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## AVU POLICY BRIEF

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Research & Practice in Open, Distance & eLearning

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### **Making it Happen: Leadership and Effective ICT Integration in teaching and learning processes**

#### **Issue at-hand**

Why are there wide variations among African countries in the adoption and integration of ICT as a game changer in the way we do business in all key sectors of socioeconomic life? Or in other words, why are some countries, sectors and institutions more successful in ICT integration than others? In the education sector, ICT integration in education in Africa is now a reality both in policy and practice. There is indeed a wide consensus that ICT can bring about educational development by addressing challenges in access to and quality of education. However, this statement is truer for policy than practice as most African countries have put in place ambitious national ICT policies in education but only a few have implementation frameworks in place and much fewer have translated them into concrete reforms in teaching and learning processes across the education systems. Indeed, out of the ten biggest educational laptop and tablet projects in the world listed by the World Bank<sup>i</sup>, only Kenya and Rwanda have made the list. These two countries have both introduced tablets and laptops in schools at a large scale. Rwanda has rolled out its One-Laptop-Per-Child (OLPC) initiative geared towards equipping each of its 2.5 million school children with a laptop. By end of 2016, the project had reached 930 schools, reaching 267,000 school children (OLPC Rwanda)<sup>ii</sup>. Kenya also rolled out its OLPC policy that aims to provide 1.2 million computers when it is fully implemented. During the 2015-2016 school year, 400,000 first graders received laptops.

The question, therefore, is why only these two countries have made the choice to use ICT to “revolutionize” their education systems? What socio-political and economic factors explain the prowess of these two countries? The answer it seems has to do with leadership at all levels.

### *Policy recommendation*

There is now an increasing scholarly work being carried out worldwide in the education sector to understand the role and capacity of leadership at the political and institutional levels in translating ICT policy into concrete reforms on the ground where it matters. Evidence is showing that political and educational leaders with certain attributes in their outlook and managerial skills make the difference in whether an ICT policy is implemented and managed successfully.

#### *Political leadership*

With regard to the Kenya and Rwanda's OLPC policies, the political leadership was key in ensuring their successful implementations by providing both the vision and financial resources for scaling up the initiative.

In 2006, the Kenyan government promulgated its National ICT Policy whose objective is not only to modernize its economy and society by providing high quality and affordable ICT services but it specifically seeks to enhance the teaching and learning processes across the education sub-sectors. The education component of the policy has the following key objectives:

- Promote the development of e-learning resources.
- Facilitate public-private partnerships to mobilize resources in order to support e-learning initiatives;
- Promote the development of an integrated e-learning curriculum to support ICT in education;
- Promote distance education and virtual institutions, particularly in higher education and training.
- Promote the establishment of a national ICT centre of excellence;
- Provide affordable infrastructure to facilitate dissemination of knowledge and skill through e-learning platforms;
- Promote the development of content to address the educational needs of primary, secondary, and tertiary institutions;
- Create awareness of the opportunities offered by ICT as an educational tool to the education sector;
- Facilitate sharing of e-learning resources between institutions;
- Exploit e-learning opportunities to offer Kenyan education programmes for export.

Furthermore, and to demonstrate its political will to implement the ICT policy, the Kenyan government promulgated a National ICT Strategy for Education and Training. The strategy spells out the roles and responsibilities of existing and new institutions in the delivery of the ICT integration in schools, universities and various learning and training establishments.

However, it took the will of a government that made a political promise during the election campaign for the 2012 election campaign to make OLPC a reality.

The OLPC in Rwanda owes its success to President Paul Kagame who was strongly convinced of ICT's potential to significantly transform the country's education system by facilitating the development of 21st century competencies and skills in Rwanda. The government has teamed up with the United Nations-supported One Laptop Per Child **Universal Primary Education project**, the largest educational undertaking globally, to deliver its OLPC nationally. As a result, the UN-OLPC has now its headquarters in Rwanda and is assigned the mission of ensuring that the learning devices (Laptops or tablets) are used to improve the teaching and learning conditions of teachers, children, schools and communities in Rwanda. The role of the international OLPC is to provide support to the government towards the building of educational infrastructure that will guarantee the improvement of working conditions of all the actors in education, including schools and communities.

### *Institutional leadership*

The pivotal role of school leadership in making ICT integration either a success or a failure is now becoming abundantly clear. Researchers in Australia and the US are now pointing out the key role of the school principals in facilitating (or impeding) the implementation of ICT integration in teaching and learning processes at the school or university level. They indicate that what makes a difference is the capacity of school principals to influence and intervene in the school's organization and culture in terms of the adoption and use of ICTs to enhance educational processes. Furthermore, and to further qualify their findings, researchers suggest that successful ICT integration is also dependent on the quantity and quality of the school leaders' interventions (Schiller, 2003).

In support of the above, US researchers<sup>iii</sup> have identified five (5) trends in the way successful ICT integration in teaching and learning processes are being realized across the country using policy and resources provided by government. The first such trend is leaders' **capacity to identify and scale up successful innovative programs** in terms of impact on teaching and learning processes. The second trend is **acting on the key teaching processes such as teacher professional development to enhance effectiveness**. The Third is **their capacity to build monitoring and evaluation systems** so that data generated can be used to inform learning, teaching, and leadership. The fourth one is focusing on **increasing student achievement through the use of ICTs by encouraging development of 21st century skills** in students through "differentiation, personalization, and real-world applications for learning." The fifth and final trend is **driving innovation and new educational models**. In the US, for example, an increasing number of leaders have successfully devised school models that thrive on technology-rich learning environments. The number of these models is on the increase and their main characteristic is

that they offer “technology-rich, Internet-ready learning environments staffed by teachers who are ready to translate those opportunities into deeper, more authentic academic learning.” The creation of such an eco-system seems to be the key to any successful and sustainable ICT integration.

### Key recommendations

Given the above, there is a great need for advocacy work for proponents/activists, both in government and civil society, to engage leaders in government and educational institutions. These leaders need to be engaged on the merits of ICT integration in the teaching and learning processes and the learning outcomes that accrue from this. Most of the factors that might explain the lack of strong leadership in other African countries, contrary to Kenya and Rwanda, could stem from the lack of awareness of the potential of ICT in bringing about increased access and quality in education systems. More evidence is needed to carry out policy dialogue with leaders at the political and strategic levels. As suggested by Diallo (2017), capacity building at institutional and national levels for the creation of a sustainable eco-system as demonstrated in the US and Australia should be promoted. Indeed, *the potential of ICTs cannot be fulfilled without the availability of qualified human resources related to governance, management and financing.* (Diallo, 2017). This includes teaching and learning materials development, instructional design and technology development and support.

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End Notes

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<sup>i</sup> <http://blogs.worldbank.org/edutech/big-educational-laptop-and-tablet-projects-ten-countries>

<sup>ii</sup> <http://wiki.laptop.org/go/Rwanda>

<sup>iii</sup> <https://thejournal.com/Articles/2010/04/23/5-Trends-in-Education-Technology-Leadership.aspx?p=1>

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