DOI: 10.5185/amlett.2019.1005
www.vbripress.com/aml

Artificial intelligence and machine learning empowering the mass medicine

Dear Readers,

Today, the world is witnessing great advances in the healthcare industry through technological innovations that will lead to a brighter future. Technology and Innovation is playing a major role in clinical training, robotics, drug discovery, disease management and e-medicine field. Recent advent of Artificial Intelligence (AI) and Machine Learning (ML) has led to massive developments in the healthcare industry. This advancement has enabled the mining of complex data as it is based on artificial intelligence and machine learning algorithms, that processes language and image recognition which can be done for a controlled study of patients.

Advanced technology is also playing a major role in drug safety through efficient drug manufacture. There are innovations with regard to mining medical records, and doing a controlled study, along with risk assessment in real-time systems, leading to a reduction in the cost of medical treatments and promising a healthy future.

Robotics is another field where massive platform of AI and ML is adopted. Advanced technology such as nanotechnology and genealogy are evolving due to robotic learning systems. There are robots that are assisting in performing surgery, heart sound analysis, non-invasive procedures & complex brain surgeries in a precise manner and helping in several other treatments besides providing clinical training too. In this way, medical research has become well-equipped to save people from health ailments. These robots equipped with knowledge-based systems, along with natural language processing as well as sentiment analysis even suggest the appropriate line of treatment that should be taken by the patient. Also, robotics will play a crucial role in safe drug manufacture to ensure quality control and perform drug marketing too. Their patient knowledge-based systems are set to ensure drug efficacy. Innovations in healthcare have led to quality control in the manufacture of drugs, including those for chronic ailments like cancer and cardiac diseases.

There are AI powered devices that can accurately diagnose diseases at an early stage to help medical professionals in providing treatment effectively. Advance technologies, helping in hospital management to ensure effective utilization of its resources. Due to these breakthrough innovations in hospital management, painful surgeries and long treatment processes are being avoided. This is why governments all across the world are formulated national health policies to ensure that their citizens get access to healthcare at minimal costs in the remotest locations.

Presently, intelligent medicine contributing effectively in healthcare and their use progressing day by day through the incorporation of alternative, conventional medicine, modern medical technologies as well as nutrition, organic food, health supplements and wellness remedies. On the other hand, digital medicine revolutionaries the health sector by use of medication and sensor components. Today, pharmaceutical therapy adopted towards more patient adherence through digital medicine.

In the meanwhile, cloud computing systems revolutionaries the medical filed globally. It is providing big storage and processing capacity for unlimited data of various sources. Even world-wide networks can include many experts for real-time access and analysis and help in fighting disease research.

Still, artificial intelligence and machine learning are yet to reach its highest peak with regard to healthcare. Clinicians and hospitals are moving forward in this direction by ensuring healthcare in real-time for the safety of patients. The next steps will be e-healthcare implying technological innovation of artificial intelligence and machine learning in a single platform, which is going to play a major role in healthcare to ensure physical & mental well-being of patients.

With kindest regards

Ashutosh Tiwari, PhD
Editor-in-Chief
Advanced Materials Letters

Keywords: Artificial intelligence, machine learning, mass medicine, robotics, cloud computing systems, intelligent medicine.

