Voice of SBV

PODCAST FROM SBV STUDIOS

A Conversation On Importance of Artificial Intelligence in Health Care

With Postgraduates from MGMCRI,

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TRANSCRIPT

A Friendly chat amongst friends who happen to work in different fields of medicine

Setting up the conversation by introducing a social media post about dawn of artificial intelligence.

1 to 2 🡪 I shared an insta post with you , regarding possibilities of AI taking over human world

2 🡪 what is AI? Isn’t it a super computer or something

3 🡪 computer sci fi inclined person explains the concept of AI- Input some layman definition of AI

4🡪 compares the concept with a TV series he recently watched, where AI is watching over us all 24 x 7 and dictates government, law and human resource (tv series -person of interest)

2 🡪 asks that’s all in movies, how is it really affecting our day to day lives

1🡪 gives example of google auto fill algorithm. As if google magically reads our mind.

2 🡪 recognizes how whatever he searches online to buy, all advertisements on all internet based platforms start showing that products.

3🡪 its even involved in our medical field. We just don’t realize it that much, isn’t it?

2 🡪 if we actually think like that, lots of departments in our field uses artificial intelligence in a way or other

4🡪 explains how in radiology, his very own department, computer software are used to quickly and accurately pin point disease in a wide spectrum of scans. COMPUTER ASSISTED DIAGNOSTICS

1🡪 we simply cannot exclude the implications of AI in diagnostics in our medical fraternity. I recently attended a webinar on AI and If I recall correctly, there are two major types of AI we use. One being virtual and other physical

3🡪 Physical will surely be the robotics aspect of it? Correct right ? I have seen few videos, in which robotic assistance arms were actually operating in synchrony with actual surgeon, simulatnoeusly.

2🡪 What! A robot operating on a human. Doesn’t sound safe at all. Who would like to get operated by a machine, with no brain or heart. Sounds quite destructive

1 🡪 No bro, its nowhere near what you are thinking. The robot arms runs on command of a highly intricate and competent software, which has been checked umpty number of times before the real surgery. All the required data on basic anatomy, surgical steps, expected & unexpected events during that given surgery , has already been fed into complex software.

4🡪 What will be the virtual form then ? Diagnostics ? Prognostics ?

1🡪 actually both, and even more. It is as simple as gathering history from the patient by a series of well constructed questions, receiving all the inputs, running through the flowchart or database and coming to an intelligent diagnosis. That’s something AI are doing right now !

2🡪 with the wide variety of symptomatology and the variance in human nature, AI will surely lack the human touch. It cannot diagnose all the diseases. Moreover what about the physical examination part of diagnosis!

3🡪 True, nothing like a good old doctor patient encounter, but the softwares are fueled with databases of hundreds and thousands of old diagnosed patients, helps them to narrow down to a diagnostic point, even with all the noise of unrequired inputs. Isnt that time saving and calculated use of human resource?

4🡪 Scheduling of an appointment, medical check ins, patient data being digitalized, reminders for vaccination or medication etc are some of the seemingly normal events,already being done by AI. We have smart watches, monitoring our heart rates, oxygen saturation , caloric burns and what not on a daily basis. The software in the watches warns us regarding any abnormalities and if prompted might directly alert your doctor as well. This is tha magic of AI.

1🡪 Not only this, leading software companies have joined hands with imperial health institutes, to design prognostic softwares, which will detect the chances of lets say, a carcinoma or a heart disease. Already established prognostic AI for oral cancers is in practical use. It takes sup basic details such as age, gender, symptoms, duration of illness, family histories etc and gives a percentage after computing massive amounts of databases.

2🡪 Predicting a disease, booking a doctor’s visit, or tracking vitals is all still okay. But an AI cant surely treat a patient. I mean its nearly impossible to give out a prescription or suggest a list of investigations. There is no way one can get a customized or personalized treatment protocol from an AI

4🡪 I spoke to my friends in ophthalmology, they have been telling about hoe technology is being actively used in their fields as well. If we think now, there are computer programs which helps in guiding through the diagnosis of lets say diabetic retinopathy after ggoing through 10s of thousand of retinal images. This can be of great use in training and training tool for post graduates and graduates learning the subject.

3🡪 yeah, a similar excerpt I saw on youtube, development of algorithms for machines to analyze human genomic data and identify drugs to combat neurological diseases, such as Parkinson's, Alzheimer's, and amyotrophic lateral sclerosis (ALS).

1 🡪 and lets not forget, its still a developing technology and what future holds , what wonders AI can share with us, the mere aspect of thinking ahead of time , is exhilarating.

2🡪 but can a machine, a super computer, a software programme or algorithm, take place of the human touch in medicine ? that’s something worth a thought !!!

Fin…