Impact Factor: 6.252

Application of AI in Healthcare: A Survey

Sakshi Bhagat[1], Vaibhavi Gulhane[2], Prof. Mohit K. Popat[3]

U.G. Students, Department of Computer Science and Engineering[1,2]

Assistant Professor, Department of Computer Science and Engineering[3]

Jawaharlal Darda Institute of Engineering and Technology, Yavatmal, Maharashtra, India

sakshibhagat0119@gmail.com[1], vaibhavigulhane123@gmail.com[2], mohit.popat@jdiet.ac.in[3]

Abstract: *Artificial intelligence (AI) has now a days become part of our lives knowingly or unknowingly. AI has developed very swiftly with the development of Software Algorithms, advanced hardware, network capabilities and Internet. In this paper we will discuss the AI applications and the developments in Biomedicine, Biomedical processing and research. This paper aims to track the achievements of new science, to understand discovery of technology, to appreciate the great potential of AI in biomedicine, and to provide young researchers an inspiration in this subject. AI has particular Potenial in planning and distribution of resources in health and medicine. Purpose of this paper is to focus on the ways AI domains can be used to aid treatments such as natural language processing, voice technology and medical robotics. It is also discussed that how AI can be used in medical research, such as medical imaging, eco cardiography, etc.*

Keywords: Artificial intelligence, Machine learning, healthcare applications, Clinical decision, making management, Medical Imaging, Medical Robotics

REFERENCES

[1]. Septiana Y, Mulyani A, Kurniadi D and Arifin D M 2020 Information Systems Strategic Planning For Healthcare Organizations Using Ward And Peppard Model Int. J. Sci. Technol. Res. 94718–21

[2]. Minsky M. Steps toward artificial intelligence. Proc IRE 1961;49(1):8–30.

[3]. Weng J, McClelland J, Pentland A, Sporns O, Stockman I, Sur M, et al. Autonomous mental development by robots and animals. Science 2001;291 (5504):599–600.

[4]. Wooldridge M, Jennings NR. Intelligent agents: theory and practice. Knowl Eng Rev 1995;10(2):115–52.

[5]. Huang G, Huang GB, Song S, You K. Trends in extreme learning machines: a review. Neural Netw 2015;61:32–48.

[6]. Silver D, Schrittwieser J, Simonyan K, et al. Mastering the game of Go without human knowledge. Nature 2017;550:354–9.

[7]. Silver D, Hubert T, Schrittwieser J, et al. Mastering chess and shogi by self-play with a general reinforcement learning algorithm. arXiv 2017.

[8]. Lucas GM, Rizzo A, Gratch J, et al. Reporting mental health symptoms: breaking down barriers to care with virtual human interviewers. Frontiers in Robotics and AI 2017;4:51.

[9]. Shademan A, Decker RS, Opfermann JD, et al. Supervised autonomous robotic soft tissue surgery. Sci Transl Med 2016;8:337ra64.

[10]. Linn A. How Microsoft Computer Scientists and Researchers are Working to 'Solve' Cancer [Internet]. News.microsoft.com. 2018. Available from: https://news.microsoft.com/stories/computingcancer/.2018 August 25

[11]. Powles J, Hodson H. Google Deep Mind and healthcare in an age of algorithms. Health and Technol. 2017;7:351–67. [PMC free article] [PubMed] [Google Scholar]