Towards a model for enhancing ICT4 development and information security in healthcare system

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Abstract:
Information and Communication Technology (ICT) is gaining ground in all areas of life, and, developing countries are taking advantage of this phenomenon in numerous sectors including, socio-economic development, education and healthcare. With particular emphasis on healthcare, where access to appropriate information can minimize visits to physicians and periods of hospitalization for patients suffering from chronic conditions that can cause untimely death if not properly treated, e.g. asthma, diabetes, TB and HIV/AIDS diffusion. The overall objective of this paper is to discuss and describe a model for enhancing ICT for development (ICT4D) and the significance of information security in healthcare institutions. The paper focus is important because we are particularly interested in the information security aspect of Electronic Health Records (EHRs) with patients' information protected from possible security threats in hospitals, when sensitive information has to be communicated among healthcare agents. We have identified some healthcare ICT information sharing components in the context of our proposed model as fundamental characteristics to fulfil the information requirements. We further describe how the identified agents in healthcare ICT readiness components interact with a required data to generate the desirable output we have termed in this paper as healthcare ICT SMART Impact. We believe our SMART model will provide support for the local indigenous communities, our target group in a developing economy through Telemedicine.