

How ICT is transforming university education

More needed. Although most higher institutions of learning have embraced ICT, country should get more private sector players to invest in innovation and manufacturing because of massive opportunities.

BY ISAAC SSEJOMBWE
iszejemlwe@ug.nationmedia.com

It is 3.20pm when I enter Uganda Martyrs University main gate at the Kampala branch in Rubaga, a Kampala suburb.

Here, I find Ritah Nsubuga, a second year student, seated with her course mates under a tree with laptops. I later discover that they are carrying out research using WiFi, a facility that allows computers, smartphones, or other devices to connect to the Internet or communicate with one another wirelessly within a particular area.

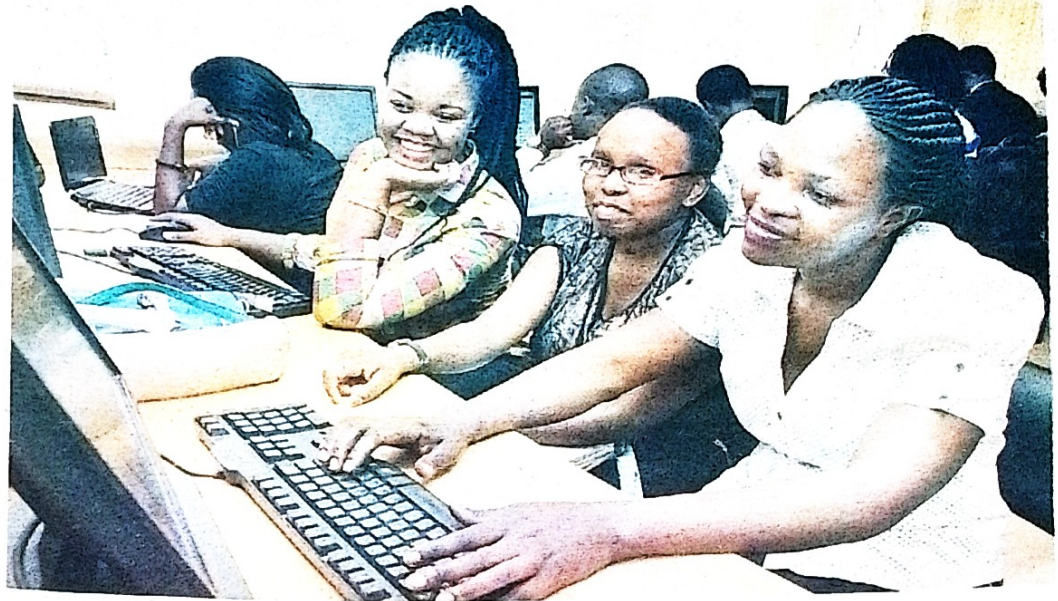
"We are always given course work under tight deadlines and you find that the library has a few books for all of us. You will not explain to the lecturer that there are no books but the only option you have is to use the WiFi around campus in order to access more books for your work," says Allan Nsubuga, another student.

Such is an example of how ICT is positively impacting university education in Uganda. With books now rare, a lot of information such as books, audio, images, videos is available on the Internet.

University kiosks have been set up in strategic places on campus for academic use by students. For example, in Makerere University, there are several Internet kiosks to provide students with technology tools and resources to facilitate learning. University Internet kiosks are used by students 'free of charge'.

The procedure to use the kiosks is just presenting a valid university Identity Card to the administrator who is in charge of a particular kiosk. Makerere also has wireless hotspots code-named 'Makair' for students' access. Owing to the limited number of Internet terminals within the universities available for student access, location of the hotspots makes students work comfortably at any time.

Ms Anita Ashaba, the public relations officer at Uganda Technology and Management University (UTAMU), says most have embraced the use of ICT, with most of their students



Students from several universities across the country benefit differently from the use of ICT. PHOTO BY ALEX USAGALA

owning laptops and devices which they use to access the e-learning platform and with the provision of university's computer facilities to those who do not have.

As opposed to traditional teaching where teachers dictate notes to students, Ms Ashaba asserts that students are availed with all course content online, power point presentations, scrom files, documents, animations, practical assignments, online discussions among others.

"The system also monitors when students visit the e-learning platform and the frequency of online activities," she says.

"Over the years, learning and teaching has transitioned from the traditional class room setting to learning on the move. Everywhere you go, everywhere you are, you can attain your dream qualification, knowledge and skills," Ms Ashaba explains.

However, she warns of internet dangers.

"Different students benefit differently from the use of ICT and this depends on how a person uses it. If person utilises the internet in a positive way, it

enhances the knowledge. If a person utilises the internet in a negative way it harms students as well as society also," she asserts.

There is a tendency of users being on the 'free' connectivity most of their time, and more so on non-academic issues. The hazardous Internet disseminates materials with a motive of promoting pornography, racism, terrorisms, hatred plus other sort of violence.

Ronald Matovu, a university student, explains one of the challenges of using the internet.

"With all of the information available on the many websites, we sometimes find it difficult to choose which information is most important to a topics that are assigned to us to work on and also when to stop looking," Matovu says.

Although with the use of the ICT students have the ability to access all types of information from library resources all over the world, universities in Uganda still have a long way to go in terms of internet access and other IT tools such as computers.

Mr Micheal Niyitegeka, an

ICT consultant, in a previous interview with *Daily Monitor* said in many higher institutions of learning, the student-computer ratio is low, with most computer laboratories deserted.

"ICT is not a very significant department in many universities. I do not think there is anybody who has done a study on computer ratio for students in the universities in Uganda," Mr Niyitegeka said.

A study in Makerere University by Okello and Magara in 2008 found that 90 per cent out of the sampled undergraduate students did not find enough computers in the laboratories, and therefore could not do much research.

Mr Niyitegeka added that while some universities have access to wireless internet for their students, most institutions still struggle with the quality of the internet.

He asserted that there is a significant gap when it comes to using digital computers for internet, which is called a pitch.

"The question would be how many university lectures are comfortable enough to use ICT beyond power point, because

most lecturers will find ICT is really about the innovation of ICT.

Even universities that have e-learning platforms you find usage is 10 per cent of the lectures the students involved are not using the e-learning platforms," he said.

He said the cost of ICT infrastructure is very expensive in Uganda.

"There is a cost of buying the equipment, maintenance is also very high due to vandalism. ICT also comes with recurrent cost which is continuously investing in licensing, updating windows, office micro windows which is expensive."

In order to have active wireless internet in universities, Mr Niyitegeka advises government to create subsidies and create tax regimes for education institutions to be allowed to access ICT equipment at zero tariffs.

The Uganda Communication Commission launched the new Internet Protocol version 6 (IPv6) Test bed.

The new infrastructure is expected to increase uptake of internet in the country while influencing a reduction of data costs in the long run.

KEY ISSUE

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