

ARTIFICIAL INTELLIGENCE HEALTHCARE

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Introduction

Artificial Intelligence is rapidly becoming a key part of many industries ranging from the technology industry to health care. This report will explore the role of artificial intelligence and machine learning¹ in the health care industry.ⁱ

The Potential of AI In Healthcare

The integration of machine learning techniques in healthcare has garnered significant attention in recent years, offering the potential to revolutionize traditional systems and elevate value-based treatment. (Sarker, 2024)

Preliminary Diagnosis and Prediction

With current advances in AI research, it has been found that AI has outperformed physicians in speed and accuracy of medical diagnosis in some fields of healthcare sectors. [Conclusions](#) (Väänänen, 2021)

What Can AI Do Now

AI techniques, such as machine learning and deep learning, are being used to analyze structured and unstructured healthcare data. These techniques can identify patterns and trends in patient data that may not be immediately apparent to humans, enabling earlier diagnosis, treatment, and prognosis evaluation. (Rana, 2024)



FIGURE 1: ARTIFICIAL INTELLIGENCE

¹ A computer system designed to learn and simulate the intelligence of humans.

Challenges and Limitations of AI

While AI has many advantages it also has a lot of shortcomings. Machine learning is capable of intaking, condensing, and providing concise results, it however is incapable of making judgement calls and decisions that doctors are relied upon. A doctor is still required to finalize a diagnosis and determine proper treatment.

Benefits	Challenges and Limitations
Capable of accurate predictive diagnosis.	Physicians are still required to determine treatment of predicted illness.

TABLE 1: BENEFITS AND LIMITATIONS OF AI

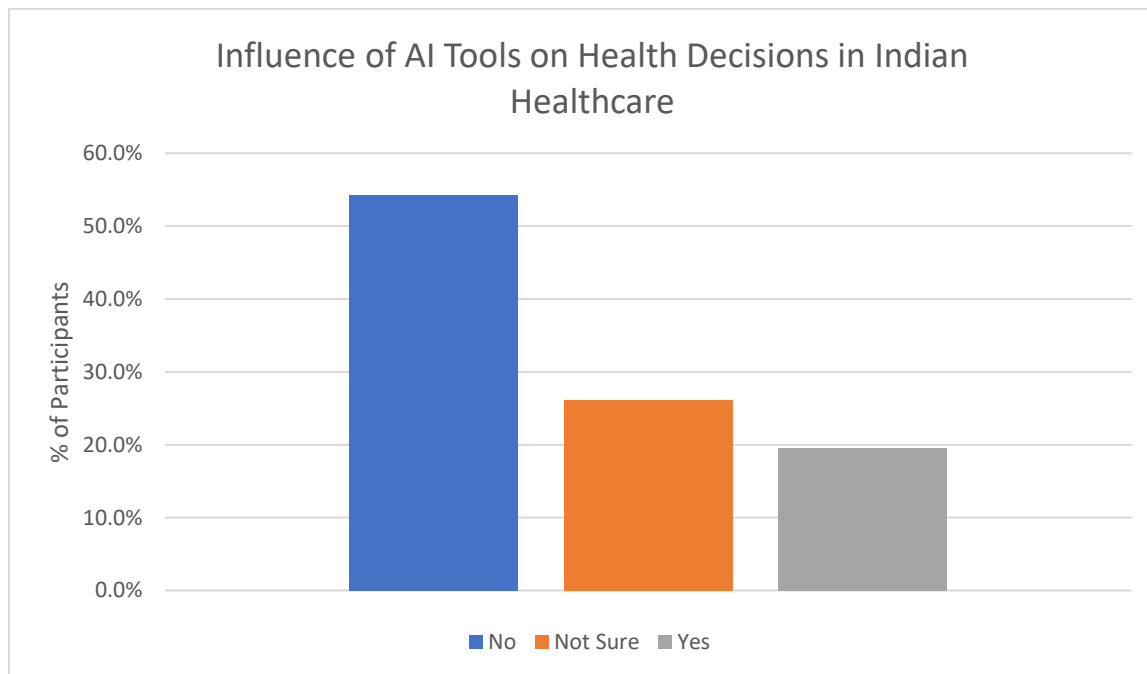


FIGURE 2: SERVEY OF USERS AND MEDICAL PROFESSIONALS IN INDIA'S HEALTHCARE SECTOR (ARYAMAN RAINA, 2024)

Conclusions

The implementation of AI for assisted diagnosis and disease prediction has been a huge advancement for patient care. Being able to predict and diagnose diseases like Diabetes, Cancer, and Tuberculosis in advance with significant accuracy enables physicians and medical professionals to make faster and better judgments when it comes to treatment. (Väänänen, 2021)

References

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ⁱ Healthcare AI marketing is increasing in growth.