

Better Health Care with Artificial Intelligence

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Abstract:- In recent years artificial intelligence has contributed the most even towards the medical healthcare. AI application not just masters the healthcare but also manages the medical productions, facilities of health, medical colleges and so on which are using it. Artificial intelligence assists the radiology, dermatology, cardiology, echocardiography, MRI scanning, neurology, CT scanning, screening retinal care etc. AI gives accessibilities which are convenient for doctor as well as patients. It produces interpretation for medical society to do analysis. Artificial intelligence aid for screening, monitoring, bring forth medical and clinical studies about the suffering person.

Keywords: Artificial Intelligence, application, MRI scan, Health Care, Clinical Studies

I. INTRODUCTION

AI is upgrading version in the world of computer engineering whereby it describes that a machine can do tasks easily but compulsorily need the aid of human brains and mediations[1]. Altogether the machine deliberates by itself for the execution of a piece of work. AI helps a machine to perform any tangled or straight forward task with high productivity and at high rate, superior to humans. Today majority of the scholars feel that AI could be the succeeding digital metamorphosis worldwide [2].

By taking the assistance of AI in this continuous development of medical technology and diagnostics it can be very straightforward and economical. Most of the first-time technicians use artificial intelligence to diagnose the disease even before it becomes dangerous so that it can be easily treated early[3]. Many firms work to diagnose deadly diseases like cancer early by AI-ML techniques. In order to enhance the suffering person's health state, quickly the health centre evolves treatment options for the patient to speed up the patient's recovery, but in some cases these clinical measures do not go according to plan in such cases the practical wisdom can be very helpful.

At this point AI becomes the best program to be developed with the help of machine learning. Management tasks will also be simplified with practical wisdom. All payments will be handled with ease[5]. The patient's mental health and physical condition can be easily improved with the help of artificial intelligence. The fact that a specific medicine is specified for the suffering person to help him tackle the health issues can be achieved in a simplified manner with the assistance of AI-ML.

II. BACKGROUND STUDY (LITERATURE)

AI mainly deals with the making of programs and intelligent machines that work much faster than humans. It is a program made to run and understand the behavior and intelligence of humans. AI is software that runs without human interruption as the program that is developed on AI is made in retrospect of not having any disturbances[6]. It also called as machine intelligence. AI requires human intelligence.

AI is the process of making machines intelligent and intelligence is the quality that enables a process to function properly which is compatible with the environment. Artificial Intelligence is the study of important ideas and information that make humans intelligent. AI is the ability of a computer that is able to perform a high level problem that is generally not solvable by us humans.

This field was discovered on the idea that someday machines would be able to think up their own solution to the problems, along with consciousness, the functions that make us human. Artificial Intelligence is not just a turning point in the field of research but also in the current evolving industry and work as we know it today. AI has all the possibilities to make our daily life preferably much easier in terms of effort that we put into doing a particular task.

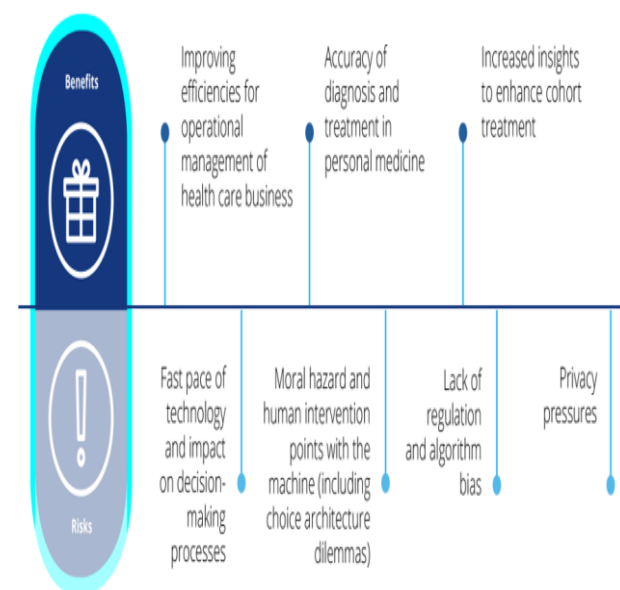


Figure 1: Pros and Cons of AI

AI is being brought to light with a much wider spectrum of ideas in the recent times. Figure 1 depicts the pros and cons of AI. AI is now a huge topic to be discussed in the industry and it is growing rapidly. AI in the next few years will be seen implemented in every industry that requires help with any problem that they face.

1. AI Assistance in Health Care Sector

This is the year 2022 covid vaccine is found, but the complete cure is not found. During the covid outbreak the nation was in chaos and to control it frontline workers put their lives on the line and saved us[7]. They guided people through a hard time. So, to be prepared for further situations like this we must not put our guard down and continue to practice proper immaculateness, but we know that this is not a 100% effective solution[8]..



Figure 2: AI Assistance in Health Care Sector

Figure 2 shows the AI assistance in Health Care Sector[9]. We usually say “**Prevention is better than cure**” and hence we need to upgrade our lifestyle and our current technique of preventive measures.

3. Assistance for front-line workers

There is a proverb which states that “**Prevention is better than cure**” and hence we need to upgrade our lifestyle and our current technique of preventive measures.



Figure 3 : Assistance for front-line workers

Since we are living in a digital era, we need to induce this technology into our well-being, one of the best methods is AI (Artificial Intelligence) we can enable them to develop advanced technology in medicine and suggestions for the patients. This is shown in figure 3. We can create and apply AI tools to analyze and diagnose the patients, assist them with clinical decision support, and monitor their patients’ compliance. This can happen only when the data collected in real time by the front-line workers by the use of AI.

4. Virtual assistance for patient health

These days we have many health assistance apps provided on the internet, there we provide the symptoms of our constrained health and the system runs for the references for the given symptoms and give out a probable report for what medical assistance is required[9]. With data collection at the suffering person’s level, with the aid of data collection these AI tools assist in recognition of the kind and size of a suffering person’s state, bestow wellbeing adjuration of the suffering person. Figure 4 shows the usage of AI tools in health care.



Figure 4 : Virtual assistance for patient health

This recommendation would encompass where and how supervision should be provided, or care fullness guidelines, observable transpose to health complications exterior of the health system. Here it is prime duty to record that AI tools do not mean for the replacement of human beings with the assistance of supervision and diagnosis [10]. Instead, these tools supply data where, when and how a person have to look around for the supervision of doctors, right now what can they do for better supervision of patient's condition [11]. This could be dangerous for the suffering person if he waits days together in finding a health professional or in getting grade of health service.

5. Clinical decision support for physicians

This group includes cases of use of artificial intelligence which contribute and enhance the pronouncement made by the doctors or medical practitioner [12]. Illustration of these tools as a group would contribute for the pronouncement making tool for radiologists, physicians, pathologists, quality confidence and priming to bestow physicians with past performance and to identify where errors have occurred [13].

With this case of using a patient health assistant, as it is imperative to record especially the use of AI tools within the indicated instance, reckless use of these could not replace a physician[14]. Finally, artificial intelligence uses the conditions within the indicated clinical decision-making team to provide a number of physicians' role, physician's ability for assisting the suffering persons who come for their guidance, enabling these people to bestow exact examination of the suffering person, and to expand the key to providing care in LMIC conditions, which enables these physicians to concentrate on the suffering people coming for their guidance, who are in vital need for supervision [15].

Taking into account that there is many a time an acute shortage of health professionals in LMIC cases, the way professionals are concerned about the above mentioned conditions, already stated task is to help physicians increase their time and focus on those risks to save patient life and provide a stronger impact on all health systems.

III. RESULT AND DISCUSSION

Artificial intelligence applications intend outsmart humans yet not able to account for the information. Some protocols from the medical institution customer experience miss representation or deceitful tasks. Figure 6 compare the Top 5 Artificial Intelligence organizations in health care in India.

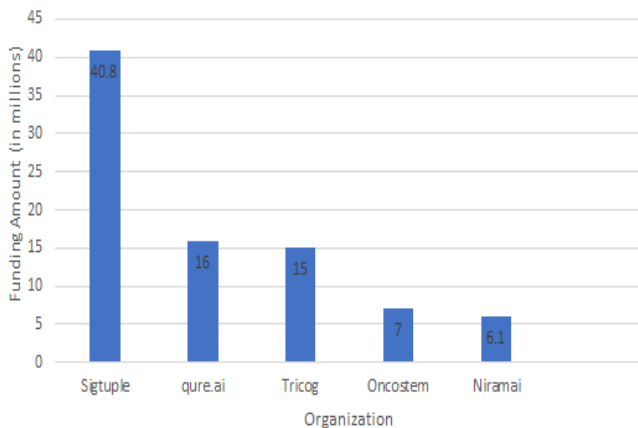


Figure 5. Top Artificial Intelligence organizations in health care in India

From this survey it is observed that AI plays a major role in the Health Care Systems as discussed below:

1. Medical records: Assist in the creation and analysis of medical records (for instance, recording clinical documents established from EMR data and cutting short on clinical writing).
2. Staffing and management planning: Analyses the data at ground-level supervision and medical staff data to plan and predict required services.
3. Claim processing: The inclusion of AI in the latest analysis to evaluate health records and the data generated about the suffering persons to automate claiming process.
4. Fraud prevention: Analyses claimed data and recognition of user pattern algorithms for detection of fraud.
5. Training and quality assurance: Analyses of the last medical pronouncement, identification of location of mistakes made in the context of suffering person, uses previous understanding like an important source in efforts to improve quality and efficiency.
6. Coding and billing: Financial services of supportive providers by analyzing medical notes to ensure proper coding and development of payment strategies

IV. CONCLUSION

Artificial intelligence technology aids to direct health obstacles around the world but hindered by this environment about the use of clinical data and incapability of human characteristics for particular characteristics. Artificial intelligence utilizes to identify cyber-attacks, digital assaults and secure clinical service of computer. AI systems use excuses machines cannot replace health professionals for getting better medical pronouncement. Artificial intelligence applications are used for providing medical research, training, diagnosis, treatments, and pronouncement in patient medical management. Artificial intelligence structures would be greatly improved, gain the capability of performing wide variety of tasks in the absence of source or human governance. Artificial intelligence has been evolved, implemented within a transparent manner particularly in the best interests of the community while promoting and driving innovation in the field.

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