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PARENTAL CONTROL MEASURES FOR MOBILE TELECOMMUNICATIONS NETWORKS



*Policy, Competition & Economic Analysis
Department*

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1.0 EXECUTIVE SUMMARY

This research work stemmed from the Commission's need to consider developing policy framework on mobile parental control in line with best practices, as some mobile network operators in the Country have commenced introducing certain tariff structures with the aim of providing protection to children from exposure to inappropriate online(internet) contents.

Parental controls within the mobile telecommunications network is the application of software and service tools that are designed to help parents and guardians monitor their Children's access to inappropriate websites and contents while using mobile phones and other smart devices.

There are four categories of parental control measures: *content filters*, which limit access to age inappropriate content; *usage controls*, which constrain the usage of these devices such as placing time-limits on usage or forbidding certain types of usage; *monitoring*, which can track location and activity when using the devices.

Summary of Key findings from other Jurisdictions

The summary of our key findings are as follows:

- i. Majority of parents have limited awareness of Mobile Network Parental Controls.
- ii. Only technically savvy parents understand and apply mobile parental controls.
- iii. There is no harmonized legislation or regulation for Mobile Parental Controls.
- iv. Only a few Mobile Network Operators have keyed into the Child On-line Protection initiative guideline as provided by the International Telecommunications Union (ITU) to protect children from harmful content.
- v. Major forms of parental controls deployed by mobile operators are usage controls, content filtering and location/monitoring control.
- vi. Some Mobile Operators have some of form parental controls and web content filters on their network by default.

Comments

In Nigeria, we presently do not have any laid down guidelines or framework for adoption and implementation of parental control measures in the Telecoms industry. This may give operators in the industry the leeway to adopt whatever measures they deem fit and at whatever cost they prescribe in offering parental control services on their networks.

Recommendations

Consistent with the above, we recommend as follows:

- i. Mandate all Mobile Network Operators (MNOs) to implement mobile parental control measures on their network;
- ii. Ensure that MNOs creates adequate awareness on the available mobile parental control measures/apps on their networks;
- iii. NCC's Consumers Parliament and Outreaches should feature Parental Control Measures in Telecoms for the next three quarters;
- iv. MNOs should educate parents and guidance on the procedure to activate the apps;
- v. Operators should be encouraged to offer the mobile parental control app service for free or at very minimal cost in order to foster the uptake.

PARENTAL CONTROL MEASURES FOR MOBILE TELECOMMUNICATIONS NETWORKS

Chapter 1

1.1 Introduction

Over the past twenty years, Information and Communication Technologies (ICTs) have changed the ways in which young people interact with and participate in the world around them. The increase of Internet access points, mobile technology and the growing array of Internet-enabled devices combined with the immense resources to be found in cyberspace provide children and young people with unprecedented opportunities to learn, share and communicate.

The benefits of ICTs, among other things, include broader access to social services, educational resources and health information. ICTs also help to protect children from violence, exploitation and abuse since children and families use the Internet and mobile phones to seek information and assistance, and to report violence. Increasingly, ICTs are also used to gather and transmit data by child protection service providers, facilitating for example birth registration, case management, family tracing, data collection and mapping of violence. Moreover, the Internet has increased access to information in all corners of the globe, offering young people the ability to research virtually any subject of interest, access worldwide media, pursue vocational prospects, and harness ideas for the future.

ICTs have empowered children to assert their rights, express their views and opinions, and have also improved their ability to connect and communicate with their families and friends. Last but not the least, ICTs increasingly serve as a major mode of cultural exchange and as a source of entertainment.

Despite the profound benefits of the Internet to children and young people, nonetheless they are vulnerable to a number of risks through using ICTs. Children can be exposed to inappropriate content for their age, including contacts with potential perpetrators of sexual abuse. They can suffer reputational damage associated with publishing sensitive personal information online without fully comprehending the implications of their long term digital footprint. In that respect ICTs can therefore harm children who themselves may engage in risky or inappropriate behaviors such as bullying that create negative repercussions for others and themselves, without being fully aware of the short or long term consequences.

The Convention on the Rights of the Child (CRC) 1989, which is the most widely ratified International Human Rights treaty, protects children from all forms of violence, exploitation and abuse, including sexual exploitation. It also establishes that all children have a right to education, leisure, play and culture; the right to obtain appropriate information and to express their views in matters that affect them as well as to freedom of thought and expression, privacy and non-discrimination. While Governments have the primary responsibility to ensure that children's rights are met, other stakeholders such as parents and other caretakers, teachers, community leaders, civil society actors and the private sector including the ICT industry, all have a responsibility in fulfilling children's rights. Businesses' duties to fulfil these rights are set out in Children's Rights and Business Principles, which calls on businesses to meet their responsibility to respect children's rights both by avoiding any adverse impacts linked to their operations, products or services, and also by encouraging companies to go beyond a "do-no-harm" approach through adopting a commitment to support the advancement of children's rights.

Finding an appropriate balance between ensuring that all children have access to ICTs and at the same time as ensuring that they are protected from violence, abuse and exploitation while using ICTs, can be challenging. There is growing consensus that industry should not only tackle problems in relation to children's use of ICTs but should proactively promote digital citizenship among children, and help to facilitate children's positive use of ICTs. Traditional distinctions between different parts of the telecommunications and mobile phone industries, and between Internet companies and broadcasters are fast breaking down or becoming irrelevant. Convergence is drawing these hitherto disparate digital streams into a single current that is reaching out to billions of people in all parts of the world. Co-operation and partnership are the keys to establishing the foundations for safer and more secure use of the Internet and associated technologies not only for today's children but also for future generations.

1.2 What is Parental Control?

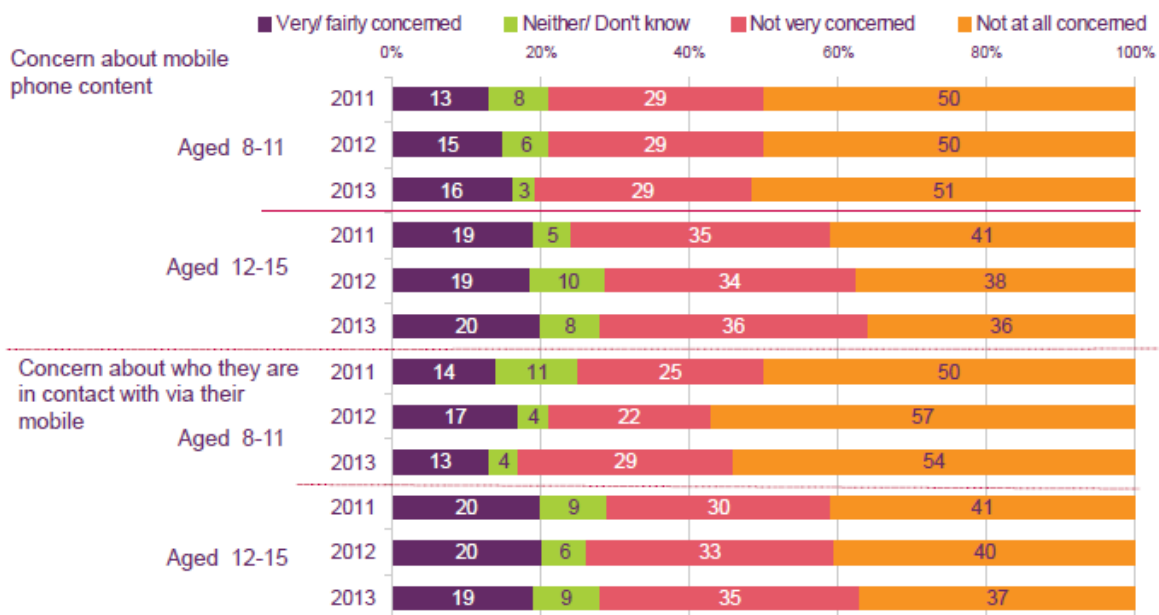
Parental controls could be referred to as software and service tools that are designed to help parents and guardians monitor their children's use of mobile phones and other smart devices. It could also be seen as a new feature designed to let parents set controls for their children's computer use. The Parental Controls is associated with user account, which is the account your children log on to with the computer/mobile device. You can also choose to use activity reports to view your children's online activities.

1.2.1 Parental Concerns about Mobile Phones

Turning to the 2013 quantitative research conducted by Ofcom above, it shows that concerns around 'contact' and 'content' via mobile phones is relatively low,

16% and 13% respectively for parents of 8-11s and 19% and 20% respectively for parents of 12-15s. In 2013, parents of children aged 12-15 with a smartphone are no more likely than parents whose child has a non-smartphone to be concerned about both these aspects of their child's mobile phone use. This was not the case in 2012.

Figure 15: Parental concerns about mobile phone content and who their child is in contact with via their mobile, by age: 2011–2013



QP68A/ QP68C – Please tell me the extent to which you are concerned about these aspects of your child's mobile phone use/ What they see or read on their mobile phone/ Who they are in contact with using their mobile phone ? (prompted responses, single coded)
 Base: Parents of children whose child has their own mobile phone (274 aged 8-11 in 2011, 238 aged 8-11 in 2012, 188 aged 8-11 in 2013, 496 aged 12-15 in 2011, 493 aged 12-15 in 2012, 467 aged 12-15 in 2013). Significance testing shows any difference between 2012 and 2013
 Source: Ofcom research, fieldwork carried out by Saville Rossiter-Base in April to June 2013

Parental controls fall into roughly four categories: *content filters*, which limit access to age inappropriate content; *usage controls*, which constrain the usage of these devices such as placing time-limits on usage or forbidding certain types of usage; *monitoring*, which can track location and activity when using the devices. Mobile phone service providers use these four categories/options for controlling privacy and usage, filtering content and location and monitoring settings:

- **Usage controls:** Most operators allow parents to turn off features, such as downloading videos or images, texting, and accessing the Internet. These controls can also be used to limit the number of calls or texts and set time restrictions.
- **Content filtering:** These controls can block certain websites to allow for safer mobile browsing on the Internet. Some filters can also limit videos and other multimedia.
- **Location and monitoring settings:** These controls allow parents to track their child's whereabouts using GPS systems that are built into the phone.

1.3 Current Status of the Issue

Protecting children online is a global challenge, which requires a global approach. While many efforts to improve child online protection are already under way, their reach has been more national than global. ITU launched the Child Online Protection (COP) Initiative in November 2008 as a multi-stakeholder effort within the Global Cyber security Agenda (GCA) framework.

COP promotes a model national framework to assist in the development of a positive online environment for children and young people. COP encourages the creation of COP Units at national level and is developing a series of indicators to assist with the measurement of progress in implementing online child protection initiatives at global, regional, and national levels.

In Nigeria, we presently do not have any laid down guidelines or framework for adoption and implementation of parental control measures in the Telecoms industry. This therefore gives operators in the industry the leeway to adopt whatever measures they deem fit and at whatever cost they prescribe. Amongst the four Mobile Network Operators in Nigeria, only Emerging Markets Telecommunication Services Limited (EMTS) has forwarded a tariff structure of parental control for the Commission's approval. This parental control measures

would be provided to subscribers at N100 for data services and N200 for Voice services per month respectively.

Chapter Two

2.0 Literature Review

“The revolution of mobile phones and smart devices with its applications for online communications have created tremendous opportunities for young people, but at the same time exposing the young children to new risks in cyberspace,” ITU Secretary-General Hamadoun I. Touré.

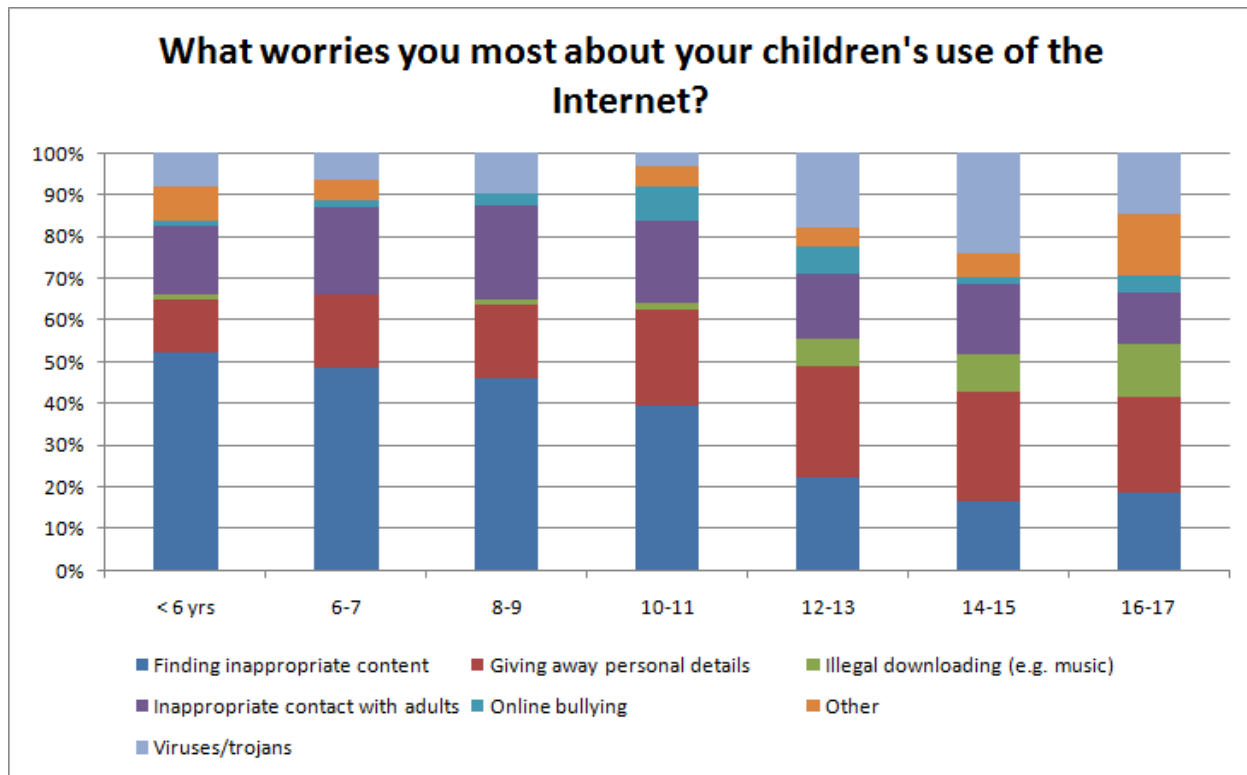
According to the United Nations specialized agency for ICT, the Guidelines for Industry on Child Online Protection provide advice on how the ICT industry can help promote safety for children using the Internet or any technologies or devices that can connect to it, as well as guidance on how to enable responsible digital citizenship, learning and civic participation.

Though a number of countries around the world are conscious of the vulnerability of children to online sexual abuses, reputational damages, violence and inappropriate content with potential abductors, yet the level of parental control globally is still very low. It is either some parents are careless or have assumed the craze for freedom to include children or therefore, there is no control in place to check inappropriate internet content for the under-aged. Interestingly, most parents are actually worried over what their under-aged children do on the internet besides educational motive.

2.1 Parental Control in Other Jurisdictions

A survey conducted in 2009 on 400 parents by Sabastien Lehitinen which was posted as an article in thinkbroadband.com was quite revealing. Sabastien

Lehitinen is a co-founded of NetConnex and broadband information website thinkbroadband.com. His findings are shown in the figure below:



- Parents' main concerns about their children surfing online is finding inappropriate content (37%), followed by giving away personal details (20%) with inappropriate contact with adults in third place (18%).
- Most parents personally supervise younger kids; as they grow older this is mostly replaced by educating them on the dangers.
- Use of parental control software is most common in the 8-9 year old group but is significant until children reach 16 years old.
- Parents do not in general use or rely on service providers' filtering services as their primary line of defence.
- The greatest concern for parents of younger children is finding inappropriate content online. This starts to reduce significantly when their kids reach the age of twelve (12) when parents are more concerned about their children

giving away personal details on the Internet--this is likely to be due to increased use of social networking sites.

- Concerns over illegal downloading (such as obtaining music without paying or otherwise obtaining a license for it) is insignificant until the teens, although it is only a primary concern for 13% of parents in the 16-17 age group when it becomes strongest.
- Online bullying was of most concern to parents of 10-13 year olds although it was the most important concern to only 7-8% of parents in that category.

In addition, further research on Parental Control in the mobile communications markets in other jurisdictions like United States of America (USA), United Kingdom (UK), China, South Africa and Australia were considered and the findings are stated below.

USA

The USA telecommunications industry is regulated by the Federal Communications Commission (FCC) and has four major mobile network operators namely:

- i. AT&T
- ii. Verizon
- iii. T-Mobile
- iv. Sprint

All the four major operators offer parental control plans that help parents manage their children's texting, talking and mobile web browsing usage. These parental controls have the ability to block picture messaging, block unknown phone numbers, limit what time the children text or call, filter web browsing and track the locations of their children. *Whereas AT&T, Verizon and T-Mobile offer parental controls at a fee of \$4.99/9.99 per month, Sprint offers parental controls free.*

Regulation for Parental Controls

The Federal Communication Commission (FCC) a convergent regulator for broadcasting and telecommunications services is in charge of regulating the USA airwaves which includes contents that are broadcast across the airwaves as well as devices used to receive content.

The FCC has strict regulatory requirements regarding parental control devices and notifications. The FCC established these regulations in an effort to provide parents with the ability to control and restrict viewing content for their children. According to FCC, all televisions 13 inches or larger must come equipped with technologies that enables parents to block unwanted programming. This regulation is not exclusive to broadcasting.

United Kingdom

The UK telecommunications industry has four major mobile operators namely:

- i. Vodafone
- ii. T-Mobile
- iii. Orange
- iv. O2

All the Mobile Operators provide parental controls/Adult Content filters by default. These operators partner with mobile phone manufacturer to offer services with mobile phones that have in-built parental controls tools.

Regulation for Parental Controls

In the UK Mobile operators are required by law to have content restrictions on their network, making it easy for parents to control and difficult for children to access unsuitable materials. Each of the major UK network providers has now signed up to Independent Mobile Classification Body's code of conduct. The classification framework defines content that are unsuitable for subscriber under the age of 18

and is based on British Board of Film Classification (BBFC) Guidelines for Film and video.

The self-regulatory partnership between mobile operators and the BBFC bring trusted, transparent and consistent BBFC standards to bear on content accessed via mobile networks. The classification framework enables commercial content providers to classify mobile content as either suitable or unsuitable for users under 18 as well as be used to calibrate the filters used by the operators to restrict access to internet content via the mobile networks.

China

China's telecommunications industry is dominated by three state owned operators namely:

- i. China Telecom (Offering both Mobile and Fixed Services)
- ii. China Unicom (Offering both Mobile and Fixed Services)
- iii. China Mobile (Mobile Carrier)

China telecommunications industry is regulated by the Chinese Ministry of Industry and Information Technology (MIIT), the China Mobile Communication market is adjudged the largest in the world with a subscriber's base of over 1 billion and young people constituting the greater proportion.

Driven by China's fast growing digital population and parents increasing concerns over the time their children spend online and the content they access, software solution providers in China have developed parental controls that offer parents control over their children's internet usage and connectivity using their mobile devices. The software products provide instant and interactive communication channel between concerned parents and their children's digital devices. **Parents can obtain and install the software for free or pay monthly subscription fee to get the specific SMS Service.** China Mobile Ltd and these parental controls software

providers jointly provide this SMS-based PC to Phone communications services to subscribers.

South Africa

The South Africa Telecommunications industry has four licensed mobile operators namely:

- i. MTN
- ii. Cell C Ltd
- iii. Telkom 8ta
- iv. Vodacom Ltd

Vodacom Ltd South Africa is offering parental controls on its network free, MTN South Africa offers parental controls on its network free, and Cell C and Telkom 8ta do not have parental functionality yet.

Australia

The Australia Telecommunications industry is regulated by the Australian Communications and Media Authority (ACMA) and the industry has three licensed mobile network operators namely:

- i. Telstra (Offering Fixed and Mobile)
- ii. Optus
- iii. Vodafone Hutchison (VH)

Telstra Ltd the largest telecoms company in Australia offers parental controls that helps protect Telstra Online Security users from websites and other internet activities that may not be suitable for users. It allows parents to be notified about their children's online activity and override any blocked unsuitable pages. Telstra provides users with default profiles suitable for specific age groups in line with content standards use for television, film and games in Australia. Optus Ltd the

second largest telecoms company offers parental controls that enables mobile security product users protect children from inappropriate content in the internet and allow parents limit the application the children use. Optus Ltd offers parental controls to subscribers free of charge for the first month and \$5.00 Australian dollars in subsequent months.

Summary of Key Findings:

- i. Majority of parents have limited awareness of Mobile Network Parental Controls.
- ii. Mobile Network Parental Controls popularity is still low.
- iii. Only technically savvy parents understood and apply mobile parental controls.
- iv. There is no harmonized legislation or regulation for Mobile Parental Controls.
- v. Only a few Mobile Network Operators have keyed into the Child Online Protection initiative guideline as provided by the International Telecommunications Union to protect children from harmful content.
- vi. Major forms of parental controls deployed by mobile operators are usage controls, content filtering and location/monitoring control.
- vii. Some Mobile Operators have some of form parental controls and web content filters in their network by default.

Chapter Three

3.0 Information Analysis

In the United States of America, AT&T, T-Mobile, Verizon and Vodafone offers the following parental control packages:

3.1 Demand and Supply Analysis

1. AT&T

- **Smart Limits** - The main parental control package implemented by AT&T is called "Smart Limits", it is offered at \$4.99 per month. This tariff structure gives parents the opportunity to limit the time of the day when their child's mobile phone can be used, the number of texts per billing cycle, the amount of web browsing, it also allows parents to block inappropriate web content and specific number so that their children cannot text or call a particular number.
- **Data Blocker** - This service is offered for free. It primarily allows parents to block pictures and video messages from their children's mobile phones
- **Family Map** - this parental control service allows parents to track their children's mobile phone using GPS technology. This service is offered at \$9.99 per month and it is capable of tracking up to two phones. This service is available only when the phones are GPS enabled.

2. T-Mobile- T-Mobile provides the following services:

- **Family Where** -this parental control service allows parents to track their children's location through the GPS. The phone stores the checks on their child's location and sends the result to the parent's phone. The service is

available at \$9.99 per month and can be used on every phone on the family plan.

- **Message Blocking-** T-Mobile offers this service for free. The service allows parents to block in coming and out-going text messages and picture messages from certain phone numbers. It also blocks emails and chat messages.
- **Web Guard.** The service is offered for free. It filters inappropriate contents from phones, prevent children from searching for and viewing restricted content on web-enabled phones.
- **Family Allowances-** this service allows parents to limit the number of minutes, text and data their children can use on their phone. The service also allows parents to control when their children can text or make calls. The service is available at \$4.99 per month.

3. Verizon - Verizon offers three parental control services:

- Usage Controls – it allows parents to limit on minutes, messages data usage purchases such as games and applications. It also blocks unwanted calls, text, SMS, and video messages. This service is available at \$4.99 per month and covers up to 10 mobile phones.
- Family Locator is attracts a monthly charge of \$9.99 per month and per line.it enable parents to track their children's location using GPS facilities.
- Content Filter is offered for free. Allows parents to filter web content on their children's phone.

4. Vodafone - Vodafone introduced a system of parental controls for children's mobile phones following concerns about the dangers of unrestricted phone and internet use. The service allows parents to stop unwanted contact, such as blacklisting certain numbers to prevent bullying calls or by transferring bullying texts into a secure folder, as well as setting up approved lists for outgoing calls. It can also restrict use of the internet, either by blocking access to the web completely or at certain times, such as during

school hours. Parents will also be able to deactivate a phone's camera. . The Vodafone Guardian app is functional in the United Kingdom, Egypt, Germany, Ireland, Italy, the Netherlands, New Zealand and Spain however the app is called other names in other countries, such as "Smart Tutor" in Italy and Spain. The service, can be downloaded as a free mobile application on Android phones.

S/N	OPERATOR	PRODUCT/SERVICE	TARIFF
1.	AT&T	Smart Limits- provides parents control to limit the time of the day and the amount of web browsing for their children	\$4.99/Month
		Family Map- allows parents track their children's mobile phone using GPS technology.	\$9.99/Month
		Data Blocker- it allows parents block pictures and video messages from children's mobile phones	Free
2.	T-Mobile	Family Where- allows parents track their children's mobile phone using GPS technology.	\$9.99/Month
		Family Allowance- allows parents to limit the number of minutes, text and data their children can use on their phone	\$4.99/Month
		Message Blocking- allows parents block incoming and outgoing text messages and pictures. Also blocks emails and chat messages.	Free
		Web Guard- It filters inappropriate contents from phones, prevents children from searching for and viewing restricted content.	Free
3.	Verizon	Usage Controls- allows parents limit minutes, messages, data usage and purchase. Also blocks calls, text, SMS and video messages.	\$4.99/Month
		Family Locator- enables parents track their children's location using GPS	\$9.99/Month
		Content Filter- allows parents filter web content on their children's phones	Free
4.	Vodafone	Vodafone Guardian App- an app developed to enable parents block specific contacts to prevent bullying text messages or calls as well as specifying times of day the child can make or receive calls, use apps, access the Web and use the camera. App	App- Free

	<i>available for use in the UK, Spain, Italy, Germany, New Zealand, Netherland, Ireland & Egypt.</i>	
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Chapter Four

4.0 Conclusions

Information and Communication Technologies [ICTs] have transformed modern lifestyles. They've provided us with real-time communications, borderless and almost unlimited access to information and a wide range of innovative services. At the same time, they have also created new opportunities for exploitation and abuse. Without proper safeguards, children – among the heaviest users of the Internet – are at risk of accessing violent, sexual and other disturbing images. Without proper dedication to creating a safe cyber environment, we will fail our children. Although there is increasing awareness of the risks related to the insecure use of ICTs, yet there is no adequate legislation to protect the under-aged against internet abuses and violence through parental control.

The increased economic demand and pressures have often times blinded parents as to the appropriate images or websites their wards access on the internet in their absence and sometimes even in their presence. If parents lose control there may be a global wave of increase in sophisticated crimes, unthinkable violence and murders, leading to a total global social and economic breakdown. It is, therefore, crucial that parents and educators are able to decide, with their child what is appropriate and safe for their use, as well as how to behave responsibly using ICTs.

Given that there is no existing Legislation for Parental Control on mobile devices, the following control measures have however been implemented in other jurisdictions:

Access Control Mechanisms

1. Mobile providers should not offer any own-brand commercial content which would be classified as only suitable for adult customers in equivalent media, without providing appropriate means to control access to such content under parental control.
2. Appropriate means to control access to content should also be applied where content is supplied by contracted providers of third party commercial content which would be classified as only suitable for adult customers in equivalent media.
3. Additionally, individual mobile providers should offer capabilities which can be used by parents to customize access to content by children using mobiles. These may include specific services, phone barring or filtering, and/or billing control.

Raising Awareness & Education

1. Mobile providers should provide advice and effective access to information regarding the use of mobile phone services and measures which can be taken by parents to ensure safer use by their children.
2. Mobile providers should encourage customers who are parents to talk to their children about how to deal with issues arising from the use of mobile services.
3. Mobile providers should ensure customers have ready access to mechanisms for reporting safety concerns.
4. Mobile providers should support awareness-raising campaigns designed to improve the knowledge of their customers.

Classification of Commercial Content

1. Mobile providers and content providers should ensure that classification frameworks consist of at least two categories: content which is suitable only for adult customers and other content.
2. Mobile providers should ensure that their own-brand commercial content is appropriately classified.

4.1 Recommendations:

Consistent with the above, we recommend as follows:

The fact that Parental Control solution enables mobile operators throughout the world to ensure that their subscribers have an enhanced level of protection across not only phones, but also tablet and other SIM-enabled devices, Management is hereby invited to:

1. Mandate all Mobile Network Operators(MNOs) to implement mobile parental control measures on their network;
2. Ensure that MNOs creates adequate awareness on the available mobile parental control measures/apps on their networks;
3. MNOs should educate parents and guidance on the procedure to activate the apps;
4. Confirms and approve the cost of the mobile parental applications which are reasonable.