

Mobile Phone Usage among University Students in Kenya: A Recipe for Sustainable Development

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Abstract: - Kenya is one of the countries where mobile phones have revolutionized nearly all sectors of life of the citizenry regardless of age and place. In recent times however, many a learner especially those at university level strive hard to have a mobile phone for various purposes. Besides the most common usage of a phone which is communication, there are other purposes that these gadgets serve. This paper therefore sets out first to survey the various ways in which mobile phones are used by learners at university and secondly, make appraisals to enhance the impact of these devices on sustainable development.

Key words: Mobile Phone, University students, Usage, Sustainable Development, Kenya

I. INTRODUCTION

The evolution of mobile telephony is one of the most astonishing innovations ever seen in recent times in the entire world. As a powerful communication gadget, the mobile phone seems to have lately permeated the entire universe from Europe to Asia, and America to Africa. Today, the mobile phone is no longer a rich man's preserve as was the case some few years ago. Fact is that the mobile phone has become common place and within monetary reach by majority of citizens. In the same line, [1] observe that it has become usual that at every turn, there is someone using a mobile phone irrespective of place, age and time. Besides its primary role of receiving and making calls, the mobile device has become multi-functional in nature, performing the work of a timer, map, radio, television, calendar, notepad and calculator among others. In a nutshell, the mobile phone has become a necessary accessory in every sphere of life.

According to [1] the mobile phone is one such device that continues to pervade daily lives of people of all walks of life especially young people. An important segment of this youthful population comprises students at universities among whom usage of mobile phone is reported to be consistently on the rise [2].

This paper therefore explores various uses of mobile phone among university students in Kenya and secondly appraisals are made to enhance the impact of these devices on sustainable development. The sections that are examined below include background information on mobile phones globally followed by brief overview of origination of mobile technology, usage of mobile phones among university students, and lastly appraisal of mobile telephony for

enhanced impact on sustainable development. Thereafter, conclusion and recommendations are made.

1.1 Background

The steady flow of innovation and growth in the arena of mobile telephony is simply amazing. Today, the mobile device continues to traverse the entire universe irrespective of age, gender, place and time. But what is a mobile phone which is also known by other names such as cellular phone, cell phone or even hand phone. Simply put, this is a device that is basically made to enable users to make and receive telephone calls over a radio link while moving around a wide geographic area [1]. It comes with great inbuilt capacity to link people and places separated by both vast and minimal distances across the globe.

On the other hand, mobile telephony is the process constituting a host of phone based activities ranging from distribution to servicing of handsets including repair and maintenance as well as provision of voice and data services to enable full scale function of the mobile phone.

The usefulness of the mobile phone is reflected in the massive purchases of the gadget all over the world as is reported by [3] that in the year 2004 people in the world bought 674 million mobile phones followed by a rapid rise to 730 million in 2005. A further rise in purchases is reported by International Telecommunication Union (ITU) cited in [1] to the effect that estimates for mobile phone subscription by end of the year 2010 stood at 5.3 billion people which translates to nearly seventy-seven percent (77%) of world's population.

Today, majority of people all over the world are well connected to the extent that one out of every two people uses a phone [4],[5] also aver that mobile phones have become an integral part of peoples' lives in these modern times. Information displayed in Table 1 below shows clearly the degree of entrenchment of mobile phone by ownership in selected countries of the world.

Table1: Ownership of Mobile Phones across the World

Country	Year	Age-Group	Statistics
Norway	1999	13-20	80%
United Kingdom	2001	<16	90%
Italy	2003	9-10	56%

Australia	2004	5-9	50,000 children
		10-13	33%
		13-15	45%

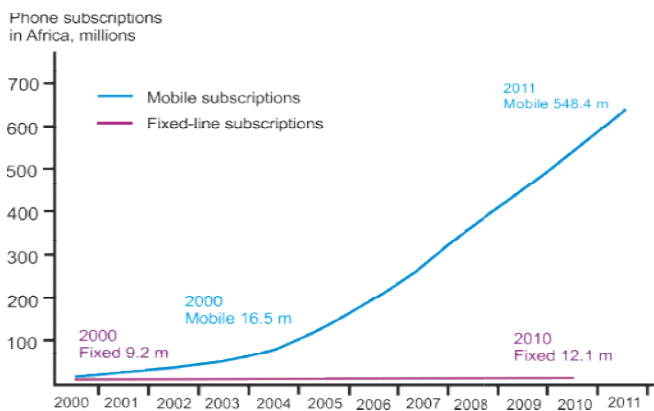
Source: Akanferi, Aziale and Asampana (2014)p.16

A closer look at Table 1 reveals that in the developed world a higher percentage of youth own mobile phones. For example in 1999 in Norway 80% of 13-20 year olds owned and used mobile phone while 90% of youth below 16 years of age had mobile phones in the United Kingdom. Away from statistics in the table, [6] submits that Finland has one of the highest mobile phone densities in the world with 90% of people under 30 years of age owning a phone.

As earlier mentioned, usage of mobile phone is a global occurrence, a fact that is reiterated by [7] to the effect that in 2003 many countries such as United States of America (USA), Germany, Japan, China, India, Russia and Brazil realized a boom in sales of camera phones, color screens and other assorted phone accessories. This could go to explain the possibility in rise in the number of phone users in these countries. According to [8] other leading countries in usage of mobile telephony are India (79 per cent), Singapore (78 per cent), Indonesia (72 per cent), Thailand (69 per cent), Saudi Arabia (64 per cent), Turkey (62 per cent), China (61 per cent), UAE (61 per cent), Poland (59 per cent) and Malaysia (57 per cent).

Akin to other world continents, Africa has also had its fair share of the mobile phone leap. According to [9] Africa is said to have had exponential growth in the telephony sector in recent times with more than 650 million people as mobile subscribers-this is some 40-fold growth rate from mere 16.5 million subscribers as at the year 2000.

Figure 1. Phone Subscriptions in Africa, in Millions



Source: Quist & Quarshie, 2016,p.2

A study of Figure 1 shows that while there is a steady rise in mobile phone subscriptions from the year 2000 from about 100 million people to a high of approximately 650 million in 2011, fixed-line phones registered very minimal increment in subscriptions, about 3 million within the indicated decade. This is proof that there is drastic and steady shift from use of

fixed lines to mobile phones over the years in the continent of Africa.

Africa's success profile in mobile telephony has been replicated in specific countries with mobile subscription percentage score as follows; Kenya (83 percent), Nigeria (81 percent), Ghana (75 per cent), South Africa (71 per cent) to mention a few [8]. [8] reports further that smart phone usage in Kenya has got to high levels exceeding the 40 million mark as at 2017 to account for 90.4 per cent of the adult population as of today. A bigger component of this adult population is made of university students who are susceptible to high mobile phone use [10] The fact that many university students not only have phones but use them on campus grounds has raised concern as to usage of these gadgets- this is the focus of this paper.

1.2 Milestones In Chronological Accounts Of Mobile Telephone In Kenya

Literary accounts concerning origination of wireless phone are scant [11]. However, it is on record that in the year 1908 Nathan B. Stubblefield of Murray, Kentucky, United States of America had his invention of 'cave radio' telephone patented [11]. It is further emphasized that this invention was however not directly linked to the cellular telephony as we know it today. More milestones would be further realized in 1947 Bell Lab engineers invented cells for mobile phone base stations. In 1946, the first American commercial mobile radio telephone service was introduced. Nearly three decades later in 1973, the first hand held portable cell was introduced in the United States by Marty Cooper and John Mitchell. The gadget was a Motorola. In 1984, the mobile phone hit the commercial market and since then there has been no retreat in mobile cellular subscriptions every year to the extent that by the year 2016 there were 7 billion mobile users worldwide [12].

In Kenya, the advent of the mobile phone was preceded by an unsteady communications network manned by Telkom, a telecommunication corporation which launched its wireless services in the country in the year 2007. The wireless services were operational within a restricted area due to network issues [13] hence was not widespread in its geographical coverage as it was not in its service to the masses.

The mobile phone as we know it today was introduced into the Kenyan market in 1992. However intense usage of these phones began in 1999 following institutionalization of the Communications Commission of Kenya. The biggest milestone was therefore realized in 1999 with the official licensing of Safaricom and the then Celtel to provide mobile connectivity in Kenya. Following this liberalization of communication enterprise in Kenya, the country was on the path to opening up to the rest of the world in terms of speedy phone linkages.

Today's cell phone is however sensitive to speed and connectivity to social life [7] in the sense that people are

quickly adopting the mobile phone to transform their lives. This is happening through raising awareness levels, provision of information for improving businesses and being more informed of recreational activities. While describing the evident forward leap that characterizes mobile technology, away from the initial fixed line telephone, [7] quips that even though the fixed line telephone has brought communication links into the work place and homes but now the mobile one ‘...puts them straight into the hands of unprecedented number and varieties of individuals.’ Indeed many people have today adopted the mobile phone as a necessary additional accessory of a lifetime because of its multipurpose nature ranging from rendering ease of communication to enabling the much needed monetary transactions right at the subscriber’s doorstep.

1.3 Usage of Mobile Phone among University Students

It cannot be overemphasized that usage of mobile phones by university students is a global phenomenon. According to [2] nearly every university student today has a mobile phone. Further still, [10] in their study of ‘neuroticism, extraversion, self-esteem, gender and mobile use in age-group of 18-85 years’ submit that young people are susceptible to frequent mobile phone use. In addition, [14] reports that students are prone to greater use of smart phones opting out of face to face communication. This is probably due to the ease with which a mobile phone hastens communication between any two people without incurring much effort to physically look for them in order to strike a conversation.

The mobile phone, especially the 4G model which is the latest in the market is popular with students as it offers services equivalent to those of a computer system. Reference [15] observes that the number of students adopting the mobile phone is on the increase hence the possibility that perhaps their learning experiences are positively influenced by these gadgets. Reference [16] Submits that learning through the internet is beneficial as it offers limitless possibilities of expanding education to a wider geographical area. Such learning besides being interactive, also defies the shortcomings of a traditional classroom environment. A study by [17]) on ‘The Intensity of Social Networks Group Use among the Students of Jordanian Universities’ suggested that mobile technology can be used as an academic tool for communication and interacting with/between educators and learners. As a result the study encouraged the integration of phone technology into learning management systems.

The big question however, is how university students use their phones-is it for noble purposes? On the contrary, [18] in the study on mobile phone usage among Nigerian university students reports that the device has become a tool of the moment, a thief of time including occurrence of symptoms of addiction among the students. This is because students spend too much time on social networking sites at the expense of their studies. In the same vein, [19] expressed that students use mobile phones for purposes of cheating in

examination- that they convey answers to other students through text messaging. Based on the foregoing it becomes clear that students at certain times use their phones for unpleasant and unethical activities in academic circles.

Reference [20] did a study on phone use among adolescents in Japan and reported that Japanese adolescents used SMS feature more, followed by video entertainment.

As earlier indicated university students’ phone preference would be the multifaceted ones in terms of features and functions. Smart phones in Kenya are largely used to access games, music, news and social media sites. Social media sites which are popular with university students include facebook, twitter, and to some degree instagram. According to [3], [12] and [23], university students use smart phones due to its wide ranging applications which include:

Digital camera: Point-and-click! Phones capture pictures hence students may save them for posterity or transfer them to others and to computers.

Audio recorder: Mobile phones can be used to record conversations or even brief notes for future reference.

Video recorder: Phones are becoming video cameras also - some of the newest cell phones can record an hour or more of video.

Multimedia messaging: Everything recorded can be shared with others by using MMS.

Email client: The phone can be used to connect to any global server like Gmail or Yahoo and allow receiving and sending email. While most phones may not have the ease of use that a

Web client: Phones can also browse websites, via a WAP and/or HTML browser. Most web sites may not look great on the small screen, but it is still possible to connect to any web site.

Gaming platform: Mobile games have become big business in the past couple years as students may seek entertainment at will they have them on the device .

Documents viewer: It is increasingly possible to view documents on the cell phone, in the popular MS-Office file formats.

Computer adjunct: For many, the cell phone has replaced the PDA as the complement to the computer. With a remote desktop application, it also becomes possible to make the mobile phone a window to one's computer.

Music player: The next big thing is the combining of music capabilities on the mobile phone. While phones can play MP3s, music can as well be streamed from the Internet and You-Tube .

TV: In Kenya, many TV channels promote their products to a wider audience including students. In addition, certain pop up notifications via the phone can be alluring to students such as educational advertisement or even job adverts.

Wallet: The phone can also be used to pay for purchases like a credit or debit card. There is already a billing relationship that exists between the subscriber and the operator, and that can be used to make payments to merchants at fuelling stations and main grocery stores.

Bar-code readers: Phones will also be able to read bar codes that is ingrained upon merchandise and that can have very interesting applications in commerce.

While these are some of the more obvious functions of the smart phone today, it cannot be fathomed as to what the next discovery of phone usage would be.

Against this backdrop of many functions of the smart phone that is likely in the hands of many a university student, it is important to note that unless university students are disciplined and properly use their study time, they might end up spending too much time with their phones with likelihood of suffering addiction. According to [21] addiction is not only real but is already getting widespread in our society, and is associated with dire mental health risks. [12] Submits that addiction to smart phones among students is between 24.8%- 27.8% and is increasing every year. Some of the telltale signs of mobile phone addiction among students are;

- Display of feelings of anxiety and restlessness whenever one is without phone.
- Waking up abruptly at odd hours in the night to check communication updates.
- Delay in professional performance due to prolonged phone activities.
- Distracted with smart phone applications.
- Constantly checking phone for no apparent reason.

A combination of these behaviors if not brought under check may affect students in many ways including reduced work efficacy, being a social nuisance, psychological addiction, cognitive malfunctions and induced phone dependency. In as much as there is need to look out for these unfavorable outcomes emanating from phone usage among university students, all is not lost because the mobile technology plays an instrumental role in enhancing socio-economic development on all fronts.

1.4 Impact of Mobile Phone on Sustainable Development

If the words of [13] thus; ‘we are the first generation with the technical skills able to solve the problems of all the Developing Countries’ are anything to go by then one would be swayed to think that solutions to world problems totally reside in the mobile telephony-however this may not absolutely be the case for the fact that there are certain side effects associated with this technology as indicated elsewhere in this paper.

None the less, it is expected that with the advent of mobile technology there is bound to be enhancement of livelihoods of the youth if the projections of one Internet

Communication Technology expert at iHub complex is anything to go by, that, if 1(one) million jobs could be created by Kenya’s IT (Information Technology) sector, then the service economy should surpass agriculture in five years [22]. Indeed, with increased money transfer systems, on-going installation of other types of software like the fibre-optic networks and services for mobile phones, the infrastructure is already available to create foundation for sustainable economic growth in Kenya. Thousands of jobs, both formal and informal are already in the offing.

Mobile learning enables communication to occur within the learning community beyond the university and empowers users with expertise over a range of features in an online learning environment. A more enriching way that the mobile phone can bring about terrific development among university students is illustrated in Figure 2. Away from the more conventional phone usage among the general populace the student/learning inclined usage can go along way to incur far reaching positive effects on learner and their linkages.

Figure 2: Constructive uses of mobile phone among university students



Source: Curr.Res.J.Soc.Sci.,5(4): 130-133, 2013

A look at Figure 2 reveals the constructive uses of mobile phone among university students. This way, university students can contribute to sustainable development by disseminating immense knowledge based on theory and research to the people back in the society and in essence provide solutions to challenges and problems in the contemporary society. Such challenges could be in the area of health and nutrition, natural resource exploitation or even in the manufacturing sector.

Mobile money transaction especially the M-pesa segment in Kenya is not only convenient but also an opportune transaction that accords the student time that could have been spent while chasing these services elsewhere. Such time can otherwise be invested in studies, research and other productive ventures with long term positive effects upon the student and society at large.

1.5 Mobile Phone Addiction among University Students and Some Counter-Measures

According to [21] indiscriminate use of mobile phones poses a great health risk in the contemporary society. Among university students [12] mentioned elsewhere in this paper observes that mobile phone addiction is becoming a social menace and cannot be merely wished away. Some of the measures that can be embraced to tame this menace as suggested by [24] include but are not limited to the following;

- Establishing times of day to go phone –free.
- Determining specific spaces where mobile phone should be banned. It is important to note that this suggestion has found application in most Kenyan universities in the sense that students are usually barred from using their mobile phones in examination rooms as part of rules and regulations governing university examinations.
- Download apps to monitor how long one spends on a mobile phone .By this, one may be conscious of things that trigger phone use and therefore reduce total phone time. This action however calls for exercise of personal discipline by the user.
- Turn off pop-up apps, or simply keep the phone on silent or airplane mode in order to avoid unnecessary distractions.

The foregoing measures are far from being exhaustive hence there is need to explore more steps that can be taken to bring mobile phone usage among university students under check. However, the point of departure is that responsible mobile phone use rests with every individual handset owner.

II. CONCLUSIONS AND RECOMMENDATIONS

Mobile phones have brought the world closer than ever before [23] .It is almost certain that just like other university students elsewhere, majority of students in universities in Kenya are using smartphones for various purposes including communication; social networking via facebook, twitter; research and general studies; entertainment; and financial transactions among others. However, there are unpleasant repercussions associated with mobile phone obsession- but these are far outweighed by the benefits that come with this technology as discussed in the paper. It is equally important to note that with proper discipline in use of the mobile phone, most addiction symptoms such as irritability, restlessness and depression to mention a few can be managed. Overall, mobile technology has the capacity to accelerate socio-economic development in Kenya and beyond.

This paper is basically a product of library research hence it is recommended that empirical research be conducted on mobile phone usage among learners in universities in Kenya to make findings more authoritative. Other viable research areas worth exploring include assessment of mobile phone addiction among university students; and, influence of

mobile technology on academic achievements of students at university.

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