



Second Ministerial Forum on Science, Technology, and Innovation in Africa

October 14-17, 2014

Academy of Science & Technology Hassan II | Rabat, Morocco

Session Name: e-Education and Adaptive Learning: Building Skills & Investing in New Technologies for Competitiveness and Jobs

Date: October 16, 2014

Time: 2:00-4:00 p.m.

Venue: TBD

Session Aim. This session focuses on innovative service delivery in education, and how the new education technology revolution can improve learning outcomes to reduce repetition and dropout rates as well as enhance education access, quality and the school to work transition. Information and communications technology (ICT) is providing tools and services that have transformed not e-learning but also education systems across the world. Distinguished panelists from Kenya, Korea, Nigeria, France, UK, and USA will present how technology has changed the education landscape and whether this change is actually improving learning outcomes, providing greater access and whether this access is being provided in an equitable way. Participants will engage in a lively debate on whether these new technologies are the way to go or a different model should be pursued. Participants will include government officials (Ministry of Education, Science and Technology), private sector, academia, and development partners.

m-Learning & Education

During the forum, the World Summit Award for Mobile Content will present an award for m-learning & education. This award category selects the best mobile apps designed to serve the needs of learners to acquire knowledge and skills for a complex and globalizing world; transform schools, universities and other educational institutions through interactive, personalized and distributed learning resources; address the learning needs of all and creating active e-learning communities and solutions for corporate training as well as lifelong learning; make science accessible to citizens; present results of scientific projects as well as supporting forms of scientific inquiry; foster global collaboration in science, and providing measures to promote science and demonstrate its results and their value to society.

Background. It would be fair to say that Africa is undergoing an education system makeover. **First**, with the demographic boom (Africa's population will double by 2050 from 1 billion to 2.3 billion). The public sector alone will not be able to meet the demand for schooling. By 2030, 2.1 million new teaching positions will have to be created in Sub-Saharan Africa while 2.6 million teachers leaving the profession will need to be replaced (UNESCO Institute of Statistics, 2013). Using innovative solutions such as e-learning, online learning, Massive Open Online Courses (MOOCs), Massive Open Online Courses for Development (MOOCS4D), Private Open Online Courses (POOCs), Small Private Online Courses (SPOCs) are being used to provide greater access to higher education in Africa. **Second**, with the emergence of the app economy, revolutionary ICT software is being provided to make classrooms more interactive, learning more student-centered, and teaching more effective. **Third**, with the youth unemployment crisis in North Africa, African countries are increasingly adapting their education systems to the needs of the labour market as well as encouraging the development of critical thinking and entrepreneurial skills. The economic boom driven by new discoveries in oil, gas, and natural resources will demand new economy skills and ICT. A good proportion of these skills remain unfilled (and many job streams and skills are imported from outside Africa) despite very high unemployment of African youth.

Proposed themes for discussion.

- **E-classrooms, online classrooms, flipped classrooms:** Technology is redefining the notion of classrooms. How do governments and private sector decide which model to choose to transform traditional classrooms to digital /interactive learning environments? Which hardware /software to choose when digitalizing classrooms?
- **E-Learning revamped:** MOOCs, POOCs, SPOCs, MOOCs4D – what are they?
- **Access:** Are MOOCs the best way of providing greater access to higher education? How will the broadband challenge affect access? And what is the role of m-learning?
- **Equity:** Is it creating a wider gap between rich and poor?
- **Learning outcomes:** Do we have evidence that the introduction of technology improves learning outcomes?
- **Exams and accreditation:** How can ICT help prepare students for testing and providing accreditation? MOOCs do not provide formal accreditation? How do we link MOOCs to formal universities? Is there an African version of Scholastic Aptitude Tests (SATs), Graduate Record Examinations (GREs), Graduate Management Admission Tests (GMATs), etc.? Can we dream of a world where we shift the purpose of schooling from testing/memorization to learning?
- **Using e-learning to help students transition from school to work:** What does the new technology in e-learning provide in smoothing transitions from school to jobs and entrepreneurship?
- **Using e-learning to help equip school dropouts with practical /life skills.** How can we use e-learning to reach

Speakers:

Moderator:

Bakary Diallo, Rector, African Virtual University

Panelists:

- Peck Cho, Chair Professor, Dongguk University
- Abdul Chohan, Director, Essa Academy
- Olumide Ogunlana, founder of Prepclass, Top Ten Most Innovative Companies in Africa
- Marito Garcia, PhD, Adjunct Faculty and Fellow, Darden School of Business, University of Virginia
- Lila Ibrahim, the first President of Coursera, the world's largest MOOC with 8 million enrollees

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