Introduction:
African universities have been discussing and proposing much greater uptake of online learning in the recent decades. Perceived threats to jobs, lack of skills and exposure, and traditional perceptions of the role of a lecturer as the best mechanism for knowledge sharing and facilitating learning were some of the factors discouraging uptake. This is notwithstanding improvements in the quality, accessibility and affordability of ICTs to support online teaching and learning. The low investment by universities in providing the infrastructure, policies and the training necessary to support blended learning, has confounded the situation. However, the advent of COVID-19 has revolutionized thinking on the Higher Education space worldwide. The COVID-19 Pandemic and the instituted measures to limit its spread, has brought with it many changes, challenges and opportunities across the entire education value chain across nations. In Africa, universities are finding ways to keep their students academically engaged despite the closure of classrooms, libraries, laboratories and other teaching and learning facilities. Today, the establishment of Learning Management Systems such as Microsoft Teams, Zoom, and Improved Skype, Google Classroom and Google Hangouts, among others, in universities can favor continued access to teaching and learning, while still maintaining some opportunities for physical contact. However, the majority of students still have no access to good internet signal and data, computers or smart phones in order to take advantage of such online learning and teaching facilities. At national level, many countries need to review their policies, regulations, resource allocation, and human and infrastructural capacities in order to address the emerging challenges, take advantage of the rising opportunities and support the required transformation in the education sector.

This report covers points of action and emerging issues from Webinar 11 organized by RUFORUM on African Universities in post COVID-19: assessing the opportunities and challenges of online learning held on 16th September, 2020.

The Problem:
The spread of the COVID-19 across the globe has brought with it several effects that have hit most tertiary education institutions and entire education value chains. While some education institutions have quickly reorganized their systems or simply transitioned to already existing alternatives to in-classroom and in-laboratory instruction to ensure continuity, others, especially those in low income countries, have up until now remained behind and have lost much of academic calendar time for teaching and research. It would be realistic, at this point, to accept that COVID-19 will be with us for a while, and that necessary adjustments in the provision of education are imperative. However, such a transformation requires an honest assessment of the current ICT infrastructure, available human resources, associated investments, policies and regulations, equity and access, among other issues. Additionally, there is a need to identify
emerging opportunities, key players and required resources for online learning in African Universities in post COVID-19.

**Webinar Objectives:**
The Webinar on *African Universities in post COVID-19: assessing the opportunities and challenges of online learning* aimed at addressing:

1. Opportunities and challenges of online teaching, learning and research;
2. The cost of online education service provision;
3. Technical considerations for providing online teaching, learning and research platforms;
4. Quality of online courses and other factors for integrating online learning and;
5. Required policy support framework, and human and infrastructure for widening use of ICTs to support delivery of services and address education divide.

This Webinar was moderated by Mr. Rafiq EL ALAMI, Mohammed VI Polytechnic University, Morocco.

The presentations and discussions were given by:

1. H.E. Mr. Chief Thesele Maseribane, Minister of Communication, Science and Technology, Kingdom of Lesotho;
2. Mr. Mark Berthelemy, Digital Learning Manager, CABI;
3. Prof. Kay Muir-Leresche, International Advisory Panel, RUFORUM;
4. Prof. Muliaro Wafula, Director, iCEOD, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya;
5. Prof. Ezin E. Eugene, Director, Training and Research Institute in Computer Science, University of Abomey Calavi, Benin;
6. Prof. Jude Lubega, Deputy Vice Chancellor, Nkumba University, Uganda.

**Key Learning and Action Points:**

1. **Development and use of shared online resources:**
   
   i. In response to differentiated capacities of African universities and institutions, there is a need to support establishment of shared online resources that are accessible for both rich and poor on the continent. This calls for collaboration and strong investments that promote increased access to online content to overcome the digital divide.

   ii. There is a need to establish an African Digital Library that provides open access to online resources accessed anywhere on the African continent. This digital platform, where feasible, should make provision of online content in various African languages.

   iii. African universities are called upon to quickly adapt and take advantages of already existing online resources that can be applied to their own context. There are several short courses, programmes and modules on offer online by various institutions free of charge and these can be adopted for use by African universities.

   iv. RUFORUM should leverage on Networks and institutions such as Centre for Agriculture and Bioscience International (CABI), Food and Agricultural Organisation of United Nations (FAO),
Mohammed VI Polytechnic University (UM6P), Jomo Kenyatta University of Agriculture and Technology (JAU), Virtual University of Tunisia, University of South Africa (UNISA), University of Abomey Calavi (UAC), Lilongwe University of Agriculture and Natural Resources (LUANAR), Makerere University, among others.

2. **Policies and strategies for promoting online learning and teaching**
   i. African Governments should develop policies, regulations and education systems that support migration to online learning taking advantage of opportunities provided by the Fourth Industrial Revolution (4IR). Governments need to develop “smart budgets” that aim to reduce the cost of internet data bundles, the tax on digital gadgets and promote digital education across the entire education value chain and ensure equitable access to e-education platforms.
   
   ii. Universities are encouraged to meet the needs of differentiated student audience in their efforts in promoting digital learning and teaching. For instance, universities should develop and tailor their degrees to different audiences through short courses and other formats of micro-degrees which can be taken to scale to reach bigger audiences to promote life-long learning.
   
   iii. Universities are encouraged to cover the cost of internet and power to enable the faculty access to and use of technologies whether working from home or office. Whereas many employers facilitate their staff when working from out of station, university faculty, working from home meet the cost of their connectivity, which limit capacity to effectively adopt technology in teaching, learning, research and innovation.
   
   iv. Universities need to work with their national governments and telecom service providers to ensure that learners have preferential rates for data bundles to lower down the cost of Internet service access.

3. **Digital learning platforms and technical considerations:**
   i. There is a need to design and deploy online learning and teaching platforms that are interactive and can be accessed anywhere in the world.
   
   ii. Because of poor internet coverage and low bandwidth in Africa, platforms that can support working offline are recommended.
   
   iii. There are key technical considerations that must be put in place to ensure a user friendly experience of digital learning platforms. A good online platform should be flexible, open, usable, and is scalable, while taking into consideration the need for hosting, administrative support and professional development.
   
   iv. The design of online platforms should address the inclusivity concern and ensuring that learners from different socio-economic backgrounds are able to utilise the platform.
   
   v. Universities should consider joining national research and education networks (NRENs), which are known to provide cheaper connectivity and with a great possibility of intra network cost neutral sharing of resources.
4. **Capacity building for online learning and teaching:**
   i. Universities should consider developing technical and pedagogical capacity of their staff (including administrative staff) to facilitate online teaching, learning, research and innovation.
   ii. There is an urgent need to build competences of students in the use of the online resources. In Africa, students are accustomed to the traditional face-to-face method of learning and this shift to online learning has surprised many.
   iii. There is a need to foster attitude change among university community to embrace this mode.
   iv. Universities need to put in place a holistic environment (infrastructure and skills) to allow for sustainable adoption of online platforms.
   v. Building capacity for online learning requires collaboration with various stakeholders including telecom companies to provide affordable data access to students and staff. This means a strong focus is needed to develop adequate ICT infrastructure such as connectivity.

5. **Support to the African Digital Agriculture Programme (AfriDAP) initiative:**
   i. There is urgent need for Governments and Development Partners to support the implementation of *African Digital Agriculture Programme* (AfriDAP) as one of the five (5) continental initiatives that were endorsed by African Ministers of Education, Agriculture, Science, Technology and Innovation in Cape Coast, Ghana in December 2019. AfriDAP has three pillars: **Pillar 1** is *Digital learning and sharing technologies*, aimed at supporting effective teaching, learning and experience sharing ubiquitously within agricultural scope; **Pillar 2** is *Data science development*, which comprises of data science research, big data management and capacity building in data science in higher agricultural education institutions and related institutions; and **Pillar 3** is *Incubation and innovation for digital agriculture*, which is to produce sustainable entrepreneurship and start-ups to support both the first and second pillars of AfriDAP in a low-cost manner.
   ii. Immediate attention should be paid to the first pillar of the AfriDAP initiative that aims to promote digital learning and sharing of technologies. This pillar emphasizes support to effective teaching and learning experience.
   iii. There is now an urgent need to support the domestication and roll-out of the AfriDAP initiative.

*RUFORUM Secretariat- 17 September, 2020*