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Original Article

Tackling Online Pornography to Implement Uganda's Education Digital Agenda Strategy

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*Pornography,
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The Ugandan government developed the Education Digital Agenda Strategy (EDAS) 2021 – 2025 to improve Uganda's education service delivery through sustainable digital transformation. The EDAS was officially launched on 22nd August 2024, but on 09th September 2024 the Ministry of Education and Sports (MoES) issued a press statement halting its implementation over concerns that it may expose learners to unacceptable content such as online pornography while using digital devices such as phones, tabs, laptops etc when using the internet. This qualitative desk research study sought to examine the laws on pornography in Uganda, assess the potential risks of pornography exposure to children in school, and suggest ways of protecting students from online pornography, to enable them to safely use digital devices envisaged in the Uganda Education Digital Agenda Strategy, so that the strategy can be implemented by the Uganda government. In this research it was found out that students are at risk of voluntary or involuntary exposure to unwanted content such as pornography, which may lead to dangers of addiction, introduction to risky sexual behaviour and decline in education performance. In the conclusion section of this paper, it was recommended that Ugandan laws ought to be amended by providing for a definition of pornography. Secondly, a creation of child friendly sim cards client category of internet users will support protection measures focused on children. Thirdly, content filtering should be promoted to block websites with unwanted content and lastly, educating students on the dangers of pornography, and empower them with ways to detect, avoid and report pornography is key. Once these measures are put in place, it will be safe to implement the Education Digital Agenda Strategy 2021 – 2025 to enable the students benefit from the integration of ICT in Education, without fear of the threat of online pornography.

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INTRODUCTION

The world is experiencing the fourth industrial revolution, marked by integration of advanced technology into man's daily activities. The innovations of this revolution include the Internet of Things (IoT)¹, Cloud Computing², Artificial intelligence³ and Block chain⁴ technology (Elayyan, 2021). These innovations are key drivers for development, and as such any country that is determined to prosper must embrace technology and integrate it in its educational system to develop a work force that, will not only be competitive in the job market but will also be innovatively useful to the country in the 21st century.

The COVID 19 pandemic, disrupted education (Livingston et al., 2023) making it impossible for students to go to school due to government issued lockdown orders that kept children at home. Schools that were unable to transition to online classes were unable to teach students, which meant that it was only students that were able to use technology to

attend online classes that went on to progress and get promoted to the next classes, while students from schools that could not transition to online classes stayed in the same class hoping and praying for the COVID 19 pandemic to end in order to resume school.

The use of computers, tablets, smart phones and other digital devices to network with other people using the internet as a medium of connection is a characteristic of the Generation Z⁵ and Generation Alpha⁶, who now constitute the children in schools today. This means that in this 21st century, digital devices are an essential requirement of the classroom. In Uganda, the two leading Telcom companies are actively donating computers and data to schools for education purposes. MTN Uganda through its MTN Foundation runs the digital access project in which it donates computers and promotes digital inclusion by connecting schools to the internet. In the same vein, Airtel Uganda, implements the digital learning partnership between Airtel Africa and UNICEF⁷ and on 19 March 2025,

¹ The term "Internet of Things" (IoT) was coined by Kevin Ashton at a presentation to Proctor & Gamble in 1999. Oxford Dictionaries defines Internet of things (noun):as "The interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data." See Mouha, R. A. R. A. (2021). Internet of things (IoT). *Journal of Data Analysis and Information Processing*, 9(02), 77.

² Cloud computing refers to the practice of using remote servers, often hosted on the internet to store, manage and process data instead of relying on local computers or servers. See Alam, M., Mustajab, S., Shahid, M., & Ahmad, F. (2023). Cloud Computing: architecture, vision, challenges, opportunities, and emerging trends. *2022 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)*, 829–834. <https://doi.org/10.1109/icccis60361.2023.10425507>.

³ A common definition of AI is that it is a technology that enables machines to imitate various complex human skills. Sheikh, H., Prins, C., & Schrijvers, E. (2023).

⁴ A blockchain is a type of distributed ledger technology (DLT) that consists of a growing list of records, called blocks, that are securely linked together. Each node on the network has a copy of the same ledger in the blockchain. See Tyagi, A. K., Dananjayan, S., Agarwal, D., & Thariq Ahmed, H. F. (2023). Blockchain—Internet of Things applications: Opportunities and challenges for industry 4.0 and society 5.0. *Sensors*, 23(2), 947.

⁵ This constitutes the generation of people born from 1995 to 2010.

⁶ This constitutes the generation of people born from 2010 to 2024.

⁷ <https://www.unicef.org/press-releases/airtel-africa-and-unicef-announce-multi-million-dollar-partnership-scale-digital> [Accessed 14 April 2025]

in commemoration of the International Day for Digital Learning, Airtel Uganda connected the 130th school to fast internet⁸, in fulfilment of its objective to promote digital learning. It is thus important that national education curriculums are formulated, while bearing in mind that children are now using digital devices in education. Proper guidance by teachers, can ensure that the children with digital devices use them well thereby harnessing their potential in research, collaborative learning and acquisition of problem-solving skills (Oskarita, E., & Nur, 2024), which are all powerful requirements for one to navigate the 21st Century.

The Ugandan population stands at 45,905,417 persons as per the 2024 population census report. The students in primary school were enumerated at 8,926,219, while the students in secondary school were 4,571,698 (UBOS, 2024). This means that 29.4% of the Ugandan population in 2024 were learners in primary and secondary school. More than quarter of the Ugandan population in 2024 are therefore children in school that are potential users of digital tools in education.

The Ugandan government through its Ministry of Education and Sports (MoES) developed the Digital Education Standards and Guidelines (DESG) to guide the implementation of the digital agenda in education. The guidelines specifically provide that students may use desktops, laptops, tablets or smart phones in e-learning as a way of achieving the Education Digital Agenda Strategy (EDAS). The goal of Education Digital Agenda Strategy 2021 – 2025⁹ was to “*Improve Uganda’s education service delivery through sustainable digital transformation*”¹⁰. The EDAS was officially launched on 22nd August 2024, but on 09th September 2024 the Ministry of Education and Sports (MoES) issued a press statement¹¹ halting its

implementation over concerns that it may expose students to unacceptable content such as online pornography. The Ministry spokesperson issued a press statement on 9th September 2024 highlighting the importance of digital information security and online safety. He mandated school administrators to ensure that internet access does not expose students to harmful content. The Ministry of Education and Sports (MoES) then banned students from using handheld digital devices such as tablets and mobile phones on school premises. This ban though did not extend to homes and off school premises where students still use digital devices to access the internet for various reasons including educational research, games and class communication.

The implementation of the Education Digital Agenda Strategy 2021 – 2025 was therefore hampered by the threat of among other things the possibility of exposing students to online pornography when using their internet connected digital devices such as mobile phone or tablets in pursuit of their education. There is need to tackle the threat of online pornography to students to implement Uganda’s Education Digital Agenda Strategy. The question we must therefore ask, is what remedies can be adopted to ensure that the advantages of using technology and digital tools in education is not lost due to the threat that students may be exposed to online pornography.

Problem Statement

Uganda Vision 2040 is a thirty-year development plan that was launched on 18th April 2013 with the aim of transforming Uganda into a prosperous middle-income country. In the Vision 2040 development plan, the Government of the Republic of Uganda undertook to mainstream Information and Communication Technology (ICT) in education, to that end, the Ministry of Education and

⁸<https://www.unicef.org/uganda/press-releases/airtel-uganda-and-unicef-scaling-digital-learning-schools-across-uganda> [Accessed 14 April 2025]

⁹<https://www.education.go.ug/wp-content/uploads/2021/08/Brief-on-the-Development-of-Digital-Education-Agenda.pdf> [Accessed 14 April 2025]

¹⁰ <https://www.education.go.ug/digital-agenda/> [Accessed 14 April 2025]

¹¹https://www.media.gcic.go.ug/wp-content/uploads/2024/09/MoES-Press-Statetement-On-Use-of-Mobile-Phones-in-Schools_09th092024.pdf [Accessed 14 April 2025]

Sports (MoES) on 22nd August 2024 launched the Digital Agenda Strategy, which promoted among other strategies the use of the internet in education using digital devices such mobile phones, tablets and computers accessible to students in primary and secondary schools. The inclusion of ICT in education guided by the Digital Agenda Strategy would lead to digital inclusion, skill learners and promise the country a future with a tech-savvy work force.

In a press statement issued by the Ministry of Education and Sports (MoES) on 09th September 2024 the implementation of the Uganda Digital Agenda Strategy was halted, over concerns it may expose students to unacceptable content such as online pornography. This research therefore highlights the risk of pornography to children in school and investigates remedies that can be adopted to protect students from online pornography, so that the Uganda Education Digital Agenda Strategy that is potentially beneficial to the children and the country can be implemented.

Objectives

1. To examine the law on pornography in Uganda.
2. To highlight the threat of pornography to children.
3. To recommend ways of protecting students from online pornography.

RESEARCH METHODOLOGY

This is qualitative desk research that comprised of documentary analysis and interview of selected informants. Purposive sampling was used in selecting informants in the telecommunication sector focusing mainly on staff in the Uganda

Communication Commission that sit on the pornography control committee in Uganda. The information from the informants buffered up by the documentary analysis of the laws relating to pornography, the Constitutional Court decision in a petition challenging the Anti-Pornography Act and literature on the subject.

An explanatory research design employed to examine the laws on pornography in Uganda, assess the potential risks of pornography exposure to children in school, and suggest ways of protecting students from online pornography, to enable them to safely use digital devices envisaged in the Uganda Education Digital Agenda Strategy.

DISCUSSION

Law on pornography in Uganda

Uganda has an obligation in international law to respect treaties it has ratified, this principle is summarized by the Latin phrase "*Pacta sunt servanda*"¹² which means that every treaty in force is binding upon the parties to it and must be performed by them in good faith.¹³

The Government of Uganda in November 1990 ratified the United Nations Convention on the Rights of the Child¹⁴. This convention was adopted by the United Nations General Assembly under resolution 44/25 of 20th November 1989 and it came into force on 2nd September 1990. Article 34 of Convention on the rights of the Child enjoins state parties to protect the children from all forms of sexual exploitation and abuse.

On 30th November 2001, Uganda also ratified the optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution

¹² Article 26 of the Vienna Convention on Law of Treaties provides: "Pacta sunt servanda" Every treaty in force is binding upon the parties to it and must be performed by them in good faith". Accessed on 11 March 2025 at https://legal.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf

¹³ The concept known by the Latin formula pacta sunt servanda ("agreements must be kept") is arguably the oldest principle of international law. Without such a rule, no international agreement

would be binding or enforceable. Accessed on 11 March 2025 at <https://www.britannica.com/topic/international-law/International-law-and-municipal-law#ref794916>

¹⁴UN General Assembly, *Convention on the Rights of the Child*, United Nations, Treaty Series, vol. 1577, p. 3, 20 November 1989, <https://www.refworld.org/legal/agreements/unga/1989/en/18815> [Accessed 11 March 2025]

and Child Pornography¹⁵, which came into force on 18th January 2002. Article 10 (1)¹⁶ of the optional protocol enjoined state parties to promote international cooperation to fight child pornography among other listed evils committed against children.

The African Charter on The Rights and Welfare of The Child¹⁷ that was adopted by the 26th Ordinary Session of the Assembly of Heads of State and Government of the OAU Addis Ababa, Ethiopia in July 1990 and entered into force on 29 November, 1999, was signed by the Government of Uganda in February 1992 and ratified on the 17 August 1994. Article 27 of this charter, deals with sexual exploitation, calling upon state parties like Uganda to protect children from all forms of sexual exploitation, which includes the use of children in pornographic activities, performances and materials

The instruments on the international and regional African level mentioned above that were signed by Uganda require the government to domesticate them by enacting laws that capture and implement the spirit within the signed international instruments. In 2011 the Parliament of Uganda enacted the Computer Misuse Act, which created the offence of Child Pornography. In 2014 a more robust law against pornography, called the Anti-Pornography Act was enacted by the Parliament of Uganda.

In the Anti-Pornography Act, Pornography was defined in section 2 therein and the same law also created the offence of Pornography and Child Pornography in separate sections of the same Act. Following the enactment of the Anti-Pornography Act, A Constitutional petition was filed in the Constitutional Court of Uganda challenging among

others the definition and offence of pornography in the Anti-Pornography Act.

Pornography had been defined in section 2 of the Anti-Pornography Act as follows.

“Pornography” means any representation through publication, exhibition, cinematography, indecent show, information technology or by whatever means, of a person engaged in real or stimulated explicit sexual activities or any representation of the sexual parts of a person for primarily sexual excitement.” (emphasis mine)

The Constitutional Court of Uganda in its judgement dated 13 August 2021 in the case of Centre for Domestic Violence Prevention and Others v Attorney General of Uganda (Constitutional Petition No. 13 of 2014) [2021] UGCC 20 held that;

“The Act does not provide what amounts to ‘indecent show’ and the threshold over which an action can be measured to determine whether it falls within the ambit of ‘indecent show’. An imprecise statement of the prohibited conduct may lead to inconsistent enforcement of the law, uncertain application of the law or failure to preclude conduct that it was intended to prohibit. The phrase ‘by whatever means’ is too general and unacceptable as it may capture a range of conduct that is too wide and not intended to be subject to the offence.”

The Constitutional Court of Uganda, then went on to declare Sections 2 and 13 of the Anti-Pornography Act 2014 null and void on the basis that they were inconsistent with or in contravention

¹⁵ The optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography was adopted on 25th May 2000 by resolution A/RES/54/263 at the fifty-fourth session of the General Assembly of the United Nations. https://treaties.un.org/pages/viewdetails.aspx?src=treaty&mtmsg_no=i-v-11-c&chapter=4&clang=_en [Accessed 11 March 2025]

¹⁶ Article 10 (1) States Parties shall take all necessary steps to strengthen international cooperation by multilateral, regional and bilateral arrangements for the prevention, detection, investigation, prosecution and punishment of those responsible for acts involving the

sale of children, child prostitution, child pornography and child sex tourism. States Parties shall also promote international cooperation and coordination between their authorities, national and international non-governmental organizations and international organizations.” https://treaties.un.org/pages/viewdetails.aspx?src=treaty&mtmsg_no=i-v-11-c&chapter=4&clang=_en [Accessed 11 March 2025]

¹⁷ https://au.int/sites/default/files/treaties/36804-treaty-african_charter_on_rights_welfare_of_the_child.pdf [Accessed 11 March 2025]

of Articles 2 (1) & (2), 28 (12), and 29 (1) (a) of the Constitution of the Republic of Uganda. The order of the Constitutional Court thereby rendered null and void the definition of pornography contained in section 2 of the Anti-Pornography Act 2014 and also declared null and void the offence of pornography in Section 13 of the same Act. Following the decision of the Constitutional Court of Uganda¹⁸, the Ugandan Anti-Pornography Act, now neither has a definition of Pornography, nor the offence of Pornography as part of the revised 2023 version of the Laws of Uganda. It is important to note though that the Constitutional Court did not render the offence of Child Pornography null and void, so it's still part of the Anti-Pornography Act.

The law in Uganda, currently provides only for the offence of Child Pornography in Section 10 of the Anti-Pornography Act CAP 119¹⁹ and in Section 22 of the Computer Misuse Act CAP 96²⁰. It is also an offence for any person to make pornographic materials available to a child as is stipulated in Section 22 (2) of the Computer Misuse Act CAP 96. Understanding the offences relating to pornography in Uganda is of interest because this research seeks solutions to mitigate the risk of pornography exposure to students while using digital devices such as mobile phones for educational purposes.

The threat of pornography to children

The use of the internet is now inevitable in developed societies because education, games,

communication and shopping are all online. A child using the internet either for education, research or just communicating with classmates must contend with the risks that accompany access to the internet. The risks for children using the internet fall into three categories, which are content, contact and conduct. The risk attributed to content includes viewing inappropriate materials, such as pornography (Nansen et al., 2012).

A study in the United Kingdom found that exposure may not be voluntary as children are likely to stumble onto pornography (Martellozzo et al., 2017), resulting from pop-ups or diversions to a pornographic site while innocently browsing the internet (Miranda A.H. Horvath, Llian Alys & Afroditi Pina, 2013). In carrying out this research, it was discovered that a search for anything with the word “blue”, “sex” or “sexual education” attracts among the search results some websites that may contain pornographic content among. Students studying about sexually transmitted diseases may while recaching online also inadvertently stumble onto sites with pornographic content (Katz et al., 2015). Gaming sites that are not in themselves pornographic in nature also attract pop up adverts that may lead to sites with adult or pornographic content (Miranda A.H. Horvath, Llian Alys & Afroditi Pina, 2013). Students using the internet, therefore face a real risk of being drawn to pornographic content inadvertently. This is worrisome since the exposure to online

¹⁸ Centre for Domestic Violence Prevention & ors Vs Attorney General (Constitutional Petition 13 of 2014) [2021] UGCC 20

¹⁹ Section 10 of the Anti-Pornography Act CAP 119, Laws of Uganda, Revised edition 2023, provides ;

“10. Child pornography

Any person who produces, participates in the production of, traffics in, publishes, broadcasts, procures, imports, exports or in any way abets pornography depicting images of children, commits an offence and is liable on conviction to a fine not exceeding seven hundred and fifty currency points or imprisonment not exceeding fifteen years or both”

²⁰ Section 22 of the Computer Misuse Act CAP 96, Laws of Uganda, Revised edition 2023, provides;

“22. Child pornography

(1) A person who—

(a) produces child pornography for the purposes of its distribution through a computer;

(b) offers or makes available child pornography through a computer;

(c) distributes or transmits child pornography through a computer;

(d) procures child pornography through a computer for himself or herself or another person; or

(e) unlawfully possesses child pornography on a computer, commits an offence.

(2) A person who makes available pornographic materials to a child commits an offence.

(3) For the purposes of this section “child pornography” includes pornographic material that depicts—

(a) a child engaged in sexually suggestive or explicit conduct;

(b) a person appearing to be a child engaged in sexually suggestive or explicit conduct; or

(c) realistic images representing children engaged in sexually suggestive or explicit conduct.

(4) A person who commits an offence under this section is liable on conviction to a fine not exceeding three hundred and sixty currency points or imprisonment not exceeding fifteen years or both.”

pornography is likely to be shocking and upsetting to children (Quadara, Alissar El-Murr, 2017) but more worrying is the fact that curiosity may keep them glued, and in the process corrupt their beliefs into thinking that women are sex objects (Peter & Valkenburg, 2009). The continued exposure to pornography comes with the risk of addiction, exposure to risky sexual behaviour and decline in education performance, which are detrimental to the children's development. The risks of addiction, exposure to risky sexual behaviour and decline in education performance due to exposure to pornography are expounded herein after.

Addiction to pornography

The exposure to internet pornography has led some people to develop addiction to pornography, there is no consensus on classifying pornography as an addiction more so because some associations such as the American Psychiatric Association do not recognize pornography addiction despite the nonrecognition, it is still a problem for many who cannot control being drawn to online pornography. In London, it was noted that there was an increase of people seeking treatment for uncontrollable viewing of pornography on the internet (Blunden M, 2018). Pornography is also said to affect a reward centre in the brain the same way other compulsive behaviours such as gambling or drug abuse do (Bostwick & Bucci, 2008) leading to documented cases where pornography has led to addiction (Gómez Hidalgo et al., 2009). It therefore follows that exposure of children in school to pornography exposes them to the potential of "addiction", whereby they may seeking repetitive viewing of content that their young minds cannot process, leading to mood swings, inadequacy, anger, humiliation (Surbakti & Effendy, 2023) and in some cases suicidal tendencies.

Risky sexual behaviour

Students, some of whom are already experiencing puberty or are at the adolescence stage may find it difficult to resist the temptation to watch

pornography due to sexual curiosity, emboldened by hormonal and biological changes within their bodies (Andrie et al., 2021). Access to pornography exposes innocent children to uncensored sexual practices, which may increase their urge to experiment with sexual activity. Studies have also shown that there is a relationship between the age of first-time exposure to pornography and commencement of sexual activity in students (Kraus & Russell, 2008), concluding that the higher the degree of the student's exposure to pornography, the higher the risky behaviour among them (Yunengsih & Setiawan, 2021). A study commissioned by the Office of the Children's Commissioner for England in 2011 focusing on Child Sexual Exploitation in Gangs and Groups explored the effects of exposure to pornography on children concluded that risky behaviour such as engaging in sexual behaviour at a young age, indulging in unprotected vaginal, anal and oral sex, and consumption of drugs or alcohol were all linked to access and exposure to pornography (Miranda A.H. Horvath, Llian Alys & Afroditi Pina, 2013). It can therefore be concluded that to protect children from risky sexual behaviour, a country has a duty to put in place mechanisms to protect the children from exposure to online pornography.

Education performance decline

The integration of ICT in education is inevitable, and in recognition of the potential of digital learning in education, March 19th of every year was declared by the UNESCO member states an international day for digital learning. The embrace of ICT in education carries with it the threat of exposure to pornography, which is likely to cause mental distress to students. Pornographic scenes tend to demean women and are often laced with violence, in the end, pornography is very distracting to children especially when at school. It is thus no wonder that it has been opined that sexual arousal from watching pornography negatively affects memory (Laier et al., 2013). A study done in Belgium targeting over 1400 adolescents aged

between 12 and 18 also found that academic performance deteriorated among the students that used sexual content on the internet more than others (Beyens et al., 2015). Addiction to pornography affects children sleep patterns, emotional wellbeing and decrease their overall performance (Surbakti & Effendy, 2023). It is therefore safe to conclude that persistent viewing of pornography is likely to lead to a decline in a student's academic performance.

RECOMMENDATIONS

In this part of the paper, recommendations that can lead to the protection of student in Uganda from exposure to online pornography have been suggested.

Need to define Pornography

The Anti-Pornography Act CAP 119, which is Uganda's primary law for the prohibition of Pornography, does not have a definition of Pornography following a declaration by the Constitutional Court of Uganda that the definition it had was null and void. It is also notable that whereas the Computer Misuse Act CAP 96 lays down what constitutes Child Pornography, it also doesn't offer a definition of Pornography. It is imperative that a clear definition of Pornography and what may amount to exposure to pornography be adopted in Uganda. A leaf can be drawn from international instruments and laws of other countries that have definitions of pornography or what relates to

exposure to pornography especially in respect to children.

The East African Community (EAC) Child Policy 2016²¹ defines sexual abuse²² to include any act involving children in looking at or watching sexual activities or images. This in my view addresses exposure to pornography. In Tanzania, The Cybercrimes Act no 14 of 2015 creates two offences relating to Pornography, Section 13 therein creates the offence of Child Pornography, while section 14 creates the offence of publishing Pornography. The Tanzanian law does not carry a definition for pornography but has a definition of Child pornography²³ provided in Section 3 of The Cybercrimes Act no 14 of 2015. In Kenya, Section 24 of The Computer Misuse and Cybercrimes Act CAP. 79 creates the offence of Child Pornography. In the same Act, Section 3 provides for a definition of Pornography²⁴. In India, The Protection of Children from Sexual Offences Act, 2012 does not define pornography but gives an elaborate definition of Child Pornography²⁵. In the United Kingdom, Section 236 of the Online Safety Act 2023 defines "Pornographic Content" and Section 63 (3) Criminal Justice and Immigration Act 2008 defines a pornographic Image as "content of such a nature that it is reasonable to assume that it was produced solely or principally for the purpose of sexual arousal".

It is worth noting that unlike Uganda, countries comprising of Tanzania, Kenya, India and United

²¹ <https://ovcsupport.org/wp-content/uploads/2017/04/FinalEACChildRightsPolicy2016.pdf> [Accessed on 19 January 2025]

²² Sexual abuse is defined in the EAC policy 2016 as "forcing or enticing a child to take part in sexual activities that he or she does not fully understand and has little choice in consenting to. This may include, but is not limited to, rape, oral sex, penetration, or non-penetrative acts such as masturbation, kissing, rubbing and touching. It may also include involving children in looking at, or producing sexual images, watching sexual activities and encouraging children to behave in sexually inappropriate ways." Accessed at <https://ovcsupport.org/wp-content/uploads/2017/04/FinalEACChildRightsPolicy2016.pdf> [Accessed on 19 January 2025]

²³ "Child Pornography" means pornographic material that depicts, presents or represents; (a) a child engaged in a sexually explicit conduct; (b) a person appearing to be a child engaged in a sexually

explicit conduct; or (C) an image representing a child engaged in a sexually explicit conduct" Accessed at <https://tanzlii.org/akn/tz/act/2015/14/eng@2015-05-22> [Accessed on 30 March 2025].

²⁴ "Pornography" includes the representation in books, magazines, photographs, films, and other media, telecommunication apparatus of scenes of sexual behaviour that are erotic or lewd and are designed to arouse sexual interest." Accessed at <https://kenyalaw.org/kl/fileadmin/pdffileadmin/Downloads/Acts/ComputerMisuseandCybercrimesActNo5of2018.pdf> [Accessed on 30 March 2025].

²⁵ "Child pornography" means any visual depiction of sexually explicit conduct involving a child which include photograph, video, digital or computer generated image indistinguishable from an actual child and image created, adapted, or modified, but appear to depict a child." Accessed at <https://www.indiacode.nic.in/bitstream/123456789/2079/1/AA2012-32.pdf> [Accessed on 30 March 2025].

Kingdom all have definitions of Pornography, or Child Pornography, or Pornographic Content in their laws which makes it easy to contextualise and implement the laws in those countries. A definition of Pornography is key for proper enforcement of the law, it is therefore imperative that in Uganda, the law be amended by including a definition for pornography to avoid ambiguity in implementation of the law. It would also be good if the definition makes it an offence to expose students to pornography by adopting a definition like the one in the East African Community Child Policy.

Child friendly sim cards

Children are a nation's treasure and asset (Suchi, S et al, 2022), that is why it is key to protect them. In an interview with a manager of one of the Telcom companies in Uganda, He stated that the challenge telecoms have is that they can not tell from their subscriber database, which mobile number is used in by a child because the law in Uganda requires a client to be 18 years before the client is granted a sim card that is used to access the internet through the Telcom or internet service provider. Children in Uganda using handheld devices to access the internet use sim cards that are registered to adults who may be their parents or older siblings, none of the sim cards are registered in the names of children because the law that requires a sim card holder to be an adult.

The United Kingdom's Online Safety Act 2023 requires regulated user-to-user services to provide services while protecting children from harmful content such as pornography (Shaffique & Van Der Hof, 2024). A higher standard of protection is therefore required for children than for adults. The challenge, in my opinion is for the service provider identifying a child user of the service.

Age verification has been used to control access to some websites, which require the user to state that they are above 18 years, this verification is often abused by children who can click alleging that they are above 18 years, whereas not. Therefore, online

Age verification to confirm that a user is above 18 years has not stopped children from accessing adult content websites (Blake, 2019). Stronger measures should therefore be used, such as pegging the sim card used to a child age category as the ultimate mode of age verification. It is my considered opinion that, if the law in Uganda is amended to allow children to own sim cards tailor made for a child friendly clientele segment, it would make it possible for the telecom companies and internet service providers to filter content accessed by the sim cards in the child friendly client category.

To offer children a higher standard of protection, the Ugandan government can amend the law contained in the Regulation of Interception of Communications Act CAP 101 and the Contract Act CAP 284 to allow telecom companies and internet service providers to provide services to children (persons below the age of 18) by giving them specific child category sim cards. This will create a child client base that the telecom companies and internet service providers can protect with strong filters that bar exposure to online pornography to the child category sim cards. This will make it possible to implement the Uganda Education Digital Agenda Strategy, using the child category sim cards for education purposes.

Content filtering

Access to pornography is one of the threats faced by children and teenagers while using the internet (Alguliyev et al., 2022). One of the remedies put forward to protect children from exposure to pornography on the internet is content filtering (Borg et al., 2022), which enables a service provider to screen or block access to websites considered to contain harmful material. There are also pornography detection algorithms that internet users can use to detect if an image is not appropriate basing on the number of bare skin pixels in the image (Tambe et al., 2021). These algorithms can offer protection once installed on children's devices.

In the United States of America, the Children Internet Protection Act requires schools or libraries that benefit from the subsidised E-Rate²⁶ internet access to have an internet safety policy that utilises technology protection measures²⁷ to block students accessing obscene pictures and child pornography among other content regarded as harmful to children (Gómez Hidalgo et al., 2009).

In Uganda, the Pornography Control Committee is mandated to forward to the Uganda Communication Commission a list of websites with pornographic content that need blocking, and on receipt of the list, the Uganda Communication Commission as the telecommunication sector regulator directs the telecommunication operators and internet service providers in Uganda to block the identified websites. On 6th July 2018, the Uganda communication commission issued a letter under reference LA/92/19 directing internet service providers to block a list of over ten international and seventeen local pornography websites. In this research, it was noted that that some websites listed in the regulator's communication are still actively accessible despite the directive to block them, which is a matter of concern because they can be accessed by children using the internet.

It is important to note that the Internet service providers are the best line of defence when it comes to implementing filtering of the internet content (Quadara, Alissar El-Murr, 2017), they are therefore fundamental if children are to be protected from exposure to the online pornography. They have capacity to offer parental control software (Gómez Hidalgo et al., 2009) at a cost or as part of their corporate social responsibility, so their involvement and cooperation is a key requirement if students in

Uganda to freely use digital tools for education purposes as was envisaged in the now halted Education Digital Agenda Strategy.

Sex Education

The curriculum of students in primary and secondary school introduces them to studies on the human reproductive parts as well as some level of sex education. In this era where the internet is used for educational research purposes, the threats of exposure to unwarranted sexual content can only be addressed by arming the students with age-appropriate sex education that is suitable for their stages of development (Quadara, Alissar El-Murr, 2017). The Bible states in the book of Hosea Chapter 4 Verse 6 that "my people perish for lack of knowledge," so in order to protect students from perishing because of the dangers of exposure to pornography, it is important to teach them that some websites have undesirable content such as pornography. Educating children on safe internet usage is also important (Surbakti & Effendy, 2023), as it equips them with ways to detect and avoid such websites especially when they appear as pop up adverts. Teaching students' ways of blocking the said undesirable sites will enable the students know what to do when unsolicited pornographic content appears on their gadgets.

In Uganda, the National Information Technology Authority- Uganda (NITA-U) a statutory body created by an Act of Parliament has on its website a link for reporting child sex abuse²⁸. MTN Uganda, one of the internet service providers also has a website for reporting Child Sexual Abuse Material²⁹ such as the exposure to pornography in the use of the internet. It is thus prudent that children are informed of such sites and encourage them to report

²⁶ The FCC's E-Rate program funds broadband access for schools and libraries in the United States, subsidizing up to 90 percent of the cost of an applicant's Internet bill. See <https://www.fcc.gov/consumers/guides/universal-service-program-schools-and-libraries-e-rate> [Accessed on 17 April 2025]

²⁷ The Children's Internet Protection Act enacted in the United states of America, The term "technology protection measure" is defined as "specific technology that blocks or filters Internet access to visual depictions that are— (A) obscene, as that term is defined in section

1460 of title 18, United States Code; (B) child pornography, as that term is defined in section 2256 of title 18, United States Code; or (C) harmful to minors." The Children's Internet Protection Act was accessed at https://www.littlewound.us/Downloads/Childrens_Internet_Protection_Act.pdf [Accessed on 27 March 2025]

²⁸ <https://nita.go.ug/projects-service-portfolio/report-child-sexual-abuse> [Accessed on 14 April 2025]

²⁹ <https://www.mtn.com/child-online-protection/> [Accessed on 14 April 2025]

when faced with exposure or abuse to promote safe use of the internet in education.

CONCLUSION

It is important to prepare children for a future driven by technology. This calls for nations to adopt school curriculums that integrate ICT in Education. The threat of voluntary or involuntary exposure to unwanted content such as Pornography shall always exist for as long as students use the internet at school and in their homes. The dangers of pornography such as addiction, introduction to risky sexual behaviour and decline in education performance justify research like this one to protect students from the stated dangers while taking advantage of the ICT in Education.

The implementation of the Uganda's Education Digital Agenda Strategy 2021 – 2025 that was halted due to the threat of among other things the possibility of exposing students to online pornography can be implemented after putting in place interventions to protect the students from the threat of online pornography. The recommendations made in this paper include defining Pornography in the Laws of Uganda to support legal protection of students. Secondly, creation of child friendly Sim cards available only to children to enhance protection measures to a children category of users is key because it will enable the service providers to apply stronger protection filters to children category client base. Thirdly, emphasizing content filtering to block websites with unwanted content is fundamental and lastly, educating students on the dangers of pornography, and empowering them with ways to detect, avoid and report pornography is a proactive way of protecting students using the internet. The recommendation suggested will go a long way in ensuring that the Uganda government initiative to integrate ICT in Education by implementing the Education Digital Agenda Strategy 2021 – 2025 can finally be implemented to benefit the students, while at the same time protecting them from online pornography.

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