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Investigation of Evils Associated with Technology-Use by Children: A Case of Greater Accra-Tema Region, Ghana

Francis Kwadade-Cudjoe
Senior Lecturer, Knutsford University, Accra and Adjunct, Regional Maritime University, Tema, Ghana

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Abstract: *Research to investigate evils associated with technology-use by children and the need for parental guidance. Technology is a versatile tool loaded with many activities for entertainment and simultaneously, learning for development. Most of these activities are adult materials and children are too young to be exposed to these matured items without the guidance of parents. Survey design methodology was used to collect primary data from the Greater Accra-Tema Region, Ghana and analysed into frequencies for interpretation. The conclusive statistics are: i. 97% of respondents supported children's need for technology-use and with only 3% not in favour. ii. 92% of respondents supported there are evils with technology-use by children with only 8% against. iii. 85% of respondents do have ideas on how to protect children from viewing evil sites, whilst 15% are ignorant. Therefore, the study concluded that technology is a versatile tool which should be introduced to children, but must be controlled and monitored when in use, as the tendency to veer into watching adult programmes is possible. Finally, to address the protection of children from the evils of technology-use, two important points for parents, caregivers and instructors are: i. search for children's sites, including National Geographic Kids, PBS Kids, Coco Melon, Byjus.com, Children learning and Kid's health and make them available for the younger generation.ii. use sites with parental controls and are Children's Online Privacy Protection Act (COPPA) compliant.*

Keywords: Newborn, infant, toddler, pre-schooler, middle childhood, teen/adolescent, evils, vulnerability, and technology.

INTRODUCTION

According to Hornby (2020), technology is instructions written and embedded scientifically in a machine for application to change the environment in which humans live; it could be for a personal or business change in the environment. Again, Britannica.com (2024) defined technology as the application of scientific knowledge for the management of the environment to achieve sustainability of human life. Furthermore, Techcareer.net (2025) expanded the definition of technology and stated that it is the development and production of any kind of equipment, tools, instruments and materials that make human life easier by utilizing knowledge derived from scientific studies. Much then depends on humans to appropriately use these tools to make the environment better for life.

A child is defined by Hornby (2020), as a young human being who is not yet an adult; an adult according to the same dictionary is a fully grown person who is legally responsible for their actions. Therefore, children are not responsible for their actions, and they must be guided in any action they resolve to take. Modessa (2025) explained the developmental stages in the growth process of children and mentioned the three (3) stages of early life of children. Consequently, Medessa (2025) illustrated the three (3) levels of infant stage and gave the growth-age and description as:
i. **newborn (0 – 3 months)** – they may also be known as neonate, which is a term used in both medical and general contexts to describe a baby.
ii. **infant (3 – 12 months)** – a baby or very young child, typically identified as someone in the earliest stage of life, who learns to crawl before they begin to walk.
iii. **toddler (1 – 3 years)** – a young child, who is just learning or has learned to walk; the stage is characterized by significant cognitive, emotional and social development. Toddlers are noted for exploration of the environment they find themselves and are eager to touch and play with anything they encounter in the environment they are (Medessa, 2025).
Woowardenglish.com (2025), Spainexchange.com (2025) and Vocabulary.com (2025) described the next levels of growth-age of children as:
iv. **preschoolers (3 – 5 years)** is the next group of children. This is the stage when they are not old enough to go to school. However, these days, even infants are already in school. Preschoolers could be guided safely at home by parents to start doing simple things for themselves (Woodwardenglish.com, 2025).
v. the **middle childhood-age (6 – 12 years)** is the next category of children. This group of children are in their developmental path and contributes substantially to the adolescent and adult they would become. The stage is also characterized by increased independence, social interaction and cognitive growth (Spainexchange.com, 2025).
vi. **teenager (12 – 19 years)** are children who have completed elementary school, growing quickly and in the last stage of development before attaining adulthood; they are also known as adolescents or minors (Vocabulary.com, 2025).

The above classification of children is necessary for the study, as it throws more light on the stages of child growth for investigation of the vulnerability of the evils of technology-use associated with the groups. Technology is a very good and powerful tool / instrument for helping humans to learn, including children, in making advancement into many areas needed for development. However, the dangers of technology cannot be ignored, especially where children are concerned. Maryville.edu (2022) revealed that the American Psychological Association (APA) strongly recommends children be limited to the use of technology, as they are susceptible to technology overuse. In view of this, APA suggests parents should focus on the content and context children watch on screens and how they interact with them. For the various developmental and behavioural problems, APA cited in Maryville.edu (2022) listed the following:

i. lack of attention, aggressive behaviour, obesity, physical inactivity and sleeplessness,
ii. musculoskeletal problems related to sedentary lifestyle,
iii. greater risk of cardiovascular disease, and
iv. poor-quality of sleep for children who overuse social media.
Furthermore, APA cited in Maryville.edu (2022) provided the following negative effects of technology-use by children:
i. exposure to harmful online content and sexual exploitation – a study by Irish researchers found that children of all ages can bypass age verification system in new social media apps, such as Snapchat, Instagram and Facebook. This is very dangerous and could bring children into direct contact with potential predators and other dangerous sites,

ii. cyber bullying – the cyberbullying research centre has reported in a recent survey that 23.7% of girls and 21.9% of boys of age 13 – 17 years, and 35.4% of transgender teens had experienced being cyber bullied, and
iii. low self-esteem and increased anxiety – teens / adolescents / minors have been using image filters on Instagram to enhance their appearance even though the result indicates nothing like them. This self-esteem addiction can make young people feel inadequate and find themselves obsessively checking their social media feeds (APA cited in Maryville.edu, 2022).
Mybrightwheel.com (2024), confirmed the above dangers and evils of technology-use by children by illustrating the following negative effects of screen time on children:
i. difficulty sleeping – excessive screen time, especially before bedtime, can meaningfully disrupt young children's sleep patterns, leading to difficulty falling asleep; this is due to exposure to the blue light emitted by devices which disrupts circadian / daily rhythms and natural sleep cycles.
ii. obesity – the potential impact of excessive screen time on physical activity levels; children who extend indoor periods engaged with screens, may be missing out on opportunities for exercise and outdoor play, which are vital for overall health and well-being. A study in 2022 revealed that 3-year-olds exposed to excessive screen time have an increased risk of obesity by age 5.
iii. shorter attention span – the impact of excessive screen time on children's attention span; studies shows that young children spending more time in front of screens tend to have shorter attention spans, making it challenging in focusing on tasks and learning effectually in a classroom arrangement.
iv. language delays – excessive screen time could hamper children's communication and language skills; children exposed to much screen time have fewer opportunities to participate in direct interaction that teach them facial expressions and emotional prompts which benefit their early language development (Mybrightwheel.com, 2024).

Background and Statement of Problem
Children generally are vulnerable when confronted with dangerous / threatening situations to manage. This stems from the fact that their faculties / senses are not fully developed to decide instantaneously when faced with intimidating encounters; however, these situations may, invariably, lead to their growth and development. Therefore, parents and adults in general, are to guide children to go through such circumstances when they encounter them.

Technology is a tool / instrument which is loaded with many items / activities for entertainment and simultaneously, for learning towards development. Most of these programmed activities loaded on technology are adult materials and children are too young to be exposed to these (matured) items.
According to Littleonemag.com (2023), childhood development is a complex and enthralling process that embraces various stages from infancy to adolescence; each of these stages, brings unique challenges, landmarks and opportunities for growth. Therefore, when parents, educators and caregivers understand these stages of growth, they can provide appropriate support, direction and guidance to help children navigate successfully through their journey to adulthood.

The question / problem that arises is, how should these young ones who need support and guidance for growth, again be exposed to technology (a complicated / labyrinth machine) at the same time, without the necessary guidance? No wonder, the globe is populated with children using all sorts of means, including unauthorized ways when confronted with challenges in life. The misuse of technology has affected the proper growth of these children and rendered most of them societal misfits. Therefore, there is no gain saying that the need for proper guidance and tutorials for well and organised introduction of children to technology is overdue, so that they are not exposed to mature and non-beneficial programmes at that tender age.

The researcher is deeply concerned about how the current generation of children, even babies, are frequently giving mobile phones by their parents to play with, when busily engaged in carrying out household chores, possibly, to enable the child stay quiet. There is the likelihood that the mobile phones would not be programmed to allow the child to watch only programmes suitable for him / her; hence the child would be exposed to everything entertaining on the machine. Hopefully, the conclusions and recommendations from this study, would benefit parents and the globe in general, to know when to give and guide children in using technology effectively to benefit them.

Objectives of the Study

The main purpose of this research is to protect children from being introduced to the use of technology very early while infants, toddlers, preschooler, etc; this invariably exposes these young ones to adult programmes and wild images which are very dangerous for their upbringing.

The objectives of the study are therefore, to:

i. examine the use of technology by children.
ii. assess the evils of technology-use by children.
iii. address the protection of children from the evils of technology-use.

Research Questions

The research questions that would support the collection of reliable data from respondents to achieve the objectives are:

i. what do children use technology for?
ii. what evils of technology-use are children exposed to?
iii. how are children to be protected from the evils of technology-use?

Significant of the Study

The researcher intercepted a forwarded message on social media and could not believe the content. This was about children exposed to screen for 6 to 12 hours daily watching cartoons and have developed speech impediment at the neurodevelopmental clinic at the Ridge Hospital, Greater Accra, Ghana. Therefore, the message warned other hospitals to look for such affected children at the OPD and wards and strongly advised parents to take the screens away from children; unfortunately, 80% of the cases reported were boys (Tenkoramaa, 2024).

The above message strongly collaborated with the dangers on language delays from excessive screen time for children which could hamper their communication and language skills espoused by Mybrightwheel.com (2024). As explained by Mybrightwheel.com (2024), children who are exposed too much to screen time have fewer opportunities to participate in direct interaction which could teach them facial expressions and emotional prompts which benefit their early language development. Furthermore, Duffy (2025) mentioned that a study has reported that nearly half of teens say social media is bad for youth mental health. According to Duffy (2025), more than 1,000 US teens surveyed by the Pew Research centre in 2024, nearly half say they have cut back on smartphones and social media use amid concerns about technology's impact on teens' mental health.

Children are gifts from the Lord and any gift from the Lord must be preserved and managed well. There are many couples who are seriously looking for a child, but so far not successful. So, why should a couple have a child / children and not plan for their good health and proper upbringing / development to maturity and contribute to help solve the numerous problems confronting their communities / environments?

Unfortunately, children who are not properly developed into technology-use by the parents become obsessive with the abusive use of the tool and rather destroy themselves through improper use of the items found on the machine, including use of drugs.

It is sad to note that this group of children become so powerful amongst their peers that, they are easily able to influence most of those properly trained in technology-use to learn from them and become difficult to handle by parents and school authorities. These troublesome children create problems which become overwhelming and overburden for society to handle.

The human society is saddled with so many problems and most of these problems are human-centred. According to Nair (2019), the educational system is concerned with the greatest problem of balancing technology learning and extensive usage of the same by children. Furthermore, many experts have raised concerns about the same issue and have advised that over-reliance on technology by children could remove important development techniques from the child's life; for example, schools which introduce laptops and computer systems at a younger age are not helping children to focus on using pens and pencils to write and could affect their ability to learn effectively.

Therefore, it is important and urgent that parents do well to control / guide the use of technology by children to save the globe from further problems associated with children's early use of the tool. Similarly, the educational system should also come clean on a standard / policy, regarding how technology should be used by children to curb the already numerous problems confronting the globe. Unfortunately, there is a missing gap of knowledge on how parents must control and guide children on the use of technology. Hopefully, the study will formulate a proposal / model to help society deal with technology misuse by children.

Scope of the Study

This study is about the investigation of evils associated with technology-use by children. The researcher is concerned about the problems technology misuse by the younger generation is creating for the globe, as children without proper control and guidance explore matured sites and view adult programmes. The adult programmes are not helpful to children, as they are young to be introduced to these materials. Unfortunately, there is a missing gap of knowledge on what parents must do to protect children from assessing the adult sites on technology. The study will hopefully come out with a proposal / model for curbing the misuse of this resourceful and multitalented tool by children.

Data would be collected from the Greater Accra-Tema Region, Ghana, and analysed to help parents have a (proposed) model to use in controlling and guiding children when exposed to technology; currently, there is a missing gap of knowledge on how technology should be regulated for use by children.

Primary data was collected from the Greater Accra-Tema Region, Ghana for the research. There are sixteen (16) regions in Ghana and Greater Accra-Tema metro is the capital city; this is a sprawling, cosmopolitan and prominent region in Ghana with modern amenities, infrastructure and industries spread over the expanse / region.

Hopefully, reliable raw data would be gathered from the respondents on the questions in the Questionnaire. Optimistically, the study would assemble data on fair response on the subject-matter from respondents to enable the researcher to come out with trustworthy findings. This would decisively provide knowledge on the missing gap for parents to control their children in assessing technology; the education unit would equally benefit from the proposed model that would be developed for parents, to also create their own systems to suit institutions in controlling technology-use by children.

Appreciatively, the conclusions and recommendations from the findings were generalized to help parents control and guide children in assessing technology, a versatile instrument for learning.

LITERATURE REVIEW

The review has been prepared to examine extensively the dynamics of literature on technology, the versatile and powerful tool for learning and development; this would be scrutinized to review the benefits, challenges, including abuse and addiction of the multidisciplinary machine. In addition, categories of children would be explored to explain the various stages of developmental growth.

What is Technology?

Technology has been defined by Britannica.com (2024), as the application of scientific knowledge for the management of the environment to achieve sustainability of human life. Furthermore, Techcareer.net (2025) expanded the definition of technology to include the development and production of any kind of equipment, tools, instruments and materials that make human life easier by utilizing knowledge derived from scientific studies.

According to Techcareer.net (2025), currently, technology is often thought of as smartphones, computer systems, electric and space vehicles; nevertheless, nearly everything that has been used daily over the centuries is a product of technology. In addition, Techcareer.net (2025) mentioned that the history of technology started from the prehistoric times, as stone axes and wooden sticks which were created about 2 million years ago, are considered the earliest technological products. Moreover, the invention of the wheel, sailing ships and water distribution systems indicate later technological developments (Techcareer.net, 2025).

It is a fact that Technology is a very useful machine for learning and human development, and with different programmes embedded for the benefit of different levels of people. According to Satish (2025), technology has witnessed an impressive evolution in the past few decades; this has transformed lives and helped humans to evolve. There have been big improvements in roadways, railways and aircraft for seamless travel to make communication effortless from any part of the world; technology has really contributed more than anything to help mankind live a life of luxury and convenience. Again, Satish (2025) hinted that technology has made humans know the globe and outer space better and stressed that every sector owes its advancement to technology.

Usefulness of Technology to human

Technology is very essential for the contemporary 21st century human being. Technology has become part and parcel of human life to the extent that without this versatile tool, life would be very difficult. There are so many activities humans need to accomplish daily, both at home and the work environment; if there are no technological tools to accomplish them, it would require quite a long period of time to achieve any meaningful task, as opined by Belyh (2023). According to Belyh (2023), there are many areas of technology-use in the life of humans and some of these areas are listed below.

i. **Communication in daily life** – technology has improved communication tremendously. Long-distance communication is possible within seconds – thanks to telephones, radio, television, emails, mobile phones and the internet. Employees use communication tools to collaborate with customers effectively and some of the team-communication tools used to keep organizations' daily operations running are Zoom, Google meet and Microsoft teams (Belyh, 2023).

The uses of technology in communication include:

a. video conferencing – crucial meetings where participants cannot be physically present make video conferencing helpful to solve this problem. This tool can help hold business meetings and have everyone join through invitation.
b. email – one of the top communication tools used by businesses and individuals. Constant and meaningful communication help build strong relationships. Organizations build relationship with customers and run profitable marketing campaigns with emails.
c. smartphones – messages through emails could be sent with smartphones, make phone and video calls, surf the internet and review documents. An online business could be run from a smartphone (Belyh, 2023).

ii. **Health technologies in daily life** – healthcare is an integral part of everyday life. Technology and scientific knowledge have had a positive impact on the healthcare industry by improving human life in the areas of hygiene, diagnosis and treatment. Furthermore, the availability of medical technology like Magnetic Resonance Imaging (MRI), ventilators and machines for manufacturing modern medicines have improved healthcare beyond recognition (Belyh, 2023).
Uses of technology in the health sector include:

a. smart hospital management – this system improves hospital experience for patients and workers by connecting digital systems to ease access to healthcare information, such as bed occupancy, device usage and equipment status.
b. remote healthcare monitoring – smartwatches and fitness trackers monitor health factors, such as heart rate, blood oxygen and irregular heartbeat.
c. connected emergency response solutions – technology makes emergency response from ambulances swifter, and ambulance, physicians and first responders can share data about patients which helps save human lives.
d. remote healthcare services – conference technology is vital in the health sector, where through a video call, patients can receive online consultations from physicians and treatment from any location.
e. AI in healthcare – AI is now an integral part of healthcare industry, as well-programmed AI tools offer many benefits, such as proactive care predictions and quicker data analysis (Belyh, 2023).

iii. **Technological advancement in education** – technology has improved learning process for teachers and students. Students need not be present in a physical classroom to learn, as education software are available to improve online learning experience through engaging and comprehensive lessons. In addition, people with learning disabilities can learn uniquely through assistive technology, such as text-to-speech software (TTS) helps visual impairment to read texts (Belyh, 2023).
Uses of technology in education include:

a. easier access to education – digital education provides engaging learning with opportunities, as there are many free resources available for students to learn any skill from home – YouTube and Google are examples.
b. online lectures and exams – educators can upload academic materials, example lectures and tests, to websites in video or written format for easy access by students. Learning apps, discussion boards and digital whiteboards could be cloud-based for a better learning experience.
c. special education – technology improves the quality of education for students with learning disabilities, as special education tools help them learn more effectively, example dictation programs, interactive boards and touchscreen.
d. online education – there are many online platforms, where students can learn whilst content creators can earn. In this case, a student could learn and work simultaneously, which has enabled most workers to continue their education. Examples are Quizlet, OneClass, Bartleby and

Socratic websites, where online tutorials for students in different fields can be found (Belyh, 2023).

iv**. Technology and productivity –** technology improves productivity at the workplace, as with productivity tools, tedious and low-level jobs (example data entry), which take much time to complete are easily done in minutes. Employees would then be able to focus more on high-level tasks for maximum results. Impact of future technologies on workplace productivity, example AI and quantum computers, would be very great (Belyh, 2023).
Uses of technology in productivity may include:

a. office productivity – technology boosts office productivity, as workers can easily and effectively carry out high-level and difficult tasks with office software.
b. food production – technological advancement in the agricultural industry has increased food production, as new technologies have replaced old and manual tools which consume time and energy.
c. engineering – engineers have been using computer modelling to simulate structures, materials and vehicles, as acquiring valid information on performance before prototyping is now easier and more reliable with advanced technology.
d. business management – tools like big data analytics have become vital for organizations, as they speed up productivity by allowing employees to act faster without waiting on top-down management structure for direction.
e. manufacturing – the manufacturing sector uses robotic and automation processes to boost productivity, as autonomous robots and workers in the factory now work side-by-side to increase output. Surely, the trend leads to more efficient, faster and more accurate outcomes in manufacturing.
f. sales and marketing – these departments use augmented reality (AR) and virtual reality (VR) to improve customers' experience of products from organizations.
g. convenient work environments and conditions – internet connected devices like smartphones and computer systems are contributing to remote working. Organizations' remote teams use work-from-home tools to create flexible work environments and track work better for progress (Belyh, 2023).

v. **Transportation technology in everyday lives** – air transport makes traveling from one planet to another planet in a day possible, as in the past people used camels to travel from a city to another and spend days on the road. Currently, AI and machine learning make driverless cars possible (Belyh, 2023).
Uses of technology in transport include:

a. lightweight vehicle materials – lightweight vehicles do not consume much fuel as regular vehicles, as this helps save money and reduce the reliance on fuel and destruction of the environment.
b. Internet of things (IoT) – this emerging technology connects everything through networks. IoT in transportation uses intelligent devices, sensors and objects for better transit.
c. ride services – Uber, Yango, Bolt, etc. changed how people move, especially in large cities, as one can book rides from home to destinations without going to the bus stop.
d. Hyperloop – this is a tube-like transport system with incredible speeds (Belyh, 2023).

vi. **Banking technology and daily life** – digital banking is a popular way of saving and exchanging money, as customers use internet banking to perform financial transactions securely. Digital currencies are also popular and with many countries introducing them to compete with cryptocurrencies. Emerging

technologies, such as AI, machine learning, blockchain and robotics have assurance to improve digital banking services (Belyh, 2023).

Uses of technology in the banking sector include:

a. online banking – this banking innovation has improved the speed an individual can perform financial transactions, as one can use platforms like PayPal and Sendwave to send and receive international payments.
b. ATMs – these lifesavers allow for the convenient withdraw of cash, as there is no need to enter a banking hall. It is quick and easy to use, and one only requires a unique pin to access funds.
c. banking apps – these apps are handy, as you can perform banking-related activities from the comfort of home. Goods and services could be paid for and transfers, checking of balance, changing of ATM pin and lodging of complaint could be easily done (Belyh, 2023).

Other areas of technology benefits include, amongst others, record keeping, entertainment, shopping, automation and robotics which equally provide gains of technology-use, as opined by (Belyh, 2023).

Challenges of technology

There are many benefits of Technology, as enumerated above. However, this multipurpose instrument has also an abusive, misuse and addictive side, where users, including children are normally vulnerable. Willsher (2025) has advocated strongly the voice of 5 leading health bodies in France – the societies of paediatrics, public health, ophthalmology, child and adolescent psychiatry, and health and environment about the government stopping children under 6 years from exposure to screens, including TV to avoid permanent brain damage. According to Willsher (2025), TV, tablets, computer systems, video games and smartphones have had heavy impact on the young generation through sacrificing on the altar of ignorance; this is a serious matter, and governments should begin to sit up and curtail the damaging effects the screen is having on children, globally. Furthermore, there should be enactment of public policies to protect the future generation from damage to brain development, as screens in whatever form do not meet children needs (Willsher, 2025).

In consonance with Councilonrecovery.org (2018), technology could be found everywhere, and children stare down at iPhones and android smartphones regularly and keep their eyes glued to tablets / laptops, instead of observing the environment around them; these effects of the versatile machine are destructive to mankind and are the challenges associated with technology (Willsher, 2025).

Technology addiction

Councilonrecovery.org (2018) explained technology addiction as increasingly frequent and obsessive technology-related behaviour despite negative consequences to the user of the machine. This is an over-indulgence of the use of technology, which can significantly, impact lives.

Though humans need technology to survive in these contemporary times, a severe over-reliance on the tool or an addiction to certain facets of its use can also lead to bodily destruction / devastation. Technology over-dependence / addiction could lead to children-consequences of annoyance, feelings of isolation, extreme anxiety and depression, when they are away from the tool. To prevent this damaging effect of technology misuse, children must be protected from this menace before they occur.

The addictive nature of technology

As explained by Councilonrecovery.org (2018), technology fulfills human natural need for learning, stimulation, interaction and changes in the environment with great efficiency. When children experience stress, example romantic rejection or poor grade in examination, technology could become a quick and easy way to fulfill basic needs, and as such, could become addictive.

Technology impacts the pleasure systems of the human brain in ways like substances, as it provides the brain with some of the same dopamine / feeling-good rewards that alcohol, drugs and other high-risk

behaviours might; it can be a boredom buster, social lubricant and escape from reality (Councilonrecovery.org, 2018). Again, Councilonrecovery.org (2018), informed that video and computer games, smartphones and tablets, social media and the internet provide a variety of access points that can promote dependence on technology and subsequently, leading to the negative consequences.

Furthermore, Councilonrecovery.org (2018), mentioned that a new study found out that smartphone addiction is correlated with neurochemical imbalances in the brain; neuroradiologists used magnetic resonance spectroscopy, which is a specialized type of MRI that measures the brain's chemical composition to gain unique insights into the brains of people who are believed to have addictive patterns in their use of digital technology.

Moreover, Councilonrecovery.org (2018), stated that a study in 2017 by researchers at Ben-Gurion university in Israel, found that heavy smartphone users display changes in social cognition, impaired attention and reduced right prefrontal cortex (most anterior part of the brain's frontal lobe) excitability. In addition, researchers found that smartphone-addicted teenagers have significantly higher scores in depression, anxiety, insomnia severity and impulsivity.

Some negative effects of technology

As indicated by Medicalnewstoday.com (2025), the contemporary technology is attracted to many people, but there are downsides of the machine, as excessive social media through mobile phones or laptops may result in eyestrain, neck pain and difficulty with sleeping. Some of these pitfalls of excessive technology-use, as illustrated by Medicalnewstoday.com (2025) are illustrated below.

i. **Depression** – review of a research in 2021 found a significant association between excessive time spent on social media and depression symptoms; this is more pronounced in less healthy ways of use of the technology.

ii. **Eyestrain** – smartphones and computer systems can engage the attention of a user for long periods, which may lead to eyestrain with symptoms of dry, tired eyes and a headache. Taking breaks away from the screen is advisable to reduce the likelihood of the problem.

iii. **Sleep problems** – usage of technology close to bedtime or during the night may interfere with sleep. A study of young adults in 2021 found that cell-phone use before bed, especially with emotionally charged content led to difficulty with sleeping.

iv. **Changes in physical activity (more sedentary)** – the modern technologies encourage users to be more sedentary while watching television, playing games on smartphones, laptops, tablets, etc. and using the internet. Numerous research conducted from 2020 indicated a strong association between electronic devices and increased time spent sitting, which could have harmful long-term effects.

v. **Social isolation** – study in 2017 of young adults in the US with ages between 19 and 32 years found that people with higher social media practice were more than 3 times as likely to feel socially isolated than those who did not use it often. However, knowing how to use the technology healthily is very essential.

vi. **Brain effect on children** – technology affect children the same way as adults, however because their brains are still in the development stage, there would be unique concerns.

vii. **Behavioural problems** – a study in 2019 in the US found that a higher amount of screen time in children aged 9 and 10 had links to increased behavioural problems; this was largely explainable by the effect of technology use on sleep, as the more sleep enjoyed by a user provided fewer behavioural problems.

viii. **Difficulty concentrating** – a study from 2019 in Canada found an association between screen time in children under 5 years and a greater prevalence of symptoms resembling attention deficit hyperactivity disorder (ADHD). Specifically, it was found that children getting screen time of over 2 hours a day had a 7.7-fold higher risk of meeting the criteria for ADHD. Additionally, out of over 2,400

children used for the study only 24 (1%) met the criteria for ADHD and these children were from higher socio-economic backgrounds (Medicalnewstoday.com, 2025).
Medicalnewstoday.com (2025), summarised the above by stating that while technology has many positive effects, there are also some possible risks, as image-based social media platforms may influence body image and the increased use of electronic devices may cause eyestrain or reduced physical activity. In children, prolonged screen time may affect behaviour or cognitive development.

The 20-20-20 rule for digital use
To protect humans, especially children from the damages of technology-use, an international optometric body has provided a simple method to help avoid the negative effects of prolonged use of the screen. As stated by Medicalnewstoday.com (2025), the American Optometric Association advised using the 20-20-20 rule when handling any digital machine for longer periods of time. To apply the rule, after 20 minutes of screen time, the user needs to take 20 second break to look for something at least 20 feet away; doing this would help reduce the strain on the eyes from staring at a screen for a continuous period (Medicalnewstoday.com, 2025).

Who is a child?
A child is defined by Hornby (2020), as a young human being who is not yet an adult and an adult according to the same dictionary is a fully grown-up person who is legally responsible for their actions. Therefore, children are not responsible for their actions and must be guided in any action they resolve to take. Again, Lansdown and Vaghri (2022) defined a child as every human being under the age of eighteen (18) years and must be recognized as a child without discrimination based on any attribute of the child or parent; this definition must extend equally to all genders without discrimination. This definition of a child is as stated in the United Nations Convention on the Rights of the Child.
As reported by the Unicef.org (n. d.), the United Nations Convention on the Rights of the Child is an important agreement by countries who have promised to protect children's right; the convention explains who children are, all their rights and the responsibilities of governments. Furthermore, all the rights are equally important and cannot be taken away from children (Unicef.org, n. d.).

Stages of childhood
Woodwardenglish.com (2025) categorised children under 7 stages of growth and described the groups as stated below.
i. **Newborn** – a recently born child up to 2 months; they are small and fragile and should therefore, be handled with extreme care and attention. However, Spainexchange.com (2025) group the newborn up to 3 months.
ii. **Infant** – a baby or very young child up to 1 year old. They learn to focus their vision, explore and learn about things around them; they are noted for putting everything they lay hands on to reach into the mouth. Spainexchange.com (2025) agrees with the above.
iii. **Toddler** – a child who is between 1 and 3 years old and the (group) name comes from the word *toddle*, which means to walk unsteadily. Toddlers learn to walk and become agitated as they discover the world; they also cry a lot and throw tantrums under sudden uncontrolled anger and frustration.
iv. **Preschooler** – a child between the age of 3 and 5 years; it is a stage just before they enter school, but these days even infants are already in school to allow the parents have some respite / relief. The (group) name comes from *preschool*, a type of school for children between the ages of 3 and 5 years. The school is sometimes known as kindergarten.
vi. **Child** – this is a young human who is not yet adult and between 5 and 12 years. Spainexchange.com (2025) called this group - middle childhood. An informal word for a child is kid. This group of children are in their developmental path and contributes substantially to the adolescent and adult they would become. The stage is also characterized by increased independence, social interaction and cognitive growth.

vii. **Teenager** – a young person who is between 13 and before 19 years. The name is derived from the last part of the numbers thirTEEN, fourTEEN, ... nineTEEN. Vocabulary.com (2025) also defined teenager (12 – 19 years) as children who have completed elementary school, growing quickly and in the last stage of development before attaining adulthood; they are also known as adolescents or minors (Woodwardenglish.com, 2025; Spainexchange.com, 2025; Vocabulary.com, 2025).

METHODOLOGY

The evils associated with childhood technology-use are gargantuan challenge confronting the globe. These evils have permeated the lives of some of the younger generation to the extent that some people look at technology as a risk, which a remedy should be found as early as possible. Technology is a modern tool which can be used for learning and development; it holds the key to the growth and development of nations, as all sectors of human life are benefiting tremendously.

Children are creation from God through human procreation, and they form a generational group, who would grow to take over from their aging parents, the old generation. Every effort should, therefore, be made to train them very well on technology-use for assurance that mankind would continue to exist with good ideas / knowledge to manage the environment sustainably.

There is the need for every parent to seriously train their children very well on the use of technology, which is a versatile tool for learning and development; technology is a sine qua non for growth and development of nations, which benefit mankind. Consequently, the main objective of this study is to train children very well on technology-use and protect them from misuse of this important instrument, which invariably affect their contribution to nations' development.

Survey design methodology was used to collect primary data from the Greater Accra-Tema Region, Ghana. Greater Accra-Tema metro is the capital city of Ghana, which is inundated with a lot of activities, involving manufacturing industries, educational institutions, inter/national governmental agencies and recreational centres. Again, the city is populated with Ghanaians and foreigners from different countries around the globe. In view of the above, they would be knowledgeable to complete the Questionnaire better to collect the needed data for this research. A good and appreciated convenience sizeable sample size was covered, and with considerable number of respondents who willingly and wholeheartedly completed the questionnaire / survey.
The data collected through the sampling strategy was subjected to qualitative analyses (Bell, Harley & Bryman, 2022). The collected data was edited, coded and analysed into frequencies which presented valuable data for good interpretation from the analyses of the primary data (Bell et al., 2022).

Questionnaire was used for data collection, as it provided an effectual technique of collecting responses quickly from the respondents. The Questionnaire, as an instrument for data collection was designed, re-arranged into goggle-form, piloted and tested to substantiate the questions, to make sure they were unambiguous to collect good data from the respondents. Questions were reviewed where necessary, based on the response from the initial respondents, during the pilot study. This was done to improve the trustworthiness and validity of the questionnaire.

Secondary data was collected from libraries and other sources. This was merged with the primary data collected from the questionnaire and coded for easy access. The data was also keyed into the computer system, accessed, analysed and presented in statistical summary Tables, as illustrated below (Bell et al., 2022).

Findings from the study were then put together, leading to conclusions and recommendations to be drawn from the results. Respondents who were interested in a copy of the outputs from the research indicated through a request and were informed that their participation was confidential and voluntary; this was indicative in the bio data.

Analyses and discussions of Results

This data gathered from respondents was edited where necessary, coded and analysed for presentation (Bell et al., 2022). In total, 80 Questionnaire Forms were distributed (using Online Google Forms) to respondents from Greater Accra-Tema metro, Ghana. 74 out of the 80 Questionnaire Forms sent out were responded to, duly completed and returned.

This gave the total Questionnaire for the analysis to be 74 out of 80 sent out, which yielded a response rate of 93%; this was okay, as it represented the views of people from Ghana, and by extension the population of the globe.

Bio Data Statistics

The bio data is made up of sex, type of respondent, educational level (if student), other (not student & not employer / employee) and employer / employee (position held). These characteristics were found to be indicators needed of respondents for the research.

For sex, the study identified two (2) types – 'Female' and 'Male'. 'Female' obtained 26% and 'Male' obtained 74%, indicating that the respondents were mostly male; the number of males was therefore, more than the female in this research. See Table 1.

For the type of respondent, the study identifies the types – 'Student', 'Employee/Employer' and 'Not Working'. The prominent type of Respondent for the Questionnaire Forms was 'Student', which scored 72%. 'Employee/Employer' had 23% and 'Not Working' had 5%. See Table 2.

Regarding the educational level (if student and not working) state type of education, the following scores were obtained: 'University' - 94% and 'Professional Studies' – 6%. See Table 3.

The Respondents for Employee / Employer & Students' working scored: 'Technical/Professional' - 38%, 'Support Services' - 25%, 'Management' - 21%, 'CEO' - 12% and 'Directorate' - 4%. See Table 4.

ANALYSES OF RESULTS AND FINDINGS

What do Children use Technology for?

The question on 'What is Technology?' garnered 'Instructions designed and embedded scientifically in a machine for purposes of making human life easier' - 99%; 'Instrument for carrying out only one task' – 1%; The rest scored 0%. See Table 5.

About the question on 'Do Children need Technology', the scores were: 'Yes' – 97% and 'No' – 3%. See Table 6.

For the question on 'Do Children need Technology? If 'Yes', gave these results:

'Learning new things that benefit them' – 51%; 'Being abreast with happenings' – 19%; 'Entertaining themselves' – 17% and 'Satisfying themselves with what they want to know' – 13%. See Table 7.

About any additional view on 'why children need Technology' produced the following answers from the respondents: 'Research purposes/Learning of new things' – 37%; 'Enhances learning by providing access to educational resources, interactive lessons, and digital tools that make learning

more engaging and effective' – 33%; 'Develop problem solving skills' – 21% and 'Learn basic computer skills and typing to succeed in today's digital world' – 9%. See Table 8.

Regarding the question 'Why children need Technology (if No)? produced these scores: **'**With strong foundation of human warmth & learning from the environment & people around them including books, they won't have to depend on technology so much' – 40%; 'Affects children's focus & life' – 20%; 'Could hinder social and emotional development by reducing face-to-face interactions and real-world experiences' – 20% and 'bring distractions and lead children to certain unwanted behaviours in school and home' - 20%. See Table 9.

What evils of technology-use should children be protected from?

To the question 'Are there evils with technology-use by children? contributed these scores: 'Yes' – 92% and 'No' – 8%. See Table 10.

Then, a follow-up question on 'What evils are associated with children using Technology (if Yes)? accumulated the answers and scores: 'Sites of pornography' – 30%; 'Sites of occultism' – 25%; 'Man & woman sexual lives' – 23% and 'Programmes for adults, including lessons on man & woman living together' – 22%. See Table 11.

The question on 'Any additional evils of technology-use to prevent children from produced the scores: 'Harassment, intimidation, cyberbullying & online predators' – 44%; 'Drug abuse, gambling, hacking & offensive language' – 22%; 'Inappropriate content & vocabulary' – 15% and 'Prevent children from developing essential social skills, experiencing real-world interactions and engaging in physical activities' – 8%. See Table 12.

Regarding the question on 'Are there evils associated with technology-use by children (No)? gave the scores: 'When used responsibly and under proper supervision, it can enhance learning, creativity, and communication without causing harm' – 50% and 'Technology is programmed for the mind' – 50%. See Table 13.

How are children to be protected from the evils of technology-use?

The question 'Do you know (web)sites for children's programmes (Yes/No)' collected the scores: 'Yes' – 89% and 'No' – 11%. See Table 14.

A follow-up question on 'If answer is Yes, how do you know these sites' brought in the scores: (a) 'Indication of program-content for children' – 39%; (b) 'Most sites do specify the minimum age to view their programs' – 33%; (c) 'Indication of toys for children or children playing' – 28%. See Table 15.

About the question on 'Any additional information on sites meant for children? yielded the following scores: (a) 'Parents & caregivers should search for children's sites, incl. National Geographic kids, PBS Kids, Coco Melon, Byjus.com, Children learning & Kid's health' – 70%; (b) 'Sites that have parental controls and are Children's Online Privacy Protection Act (COPPA) compliant' – 10%; (c) 'Some sites do not allow underage to view them, as below 18years, you are considered as a minor' – 10%; (d) 'Type of language used for the site' – 5%; and (e) 'Some restricted sites require ID card' – 5%. See Table 16.

Concerning the question on 'What do you suggest registered websites should do to protect children from watching evil (adult) programmes? collected the scores: (a) 'Implementation of robust age verification systems, enforcing strict content moderation policies and providing parental control tools, VPN, to block access to adult content' – 79%; (b) 'Presentation/upload of a valid national ID /drivers' licence to prove age' – 16%; (c) 'AI-based content filtering face-sensor to prevent children from accessing inappropriate content' – 3%; and (d) 'Flag and abolish all cartoons that promote gay and lesbianism' – 2%. See Table 17.

In connection with the question 'If you are a parent, do you know how to protect your children from viewing evil sites (Yes/No)?' gave the scores: (a) 'Yes' – 85%; and (b) 'No' – 15%. See Table 18.

Finally, the question on 'If Yes, how do you protect your children from viewing such evil sites?' produced the following scores: (a) 'Google/YouTube allows the blocking of

certain search results; use browser extension, eg. VPN or DNS in the browser to protect children' – 56%; (b) 'Watching/monitoring children's programs to make sure they are okay for them' – 25%; (c) 'Connect site to parent email account & create family associated accounts on devices for the children' – 8%; (d) 'Advise strongly against watching programs not intended for them' – 6%; and (e) 'Acquire mobile devices specifically programmed for children, which deny / block access to harmful sites & provide only educational content' – 5%. See Table 19.

Discussion of Results – Qualitative Analyses

Bio data

The results enumerated above are views extracted from the respondents: they consisted of female (26%) and male (74%), indicating more males responded to the questionnaire than females. The respondent type was made up of students (72%), employee/employer (23%) and non-workers (5%); the non-workers are pensioners. The students comprised those in university, 94% and professional studies, 6%. The employee / employer was made of technical / professionals – 38%; support services – 25%; management – 21%; CEO – 12%; and directorate – 4%. This is a rich data of matured respondents, who know the importance and values of technology to children in this contemporary times / society.

What do children need/use technology for?

Technology and how children are to use it to benefit them, was at the centre of this research. This is a versatile tool loaded with lots of matured / adult information which is **no go area** for the younger generation.

So, technology should be well understood by the respondents; therefore, a score of 99% by the respondents' understanding of technology as 'the instructions designed and embedded scientifically in a machine for purposes of making human life easier', was imperative for the research. Only 1% of respondents scored technology as 'the instrument for carrying out only one task'.

The question of 'Do children need technology?' required 'Yes/No' answer. 'Yes' scored 97% and 'No' had 3%; this is equally essential, as society cannot deny children from learning and using technology, but how they use it, is the concern with the study.

Those who responded 'Yes', were further asked to select answers that indicated children need technology. 'Learning new things to benefit them' and 'Being abreast with technology' scored 51% and 19% respectively, making 70% of the respondents believing that children need technology to learn and making them up-to-date with any new developments / happenings globally. This is crucial to the research, as, if children do not actually need technology, then there would be no need for the study. On the other hand, 'Entertainment' and 'Satisfaction with what they want to know' scored only 30%, very low, meaning that the emphasis of children needing technology for learning and being abreast with global events are paramount than for entertainment and merely satisfaction.

'Additional views / why children need technology' scored: (a) 'Research purposes / Learning new things – 37%; (b) 'Enhances learning by providing access to educational resources, interactive lessons, and digital tools that make learning more engaging and effective' – 33%; and (c) 'Develop problem solving skills' – 21%.

The above 2 responses indicate, there is the need for children to use technology, as they would surely grow and apply the tool efficiently / effectively to manage problems that confront the globe. The respondents who offered 'No' answer to 'children needing technology' hold the view that (a) 'With strong foundation of human warmth & learning from the environment & people around them including books, they won't have to depend on technology so much, scoring 40%. Though this is true, as developing an all-round child is better than feeding them always on technology, the versatile instrument cannot be taken off entirely from children. Other answers like (b) 'Affects children's focus and life'; (c) 'hinder social and emotional development by reducing face-to-face interactions and real-world experiences'; and (d) 'Brings distractions and lead children to certain unwanted behaviours in school and home' scored 20% each. These are good answers, however children need to learn how to use technology whilst young, so that after the adolescent stage, they can effectively use the tool for development and managing global affairs.

What evils of technology-use should children be protected from?

To the question 'Are there evils associated with technology-use by children (Yes/No)? scored 'Yes' – 92% and 'No' – 8%. Majority of the respondents, 92% favours the fact that there are evils associated with technology-use by children and only 8% does not see anything evil when children use technology; this is the fulcrum of the study and with majority of respondents supporting the statement of evils associated with technology-use by children underscores the importance / significance of the research. Furthermore, the 92% respondents who agreed with the fact that there are evils associated with technology-use by children selected the answers provided with scores: (a) 'Sites of pornography' – 30%; (b) 'Sites of occultism' – 25%; (c) 'Sites of man and woman sexual lives' – 23%; and (d) ' Programmes for adults, including lessons on man & woman living together' – 22%. These are items to be excluded from children's view, as they could easily influence a child's life at the infant stage to indulge in them.

Additional evils associated with technology-use by children, as stated and scored by the respondents were: (a) 'Harassment, intimidation, cyberbullying & online predators' – 44%; (b) 'Drug abuse, gambling, hacking & offensive language' – 22%; (c) 'Inappropriate content & vocabulary' – 15%; (d) 'Protection from screen addiction, as excessive use can lead to reduced physical activity, poor social interactions, and negative effects on mental health' – 11%; and (e) 'Prevent children from developing essential social skills, experiencing real-world interactions and engaging in physical activities' – 8%. All the stated reasons to protect children from technology-use are vital to enable them to develop and grow their faculties properly until they are above the adolescent stage, where they can make good decisions for themselves; at the younger age (childhood), they are immature with frail faculties, which could easily imbibe anything they are exposed to.

Those who answered 'No' to the question 'Are there evils associated with technology-use by Children' gave the following reasons and scores: (a) 'When used responsibly and under proper supervision, it can enhance learning, creativity, and communication without causing harm' –50%; and (b) 'Technology is programmed for the mind. These respondents formed only 8% of the total, and it could easily be seen that they may not be familiar with who and how children are inquisitive to learn / know everything within their purview. However, the answer (a) is just like stating 'Yes' and explaining further how children should be protected from the evils of technology-use.

How are children to be protected from the evils of technology-use?
In reference to the question 'Do you know (web)sites for children's programmes (Yes/No)?' scored: 'Yes' – 89% and 'No' – 11%. Most of the respondents know websites which are dangerous / evils for children-use, as 89% is a huge value to guide the research in directing children to the correct sites to view.

Those who selected 'Yes' were further asked to select from a list how children would be guided to go to these useful sites and the scores were: (a) 'Indication of program-content for children' – 39%; (b) 'Most sites do specify the minimum age to view their programs' – 33%; and (c) 'Indication of toys for children or children playing' – 28%.

However, 'Additional information on sites meant for children' collected the following and scoring from the respondents: (a) 'Parents & caregivers should search for children's sites, including National Geographic kids, PBS Kids, Coco Melon, Byjus.com, Children learning & Kid's health' –70%; (b) 'Sites that have parental controls and are Children's Online Privacy Protection Act (COPPA) compliant' – 10%; (c) 'Some sites do not allow under-age to view them; below 18years, you are considered as a minor' – 10%; (d) 'Some restricted sites require ID card' – 5%; and (e) 'Type of language used with the Sites – 5%. The above information on the sites children should view on technology is appropriate and would surely guide parents and caregivers to help children benefit tremendously from technology-use.

Children can never be excluded from technology-use, but what they should view and the essential sites that would inure to their advantage must be encouraged. The need for parents, caregivers and instructors to help build good foundation of technology-use by children is a forgone conclusion, so that when they pass the adolescent stage they would be able to explore the multipurpose tool expediently.

In respect of the question 'What do you suggest registered websites should do to protect children from watching evil (adult) programmes?' collected the following useful information from the respondents and with the scores: (a) 'Implementation of robust age verification systems, enforcing strict content moderation policies and providing parental control tools, eg. VPN, to block access to adult content' – 79%; (b) 'Presentation/upload of a valid national ID / drivers' licence to prove age' – 16%; (c) 'AI-based content filtering face-sensor to prevent children from accessing inappropriate content (which is not currently available) – 3%; and (d) 'Flag and abolish all cartoons that promote gay and lesbianism' – 2%. These are important items website developers should begin to incorporate into website development, if not already being done. This would go a long way to help parents guide, control, monitor and train children better on the use of technology at home; the educational fraternity should also do well to come out with an equally good system to train the younger generation on technology-use.

The question on 'If you are a parent, do you know how to protect your children from viewing evil sites (Yes/No)?' garnered the scores: 'Yes' – 85%; and 'No' – 15%.
Further probe for those who selected 'Yes' obtained the following information and scores: (a) 'Google/YouTube allows the blocking of certain search results; use browser extension, eg. VPN or DNS in the browser to protect children' – 56%; (b) 'Watching/monitoring children programs to make sure they are good for them' – 25%; (c) 'Connect site to parent email account & create family associated accounts on devices for the children' – 8%; (d) 'Advise strongly against watching programs not for them' – 6%; and (e) 'Acquire mobile devices specifically programmed for children, which deny access to harmful sites & provide only

educational content' – 5%. These are suggestions from the respondents that are being used to control, guide and monitor children from viewing / watching adult programs on technology, which would advertently, inure to the advantage of children, and lead to good training on technology-use.

There are no qualms about technology being a versatile tool, and as such every human being should be able to use it to his / her benefit. However, for children, because their faculties, including the mind, are not yet fully developed, they need guidance and direction to view only programs that would inure to their benefits. Technology is loaded with mature and adult programs and children, the future managers of the environment, should not be allowed to destroy their lives prematurely with adult programs that would not benefit them but destroy their lives

The respondents have provided priceless contributionns to the research, and these would go a long way for the researcher to come out with good conclusions and recommendations to guide parents, caregivers and instructors to train children very well on the use of technology.
The above findings from the study have helped the researcher to come out with the following findings (knowledge gaps) for deliberations by stakeholders in guiding, controlling and monitoring children globally on the use of technology:

A. The study has established that children need the use of technology (Yes – 97% & No – 3%), and with support of the following contributions from the respondents:
1. Research purposes / learning new things to benefit them.
2. Enhances learning by providing access to educational resources, interactive lessons and digital tools that make learning more engaging and effective.
3. Develop problem solving skills and being abreast with technology-use.
4. Learn basic computer skills and typing to succeed in today's digital world.
5. Entertaining themselves with computer games.

B. The evils associated with technology-use by children (Yes- 92% & No - 8%), and are found to be:
1. Harassment, intimidation, cyberbullying and online predators.
2. Drug abuse, gambling, hacking and offensive language.
3. Inappropriate content and vocabulary.
4. Protection from screen addiction, as excessive use can lead to reduced physical activity, poor social interactions, and negative effects on mental health.
5. Prevent children from developing essential social skills, experiencing real-world interactions and engaging in physical activities.
6. Pornography and occultism.
7. Programmes for adults, including lessons on man and woman living together and their sexual lives.

C. What registered websites should do to protect children from watching evil (adult) programmes were:
1. Implementation of robust age verification systems, enforcing strict content moderation policies and providing parental control tools, eg. use of VPN to block access to adult content.
2. Presentation/upload of a valid national ID / drivers' licence to prove age.
3. AI-based content filtering face-sensor to prevent children from accessing inappropriate content (not available currently).
4. Flag and abolish all cartoons that promote gay and lesbianism.

D. Reasons that would contribute to parents, caregivers and instructors to comfortably control and monitor children on safe use of technology are:

1. Parents & caregivers should search for children's sites, including National Geographic kids, PBS Kids, Coco Melon, Byjus.com, Children learning and Kid's health and make them available for the younger generation.
2. Use sites with parental controls and are Children's Online Privacy Protection Act (COPPA) Compliant.
3. Sites for below 18 years should be made available for children's view.
4. Restricted sites should be prevented from viewing by children.
5. Sites with children's language should be made available for the younger generation.
6. Program-content for children, eg. toys, children playing, etc. should be made available for children.

CONCLUSION

The study has investigated and found out that technology is a versatile tool, which should be introduced to children, but they must be controlled and monitored when using the tool, as the tendency to veer into watching adult programs is strong for them.

In addition, technology has both good and evil sides for children's use. Children need technology to learn new things and develop their faculties for growth, however watching adult programs, known as the evils of technology, would drastically affect and destroy their lives.

The findings from the study are tolerant for consideration by advocates of children's rights, globally to fill the knowledge-gap of evils of technology-use by children:

i. 97% of respondents supported children's need for technology and with only 3% not supporting the idea.
ii. 92% of respondents supported that there are evils with technology-use by children with only 8% not supporting it.
iii. 85% of respondents do know how to protect children from viewing evil sites, whilst 15% do not know.

These are vital statistics gathered from the study, which would help stakeholders championing children's welfare to seriously consider for better training of technology-use by parents, caregivers and instructors.

Furthermore, the study has established that children need the use of technology for:

1. Research purposes / learning new things to develop / benefit them.
2. Enhanced learning by providing access to educational resources, interactive lessons and digital tools that make learning more engaging and effective.
3. Problem solving skills and being abreast with technology-use.
4. Learning basic computer skills and typing to succeed in today's digital world.
5. Entertaining themselves with computer games.

In addition, the evils of technology-use by children have also found to be:

1. Harassment, intimidation, cyberbullying and online predators.
2. Drug abuse, gambling, hacking and offensive language.
3. Inappropriate content and vocabulary.
4. Screen addiction, as excessive use can lead to reduced physical activity, poor social interactions, and negative effects on mental health.
5. Preventing children from developing essential social skills, experiencing real-world

interactions and engaging in physical activities.
6. Watching pornography and occult programmes.
7. Watching programmes for adults, including lessons on man and woman living together and their sexual lives.

Finally, the reasons that would address the protection of children from the evils of technology-use and contribute to parents, caregivers and instructors to comfortably control and monitor children on safe use of technology are:

1. Parents & caregivers should search for children's sites, including National Geographic kids, PBS Kids, Coco Melon, Byjus.com, Children learning and Kid's health and make them available for the younger generation.
2. Use sites with parental controls and are Children's Online Privacy Protection Act (COPPA) compliant.
3. Sites for below 18 years should be made available for children's view.
4. Restricted sites should be prevented from viewing by children.
5. Sites with children's language should be made available for the younger generation.
6. Program-content for children, eg. toys, children playing, etc. should be made available for children.

These are hard facts of statistics and knowledge-gap information which must be embraced by all parents, caregivers, instructors, institutions and children's welfare agencies, globally.

Recommendation

Technology is well understood by the respondents, as 99% scored it right, which is good for the study. Technology is a versatile instrument made for learning new things for development and nobody should be excluded from this. However, the quantum of usage should be properly apportioned / curtailed by the level of growth of children.

Children and the different levels of growth should be well defined for the usage of the machine, as learning of adult materials from technology would not help them at all but destroy their lives.

The statistics enumerated above and produced below:

i. 97% of respondents supported children's need for technology and with only 3% not supporting the idea

ii. 92% of respondents supported that there are evils with technology-use by children with only 8% not supporting it

iii. 85% of respondents have ideas on how to protect children from viewing evil sites, whilst 15% do not know are very important for knowing that there is a time-bomb that the globe is sitting on, and children should be carefully, purposefully and systematically groomed on the use of technology to inure to their benefit. Based on the above findings, it can appropriately be said that parents, caregivers, institutions and stakeholders on children's welfare should begin to introduce controls, guidance and monitoring of children on technology-use. Allowing children, the sole responsibility to view any programme on technology could be very disastrous for the child and to the detriment of the parents and global society.

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TABLES

Bio Data

Table 1: Sex			
Sex Type	**Frequency**	**Valid Percent**	**Cumulative Percent**
Female	19	26	26
Male	55	74	100

Table 2: Respondent Type			
Respondent Type	**Frequency**	**Valid Percent**	**Cumulative Percent**
Student	53	72	72
Employee/Employer	17	23	95
Not Working	4	5	100

Table 3: Educational Level (if Student)			
Educational Level	**Frequency**	**Valid Percent**	**Cumulative Percent**
University	50	94	94
Professional Studies	3	6	100

Table 4: Employee/Employer			
Position in Organization	**Frequency**	**Valid Percent**	**Cumulative Percent**
CEO	3	12	12
Directorate	1	4	16
Management	5	21	37
Technical/Professional	9	38	75
Support Services	6	25	100

What do children need/use technology for?

Table 5: What is Technology?

What is Technology?	Frequency	Valid Percent	Cumulative Percent
Instructions designed and embedded scientifically in a machine for purposes of	73	99	99
Instrument for carrying out	1	1	100

Table 6: Do children need Technology?

Do Children need Technology?	Frequency	Valid Percent	Cumulative Percent
Yes	72	97	97
No	2	3	100

Table 7: Do Children need Technology (if Yes)? Select as applicable

Children needing Technology for?	Frequency	Valid Percent	Cumulative Percent
Learning new things that benefit them	69	51	51
Entertaining themselves	23	17	68
Being abreast with happenings	26	19	87
Satisfying themselves with what they want to know	18	13	100

Table 8: Any additional views / why children need technology? State

Additional reasons for need for technology	Frequency	Valid Percent	Cumulative Percent
Develop problem solving skills	5	21	21
Enhances learning by providing access to educational resources, interactive lessons, and digital tools that make learning more engaging and effective	8	33	54
Research purposes/Learning of new things	9	37	91
Learn basic computer skills and typing to succeed in today's digital world	2	9	100

Table 9: Why children need Technology (if No)? State			
Reasons why children don't need technology	**Frequency**	**Valid Percent**	**Cumulative Percent**
Affects children's focus & life	1	20	20
With strong foundation of human warmth & learning from the environment & people around them incl. books, they won't have to depend on technology so much	2	40	60
Can hinder social and emotional development by reducing face-to-face interactions and real-world experiences	1	20	80
brings distractions and lead children to certain unwanted behaviours in school and home	1	20	100

What evils of technology-use should children be protected from?

Table 10: Are there evils with technology-use by children (Yes/No)?			
Are there evils with technology-use by children?	**Frequency**	**Valid Percent**	**Cumulative Percent**
Yes	67	92	92
No	6	8	100

Table 11: What evils are associated with children using Technology (if Yes)? Select as applicable			
Evils of technology-use associated with children	**Frequency**	**Valid Percent**	**Cumulative Percent**
Programmes for adults, including lessons on man & woman living together	43	22	22
Man & woman sexual lives	45	23	45
Sites of occultism	48	25	70
Sites of pornography	58	30	100

Table 12: Any additional evils of technology-use Children should be protected from? State			
Additional evils of technology-use to prevent children from	**Frequency**	**Valid Percent**	**Cumulative Percent**
Drug abuse, gambling, hacking & offensive language	6	22	22
Harassment, intimidation, cyberbullying & online predators	12	44	66
Protection from screen addiction, as excessive use can lead to reduced physical activity, poor social interactions, and negative effects on mental health.	3	11	77
Inappropriate content e.g. developing essential social skills, experiencing real-world interactions, and engaging in physical activities	4	15	92

Table 13: Are there evils associated with technology-use by children (No)? State			
No evils with technology-use by children	**Frequency**	**Valid Percent**	**Cumulative Percent**
Technology is programmed for the mind	2	50	50
When used responsibly and under proper supervision, it can enhance learning, creativity, and communication without causing harm	2	50	100

How are children to be protected from the evils of technology-use?

Table 14: Do you know (web)sites for children's programmes (Yes/No)? Select			
Do you know websites for children's programme	**Frequency**	**Valid Percent**	**Cumulative Percent**
Yes	64	89	89
No	8	11	100

Table 15: If answer is 'Yes', how do you know these sites? Select as applicable			
Sites are known through	**Frequency**	**Valid Percent**	**Cumulative Percent**
Indication of program-content for children	51	39	39

Indication of toys for children or children playing	36	28	67
Most sites do specify the minimum age to view their programs	43	33	100

Table 16: Any additional information on sites meant for children? State

Additional information on sites meant for children.	Frequency	Valid Percent	Cumulative Percent
Type of language used with the Sites	1	5	5
Parents & caregivers should search for children's sites, incl. National Geographic kids, PBS Kids, Coco Melon, Byjus.com, Children learning & Kid's health.	14	70	75
Sites that have parental controls and are Children's Online Privacy Protection Act (COPPA) compliant	2	10	85
Some sites do not allow under age to view them; below 18years, you are considered as a minor	2	10	95
Some restricted sites require ID card	1	5	100

Table 17: What do you suggest registered websites should do to protect children from watching evil (adult) programmes? State.

Suggestions for program-protection websites for children?	~~Frequency~~	Valid Percent	Cumulative Percent
Implementation of robust age verification systems, enforcing strict content moderation policies and providing parental control	44	79	79

tools, VPN, to block access to adult content.			
AI-based content filtering face-sensor to prevent children from accessing inappropriate content.	2	3	82
Flag and abolish all cartoons that promote gay and lesbianism	1	2	84
Presentation/upload of a valid national ID /drivers' licence to prove age.	9	16	100

Table 18: If you are a parent, do you know how to protect your children from viewing evil sites (Yes/No)? Select

Do you know how to protect your children from viewing evil sites?	Frequency	Valid Percent	Cumulative Percent
Yes	62	85	85
No	11	15	100

Table 19: If 'Yes', how do you protect your children from viewing such evil sites? State

Protection of children from viewing evil sites	Frequency	Valid Percent	Cumulative Percent
Advise strongly against watching programs not for them	4	6	6
Watching/monitoring children Programs to make sure it's good for them	16	25	31
Google/You Tube allows the blocking of certain search results; use browser extension, VPN or DNS in the browser to protect children	36	56	87
Connect site to parent email account & create family associated accounts on devices for the children	5	8	95

Acquire mobile devices specifically programmed for children, which deny access to harmful sites & provide only educational content.	3	5	100