

Assessment of Parental Control of Online Content for Children in Nairobi

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Abstract

The paper examines parental control of online content for children in Nairobi. Using a descriptive research design, data was collected from 100 respondents in churches, neighborhoods, and school WhatsApp groups. Interviews were conducted with 8 key informants drawn from civil society and parental organisations. Findings reveal frequent social media use by both parents and children, with many parents struggling to utilize parental control tools effectively, highlighting a need for training. Urban children often outpace their parents in tech skills, while rural parents remain less aware of internet risks. Stakeholders are actively educating parents, but stricter online registration processes and targeted awareness programs are crucial. The paper recommends government-led campaigns and school-based initiatives to enhance digital literacy and safety.

Keywords: Parental Control, Online Content, Children, Nairobi County, ICT, Content Moderation

Introduction

Few inventions have reshaped the modern world as profoundly as the internet. This transformative technology has revolutionised education, boosted economic growth, influenced political landscapes, and redefined social interactions, making it an indispensable part of contemporary life. For instance, government services are now digitised, easily accessible and convenient (Walubengo, 2023). Students now have easier access to resources from online libraries, databases and other websites (Mwangi, 2024). However, there are risks associated with the Internet, particularly in social networking sites for children (Cleveland Clinic, 2024). Research indicates that while policymakers, governments and social media platforms are obligated to create controls to protect users, the greater burden of protecting the child lies with the parent.

The number of people using social media is increasing. Reuters (2023) reported that TikTok was the fastest-growing social network, with 44% of users and is popular among 18–24-year-olds. According to Cowling (2024), there were 13.05 million social media users in Kenya. Kenya led in world usage of TikTok at 54% for any purpose and 29% for news (Reuters Institute Digital News, 2023). Cowling (2024) stated that WhatsApp and TikTok were the most frequently used social media platforms in Kenya, followed by Facebook and Instagram.

However, safety concerns for children on social media exist. Cleveland Clinic (2024) posits that pre-teens and teens can develop anxiety and depression from unrealistic expectations and perceptions due to excessive screen time. TikTok may be unsafe owing to negative impacts on mental health, predatory use, dangerous use by young people, inappropriate content, data privacy issues, and cyberbullying (Brown, 2024). TikTok was fined 345m Euros in 2023 by Europe for not protecting children's privacy rights (Brown, 2024). When Facebook introduced Messenger Kids for children under 13, more than 100 health experts protested, saying that social media undermines a child's healthy development (Wakefield, 2018).

X dangers include explicit or abusive content, which makes it difficult for X to moderate all the content (Safe Kids Online, 2024). Further, grooming on X allows strangers posing as other people to lure children. According to the Washington Post (2021), Instagram was worse than had been envisaged because it amplified body image issues for one in three teenage girls who were subjected to pressure to look perfect, leading to eating disorders. Further, 14% of the boys admitted that Instagram made them feel worse about themselves. Worse, 13% of Britons and 6% of American teen users traced their suicidal tendencies to Instagram.

ECPAT, INTERPOL and UNICEF (2021) reported that between 5-13% of internet-using children in Kenya, aged 12-17, experienced online child sexual exploitation and abuse (OCSEA) in 2020. Other reported dangers include cyberbullying, where 11.5% of children globally were bullied, and online predators lured children from their homes with the intent to kidnap. Dangerous online games like "The Blue Whale Challenge" of 2017 caused the death of one teen through suicide (Cherono, 2017), leading to the Kenya Film and Classification Board (KFCB) banning the game's circulation in Kenya on May 10th, 2017. In 2016, KFCB banned Project X, an online invitation where children and teenagers were asked to participate in a gory party involving drugs and stark nudity (Business Today, 2016).

Researchers have tried to provide solutions to harmful online content. Nyongesa, Kiprop, and Chumba (2019) proposed nine strategies schools can use to control social media use and which the Ministry of Education and relevant stakeholders can convert into policy regulations. Despite existing efforts, protecting children from harmful online content remains a complex challenge, particularly if left to policymakers, the government, content creators and service providers. Social media platforms insist that they have content moderation measures in place, while policymakers state that they have created legislation and regulations. However, parents and concerned citizens have expressed doubts about the ability of these policies to safeguard their children. Oloo (2022) suggests the need for strategic partnerships between relevant international and local stakeholders to create awareness and empowerment programs to address online risks through the media, formal school programs and parent–teacher associations. The current study instead proposes that the first and last line of defence for child protection remains parental involvement. While it is true that social media sites have stringent security measures and parental control tools, parents must be available to enforce them. The purpose of this study was to assess the role of parents in controlling online content for the child’s benefit. Research questions included:

- What are the existing content moderation controls?
- Are parents aware of online content moderation, and if so, how effective are these tools?
- Do parents possess desirable skills to moderate online content?

Literature Review

The urgent need for parental control cannot be understated because children are exposed to dangers in digital spaces. Children’s access to social media sites compounds the complexities of parenting them. According to Ngesu and Kyule (2019), parents experience challenges in mitigating the negative effects of social media, even as they try to bring up responsible citizens. Most of the parents (60%) stated that social networking sites took away their face-to-face socialisation time with their family (Ogalle, 2022).

Even schools experience challenges in policing children online. For instance, high school boarding students in Kenya can access social media even when prohibited. Mbithe (2022) notes that 97.4% of secondary school students in Machakos County used social media regularly and accessed it during the weekends, late at night and during games and break time through illegal gadgets. Mugambi (2022) determined that students commonly searched online for videos, movies, pornography, sent sexual texts and sought social networks through Facebook, where they discussed topics on life, dating, explicit music and celebrities. Further, social media led the youth to engage in sex, which contributed to their dropping out of school and early teenage pregnancies. According to Oloo (2022), 12-14-year-olds engaged in gaming, betting, chatting, streaming content, and educational purposes. However, they encountered stalking, fraud, pop-ups, and accidental access to adult content.

There is considerable investment in technical child protection measures (Stoilova et al., 2023). Parental control tools comprise software that a responsible adult can use to control some or all the functions of a digital device used by children (UNICEF, 2020). These controls limit or determine the access and use of the devices. For example, the responsible adult can filter out hate, pornography and other inappropriate content and limit the amount of time children spend online or on the device (UNICEF, 2020).

Social media companies have recently facilitated parents' oversight of children's online engagements by creating linked accounts or selling approval tools (Stoilova, 2023). Ngina (2021) reports on several tools parents can use, like CyberSnoop, which spies on all that a child does online and offers various filtering mechanisms to prevent access to forbidden content. FamiGuard enables blocking of social media platforms, unsafe websites, inappropriate apps and games, and allows parents to track their children's real-time location as well as set the time limit of app usage. Besides monitoring social media sites, apps, emails and YouTube, the Bark tool can detect any adult content, sexting, cyberbullying and suicidal thoughts and alert parents of the danger (Ngina, 2021).

KFCB (2023) stated that children's safety lies primarily with the parents, who should monitor and guide their young ones. The regulator noted the need for parents to be equipped with the necessary skills and knowledge for effective digital parenting to handle tech-savvy children. The government has partnered with Netflix, Google and TikTok, to empower parents and caregivers with the requisite skills to ensure child safety and responsible use of digital platforms and creative spaces (KFCB, 2023).

Social media sites have their control measures for children. For example, YouTube Kids has content specifically designed for children and delivered safely. Children above 13 can use YouTube with Supervised Experiences, where parents add supervision to the children's accounts, and they can use the restricted mode to filter out potentially harmful content (Google for Families, 2024). Meta (2024) has recently introduced nighttime nudges that surface when a young person spends more than 10 minutes on Instagram in places like Reels or Direct Messages late at night. X requires parental consent before it can authorise an account for children below age 13 (X Help Centre, 2024). Google Play Store has parental controls that restrict app downloads, and parents can use WhatsApp web to monitor their children's activities on WhatsApp (Ngina, 2021).

Governments are expected to play their role in content moderation, and according to the International Telecommunication Union (2020), governments favour parental controls since they help alleviate public pressure to protect children through regulation. Yet, despite the availability of parental control tools, many parents do not use them. According to Stoilova et al. (2024), only 3% of parents globally used parental controls. Depending on the culture, parents either prefer enabling mediation, such as encouraging their child and suggesting safety strategies, or restrictive mediation, which involves rule-based restrictions on apps or screen time (Livingstone et al., 2017).

Parental attitudes also impinge on parental controls. Some parents question the ethics behind these tools, while others think children are smart enough to work around the controls and forbidden content (Geržičáková et al., 2023). Other parents have dismissed parental controls as a business gimmick (Lupton et al., 2021). Still, more parents are sceptical that parental controls can work (Smahel et al, 2020). Some tools have over-blocked innocent content (SIP-Bench, 2018). Parents from low-income/lower education, who are digitally divided, may feel inadequate guiding their children, leaving them to experiment on their own and posing more risk (Mascheroni et al., 2018).

Theoretical Framework

This study finds support in the uses and gratifications theory (UGT), which suggests that users play an active role in choosing and using media (Blumler & Katz, 1974). Users are goal-oriented in their media use and take an active part in the communication process. Media users seek out media sources that best fulfil their needs. The theory assumes that the user has a choice to satisfy his/her needs. Besides, media users have several reasons for using the media and have the free will to decide how to use the media and how it will affect/influence them.

Scholars globally have investigated phenomena, particularly harmful online content, using the UGT lens. Drawing from the UGT, Tanrikulu and Erdur-Baker (2019) concluded that the theory offers a new understanding about cyberbullying perpetration to practitioners, theorists and researchers. The authors postulate that personality traits play a significant role in cyberbullying perpetration, motives and behaviours. They conclude that there is a need to consider personality traits in efforts against cyberbullying: the earlier the personality characteristics of the young individuals are identified, the earlier they can be prevented from engaging in cyberbullying perpetration. Thus, UGT provides insights not only for the parents, but also for policymakers, content creators, educators and critical stakeholders who might benefit from this study's findings.

Methodology

The mixed methods approach, employing a quantitative descriptive survey and qualitative in-depth interviews was used. Descriptive research was selected because the study aimed to describe specific behaviour as it occurs in the environment, such as what parents are doing to control online content (Librarianship Studies and Information Technology, 2023). The qualitative design using in-depth interviews was selected because the researchers sought to deeply understand the phenomenon under study (Creswell, 2014). A sample of 100 parents drawn from schools, churches and neighbourhood WhatsApp groups responded to a closed-ended questionnaire. Eight purposively selected Key Informants (KI), drawn from two categories: civil society (4) and parents (4), were interviewed. The inclusion criterion for parents required having at least one child with access to online platforms. Ethical considerations included informed consent forms, which the respondents signed and returned. The respondents were assured of anonymity and that the findings of this study were only for academic purposes.

Findings

The study sought to assess the role of parents in controlling online content for children. The research questions included: existing content moderation controls; parents' awareness of parental controls; and skills parents require to moderate online content. Content analysis was employed in qualitative data which was coded and patterns identified. Quantitative data was subjected to a Google analysis. Because this was a mixed methods study, quantitative and qualitative findings are presented simultaneously, using the research questions. A rich, thick description is used to represent the participants' qualitative perspectives, with informants cited as KI-1, KI-2, KI-3, KI-4, KI-5, KI-6, KI-7, and KI-8) for the eight informants.

Existing Content Moderation Controls in Kenya

Social Media Platforms Used by Parents and Children

We sought to find out the demographic characteristics of the parents who participated in the study. Most parents surveyed were aged between 36-50 years (57.5%), followed by those aged 26-35 (30.2%), and those aged 51 and above (9.4%). The fewest respondents were aged 18-25 (2.8%). In education, the majority had postgraduate qualifications (46.2%), followed by those with undergraduate qualifications (37.7%), and diplomas (13.2%), while the least had certificates (2.8%). This indicates that most respondents were well-educated and informed. Regarding employment, the findings show that most respondents were employed (68.9%), followed by those who were self-employed (21.7%), and unemployed (9.4%).

Parents were asked about social media use, with all respondents reporting having at least one social media account. The aim was to determine which social media platforms were most popular among parents. The results showed that the majority frequented WhatsApp (91.5%), followed by YouTube (73.6%) and Facebook (72.6%). The least visited platforms were TikTok (51.9%) and Twitter (52.8%) (see Figure 1).

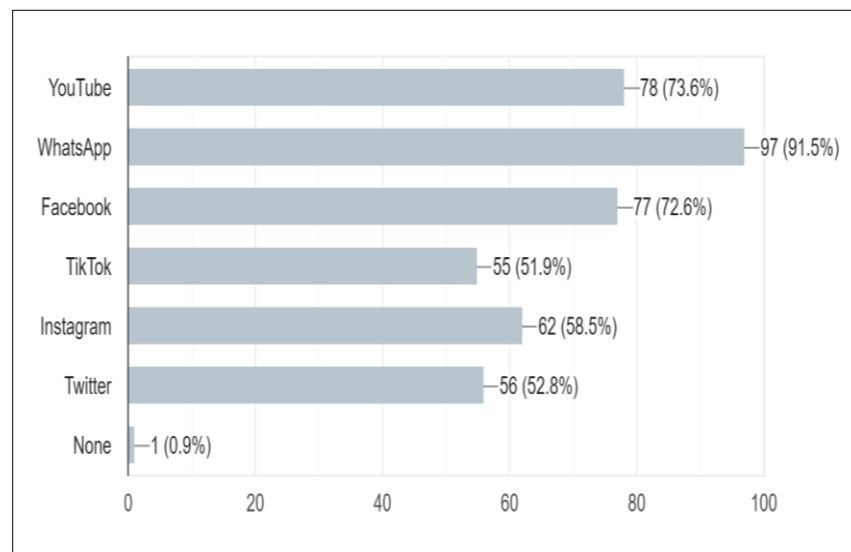


Figure 1: Social media sites frequented by parents

Compared to their parents, the findings indicate the following popularity of social media sites among children. YouTube was the most popular platform (85.8%), followed by WhatsApp (33%) and TikTok (29.2%). The least popular platforms among children were Twitter (4.7%) and Facebook (10.4%) (see Figure 2).

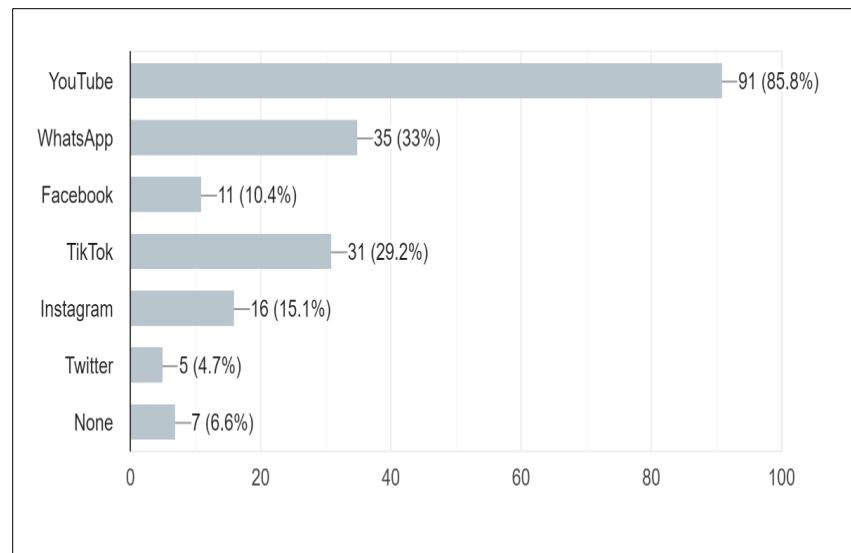


Figure 2: Social media sites visited by children

Access to Internet-Enabled Devices

The majority of parents surveyed (87.6%) reported that they have provided their children with internet-enabled devices. Only a few parents (12.4%) had not provided such devices for their children. Despite this, a majority (58.8%) stated that their children only accessed social media using the gadgets they had provided. Meanwhile, 34% of parents said their children accessed social media through other gadgets, and 12.3% of parents were unsure.

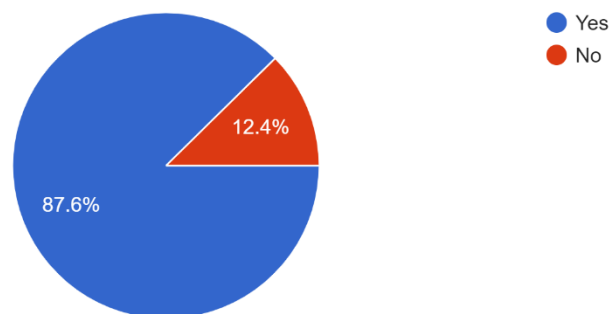


Figure 3: Provision of children with internet-enabled devices

Existing Online Controls

Findings from in-depth interviews show that online content control occurs at three levels: the content creator, the regulator (government) and other regulatory agencies, and the end-user/consumer. KI-1 opines that the content creator carries the moral responsibility to create content that passes the ethical test.

According to KI-2, all the platforms, such as Meta which runs Facebook and Instagram, have guidelines on who should access content.

The informants agreed that there are laws that govern online content, but Kenya is over-regulated and lags in enforcement. The emergent technologies have forced the regulator to play catch-up. Existing laws include the Children's Act 2022; The Data Protection Act 2019; The Computer Misuse and Cybercrime Kenya 2018; and regulatory agencies like the Kenya Films and Classifications board (KCFB), the Communications Authority of Kenya (CAK), the Media Council of Kenya (MCK), and the Kenya Information and Communications Act (KICA)1998. A model framework on online safety under the Directorate of Children Services, which was sponsored by UN-UNICEF, also exists.

Informants identified other regulatory agencies, such as DSTV with watershed periods that allow viewing appropriate content at certain times. They also identified other mechanisms like schools which are trying to implement policies to protect students.

Informant KI-7 revealed that her organisation held the children's Internet Governance Forum IGF to discuss children's online safety. They have also worked with the CAK, which enforces KICA with guidelines on best practices concerning online child protection. KICA has a child online protection framework on its website, with guidelines on how children should use online platforms.

The end-user comes in two categories: primary (parent) and secondary (child through guardian). KI-1 divulged that most Kenyan parents use physical monitoring rather than automated control mechanisms, where they control which websites the child accesses. However, automated controls are not common and are difficult to use, especially when using a software to monitor a website using different technologies.

Parents' Awareness of Online Parental Controls and Control Tools' Effectiveness

Surveyed parents provided information on available parental control tools and their effectiveness, with most parents (88.5%) being aware of online parental control tools while 11.4% not aware (see Figure 4). Most parents (71.6%) have used parental controls to safeguard their children online, whereas 28.3% have not. Among those who have used the controls, 87.3% believe they are effective, while 12.6% do not.

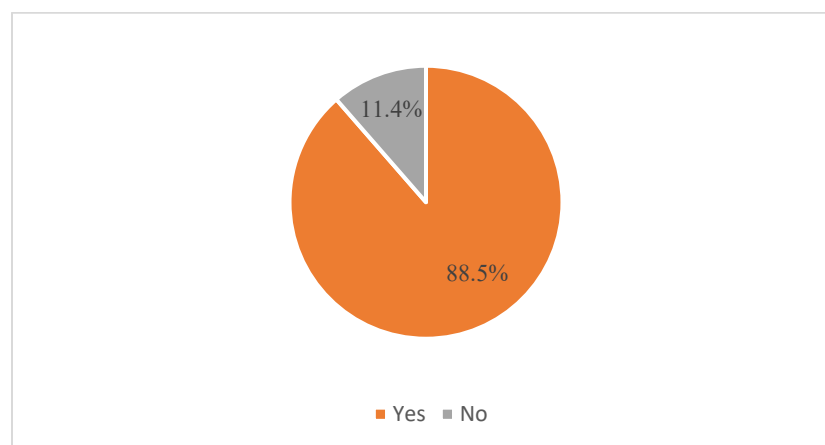


Figure 4: Awareness of parental controls

Parents were also asked to state their level of satisfaction with parental controls on various platforms. A majority (68%) found the controls on YouTube effective, followed by Facebook (62%) and WhatsApp (61%). The least effective controls were on TikTok, where 58% of parents found the controls ineffective. Opinions on Instagram were nearly evenly split, with 55% of parents finding the controls effective and 45% finding them ineffective (see Figure 5).

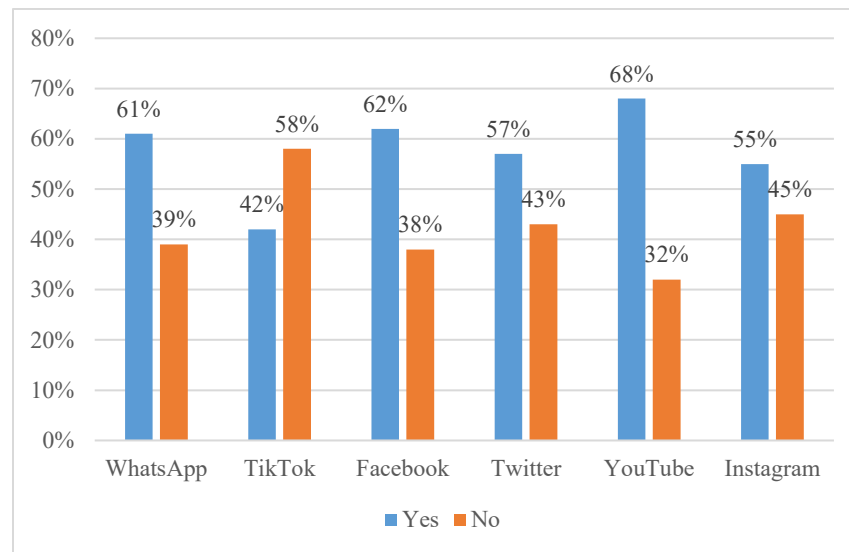


Figure 5: Level of satisfaction with parental controls of platforms

From the qualitative data, KI-5 and KI-7 discussed three types of parental control tools. The first tool is software solutions or third-party controls such as Kaspersky which have control features for those who can afford the premium package. The controls include screen time management, content filtering and online monitoring of children's activities. The second tool is the smart TV which comes already fitted with controls. Parents can use the settings function to restrict access to certain content and limit screen time. Lastly, internet routers through Wi Fi devices offer controls a tech savvy parent can use to control all the devices connected to a home network. Routers can blacklist some websites and even filter keywords, such as pornography-related vocabulary. However, this option restricts access to certain content to everyone in the house.

Parental controls, according to KI-4, have also been provided in the platforms. For example, TikTok limits the kind of experience underage children can have. For instance, they can't go live and neither can they access what is happening live. Underage users also don't have the direct messaging facility, their videos cannot be downloaded, and their accounts are not discoverable. They only get to invite or be friends with people whom they know.

Some applications allow parents to access activity logs and see what their children are consuming. While some applications are simple, others are elaborate, and others are still being developed:

With Artificial Intelligence (AI), companies like Microsoft are developing tools for control. Another one is X which has its own internal mechanisms such as warnings about sexual or violent content for the user to decide. KI-1

All the informants agreed that existing parental control tools may not be effective because today's children are digital natives and operate the internet better than older people. KI-6 gives the example of Dorothy, a 15-year-old in Kentucky, USA, whose mother confiscated her iPhone as a punishment. The desperate teenager couldn't live without X and got creative, so she started tweeting from a Nintendo DS video game console before her mother discovered it. Undeterred, she resorted to tweeting by sharing images through a Wii game before finally using the browser on her LG Electronics smart fridge. The result was a trending hashtag: #FreeDorothy.

All the informants admitted that they were not aware that game consoles for PlayStation games are communication devices.

As parents, we don't understand that there are many avenues for children to access information apart from social media. For example, you block your child from Roblox only for them to end up on Discord which has over 1000 games. They will still connect with Anne who was playing Roblox, yet you blocked them from accessing Anne on Roblox. KI-8

So, you find a parent has told their child, I have to connect my TikTok with yours because I want to monitor what you're doing. The child will go and create another TikTok account. KI-6

According to the informants, even if children lie about their age, some platforms have features like facial and voice recognition to help verify information. "I think there is an AI tool being tried on Instagram on how to differentiate an adult and a child" KI-1.

I am aware of a tool called Family Pairing on TikTok which allows you to pair up with your child's social media platform for safety. KI-4

The informants decried parents' gullibility, especially those who think they have put controls in motion. While parents assume their children are watching cartoons, these children have created many other parody accounts.

Informant KI-7 does not think the existing parental controls are strong enough and that parents only use controls when they want to monitor their children. These parents do not bother to find out that the child is watching porn or where they got it from.

I have a problem with parents using controls without understanding. As a parent, I should not keep the children away from undesirable content but make them understand why it is wrong. Remember that when children have already experienced adult or inappropriate content, they will look for every way to circumvent the controls. KI-7

The perspective above is supported by KI-4:

I think a more effective way to using these tools is simply having open discussions with your children in terms of age experiences and appropriate content. So, in my opinion, controls are not working. KI-4

Informant KI-2 believes there is variation in tech knowledge among parents: the tech savvy may experience greater success in content control than the non-tech savvy. Some parents fail because of children's resistance, and very smart and rebellious children. Some smart children have gone ahead to disable parental controls.

So, you can say that the controls are not effective, but not for lack of trying from the parents. There's need for continuous education for parents. KI-4

All the informants agreed that most Kenyan parents lack awareness about parental online control mechanisms. According to KI-2, some parents are not aware that filters exist to block undesirable content.

I think many of us are ignorant because most of these technologies emanate from abroad. We only come in as consumers. Once you are a consumer, there's that learning curve that you need to undergo and it takes a lot of time. KI-1

I don't think even the educated parents are truly aware of the existence of parental control tools. And I am talking about those in urban areas with easy access to electricity and the internet. How about those in the rural areas who are the majority? KI-6

Informant KI-3 opined that parents do not know that there's YouTube for kids and instead allow their children to access content on the adult version. Informant KI-5 thought that more awareness of control tools is mainly found in privileged homes and schools.

None of the informants remembered seeing any research concerning parental control of online content in Kenya. Informant KI-5 reveals that it is civil societies and organisations like UNICEF that have mostly researched this topic. She reveals that her organisation held stakeholder engagements with CAK and the Kenya National Bureau of Standards in March 2023, where they developed and administered a survey aimed at discovering the kind of engagements children have online. However, the research team met with data protection challenges for children, where parental consent was required.

Skills Required by Parents

Most parents (78.8%) expressed a need for more training on how to use parental controls, while a few (21.2%) felt they did not need such training (see Figure 6). Some parents (28.3%) have not utilised parental controls, indicating a potential gap in knowledge or confidence in using these tools. Additionally, the mixed feedback on the effectiveness of parental controls across different platforms underscores the necessity for comprehensive training to help parents better understand and implement these controls effectively.

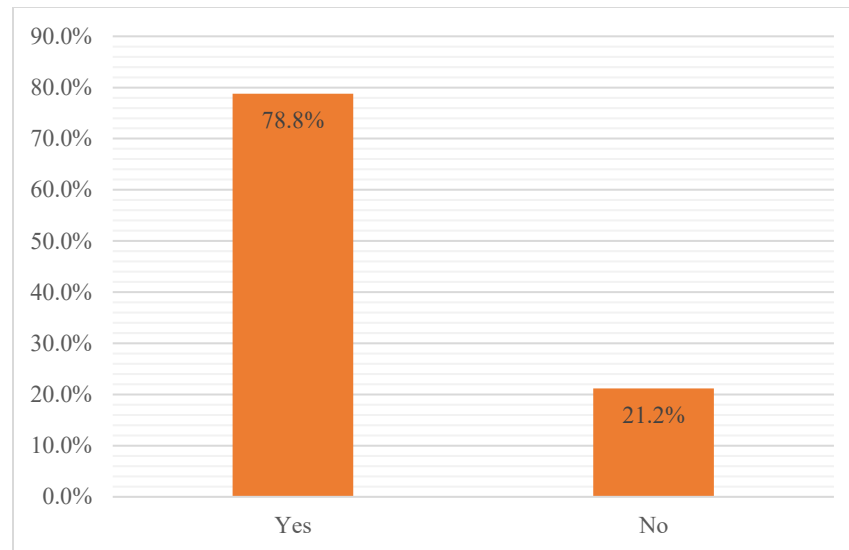


Figure 5: Need for training on the use of online parental controls

All the informants from the in-depth interviews agreed that most parents need skills, particularly tech-savvy for digital parenting. Missing Child Kenya educates parents on the importance of online safety because predators use online means to reach out to children, who then go missing. The organisation prepares different materials such as posters, videos and other resources for sharing. These materials consider legal and ethical issues such as data protection, privacy and the best interests of the child.

According to KI-8, the government has supported initiatives aimed at protecting children. For instance, it provided a trainer of trainers' course on positive parenting because some parents have abdicated their responsibilities and substituted them with babysitting online gadgets.

Most informants agreed that today's child is more exposed and tech savvy than the parent, accounting for the lack of controls:

These young people pre-program all their tweets to run from a different device and at different times. KI-6

According to informants, parents nowadays are more reactive than proactive:

We want to have these conversations after seeing in the news that a child has been bullied and there was an irreversible effect like death or self-harm. And I find that attitude not progressive or intentional. KI-5

Most Kenyan parents are firefighters. For example, I will come in strongly when I find that my child watches porn. When they have already watched. Sad. KI-3

KI-4 wondered whether the government has considered upskilling the common citizen with digital skills before rolling out free Wi-Fi in market centres and felt that more awareness exists in urban rather than rural areas:

A child joins the mother at the market after school. The mother says, oh, because I've not closed, do your homework and use my smartphone. Who knows what the child will find? So, before they bring the internet to the marketplace, let them educate folk about responsible use. KI-4

KI-4 thought that bodies like CAK can help create awareness in all the 47 languages of Kenya:

What parents need is a mindset change, so that we unlearn detrimental practices. We need to relearn and make conscious decisions about intentional parenting.

Some informants felt that it is more advantageous to create awareness in children than in parents. For instance, KI-8 opined that schools are the best places to disseminate awareness, so that parents only affirm what the children already know.

KI-4's organisation empowers both children through conversations and parents through accountability. She firmly believes the first and last line of control is awareness by the children. The parents' main concern is not how much time is spent on the screen but the kind of content the child is consuming.

Communicative screen time, productive screen time and passive screen time are totally different conversations. So I advise the children to create tech free zones such as the toilet where they must go without phones. Then guess who the biggest culprit is here, the parent! KI-8

KI-8 continues:

I have deliberately made children to be the change agents and hold their parents accountable. Likewise, I make children understand that parents have their best interest at heart and they should understand why certain rules are in place.

KI-7 emphasises teaching communication skills to parents. For example, how do parents communicate that parental control matters? *"If a parent must take the phone away, explain the reason to the child."*

I keep telling parents that we have to be the change that we want to see. For instance, you cannot unleash violence on X and expect your child not to be like you. (KI-7)

KI-6's company has summarised the laws governing online content for children and put them on their website. He then directs many parents to the website to learn about these laws.

Informant KI-5 believes that creating and observing best practices within institutions, homes and other spaces is a solution to accessing inappropriate content by children. With evolving technology, the best practices can be adjusted accordingly. Parents are educated on how to establish best practices in the home.

The informants were unanimous that society is being challenged to re-examine the foundational issue of core values. Those values and discipline must first be taught at home. Parents should not expect the government to police their own children's manners and discipline.

One of the ongoing interventions to assist with parental control includes having conversations to help enlighten parents. For instance, informant KI-2 divulges that their CEO hosts a program on KBC called *Take on Tech*, which features child online safety. She also reveals that the organisation has held several workshops on online safety for both children and parents.

We have trained officers from the Office of the Director of Public Prosecutions and have a digital resilience centre called Tatua which conducts training on online safety. We have also undertaken one of our biggest online safety campaigns called Cyber Hygiene. We collaborate with like-minded organisations like Watoto Watch. However, I must admit that our weakness is that we do not involve children as much as we involve adults. The materials we have created target adults more than children. But we have produced materials like comics and cartoon videos that educate children on how to stay safe online.

Informant KI-8 opined that only concerted efforts by the civil society organisations, academia, the technical society, media and government can create solutions for child online insecurity. It must not be left to parents alone. She also opined that society tends to focus on capacity building for adults and not children.

There is a serious gap in research concerning this topic. We can leverage academia to research the impact of social media on children and look at emerging issues like digital citizenship education for children. If we involve the civil society sector more, especially in collaboration with academia, we can have more output in crucial research. There are emerging issues like AI and algorithms that require our attention too.

Informant KI-6 revealed that her organisation has considered equipping parents and children with disabilities, and so laws must be passed to address such demographics.

All the informants from non-profit organisations divulged that they are currently undertaking certain measures to protect children. For instance, KI-3 revealed that they are running a campaign with Meta and the National Centre for Missing and Exploited Children called #TakeItDown.

#TakeItDown is a campaign that targets taking down sexual images of children posted online either by themselves or others. The National Center for Missing and Exploited Children in America (NCMEC) has devised a way that these images can be reported. Some countries are implementing the right of removal law, but Kenya has not got to that level yet.

KI-3 revealed that Missing Child Kenya plays a critical role in tracing missing children and depends very much on online spaces. One key question asked of parents with missing children is whether a child has a mobile device and a social media account.

Discussion

Parental control of online content for children is an emerging issue that requires interventions for the child's protection. Our findings indicate that most parents and children frequent social media platforms. Although most parents are aware of parental control tools, few of them use them effectively and need training to effectively use the controls. Most think they are moderating online content when they're engaging in

physical control. This observation finds support in Livingstone et al. (2017), who detail the types of mediation practices parents prefer to moderate content, for example, restricting a child's screen time. However, it emerged that there are many control tools that parents can use, including simply having a candid conversation with their children about the dangers online. While governments have tried to regulate content and believe that the greater burden lies with parents, only 3% of parents globally have used parental control tools. Governments worldwide favour greater parental involvement (ITU, 2020).

Further, some parents have purchased smart TVs, PlayStation consoles, internet routers and antivirus software, but are not aware that these come with built-in safety features for online safety. Parents are also not aware of parental control features provided by most major social media platforms. These companies have age restrictions and allow parents access to a child's activity log. It also emerged that most social media platforms keep developing new protection strategies. This finding is supported by Meta (2024), which has introduced nighttime nudges for underage children spending more than 10 minutes on the site after a certain hour at night.

However, a critical finding is that most children with internet access are digital natives and understand the social media platforms more than their parents. For example, the case of the 15-year-old Kentucky teen. Study findings indicate that control tools have not been effective largely because most parents do not know they exist. Some may know of their existence, but do not care. Geržičáková et al. (2023) reveal the parents' attitude towards control: they think that children are smart enough to work around these controls and access forbidden content, so they see no need for controls. Findings also show that urban parents are more aware of these tools than their rural counterparts.

Parents must develop the relevant skills before they can use control mechanisms online. Such skills include tech-savvy, communication, proactivity, responsibility, curiosity, accountability, etc. Fortunately, the government, civil society, media, academia and concerned stakeholders are making efforts to educate parents about control. For example, the government has collaborated with certain organisations to create a curriculum to be used by trainers of trainers. The CAK introduced a Child Online Protection (COP) programme in 2015, aimed at equipping both children and their parents or guardians with skills and information for online safety. Civil society groups are already engaging parents on their role as content moderators. Parents must be held accountable because raising children is their primary responsibility. The media has aired some shows and written articles on this topic (Ngina, 2021).

Despite the effort by the concerned stakeholders, the most effective and plausible control must come from the parent. Parents need education and guidance on controls. There should be frequent conversations between parents and children, and parental accountability. Further, parents should talk with their children about harmful content. The KFCB (2023) strongly urges parents to acquire the necessary skills and knowledge for effective digital parenting and to remain informed of the emerging risks. The government, through the regulator, has rolled out programs to empower parents.

Findings indicate that Kenya is overregulated in terms of laws governing online content. Kenya led in TikTok usage in 2023 globally (Reuters Institute Digital News, 2023). Besides government regulation, service providers are obligated to moderate their content. These providers operate within a country's legal framework. For instance, when Mount Kenya TV aired a cartoon depicting gay characters, it was slapped

with a 4-week license suspension plus a KES 500,000 (Ambani, 2021). DSTV enforces the watershed period regulation when airing content. Social media companies self-regulate and have introduced measures to protect users.

Apart from the regulator, service provider and social media companies, the end-user also carries responsibility. The study identified two types of users: the child and the parent, and both must be responsible for what they consume. However, due to age and lack of cognitive and emotional development, the child needs guidance. The parent bears the greatest responsibility for the child, to ensure the child is properly guided. The findings are supported by KFCB (2023) who observe that parents are primarily responsible for their children's safety and should be deliberate about what their children consume online. Stoilova, et al. (2023) also support the finding that parents have a significant role to play in content moderation.

Conclusion

This study aimed to evaluate the role of parental control in managing online content for children. Besides government efforts to protect children online, various agencies and companies contribute to content moderation. However, the responsibility of content consumption also lies with the end-users, both children and parents. Unfortunately, many parents in Kenya are unaware of the available parental control tools. Their understanding of control is often limited to physically restricting internet access rather than employing parental control tools. The study recommends empowering parents with the skills needed for effective digital parenting and calls for greater efforts by the government and civil society to ensure children's online safety. It advocates for nationwide education campaigns, particularly in rural areas, using mainstream media to raise awareness about parental controls. Additionally, schools should play an active role in creating programs that educate children on online safety. Future studies can look into how schools can be used to spread awareness among the children. Children's knowledge of parental controls also warrants investigation.

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