



The Role of Mobile Service Providers in Combating Mobile Bullying Among Adolescent in South Africa

A Dissertation

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Abstract

Modern-day mobile communications technology has advanced in rapid phases, triggered by the presence of mobile technology applications. This advancement has accelerated the notion of enriched data, information and services that individuals have access to. The value presented to users of mobile technology in terms of limitless access to a wealth of enriched data is beneficial to society. However, this benefit window also exposed the users into a virtual sphere that is riddled with a wide variety of subtle and overt risks; mobile service providers have lawful responsibilities and concrete moral obligations to protect their customers. It is for this purpose that the researcher focused on examining the extent to which mobile service providers are assisting society to combat the new phenomenon of mobile bullying. A deductive research approach was followed in this study, and a conceptual model was developed to examine the extent of the involvement of the mobile service providers in reducing mobile bullying. The sampling method used in this study is a purposive or judgemental sampling method to obtain data from four (4) major mobile service providers. In the empirical evidence, it has been found that service providers have sufficient knowledge of the law that governs them in distributing mobile content in order to protect minors from the harmful content. Furthermore, another key finding indicates that the service providers' input is inadequate by way of providing education programs to assist mobile users and society in an effort to combat the new phenomenon of mobile and cyber-bullying. This study can act as a base for future research into examining the extent of the role of mobile service providers in reducing mobile bullying, educating society about mobile bullying as well as informing mobile service providers about the importance of their role in combating mobile bullying.

Keywords: Adolescent, Customer Education, Cyberbullying, Legislation, Mobile Technology, Mobile Service Provider, Reduction and Intervention Programs.

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Dedication

I dedicate this dissertation to my parents, Mr Lovemore and Mrs Marry Willie for their unconditional support; to my brothers; Maxwell, Austin and David, my children; Naledi, Akilah and Sebastian, thank you all for your support and encouragement.

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List of abbreviations

CJCP: Centre for Justice and Crime Prevention

ECT: Electronic Communications and Transactions

OECD: Organization for Economic Cooperation and Development

SP: Service Provider

ICT: Information Communication Technology

ICASA: Independent Communications Authority of South Africa

SPSS: Statistical Package for the Social Sciences

UNICEF: United Nations Children's Emergency Fund

CHAPTER 1: INTRODUCTION

1.1 Background to the Research

Mobile technology provides numerous benefits to society such as improved delivery of services for businesses and organisations, access to valuable information for individuals and youth access to educational information when they need it – and this list continues to escalate (Muhanguzi & Kyobe, 2014; Pousttchi et al., 2003). These numerous benefits come with numerous side-effects, inappropriate content and abuse of the mobile communication technology, such as mobile bullying among adolescents, to name just a few (de Lange & von Solms, 2012; Beger & Sinha, 2012).

Mobile bullying is one form of electronic bullying that is relatively new. It involves the use of mobile technology applications such as email, chatrooms, instant messaging and short text messages (SMS). This form of bullying often goes unnoticed. Victims, institutions and parents are unaware of how to deal with it and there is limited knowledge of its legal and social implications. Though this concept seems to be a new trend, it is in fact an old problem dressed in a new jacket (Campbell, 2005).

Mobile bullying is extensively practised, so that many children are being exposed to this phenomenon which threatens them in a variety of harmful ways. There are a number of challenges that make it difficult to prevent mobile bullying; one of which is the prevalence of ignorance in society, such that many people fail to see the harm associated with mobile bullying. Some people attempt to dismiss or disregard mobile bullying because they perceive it as a harmless threat to their lives or the lives of their children, conclusively dismissing any likelihood of harm, even concluding that there are “more serious forms of aggression to worry about”, such as violent crimes

or physical abuse. While it could be true that there are many issues facing adolescents, parents, institutions, and law enforcement today, it should be accepted that mobile bullying is one such problem that will only increase if ignored (Hinduja & Patchin, 2013).

A survey of South African youth feedback analysis shows that 11.8% of users reported being bullied while using instant messaging (Popovac & Lezanne, 2012). Smith (2008) found that bullying on cell phones and through instant messaging tends to be the more prevalent. Juvonen and Gross (2008) also found that most instances of cyberbullying took place through instant messaging.

Research findings from Kowalski and Witte (2006) also shows that about 74% of the time the victims of mobile bullying are unable to identify the perpetrators.

However, mobile bullying is not only about the adolescent, parents and institutions, there are a number of stakeholders whose vested interests, continued existence, and moral obligations are encroached upon or compromised by mobile bullying; hence these stakeholders should be involved, i.e. law enforcement, social media companies, content providers, and service providers. The predominant challenge remains the lack of interest from various stakeholders, and the society awaits tangible input and efforts by the aforesaid, to take responsibility and respond to inappropriate use of mobile technology, an offensive act perpetuated within the ambit of their product offerings. On the other hand, parents blame themselves for their lack of technical skills to keep up with the online behaviour of their children; what further exacerbates this predicament and helplessness in an already complex situation, while on the other hand, teachers, already over-burdened by the administrative and curricular demands of their vocation, are sceptical of intervening in behaviour that often occurs outside the school grounds and school operating hours; and law

enforcers are hesitant to get involved without clear evidence of a crime or threat to someone's physical safety. This results in cyberbullying incidents being ignored; consequently the behaviour continues to escalate as there is a slower response to address the matter (Hinduja & Patchin, 2013). Taking these challenges into consideration: there is a need to collectively create an environment where adolescents are comfortable talking with adults about mobile bullying and have confidence that meaningful processes will be followed to resolve the situation (Popovac & Leoschut, 2012).

Although most researches on mobile bullying have discussed topics such as the root cause of mobile bullying, the responsibility of parents, schools, adolescents, bystanders, as well as the implications and risks of mobile bullying (Gradnager et al., 2009; Burton & Mutongwizo, 2009; Agatston et al., 2007). In order to reduce mobile bullying (Hinduja & Patchin, 2013), very few researches, if any, have suggested the involvement of the service providers or content providers for solutions. Literature suggests that to effectively combat this problem everyone needs to be involved, including those already mentioned, such as the youth, parents, teachers, law enforcers, mobile service providers, social media companies, as well as the community at large. A concerted and comprehensive effort will be required from all stakeholders to really make a difference in combating mobile bullying (Hinduja & Patchin, 2013).

Although the creation of safe and appropriate use of mobile technology involves shared responsibility of the entire stakeholder panel as mentioned above, this research will concentrate on the roles of mobile service providers in helping with the combating of mobile bullying among adolescents.

Mobile service providers are responsible for (among other things) offering mobile communication service to users of mobile devices such as smartphones and tablet computers; they create transmission services to users through radio frequency. Services such as text messaging, emails, chatrooms and social networks (Facebook, Mxit, Twitter and WhatsApp) to name but the few, are available through their platforms (Popovac & Leoschut, 2012; Begger & Sinha, 2012).

Although Chapter 11 of ECT Act of 2002 states that the service provider is not liable for providing access to or operating facilities for information systems or transmitting data messages via an information system under its control, a court may order a service provider to terminate or prevent unlawful activity in terms of any other law, such as in Chapter 6 of the Films and Publications Amendment Act (2009), which states that any organisation that provides child-oriented services including chatrooms or through mobile cellular phones, have a responsibility to keep children safe from exposure to harmful content while using such media (Popovac & Leoschut, 2012). This could be achieved by providing reasonable safety awareness programmes in a language that the child clearly understands, provide mechanisms for reporting suspicious behaviours, where make it feasible to provide children and their parents with information concerning the use of applications and tools that are available for their use to filter or block access to content services, especially content that is deemed harmful or undesirable.

1.2 Problem Definition and Purpose of the Research

The main objectives of this research are as follows:

- 1) To examine the extent to which mobile service providers are assisting society to combat the new phenomenon of mobile bullying.
- 2) To evaluate the extent to which awareness programmes are effective in addressing the challenges of mobile bullying.
- 3) To evaluate the value of education programmes in addressing problems of mobile bullying.
- 4) To evaluate the alignment between the advancement in mobile technology and laws and regulations that govern tele-communication industry.

1.3 Research Questions

This research is intended to answer the following principal questions:

1. With the advent of the new digital technology world of the internet, web and mobile communication, to what extent are mobile service providers assisting mobile users and society in general to combat the new phenomenon of mobile and cyber-bullying?
2. Are the mobile service providers doing enough in terms of raising awareness to the mobile user community; and providing solutions to address the problem of mobile and cyber-bullying?
3. Does South Africa have adequate laws and regulations to address mobile and cyberbullying? If yes, to what extent do mobile service providers comply with these laws and regulations that govern this (electronic) abuse?

1.4 Justification of the Research

This proposed study will attempt to expand knowledge in understanding the role that mobile service providers and technology designers could undertake to assist in finding collaborative solutions that will help in fighting mobile bullying. This is also in line with a suggestion provided by Muhanguzi and Kyobe (2014) that researchers,

managers and technology designers need to collaborate in finding solutions to mobile bullying problems, as this problem cannot be dealt with by mobile users, parents, and schools only – mobile service providers need to be part of the solution.

1.5 Limitations of the Research

It posed a challenge to find a suitable candidate to answer the questionnaire in the service providers' organisation due to organisations' larger capacity and some service providers were reluctant to participate. The study focused on the main cities of South Africa; hence it excluded potential participants from other areas, who might have valuable input to the research. Other limitations included the timespan in which the research needed to be completed which was limited. Sample size was minimal; a huge data sample could have been ideal to find significant relationships between variables.

1.6 Structure of Dissertation

This paper is organised as follows: Following by the introduction in Chapter 1, Chapter 2 begins by defining bullying and discussing the different types of bullying, then an insight into mobile bullying, potential causes and its implications for youth will also be provided. Service providers, their roles and responsibilities and relevant theories will be discussed in this chapter. Chapter 3 concentrates on research design; topics to be discussed will include research methodology, philosophical assumption, sampling, and privacy to name but the few. Data analysis and findings will be discussed in Chapter 4. Finally, Chapter 5 concludes the research with the summary of research findings, implications and recommendations of further research.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The literature review is an interrogation of existing research and analysis around the study topic, for the purpose of identifying research gaps and providing an academic foundation for the dissertation. The literature review examines the theory and empirical findings around reduction in mobile bullying and its relationship to the involvement of mobile network service providers and South African legislation.

South Africa, together with the United Nations, has taken responsibility to protect the rights of children by passing laws that take social, educational and administrative measures to protect the youth. However, despite legislation such as Childcare Act, 1994; the South African School Act (act 84 of 1996); and Harassment bill of 2011, and the Films and Publications Act of 2009, the report still shows that the rights of the youth have not been effectively protected in school (Prinsloo, 2005). Safety risks in using mobile technology among the youth are increasing in South African schools, for example, mobile bullying, risks of talking with strangers and breach of privacy (de Lange et al., 2012).

The introduction of mobile technologies has opened up a wealth of opportunities for better development of businesses across the African continent and more importantly for learning, exploration, social and public engagement by young people (Burton & Mutongwizo, 2009). Mobile technologies allow adolescents to discover and use their creativity and be imaginative through a socially interactive and collaborative style of learning and communication (Li, 2007).

While there are rewarding benefits of using mobile technology, such benefits come with their associated dangers, especially relating to adolescents, such as the risk of exposing adolescents to harmful information, meeting sexual predators (including sex

offenders), violence, inappropriate conduct perpetrated by the unsupervised adolescent, and other new dangerous phenomena such as mobile bullying (Ybarra & Mitchell, 2004; Burton & Mutongwizo, 2009; Popovac & Leoschut, 2012). Although there have been attempts in the past to use parental control and monitoring software as well as ring-fenced online environments, research shows that all these mechanisms are circumvented by the at-risk adolescents when/if they are given enough time, as most adolescents learn to use the technology from their peers or even on their own, which makes it difficult for them to adhere to or adopt safe browsing habits (Ybarra & Mitchell, 2004). Research has shown that parents that are supportive have a very strong influence on the behaviour of their children and more importantly, the educators and schools, as this is where adolescents spend most of their hours each day interfacing with adults who have the direct or indirect ability to influence them positively (Hinduja & Patchin, 2013)

This section of literature review provides literature on mobile bullying among the adolescent in South Africa. Furthermore, the narrative distinguishes between different types of bullying methods, and the cause, impact, values and inherent risks of mobile technology; this will then be followed up by discussion of services rendered within this context combined with associated theories.

2.2 An Overview of Bullying

The commonly known definition of bullying is when a person is being exposed, repeatedly and over time, to negative actions on the part of one or more other person (Olweus, 1993). Bullying could range from physical attack on a victim such as hitting, kicking, pushing, verbal attack or harassment such as name-calling, threatening, rumour-spreading and even indirect bullying such as social isolation and obscene gestures. Furthermore, in bullying, there is always an observed or perceived power imbalance (Sullivan et al., 2004).

Not all bullying is physical or violent in nature, since bullying has evolved into many different forms which are not always overt, especially to an untrained or casual observer such as a working-class parent with an overly demanding schedule on their hands. In recent times a new form of aggression or bullying has emerged, namely “cyberbullying”, in which the aggression occurs through modern telecommunication media, and more commonly through mobile phones (Slonje & Smith, 2008). Although research on this topic is still at an early stage of investigation, some researchers have already proposed that cyberbullying constitutes a quarter to a third of traditional bullying (Burton & Mutongwizo, 2009). The rapid adoption of new technology such as mobile phones by the adolescents is somehow concerning. Although some researchers have shown that the increasing access to new technology can have an increase in adolescents’ social interaction and enhance their learning collaborative experiences, at the same time this concurrently brings problems that need greater attention, problems such as intensifying levels of cyberbullying (Li, 2005). The section below will introduce different forms of bullying.

2.3 Traditional Bullying

Traditional bullying may broadly be defined as the activity of repeated, aggressive behaviour with the intent to harm another individual, physically, mentally or otherwise. The act of bullying is characterised by an individual expressing intent to gain power over another individual. The aggressor relies on the perception that they are physically, socially, or psychologically more powerful than the victim (Besag, 1985). According to Olweus (1993), a power imbalance is established and exploited by the aggressor to control and inflict pain, this pattern of behaviour is repeated over an indefinite period of time, this phenomena is what constitutes bullying behaviour.

Bullying may broadly be broken into three categories(Crick et al., 2002), namely; physical bullying which involves in behaving with the intendtion to inflict bodily harm by means such as striking, pushin and grappling; Emotional bullying involves written or verbal communication intended to humiliate or hurt the victim, such may include name-calling, teasing racial slurs and insults; and relational bullying which involves bullies attempt to harm the relationships of the target victims. Thes attacks are often peer-oriented and tend to include peer exclusion and rejection through rumours, lies, embarrassment, and manipulation. This type of bullying is associated with the kind of bulling prevalent among teenage girls (Rivers & Smith, 1994).

2.4 Cyberbullying

Although cyberbullying is a relatively new concept, its definitions can be an extended form or hybrid variant of bullying methods above, therefore cyberbullying can be defined as an aggressive, intentional act carried out by a group or an individual, using information communication technology platforms and tools as forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself (Smith et al., 2008; Belsey, 2007). The cyberbully can act anonymously and can spread offences over the web to reach a potentially unlimited audience, according to the reach and spread of the online medium. Technologies used to cyberbully include: short multimedia message, emails, instant messaging, online social networking posts, blogs and mobile phones. In research by Tippett et al., (2006) the findings showed that cyberbullying constitutes a quarter to a third of traditional bullying. The merge similarities between cyberbullying and traditional bullying are that both of them have an act of aggression with an intention to harm or hurt an individual, both forms of bullying acts are perpetuated repeatedly over time (Hines, 2011). Apart from these similarities, there is a huge exception with regards to anonymity, an aspect advantageous to the cyberbully as inherently availed by the online medium; this

aspect will be discussed further in section 2.5 below. As with traditional bullying, cyberbullying also has multiple variations and forms in which an individual can participate in cyberbullying, Willard (2007) identified this forms as follows; Harassment/Flaming, this is occurs when two or more individuals exchange negative emails (Friedman & Curral, 2003). A further characteristic of this form entails the repeat sending of emails that emotionally upset the recipient (Wolak et al., 2007); Denigration, this takes place when an individual posts hurtful lies concerning another individual in an attempt to harm the victim. The victim may not be able to report or delete the post due to the limit of rights to access the restricted accounts (Kowalski, 2008). Impersonation, is the act of falsely identifying oneself as another individual and posting information as if you were the individual. This kind of bullying relies on the ability to stay anonymous (Kowalski, 2008); Outing and trickery, is sharing of personal or embarrassing information about another person electronically (Kowalski, 2008).

2.5 Mobile Bullying

Mobile bullying can be defined as an aggression which involves the use of mobile technology applications such as email, text messages, instant messaging and social media to harass or discriminate and the disclosure of personal information of a victim that contains offensive, vulgar or derogatory comments (Burton & Mutongwizo, 2009). This form of bullying has escalated in many schools, and has a tendency of being unnoticed or undermined. Victims, parents and institutions are in most cases unaware of how to deal with it. Below are some of the possible methods that mobile bullies use to engage in a bullying behaviour:

2.5.1 Mobile bullying via Small Text Messages

Text messages, also commonly known as Short Message Service (SMS) or Multimedia Messaging Service (MMS), are a service provided by mobile phone manufactures and mobile phone service providers. Text bullying has been considered the most common form of mobile bullying: bullies use this service to send mean, embarrassing, untrue, or hurtful messages (Smith, 2008). This method has become more common than traditional bullying, especially among girls (Brown & Russell, 2007). Knowledgeable users can also send text messages to mobile phones from an internet sites with an intention to remain anonymous.

2.5.2 Mobile bullying via Instant Messaging

Instant messaging is a type of communication service that enables people to create a private chatroom to communicate in real time over the Internet or using mobile phone applications such as 'whatsApp'. It is similar to a telephone conversation but uses text-based communication instead. A survey of South African youth feedback analysis shows that 11.8% of users reported being bullied while using instant messaging (Popovac & Lezanne, 2012). Smith (2008) found that bullying on cell phones and through instant messaging tends to be the more prevalent. Juvonen and Gross (2008) also found that most instances of cyberbullying took place through instant messaging.

Research also shows that the functionality of messaging integrated into web sites such as Facebook has supplemented or even replaced traditional methods of communicating such as email or SMS (Hinuja & Patchin, 2006).

2.5.3 Mobile bullying via Chatrooms

Chatrooms are web-based sites which allow communication in real-time between two or more users. Users are required to create and use a chatroom name which they like to represent themselves by (not necessarily the real identity of the person); after such pseudonym creation, the user can proceed to converse about any topic. Chatrooms can be especially dangerous for learners and adolescents due to the added anonymity component. Bullies and sexual predators can therefore pose as a trustworthy friend within the chatroom. Chatrooms also do provide a private chatting section that is essentially an instant messaging (IM) conversation (Willard, 2007). This can result in social exclusion when certain people are invited into a specific virtual room and exclude others from the private chat.

2.5.4 Mobile bullying via Email

Communication via email may contain different types of media such as written content or files of images, audio, or video. Email may be used in various ways to inflict harm on another individual: This form of bullying is expressed through sending harassing or threatening messages; attaching viruses to emails; or including personal information about a victim and circulating it to a multitude of people. However, this type of communication is becoming an unpopular preference among young people as social networking sites may be more preferred to email as a means of communicating (Hinduja & Patchin, 2006).

2.5.5 Similarities between mobile and traditional bullying

Mobile bullying can be compared to traditional bullying in three ways. Firstly: through the presence of an act that takes the form of aggression intended to harm an individual (Kowalski et al., 2008). Though mobile bullying may not manifest in physical aggression, it is still a form of aggression expressed through electronic

means that produces the same results as traditional bullying such as negative emotions that a mobile-bullied victim will experience, such as hurt feelings, embarrassment, depression, anxiety, and lowered self-concept.

Secondly, the act of mobile bullying is often repeated (Kowalski et al., 2008). Emails, text messages, posts in blogs, and comments on web pages can often be sent out multiple times, to multiple people, resulting in further humiliation and torment for the victim. This pattern is similar to that of traditional bullying in the sense that it may be repeated and witnessed by bystanders.

Thirdly, there is often an imbalance of power where the bully has an advantage in technological power and superior command of the tools at hand than the victim.

This could be in the form of having more access to technological know-how, which provides more opportunities for the mobile bully to assert power imbalance (Kowalski et al., 2008), or having the ability to deter the victim from reporting the act of being cyberbullied.

2.5.6 Differences between mobile and traditional bullying

The largest differences are with the ease of spreading/forwarding these electronically and (hence) that cyberbullying incidents can spread on social media and repeat endlessly (even follow the bullied person around the world) whereas physical bullying acts happen once (although the behaviour may be repeated). Other key factors that make mobile bullying different from traditional bullying is as outlined below.

2.5.6.1 An Element of Anonymity

While traditional bullies are usually known to their victims, many cyberbullies remain anonymous, which could result in the extra strain of emotional stress for the victim. Mobile bullying allows the perpetrators to hide their identity through anonymity and use of pseudonyms, i.e. commonly referred to as a fake name, unidentified numbers, and through web pages with no original trace. Research findings from Kowalski and Witte (2006) shows that 74% of the time the victims of mobile bullying are unable to identify the perpetrators.

2.5.6.2 Disinhibition

Often as a result of the anonymity, young perpetrators of cyber violence are usually less inhibited, largely because they do not have the face-to-face experience built into this form of contact; this results in eliminating the visual images of the victim's emotional reactions. As a result, mobile bullies go to extremes when tormenting their victims, which they might not have done if their identity were known (Kowalski, 2009).

2.5.6.3 Accessibility

Again related to the lack of a physical environment, cyberbullying can follow the victims wherever they go – at school, home, or elsewhere – and at any time of the day or night. This type of prolonged access to the target victim by the bully leaves the victim with no ability to escape from their mobile bullies. Even if the individual chooses to switch off their mobile device all the sent items will still be waiting for them and are viewable when the device is turned on again. Even if such device was to be disposed of, any item posted on social media will still be accessible by the community (Kowalski, 2009).

2.5.6.4 Punitive fear

While traditional bullying and violence against victims often goes unreported, there is an additional disincentive for victims to report cyber violence, in that they fear their computer access or cell phone may be confiscated by parental or adult figures (Limber, 2009). In this situation, the victim places more emphasis on what possessions they may lose, and not on the prevailing and persistent threat of harm from the bully. For this reason mobile bullying harassment and aggression are not likely to diminish in the near future – instead, there is likely to be a continuation and intensification with severity changing as technology evolves and becomes even more sophisticated.

2.5.6.5 Use of technology

Mobile bullying exists within cyberspace, so it could be assumed that youth with limited access to technology are more likely to have fewer incidents of being involved in mobile bullying and mobile harassments (Ybarra & Mitchell, 2004). Therefore youth who have a high frequency of technology use could be predicted to have more opportunities of getting involved through predisposition in mobile bullying and mobile victimisation (Li, 2007). Research by Li (2007) also found the frequency of technology usage to be directly proportional to mobile bullying and victimisation.

2.5.6.6 Knowledge of cyber safety

Most of the research that has been conducted with regards to bullying prevention has identified that increased awareness is a key important area that can reduce bullying in school (Campbell, 2005); this is also true for mobile bullying. Eliminating mobile bullying risks is an impossible task, though there have been many attempts in the past, to limit exposure by using parental controls and monitoring software. A contributing factor is that adults and adolescents approach or relate to technology

from two different perspectives and domains, hence their experiences with this medium differ.

Adults are usually not up to date with the latest technology, or they are still left behind and still use computers and the internet as a practical tool, while the youth see it as a communicating tool, an essential medium for connecting with their peers (Keith & Martin, 2005). This results in adults having scarce understanding, non-solid background or knowledge of adolescents' online activities. Research highlights that most adolescents are not equipped to deal with the many risks that they do encounter while online (Li, 2007). It is therefore recommended that parents and educators should be educated about mobile bullying in order for them to help provide guidance to the youth (Kowalski & Limber, 2008).

2.5.7 Electronic anonymity

One of the greatest challenges with mobile bullying is that the bully can hide behind the mask of electronic anonymity, using this anonymity as a weapon to behave inappropriately (Felson & Clarke, 1998). This makes it difficult, but not impossible to find out the identity of the bully.

There is a lack of fear that creates a false sense of security that makes the perpetrator willing to do or say things that they would not normally say or do in public, as they feel freed from the normative social constraints on their behaviour, knowing that the victim is less likely to be able to identify the perpetrator. Cyber technology creates the illusion that the user is invisible or anonymous. It is this perceived anonymity that encourages the aggressor to rationalise their harmful actions because they feel as though they cannot get caught.

Unlike a traditional bullying, where the power imbalance lies in the bully's physical strength or social standing, mobile bullying power lies in their anonymity (Badenhorst,

2011; Burton & Mutongwizo, 2009; Hinduja & Patchin, 2008; Li, 2008; Smith 2008). Youth who would otherwise not normally engage in traditional bullying, may be tempted to do so in response to the anonymity associated with an online environment (Campbell, 2005; Li, 2008; Tokunaga, 2010). Mobile bullying can be classified as an essentially opportunistic offence that requires minimal planning and technology know-how, and the anonymity minimises the chances of the bully being caught (Hinduja & Patchin, 2008).

2.5.8 How mobile bullying affects the victims

Youth that are bullied are likely to experience depression, loneliness, unhappiness, anxiety, and poor sleep (Neary & Joseph, 1994; Kumpulainen et al., 1998; Kaltiala-Heino et al., 2000; Roland, 2002). Exacerbating the issue further is the fact that the negative effects of bullying often go unnoticed, as many victims feel the need to conceal the fact that they are being bullied due to fear of being bullied further. More often than not victims respond passively to bullying. They tend to act anxious and appear less confident.

They may become quieter in class and, as a result, the bullying becomes a potential obstacle to their academic success (Rigby & Slee, 1991; Rigby, 1997). Therefore, bullying is a problem that, if left unattended, can become a significant hurdle to a child's development (Tokunaga, 2010).

Although the severity of cyberbullying has yet to be thoroughly researched, it would seem that it could have more severe consequences than those of face-to-face bullying as with cyberbullying there is a potentially wider audience to be reached at a moment's notice who would thus get wind of the incident, more so than in the school grounds. Cyber bullying cannot be escaped as it can reach one anywhere, anytime

and be recorded relatively permanently in the cyber world (Burton & Mutongwizo, 2009).

2.5.9 Mobile bullying Influencing factors

The mobility and high-performance ability of mobile phones means that young people can use mobile phones privately and accomplish extraordinary things without adults' supervision (Beger & Sinha, 2012). One of the biggest reasons for cyber-bullying to continue and to increase is that the youth assumes that the net is anonymous and they lack an understanding and appreciation of the fact that mobile phones and the internet are strong weapons (Kowalski & Limber, 2007). Another mistake that learners make is that they do not understand that once the message has been posted on the net it is practically impossible to delete it. Even though the sender can delete the original message, a duplicate of such a message has already been copied repeatedly through different online systems and peer-to-peer file-exchanging software which makes deleting impossible (Burton & Mutongwizo, 2009).

With all that said, there are many other factors that contribute to mobile bullying, such as behaviour, attitude and the social environment that the adolescent finds her/himself inhabit in.

2.5.9.1 Gender

Pellegrine et al. (1999) posited that gender could predict cyberbullying and victimisation. Hoover and Olsen (2001) backed Pellegrine by suggesting that male youth are more like to be bullies and/or bullied than female youth. However, this is not true within the South African context, as purported by the study done by Burton and Mutongwizo (2009), which shows that females were more victimised in schools at 33.1% as compared to males at 29.3%. The majority of studies also reveal that no particular gender is targeted in victimisation more than the other (Didden et al., 2009;

Hinduja & Patchin, 2008; Juvonen & Gross, 2008; Katzer et al., 2009; Topcu et al., 2008; Varjaset al., 2009; Williams & Guerra, 2007; Wolak et al., 2007; Ybarra et al., 2007).

2.5.9.2 Culture

Culture appears to be a significant driving factor, as youth from different countries and cultures behave differently and hold different beliefs or religions (Nabuzoka, 2003) Culture is automatically related to bullying and victimisation, therefore culture is considered as a predictor for cyberbullying and victimisation. In South Africa 39% of black youngsters reported cyber-aggression at school as compared to 20.5% Indian/Asian (Burton & Mutongwizo, 2009).

2.5.10 Mobile Bullying in South Africa

A joint research study conducted by the Centre for Justice and Crime Prevention (CJCP) and UNICEF (2012) found that four in five children in South Africa have access to a mobile phone, and almost half of them use a mobile phone to access the Internet, more specifically to access various social media platforms. This rapidly changing environment has enormous potential to empower young people to build communities, but it also raises concerns especially around child safety.

Peyper (2013) stated that more than 75% of people who fall into the low-income category (less than R432 per month per household member) and who are 15 years and older, own a mobile phone, of whom 98.5% use a prepaid SIM card. The research also shows that most of them use a data usage application that supports cheaper communication such as MXit, Facebook Zero and WhatsApp. This adds weight to the argument that with this continuously affordable use of mobile communication, South Africa will soon have a mobile bullying risk landscape similar to countries such as the US and Europe that have well-developed technological

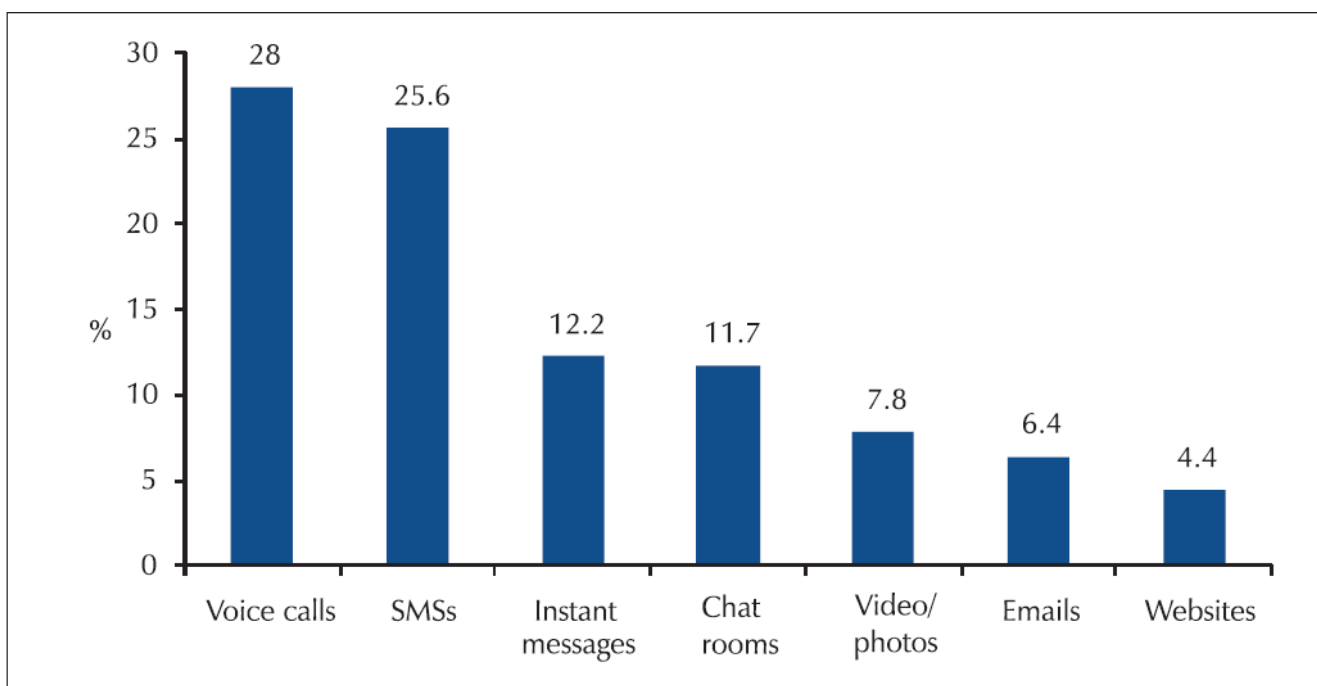
infrastructure. To add to the situation, devices that were meant for top-end communication such as smart phones are now the standard offering with most pre-paid contracts in South Africa. All new smart phones typically include functionality that enables the user to access the internet, capture and display images and video, and identify their GPS (Global Positioning System) location. These functions allow the youth to communicate in ways that are completely foreign to both parents and educators whom constitute the older generation.

With five mobile operators, namely Cell C, MTN, Vodacom, 8ta and Virgin mobile, as well as hundreds of internet service providers, South Africa has positioned itself as having one of the largest telecommunications markets on the African continent. As a result, Burton and Mutongwizo (2009) argue that with the rise of newer technologies, new forms of violence emerge, especially among young people who are prone to get absorbed.

The CJCP conducted research in 2012 that indicated that nearly one half of adolescents suffered victimisation from mobile bullying. The research revealed that 31% of the participants that were interviewed experienced some sort of mobile bullying while on school premises, whereas 42.9% experienced it outside of school. These percentages are more likely to continue to escalate with increasing better access to mobile networks (Hertz & David-Ferdon, 2008). Of particular grave concern is the psychological and health impact that forms part of the ramifications of online victimisation have been raised (Tokunag, 2010).

Figure 1 below is the result of a study that was conducted by Burton and Mutongwizo which was published in CJCP Issue paper No. 8, 2009. At the time of the literature review and writing no current data was correct on experiences of cyber-aggression by young South Africans. Two major quantitative studies were conducted for the

purpose of this research, whose interest is with the result obtained from the mediums in which cyber-bullying occurs. The figure below shows that voice calls (28%) are the most common of mediums for mobile bullying, followed by SMS (25.6%), with bullying via websites (4.4%) being the least represented medium; 26% of respondents experienced insults of race-based connotation via MXit mobile phone application as per study conducted by UNICEF in 2011.



Source: Burton P & Mutongwizo T, *Inescapable violence: Cyber bullying and electronic violence against young people in South Africa*. Centre for Justice and Crime Prevention, CJCP Issue Paper, No. 8, 2009.

Figure 1: Young South Africans' experiences of cyber-aggression

In responses to this findings MXit announced a zero tolerance policy in 2010, which resulted in a user being banned from the service if found posting explicit or offensive material in public areas of its service; if necessary they might be handed to the police cybercrime unit (Skade, 2010). Major network providers such Vodacom, MTN and CellC blocked access to a website named Outoilet which was found to be exposing children to potentially dangerous and inappropriate content.

Below we will look at the role of mobile service providers and what is expected of them in terms of the services they provide and their possible or somewhat morally obligatory role in helping to combat mobile bullying. This will be accomplished by going through some of the legislative frameworks.

2.6 South African legal framework

In this section the researcher aims to create a platform that makes it possible to find legal solutions to an evidently serious problem and to look at South Africa's legal position with regards to mobile bullying as it stands currently, and then to build upon this to propose viable solutions to this multi-layered problem. Section 7(2) of the SA Constitution holds that the State is obliged to respect, protect and fulfil the rights as set out in the Bill of Rights. It must be noted that the law as such is not a static entity and is ever-changing. As a result, where new gaps in the South African legal system are exposed, it is obligatory to find measures to bridge these gaps. It is critical to investigate the legal framework in order to obtain sustainable solutions to mobile bullying that upholds the constitutional rights of all parties involved, for instance bully, victim, bystander, parents, educators and service providers.

The Constitutional framework of the Republic of South Africa follows the principles of constitutional supremacy (Currie and De Wall, 2006). This embraces the Constitution as whole, is binding on all State branches, and holds priority over rules and legislation. As a result, the legislation and rules do not have any power over the essence of the Constitutions. Section 2 of the Constitution enforces this principle, which states that "This Constitution is the supreme law of the Republic; law or conduct inconsistent with it is invalid, and the obligations imposed by it must be fulfilled" (Constitution of the Republic of South Africa, 1996). South Africa's legal position, within the sphere of communications, is underpinned to a large extent by the

presence of an independent regulatory body, at the centre of the telecommunication regulation and oversight, which will be expanded upon the following section, otherwise known as the Independent Communications Authority of South Africa.

2.6.1 Independent Communications Authority of South Africa (ICASA)

The statutory body known as the Independent Communications Authority of South Africa (ICASA) remains a key role player in this country's progress towards upholding South Africa's constitutional ethos, democratic ideals and aspirations. This muted element exists, despite the regulatory body not being explicitly mentioned in-depth under Chapter 9 of the Constitution. The founding role-players established the entity: back in 2000 under the auspices of the Independent Communications Authority of South Africa Act. The ICASA amendment Act of 2006 encompasses the Postal Services, which was formerly regulated by the Postal Authority Act.

Changes were effected to the ICASA Board in 2006, thus increasing the board members from seven members to nine, in order to accommodate additional members from the then dismantled Postal Authority body. Within the regulatory environment, ICASA serves multiple roles i.e. both as a licensing body, a regulator and a quasi-judicial body since the entity licenses, regulates, adjudicates and issues sanctions.

Section 34 of the Constitution empowers ICASA to adjudicate and issue sanctions as it stipulates that everyone has the right to have any dispute which can be resolved by the application of law decided in a fair public hearing before a court or, where appropriate, another independent and impartial tribunal or forum.

ICASA is also, functionally, an organ of state which is thus bound by the Bill of Rights which protects the right to equality, human dignity, life freedom and security of the person, freedom of religion, belief and opinion, freedom of expression etc. To this

end section 8(1) of the Constitution regulates that the Bill of Rights applies to all law, and binds the Legislature, the Executive, the Judiciary and all organs of state. The responsibility of ICASA, as per the objectives stated above in this sense, is aimed at the protection of democracy and ensuring free and open airwaves.

2.6.1.1 Tabled Mandate of ICASA

ICASA's tabled mandate involves the entity ensuring the regulation of electronic communications (broadcasting and telecommunications) and postal services in a manner that ensures the promotion or preservation of the public's interest.

As an entity, ICASA defines its mandate through the following prime sections of legislation and subsequent amendment of ICASA Act of 2000: The Constitution of South Africa, Act 108 of 1996 and given that The Constitution of South Africa requires Parliament to establish an independent regulatory institution which is mandated to provide for the regulation of broadcasting in the public interest, and to safeguard fairness and a diversity of views broadly representing South African society. Parliament effected an amendment of the ICASA Act of 2000 to incorporate postal services to ICASA's core functions and reflect an additional aspect of the regulation of electronic Communications.

Complementary legislation that bears influence upon the telecommunications sector includes:

- The ICASA Act 13 of 2000 (otherwise known as "the ICASA Act") which was used as the cornerstone upon which the communications sector regulator – the Independent Communications Authority of South Africa ("ICASA") – was established and sets out its powers as well as sanctions which can be imposed on licensees for non-compliance with their licence terms and conditions;

- The Regulation of Interception of Communications and Provision of Communication-related Information Act 70 of 2002 (commonly referred to as “RICA”) which is a body of legislation that sets out a lawful intercept regime and details the obligations of electronic communications service providers pertaining their co-operation with law enforcement authorities and guidelines outlining the storage of traffic data;
- The Electronic Communications and Transactions Act 25 of 2002 (“the ECT Act”) which informs the sector by way of principles that create legal exemptions for information intermediaries where they act as such for an example as a mere conduit or hosting provider;
- The Electronic Communications Act 36 of 2005 (“ECA”) the substantive regulatory function of ICASA is pertaining to broadcasting, postal services and electronic communications sectors;
- The Competition Act 89 of 1998 (commonly referred to as “the Competition Act”) which is used to legislate against anti-competitive practices such as the prevention of collusion and cartels being formed or used;
- The Film and Publications Act 65 of 1996 (“the Film and Publications Act”) imposes obligations upon ISPs and others to register and further sets out obligations around the sensitive element of child sexual abuse images and prohibits exposure of children to pornography;
- The Protection from Harassment Act 17 of 2011 (otherwise referred to as “the Harassment Act”) obliges electronic communications service providers to assist where a person levels allegations of harassment perpetuated through the use of electronic communications tools or platforms.
- The Protection of Personal Information Bill 9 of 2009 was first brought to the South African Parliament in 2009 and is mainly aimed at comprehensively regulating the use and management of personal information within the digital medium.

- The Competition Act 89 of 1998 (commonly referred to as “the Competition Act”) which is used to legislate against anti-competitive practices such as the prevention of collusion and cartels being formed or used.

2.6.2 How Telecommunications is Regulated in South Africa

By virtue of its existence, telecommunications is a borderless reality, encompassing geographic and geopolitical territories, meaning that telecommunications transcends borders. Hence local telecommunications laws have an element of international law intertwined in their international legislative scope, due to this present cross-border capacity of telecommunications. Nonetheless, there remains a strong element of domestic law to regulate the telecommunications domain. Within South African borders, these domestic laws are founded on the country’s Constitution, further to more pieces of legislation applicable to the industry, which are telecommunications-specific laws complemented by other general legislation which also applies to the industry i.e. competition legislation.

Some feel that as the industry gains further momentum it becomes more entrenched and competitive: the need for telecommunications-specific legislature will diminish, to be replaced by general competition laws for purposes of effective regulation of the industry. The need remains for a regulatory entity with an industry-oversight mandate to issue licenses, resolve disputes and further refine the industry’s legislation.

The industry body maintains its independence of both the government and the private sector, maintaining an amicable distance from all industry players, further to the government assigning various departmental units to assist the regulator in its shared mandate.

As applicable, the courts also intervene in certain matters or jurisdictions, either in resolving disputes or reviewing decisions of the regulator, or both, on par with South Africa's established regulatory framework, which tends to follow this trajectory and model. The following diagram depicts the bird's eye view of such regulatory framework; encompassing the South Africa-specific legislation to further illustrate this scenario.

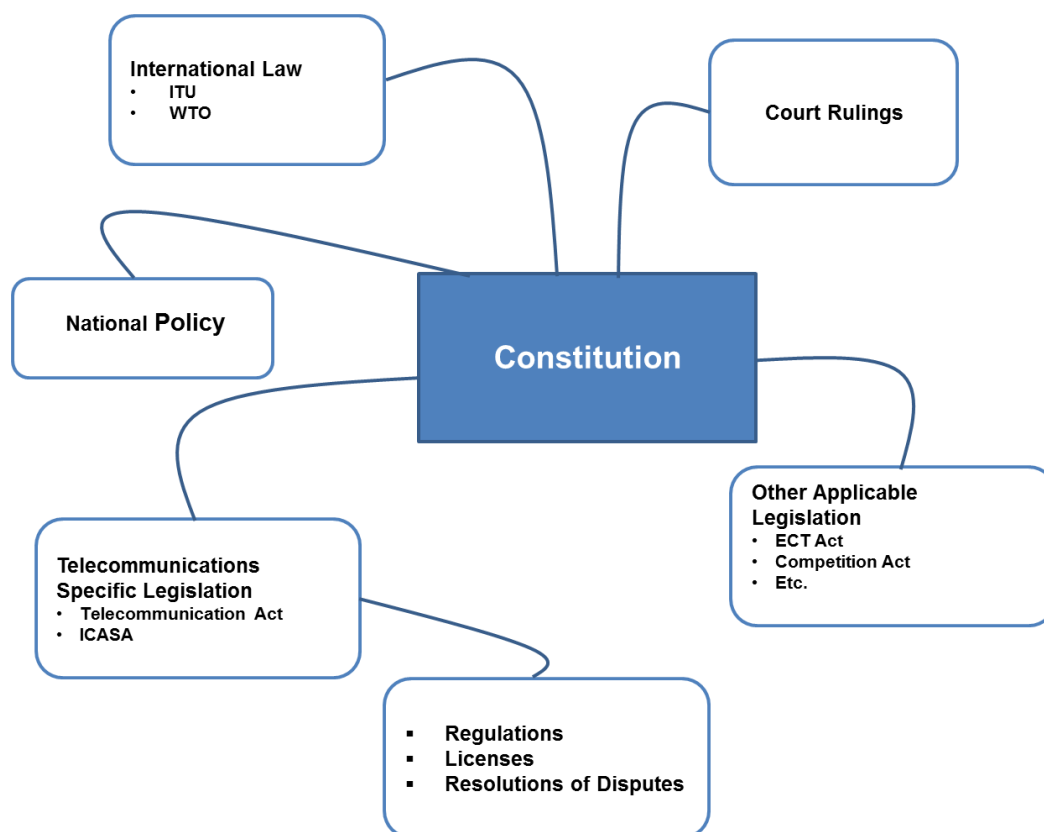


Figure 2: Regulatory framework

2.6.3 Legal relevance of South African Laws to Mobile Bullying

Has the law kept pace with advancing technology? That was the question passed by Cassim (2013). Although South Africa does not have direct specific anti-bullying legislation that deals with mobile bullying (Burton & Mutongwizo, 2009), it has to be mentioned that there are a number of government policies and acts in place which

are intended to keep children safe from exposure to content that are harmful in the media (Popovac & Leoschut, 2012). However, this legislative framework lacks alignment which makes it difficult for understanding and compliance. Kyobe's (2008) findings also demonstrate that legislation compliance is a major concern in learning institutions and many organisations. Kyobe (2008) recommended more training and awareness programmes in order to improve the understanding of legislation on electronic abuse.

While there is an urgent need for well-crafted legislation and programmes in ICT development and education to address the devastating impact of mobile bullying. The introduction of such legislation should also consider the competing interest of the online users and victims in an equitable manner (Cassim, 2013). It should also be mentioned that in order to achieve a high level of compliance to mobile bullying legislation it will be necessary to form a collaborative effort by all role-players in order to address the rise in mobile bullying (Cassim, 2013). Government and mobile service providers need to foster the development of a fully educated and aware youth population with regards to opportunities, rights and risks associated with the engagement of digital technology. There is a need for law enforcers and role-player organisations to ensure accountability, transparency and measurability if the implementations of mobile bullying policies are to be effective (Beger et al., 2011).

Although there is no specific law that regulates mobile bullying, it should be mentioned that response to civil law, South African Schools Act on Human Dignity of 1996, the Children's Act 38 of 2005 and the Films and Publications Act of 1996 could accommodate the existing gap. All this legislation strongly prohibits all forms of bullying and governs the use of electronic devices (Popovac & Leoschut, 2012). There is also a strong recommendation by Badenhorst (2011) that in order to combat mobile bullying, the youth should be empowered by providing them with accurate,

accessible and age-appropriate life skills that will help them to be self-protected by identifying ICT risks and responding to the same accordingly, and by so doing preserving their well-being. The onus though is not only upon the users to protect themselves, as suggested above, through training and acquisition of certain skills, but also for the service provider to become sensitised to the risks prevalent within their medium and implement measures to protect users. Thus far the researcher intends to examine the extent to which mobile service provider are assisting society to combat the new phenomenon of mobile bullying. Furthermore, to evaluate the extent to which awareness programmes are effective in addressing the challenges of mobile bullying; consequently weigh the value of education programmes in addressing problems of mobile bullying, and probe the alignment of technological advances measured against legislative measures as per amendments in place or needed to help society cope with such advancements. In the subsequent section the researcher examines the expected responsibilities i.e. legislative expectations that the country places upon the service providers towards an affirmative contribution in combating or reducing the levels of mobile bullying.

To achieve the purpose of this current research, the researcher will adopt the Films and Publications Act, No 65 of 1996 amended in 2009, as a guideline to the responsibility imposed to the mobile service provider. The researcher has focused specifically on this Act as it is the closest Act that deals with the issues of content within the media and has demonstrated a success in broadcasting space (television and radio). The summary of obligations of internet access and service providers of Chapter 6 of this act is as provided below:

Any person who provides child-oriented services, including chatrooms, on or through mobile cellular telephones or the internet, shall —

- (a) Moderate services and take reasonable steps that are necessary to ensure that services are not being used by any person for the purpose of the commission of any offence against children;
- (b) Prominently display reasonable safety messages in a language that will be clearly understood by children, on all advertisements for a child-oriented service, as well as in the medium used to access child-oriented service including, where appropriate, chatroom safety messages for chatrooms or similar contact services;
- (c) Provide mechanisms to enable children to report suspicious behaviour by any person in a chatroom to the service provider;
- (d) Report details of any information regarding behaviour which is indicative of the commission of any offence by any person against any child to a police official of the South African Police Service; and
- (e) Where technically feasible, provide children and their parents or primary caregivers with information concerning software or other tools which can be used to filter or block access to content services and contact services, where allowing a child to access such content service or contact service would constitute an offence under this Act or which may be considered unsuitable for children, as well as information concerning the use of such software or other tools.

2.7 Service Provision and Theoretical Framework

2.7.1 The Role of Mobile Technology – Its values and risks

The Mobile Added Values theory (MAV) by Pousttchi et al. (2003) suggests that there are four typical properties that identify values of mobile technology: are ubiquity, context-sensitivity, identifying functions, and command and control functions.

The ability of a mobile device to send and receive data at any given place and time, is herein referred as *ubiquity*. This permits the user of a mobile device to gain access to real-time information for business, education or personal use, and also businesses are able to reach their targeted customer by mobile services. Following Pousttchi et al. (2003), applications such as internet access, Multimedia, social media and Instant Messaging are useful in supporting improvements in a learning environment for the youth, for example sharing information among each other at lower cost and accessing academic information from the internet. Some youth describe mobile devices as brain extenders. By this unceremonious perception these youth expressly believe that if they were to lose their mobile phone, they would lose a portion of their brain, amid a trend emerging whereby some educators react to mobile phones as a huge distraction, a tool which, in the hands of the adolescents whose minds are impressionable, makes them vulnerable to distractions. Thus possession of these devices, instead of aiding, tends to impede the education they are providing to the adolescents (Prensky, 2004).

To this effect: mobile technology imposes a negative effect upon the classroom, home environment and otherwise, due to the device's always-on nature (Kyobe & Muhanguzi, 2014). Apart from mobile bullying, mobile technology can also cause conflicts with family members, for instance when the work environment starts following one home; risks of harmful microwave radiation could be bad to one's

health; loss of productivity; and interruptions to meeting progress (Middleton, 2008; Volkow et al., 2011).

2.7.2 Service and Its Attributes

Service provision is predominantly an economic activity wherein the purchaser does not generally, except by exclusive contract, obtain exclusive ownership of the Item purchased. According to Lovelock and Wirtz (2007), this characteristic of the service is called benefit without ownership. The benefits of such a service, if priced, are held to be self-evident in the buyer's willingness to pay for it. Information service delivery involves the management of ICT infrastructure, information and support of information users in accessing a range of resources. The delivery of customer-focused information technology focuses on proving value to the client and in the process the nurturing of the customer relationship. Managing service delivery involves delivering services at an acceptable level of quality (Josang et al., 2007).

Many academic researchers have agreed on four attributes that characterise services: inseparability, heterogeneity, intangibility and perishability (Gronroos, 2000; Kotler & Keller, 2006; Lovelock & Wirtz, 2007). These attributes suggest that while customers expect to obtain value from the services they paid for, either being with money, time or efforts, these values come from having access to variety of values, thus creating elements rather than having ownership of those elements. The usefulness of these service attributes' description has, however, been argued by Edvardsson et al., (2005, pp 115) as not being useful as "they do not portray the essence of value creation through service in a meaningful way, and as a result they should be avoided; they do not capture the process and interactive nature of services. These characteristics, however, may be useful in some special situations. The service concept may be replaced by the service perspective on value creation, focusing on value-in-use for the customer."

2.7.3 Service and Services

The use of these terms should be differentiated. Most researchers have variously referred the term 'services' as performance, process, experiences and activities that create value to customers (Solomon et al., 1985; Lovelock, 1991; Zeithaml & Bitner, 2003; Vargo & Lusch, 2004). 'Service' is referred to as the involvement of the organisation as a whole to provide the customers with a good experience, while 'services' are something of value-creation that can be offered to the customer and that fulfil their need. In mobile telecommunication industries these services could be the providing of SMS, calls and data, etc.

'Service' is defined as a value-creation process as it is perceived as a set of activities performed by an organisation with the aim to create value. This could include a specific service or performance to customers and other organisational activities that could be part of value-creation process such as customer relationship initiatives, leadership and management styles, etc., and not concentrate on market offerings services only. Therefore 'service' involves the whole process of interacting and involving the customer before, during and after production, distribution and consumption of an organisation's offering (Edvardsson et al., 2005; Kauppinen-Raiseaned et al., 2007).

2.7.4 Services Classifications

There are five categories within the non-ownership framework that was identified by Lovelock and Wirtz, (2007) all based on the benefit without ownership perspective. These categories are as follows; Rented goods services, Defined space and place rentals, Labour and expertise rentals, Access to shared physical environments, and System and networks, access and usage.

For the purpose of this research the focus will be on mobile communication network services as a core service which are in line with the system and networks services group as stipulated in Lovelock and Wirtz's (2007) classification. This is when customers hire or rent the right to participate in a specific network such as mobile telecommunications, online banking, or specialised information services.

2.7.5 Service Quality

According to Parasuraman et al., (2005) service quality is a multi-item scale developed to assess customer perceptions of service quality in service and retail businesses. Service quality may be defined as the discrepancy between a customer's expectations of a service offering and the customer's perceptions of the service received, requiring respondents to answer questions facilitated around their expectations and their perceptions. This could also be substantiated using the expectation-confirmation theory (ECT). In this theory, Spreng et al. (1996) suggested that expectations coupled with perceived performance lead to post-purchase satisfaction.

The use of perceived as opposed to actual service received makes the service quality an attitude measure that is closely related to, but not the same as satisfaction. Gunawardan (2011) presented some revisions to the original SERVQUAL (service quality) measure to remedy problems with high means and standard deviations found on some questions and to obtain a direct measure of the importance of each construct to the customer. They are the five notions of service quality constructs namely; tangibles, reliability, responsiveness, assurance and empathy.

2.8 Mobile Service Providers

2.8.1 Mobile Services

The term 'mobile' could have different meanings based in the context in which it has been used. In this paper mobile services will refer to content services retrieved through mobile devices. Mobiles could also mean devices that are portable that can be used to gain access to real-time information and other resources that were previously only available through the use of personal computers (Shankar et al., 2003). Mobile handheld devices are therefore required to gain access to mobile services. In this paper 'mobile device' will be referred to as cellular phone or any other handheld device intended for communication and capable of installing or running different applications that can access external services such as SMS capabilities, send and receive picture messages and access the internet, GPS and any other capabilities that may become available in the future (Feldmann, 2005). 'Mobile service' in this study is defined as any kind of service that can be retrieved via a mobile device (cellular phones, tablets, or other handheld devices) and that is delivered in interaction between users (Pihlstrom, 2008).

2.8.2 Mobile Service Providers in South Africa

During apartheid ICT infrastructure was provided only to a minority segment of the South African population while neglecting the rest of the country. Post-1995 South Africa has seen a growth higher than the neighbouring countries in ICT infrastructure, according to research done by Esselaar and Stork (2005). This is probably due to the transfer of government ownership to private telecom ownership of fixed telephone, mobile, and internet.

Vodacom, MTN, Cell-C, Virgin Mobile and Telkom are the five biggest mobile service providers in South Africa, of which only Telkom is partially owned by government.

2.8.3 Overarching Roles, Risks and Responsibility of Mobile Service Providers

Mobile service providers' responsibilities include the delivering of mobile content directly to the customer or providing their services via other mobile technology means. Mobile service providers have lawful responsibilities to protect their customers by complying with relevant regulations, as discussed in details under Regulatory Compliance in the section below (Popovac & Leoschut, 2012). While the introduction of mobile services has brought a wealth of opportunities for learning, exploration, social and public engagement by children and young people, these benefits are not without their risks (Burton and Mutongwizo, 2009). This technology has brought the potential to expose adolescents to risks that they may not otherwise have encountered. These risks include, but are not limited to, cyberbullying, cyber-violence, cyber-aggression, internet bullying, electronic bullying, online harassment which are all types of risks that the mobile technology has brought with it (Popovac & Leoschut, 2012).

2.8.4 Mobile Connectivity, Role, Usage Patterns and Dependency

The transition from 2014 to 2015 ushered the world into a new reality: of the 7 billion occupants of this planet, at least 50% had activated one mobile phone subscription, at a minimum, yielding a connectivity figure of more than 3.6 billion subscribers.

Taking current trends into consideration, as per the mobile technological adoption rate trajectory, by 2020 one fifth (1/5) of the world population will be actively connected via mobile subscriptions, totalling an increase of 1.4 billion, subsequently shifting the connectivity threshold to 5 billion (Morrissey, 2014).

Our overall dependence on the ownership and use of mobile devices is escalating tremendously, with the annual world average sitting at 5% growth across the board,

with an exception being developed countries, such as those within Europe whose growth path is maintained at 1% growth, due to present levels of saturation.

Across Sub-Sahara Africa, adoption rates remain relatively lower when viewed in light of global trends, presenting much opportunity to mobile operators; as evidenced by an increase of 12% new subscriptions within this territory. The opportunities, however, bring with them inherent risks that need to be addressed, inter alia, by the further roll-out of this technology, a joint-collaboration that is necessary to mitigate these risks. Including populations that may not be ready to deal with these adoptions and usage of mobile technology, without a breach of their rights, safety and well-being in the process.

Daily uses include: voice calls, SMS text messages, Instant Messaging (BBM, Mxit, 2go, Viber, WhatsApp, MSN Messaging), banking, news and weather, social networking (Facebook, Twitter or LinkedIn), email and other uses. With a growing dependency on these services, as society looks to these functions, achieved through these devices to accomplish routine tasks, complex activities, social or professional, including use within the family environment, such as a father texting his wife on his way home from work – a further indication of the close manner in which mobile technology is interwoven into society’s ‘daily grind’ (Morrissey, 2014). Figure 3 below depicts data-oriented services, digital traffic and user patterns of mobile users within the South African grid.

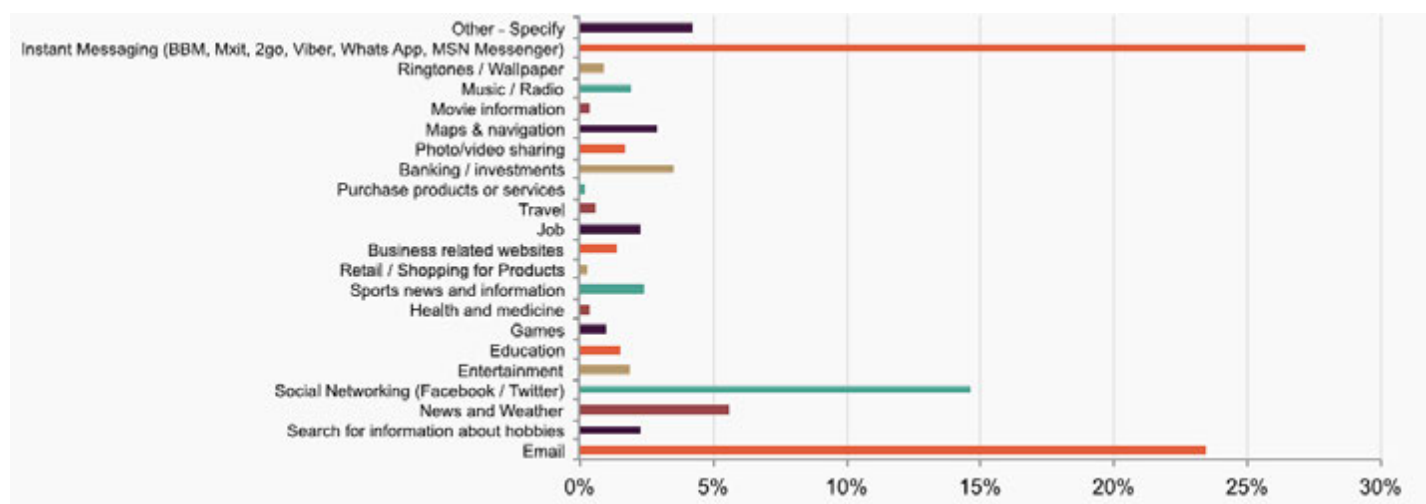


Figure 3: Depiction of data-oriented services, digital traffic and user patterns of mobile users within the South African grid.

Source: South African Mobile Report: March 2014 (Morrissey, 2014)

2.8.5 Price Considerations, Affordability and Product Category

An analysis derived from research across the information communication technology (ICT) sector for pricing, policy and regulations, determined pricing through the use of the Organization for Economic Cooperation and Development (OECD) methodology. OECD is a collective, made up of a group of about 30 member countries that discuss and develop economic and social policy, within the framework of their democratic ethos and high esteem to uphold vehemently, the free market economies. Through careful observation of the available data of products from the main mobile operators in South Africa to detect price trends, affordability measures and product variety, Telkom depicts as the most affordable provider at present as shown in the figure 4 below.

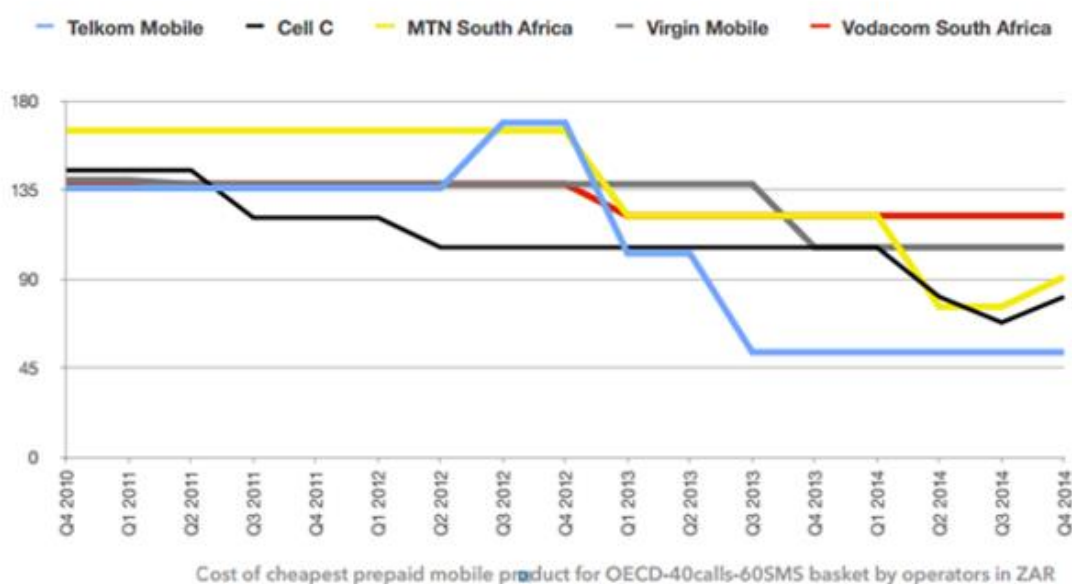


Figure 4: MTR in US cents compared for selected African countries – July 2014

Source: OECD 40 calls/60 SMS basket, 2014

2.8.6 Some Reasons Predominant in the Mobile Communications industry indicative of non-compliance by Mobile Service Providers

Modern-day mobile communications technology has advanced in rapid phases triggered by the presence of the internet, an element that has since accelerated the notion of what is possible in terms of the level of enriched data, information and services that individuals have access to, in real time.

By the same token the benefits presented to users of mobile technology, in terms of virtually limitless access to a wealth of enriched data, are intrinsically beneficial in more ways than can be acknowledged in passing, as evidenced by the convenience and influence the technology bears upon its audience. A concerning aspect, however, is the prevalence of uncensored forums, data and communication within this mobile environment that exposes children to unwarranted risk, which is at times largely unnoticed and insufficiently supervised or managed by the service provider offering the service (Stephen & Venter, 2011).

The sheer volume of data traffic that is exchanging hands on the platform makes compliance a daunting task for the mobile service provider attempting to comply with available regulations. Further exacerbating the compliance challenge for the service provider is that the present technology catering for the same i.e. supervising adolescents using these platforms, is in a static configuration mode, while also lacking more accurate risk-profiling measures to accurately identify the user and deploy specific proactive safety mechanisms to protect the minor or alert the parents involved (Stephen & Venter, 2011).

The spread and of mobile technologies available, in juxtaposition with applications enabling social networking, has steadily augmented the attack surface adolescents are exposed to in an online social networking environment. Most adolescents

engaging in these types of online activities do so through mobile technologies such as their personal mobile device or that of an adult in the home.

2.8.7 Service Exclusions and Liabilities

Excluded from the mobile service providers in the course of rendering their services is a solution within the service eco-system that executes risk determination based on the risk profile of the individual user, especially if such an individual is a minor or adolescent being the emphasis of what is lacking. As a result of this gap in their service coverage and offering, the service providers are unable to explicitly through explicit measure or safety latches govern what the user is exposed to during use of the communication services (Stephen & Venter, 2011).

2.8.8 Ramifications of easy Access to Technology by Minors

Modern technology has seen an increased and heightened frequent use of Information Communication and Technological (ICT)-inclined devices which in turn entails a delicate risk of infringements upon privacy and safety for all users involved. It is also notable that children are at particular risk, as they often do not fully understand the threats associated with these technologies, especially when it comes to sharing of personal information, photos or videos, all of which are easily accessible to them through few clicks on a simple to operate device that either belongs to them or guardian/spouse (Malby et al., 2015).

2.8.9 Similarities and Comparative Elements across the Service Provider Quadrant

Across the mobile service provider spectrum, there are consistent concerns, especially from consumers, about mobile security. Consumers are apprehensive about the invasive elements embedded in the service platform of the providers, exposing them to inherent risk elements such as all of their personal datas residing

on their smartphones, which are likely to fall prey to identity thieves and cyber criminals as a result of this service loophole made possible by the infrastructural benefits. The risk for mobile bullying is higher as mobile devices' assimilation into the lives of adolescent is becoming more rapidly widespread (Sanjaya et al., 2013).

2.9 Regulatory Compliance by Mobile Service Providers

The ECT Act of 2002 is legislation that deals with any form of electronic communication in South Africa, including service-provider liability (Kyobe, 2009). One of the main reasons of the ECT Act's existence is to make it clear that electronic communications are to be treated in the same way as other traditional forms of communications by law. Due to the nature of electronic communications, including the fact that the medium involved allows for such correspondences to be manipulated easily, specific rules are set as underpinned by the ECT Act with regards to how electronic communications should be managed in order to maintain and prove the integrity. There are specific rules that govern this spectrum, i.e. writing, electronic signatures, agreements, originals, retention of electronic documents, production of electronic documents, automated transactions, website architecture and content, cryptography service providers, secure payment systems and admissibility of evidence (Farelo & Morris, 2006). Any person or organisation who contravenes these rules will be guilty of an offence and liable on conviction to a fine or imprisonment (ECT Act, 2002). POPI (Protection of Personal Information Bill), on the other hand, is also intended to promote the rights to privacy, by introducing measures to ensure that the personal information of an individual is safeguarded when it is processed by the entities or individuals that requested it. The bill also aims to balance the right to privacy against other rights, particularly the right of access to information, and to generally protect important interests, including the free flow of information within and across the borders of the Republic of South Africa.

Furthermore, it should be noted that the South African Consumer Protection Act (CPA) that come into effect on 1 April 2011 led to the establishment of the National Consumer Commission (NCC), which is tasked with, among other functions, seeing to the fair conduct and protection of the rights of the consumer in the telecoms industry. This function is carried out by the regulator to some extent, with future plans to identify a suitable model of cooperation between ICASA and the NCC in order to continue supporting the consumers in the telecoms industry in addressing valid complaints (Chiumbu & Akinsanmi, 2012).

The above discussion suggests various models that explain compliance behaviours, for example rationalist, normative or business management models (Black, 2001; Brown, 1994). Literature suggests that organisations that comply with the legislation usually possess or have positive perceptions of certain drivers of compliance. Compliance will therefore be determined by evaluating the perceptions of service providers to discern certain compliance drivers. According to role theory such behaviour is guided by expectations held by both the individual client and by other parties (service providers, content providers and system users). Firstly, the researcher will identify relevant drivers of compliance as mentioned above. Respondents will be requested to indicate their opinion regarding statements that were used to discern or evaluate these drivers. For instance, profit, technological drivers such as possession of adequate security controls and effective management of electronic communication indicate compliance with requirements in Chapters III, VIII and XIII of the ECT Act. If the respondents possessed these drivers, this would indicate a possibility of compliance with the Act. On the other hand, if respondents perceived the Act to be unfair or immoral (sociological factor), chances of mass compliance with the Act would be slim.

2.10 Conceptual model

The conceptual framework provides a tangible foundation upon which to commence research and identify the relationships among variables in a given phenomenon (Sharon & Matthew, 2004). The framework assists in testing relationships among variables to improve and understand the dynamics of a particular situation. Conceptual framework is described by four variables, namely, dependent, independent, moderating and intervening (Sharon & Matthew).

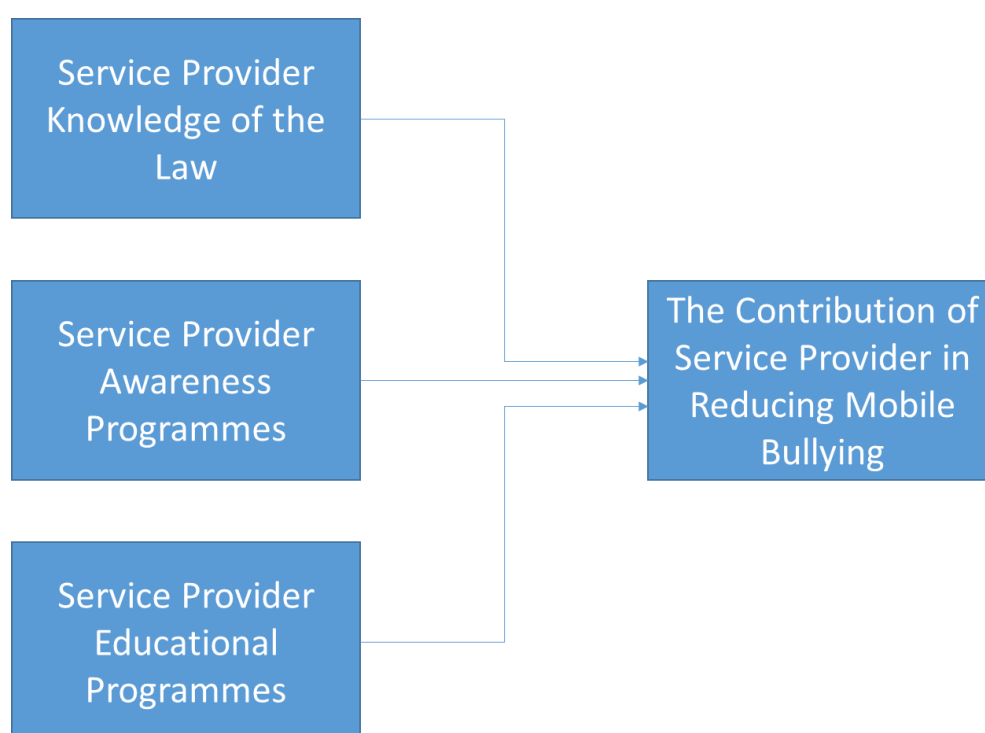
The dependent variable is the main element in the research and subsequently has an influence on successful pursuit of a solution to a problem. The dependent variable for this research is 'The Contribution of Service Provider in Reducing Mobile Bullying'. The researcher intends to discover if the chosen influential factors impact the role of service providers in reducing mobile bullying. The independent variable could have a significant or insignificant influence on the dependent variable.

Figure 5 below represents the proposed conceptual model for examining factors that could influence the role of mobile service providers in reducing mobile bullying in South Africa. The existing measures such as the service providers' knowledge of the law concerning these matters, service-provider-led awareness programmes and educational programmes have been identified in the literature which the authors consider to be key influences in the reduction in mobile bullying. Below is the summary of the theoretical work on which the model is based.

In the conceptual model, the dependent variable 'The Contribution of Service Provider in Reducing Mobile Bullying', is a prerogative which consists of all the constructs measuring protection against mobile bullying. The independent variable

for this conceptual model consists of Service Provider Knowledge of the Law, and strong policies that have an influence on the environment within which the service providers provide their service. Creditable awareness and educational programmes targeted at risks and implications around mobile bullying in South Africa could influence the way in which mobile bullying is perceived.

Figure 5: Conceptual Model



2.11 Research Hypotheses

A hypothesis is used in an experiment to define the relationship between two variables. The purpose of a hypothesis is to determine the answer to the research question/s. A hypothesis should be specific as well as testable and must serve as a prediction to describe in concrete terms what a researcher expects will happen in a given circumstance.

The proposed conceptual model, as in Figure 5, classifies the following hypothesis which has been formulated to test this model empirically. Applying deductive thinking, a series of hypotheses are developed from the proposed theoretical model.

Hypothesis 1:

H₀: Increased awareness of the Film and Publications legislation (Act, No. 65 of 1996) by mobile service providers will not reduce mobile bullying in South Africa

H₁: Increased awareness of the Film and Publications legislation (Act, No. 65 of 1996) by mobile service providers will reduce mobile bullying in South Africa.

Hypothesis 2:

H₀: Increased mobile service providers educational programmes will not reduce the levels of mobile bullying (Badenhorst, 2011).

H₁: Increased mobile service providers educational programmes will reduce the levels of mobile bullying (Badenhorst, 2011).

Hypothesis 3:

H₀: Awareness programmes by mobile service providers do not have significant impact in reducing mobile bullying (Campbell, 2005; Kyobe, 2008).

H₁: Awareness programmes by mobile service providers have significant impact in reducing mobile bullying (Campbell, 2005; Kyobe, 2008).

2.12 Literature Summary

The aggression of mobile bullying in South Africa has presented a challenge to policy makers and various stakeholders but most importantly, to the adolescent (Burton and Mutongwizo, 2009). The perceived ability of perpetrators to remain anonymous makes it easier for them to engage in acts of aggression without noticing the negative effect it has on the opponent and/or target victim.

Although mobile bullying is in the spotlight both locally and internationally, knowledge is still lacking of the nature and prevalence in schools since there are no effective models to predict or measure the level of this aggression present. In most cases mobile service providers are not included in the process of finding the solution. Most researchers are concentrating on obtaining solutions to this problem as it encompasses the youth, schools and parents in its impact. Research feedback has shown that in order to successfully reduce mobile bullying in South Africa it is important to form partnerships with various stakeholders to collaboratively create awareness programmes related to combating this problem. In the present study the researcher aims to bridge this gap by examining the level of involvement by the mobile service providers and the implications of such involvement or lack thereof.

CHAPTER 3: RESEARCH DESIGN

3.1 Introduction

This chapter provides the detailed outline employed in this research, while the function of the research design serves to ensure that the evidence obtained enables the research to answer the initial question as unambiguously as possible. Research design describes a sequence of appropriate choices and decisions conducted during the research process (Cavana et al., 2001). In so doing, the research design gives an overview of the road map, plans, guidelines, and procedures that are followed in the research (Myers, 2009). Philosophical considerations consists of Ontological stance and epistemological stances. Ontology is about our view about knowledge, epistemology is about “how” we know that this knowledge does exist. Ontology can be objectivism or (relativism or nomalism). Epistemology can be positivism or interpretivism. These are the extremes but there are other paradigms that lay between these extremes. In this research an epistemological stance has been adopted.

This chapter is structured as follows: *Section 3.2* discusses the philosophical assumptions adhered to when conducting this research. *Section 3.3* outlines the research methodology which comprises the research perspectives, philosophy, purpose, approach, time horizon and strategy. *Sections 3.4 to 3.10* describes how topics such as the type of data collected, population, sampling, data collection and analysis techniques, conceptual model, data integrity issues and privacy, confidentiality and ethical issues were resolved by the researcher. *Section 3.11* concludes the chapter with the summary of research design.

3.2 Philosophical Assumptions

Researchers base the design and conduct of their investigation on beliefs and assumptions about what is to be known, what constitutes valid evidence, and how the evidence may be acquired in the context of practical constraints. Philosophical assumptions are broadly summarised into two categories, namely, ontological and epistemological assumptions. Ontology and epistemology are the branches of philosophy through which we enter the body of knowledge or decide whether something is right or wrong as well as why, by knowing something and using parameters to evaluate that knowledge (Dazeley et al., 2014).

3.2.1 Ontology

Ontology is the branch of philosophy that concerns the overall nature of what things are, and is concerned with identifying, in the most general terms, the types of things that actually exist. Ontological beliefs are based on the structure of the phenomenon and its relationship with other phenomena and with researcher. Ontology can be divided into two stances: Realism and antirealism (Dazeley et al, 2014). Realism assumes the independent existence of the world under investigation, therefore it is based on the assumption that aspects of the world can be isolated and investigated objectively, independent of the researcher's experiences and values (Dazeley et al, 2014). On the other hand antirealism holds an opposite view, where it assumes the world is dynamic and subjective, and knowledge is produced through, and not independent of human interaction and understanding (Dazeley et al., 2014).

3.2.2 Epistemology

Epistemology, on the other hand, is the branch of philosophy concerned with the nature of knowledge itself, its possibility, scope, and general basis. Put in broader terms: how do we go about knowing things? Or how do we separate true ideas from false ideas? Or how do we know what is true? Or how can we be confident when we

have located the 'truth'? What are the systematic ways we can determine when something is good or bad? Epistemology therefore is about methods of figuring out those truths (Maraqah, 2014). Epistemology can be divided into two viewpoints, namely, epistemological realism and antirealism. Epistemological realism assumes that what can be discovered or known is singular or universal, independent of the researcher, while antirealism acknowledges that researchers bring their values, principles and experiences to bear on the comprehension and interpretation of phenomena (Maraqah, 2014).

3.3 Research Methodology

Methodology refers to the systematic, theoretical analysis of the methods applied to a field of study. This comprises the theoretical analysis of the body of methods involved and principles associated with a branch of knowledge. Methodology specifies the approach that the researcher has chosen to practically investigating a phenomenon to gain knowledge. Typically, this encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques (Irny & Rose, 2005).

A methodology does not set out to provide solutions - it is, therefore, not the same as a method. Instead, a methodology offers the theoretical underpinning for understanding which method, set of methods, or so-called "best practices" may be applied to a specific case, for example, calculating a specific result. It is through methodology that the researcher presented justification or proof of validity to the research audience.

Research methodology consists of techniques or procedures applied in the process of gathering data and analysis of the same (Crotty, 1998). The process is done in

response to the research question and hypotheses. The subsequent sections consist of an in-depth discussion of the research purpose, paradigm, time frame, strategy, data collection and analysis techniques, instrument, target and sample population.

3.3.1 Research Perspectives

Research perspectives define the systematic and scientific procedures used to arrive at the results and findings for the research against which claims for knowledge were evaluated (Saunders et al., 2007). Methodology is shaped by the perspectives the researcher chose to approach this research. The figure below shows five grouped perspectives that typically shape a research work (Saunders et al., 2007).

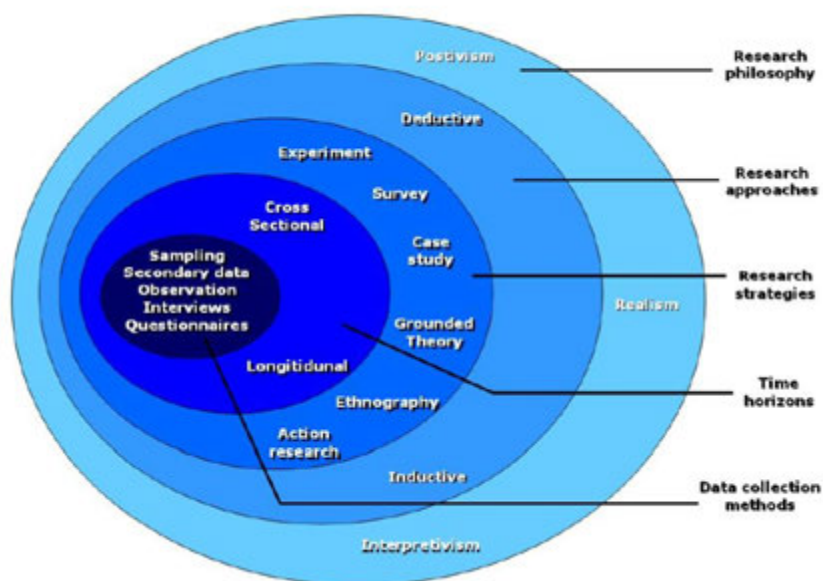


Figure 6: The research “onion”
 Source: Adapted from Saunders et al. (2007)

The above “onion” figure items are explained below in more details.

3.3.2 Research Philosophy

Research philosophy can be defined as the development of the research background, and a belief that governs the way we view the world (Saunders and Thornhill, 2007). Research philosophy gives a general approach and direction that one could choose to carry the whole research.

In information systems, researches are guided by specific research philosophical assumptions or paradigms. Three most recommended categories of the paradigms for the research are positivist, interpretive and critical. Below in table 1 is a brief description of each paradigms together with their philosophical assumptions.

Table 1: Research Paradigm

Paradigm	Ontology	Epistemology	Methodology
Positivist	The phenomenon under investigation is independent and objective	Knowledge exists independent of the researcher and can be acquired objectively	Quantitative data collection and analysis methods; deductive, hypothesis testing; generalisation; associated with sample survey
Interpretive	The phenomenon under investigation is not independent but exists in conjunction with others, and is subject to human perception	Knowledge is constructed through human perception; the researcher is not a passive observer	Researcher interacts with the research context and is part of the research process; analytical data collection and analysis methods to "induce" data and generate theory
Critical	Similar to interpretive; in addition, it assumes the phenomenon dominates and exploits subjects	Similar to interpretive; in addition, the researcher is critical and aims to change the status quo	Similar to interpretive; in addition, the processes are critical

Authors such as Saunders et al (200; 2007), Sullivan (2001), Cooper and Schindl (2006), and Malhotra and Birks (2007) are all in agreement that research is mainly influenced by positivism or interpretivism or critical of beliefs. Research philosophy is

regarded as the positivism where the researcher believes that the knowledge exists independently of people's perceptions and that objective techniques have been used by science to discover what already exists in the world (Sullivan, 2001). Interpretivism, on the other hand, is where the researcher believes that access to reality is only through social interactions (Myers, 2008). And lastly, critical belief, is where the main purpose is social critique where "critical researchers attempt to critically evaluate and transform the social reality under investigation.

The ontological stance for this research is objectivism and the epistemological stance is positivism. Positivism was chosen over interpretivism as the researcher believes that the role of mobile service providers in combating mobile bullying among adolescents can be defined objectively through the use of established philosophies and structured instruments, upon which generalisations can be made from the findings (Saunders and Thornhill, 2007).

3.3.3 Research Purpose

Research purpose involves the systematic investigation of a specified phenomenon in order to achieve the result that the research intends to achieve; it is broadly divided into exploratory, descriptive and explanatory (Cooper and Schindler, 2006; Saunders et al., 2007).

This research has adopted an explanatory approach in the sense that it sought to determine the role of mobile service providers in combating mobile bullying among adolescents. This approach was deemed appropriate as the research aimed at validating existing framework and using deductive hypothesis.

Explanatory research can be defined as an attempt to connect ideas in an attempt to unearth and understand cause and effect, meaning the research is aimed at explaining what is going on.

3.3.4 Research Approach

Research can be approached from two different perspectives, namely, deductive or inductive. A research is regarded as being deductive when it is concerned with developing a hypothesis based on existing theory and research strategy is designed to test those hypotheses (Wilson, 2010).

In this study, the researcher selected existing empirical theories and models on which to base the research in understanding the role and obligations of mobile service providers in combating mobile bullying among adolescents. Therefore, this research has followed the deductive approach.

3.3.5 Time Horizon

'Time horizon' in a research can be described as an estimated length of time in which the research was scheduled for completion. The time horizon in the research can be either longitudinal or cross-sectional.

In this research a cross-sectional time horizon was used as data was collected from mobile service provider at a single given point.

3.3.6 Research Strategy

A research strategy is a plan of action that provides direction regarding how the research questions were answered. The selected research strategy enabled the researcher to conduct research systematically rather than haphazardly. Research strategies can be classified in different ways as follows: action research,

ethnographic research, experiment, survey, case study, grounded theory or archival research (Cooper and Schindler, 2006; Malhotra and Birks, 2007; Saunders et al., 2007).

Though these strategies above can be used simultaneously in one single research to achieve a particular purpose (Saunders et al., 2007), this research has made use of the survey strategy as it sought the opinion of the specific population about the specific subject matter of mobile bullying, coupled with the use of quantitative techniques.

Researchers on mobile bullying say that respondents need to understand the terms used in the study – in fact it is recommended that these be defined in the questionnaire. The definition of mobile bullying was therefore defined at the beginning of the questionnaire in this study. The researcher obtained permission from the customer center operation managers at Vodacom, MTN, Cell C, Telkom mobile and Virgin mobile to hand out the questionnaires to the employees within the customer care.

The employee completed the questionnaires at their own time and dropped it in the box that was provided to them. Due to the research time frame, 150 questionnaires were distributed across the 5 mobile service providers, 103 responses were received with a response rate of 68%, 3 responses were disqualified due to incomplete response.

Data was collected and recorded in an Excel spreadsheet; the spreadsheet was then imported into SPSS software version 24 to perform data cleaning by removing outliers and entries that were incorrectly responded to and to perform statistical analyses. The data was analysed by using quantitative analysis techniques. The

hypotheses to be tested were listed, and the Cronbach alpha scores were calculated in order to assess constructs reliability (internal consistency). The frequency analysis for individuals was conducted in order to analyse the responses gathered from the questionnaires, and the Spearman rank correlation test was run in order to establish the relationships among variables of the conceptual model, answering the research question (Saunders et al., 2003) and to test the research hypothesis listed in section 2.10 above.

3.4 Type of data collected

3.4.1 Primary data

Primary data can be described as data that has to be collected or observed directly for the purpose of the current research.

In this research primary data was collected from the employees of mobile service providers through the use of questionnaire.

3.4.2 Secondary data

Secondary data can be described as data that was collected by a third party for some other purpose or the product of other research. This data is not directly linked to the researcher's current research (Malhotra & Birks, 2007). In this research secondary data was kept to a minimum as collected from companies' directories or online articles and journals.

3.5 Sampling

3.5.1 Sample size

The target population for this research were the employees of mobile service providers in South Africa. Due to the limited research time frame, 150 questionnaires were distributed across the 5 mobile service providers, 103 responses were received with a response rate of 68%, 3 responses were disqualified due to incomplete response.

3.5.2 Sampling technique

From the responded sample size of one hundred (100): a systematic sampling was used. Systematic sampling relies on arranging the study population according to some ordering scheme, followed by and then selecting elements at regular intervals through that ordered list. Systematic sampling involves a random start and then proceeding with the selection of every k th element then onwards where k equals population size/sample size. It is also important to note that the starting point is not automatically the first in the list, but is instead randomly chosen from within the first to the k th element in the list. The starting point was picked randomly, through systematic sampling, which is a type of probability sampling technique (Black, 2004).

3.6 Data collection technique

3.6.1 Structured questionnaire

Data was collected by means of a structured survey questionnaire tool. A structured questionnaire is a tool through which questions asked are precisely decided and structured in advance. When used as an interviewing method, the questions are asked verbatim, in the same sequence, using the same style across all interviews. Manual data collection was kept to the minimum and only used in cases where the

respondent did not have access to the internet; this mitigated the possibility of errors and prevented any contamination of respondents' opinions and thoughts. This type of technique is also most appropriate for a deductive approach. The questionnaire sought respondents from service providers' staff segments inputs pertaining to the role of mobile service providers in combating mobile bullying among adolescents. The questions had four sections consisting of nineteenth (19) items; four (4) items related to South African legislation, five (5) items related to service provider awareness programmes, five (5) items related to service provider educational programmes, and five (5) items for overall reduction in mobile bullying.

3.6.2 Pilot testing and final administration

In order to determine the validity and reliability of the instrument, the questionnaire was tested prior to final administration (Saunders et al., 2007; Malhotra & Birks, 2007; Cooper & Schindler, 2006).

A preliminary draft of the questionnaire was sent to fifteen (15) respondents to determine the clarity and meaningfulness of the questions. After that the necessary changes were applied before making the questionnaire available to a large group of respondents.

3.7 Data analysis techniques

Data analysis was executed through the use of the SPSS Version 24 statistics software package and Excel data analysis tool. For this research data was imported from an Excel spreadsheet into SPSS software package and multiple data analysis techniques were applied on the collected data. This assisted to examine the data towards obtaining a suitable set of relevant descriptive statistics and enabled the comparison of those statistics as obtained from different variables, which gave an idea of similarities or differences between the variables.

3.8 Data Integrity Issues

Several measures were in place to ensure the integrity of the data collected. The designed questionnaire was sent to the University of Cape Town’s Ethics Committee for approval. A cover letter stating the purpose of the research accompanied the questionnaire to the respondent. These letters clearly stated that participation was voluntary and that the data collected was to be used only for the purpose of this research.

3.9 Privacy, Confidentiality and Ethics

Dealing with an ethics topic is a complex issue, especially when conducting research, but this topic is necessary to minimise harm and to ensure that the privacy of participants is maintained. Confidentiality and privacy were achieved through the omission of demographic details or organisational information, or specific positions within the organisation. Walsham (2006) warns that it is sometimes possible for an organisation to make an informed guess as to who the subject might be.

In this research all participants volunteered and no one was in way obliged to participate, the identity of participants will remain anonymous and no demographic details were required, and all the information supplied by participate was treated with the utmost confidentiality and care.

3.10 Summary of the Chapter



Figure 7: Summary of Research Perspective

CHAPTER 4: DATA ANALYSIS AND FINDINGS

In this chapter the researcher presents research analysis and findings. The findings are discussed in the way that will allow the researcher to answer the research questions, meet the research objectives and either prove or disprove the research hypotheses. The findings are discussed as follows: Introduction in section 4.1, frequency analysis for individual question in section 4.2, nonparametric correlations in section 4.3, and regression on factors influencing mobile bullying in section 4.4, followed by the summary of the chapter in section 4.5.

4.1 Introduction

The researcher formulated a research proposal and questions which was tailored to gather data from employees of four major mobile service providers in South Africa.

Data was collected and recorded in an Excel spreadsheet; the spreadsheet was imported into SPSS software and data was cleaned by removing outliers and the entries that were incorrectly responded to, and statistical analyses was performed on the cleaned data.

The data was analysed using quantitative analysis techniques. The hypothesis to be tested were listed, the Cronbach alpha scores were calculated in order to assess constructs reliability (internal consistency). After these frequency distribution tables for individuals was conducted in order to analyse the responses gathered from the questionnaires and statistical test, a Spearman rank correlation was conducted in order to establish the relationships among variables of the conceptual model, answering the research question (Saunders et al., 2003) and to test the research hypothesis listed below.

Hypothesis 1:

H₀: Increased awareness of the Film and Publications legislation (Act, No. 65 of 1996) by mobile service providers will not reduce mobile bullying in South Africa

H₁: Increased adoption of the Film and Publications legislation (Act, No. 65 of 1996) by mobile service providers will reduce mobile bullying in South Africa.

Hypothesis 2:

H₀: Increased mobile service providers educational programmes will not reduce the levels of mobile bullying (Badenhorst, 2011).

H₁: Increased mobile service providers educational programmes will reduce the levels of mobile bullying (Badenhorst, 2011).

Hypothesis 3:

H₀: Awareness programmes by mobile service providers do not have significant impact in reducing mobile bullying (Campbell, 2005; Kyobe, 2008).

H₁: Awareness programmes by mobile service providers have significant impact in reducing mobile bullying (Campbell, 2005; Kyobe, 2008).

4.1 Reliability

Firstly, construct reliability (internal consistency) was tested in this section in order to determine how well the questions for the four variables fit together. The Cronbach alpha scores were evaluated.

Table 2 below reflects the Cronbach alpha scores for all variables. All Cronbach alpha scores for the variables were greater than "0.70", that confirmed construct validity and reliability.

Based on the data there is no need to exclude any data from specific variables to improve item reliability. The internal reliability for all variables is therefore confirmed

to be acceptable, as an alpha score of above “0.70” is said to sufficient to show construct reliability (Reynaldo & Santos, 1999).

Table 2: Cronbach’s Alpha

No	Construct	Cronbach’s Alpha
1	The Contribution of Service Provider in Reducing Mobile Bullying	0.809172
2	Service Provider Knowledge of the Law	0.808533
3	Service Provider Awareness Programmes	0.847035
4	Service Provider Educational Programmes	0.836074

Table 2 above shows that all the four variables, The Contribution of Service Provider in Reducing Mobile Bullying, Service Provider Knowledge of the Law, Service Provider Awareness Programmes and Service Provider Educational Programmes, have a Cronbach alpha greater than 0.70 which confirms reliability. This was done by asking participants five key questions per construct as shown in Table 2 to Table 5 below.

4.2 Frequency Analysis for Individual Questions

Due to some of the low frequencies in the outcome of the survey data, the reponses were compressed from 5-point likert scale to 3-point scale (Likert, 1932; Manion & Morrion, 2000). Strongly Disagree and Disagree responses were condensed into Disagree, and Strongly Agree together with Agree were condensed into Agree. Agree to a limited extent remained unchanged.

The results in Table 3 below show the responses to the questionnaire for the role of Service Providers in Reducing Mobile Bullying that ascertain whether or not the service providers are playing their roles in reducing mobile bullying (i.e. through the strategies set in place, mechanisms, etc.).

Table 3: The Contribution of Service Provider in Reducing Mobile Bullying

A. The Contribution of Service Provider in Reducing Mobile Bullying	Disagree (%)	Agree to a limited extent (%)	Agree (%)
1. We have effective strategies in place to assist in combating mobile and cyberbullying	50	36	14
2. We moderate our services and take such reasonable steps as are necessary to ensure that our services are not being used by any person for the purpose of the commission of any offence against children	37	36	27
3. We have mechanisms in place to elicit accurate feedback from society on the challenges of mobile bullying	56	36	8
4. Within the company, everyone understands the importance of combating mobile bullying	53	30	17
5. The company encourages new innovative ideas on technology development to assist society in combating mobile bullying	42	41	17

The key question for ascertaining the role of service providers in reducing mobile bullying was Question 3 in Table 3. Most respondents (56%) disagreed with the statement that there are mechanisms in place to elicit accurate feedback from society on the challenges of mobile bullying, while 36% indicated that they agree to a limited extent with the statement. A total of 8% agreed that there are mechanisms in place to elicit accurate feedback from society on the challenges of mobile bullying.

In addition, Table 4 below shows the responses to the questionnaire that ascertain whether or not the service providers have awareness programmes to combat mobile bullying.

Table 4: Service Provider Awareness Programs

B. Service Provider Awareness Programmes	Disagree (%)	Agree to a limited extent (%)	Agree (%)
6. The company has awareness programmes to combat mobile bullying	56	38	44
7. We conduct mobile awareness programmes with the public on daily, weekly, monthly or yearly	57	28	15
8. Our awareness programmes have led to a reduction to in the incidents of mobile bullying	48	45	7
9. The society/public knows about the company's awareness programmes in place to assist them in addressing their challenges with regards to mobile bullying	59	35	6
10. We prominently display reasonable safety messages in a language that will be clearly understood by children, on all advertisements for a child-oriented service, as well as in the medium used to access such child-oriented service including, where appropriate, chatroom safety messages for chatrooms or similar contact services	39	40	21

In an effort to ascertain whether or not the service providers have awareness programmes to combat mobile bullying, respondents were asked in Question 9 of Table 4 to indicate whether or not the society/public knows about the company's awareness programmes in place to assist them in addressing their challenges with regards to mobile bullying. Most respondents (59%) disagreed with the statement that the society/public knows about the company's awareness programs in place to assist them in addressing their challenges with regards to mobile bullying, while 35% indicated that they agree to a limited extent with the statement. Only 6% agree that the society/public knows about the company's awareness programs in place to assist them in addressing their challenges with regards to mobile bullying.

To add to the company's awareness programmes the researcher developed the questionnaire in Table 5 below to ascertain whether or not the service providers have education programmes that help combat mobile bullying.

Table 5: Service Provider Education Programmes

C. Service Provider Education Programmes	Disagree (%)	Agree to a limited extent (%)	Agree (%)
11. The company has education programmes to combat mobile bullying	52	39	9
12. We conduct mobile bullying education programmes with the public on daily, weekly, monthly or yearly	59	35	6
13. Our education programmes have led to a reduction to in the incidents of mobile bullying	45	42	13
14. The society knows about the education programmes in place to assist them in addressing their challenges with regards to mobile bullying	53	36	11

<p>15. Where technically feasible, we provide children and their parents or primary care-givers with information concerning software or other tools which can be used to filter or block access to content services and contact services, where allowing a child to access such content service or contact service would constitute an offence under Film and Publication Act or which may be considered unsuitable for children, as well as information concerning the use of such software or other tools</p>	<p>34</p>	<p>39</p>	<p>27</p>
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Respondents were required to indicate whether or not they felt their companies have useful and effective education programmes to combat mobile bullying. The researcher included Question 11 in Table 4 to be able to deduce whether the service providers indeed are playing their roles in reducing mobile bullying. Most respondents (52%) disagreed with the statement that their companies have useful and effective education programs to combat mobile bullying, while 39% indicated that they agree to a limited extent with the statement. A total of 9% agree that their companies have education programmes to combat mobile bullying.

Table 6 below was included in order to ascertain whether or not the service providers have the knowledge of the law pertaining to their roles in reducing mobile bullying.

Table 6: Service Provider Knowledge of the Law

D. Service Provider Knowledge of the Law	Disagree (%)	Agree to a limited extent (%)	Agree (%)
16. The current Film and Publication Act and Children's Act 38 of 2005 is adequate in addressing the challenge of mobile bullying	19	51	30
17. Is South African legislative process in terms of development of new laws and regulations to regulate mobile services and combating mobile bullying keeping-up with emerging technologies	20	48	32
18. We provide mechanisms to enable children to report suspicious or bullying behavior by any person to the service provider	39	42	19
19. We report details of any information regarding behavior which is indicative of the commission of any offence by any person against any child to a police official of the South African Police Service	41	33	26

In Table 6 Question 19 respondents were required to indicate whether or not they report details of any information regarding behaviour which is indicative of the commission of any offence by any person against any child to a police official of the South African Police Service. Most respondents (41%) disagreed with the statement that they report details of any information regarding such behaviour, while 33% indicated that they agree to a limited extent with the statement. A total of 26% agreed that they report details of any information regarding behaviour which is indicative of the commission of any offence by any person against any child to a police official of the South African Police Service in an effort to combat mobile bullying.

The above findings are consistent with the finding by Kyobe (2008) in the African Journal of Information Systems, and it could be explained by the social contract theory. According to this theory, a person's moral and/or political obligations are dependent upon a contract or agreement among several persons to form society (Friend, 2006). Friend argues further that in this contract, there should be a set of laws by which all agree to abide and a mechanism for enforcement in order to ensure governance, accountability and cooperation. However, the problem is that the users and service providers often violate these contracts or policies and their effectiveness has been questioned (Rancourt, 2009).

4.3 Nonparametric Correlations

In an effort to measure the strength and direction of the relationships between the variables used in this paper, a spearman correlation analysis was run. This was done in an effort to examine and analyze correlations between the variables used. The results and the significance of these correlations are presented in Table 7 below.

Table 7: Correlation analysis of independent variables

Spearman's rho		A. The Contribution of Service Provider in Reducing Mobile Bullying	B. Service Provider Awareness Programs	C. Service Provider Education Programs	D. Service Provider Knowledge of the Law
A. The Contribution of Service Provider in Reducing Mobile Bullying	Correlation Coefficient	1.000	.690**	.528**	.635**
B. Service Provider Awareness Programs	Correlation Coefficient	.690**	1.000	.596**	.578**
C. Service Provider Education Program	Correlation Coefficient	.528**	.596**	1.000	.531**
D. Service Provider Knowledge of the Law	Correlation Coefficient	.635**	.578**	.531**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

The results shown in Table 7 gives all Spearman Rho correlations of the variables. Also, there seems to be positive statistically significant correlations among variables such as 0.596 which is between service provider education program and service provider awareness program, and this could be indicating the possibility of perfect relationship among our explanatory variables. Therefore, it could have an effect on the results in the statistical modelling.

There are positive relationships between the contribution of service providers in reducing mobile bullying and service provider awareness programmes, education programmes and knowledge of the law regarding mobile bullying if the variables are

examined directly. This is shown by strong positive correlations of more than 0.5 between these variables.

Furthermore, the evidence shows that these correlations are highly statistically significant as indicated by the p-values of less than 0.01. This concurs with previous research feedback (Kyobe, 2008) that in order to successfully reduce mobile bullying in South Africa it is important to form partnerships with various stakeholders to collaboratively create awareness programmes related to combating this problem.

Also, it has been found that the service provider awareness programmes are found to be the main influencer on the reduction of mobile bullying indicated by a higher strong positive correlation coefficient of 0.69. Based on these results, the hypotheses stated earlier are supported; a further investigation is still to be done using coefficients.

However, as much the above serves as a basis, the aim of this research is to examine the level of involvement by the mobile service providers and the implications of such involvement or lack thereof bearing in mind possible problem of multicollinearity among the independent variables. According to Anderson(2010), Simon and Goes (2011) in the Correlational Research; a rule of thumb regarding multicollinearity is that you have too much when the variance inflation factor (VIF) is greater than 10. The implication would be that you have too much collinearity between two variables if the correlation is greater or equals to 0.95. Therefore multicollinearity is not a problem in this regards

4.4 Regression on Factors Influencing Mobile Bullying

In an effort to investigate the level of involvement by the mobile service providers in reducing mobile bullying, a multi-collinearity regression analysis was conducted between the dependent and independent variables. For the purpose of this research a dependent variable is the contribution of service provider in reducing mobile, and the independent variables are service provider awareness programme, service provider education programme and service provider knowledge of the law. The items that measured each variable were of the same standard rating and subsequently standardised data was used to run the regression analysis.

The model to investigate this involvement can be mathematically expressed as follows:

$$TBR = f(SEP, SAP, SKL)$$

Where: *TBR* = Total in The Contribution of Service Provider in Reducing Mobile Bullying

Where: *TBR* = The contribution of service providers in reducing mobile bullying

SAP = Service provider awareness programme

SEP = Service provider education programme

SKL = Service provider knowledge of the law

Table 8: ANOVA results – Model summary

ANOVA TABLE

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1074.919	3	358.306	48.390	.000 ^b
Residual	710.841	96	7.405		
Total	1785.760	99			

Based on the above results, the overall the model is statistically significant indicated by a statistically significant with an F-value = 48.390 and p-value = 0.00.

Table 9: R-Square results

Model	R	R Square	Adjusted R Square
1	.776 ^a	.602	.589

Interpretation of the R-Square

60.2% of variation is explained by the 3 quantitative regressors, namely the service provider awareness programmes, service provider educational programmes and service provider knowledge of the law. This is a good model if we examine the R-Square.

Table 10: Coefficients of the Regression Analysis

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.278	1.096		.253	.800	-1.898	2.454
	Total in service provider awareness programme	.575	.101	.503	5.665	.000	.374	.776
	Total in Service provider education programme	.065	.095	.059	.680	.498	-.124	.254
	Total in alignment	.399	.105	.318	3.808	.000	.191	.606

Two independent variables, namely Service provider awareness programme and Service provider knowledge of the law, are statistically significant at a 5% level of significance indicated by both p-values = 0.000. This implies that service provider awareness programmes and service provider knowledge of the law have significant impact in reducing mobile bullying. The coefficient for service provider knowledge of the law is 0.318 which implies that for every one unit increase on the contribution of service provider in reducing mobile bullying; there should be a 0.318 increase in the service provider knowledge of the law. Similarly, for every one unit increase on the

contribution of service provider in reducing mobile bullying, there should be 0.503 service provider awareness programmes.

4.5 Summary of the Chapter

In general, the purpose of this chapter was to conduct a research analysis and obtain findings in an effort to attempt to respond to answer the research questions. It has been found that the overall the model that was developed is statistically significant indicated by a statistically significant with an F-value = 44.311 and p-value = 0.00. The evidence in table 9 shows that 60.2% of variation is explained by the 3 quantitative regressors, namely the service provider awareness programmes, service provider education programmes and service provider knowledge of the law. It was found that service provider awareness programmes and service provider knowledge of the law have significant impact in reducing mobile bullying.

CHAPTER 5: CONCLUSION AND IMPLICATIONS

5.1 Introduction

In this section a summary of the empirical study and some of the main research findings are given. A variety of conclusions are deducible from a careful analysis of these findings, especially when taking into cognisance the implications thereof of the same findings as they relate to industry regulations, policy makers and to the wider spectrum of mobile service providers. The researcher concludes with the recommendations that serve as direction pointers and further foundations for future research.

5.2 Summary of Findings and Implications

The primary objective, in retrospect i.e. the key drivers, of the study was to determine the extent of the involvement of mobile service providers in combating mobile bullying among adolescents. This approach was deemed appropriate as the core objectives of the research focused solely upon validating existing framework and using deductive hypothesis. In the present study the researcher aims to bridge this gap by examining the level of involvement by the mobile service providers and the implications of such involvement or lack thereof. With an emphasis on conceptualising relevant concepts while providing insight supported by statistical facts in understanding the relationship between service providers' role in reducing mobile bullying, service provider awareness programmes, service providers' education programmes and knowledge of the law in reducing mobile bullying. Consequently a variety of tests were carried out to assess these relationships.

Based on the tests that were conducted, it was found that the Service Provider Awareness Programmes have a positive relationship with The contribution of Service

Provider in Reducing Mobile Bullying, and this element is found to be the key tool in reducing mobile bullying as indicated by a positive and statistically significant correlation. There is also statistical evidence that service providers have sufficient knowledge of the law that governs service providers in distributing mobile content in order to protect minors from the harmful content. Further findings indicate that the service providers' input in this regard is inadequate by way of providing education programmes to assist mobile users and society in general to combat the new phenomenon of mobile and cyberbullying.

5.3 Final Conclusion

The conclusion that can be made is that mobile bullying is not only about the adolescent, parents and institutions. There are a number of stakeholders, whose vested interests, continued existence, and moral obligations are encroached upon or compromised by mobile bullying, hence these stakeholders (i.e. law enforcement, social media companies, content providers, and service providers) should be involved. The predominant challenge remains the lack of interest from various stakeholders; society awaits tangible input and efforts, by the aforesaid, to take responsibility and respond to inappropriate use of mobile technology, an offensive act perpetuated within the ambit of their product offerings.

5.4 Recommendations to Mobile Service Providers

The study suggests to mobile service providers that awareness programmes, education programmes and implementation of the laws are good in protecting the country against mobile and cyberbullying, especially on the minors. However, there is still a need to improve on the education programmes on mobile bullying, service provider knowledge of the law as well as finding other legislations that are helpful in ensuring the reduction of mobile bullying.

5.5 Recommendations for South African Government

It is perplexing as to why mobile bullying remains prevalent in our society, affecting minors to the degree that it does, when contemplating the present level of available technological advances and modern day accomplishments within this ambit of communications. Despite legislation such as the Child Care Act, 1994; the South African School Act (act 84 of 1996), the Harassment Bill of 2011, and the Films and Publications Act of 2009, the report still shows that the rights of the youth have not been protected in school effectively (Prinsloo, 2005). Safety risks in using mobile technology among the youth are increasing in South African schools, for example. Mobile bullying, risks of talking with strangers and breach of privacy (de Lange et al., 2012).

It must be noted that mobile service providers have lawful responsibilities and concrete moral obligations to protect their customers by complying with relevant regulation as discussed in details under Regulatory Compliance in the section (Popovac & Leoschut, 2012).

Necessity exists for the South African government to readjust its priorities to ensure that the legislation keeps pace with the advancement of technology. The researcher hereby recommends that the government should ensure that its legislative framework is updated and aligned to take cognisance of the advancing levels of technology and the mobile service providers must enhance their involvement towards ensuring the safety of the victims, especially minors, of mobile bullying in the course of utilising the mobile platforms made available by the providers. As a result, this will significantly lower the number of cases of mobile bullying, inter alia, reduce the harm that such bullying entails, thus contributing significantly towards creating an environment that is

safe and conducive for minors to utilise mobile technology without harm or at minimal levels of harm.

5.6 Recommendations for Further Research

It was recognised that this study is one significant area which future researchers can investigate further. The study acts as a base for further research. The researcher recommends a larger sample to be collected for future research and more different explanatory variables for possible good results. The study can also be useful for research, not only in South Africa but even in other countries.

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APPENDIX A: LETTER OF INVITATION



Department of Information Systems

Leslie Commerce Building

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OR

Private Bag X3 - Rondebosch - 7701

Tel: +27 (0) 21 650 2261 Fax: +27 (0) 21650 2280

31 July 2015

Dear participant

The Role of Mobile Service Providers in Combating Mobile Bullying Among Adolescent in South Africa

I would like to invite you to participate in an academic research case study on the role of mobile service providers in combating mobile bullying in South Africa. This research has been approved by the University of Cape Town (UCT)'s Commerce Faculty Ethics in Research Committee, and is endorsed by National Research Foundation.

The aim of this study is to gain understanding and insight into the continued role of mobile service providers in combating mobile bullying in South Africa, and to identify possible areas (or "gaps") for future consideration, by distributing an online survey questionnaire to participants across the company over the next two months.

Your participation in this research is voluntary. All information will be treated in a confidential manner and used exclusively for the purpose of this study. No individual or organisation names will be recorded or published. You will not be requested to supply any identifiable information, ensuring anonymity of your responses. You can choose to withdraw from the research at any time for whatever reason, in accordance with ethical research requirements.

The anonymous online or manual survey questionnaire will take approximately 15 to 20 minutes to complete.

Should you have any questions regarding this research, please feel free to contact me on 082 696 9847 (email: dllwillie@gmail.com) or Professor Michael Kyobe on 021 650 2597 (email: michael.kyobe@uct.ac.za)

Thank you for your time and participation.

Sincerely,

Dickson Willie

Signed by candidate

Professor Michael Kyobe

Signature Removed

M.Com Student, (UCT)
Department of Information
Systems
University of Cape Town
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APPENDIX B: QUESTIONNAIRE

The Role of Mobile Service Providers in Combating Mobile Bullying Among Adolescent in

South Africa: Survey

Mobile bullying can be defined as a form of electronic online bullying through email, chat rooms, instant messaging and small text messages using mobile phones

(Kowalski *et al.* 2007).

This questionnaire is confidential and so no one in your company will know what you have answered. It is anonymous, so please don't put your name on it anywhere.

This questionnaire is completely voluntary and you can decide to exit at any time.

Please mark with an X in the relevant box provided.

A. The Contribution of Service Provider in Reducing Mobile Bullying	Strongly Agree	Agree	Agree to a limited extent	Disagree	Strongly Disagree
1. We have effective strategies in place to assist in combating mobile and cyberbullying	1	2	3	4	5
2. We moderate our services and take such reasonable steps as are necessary to ensure that our services are not being used by any person for the purpose of the commission of any offence against children	1	2	3	4	5

3. We have mechanisms in place to elicit accurate feedback from society on the challenges of mobile bullying	1	2	3	4	5
4. Within the company, everyone understands the importance of combating mobile bullying	1	2	3	4	5
5. The company encourages new innovative ideas on technology development to assist society in combating mobile bullying	1	2	3	4	5
B. Service Provider Awareness Programmes	Strongly Agree	Agree	Agree to a limited extent	Disagree	Strongly Disagree
6. The company has awareness programmes to combat mobile bullying	1	2	3	4	5
7. We conduct mobile awareness programmes with the public on daily, weekly, monthly or yearly	1	2	3	4	5
8. Our awareness programmes have led to a reduction to in the incidents of mobile bullying	1	2	3	4	5

<p>9. The society/public knows about the company's awareness programmes in place to assist them in addressing their challenges with regards to mobile bullying</p>	1	2	3	4	5
<p>10. We prominently display reasonable safety messages in a language that will be clearly understood by children, on all advertisements for a child-oriented service, as well as in the medium used to access such child-oriented service including, where appropriate, chat-room safety messages for chat-rooms or similar contact services</p>	1	2	3	4	5
<p>C. Service Provider Educational Programmes</p>	<p>Strongly Agree</p>	<p>Agree</p>	<p>Agree to a limited extent</p>	<p>Disagree</p>	<p>Strongly Disagree</p>
<p>11. The company has education programmes to combat mobile bullying</p>	1	2	3	4	5
<p>12. We conduct mobile</p>	1	2	3	4	5

<p>bullying education programmes with the public on daily, weekly, monthly or yearly</p>					
<p>13. Our education programmes have led to a reduction to in the incidents of mobile bullying</p>	1	2	3	4	5
<p>14. The society knows about the education programmes in place to assist them in addressing their challenges with regards to mobile bullying</p>	1	2	3	4	5
<p>15. Where technically feasible, provide children and their parents or primary care-givers with information concerning software or other tools which can be used to filter or block access to content services and contact services, where allowing a child to access such content service or contact service would constitute an offence</p>	1	2	3	4	5

<p>under Film and Publication Act or which may be considered unsuitable for children, as well as information concerning the use of such software or other tools</p>					
<p>D. Service Provider Knowledge of the Law</p>	<p>Strongly Agree</p>	<p>Agree</p>	<p>Agree to a limited extent</p>	<p>Disagree</p>	<p>Strongly Disagree</p>
<p>16. The current Film and publication Act and Children’s Act 38 of 2005 is adequate in addressing the challenge of mobile bullying</p>	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>
<p>17. Is south African legislative process in terms of development of new laws and regulations to regulate mobile services and combating mobile bullying keeping-up with emerging technologies</p>	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>
<p>18. We provide mechanism to enable children to report suspicious or bullying behaviour by any person to the service provider</p>	<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p>

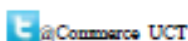
<p>19. We report details of any information regarding behaviour which is indicative of the commission of any offence by any person against any child to a police official of the South African Police Service</p>	1	2	3	4	5
Complete					
<p>You have now completed all the questions. All of the answers in the sections are confidential and will only be used for the purpose of this research.</p> <p>THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE.</p>					

APPENDIX C: ETHICS APPROVAL



Faculty of Commerce

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UCT Commerce Faculty Office

11 December 2015

Ref:1609201501

Dickson Willie

Project title: The Role of Mobile Service Providers in Combating Mobile Bullying Among Adolescent in South Africa

Dear Researcher,

This letter serves to confirm that this project as described in your submitted protocol has been approved. You will need to obtain permission from the Executive Director, Department of student Affairs before commencing data collection.

Please note that if you make any substantial change in your research procedure that could affect the experiences of the participants, you must submit a revised protocol to the Committee for approval.

Regards,
Ms. Samantha Alexander
Administrative Assistant
University of Cape Town
Commerce Faculty Office
Room 2.24 | Leslie Commerce Building