Utilization of Mobile Phone and the Ethical Implications on University and Government Services: a Case of Post Graduate Students at Kenyatta University, Kenya

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ABSTRACT

This study investigated access and usage of mobile phones by postgraduate students. Mobile phone technology has greatly contributed to the quick access and sharing of information in the contemporary world. However, the issue of integrity in the usage of mobile phone remains a paradox. The data was collected using a questionnaire that was administered to 165 post graduate students in the Schools of Education and Business. The respondents were purposely selected because the researchers were interested in post graduate students working in government institutions and departments. The data was analyzed using SPSS version 18. The results indicated that mobile phone usage for information sharing and research is very high. All the students sampled used mobile phones to access, share, and search information since all of them had smart phones. It was noted that the University lacked a policy on use of mobile phones to access and read educational materials. Interestingly, it was noted that mobile phone is a handy technology for most examination malpractices and dishonesty. The study highly recommends policy issues on usage of mobile technology by students particularly in enhancing learning and information sharing as well as maintaining sanctity of examinations and individual student integrity.

CCS CONCEPTS

• **Applied computing** → **Computers in other domains** → Computing in government → *E-government*

KEYWORDS

Mobile Phone, Utilization, Sharing, Information, Usage, Ethical.

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1. INTRODUCTION

This paper is part of a study carried out in the schools of education and business studies at Kenyatta University (KU) in Nairobi, Kenya. The two schools have a total of 672 postgraduate students spread over in eleven departments and varied degree courses. In Kenya, about v68% of post graduate students are employees of either the government or private sector and their usage of mobile phones has heavy implication on government services. KU was established in 1985 by an Act of Parliament. Kenya is basically an Anglophone country and therefore, English is the language of instruction in schools.

The University has engaged in many national and international research and innovation projects. There is a growing interest in collaborative research and innovation by the postgraduate students, researchers and lecturers. The library services are widely connected through a vibrant internet infrastructure with several online electronic resources. In addition to the several volumes of printed book and journal resources, mobile phones have become the latest additional channel of accessing and utilizing information. This additional channel raises pertinent questions of integrity among the users.

2. LITERATURE REVIEW

Just like the internet transformed the educational environment throughout the world, the advent and ownership of cell phones by students has completely changed the landscape of information and knowledge consumption. Alexander (2004) and Barrs (2011) argues that cell phones are conspicuously present among all students and the smartphone is the "must have gadget" for students. This is because the Smartphone is an efficient learning tool for taking notes in form of audio recording and pictures as well as forum for making notes either in word or excel, storing massive information and transferring knowledge whenever necessary. Cell phones give students the much needed autonomy from the eyes of prying teachers (Barrs, 2011).

It is notable that several studies in the world have shown that adoption of the cell phone as a mode of teaching and instruction is in the increase. Dewitt and Siraj (2010) established that schools and teachers in Malaysian schools greatly relied on cell phones to design teaching modules for science and art students. The modules were used in instructing students to do individualized quizzes, tasks and assignments. They noted that text messages were used to facilitate online learning and access to information in discussion forums.

Another study in Gambia by Harvey and Sturges (2010) found a great increase in use of cell phones by faculty members and students as a multimedia devise for sharing information among the students and faculty members. It was noted in the study the cell phone was used among the students as an interacting tool and portable libraries and pocket internet. The study compared well with similar studies by Taki and Khazaei (2011) and Mutula and Dewah (2013) that showed the cell phone as an indispensable tool of communication among students in both Iran and Botswana.

Other studies in Mongolia, Philippines and Taiwan established that instructors relied more on text messages to teach and administer quizzes and other assignments. In a related study, Zhang et al (2011) evaluated the impact of learning using mobile phones at a university in China. The study concluded that mobile telephony in universities has great impact in facilitating learning. An investigation by Mokoe (2010) on the adoption of mobile phones in learning and social interactions concluded that mobile phone usage provided unlimited space in learning. The use of instagram, telegram and whatsapp for instance provided expanded and unlimited learning opportunities. This is particularly so because of the affordability of the mobile phones. Unlike the computer, laptops and tablets, all students in the post graduate programs studied had mobile smart phones. However, it was observed that mobile phone had its share of ubiquitous challenges. In Kenya, the Kenya National Examination Council (KNEC) has identified cell phone as the most likely tool to be used in examination cheating in primary, secondary and universities. Other instances are noted of indecent use of mobile phones. Some students used them to send nude pictures and forward unsolicited information as well as fake news. Mutula et al (2005) noted early enough the disturbance created by mobile phones in learning environment whenever they ring. There is also notable misuse and abuse of mobile phones in government services just like universities. Kemps (2018) noted heavy misuse of mobile phones in crime, corruption and cheating in government services.

3. STATEMENT OF THE PROBLEM

The importance and relevance of mobile phones in teaching and instruction cannot be ignored. Many studies have established the value of mobile phone in teaching, instruction and sharing of knowledge. Kenya boasts great developments in application and usage of Information Communication Technologies (ICTs) supported by digital revolution. The adoption and wide penetration of cell phone among the citizens particularly students have made it the most accessible, affordable and adaptable form of communication not only among the citizens, but also among students and ordinary Kenyans. The millennial generation that comprises most of the students in the universities is inseparable from mobile phones. However, the question remains whether the students' usage enhance educational opportunities. Do the students use the cell phone within the confines of the established policies, regulations and laws? The study aims at establishing to what extent the students' usage of mobile phones supports their post graduate studies and to what extent the usage promotes integrity among them. The specific study objectives were as follows: -

1) To establish the level of usage of cell phones among post graduate students.
2) To determine the functions of mobile phones in enhancing learning.
3) To establish the type of information shared by post graduate students.

4. THEORETICAL FRAMEWORK

This study is anchored on Davis (1989) Technology Acceptance Model (TAM). According to the theory, behavioral practices are influenced by ease, affordability, adaptability, adoptability and usefulness of the technology. Mobile phones definitely exhibit these traits of easiness, affordability, adaptability and usefulness among post graduate students. This is why the technology acceptance theory fits well in the study as its theoretical anchor.

5. RESEARCH METHOD

The study used a survey method to collect data from 165 post graduate students. The respondents were purposively selected and questionnaires administered to them. All the respondents filled the questionnaires and returned them through their heads of departments. The research noted 85% return rate of the questionnaires. The data collected was analysed using SPSS version 18

6. RESULTS AND FINDINGS

The researchers had first sought to establish the personal information of the respondents in terms of gender, year of enrolment, program enrolment, age and ownership of a cell phone. This was important since it enabled the researcher to

establish the relationships of the respondents' characteristics and usage of mobile phones.

From the findings (58.2%) were males and (41.8%) females. All respondents owned at least one smart phone while others owned more than one phone. The research indicated that majority of the respondents (56%) were in the age bracket of 25 – 30 years. The other age brackets were as follows: - 21 – 24 years (10%), 31 – 35 years (24.4%) and above 36 years (11.6%.)

Table 1: Age group of respondents

Years	Number	Percentage
21 – 24 years	15	10%
25 – 30 years	93	56%
31 – 35 years	40	24.4%
36 years and above	20	11.6%

The findings indicated lack of clear cut policy on usage of mobile phone by students. This unregulated use of mobile phone by post graduate students could be the reason behind the identified cases of misuse of mobile phones in examinations, indecent chats, fake news and pictures bordering on nudity and obscenity.

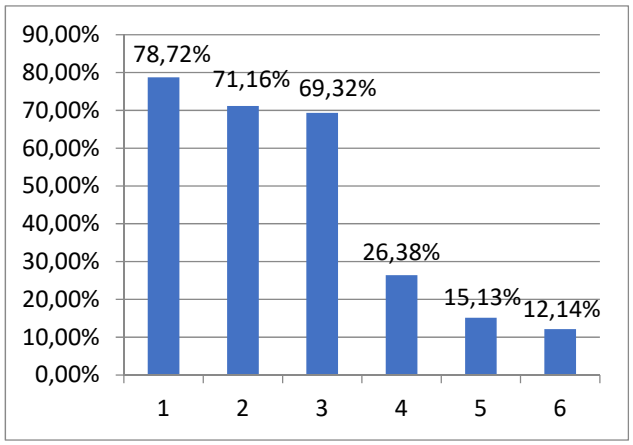
6.1. Level of usage and ownership of mobile phones

Part of the personal information sough was to establish the level of usage and ownership of mobile phones by post graduate students. The study findings observed that all respondents (100%) owned a smart phone and another 33.3% of the respondents owned a smart phone and another second phone even though it was not necessarily a smart phone. This 100% ownership of mobile phone by the respondents indicated high level of cell phone access and usage. Harvey and Sturges (2010) in their study findings as early as 2010 corroborates the above findings of very high level penetration of mobile phones among post graduate students. Harvey's studies had down that mobile phones are popular mode of communication in 'low income countries' in Sub-Saharan Africa.

6.2. Uses and functions of mobile phones

The study noted several uses of mobile phones by post graduate students. Majority of the respondents used mobile phones for voice communication (75.72%) text messages (71.16%) internet browsing and searches (69.32%) note making (15.13%) record keeping (26.38%) taking pictures (12.14%).

Figure 1: Uses of Cell Phones



6.3. Key

Series 1

1 - Voice Communication

2 - Text messages

3 - Internet browsing

4 - Record keeping

5 - Note Making

6 - Taking pictures

The use of mobile phone to browse and search internet sites could perhaps enhance learning just as it could also be used to watch pornography and other non-educational materials. Internet browsing and information storage are major functions of the mobile phones as observed from the respondents.

Table two: Functions of students phones

	Functions of students phones	Numbers	Percentage (%)
1.	Internet	143	86.66
2.	Memory card	154	93.33
3.	Qwerty key board	164	99.39

The results in Table two could be attributed to the student's usage to access internet sites archiving and storing some of the downloaded and typed work for future reference.

The uses of mobile phone indicated in figure 1 and the functions of phones to students in table two indicated that mobile phone usage enhanced learning and positive interactions. The positive

usage does not contrast positively with academic malpractices associated with usage of mobile phone. Table three below demonstrates the level of academic dishonest and malpractices using mobile phones.

Table three: Academic dishonest and malpractice using mobile phone

	Cheating using mobile phone	Number	Percentage (%)
1.	Used mobile phone to cheat in examinations	39	23.63%
2.	Used mobile phone to cheat in continuous assessment test (CATs)	43	26.06%
3.	Uses mobile phone to cheat in class assignment and presentations	25	15.15%
4.	Used mobile phone to cheat partner/spouse	48	29.09%
5.	Used mobile phone to watch pornography	37	22.42%
6.	Used mobile phones to receive genuine cash	138	183.6%
7.	Used mobile phones to receive/send corrupt proceeds	14	8.4%

Cheating and examination malpractices using mobile phones were identified in the study. This compared a well with the rest of the world where cheating using mobile phones has been noted in studies throughout the world. The Kenya National Examination Council (KNEC) has barred usage of mobile phones during examinations period by students, invigilators and supervisors while KU has barred use of mobile phones by students during examinations

6.4. Sharing of academic information

The study went further to find out the type of academic information the post graduate students shared among themselves using their cell phones. The survey findings established that the students mostly used cell phones to share out assignments given out by their faculty members. The table below shows the findings of the information shared out by students.

Table four: Trend of information shared out by students using cell phones

	No. of students	Percentage (%)
Assignments from lecturers	146	88.48
Pictures and photographs	131	79.39
Notes (class notes) and group work	87	52.72
Videos and songs	75	45.45
Papers/downloads/links	112	67.87
Book chapter/journals/periodicals	92	55.75
Any other	67	40.60

The results are an indication of the different functions of the mobile phones by the respondents. The use of internet by the respondents is quite notable in sharing of papers/downloads/links, 67.87%, book chapters/journals/periodicals (55.75%) and videos and songs at (45.45%). The respondents also heavily relied on cell phones to share notes and assignments.

The wide usage of cell phones by the respondents shows that the cell phone has become an educational tool. As an educational tool, it has been used to store information in form of notes, pictures, videos, songs, downloads, papers and assignments and therefore becoming an efficient modern day pocket library.

7. CONCLUSIONS AND RECOMMENDATIONS

The study investigated access and usage of mobile phones by post graduate students. The objectives guiding the study were:

4) To establish the level of usage of cell phones.
5) To determine the functions of mobile phones among students.
6) To establish the type of information shared among the students.

The study findings established that all the post graduate students had one smart phone and others owned at least two phones. The reasons given for owning two phones were not satisfactory. The fact is those who owned two phones or more than two was because they used one line for official work and which was well known while the other one was clandestine, corrupt and manipulative dealings bordering on unethical issues. However, it was noted that the use of mobile phones by post graduate students working in government services has promoted efficient delivery of services. Indeed, mobile phones have supported the government Rapid Result Initiatives (RRI) under Huduma Initiatives in Kenya, a fact also supported by Nwachukwu and Asonga (2016). The study established therefore hundred per cent (100%) level of usage of cell phones. They use them to browse the internet and share academic information. A few students use them to cheat on examinations and family. The key functionalities of the mobile phones were noted as sending

text messages, internet browsing and memory (storage of required data and information). Browsing is a key function given that the University has internet hot spot all over. With the foregoing findings, it is prudent to conclude that there is need to have a clear policy touching on information usage among the students. The policy could regulate misuse of mobile phones and mainstream it as a tool for learning and enhancement of class work. The regulations could touch on penalties for misuse and other mal practices.

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