which can lead to inadvertent form of attack or perceived attack which leads individuals to respond.

2.5.3 School-based behaviours and performance.

Numerous research studies suggest that students exposed to cyberbullying notice a significant decrease in their academic performance (Brown, 2010; Faryadi, 2011; Young-Jones et al., 2015). The stress and strain generated by cyberbullying acts often overwhelms or preoccupies the mind and results in a students’ inability to concentrate on
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simple to more complex academic tasks (Hinduja & Patchin, 2007; Juvonen & Gross, 2008). The rate and frequency of cyberbullying attacks on individuals directly contributes to a student’s ability to achieve academically (Smith et al., 2008). By limiting acts of cyberbullying notable improvements can be observed in student achievement (Li, 2007a). Peer perception plays an important role in adolescent development. When youth perceive themselves as unwanted or undesirable, confidence, self-esteem and self-efficacy are greatly impacted (Boulton & Smith, 1994). The effect cyberbullying has on school-based behaviour is significant as recent studies suggest that students who are cyberbullied or participate in cyberbullying acts are more likely to misbehave in class (Mishna et al., 2011), skip school (Ybarra et al., 2007), exhibit violent behaviour (Litwiller & Brausch, 2013) and are even more inclined to bring a weapon to school (Brown, 2010; Mitchell, Ybarra, & Finkelhor, 2007). As a result of these behaviours, those impacted by cyberbullying acts are more likely to receive detentions, suspensions and expulsions from school (Bhat, 2008; Kowalski et al., 2014; Mishna et al., 2009). These forms of punishment lead individuals to develop a lack of connectedness (Wilson, 2004) to their school and their peers which contributes to a continuous cycle of repeat behaviours. To minimize or eliminate such behaviours, intervention strategies must be implemented to disrupt the cycle of offending.

2.5.4 Family dynamics and cyberbullying behaviour.

Youth are very much a product of their upbringing. When individuals grow accustomed to an unstructured and unsupportive home environment this often translates to youth growing resistant to rules and expectations. How families support and reinforce expectations for online use becomes the standard for how adolescents will behave in the
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online world. Research suggests that youth who have grown up in an environment where parents are more familiar with the online world, where specific rules and expectations have been created, and where effective supervision is present, acts of cyberbullying are less frequent (Valcke et al., 2010). The more structure and guidance provided to youth within the online environment encourages them to think about the repercussions of their actions before they act (2010). Parenting behaviours play an important role in preventing cyberbullying participation. Shapka and Law (2013) found that higher levels of parental control and lower levels of parental solicitation were linked to lower levels of cyber-aggression. As a result, youth who are given greater freedom within the online world are more likely to experiment and indulge in more offensive and potentially harmful behaviours (Willard, 2007).

Reports suggest that youth who own or have access to their own mobile phones are at an even greater risk of being impacted by cyberbullying acts (Campbell, 2005b). The freedom that the mobile devices afford also make supervision and regulation of use that much more difficult. Often adolescents plea with their adult parents to own a mobile device for safety and security reasons but what some parents do not consider are the capabilities of these devices and the ability of their immature adolescent users to inflict hurtful cyberbullying attacks on others. How young is too young as it relates to owning your own digital device? This is obviously a topic of much debate. However, it is often a question that any parent has been asked or has at the very least considered. Many parents have been accused of pacifying their children from a young age with digital devices. What many parents do not realize by doing this is that they a building a digital dependency within their child. As the child grows up they continue to want and need
digital devices thus increasing their overall dependency on them. As was mentioned, this need and subsequent use increases the likelihood of a child being affected by cyberbullying behaviour and the list of social and emotional repercussions that comes with use.

2.6 Gender and Cyberbullying Victimization

Differences in rates of cyberbullying among and males and females have been the subject of much research over the last decade. Report findings have been somewhat inconclusive and entirely dependent on the source, the venue for harassment and angle of research. Research has primarily focused on evaluating cyberbullying participation rates and largely ignored the motivational or causational factors for cyberbullying participation across genders. The majority of studies suggest that there is no significant difference in the rate of cyberbullying among genders (Juvonen & Gross, 2008; Varjas et al., 2010; Ybarra & Mitchell, 2004a). However, contrasting studies suggest females are more likely to be both perpetrators and victims of cyberbullying activity (Smith et al., 2008; Wolak et al., 2007) while other findings suggest males are more likely to report cyberbullying and cybervictimization when compared to their female counterparts (Li, 2006; Popovic-Citic, Sladjana, & Cvetkovic, 2011). Regardless of which findings are most valid, what is agreed upon is that there is a significant difference in the nature and extent of cyberbullying behaviour between males and females.

2.6.1 Female acts of cyberbullying.

The extent of cyberbullying among females is more consistent with passive forms of aggression that are carried out indirectly along relational lines (Snell et al., 2010). Examples of cyberbullying acts that are common among females include the sending of
harassing text or online messages, starting online rumours, purposely excluding an individual from a group chat or forum or impersonating an individual to defame or offend (Raskauskas & Stoltz, 2007; Viljoen, O’Neill, & Sidhu, 2005). Females become involved in cyberbullying as it provides a release for their aggression. This avenue of relational aggression allows female perpetrators to engage in blame, threats, blackmail and gossip (Dehue et al., 2008). Online bullying is seen as an attractive form of bullying for females as it allows aggressors to escape emotional contact and avoid the intimidation factor associated with face-to-face interactions (Nansel et al., 2001). Reports suggest females demonstrate more cognitive empathy and as a result seek more indirect forms of harassments that are effective but more discrete in nature (Topcu & Erdur-Baker, 2012). Studies by Smith et al. (2008) and Mesch (2009) found that females are also the more likely targets of cyberbullying attacks. The rate and frequency of cyberbullying acts toward females can be linked to the amount of time females spend online. Dowell et al. (2009) found that females are online more frequently for socializing purposes when compared to males. Research on user levels found that females were more likely than males to use email, social media sites, blogs and mobile cell phones (Juvonen & Gross, 2008). As a result of more frequent online activity Snell et al. (2010) found that females have a greater chance of being involved in situations where social interactions can lead to disagreements and acts of cyberbullying.

In terms of reporting acts of cyberbullying findings have been somewhat inconsistent. In many studies females more than males report incidents of cyberbullying to a responsible adult (Hinduja & Patchin, 2007; Nickerson et al., 2014; Smith et al., 2008). Differences in reporting can be attributed to a variety of factors many of which are
situational, but research by Hinduja & Patchin (2007) and Moore et al., (2014) suggests females are more inclined to report incidents of cyberbullying because they want perpetration to stop and aggressors to be punished for their actions. Further research (Bauman & Newman, 2012) suggests female victims report acts of cyberbullying more regularly because they see reporting as an act of retaliation or standing up for themselves when perpetrators are caught and punished for their misbehaviours. Unfortunately, in both male and female cases, levels of reporting do not occur frequently enough and this has resulted in numerous cyberbullying incidents going undetected. To effectively encourage reporting by both males and females better systems need to be implemented which protect the victims and ensure perpetrators are caught and punished.

2.6.2 Male acts of cyberbullying.

Males, when compared with females, are more likely to threaten physical violence in their online acts of aggression (Lenhart, 2006). In these more blatant forms of attack males tend to exert more externalized deviance that can be easily observed in both traditional and cyberbullying situations (Hay et al., 2010). Males more than females tend to be more extreme and purposeful in their cyberbullying threats. Examples of these acts could include challenging an individual to a fist fight, threats to cause bodily harm, bomb threats and hoaxes, theft, destruction of property and even threats to bring a weapon to school (Thompson, 2002). Power and status are two very important components of an adolescent boy’s life. Often, males more than females will take greater risks, or demonstrate greater impulsivity in order to achieve a desired level of respect (D’Acremont & Van der Linden, 2005). Unfortunately, engagement in cyberbullying acts has become a more common method for males to achieve this level of status (Beran & Li,
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There are various factors that can distinguish male cyberbullying participation from that of females. Recent research has looked at the prevalence of male participation in violent video gaming as a possible source of cyberbullying behaviour (Dittrick et al., 2013). Lam et al., (2013) found that exposure to violent video games not only increased the likelihood of individuals being perpetrators of cyberbullying but also victims to such acts. Students who had been exposed to violent video games were two times as likely to participate or become victims to cyberbullying acts (2013). Reasons for this level of cyberbullying perpetration and victimization can be attributed to the false sense of reality presented within video games where users develop difficulty differentiating between acceptable behaviour in the online world versus the real world (Lam et al., 2013).

Adolescent males, unlike females, are more likely to report their participation in bullying and less likely to report that they had been bullied (Viljoen et al., 2005). Males are inclined to admit to acts of cyberbullying but feel a sense of embarrassment and a negative social stigma attached to being victimized. Perceived norms of masculinity as described by Pascoe (2012) further exemplify the complications associated with this act of harassment. Further research by Cassidy et al. (2013) found convincing evidence that males do not report acts of cyberbullying because they fear being labeled a ‘rat’ or fear that acts of reporting could result in further, more physical forms of retaliation from their perpetrator. As a result of this eminent threat, males are further bullied in not letting anyone know and the cycle of cyberbullying is perpetuated.

Based on the complexities of the abovementioned findings it must be understood that prevention and intervention strategies created to mitigate acts of cyberbullying cannot be structured in a one-size-fits-all model (Kowalski et al., 2012). Preventative
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measures, as will be discussed in chapter three, need to be current, accurate and reflective of individual user needs. Students must build trust in the mechanisms of support and know that when reporting occurs something will be done to solve the problem.

2.7 Supervision, Monitoring and Reporting

Due to the impulsive nature of individuals (Weinstein & Aboujaoude, 2015) and the omnipresence of the Internet, cyberbullying can often occur anywhere and at any time (Aoyama et al., 2011) and unfortunately in many cases up to 90% of those who are bullied, or are bystanders to such events, do little to report it (Agatston, Kowalski, & Limber, 2007b; Juvonen & Gross, 2008; Patchin & Hinduja, 2006). Very few youth report incidents of cyberbullying to administrators, teachers or parents because they feel they are not a helpful resource for dealing with the problem (Agatston et al., 2007a; Cassidy et al., 2013; von Marees & Petermann, 2012). Other reports suggests youth are pressured by social influences and are reluctant to report online misbehaviours because they fear it will result in them losing their own access or that reporting will result in an even greater backlash of abuse (Cassidy et al., 2013; Hinduja & Patchin, 2013). The varying degrees in which youth access the Internet have also made supervision and monitoring a very difficult task. In the past, youth had only one or two ways of accessing the Internet and that was through a family or school computer. Now, with the advent of more complex and discrete forms of technology, youth can establish their own personal connections through the use of their mobile phones, tablets, watches and/or glasses without much interference from their adult supervisors. These alternative technologies have greatly impacted the ability of adults to regulate and monitor what youth are doing in the online environment (Jang et al., 2014). As a result of this remote access,
cyberbullying, unlike traditional bullying, has very few limits and can be carried out both on and off campus (Hay et al., 2010; Kowalski & Limber, 2007; Tokunaga, 2010). Cyberbullying might also be more appealing for youth who are not inclined to engage in traditional bullying as a result of the anonymity that it offers (Tokunaga, 2010).

According to Englander and Muldowney (2007) cyberbullying is an “opportunistic offense, since it results in harm without physical interaction, requires little planning, and reduces the threat of being caught” (Englander & Muldowney, 2007; Tokunaga, 2010, p. 279). Unfortunately, it is a lack of supervision and enforcement that has resulted in this form of harassment becoming so popular among youth. The lack of physical interaction and repercussions for such acts allows aggressors to harm without consequence or consideration. A lack of consequence can be attributed to why youth continue to partake in such harmful acts of disobedience and abuse.

Unfortunate lapses in both Federal and Provincial legislation have limited the consequences for such acts of online inappropriateness. Only recently have Provincial and Federal policymakers updated out-of-date laws in order to hold online offenders more accountable for their digital actions (McKay, 2014). However, critics of Bill C-13 suggest amendments to modernize the criminal code do not go far enough to hold specific individuals accountable and that the law is “too broad or vague” to punish those who participate in cyberbullying behaviour (Wingrove, 2014). As a result of weaknesses in the laws, supervision, regulation and monitoring continues to be an ongoing problem in the Province of British Columbia and in Canada. Laws for holding individuals more accountable for acts committed in the online world need to be harsher and be broadcasted
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in greater detail to prevent individuals from participating in online acts of inappropriateness.

Furthermore, to improve supervision and monitoring of students in the digital world there must be consistency and cooperation among all groups involved to ensure that youth are properly supervised and encouraged to act appropriately in the online world. Since cyberbullying can occur anywhere and at any time it must not be the sole responsibility of the school system to ensure youth are equipped with moral values, kindness and principles for life in the online world (Cassidy, Brown, & Jackson, 2012). Much of the responsibility for ensuring youth are acting appropriately online must also come from the home environment (Laird et al., 2003). Based on a study conducted by Turow (2001, p. 218), it was determined that parental supervision of online activity was “fleeting at best” and that parents only gave very basic instruction and guidance for how to navigate content, how to interact effectively and how to protect themselves online. Liau et al. (2008) found that parents underestimated adolescent engagement in risky Internet behaviour and overestimated the amount of the parental supervision required to ensure Internet safety in the home environment. Lenhart and Madden (2007) found that some parents do set some basic rules for Internet use, but discovered that other parents do not feel it necessary, or are too busy, too preoccupied or are not aware of the monitoring practices or programs. A more recent study found that only 54% of parents of nine to sixteen-year-olds have installed parental control filters on their children’s computers (Livingstone, 2012). Based on the findings it is clear that parents and teachers need to similarly improve their level of supervision and monitoring. However, before parents and
teachers can establish an appropriate level of supervision they need to become more familiar with the inner-workings of the digital world.

Having a firm understanding of the digital devices being used, the programs being accessed and the parameters of use will allow parents and teachers to effectively monitor the behaviours of youth online. An appropriate level of supervision needs to be established by both parents and teachers to ensure that a youth perceives freedom and independence under the supervision of his/her parents (Agatston et al., 2007a; Cassidy et al., 2012). A lack of knowledge will result in a greater opportunity for youth to get themselves into trouble. Most importantly trust needs to be developed so that a youth can feel supported and comfortable if they need support or guidance in the online world.

2.7.1 Self-regulation

For many, the Internet and its many programs offer a way to stay connected and up-to-date in the rapidly advancing world. Information through digital sources is readily available and satisfies our need to know. For those suffering from poor impulse control the Internet can become an addictive agent where individuals develop an inability to control their Internet use.

Statistically, Canada ranks second globally in terms of their Internet use, with the average Canadian spending 41.3 hours per month online (Roy, 2013). In terms of total web pages viewed Canada ranks first with, on average, 3,731 pages visited per month and 120 pages visited per day (Roy, 2013). Based on the findings of this “comScore” report it is safe to say that many Canadians might be addicted to the Internet. If this is in fact the case, the proliferation of cyberbullying might also be linked to our rate and frequency of use. For example, Lee et al. (2012) found that those diagnosed with Internet addiction
demonstrated increased levels of trait impulsivity that were comparable to patients diagnosed with pathological gambling. The preoccupation, mood changes and withdrawal associated with Internet addiction categorize it as a behavioural addiction and this has lead individuals to experience symptoms such as low self-esteem (Kim & Davis, 2009), shyness (Treuer, Fabian, & Furedi, 2001), depressive symptoms (Hollander, 2001), hostility (Ko et al., 2007) and anxiety (Lee et al., 2012). Like those with pathological gambling, patients with Internet addiction, when tested, are said to have longer reaction times on stop-signal trials in the stop-signal task (Goudriaan, et al., 2006; Grant et al., 2010). When examining a group of Internet addicted adolescents, Cao et al. (2007) determined that those with Internet addiction were more impulsive in their behaviours when ranked on the Barratt Impulsiveness Scale 11 (BIS011) and Go-Stop impulsivity paradigm.

This abovementioned level of impulsivity and persistence can also be linked to incidents of cyberbullying where individuals react without thinking about the long-term consequences of their actions or are repetitive in their actions toward others online (Kawa & Shafi, 2015). An inability to control one’s urges or actions online can have a negative impact on the user as well as those sharing the digital space. Impulsivity connected with Internet use can often be dangerous as it can result in “carelessness, risk-taking, sensation-seeking and pleasure-seeking, an under-estimated sense of harm, and extroversion” (Hollander, 2001, p. 949). Building on the research carried out by Whiteside and Lynam (2001), d’Acremont and Van der Linden (2005) identify the following four impulsivity elements consistent among adolescents: “urgency, lack of pre-meditation, lack of perseverance, and sensation-seeking (Bhat, 2008). These
characteristics are often consistent with individuals who participate in cyberbullying behaviour. A cyberbully might retaliate online to comments made by an individual in a school hallway without considering the long-term effects of their response. What might be perceived as a harmless prank could have devastating and unintended consequences for the victim. This impulsivity equates to a lack of consideration on the part of cyberbully and a list of social and emotional consequences for the victim.

2.7.2 Systems of reporting

There are varying ways in which individuals can report acts of inappropriateness online. However, the user controls the limitations of this action. Based on the findings from twenty-seven published peer-reviewed journals prior to 2011 which identified rates of cyberbullying offences, Hinduja and Patchin (2012) determined a range of 3-44% of teens reported on the cyberbullying behaviour of others. If the youth believed or were aware of friends participating in cyberbullying behaviour they were more inclined to report it as well as admit that they themselves had engaged in cyberbullying behaviour (Hinduja & Patchin, 2013). However, when respondents stated that a parent or school official would punish them or others for participating in cyberbullying behaviour the child was less likely to report that they had participated (Hinduja & Patchin, 2013).

Juvanen and Gross (2008) found 90% of youth did not tell an adult about cyberbullying incidents or behaviours because they believed that they “[needed] to learn to deal with it themselves” (2008, p. 502). Similar to the report by Juvonen and Gross (2008), Li (2010) found less than 35% of youth reported incidents of cyberbullying for fear that Internet access would be restricted. Agatston et al., (2007) found when, and if, youth did report incidents of cyberbullying they were more likely to report to their parents rather than to
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school officials, especially if cyberbullying was threatening or harmful in nature. Reasons stated by students for this type of reporting were linked to student’s attempt to avoid punishment as well as students believing that adults at school could do little to help them if they were experiencing cyberbullying (2007).

These statistics further support the claim that parents and teachers need to establish a healthy, trusting and caring relationship with their students or children in order to effectively mitigate and target cyberbullying behaviour. Similarly, adults need to become more familiar with the workings within the digital world so that when youth turn to them for support instead of their peers they can effectively assist them in helping them solve their problems. When cyberbullying incidents arise, students need to feel supported and need to be able to trust that something will be done about the problem. Furthermore, youth need not be punished for reporting incidents of cyberbullying but commended for taking the appropriate course of action. If a youth admits guilt, an appropriate level of education and counseling needs to be administered to ensure that lessons are learned and actions are not repeated.

A major difficulty in holding cyberbullies accountable for their actions is the systems of reporting in place. When youth do not report, or delay reporting, matters are complicated and this makes holding cyberbullies accountable more difficult. Youth need to be given an effective option to candidly and anonymously report incidents of cyberbullying so as to avoid being identified. Even though this might be difficult, as many victims know their cyber-attacker (Hinduja & Patchin, 2009; 2010; Juvonen & Gross, 2008), an option needs to be made available so youth victims feel safe and protected from further attack or retaliation.
2.7.3 Online empathy

The establishment and development of empathy within young people plays a pivotal role in diminishing acts of bullying and cyberbullying. Empathy is defined as “an emotional response that stems from another’s emotional state or condition [which] is congruent with the other’s emotional state or situation” and it is thought to have two divisions, affective and cognitive empathy (Eisenberg & Strayer, 1987, p. 5; Topcu & Erdur-Baker, 2012). Research by Gordon and Green (2008) highlight the importance of “[developing] social and emotional competence and empathy in order to awaken a sense of moral responsibility among children” (2008, p. 35). Gordon and Green (2008) argue that when youth are taught to “understand how others feel and are encouraged to take responsibility for [their] actions and inactions, social responsibility rises and incidents of bullying fall” (2008, p. 35). Although Gordon and Green’s Roots of Empathy (ROE) program is primarily linked to younger children it can be applied to the behaviours and attitudes of adolescents. In terms of developing empathy among adolescents, “equity becomes part of [a student’s] moral compass, [and as a result students become] less dependent on authority figures and rules to direct [their] behaviour” (2008, p. 36). Various studies have been conducted which highlight the link between increasing empathy in order to reduce rates of cyberbullying. Results from Ang and Goh’s (2010) analysis found that subjects who demonstrated low cognitive and affective empathy had consistently higher cyberbullying scores. Steffen et al. (2011; 2009) found a correlation between low empathy scores and a higher incidence of aggressive cyberbullying behaviour. In a more recent study, Topcu and Erdur-Baker (2012) found affective and cognitive empathy worked effectively toward mediating the gender differences and
diminishing the occurrence of cyberbullying. Without question empathy plays a part in diminishing acts of cyberbullying and when teachers and parents bolster and promote empathy among their children and students cyberbullying behaviour levels can be offset.

Nel Noddings’ (2002, 2005) alternative perspective to character education suggests youth need to develop empathy and self-esteem through an ethic-of-care. Based on this model the practices of good ethics should not only form the basis of school curriculum but should also be practiced informally by parents at home and teachers within the school. According to Noddings, the holistic approach found within the ethic-of-care model provides “students unconditional positive regard, modelling, dialogue, and practice in ethical caring [and] have much to teach us about addressing problem behaviours in school” (Cassidy et al., 2013, p. 590). Based on the impulsivity and unpredictability of adolescent users in the online world, empathy must be taught and encouraged at an early stage (Gordon & Green, 2008) in order to diminish acts of cyberbullying. Of Noddings’ four components of a model for moral education, ‘confirmation’ is most widely recognized (Noddings, 1988). The model suggests confirmation can be achieved when teachers take time to establish trust with their students. Once trust is established, the act of confirmation is achieved when positive attitudes and behaviours are reinforced and encouraged and done so to educate young learners about the differences between good and bad behaviour and decision-making. Noddings’ acquired and modified these ideas from Buber (Anderson & Cissna, 2012) who more accurately states that “in human society at all its levels persons confirm one another in a practical way to some extent or other in their personal qualities and capacities, and a society may be termed human in the measure to which its members
confirm one another” (Anderson & Cissna, 2012, p. 136). Buber’s description of ‘confirmation’ is different from that of Noddings’ and recognizes it as a fundamental ontological move where trust is developed because we inherently trust other human beings. Buber’s belief recognizes that human beings may disagree with each other or find each other strange or different but that individuals fundamentally recognize each other as legitimate human beings or what Buber called a “Thou” or the “I-Thou relationship” (Anderson & Cissna, 2012, p. 137). Trust whether it is inherent or acquired is an important factor when operating within the online world. Students within this setting are often unsupervised and are required to make important choices when nobody is watching. Before we can effectively support adolescents and help them to independently navigate the online world it is essential that we have a firm understanding of both Buber and Noddings’ perspectives on the fundamentals of human interaction and confirmation.

2.8 Psychological Impacts Related to Cyberbullying

Of the youth who are actively engaged in the online environment, almost a third report being contacted by someone they did not know through the Internet and that this contact made them feel uncomfortable (Kowalski et al., 2012). With youth using the Internet more than ever before (Li, 2010), further research has found links between the duration of Internet use and exposure to cyberbullying behaviour (Lenhart, 2006). Previous large scale cross-sectional studies have revealed that cyberbullying is a significant problem (Berson & Berson, 2002; Mitchell, Finkelhor, & Wolak, 2003; Ybarra & Mitchell, 2004a, 2004b). In these and other studies it was revealed that short-term and prolonged exposure to cyberbullying can be directly linked to increased social anxiety (Juvonen & Gross, 2008), lower self-esteem (Hinduja & Patchin, 2008),
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depression (Wang et al., 2012), reported social difficulties (Ybarra & Mitchell, 2007),
drug and alcohol abuse and eating disorders (Dehue, Bolman, & Vollink, 2008). Those
directly impacted by cyberbullying are also more likely to skip school, to receive
detentions or suspensions and are even more likely to bring a weapon to school (Ybarra
et al., 2007). For many, acts of cyberbullying are more attractive than traditional face-to-
face bullying because they can be carried out more discreetly, more effectively and under
the perceived anonymity of the digital world. According to research, incidents of
cyberbullying often occur within the context of existing social relationships which
challenges the commonly held assumption that this type of online misbehaviour is
anonymous and further suggests that this type of abuse is relationship based (Craig &
Pepler, 2007; Mishna, Saini, & Solomon, 2009). What is most disconcerting about the
rate and frequency of cyberbullying acts is that very little is being done to support youth
who have been cyberbullied, or being talked about to prevent these types of acts from
happening (Agatston et al., 2007a).

2.8.1 Social anxiety

Research has shown that students who cyberbully or are victims of cyberbullying
may experience heightened social, emotional and health problems. Research has revealed
that social anxiety, depression and low self-esteem are not only a consequence of, but a
precursor to cyberbullying behaviour (Kowalski & Limber, 2013). Social anxiety refers
to the “combination of fear, apprehension and worry that people experience when they
anticipate being unable to make a positive impression on others, particularly in
encounters within strangers in public settings” (Reid & Reid, 2007, p. 425). As a result,
students suffering from the aforementioned symptoms can be seen as an “easy target” for
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continuous online perpetration (Kowalski & Limber, 2013, p. 514). An unfortunate fact for individuals suffering from social anxiety is that they often turn to the ease of social media and online messaging as a form of communication (Reid & Reid, 2007). This may allow anxious individuals to escape the fear associated with face-to-face interactions but it often results in individuals sharing more personal and emotional information than they should and opening themselves up to further bullying (Reid & Reid, 2007).

The fear of exclusion or rejection that many socially anxious individuals experience in social situations is often not escapable within the online world. In actuality, the structure of social media websites makes it very easy to ostracize, intimidate and exclude individuals. As a result, when socially anxious individuals participate in the online world they are subjecting themselves to an even greater onslaught of harassment than in the offline world.

2.8.2 Lower self-esteem

The adolescent stage of development is important and a time when individuals develop their personal identity. Adolescent development is largely dependent on the societal influences that youth are exposed to and can be seen as a time of vulnerability and susceptibility. According to Patchin & Hinduja (2010)

youth tend to seek behaviours and situations that help them value themselves positively and avoid those who make them feel bad about who they are … [and] this ties into a child’s perceptions and acceptance of his or her changing self and plays a critical role in directing his or her personal and even professional growth trajectory. (pp. 615-616)
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The exponential growth of the online world and the rates of use among youth further complicate and expand the influences that youth are exposed to. As research suggests (Hinduja & Patchin, 2015a) individuals often act differently and more aggressively online than in traditional settings and these types of behaviours are having a negative effect on adolescent development. Self-esteem can be seen as a determinant or an indicator of cyberbullying behaviour. Valkenburg et al. (2006) define it as “an adolescents’ evaluation of their self-worth or satisfaction with three dimensions of their selves: physical appearance, romantic attractiveness, and the ability to form and maintain close friendships” (p. 585). Leary and Downs (1995) recognize self-esteem as “an internal representation of social acceptance and rejection and a psychological gauge monitoring the degree to which a person is included versus excluded by others” (cited in Patchin & Hinduja, 2010, p. 616). Simply put, self-esteem refers to “a favourable or unfavourable attitude toward the self” (Rosenburg, 1965). Based on the aforementioned evaluations self-esteem can be primarily recognized as perception-based.

Research literature finds that those victimized by cyberbullying acts are more likely to have lower self-esteem than non-victims (Beaty & Alexeyev, 2008; Wild, 2004). An explanation for these findings could be that the act of cyberbullying itself decreased the victim’s self-esteem or that individuals with lower self-esteem are seen as easier targets for cyberbullying. Findings related to cyberbullying perpetration and self-esteem have been somewhat inconsistent and inconclusive. Studies have found that self-esteem can be both higher (Rigby, 1991; Salmivalli et al., 1999) and lower (Jankauskiene et al., 2008; Yang et al., 2005) among cyberbullies. Research has also found there to be no significant difference in self-esteem levels among cyberbullies and non-cyberbullies.
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(Seals & Young, 2003). However, the direction of more recent research suggests that cyberbullies, when compared to their apparent victims, have lower self-esteem levels (Patchin & Hinduja, 2010b). Brewer and Kerslake (2015) determined that self-esteem was a significant individual predictor of both cyberbullying perpetration and victimization and that individuals demonstrating low self-esteem were very likely to report participation in cyberbullying acts. These findings suggest that in order to reduce the incidence of cyberbullying greater energy needs to be directed toward improving self-esteem among adolescents.

2.8.3 Depression, self-harm and suicidal ideation

Victims of cyberbullying were significantly more likely to report negative psychological health symptoms such as: depression, self-harm and suicidal ideation than those not affected by cyberbullying (Chang et al., 2013; von Marees & Petermann, 2012). Mental health issues can be both a cause and effect for initial or continued cyberbullying perpetration (Bauman et al., 2013). Research suggests that prolonged exposure to cyberbullying acts, specifically repetitive attacks (Dooley, Pyżalski, & Cross, 2010) put individuals at an even greater risk for developing negative psychological symptoms. Research suggests that individuals who develop depression as a result of cyberbullying are also at greater risk for developing other mental health issues such as self-harm and suicidal ideation (Hinduja & Patchin, 2010).

The source and subsequent impact of cyberbullying has been the subject of much research and debate with conflicting findings. Watkins et al. (2010) and Rivituso (2014) suggests that in the majority of the cyberbullying cases they researched victims knew their attacker. However, Tippett & Kwak (2012) and Kowalski and Limber (2007) found
that more often than not the victim did not know the aggressor. These findings are important in understanding effect, as it has been found that the impact of an attack by a stranger was harmful (Vandebosch & Van Cleemput, 2008) but not as severe or long lasting than acts committed against victims who knew their attacker (Juvonen & Gross, 2008; Mitchell et al., 2015). The gravity of these acts can be linked to personal connection between victim and attacker that can lead the victim to internalize the issues associated with the attack and this has more detrimental mental and physical health effects (Juvonen & Gross, 2008; Lenhart et al., 2011; Mitchell et al., 2015).

The psychological ramification of being a cyberbully also plays a significant role in creating negative psychological effects. Research by Campbell et al. (2013a) found that cyberbullies reported social difficulties and high levels of stress, depression and anxiety when compared to non-bullies. Based on the aforementioned findings cyberbullying acts have the potential to create a continuous cycle of perpetration and victimization. Furthermore, exposure to cyberbullying acts can often be heightened when someone who is clinically depressed turns to the Internet, and more specifically to social media to share their personal issue. This level of vulnerability demonstrated in an online setting can have devastating effects and make an individual an easy target for cyberbullying attack.

2.8.4 Eating disorders

The negative ramifications associated with cyberbullying behaviour also extend into the realm of healthy living. Numerous studies have identified cyberbullying as a cause in generating eating disorders among males but the majority of research suggests these disorders are more commonly associated with female users (Calvert, 2009; Hay &
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Meldrum, 2010; Mishna et al., 2011). Adolescent users within the online world post and share personal information, photographs and other materials pertaining to their life and increase their level of vulnerability and susceptibility to being attacked. Under the perceived anonymity of the online world individuals act differently than in the face-to-face environment (Suler, 2004). As a result of these behavioural tendencies, comments are often made without proper consideration for the impact they will have on the intended target. Based on level of vulnerability experienced within the developmental adolescent stage, a passing comment in the online world can transpire into something much more complex for an adolescent user. This argument is further supported when we evaluate the unrealistic expectations society puts on both male and female beauty (Sharp et al., 2001). Societal pressures to be fit, thin, muscular, tan and to have perfect features causes adolescents to go to extremes to achieve these expectations. Modified images that are designed to make models look ‘perfect’ frequently circulate throughout the online world. These computer-generated images create an unachievable look that many adolescent users strive to achieve and broadcasts the message that if you are not flawless you are not beautiful (Kaltiala-Heino et al., 2000). These images in combination with the abuse and harassment brought on by cyberbullying attacks only perpetuate the problem. When users receive messages and comments of unrealistic expectations from online aggressors this creates an unhealthy, unsafe environment for adolescent development. Although research related to cyberbullying and eating disorders found that more females than males experienced eating disorders, the problem is relevant for all. If we want to encourage healthy, active living we must work to diminish the mindset that society has created and encourage users to be individuals and proud of who they are and what they look like.
2.8.5 Substance abuse

Several harmful and provocative behaviours have been created by acts of cyberbullying. Of such risk behaviours drug and alcohol abuse have become an unfortunate side effect. Mitchell et al. (2007) found that the negative psychological effects of cyberbullying often result in individuals engaging in substance abuse behaviour. Drugs and alcohol become a means to cope or to temporarily mask the effects of cyberbullying (Litwiller & Brausch, 2013; Perren et al., 2012). Substance abuse can also be linked to youth exhibiting more outward, more violent forms of aggression towards others creating a cyclical pattern of violence (Cleary, 2000; Ma, 2001; Nickerson & Stater, 2009). Drug and alcohol use brought on by cyberbullying perpetration can also increase youth suicide rates (Litwiller & Brausch, 2013). “Substance use may contribute to habituation of physical pain and psychological anxiety associated with self-harm. Specifically, substance use may enable adolescents already experiencing suicidal desire to perform suicidal behaviours, and exacerbating pre-existing negative moods” (Litwiller & Brausch, 2013, p. 676). Research suggests that cyberbullying not only causes substance abuse but substance abuse can also be linked to cyberbullying participation (Australian Human Rights Commission, 2012). Furthermore, Harding (2013) found that high school students who cyberbully or are victims to such acts are more likely than students not involved in bullying to use alcohol, cigarettes and marijuana. These statistics are supported by Sticca & Perren (2013) who along with others (Campbell, 2005a; Dooley et al., 2010; Tokunaga, 2010) suggest that cyberbullying participation has become an even greater issue to that of traditional bullying due to the list of secondary and tertiary issues associated with such acts. Substance abuse as has been described is
just one of the many repercussions of involvement or victimization. It is time that attention and resources be directed toward preventing and maintaining stability in the online world. This must start at the grassroots level with how youth are trained and guided in the online world. Chapter three will provide a summary of the literary findings in hope solutions can be created and suggestions for future research can be generated.

Through this analysis it was proposed that cyberbullying acts have both short and long term social and emotional repercussions on adolescent digital users. Findings from this review reveal that acts of cyberbullying can be directly linked to elevated levels of stress, social anxiety, substance abuse, eating disorders, self-harm, suicidal ideation and in some cases suicide. With the support of the General Strain Theory (GST) and the General Aggression Model (GAM), a conceptual understanding of cyberbullying has been established and the results from these findings create considerable cause for concern in regards to mitigating and preventing such harmful acts. It has been determined that there are various factors which contribute to acts of cyberbullying. These include a lack of appropriate supervision, a lack of self-regulation, addictive technology behaviour, peer influence, variable family dynamics, gender differences and pre-existing psychological conditions; all of which greatly contribute to an individual’s engagement or lack of engagement in cyberbullying behaviour. It was found that individuals act differently or lack inhibition within the online environment which greatly contributes to acts of digital deviance. The repercussions of such acts not only impact the social and emotional aspects of victims’ lives but are also said to have an immediate impact on adolescent academic achievement and effects that last into adulthood. A lack of understanding of applications and websites and overall guidance by both teachers and parents contributes to youth
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losing trust in their adult supervisors. This has created an environment where youth rarely report acts of cyberbullying and a cycle of abuse has perpetuated itself. Based on the experiences of youth within the online world, a lack of empathy and an increased level of impulsivity have also contributed to the creation of a toxic online environment. Through the promotion and installment of digital citizenship programs it is hoped that students will develop more accountability and a better understanding of their actions while working toward bettering their behaviour in the online world. Through these experiences it is hoped that youth can develop greater empathy, reduce stress levels and maximize the educational capacity of the digital world.

In Chapter three, intervention and prevention strategies will be discussed to help further mitigate the impact of cyberbullying behaviour. Strategies for dealing with cyberbullying will be discussed along with marked educational campaigns, digital citizenship initiatives and suggestions for future research in this topic area.
Chapter 3

3.1 Intervention and Prevention Strategies

Cyberbullying to date has received significant media attention due the frequency, prevalence and severity of such incidence. The way we as a society communicate and exchange information has changed drastically over the last decade and continues to change today. An unfortunate side effect of this type of use has been the rise in acts of online abuse and misuse. With an even greater number of youth accessing the Internet than ever before it is critical that resources are directed toward helping minimize and resolve acts of cyberbullying (Mishna et al., 2012).

There are various reasons why adolescents participate in cyberbullying behaviour but many are based on the standard of maintaining or improving ones status within their social realm. Why specific individuals choose to cyberbullying is often difficult to determine based on the individualistic nature of these actions. However, many causal factors among adolescent perpetrators can be linked to pre-existing social, emotional and psychological insufficiencies such as low self-esteem, a lack of empathy, low self-confidence and high levels of impulsivity. Often individuals turn to cyberbullying as a way to improve self-worth and make themselves feel better. Stress and strain brought on by peer pressure, inadequate school-based performance and family problems greatly influence an individual’s motivation to cyberbully. Often those who have been cyberbullied retaliate or redirect their aggression toward another victim. The ease of online interaction makes acts of cyberbullying more appealing as they can often be carried out with relative ease and maximum efficiency. When combined with 24/7
accessibility and limited supervision adolescents have the ability to say what they want, to who they want, when they want with limited consequences. The freedom that the Internet affords allows individual to exercise power, control and unlimited access over their victim. In this inescapable environment perpetrators can continuously and repetitively exert control over their victims in order to make themselves feel better.

### 3.1.1 Strategies for dealing with cyberbullying

The emotional and social effects of cyberbullying are devastating to our adolescent users. Strain, as outlined within Robert Agnew’s General Strain Theory (GST), can be closely connected to delinquency and deviance generated and perpetuated by acts of cyberbullying. In order to minimize cyberbullying we must effectively eliminate sources of strain. The difficulties associated with this are that each individual experiences strain uniquely. In order to effectively eliminate strain we must make every effort possible in both the online and offline world to eliminate the potential for harm to all students. This can be achieved by encouraging youth to treat each other respectfully through digital citizenship and character education programs. These programs can effectively encourage students to do the right thing even when no one is watching (Taylor, 2008). By building confidence, respect and social responsibility in students it is hoped that incidence of sadness, anxiety, anger, frustration and depression generated by cyberbullying can be avoided and that individuals will have the confidence to stand up to such acts. In building confidence and self-respect it is also hoped that individuals will also avoid certain behaviours such as retaliation or the negative psychological effects of eating disorders, drug and alcohol abuse, social isolation, self-harm and suicidal ideation. Just as it is important to build confidence it is equally important to effectively monitor the
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psychological state of adolescent behaviour in order to avoid a progression of problems. When symptoms of strain, anxiety or depression become present it is the responsibility of the adults in the adolescent’s life to take necessary action and seek medical support. Ignoring such conditions can and most likely will result in an escalation of the problem.

The General Aggression Model (GAM) was utilized to help us understand the routes and paths of aggression. By understanding the triggers for aggression we can work toward eliminating them and disrupt the cycle of cyberbullying perpetration and victimization. The various cues and precursors to aggression serve as a valuable guide for prevention. The GAM is functional in that it is considerate of multiple variables such as: gender, age, motives, personality, psychological states, socioeconomic status, values and perceptions when evaluating potential triggers. These are all important factors in understanding what leads individuals to participate in cyberbullying behaviour or exhibit acts of aggression in retaliatory ways. In assessing gender differences in cyberbullying the GAM serves as a valuable resource in helping explain the externalized and internalized differences in perpetration while also helping us understand how females’ forms of aggression can often be more damaging because of their existential capacity to cause harm. By consulting with both of these theories we can effectively conceptualize the causes and effects of cyberbullying perpetration and victimization.

It is now important to formulate more specific strategies for how to best prevent and mitigate acts of cyberbullying. For this to work, it is pertinent we design, implement and maintain applicable programs to better support our digital users. As educators, parents and community members we need to improve the ways in which we support, protect and guide our adolescent digital users. We cannot assume that they are mature,
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responsible and knowledgeable enough to navigate the online world without proper support and supervision. In order to bridge the generational and technological gap that exists between digital immigrants and digital natives, parents, teachers and administrators must take time to ensure they understand the specifics of the ever-changing digital world that our adolescents are operating within (Prensky, 2001). This can be achieved by hosting a series of in-house information sessions where both parents and educators can become familiar with the digital platforms (social media sites, forums, application and messaging services) that adolescents are using to communicate and interact. Each of these sessions would be structured to reflect the unique challenges faced by students at specific grade levels.

For example, parents and teachers of grade nine students could attend introductory sessions related to understanding the parameters of social media use in the digital world. Within this session, adults could be introduced to the various programs and applications that youth are using to communicate and interact at specific grade levels. Currently, SnapChat, Instagram, WhatsApp, Twitter, Vine, Whisper and Yik Yak are among the most popular applications and websites being used by high school students (Conway, 2015). The pedagogical format of this session could be computer lab based which would allow parents and teachers to interact, engage and become more familiar with these programs in order to help protect the youth that use them. Other sessions at this grade level could include such topics as: Internet Safety, Understanding One’s Digital Footprint, Self-Image and Identity and topics surrounding Cyberbullying. The format of these sessions could be presentation or lecture-based, small group or discussion-based where parents and teachers could interact, formulate and share positive
and negative experiences associated with digital use. For this in-house session-based model to be successful, attendance and participation in the recommended five to six sessions must be consistent. Therefore, it would be proposed that parents must sign-up for these sessions in advance in order to secure their attendance in the program. The number of spots made available would be dependent on the number of individuals interested in participating in the program at the specific grade levels. If more interests is shown than anticipated more sessions can be created in order to accommodate.

The content and process of these sessions would be structured so that parents and teachers with little to no Internet or digital experience must attend a preliminary or baseline meeting where very basic digital information is presented. Before parents and teachers are permitted to sign up for grade-based sessions they must demonstrate proficiency in the preliminary topics. Examples of such topics covered within the baseline meeting might include educating parents and teachers on how to send an email, how to attach a document to an email, how to check browser history and how to set parental controls.

Once they have proven their digital capabilities, parents and teachers would be permitted to sign up for grade-based sessions that would be structured in a progression-based manner. For example, topics within these sessions would start off at a basic level such as demonstrating an understanding of how to delete comments and images on various social media sites to more complex tasks such as becoming more familiar with the intricacies of privacy settings. At each of the grade levels, topics would be consistent with how this age group uses digital technologies. In order to prevent overlap curriculum would be structured so that each topic moves into the next and into the next grade level.
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In order to accommodate the language base of our school both preliminary and grade-based meetings would be provided in both English and Punjabi.

At the completion of these sessions it is hoped that parents and teachers will have:
i) a well-rounded understanding of the programs and applications that students are using,
ii) a variety of different strategies to help prevent online perpetration, and iii) the necessary resources to help support students who may fall victim to online issues or perpetration. By participating in such events teachers and parents will acquire knowledge and in turn gain the trust of adolescent users. This could result in parents and teachers becoming more capable in resolving problems that arise in the digital world. To improve trust we must also improve the level of interaction and communication we have with our children to ensure they feel comfortable, well supported and trusted as they venture into the online world. A greater level of consistency and coordination in communication between parents, teachers and students will ensure we are in support of the same issues and that the message is the same for all adolescent users.

We must also ensure youth are increasingly more self-aware of their actions and of the repercussions and the consequences of online misbehaviour. Youth need to be taught how to responsibly and respectfully use their devices and avoid giving them access to such devices until they are able to use them responsibly. I propose a similar model to what businesses and agencies expect of their employees. In this case youth should be expected to demonstrate and maintain digital citizenship before they are given online privileges. If youth, like employees, are found to be in violation of specific guideline, privileges should be revoked or greater education should be provided to help students understand what it means to be a good digital citizen. With school-related work becoming
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increasingly more digital it is important that youth can be trusted to effectively complete assignments and projects online without issue. In a world where youth feel the need to be constantly connected to their peers we need to encourage youth to use their devices for more than just socializing purposes and seek out the educational potential of technology.

3.1.2 Educational campaigns.

District policies and protocol around cyberbullying and digital use need to be revamped to be more reflective of and consistent with adolescent technological use. Rules need to be consistent and well publicized so that all students and parents are informed and aware of expectations related to digital use. In order to hold individuals more accountable for acts of disobedience, youth need to be disciplined effectively in order to ensure a culture of bullying is not inadvertently created. More effective forms of regulation might include the implementation of digital citizenship training where students are taught how to become better digital citizens, how to develop good character, and how to become more caring, compassionate and responsible individuals. Restorative justice training programs have proven to be an effective form of education where social and interpersonal engagement leads to more balanced resolutions (Morrison, 2002). Within restorative justice sessions, it is reported that youth develop a greater understanding and greater level of empathy for their actions (Morrison, Blood, & Thorsborne, 2005). Due to the physical detachment that exists within the online world there is often a lack of emotional connection between perpetrator and victim. Through restorative justice sessions it is hoped that victims can take a more active role in expressing their feelings associated with being attacked and aggressors can take greater responsibility for their actions (Paletta et al., 2014). In this highly personalized approach, it is hoped that future
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acts of online aggression can be prevented when greater empathy is developed and greater consideration is given to the social and emotional repercussions of an individual’s actions.

In an effort to hold individuals more accountable within the digital world, systems of reporting need to be improved. Those victimized by cyberbullying need to be given a safe, anonymous and trusted option to report (Cassidy, 2009). A district or school website might be a suitable alternative where youth can anonymously report acts being committed without worrying about the consequences for such reporting.

3.1.3 Role of administrators, teachers, counselors and parents.

Effective and intuitive adult supervision and monitoring of online behaviour is essential in mitigating cyberbullying. Adults in every situation, whether at home, at school or in the community must be active and vigilant in their duties to protect and ensure the safety of adolescent digital users.

At a district level, institutional guidelines must be universal, consistent, current and reflective of the digital world that staff and students operate within. Policies and procedures must be considerate of user capabilities, designed to maximize educational resources and constructed to limit acts of inappropriateness. Acceptable-use policies must be considerate of online use and behaviour both at school and in the home environment (Brown, Jackson, & Cassidy, 2006). Through effective systems of reporting and monitoring, institutional guidelines should be devised to effectively mitigate acts of inappropriateness in the digital world. Support mechanisms must be in place so students can effectively reach out if they are caught in a cyberbullying situation. These systems of reporting, whether through a phone line, text service or designated website must be safe,
anonymous and trusted. A website where students can report acts of cyberbullying without fear of retribution has the potential to increase rates of reporting (Cassidy, 2009).

Administrators, teachers, counselors and parents must model online social practices that are respectful, empathetic and mindful of all users. Just as youth look to adults for guidance and mentorship in the offline world the same should be demonstrated in an online setting. If teachers hope to hold students digitally responsible, they must also demonstrate effective behaviour. When students observe teachers breaking policies or participating in bullying behaviour it diminishes the importance and respect students will have for policy. Within the classroom it is the teacher’s role to enforce policies and guidelines but when they go beyond their duties the implications of such actions can be detrimental. An analysis by Campbell and Stenton (2004) found that traumatic school-related experiences such as verbal or other forms of maltreatment, generated by poor pedagogical practices greatly impact the psychological and emotional state of students. Findings suggest that nearly fifty percent of high school students in the United States experienced some form of educator-related bullying (Snook, 2000). A study by Aldrete-Phan (2002) found that fifty-one percent of students with learning disabilities reported emotional maltreatment by staff members while attending high school. These findings further reinforce the importance of being mindful and respectful when interacting with even the most challenging of students and call for a review of the punitive strategies with which we use to discipline students. The school environment must be one that is free of maltreatment and distractions that might hinder the progress of the learning experience. The repercussions of such actions go beyond the classroom and have long-lasting effects on the culture of our schools and the development of our students. Purposeful or
inadvertent acts of disobedience by teachers broadcast to students that rules are flexible and insubstantial. Teachers, administrators and parents need to demonstrate digital citizenship if they hope to encourage the same behaviours in their students.

Within the school setting, administrators, counselors and teachers must monitor and enforce school policy and protocols as they relate to digital use and Internet access. If teachers stray or manipulate school policies on digital use for educational purposes, such as allowing students to use cell phones in class for research purposes, it is important that parameters are placed on the type of use allowed. For example, if a student is caught text-messaging when they are supposed to be researching it is evident that more training and support is needed to help this student understand the concept of etiquette when using their mobile device. Consequences for digital inappropriateness need not come in the form of detentions or suspensions but in the form of greater education as it relates to digital citizenship. When disciplining students for digital disobedience teachers must be careful not to undermine the purpose of the rules and be mindful of the ethic of care. As an example, it would not be beneficial to the student or the school if a staff member were to publicly berate a student, in a bullying-type manner, for using his/her cellphone in class in an effort to ‘send a message’ to the other students. In doing this, the staff member might inadvertently alter the culture of the school and give the impression that bullying is acceptable. Although the actions of the staff member might not have been intentional, the incident could contribute to long-term consequences where students carry out similar acts against each other in a more public setting.

Rules around Internet access and cellular phone use, although seen as strict in some circumstances, have been created to protect the safety and security of staff and
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students. The lead role of all administrators and teachers should be to protect the students that they support. When on-campus safety and security is threatened by the actions of an online aggressor or cyberbully it is the responsibility of school officials to take necessary action.

School staff must play an important role in educating students on proper conduct and ensure that students are living and learning with digital citizenship. Part of this involves helping students understand what citizenship is and work toward establishing it individually and school-wide. The establishment and maintenance of character education programs in elementary, middle and secondary schools has been effectively responsible for the creation and maintenance of values and principles which, in turn, guides citizenship. This cannot, however, be achieved in a single lesson and must be something that is consistently reinforced and pervasive through curricular expectations and informal lessons. To effectively mitigate and monitor the online world adult supervisors need to develop caring and trusting relationships with their students and children (Craig & Pepler, 2007; Gordon & Green, 2008). To have an accurate understanding of online problems and acts of inappropriateness teachers and parents also need to have a firm understanding of the websites, applications and programs being used by youth (Cassidy et al., 2013; Oblinger, 2003). Relying on youth to keep adults informed of what goes on in the digital world is not only naïve and ignorant but it is neglectful.

Cyberbullying and other acts of online inappropriateness are no longer just a school-based issue. To build supervisory capacity and greater levels of accountability, parents need to partner with school officials in order to mitigate and find appropriate solutions for online misbehaviour (Cassidy et al., 2013). When youth receive a consistent
message of expectations and develop an understanding of the consequences for misbehaviour, it is hoped that corrections to behaviour can be made to ensure that the digital world becomes safe and more secure for all to enjoy. Schools in collaboration with parents could host proactive digital information sessions on Internet safety and security to ensure adults gain a baseline understanding for how to protect their children from online aggressors and support them in preventing online inappropriateness. Consistency in expectations and the maintenance of communication between parents, school officials and students is an essential part in mitigating and preventing cyberbullying acts. If students feel safe, supported and trusted, it is hoped that they can demonstrate maturity in the online world and work toward policing each other.

3.2 Digital Citizenship Initiatives

To minimize acts of cyberbullying students must receive some form of digital literacy or citizenship training. Curriculum surrounding digital citizenship must be current, relevant and applicable to the needs of students. Programs such as Common Sense Media (2015) and Media Smarts (2015) offer well rounded, well-structured systems of lesson plans and activities that can be easily adapted and applied to multiple grade levels. The grab-and-go nature of the aforementioned lesson plans makes it easy for classroom teachers with tight time lines to teach effective, meaningful lessons.

Within our district, steps have been taken to better support classroom teachers who are interested in guiding students within the digital world. The nature and extent to which this plan is being implemented is still in its preliminary stages but it has been organized at the district level through a digital literacy committee. The committee was chosen on the basis of those who were interested and has set out to develop
implementable curriculum that is consistent with the digital needs of our students. At present, select middle schools within our district run a program entitled, “Living and Learning in the Digital World.” However, to date, a program of this nature is not available to high school students. It is hoped through increased collaboration, awareness and persistence by administrators, teachers and parents that a program of this nature can be created for students at the high school level.

When a digital citizenship program of this nature is created it is essential that it be grounded within a sound theoretical framework and structured to include various channels of study. Common Sense Media’s scope and sequence is structured around the following topics: Internet safety, privacy and security, relationships and communication, cyberbullying, digital footprint and reputation, self-image and identity, information and creative credit and copyright ("Common Sense Media," 2015). These categories provide an adequate source of information in order to effectively prepare youth for what they might encounter in the online world.

Other successful digital citizenship programs, such as those developed within South Korea, are structured around Brofenbrenner’s ecological study model (1979) which, as was discussed earlier, is considerate of a variety of different environmental factors which influence acts of disobedience in the online world. With any program, it must be well suited to the individual needs of students and local contexts, and adaptations should always be made to cater to these needs. A solid program must be one that is supported and structured across grade levels. An effectively designed program would see lower grade curricular material as a prerequisite for higher level courses. Assignments and lessons must be consistent with the issues of that age level otherwise material might
be deemed irrelevant by both students and teachers. Students should be encouraged to participate and engage in the deliverance of curriculum in order to keep it as current and applicable as possible. Within the rapidly changing digital world comes the challenge with keeping up with technological advancements. Students want to learn about current issues that are relevant with their 21st century learning and living needs and a program must be reflective of this. Adequate resources must be directed to ensure programs remain current and that the appropriate, well-trained individuals are in charge of running specific classes. For best results, digital citizenship programs should be implemented across the district at specific grade levels to ensure that all students are given equal and adequate access to course curriculum. Programs should be designed to build confidence, self-esteem and self-efficacy when operating in the online world. Students should be taught effective strategies for avoiding stress and strain in order to make the online environment one that is enjoyable and not a burden. By incorporating elements of Nel Noddings’s ethic of care and applicable divisions of character education it is hoped that students will develop an improved sense of caring, awareness, respect, responsibility, integrity and team work when interacting with others online. To cultivate an ethic of care in schools, according to Cassidy et al. (2009, p. 399), one must provide a “powerful effect of modeling, dialogue, practice and confirmation to develop more respectful and responsive interactions and [foster a] safe and nurturing environment for all students.”
3.3 Direction for Future Research

As the technological world advances so too should the research that reflects the incidents and issues that arise within it. Without question cyberbullying has been a popular research topic over the last decade. However, even with numerous research articles written on this topic there are still several areas of research that need to be investigated in more detail. Specifically, greater research needs to be directed toward understanding the motivational or causal factors associated with specifically male and female acts of cyberbullying. Significant research has been directed at who is impacted most by cyberbullying but very little research has considered intrinsic or gender-specific forms of motivation as it relates to cyberbullying. If we can accurately identify some of the root causes of cyberbullying among males and females we can work toward preventing and supporting individuals exhibited such behaviour.

Greater research needs to be directed at understanding and assessing the impact of cyberbullying on academic student performance. Although studies have been conducted (Brown, 2010; Faryadi, 2011; Kowalski & Limber, 2013), results remain somewhat inconclusive and narrowly focused around how we conceptualize ‘academic success.’ This could be because success is so often measured quantitatively. If success were measured in terms of one’s social, emotional and spiritual development the impact of cyberbullying might be more easily recognizable. Regardless, it is hoped that greater attention could be garnered from both the Ministry and district level if a direct correlation can be made between cyberbullying victimization and declining academic scores.

Although socioeconomic status (SES) and its relationship to cyberbullying perpetration and victimization were not discussed in detail within this analysis, a research
study dedicated to understanding if there is a correlation would prove valuable. If evidence could be provided to suggest those living in lower socioeconomic areas were more inclined to participate or be victimized by cyberbullying acts greater attention could be directed toward supporting those individuals in this demographic. Research by Shariff (2009) suggests a correlation between socioeconomic status and acts of delinquency related to traditional bullying, but very few studies have been directed linked to cyberbullying. In terms of prevention and establishing support mechanism this information would be invaluable. Individuals could be effectively screened upon entering various grade levels to determine if they were at-risk of cyberbullying behaviours or victimizations. If it was determined they were at-risk important steps could be taken toward preventing and mitigating against such acts.

One final area in need of greater research as it relates to this analysis is understanding the short- and long-term benefits of digital citizenship training programs and in understanding their impact to minimize or eliminate acts of cyberbullying. If a successful digital citizenship program could be effectively tested and proven to prevent cyberbullying behaviour this program could serve as a useful template for the development of future digital citizenship programs.

The proposed design for this research plan could assess adolescent samples prior to enrolling in a digital citizenship program. The assessment could evaluate an individual’s previous digital experiences in dealing with acts of cyberbullying such as the frequency of cyberbullying in their life, their level of participation in cyberbullying, and the social and emotional impacts of cyberbullying. Following this initial evaluation, individuals would then actively participate in digital citizenship program coursework and
activities. Upon completion of the program, samples would then be re-evaluated on the basis of their development or lack of development related to cyberbullying. Through this process it is hoped that acts of cyberbullying can be mitigated, if not diminished, and that individuals observe notable improvement in their level of digital citizenship. It is also hoped that a solid system of evaluation could be created which would allow us to test multiple digital citizenship programs and compare their effectiveness against each other. By performing a cross-comparison it is expected that successful digital citizenship programs can be identified and implemented across districts within the Province, the country and the world.
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