

# The Over-Emphasis on Teaching ICT by African Higher Educational Institutions is Killing Africa's Technological Growth

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## INTRODUCTION

Over the year, I have advocated for the growth and benefits of the African ICT. In “Building the African ICT Infrastructure for Development: The Role of the African University – Part I” [KIZZA], I pointed out that Africa had a late start in the race to acquire the information communication technologies (ICTs). The late start, compared to other continents, had tremendous implications in the development plans for the continent as Africa faced an insurmountable litany of problems that include; difficult in equipment acquisition, lack of capacity, limited research and development resources, and lack of investments in ICTs. But Africa has a strong beachhead in the race for technological acquisition made up of an unprecedented indigenous interest in technological development and the numerous and sometimes ambitious initiatives by NGOs and the donor community. But, strong beachhead or not, African technological development was and is still riding on the back of a strong African university. A strong curriculum and strong research culture are essential. As note in “Building the African Infrastructure for Development: The Role of the African University” [KIZZA], the African university, was, right from the start, late – almost the last spot in the race for anything universities do for national development. The reasons, as I pointed out included the fact that most of these universities are very recent with less than 50 years in business except a few. Even these few that have relatively a long history, because they started as training “workshops”, they had no clear role in national development. These national “universities” continue to float with no development agenda only teaching students for personal prosperity, thus leading to the mass migration of the educated Africans to Europe and North America. In addition to these historical problems, the African university, old or new, has yet to build a strong development curriculum and a curiosity research driven culture. As we saw in “Building a Strong Undergraduate Research Culture in African Universities.” [KIZZA], nearly all current African universities still face similar problems including:

- Traditional curiosity driven research model has been replaced by a market-driven model dominated by a consultancy culture according to Mamdani [MAMDANI]. This has led to negative consequences for education and research. The consultancy culture is institutionalized through

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- short courses in research methodology, courses that teach students a set of tools to gather and process quantitative information from which to cull answers.
- Heavy teaching responsibilities leading to - little time for curriculum development and research
  - Low pay - so would be curriculum developers and researchers are often reluctant to use part of their salary for research, leading to a preference of consultancies to improve their salaries
  - Low and decreasing numbers of well-trained senior professors
  - Deterioration in the general education standards
  - Mushrooming universities with ill-trained technology professors.

While the African university is faced with all these problems, there is on the other hand a growing army of African youth, exuberant and excited with technology, more so ICT. They are flocking the mushrooming universities competing for them with false and sexy advertising of strong ICT curriculum and promises of high paying jobs in ICT. This is single handedly killing the promising African technological development and indigenous research that would have uplifted Africa.

At the core of this problem is the misunderstanding and misrepresentation of what ICT is for many in Africa. *ICT* (information and communications technology - or technologies) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. *ICTs are often spoken of in a particular context, such as ICTs in education, health care, or libraries.* The term is somewhat more common outside of the United States [TechTarget].

While African needs an army of well-trained ICT technologists in a variety of areas, what Africa needs most are well trained computer scientists, a small subset of ICT technologists, that are capable of developing indigenous code that will solve African indigenous problems and lead to African strong indigenous research. So far this is not happening at a scale large enough to move African an inch in the direction of technological development.

To prove this point, once needs to take a poll of African institutions, big and small, looking for departments offering a strong curriculum in computer science. The numbers of institutions with such departments are disappointingly small across the continent.

Over the years, I have seen many African students, trained in ICT coming to American Universities thinking that they can join computer science departments for higher degrees and end up dropping out because they were not well prepared. American universities programs in information technologies (IT) are usually found in schools and colleges of Business which is not the case for African universities.

Unless and until there is a strong capacity developed for coding, mostly by African universities and higher institutions of learning, the African technological push and agenda will miss the target. Planners and policy makers should give this priority to keep African technological development and capacity building on tract.

## References

- [1] KIZZA, JOSEPH M. "Building the African ICT Infrastructure for Development: The Role of the African University – Part I", International Journal of Computing and ICT Research, Vol. 3, No. 1, pp. 7-9.
- [2] KIZZA, JOSEPH M. "Building the African Infrastructure for Development: The Role of the African University". International Journal of Computing and ICT Research, Vol. 4, No. 1, pp. 7-8. <http://ijcir.mak.ac.ug/volume4-number1/article1.pdf>
- [3] KIZZA, JOSEPH M. "Building a Strong Undergraduate Research Culture in African Universities.", International Journal of Computing and ICT Research, Special Issue Vol. 5, No. 2, pp. 6-10. <http://ijcir.mak.ac.ug/volume5-number2/article1.pdf>

- [4] MAHMOUD MAMDANI, Africa's Post-Colonial Scourge, Mail and Guardian Online.
- [5] <http://www.ru.ac.za/media/rhodesuniversity/content/documents/institutionalplanning/African%20higher%20education%20-%20Mahmood%20Mamdani%2027May2011.pdf>
- [6] Techtarger. <http://searchcio.techtarger.com/definition/ICT-information-and-communications-technology-or-technologies>.