

# **Mobile Learning: Potential Enabler of Open and Distance Learning in Sub-Saharan Africa**

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## **ABSTRACT**

The rapid mobile phone penetration is projecting developing countries into the next century and opening up new frontiers of unimagined possibilities. However, in sub-Saharan Africa, despite the fact that practically every open and distance learner has at least one mobile device, only a few open and distance learning providers and stakeholders have explored the prospects of mobile devices for learning. It is against this backdrop that this study was undertaken. Hence, the main goal of this research was to identify the opportunities and challenges of mobile learning with a view to proposing solutions on how best to harness the potentials of mobile learning in the 22nd century. Practical examples of how open education providers can develop the proficiency and practice of learners via mobile devices are equally highlighted. Findings from this research revealed that mobile learning offers numerous benefits for education: it represents the next phase in a long tradition of technology-mediated learning which will feature new strategies, practices, tools, applications, and resources to accomplish the goals of open and distance learning. Mobile learning promises an ever-present, pervasive, personal, and connected mode of learning. Moreover, the implications of mobile learning are far-reaching, and its potential effect on all forms of education, including open education are profound. On the other hand, the challenges of mobile learning are identified and the corresponding schemes to palliate these barriers are presented in order to promote mobile learning. It is envisaged that this study will serve as a guide to African stakeholders and providers of Open and Distance Education around the world, towards embracing the opportunities mobile learning devices offer.

## **INTRODUCTION**

Universities around the world are facing an exponential growth in the demand for higher education. Meanwhile, the significant decrease in government funding for education, changing student demographics and expectations as well as a global competition has made it difficult and almost impossible to cater for this essential requirement. Hence, Open and Distance Educational Institutions were established in order to provide for this need. Nevertheless, in sub-Saharan Africa, and particularly in Nigeria, the current technique for course delivery in distant learning institutions are inefficient and still not accessible to a good number of learners. On the other hand, the use of mobile phones in Nigeria has continued to soar, with everyone having at least one mobile phone and Short Messaging Service (SMS) becoming the cheapest and regular mode of communication across different socio-economic spheres. Thus, there is a great potential for this technology to be used as an instructional tool (Nwaocha, 2010).

The African continent has stunned the world by leapfrogging several stages of traditional telecommunications development. Mobile phones have become commonplace even in many of the poorest countries. By 2009, about one-third of the African population had a mobile phone subscription in sharp contrast to only 8.7% using Internet via desktop computers. Findings from a study by

UNCTAD placed the figure of cell phone subscribers in Africa at 360 million. This figure surpasses that of the USA which has only 276 subscribers (UNCTAD, 2009).

Mobile learning is often defined as learning that takes place with the help of portable electronic tools (Quinn, 2000). A portable device that supports learning may be freely moved, but the learner is mostly stationary, even though they are using a mobile device. Although the device is mobile and portable, the learning as an event cannot be described as mobile (Ahonen et. al, 2004). Moreover, when people access information via different tools, there is still much usability, compatibility and accessibility related questions that hinder seamless mobility and m-learning. In sum, mobile learning can be described as a highly situated, personal, collaborative and long term; truly learner –centred learning. The following properties of mobile devices are changing learning for the better: portability, connectivity, interactivity and context sensitivity.

### **Benefits of Mobile Learning**

Although mobile learning has evolved considerably over the last two decades, this educational mode is now faced with a series of significant trends that offer the potential to create dramatic new opportunities for empowering and transforming education. During this project a few examples of mobile learning in distant education were discovered. A good number of cases were identified in schools, in the field of higher education and in businesses. Thus, influential mobile technologies are now a normal part of everyday life, yet if open education providers do not use them as tools for learning, their potential cannot be exploited. Consequently, there are several reasons for embracing mobile learning in distance education.

Open distant learners' have their personal mobile devices and progressively, can use these devices as part of their studies. Today's' distant learner aims at undertaking learning activities that could not be done before, as well as wanting to be able to access materials and connect with others in more convenient ways that are in tune with evolving practices at work and in their lives more generally. There is a need to provide more flexible opportunities for study that build in some choice in how participants will use technology.

Mobile devices offer distant learners the opportunity to study privately. Generally, many adult learners who are executives are usually time starved, over worked yet under increasing pressure to make the best decisions in both an increasingly competitive and litigious environment. These behaviours may well serve as a deterrent for learning. However, mobile learning offers a powerful opportunity to introduce learning 'on demand'. It allows the individual to connect to open education at a time that suits them and in a way that can support current business challenges. The learner is no longer dependent on the classroom – mobile devices allow the learner to connect in times of reflection

Mobile technology offers the prospect to empower the learner and surmount the challenges to learning. What is more, it can enable open education providers to offer learning in a wide range of formats in order to suit individual learning styles.

### **Challenges**

Currently, mobile phone application in higher education globally is still low, especially in a developing country like Nigeria. While mobile learning continues to be a topic of interest among educators, yet very few institutions in sub-Saharan Africa have actually implemented this mode of course delivery. Deplorably, the effectiveness of mobile technologies is typically not well researched prior to adoption in Open and Distance Learning Institutions (Nwaocha, 2012).

Challenges of mobile learning identified in the implementing this work are listed below and addressed in order to provide advice on how to move mobile learning forwards in executive education.

- i. It is important to consider how to implement mobile technology into the learning space. The chances are it is already there in some form already. Therefore, it makes sense to determine the best approach to build on this.
- ii. Getting buy in from participants, faculty and staff when there may be resistance to change. Learning events for faculty and staff can highlight the benefits of using mobile technology in the learning offer. Successful mobile learning experiments can be celebrated. And adopting a 'freedom to fail' approach allows developers to be more creative and test things out.
- iii. • Choosing the technology may seem complex as there are several things to consider. There is no single device any better than another – it is dependent on choice and need.
- iv. There are also further considerations around the ownership of technology and privacy. Few answers were provided here but the challenges are worth identifying for further policy considerations.
- v. Costs can vary greatly depending on the chosen approach:

initial capital expenditure; on-going costs of infrastructure and technical support; costs of designing and implementing new concepts etc. An investigation of a cost model for infrastructure, technology and services that includes the cost of providing IP addresses and bandwidth should be carried out.

- vi. It is important to know your learner, to gather background information about student preferences, habits and attitudes towards their phone usage as well as learning. Measures need to be established that can reliably differentiate learners and their preferences.
- vii. Pedagogy should be placed first as part of any wider strategy, with technology being used as a supporting factor. However, it could take some time for the industry to settle long enough to provide standards for a template making it difficult to lock onto one choice.
- viii. It is important to think about the format and distribution of content which allows it to be accessible to mobile devices users. Content may well be created as well as consumed by users – how might this be managed?
- ix. Support from management can inform the initial strategy design whilst support by a promoter of mobile learning can exploit and demonstrate mobile capabilities. Pedagogical support has also been needed for some educators. On a practical level, support services need to be available for the management of equipment and on-line services. Technical support is especially required if the institution is providing devices or installations: support needs to be on-going and must be provided to all.

Evaluation of a mobile strategy can be taken beyond the reactions of participants to include measures of learning, behaviour and participants results to compare these to non-mobile conditions.

However, there is a fundamental tension between pedagogic and economic best practice making strategy in this area difficult. Hence, the effective implementation of mobile learning requires a clear pedagogic approach, identification of specific learning needs and educators direct involvement in decisions on planning curriculum application..

Consequently, regardless of the promise of opportunities, mobile learning faces a number of barriers (Quinn, at in its of the worlda good number of the While mobile phone subscribers in the developed world are growing rapidly,

The rapid mobile penetration is projecting developing countries into the next century as well as presenting novel and previously unimagined opportunities. However, in Nigeria, despite the fact that practically every open and distance learner has at least one mobile device, only a few open and distance learning providers and stakeholders have explored the prospects of mobile devices for

learning. It is against this backdrop that this study was undertaken. The main goal of this research was to identify the opportunities and challenges of mobile learning with a view to proposing solutions on how best to harness the potentials of mobile learning in the future. The study equally presents some practical examples on how open education providers can develop the proficiency and practice of learners in this thrilling aspect of development.

## **METHOD**

An empirical study was undertaken to identify the opportunities and challenges of mobile learning in order to propose solutions on how best to harness the potentials of mobile learning in the future.

Data acquisition was accomplished via online Interviews scheduled with students and faculties in ODL institutions. The interviews focused on specific cases of mobile learning using the online survey questions. Consequently, visitors to the project website were invited to complete online survey forms. On the whole, 10 visitors participated in this study. nts took

The key case examples included in this paper are drawn from twelve institutions and organisations Key cases Participants comment on s from visitors. Besides, visitors were several a number By inviting comments from visitors A survey was undertaken with the intent of identifying practical cases of application of mobile learning around the world

## **DISCUSSION**

Findings from this research revealed that Mobile learning offers numerous benefits for education: it represents the next phase in a long tradition of technology-mediated learning which will feature new strategies, practices, tools, applications, and resources to accomplish the goals of open and distance learning: promise of ever-present, pervasive, personal, and connected learning. Besides, the implications of mobile learning are far-reaching, and its potential effect on all forms of education, including open education are profound.

### **Advancement of Mobile Learning for the Future**

The opportunity for mobile learning in the 22nd century is huge. This is evidenced by the keenness of several companies dealing on mobile technology to partner with open education providers in order to drive their mobile learning strategy. Nonetheless, whether mobile learning is user driven or technology driven depends on the choice of the open education provider. Hence, in order to move forward with mobile learning, a number of factors have to be considered. Primarily, it is important to consider how to introduce mobile technology into the learning space. Therefore, prior to developing any mobile learning technology, it is critical to identify what the starting point is. Consequently, participants were asked how they were using their phone.

Another step involves making current and future learning resources mobile-friendly. Other steps entail providing information service app to all students in order to bridge the gap between students in remote and proximate locations.

## **CONCLUSIONS AND RECOMMENDATIONS**

On the whole, mobile learning represents the upcoming phase in an extensive convention of technology-mediated learning for the 22nd century. It will feature novel strategies, practices, tools, applications, and resources to accomplish the promise of ubiquitous, pervasive, personal, and connected learning. The effective application of mobile learning technology in open distance education can enable learners access education conveniently. It has the potential to respond to the on-demand learning interests of remote and proximate learners in an information-centric world. It also connects formal educational experience with informal, situated learning experience.

Consequently, Open Distance Education has a choice of whether or not to embrace the opportunities that mobile learning devices offer. It is envisaged that this report has demonstrated that there is much opportunity for extending learning in open education programmes, and has provided some practical examples on how open education providers may develop their expertise and practice in this exciting field. This work can equally serve as a guide Open and Distance Education towards embracing the opportunities mobile learning devices offer.

This work will also enable Open Educational providers gain practical experiences of how to harness existing mobile learning resources in order to reach a wider range of learners. They will equally discover the best strategy to adopt in order to better prepare learners to embrace the opportunities mobile learning devices offer today and will offer in the near future.

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