Robotics in Healthcare: The African Perspective

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Abstract:

Today one has to run very fast to stay on the same position. We are no longer competing with humans only, we are now also competing with robots as they are involved in learning, leading to Machine Learning (ML). Robots are increasingly being adopted in healthcare to carry out various tasks that enhance patient care. Robots in health care have revolutionized the health ecosystem. There are different types of healthcare robots which include nursing robots, surgical robots, clinical Training, Prescription Dispensing, care robots, Telepresence, Rehabilitation Robots, Health Call Centre Robots, Ambulance Robots and Physical Therapy Robots. Healthcare robots are mostly found in the developed countries. This paper seeks to establish robotics in healthcare considering the African perspectives and Zimbabwe in particular. A qualitative study was conducted whereby twenty students at a university were interviewed concerning their views on healthcare robots in the African context. It was found out that healthcare robots are still at their conception in Africa and Zimbabwe in particular, there is fear of the unknown, some indicated that robots will affect their indigenous way of life as they are used to interact with each other as human beings and not as robot to human as shown by the concept of Ubuntu, power challenges, connectivity, lack of awareness challenges, as well as cultural and religious challenges. However, some participants indicated that they greatly welcome the robots as they may cease the health professional shortages in Africa and also they consider them to be more precise and accurate as compared to humans. Some indicated that more privacy will be promoted due to the use of robots. It was recommended that there is need for immense healthcare robots conscientisation, awareness, training, robots to mimic the African way of living and language.

Keywords: robots, robotics, healthcare, artificial intelligence, African perspective, health ecosystem, Machine Learning (ML)