

Internet access and security in Kitinga Primary School in Mwingi Central - Kenya

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Abstract

In order to cope with Information Communication Technology in the contemporary society and school in particular, all stake holders must be involved in this noble exercise. But, a pupil who brings a phone to Kitinga primary school has it confiscated and appropriate disciplinary action is taken against the culprits. These are among the current school policies and regulations which outlaw the use of mobile phones or internet services in the school. This article examines the extent to which teachers and pupils access the internet in school and at their homes. Second, it underscores the nature and type of information that pupils and teachers access on the internet using their computers, laptops or mobile phones. Third, it analyzes the internet security measures that are undertaken in the use of internet in Kitinga primary school. A survey strategy was adopted and interviews were conducted to elicit information for our study. Fifty questionnaires were distributed to capture information from both teachers and pupils which were augmented by interviews and observations. From the interviews conducted, it was evident that a few teachers did not own smart phones or even a lap top for personal use in school or at their homes. Most pupils own smart phones which they only use out of school. But, some poor parents were unable to buy smart phones for their children, let alone providing them with their basic needs.

Key words: internet, information communication technology, World Wide Web, internet connectivity

1.1 .Geographical background

Kitinga Primary school is a public institution of learning located in Mwingi Central, Kitui County in Kenya. It started initially as a pre-school in 1986, admitting its first batch of class one pupils in 1988. But, as time progressed, this school has transformed from a single stream school into a double stream institution with a pupil enrolment of 589, 14 teachers employed by the Teachers Service Commission (TSC), two teachers hired by the Parents and Teachers Association (PTA) and three (3) support staff employees.

1.2. The need for Information Communication Technology

The contemporary society has continuously embraced new technology in all its operations making it imperative for the internet to play a significant role to pedagogy, learning and research activities in its educational institutions (Kumar, 2006). The current Kenyan government has played a key role in creating and enhancing digital knowledge in its educational institutions by emphasizing the use of digital technology. The introduction and adoption of computers has facilitated the need to embrace Information Communication Technology (ICT) in its education curriculum. It is in this perspective that the government is in the process of fulfilling its campaign manifesto through issuance of laptops to selected primary schools in Kenya. The objective of the project is to introduce the use of computers to school going children at an early age. However, there are numerous challenges to be addressed if this programme has to succeed in Kenya. First, it is assumed that all primary schools have well built class rooms, computer laboratories and good facilities to store the lap tops. Second, all schools are well connected to the electricity power grid. Third, all schools are connected to a reliable internet connection server. Fourth, all standard one going children are old and responsible enough to handle the lap tops. Fifth, the teachers are well trained in using or handling the lap tops and by extension computers (Cromey, 2000).

1.3. Statement of the problem

The use internet as a key tool in teaching and learning in the contemporary society is evident in the use of the World Wide Web (www) which comprises a huge collection of documents that are electronically generated in addition to images and sounds which are also linked to other search engines (Stair, 1997; Singhal, 1997). In Kenya, most parents, teachers and pupils have gained proficiency in accessing and using the internet by the trial and error method by manipulating their mobile phones. A few of them have gained the experience from their friends, while some have the opportunity to attend computer lessons or attended a few workshops to learn the basic operations of computers. Many internet users are just hooked to their mobile phones, computers or cyber cafes and yet they do not know how and where to find relevant information. The key browsers that are used by teachers and schools include the internet explorer, chrome and Mozilla. In Kitinga primary school, most of the teachers were trained at a time when computers were not part of the communication tools for use in teaching or even learning. The education rigour was maintained by reading current books published in the relevant field s of study. However, with the introduction of Information Communication Technology, there is a paradigm shift for teachers to perfect their pedagogical skills using modern technology. Over the years, the price of text books and other reference books has increased tremendously rendering the average teacher to grapple with the few available resources in lesson preparation and delivery. In the newfangled society, when a teacher comes across a new concept in a course book or when a sharp pupil asks a challenging question, the best alternative is to surf the internet for a readymade solution. This is possible through the google search engine or google scholar. The use of internet avails large library materials by just clicking a button (Arthur and Paul, 2013). In fact, the reading of newspapers has been made easier due to the availability of the online versions, thus saving the cost on buying the printed editions.

In order to comprehend the state of internet use in our current primary schools, we ask the following questions: What is the extent to which teachers and pupils access the internet in Kitinga primary school and at their homes? What is the nature and type of information that pupils and teachers access on the internet on their computers, lap tops or mobile phones. What are the internet security measures that need to be undertaken while using internet facilities?

1.4. Objectives

This study examines the extent to which teachers and pupils accessed the internet in school and at their homes. Second, it underscores the nature and type of information that pupils and teachers accesses on the internet using either computers or their individual mobile phones. Third, it analyzes the internet security measures undertaken in the use of internet in Kitinga primary school.

2.1. Teacher access to Computers and internet

In Kenya, it is now a common trend for the electronic and print media to advertize on the need to use not only mobile phones for communication, but also to access and interpret printed data.

Teachers and pupils use the adobe and word processing programmes on the internet for educational and entertainment purposes.

Most teachers are encouraged to use information Communication Technology in instructing their learners thus facilitating improvement in knowledge and provision of quality education in our learning institutions (Gibson &Oberg, 2004). Teachers are challenged to be hands on and take more effective roles to enhance their computer proficiency. The teachers who have attained some skills in the usage of computers are very instrumental in assisting others to use such services for better content delivery in their classrooms (Karchmer 2001). Teachers may sometimes find it difficult to surf the internet while teaching in class unless it is readily available. Furthermore the time allocated

to a lesson is only 40 minutes, hence prior arrangements need to be done so as to succeed in this exercise.

Most teachers find it challenging to use the internet facilities in teaching because it needs advance planning. If it is effectively used teachers will not only command more respect from their pupils, but, will also provide them with security and confidence. The challenge is that, a few pupils who are sharp at internet usage may pose a risk to some lazy teachers who just rely on their hand written lesson plans or just use text books to teach their lessons. This is the reason why, all teachers should be encouraged to go beyond their traditional way of teaching attained in their respective teacher training colleges. They should endeavour to gain knowledge and relevant experience on their own by establishing what to find and where to find it on the internet. There is a lot of teaching content that is available online to supplement what is written and approved by the Kenya Institute of Curriculum Development.

Teachers must be honest and selective in teaching pupils to access the relevant sites in the internet although they are at liberty during their free time to venture into other none academic internet sites (Sharples et al 2008, Cunningham & Andersson, 1997). Sometimes teachers are heard complaining that using the internet to teach increases their work load because they spend too much time searching endlessly for information. But, the ingenious teachers will instruct their pupils the correct way to use the internet sites because any information that they erroneously find and post on the internet facebook, twitter, blog and other social media is in the public domain and it is not easy to undo or even erase it.

2.2. Pupil access and usage of internet

The internet is fascinating not only to teachers but also to pupils in the upper primary classes (standards 5 to 8) seek for information in answering home work assignments given by their teachers. This of course checks on the time that such children could waste idling around or engaging in fascinating conversations with their peers (Chapman, 2005). Some ingenious pupils share their responses on social media for team work searching and answering questions while also following up on sports updates and social entertainment such as European football. Others even participate in simple betting for the winning teams and scores (Olin-scheller&Wiksrom, 2010). Mobile phones are expensive gadgets to buy and own by an ordinary school going pupil, hence, a majority of them use their parents' mobile phones to search for answers relevant to their assignments under their guidance. In this way, it is rare for them to get the opportunity to surf and watch pornographic sites. It is expensive to stay connected to the internet by subscribing to internet connection bundles. But, while using the internet, pupils gain access to vast libraries and plenty of reading material and are able to comprehend the diversity of cultures in the world (Kilimci, 2010).

Pupils should refrain from exposing so much information about themselves or their families in the internet. Most pupils who were interviewed confided that they accessed internet services at the available commercial cyber cafes in Mwingi town. If such cyber cafes are not well managed, they could pose a risk to pupils and young children leading to violence, bullying, drug abuse, stealing and cheating not only in schools, but also in their homes (Sharples et al , 2008). Pupils who use the internet in cyber cafes spend much of their time in playing computer games.

In school, pupils are expected to use the internet, access materials to enhance their learning while teachers should use it to augment their teaching content and skills. Teachers and pupils must transcend from the trial and error period of using the internet and be proficient users. But, as Kitinga

primary school wants to have a modern computer laboratory, it is important to adopt some important guidelines to check on the access of Information Communication Technology.

3.1. Kitinga Information technology policy

The Mwingi county government should work closely with the school Board of Management and the Parents and teachers Association to construct a modern computer laboratory in Kitinga primary school. When this is done, a working information technology should be adopted for its efficient operation as outlined below.

All teachers and pupils must comply with the rules and regulations of accessing and using ICT resources while in school as follows:

- (i) The computer room and computers should be kept clean at all times.
- (ii) All computer users must sign in and out after using the computer laboratory.
- (iii) No food or drink is allowed into the computer room or while using a lap top.
- (iv) No computer or lap top should be taken out of the computer laboratory unless permission has been granted by the school authorities.
- (v) Teachers and pupils should access or post appropriate material for educational use only.
- (vi) Users should not download harmful information, materials or viruses onto the lap tops/ computers.
- (vii) All computer users should not interfere with the hardware or software installations of the computers.
- (viii) All users should not use the internet/ computer services to intimidate or abuse other users.

- (ix) Teachers and pupils must always perform security checks to all their storage devices such as the USB, Music devices, Flash disks, memory cards before opening.
- (x) All computer users must create user friendly user names and pass words which should be reviewed and changed frequently.
- (xi) Computer users should not disclose their user names and pass words to their friends.
- (xii) All computers must be logged off, exited and switched off from the power mains after use.
- (xiii) Any suspected misuse of the computers should be reported to the school authorities for appropriate remedy action.

Anyone using the school or privately owned computers must adhere to the above rules and regulations.

4.1. Summary and conclusion

There exists a generation and digital gap between teachers and the pupils nowadays because, the younger group has been born in the era which is digital while teachers have gained competency in computer usage in the later part of their lives. The teachers' and pupils' use of internet has emerged as one of the paramount tools in providing access to an invaluable source of information in education, social media and other every day practices.

Teachers and a few privileged pupils who have mobile phones use the You tube to down load music tones, access relevant data for personal use, get additional information for class room teaching and answering assignments. Since internet use makes learning easier, it is important to avail such facilities for use in schools but, under well established rules and regulations. This is the reason why, all schools are expected to be technologically advanced so as to allow their teachers and pupils make maximum use of the available computer and internet facilities. While it is expected that all

standard one pupils in Kenya have gained proficiency in access to lap tops, the challenge at hand is to make them continue to perfect their learning and skills in the subsequent years of their academic progression.

In Kenya, the government cannot go alone in succeeding to roll up the ICT programme in schools because, teachers and pupils should be able to follow up the use of computer generated notes in their lessons. Schools should adopt a computer laboratory approach instead of providing computers or lap tops to a few pupils in the school. In doing so, one player could provide internet connectivity services; another one to supply, equip and service computers/ equipment while the other should be in charge of operations.

5.1. Suggestions

The internet will be of no use if it is not adopted by teachers and pupils. Teachers should use it to update their subject content, while pupils should be encouraged to continue learning even when they are at their homes. This will help them to learn faster. Although learning with computers is fun, nonetheless pupils should not be allowed to carry home the school laptops because, this will raise questions on their effective use, security of storage, theft, vandalism, misuse or damage. This is indeed a wakeup call to the Kenyan government to set up certain minimum technological requirements to handle computers in schools. The county government should enhance internet connectivity and access to all primary schools and construct social amenities where pupils and the local community members can access the internet at affordable costs. In doing so, internet services will not be a preserve of the few who are privileged but, to all deserving Mwingi residents who need to cope with the changing trends in the ICT industry.

References

- Camila Brandstrom (2011). "Using the internet in Education-strength and weaknesses: A qualitative study of teachers opinions on the use of the internet in planning and instruction". *Akademin for utbildning och ekonomi*.
- Chapman Gary (2005). "Federal support for technology in K -12 Education". *Brookings papers on Education policy* 307-343.
- Charles Arthur & Paul Osei Brafi (2013) . Internet use among students in tertiary institutions in the Sunyani Municipality, Ghana". *Library Philosophy and practice (e-journal)*, University of Nebraska-Lincoln.
- Condie, R. Munro, B, Seagraves, L., & Kenesson, S (2007). The impact of ICT in schools: A landscape review. Coventry: Available at : <http://webarchive.nationalarchives.gov.uk/21101102103654/publication.becta.org.uk/download.cfm?resID=28221>.
- Cunningham Una & Andersson Staffan (1997). *Lararen-eleven-internet*. Stockholm: Liber AB.
- Gibson Susan & Oberg Dianne (2004). "Visions and realities of internet use in schools: Canadian perspectives". *British Journal of Educational Technology*.
- Karchmer Rachel A (2001) . "The journey ahead: Thirteen teachers report on how the internet influences literacy and literacy instruction in their K 12 classrooms". *Reading Research Quarterly* 36, 442-466.
- Kilimci Songul (2010). "Integration of the internet into a language curriculum in a multicultural society". *The Turkish online Journal of Educational Technology* 9, 107-113.

- Ministry of Education (2006). *National Information and Communication Technology (ICT)*.
- Olin-Scheller Christina & Wikstrom Patrik. (2010) “ Literary prosumers: Young people’s reading and writing in a new media landscape”. *Education Inquiry* 1 , 41-56.
- Rajeev Kumar & Amritpal Kaur (2006). “ Internet use by teachers and students in engineering colleges of Punjab, Haryana, and Himachal Pradesh states of India: An Analysis. *Electronic Journal of Academic and special librarianship*, Vol. 7 No. 1.
- Sharples et al , 2008Stair, Ralph M (1997). *Introduction to information systems*. Cambridge course technology.p.129.
- Singhal Meena (1997). “The internet and foreign language education: Benefits and challenges”. *The internet TESL Journal* 3.
- Visscher A.J. & Wild, P. (1997). “The potential of information technology in support of teachers and education managers managing their work environment”. *Education and Information Technologies*, 2 (4), 263-274.