

The use of the close user group for tutorial delivery and student support services among teachers in Nigeria
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ABSTRACT

The adoption of technology enhanced teaching among teachers in secondary and tertiary institutions has progressed at snail speed. The teaching profession in spite of its immense contribution to human capital development is probably one of the least paid professions. It is therefore imperative to come up with the most appropriate technology to initiate teachers into understanding the benefits of ICT for teaching, learning and professional development.

The mobile phone is a ubiquitous technology whose potentials have not been fully exploited for use in technology enhanced teaching and learning, especially its capacity for audio conferencing using the close user group. It is the most appropriate technology that can be utilized by teachers in terms of being accessible, affordable and available. The Close User Group, CUG, is a community of teachers on a particular network which facilitates endless discussion 24/7 at zero cost. What is required is a token monthly subscription to remain on the network and teachers can enjoy maximum talk time, certain amount of free SMS and Data for browsing. Within a CUG, members can conduct audio tutorials, audio assessments, oral presentations for distance learning or spatially distributed student population. It can be used for monitoring and evaluation during exams and is particularly useful for language students and the visually handicapped.

The Close User Group, CUG is best used in education where the exchange of ideas, knowledge and facts consume a lot of time and money between teacher to teacher, teacher to students and teacher to administrators. With the CUG on the mobile phone, a teacher has the appropriate technology that saves time and money to engage in ICT based teaching and learning.

INTRODUCTION

Nigeria with a population figure close to 200 million people has over 100 million mobile phone subscribers, as far back as November, 2012. According to the Nigerian Communications Commissions, NCC¹, in December, 2012, active connections were put at 113,195,951 with telephone density peaking at 80.85%. This figure shows that in spite of the level of poverty in the country, wireless and mobile technology is playing a key role in connecting people and defining and redefining how they live, do business, are educated and learn as well. Wireless technologies are revolutionizing education all over the world, transforming the traditional ways of learning and teaching, creating open, enhancing resource based learning and providing flexibility and expanding access for lifelong learning for multitudes (Andrea Barker, Greig Krull, Brenda Mallinson)². Mobile learning is considered to be the ability to use mobile devices to support teaching and learning. It is the 'mobile' aspect of mobile learning that makes it stand apart from other types of learning, specifically designing learning experiences that exploit the opportunities that mobility can provide. The focus of this paper is to study how certain features of the mobile phone, like the voice/audio technology can be used to support teaching and learning in both regular and distance education in Nigeria. This paper investigates the closed user group, CUG, facility of the mobile phone in the context of current uses, benefits and potential benefits with their use, and its subsequent relevance as a ready tool for supporting teaching and learning in Nigeria. Considerations to bear in mind when making use of wireless technologies in education will be explored.

Keywords: mobile learning, wireless technologies, closed user group

Mobile technology has played a key role in improving the lifestyle of the people especially in education all over the world. Of the many different forms of ICTs, mobile phones are thought, for several reasons, to be a particularly suitable tool for advancing education in developing regions³. This is attributed to the fact that the mobile is owned by virtually everyone and requires little technical skills to master its operations. It has become a household item with some individuals owning more than one phone for the convenience of using more than one telecom operator. The mobile phone is personal property and users do not have to schedule time for the computer laboratory to use their phones. In Nigeria, the mobile phone played a key role in informal education during the last election. Section 154 of the Electoral Act of 2010 empowers INEC to make use of electronic media to conduct civic education and public enlightenment⁴. The Ondo State Government is using the mobile phone to reach mothers in the State through its maternal and child health project⁵. However, more can be harnessed from the mobile phone beyond its capacity to inform the people of their civic duties. The mobile phone can be used to introduce varying degrees of freedom into learning and teaching in the education sector, searching as a multi purpose tool to provide quality and continuous teaching and learning experiences.

The result of a survey conducted by Nigerian Bureau of Statistics in Nigeria, NBS⁶, reveals that the most pervasive and widely used devices are radios and mobile phones. The use of the internet and Personal Computer access is considerably low in comparison to radio and mobile phones. 63.9% of Nigerians had access to mobile phones. While less than half of the population (44.7%) had access to TV while more than 95% of the population does not have access to either the PC or the internet.

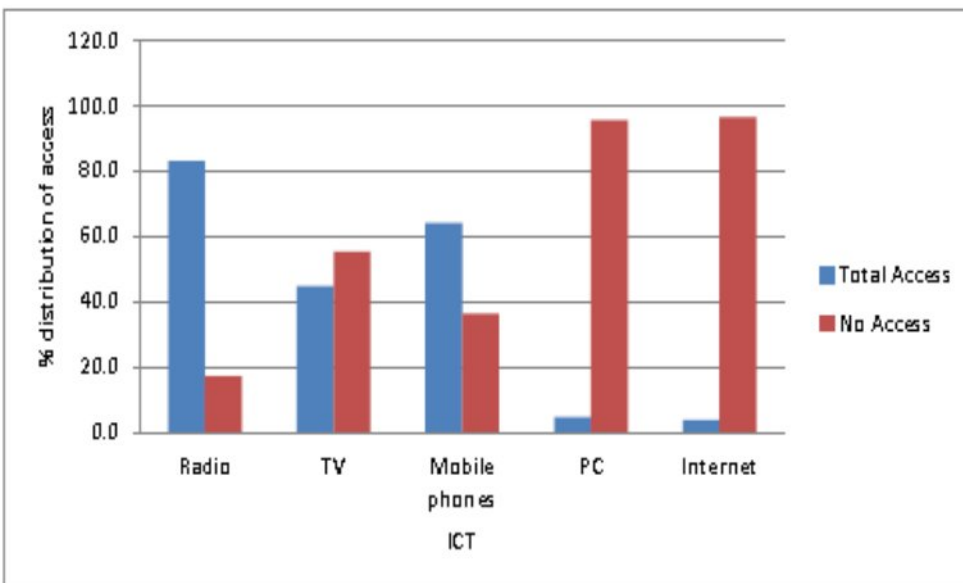


Figure 1: Total access to ICT by device in Nigeria, 2001

Similar survey conducted by NBS also shows that ownership of mobile phones in Nigeria is 2nd highest compared to other devices.

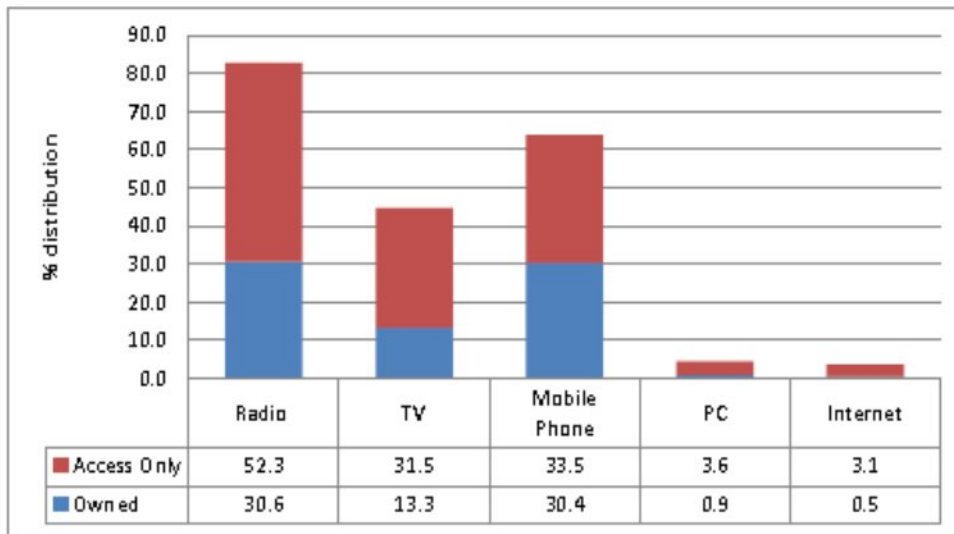


Figure 2: Distribution of ownership and access to ICT, %, (2011) *Source: NBS, 2011*

Data from the Mobile for Development Intelligence⁷, MDI, shows that GSM coverage in Nigeria is 72%.

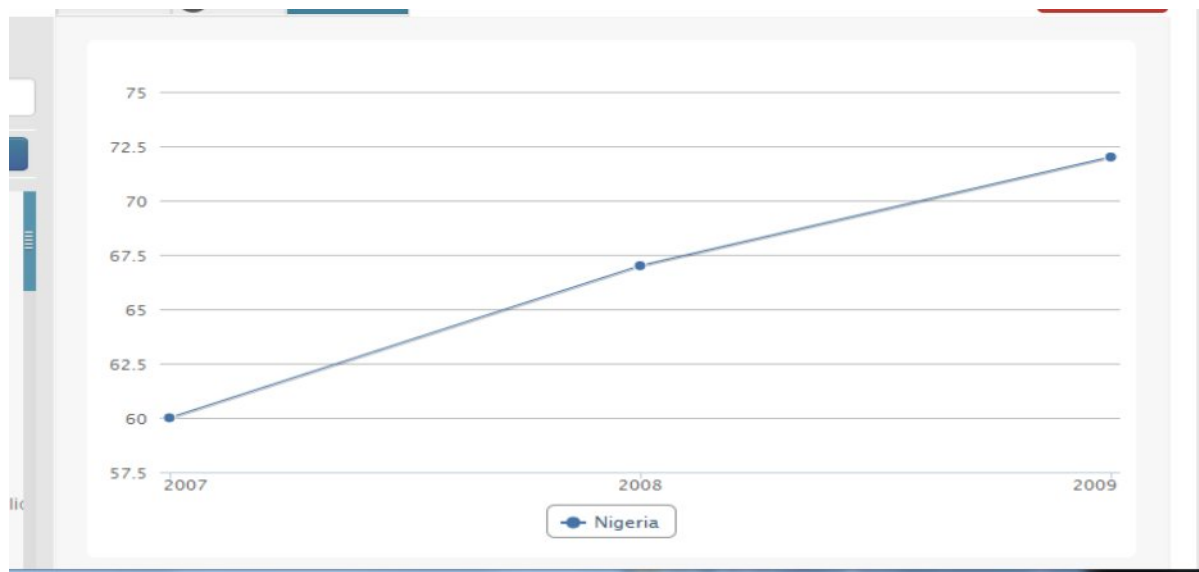


Figure 3: GSM distribution in Nigeria, 2009

Source: MDI

The provided information indicates the potential of the mobile phone as an ICT tool to support teaching and learning in Nigeria. Empirical studies have reported the advantages of using wireless technologies in learning environments. These include

- supporting group work on projects,
- engaging learners in learning-related activities in diverse physical locations,

- enhancing communication and collaborative learning in the classroom.

A key pedagogical aspect relating to handheld devices is that they extend the learning experience beyond the classroom, being portable, support the paperless classroom, and provide additional methods of communication.⁸ It is believed that using wireless technologies like the mobile phone in education may contribute to bridging the digital divide in developing countries, as this technology is generally cheaper than desktop computers and laptops.

While it is strongly believed that ICTs can empower teachers and learners by facilitating communication and interaction, offering new modes of delivery, and generally transforming teaching and learning processes³, the adoption of ICT into teaching and learning in a developing country like Nigeria has been faced with multiple challenges. Integration of ICT into education has mainly focused on technologies not readily available at all time to the learners and the teachers. The general impression of ICT in education has been of computers and the internet to the neglect of the benefit of others technologies like the mobile phone, radio and TV which teachers and learners are already accustomed to and is within their reach on a regular basis. Such attempts to utilize computer and internet technologies into education have led to problems. The complete or total infrastructure needed for integrating the computer and the internet technologies into education is lacking in most instances. Where computers have been provided, internet facilities have not been included or electricity needed to power the systems made available. Even when these are available, the technical and technology literacy and economic resources needed for maintenance and sustainability are lacking. Moreover, most teachers and learners are not mobile so lugging around a laptop between home and school is not really convenient. It is obvious that an appropriate technology is needed if the enormous potential of ICT in education is going to be properly harnessed. There is need to combine the benefits of all ICT tools in a ratio that will reflect accessibility, availability and affordability in the context in which the teaching and learning is expected to take place, on a regular basis.

The formal education system in Nigeria keeps expanding with more need for specialized training to meet the challenges of a developing nation. With more colleges and universities embracing distance education and open learning, the gap between those with access to education and those without access is still rather wide. Apart from the fact that infrastructure for expanding access is inadequate; the population of learners far outweighs numbers of available teachers. The consequence of this is that learning outcomes are not achieved, the fallout of which can be discouraging to a teacher. There is need to empower teachers with tools not just for teaching and learning but tools required to facilitate the highest degrees of flexibility in the teaching and learning arena. This flexibility will involve a tool/s commonly owned and easily operated by both teachers and learners which is the mobile phone.

The potential for the adoption of the mobile phone for teaching and learning is enormous especially for introducing flexibility using audio. Information regarding the educational and technological capacities of the wireless technologies and its use in education has not been as publicised as the use of computer technology in education has been publicised. Education technologists remark too often that Information Communication Technology (ICT) is taught in a specialist room and as the learning environment changes, teachers often find themselves in a foreign room with technology that they use infrequently. Teachers need ICT to support the subject being taught and available to “grab” those learning opportunities as and when they arise⁹. Portability can make a difference in a wide variety of settings, namely the classroom, a field trip, or outside of the school environment. Handheld devices allow learner groups to distribute, aggregate, and share information with ease, resulting in more successful collaboration.⁹ The use of mobile provides opportunities for increasing access to education programs to erstwhile larger segments of the population.

This serves as a more cost effective means of integrating ICT into teaching and learning instead of through eLearning model which is what is applicable in developed world, being ubiquitous tool teachers and learners are familiar with.

The mobile phone has some features that make it for supporting teaching and learning. One feature is the capacity for creating closed user groups, CUG. A Closed User Group is a community of people with common communications goal on a common network. It is a voice service that allows members of the CUG to make unlimited calls 24/7 at zero cost for a minimal monthly subscription fee that allows members of the CUG to remain connected. Major Telecoms companies in Nigeria like MTN, GLO, Airtel, Etisalat all offer this service. It is available as a prepaid or postpaid service, depending on the service provider. While it has been developed for the business community, it is certainly most useful in the education sector to promote technology enhanced teaching and learning and needs to be fully explored in the formal education sector.

CUG details from a national subscriber¹⁰

Minimum Number of Line in a CUG	3 lines
Maximum Number of Lines in a CUG	Unlimited
National Calls to all networks (off-net/on-net)	25 kobo/sec
National Call rate to all networks if monthly commitment is not met	50kobo/sec
National Calls to all numbers within your CUG up to 500 minutes	0kobo/sec
International voice rate to US, Canada, China, India and UK (Landlines)	20kobo/sec
National SMS to users on the Etisalat network	5Naira /message
National SMS to users on all other networks	5Naira/message
National SMS to users within CUG	100 free
International SMS to users on International Operators	100Naira/message
MMS	100Naira/MMs
Data	Browsing on Etisalat Mobile Portal Free
Other data services	0.055 NGN/kbps

Source: Etisalat Nigeria, www.etisalat.ng.com

Some institutions in Nigeria already using the CUG are

1. University College Hospital – Etisalat CUG¹¹

2. Federal Road Safety Commission, FRSC – Glo CUG¹²

The potential benefits of maximizing the use of Closed User Group, CUG, for supporting teaching and learning is highlighted below

- The mobile phone offers both real time and asynchronous facilities. With the CUG facility, teachers can conduct audio conferencing, audio tutorials with their students. The Short Message Sending facility is an asynchronous tool that complements the real time capacity of the voice technology of the mobile phone. SMS can be sent to further buttress points mentioned in an audio tutorial.
- The cost of achieving audio conferencing is much reduced on a CUG. The mobile phone is personal property and easily affordable. Nokia, a major player mobile phone production, introduces a fantastic social learning application called Life Skills¹³. The application runs without the need to connect to the internet, makes available for students to gather information to support their learning needs. In partnership with Nokia, institutions of learning can integrate the Life Skills application specific to their needs and share easily through audio conferencing using the CUG.
- Mobile devices make possible assessment-centred learning as well by enabling the provision of continual feedback throughout the learning process, presenting learners with diagnosis and formative guidance as to what might be improved or what might be learned next. Moreover, in providing prompt feedback, which is easily facilitated on a CUG using the mobile phone to teach and learn maintains the appeal of learning and provides a motivating factor that can at times be lacking in traditional modes of education. Mobile phones also facilitate community-centred learning, meaning learning that the learner deems valuable because of its relevance to the surrounding social context.
- The use of mobile phone for language instruction is well documented by UNESCO in partnership with Nokia on the “English Teacher”¹⁴. The project takes advantage of the pervasiveness of the mobile technology in Nigeria.
- Social interaction is imperative to effective learning. The capacity for elongated talk time achieved through the CUG on mobile phones permits collaborative learning and continued conversation in spite of physical location.

Conclusions

Education is crucial in the knowledge society, “as a source of basic skills, a foundation for development of new knowledge and innovation, and an engine for socio-economic development. It is, therefore, a critical requirement in creating knowledge societies that can stimulate development, economic growth, and prosperity”.¹⁴ All it takes to meet the educational needs of everyone should be explored. The mobile phone and key features like the capacity for closed user group, CUG, should be given due consideration.

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