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Revolutionizing healthcare via AI

10 December 2019 | Views

AI has the ability to process huge amounts of data at one go



Artificial Intelligence or AI is being used in many industries today, including banking, automobiles, agriculture and more. One field that it is showing great promise in is healthcare. AI in healthcare has multiple use cases and promises to offer more accurate diagnosis, smoother procedures and better preventive care. Here are a few ways in which artificial intelligence has been transforming healthcare.

1. **Diagnosis**

AI has the ability to process huge amounts of data at one go. Thus, it can analyse the symptoms of the patient and correctly diagnose the problem. They use personal medical history and the medical knowledge fed into them to come up with the most likely cause of your symptoms. Of course, since this application of artificial intelligence is still in its nascent stage, you will require a final diagnosis from a doctor before receiving a prescription for the course of treatment.

2. **Patient monitoring**

AI can be used for monitoring an individual and contacting doctors if any change is seen. A very basic example is the monitoring function in smart watches today, where it checks your heart rate and exercise daily. Change in vitals can lead to early detection of a disease, prompting early medical intervention. This has increased the potential of saving lives with early prediction of severe conditions.

3. **Treatment monitoring**

With patients receiving treatment for their disease, AI can also help in monitoring if the treatment is actually followed and whether it is effective. This can alert doctors to cases of inaccurate usage of the drug in case a patient is not following it correctly. It can also notify doctors in case the current treatment isn't effective and needs to be modified.

4. **Developing new prediction and care techniques**

AI is increasingly being used to provide dynamic care. For instance, IBM's Watson helps oncology departments by detecting cancer earlier and providing patient care. It goes through the patient's medical file, clinical trials and data, medical journal entries, and finds patterns within them to come up with a complete treatment and therapy plan.

5. **Training**

AI is being used in training surgeons by creating simulations and scenarios to perfect their skills. It helps track learning by mapping out individual strengths and challenges of each person, reducing the risk of error.

Benefits of AI in healthcare

AI reduces human time spent on important tasks. It helps reduce the load of doctors and other medical assistants, letting them focus on critical cases. In cases of smaller hospitals with less expertise or bandwidth, it helps in diagnosis, treatment, and managing tasks more efficiently. This is especially useful in developing economies where there are fewer medical professionals and more patients.

AI is also a very economical option as it reduces the time and cost of patient care, drug development, and training. It helps streamline the hospitals' finances as well.

Challenges of AI in healthcare

While there are many benefits of AI, some challenges that need to be tackled before using it to its fullest potential include:

1. **Machine morality issue**

AI can discriminate based on discriminating data fed into it, or on arbitrary numbers and patterns that only it can see. Without individualized focus on patients and without looking at the picture, AI can easily cause wrong diagnosis or treatment. This might negatively impact patient healthcare.

2. **Privacy issues**

An overhanging legal and moral question when it comes to AI is: who does it ultimately serve? AI can process big data and developers of AI can easily access and trade it. How much sensitive information can AI become privy to and who can it share this with?

Case Study

In India, many patients often have to deal with congested commutes and long waiting times at the clinic when visiting a doctor. This can be very stressful for a patient who is already unwell. Understanding this obstacle to patient care, mfine developed an Assistive Intelligence app. This app allows patients to consult instantly with top doctors directly through the app over chat, video call or voice call.

mfine's Assistive Intelligence AI gathers information about a patient's symptoms and provides doctors with an initial diagnosis based on the available information. This helps doctors make a faster and more accurate diagnosis. The app also provides patients with a complete digital prescription and sets a reminder for when they need to take a certain medication.

The applications of AI in healthcare are extremely promising. As this field develops even further, we are likely to see an even more widespread use of AI in healthcare, and not just in a consultative capacity.

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