Is there a role for mobile phone technology in African higher education?

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Agenda

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What mobile learning technology entails

Mobile learning refers to: electronic learning through wireless mobile devices, cell phones, palms, Ipad, PDAs, MP3s, Windows CE machines, etc. It is a branch of E-learning; E-learning is in turn a sub set of distance learning.

Some education experts see great potential in it especially given the growing social media sector (Facebook, Twitter).

The technology has been tried in a few African countries; South Africa and Nigeria (University of Pretoria, Ikere-Ikiti).
Why consider use of mobile phone technology in Africa?

Although, it would work best in well-wired developed countries, there are opportunities for Africa because:

Mobile technology has spurred economic transformation, business, farming, banking, entertainment and even politics in many African countries; why not in higher education?

Mobile phone usage is growing too rapidly; currently there are more than 650 million users up from 25 million in 2005, more than 2000% growth; compare this to only 12.5 million fixed line connections; penetration differs from country to country (while the average for Africa is 16.5, it is just 1% for Somalia)
Why consider use of mobile phone technology in Africa?

There is a general lack of limited educational infrastructure; most universities in Africa are poorly resourced; meanwhile, mobile technology is relatively affordable and democratized usage (virtually all students have one or two phone sets).

Fixed line Internet connectivity is poor in most rural Africa while the mobile phone is everywhere and more versatile than ever although penetration differs from country to country; mobile technology is cheaper and more available than broadcast media and the phone is easy to carry and manage.
Why consider use of mobile phone technology in Africa?

Can provide a second chance to many of those who missed out on higher education in their youth, working populations and others who cannot attend physical classrooms; handy for nomadic communities and others removed from educational infrastructure because it is a conveniently portable technology.
Mobile learning and the quality of African higher education

The technology can support higher education management (registration, maintenance of student records, memos, timetables, etc.); sms messages are rarely missed unlike with the web and email.

Allows interaction with learners anywhere/anytime and thus optimizing experiences, productivity and motivation for both the instructor and student/ promotes collaborative learning by different learners and in varying contexts on similar topics.
Mobile learning and the quality of African higher education

Attractive delivery mode because it is not conventional; ability to use pictures, videos, interesting daily experiences and common persons’ thoughts on a broad range of issues; it is a good blend between face-to-face and distance teaching.

Has the advantage that audio and text content could be transmitted better than through conventional approaches (especially with use of GPRS and MMS); as well as the ability to efficiently transmit short learning modules, quizzes, instructions, course offerings, examination results, career and employment prospects, etc.
Is well suited to learners in business and farming occupations because it can be used to provide information on markets, inputs, etc. and thus promotes lifelong learning that targets everyday problems.

Promotes collaborative learning as many learners can be reached and are able to communicate with each other and their lecturers almost simultaneously.
Mobile learning and the quality of African higher education

Enhances retention in university as it can be used by students to receive fees and subsistence support from parents far away from school and to access grants’ and loans’ information; in Kenya and South Africa almost 20% of poor students either do not enroll or drop out of university after enrolling; this technology can be used to offer them much needed support.

Relatively a cheaper way of accessing reading materials as students can easily download reading materials (especially if they do it collaboratively), there is the possibility of lecturers using bulk sms and students can download books instead of buying them; it is also the cheapest and most convenient way of accessing the WWW.
Mobile learning and the quality of African higher education

Enriches student experiences because of access to a wider range of materials than recommended by lecturers and promotes learning with understanding through exploring and doing and less of rote learning.
Some challenges and implications for higher education policy

Mobile technology is still some ways from replacing the conventional lecture theatre because:

Most African governments and universities have not developed policies on the use of this technology/there is limited technical expertise in universities and rural communities with many of those available not motivated enough/ and there is a paucity of relevant and interesting African content
Some challenges and implications for higher education policy

It’s practicability, usability and cost effectiveness has yet to be conclusively established; cost of downloading some basic content can be prohibitive with limited finance from governments, and with relevant ICT infrastructure to still reach most parts of the Continent

Mobile coverage remains poor in many remote corners of Africa and there are often issues of lapses of coverage while mobile technology is changing too fast for the ability of many potential users to procure new equipment

Downloadable content is necessarily limited as is the ability to read long content from small screens in sometimes disruptive environments
Some challenges and implications for higher education policy

Compared to the conventional student, learners who have to rely exclusively on this mode of learning will be disadvantaged in terms of materials available to them.

If potential students and employers are cynical of distance learning, they are even more so of mobile learning technology; the traditional teacher still the most preferred delivery mode.
Mobile technology could work more effectively if:

There is greater investments in infrastructure (bandwidth, electricity) and subsidization of mobile technology so that more advanced versions are affordable by more users.

Teaching and management programmes are well designed and take account of learner interests, schedules, their everyday activity types, manageability of syllabi; and are based on evidence of what works or does not.
The future of mobile telephone technology in African higher education

Mobile technology could work more effectively if:

An attempt is made to understand the technology’s potential and challenges through a state-of-the-art review on what is happening where, the key challenges, while leveraging on success stories.

There is more interest in investing in research on the type of mobile technology best suited to Africa/local content/ and training of instructors and curriculum designers; need for training students on the most efficient way of using the mobile
The future of mobile telephone technology in African higher education

Mobile technology could work more effectively if:

Teaching is linked to existing school computer labs and digital villages and centres where learners could download heavy content more easily and inexpensively.

Basic learning materials are availed to all learners during registration and are updated on a regular basis and that learners have physical contacts with their instructors at least once every three months.
The future of mobile telephone technology in African higher education

Mobile technology could work more effectively if:

Higher education institutions leverage on commercial Internet service providers (Safaricom, etc.) and equipment providers (Samsung, etc.) to reduce cost; incentive programmes by governments put in place; need for more sustainable and directed support from business and other partners

There is a well designed strategy for evaluating the quality and coverage of the teaching programmes/system of standardization of content has to be in place to protect learners’ form exploitation
Final thoughts

For sure, developed countries are better suited than is Africa to exploit this technology; but they may not need it as much as we do; it is Africa that hurts, so we have no choice but to put money in the technology.

As utopian as the idea may seem, it may very well be the solution to African youth’s very limited access to higher education.

The most long-tern investment has to be in the tackling of poverty for a Denmark like society where the most happy people in the world live because it this is the most equal modern country on the planet; if we empower most of our people, they will be better placed to exploit this and other technologies.