

Utilization of Cloud Computing in Education and Research to the Attainment of Millennium Development Goals and Vision 2030 in Kenya

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Abstract

Kenya Educational and Research fraternity has highly qualified human resource capacity with globally gained experiences. However each research entity works in disparity due to the absence of a common digital platform while educational units don't even have the basic infrastructure. For sustainability of Education and research progression, collaboration amongst students, Teachers, Lecturers and International researchers on a common central repository of digital content is a requirement. The absence of a centralized digital content repository containing e-learning resources, research applications and tools with a collaborative on-line modern digital library accessible with a controlled right based accessibility has denied students in remote areas access to education, researchers from collaborating with their peers and industry from innovation benefits. This study proposes a framework of cloud computing (CC) owned and maintained by the government. The developed repository may need to be accessed by any terminal that can be easily solar powered and may use basic modems. Cloud provider preference guided by digital content development capacity is discussed. Students will benefit immensely on the e-learning component which will address the dwindling instructors-Student ratios while universities and research institutes through collaborative ventures will participate alongside their international colleagues with immediate innovation benefiting our local industries. Contribution to Kenya's vision 2030 by Millennium development goals (MDGs) attainment like universal primary education, environmental sustainability and combating diseases through research is discussed. Challenges of instructor shortage, classroom space and geographical disparity are addressed.

Keywords: Common Digital Platform, Cloud Computing, Millennium Development Goals, Vision 2030, E-Learning, Geographical Disparity

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