

ARTIFICIAL INTELLIGENCE IN HEALTHCARE

Ashish Dhawad

Medsynaptic Pvt Ltd, India

Artificial intelligence (AI) in healthcare is the use of software algorithms in the analysis of complex medical data to approximate conclusions without direct human input. All over the world Healthcare is generating tremendous volume of structured & unstructured data through different IT systems & connected devices. Analysis of this data without support of computer algorithms is virtually impossible. With the advances in computer technology it has become possible to process this data and give a well-defined output to the end-user. AI does this through machine learning algorithms, which can recognize patterns in behaviour and create its own logic. Before AI systems can be deployed in healthcare applications, they need to be 'trained' through data that are generated from clinical activities, such as screening, diagnosis, treatment assignment and so on, so that they can learn similar groups of subjects, associations between subject features and outcomes of interest. These clinical data often exist in but not limited to the form of demographics, medical notes, electronic recordings from medical devices, physical examinations and clinical laboratory and images. We look at some specific real world examples in medical world where AI is playing an increasingly important role in bringing the benefits of technology to improve patient care. These include algorithms for analysis of radiology images, robotic surgery, virtual assistants and clinical decision support systems.

dhawad@medsynaptic.com