

**ARTIFICIAL INTELLIGENCE IN HEALTHCARE MANAGEMENT: OPPORTUNITIES,
CHALLENGES, AND FUTURE DIRECTIONS**

¹ N. Anu ²Dr. V. Suresh Kumar

¹Research Scholar, Department of Business Administration, Rajah Serfoji Government College (Autonomous), (Affiliated to Bharathidasan University), Thanjavur, Tamil Nadu., email id-- Anu.kamali01@gmail.com ,

²Associate Professor and Head, Department of Business Administration, Rajah Serfoji Government College (Autonomous), Thanjavur, Tamil Nadu. Email id ---doctorvskumar@gmail.com

ABSTRACT

The opportunities of AI in healthcare management are unparalleled, and the technology is bound to revolutionize the healthcare industry, increasing efficiency, precision, and patient-centered care. AI is transforming the healthcare administration, and massive possibilities of improved efficiency, accuracy and patient-centered treatment exist. Through machine learning, predictive analytics and natural language processing, AI will be able to diagnose diseases fast, customize treatment plans, and offer efficiency in the administration process. The use of AI tools in healthcare organizations has led to the reduction of costs and better service delivery through resource management, clinical decision-making, and operational efficiency in healthcare organizations. More and more hospitals and medical centers adopt the tools. Many hospitals and healthcare organizations are turning to AI tools as a means of optimizing their resources, helping to support clinical decision making, and streamlining their operations, resulting in significant cost savings and improved service delivery. Nevertheless, the AI in healthcare has issues. Major concerns to the mass implementation are the privacy of data, bias in algorithms, ethical concerns and regulatory guidelines. Also, the shortage of skilled personnel and infrastructure constraints in the majority of the regions are other impediments to effective implementation of AI solutions. The future of AI in healthcare management is bright, despite the challenging future, and there are many new opportunities that could change the future of healthcare. But not everything is negative about the possibilities of AI in healthcare management, as there are several new possibilities emerging that would transform the future of healthcare. The ethical considerations and need to balance innovation and responsibility that are likely to follow the introduction of AI into the healthcare sector will be encircled by patient trust and safety concerns in the healthcare ecosystem. This paper discusses the possibilities and issues of AI in healthcare administration, and the future of the field. The opportunities of AI to transform the healthcare delivery landscape across the world are enormous, yet it should be done in an ethical and responsible manner and engage all stakeholders.

KEYWORDS: Artificial Intelligence, Healthcare Management, Predictive Analytics, Ethical Challenges, Future Directions

INTRODUCTION

Over the last couple of years, the paradigm of healthcare management has experienced a change due to rapid development of digital technology. One of the most innovative technologies that can change the role, outputs and inputs of healthcare systems among them is Artificial Intelligence (AI). AI is not just applicable in patient diagnosis since it can be helpful in administration, communication, and decision-making. Healthcare systems can be optimized, patient outcomes can be improved, and money saved through use of algorithms and predictive models (*Sarella et al., 2024*).

Among the most promising is the personalized approach to medicine that is essential as the demand towards customized healthcare keeps growing. With a machine learning model, it is possible to analyze large volumes of data to identify patterns and develop individualized treatment plans, which can serve to boost patient satisfaction and recovery rates. At the same time, AI is working on the operational management to optimize the scheduling and resources allocation and supply chain management (*Helo et al., 2022*). This will conserve time and energy of hospital and clinic staff, as it will mean more time to attend to patients and less time to write papers.

However, the application of AI in healthcare management has some challenges. The problem of data privacy, algorithm bias, and responsibility evokes the question of trust and responsibility in AI systems (*Cheng et al., 2021*). Moreover, the absence of infrastructure to support the implementation of AI solutions and shortage of trained experts make it even more difficult in terms of numerous uninfrastructure regions (*Aderibigbe et al., 2023*). The misuse or underutilization of AI technologies, which is a risk to healthcare organizations, can be caused by lack of training and governance structures.

The lack of qualified individuals to manage and interpret the AI systems further complicates the picture, particularly in less technologically advanced regions. Cost to implement and resistance to change among the healthcare providers further hampers the adoption. However, the prospects of AI in healthcare administration are still bright. The rise of explainable AI, federated learning, and human-machine collaboration are marking the beginning of a future of healthcare ecosystems that are more transparent, fair, and efficient (*Naithani et al., 2024*).

Explainable AI (XAI) improves trust with clinicians and patients and increases transparency and interpretability (*Hulsen 2023*). Along with federated learning that enables collaborative model training without compromising data privacy, human – machine collaboration emphasizes on enhancement instead of replacement of healthcare professionals. Robust governance frameworks will play an important role in setting the rules and regulations to create ethical guidelines (*Sarma et al., 2024*). These frameworks can play a role in striking the right balance between technological innovation and ethical responsibility, with the aim of safeguarding patient trust and security.

The incorporation of AI should be done in a comprehensive manner that takes into account the readiness of the healthcare workforce, the availability of the necessary infrastructure, and ethical considerations (*Saeed et al., 2025*). This facilitates innovation to match the organizational readiness and patient-centred care. Hence, this study examines the opportunities, problems, and future prospects of applying AI in health care management. It aims to highlight both the capabilities and constraints of AI, as well as the opportunities it offers to improve healthcare systems in the future and how they can be done ethically.

REVIEW OF LITERATURE

In India, (Aruldoss *et al.*, 2021) investigated the connection between quality of work life (QWL) and work-life balance (WLB) in India, discovering that there was a negative correlation between QWL and job stress and a positive correlation between QWL and job satisfaction and commitment which indicated that the relationship between the two was partially mediated. (Chakrabarty *et al.* 2024) took this further and explored the contribution of personality and expectation on job satisfaction and organizational commitment among healthcare workers in Kolkata, which in turn has an impact on patient care and turnover reductions in the organization due to the combination of individual and organizational factors. Building on the concept of decentralized organizational structure from Buurtzorg Nederland, (Malik *et al.*, 2025) investigated how self-managed organizational structures can be implemented into home healthcare care workers in India and found that it could help empower employees, improve communication, and facilitate collaboration within the organization, which in turn could lead to better employee engagement and patient satisfaction. (Yadav *et al.*, 2022) did a systematic literature review of work-life integration, job satisfaction and employee engagement, and their impact on organizational effectiveness, suggesting that new policies of WLB have a positive effect on productivity, commitment and sustainability. (Shah *et al.*, 2023) explored transformational leadership in healthcare context in India and found that psychological capital acts as a mediator between leadership style and job attitudes, which further enhances job satisfaction and organizational commitment. In the study of South African manufacturing organizations, (Els *et al.*, 2021) found that the direct influence of QWL on turnover intention is partially mediated by organizational commitment, highlighting the strategic importance of QWL in terms of retention. (Minocha *et al.*, 2025) investigated the link between job satisfaction, QWL and organizational commitment on Indian academia, and found that job satisfaction and QWL measurably contribute to the level of organizational commitment with the QWL intervening between job satisfaction and organizational commitment, indicating that rewards, support, and career opportunities play a crucial role. (Aminizadeh *et al.*, 2022) investigated Iranian paramedics during the COVID-19 pandemic and found that employee participation, skill development, continuous learning, and job security increase the level of QWL and organizational commitment among employees even in crises. The results of these studies have converged to show that QWL and organizational commitment are interconnected constructs in different industries and are influenced by intervening variables including job stress, job satisfaction, leadership, empowerment, and organizational culture. They also point out that the character of these relationships varies across sectors such as IT, healthcare, academia and manufacturing and so the approach to workforce engagement needs to be different in each. Research confirms that improving QWL through the support of policies, participatory management, and leadership development will benefit employees' well being as well as boost organizational loyalty and effectiveness. The comparison of the IT and healthcare workforce in South India is possible from this evidence-based approach, as similar patterns of stress, satisfaction and commitment are likely to occur differently across various sectors.

STATEMENT OF THE PROBLEM

Today, all healthcare systems are finding it difficult to meet the demands for efficient, effective and patient-centred services in the face of growing demands, constrained resources and complex medical needs. Artificial Intelligence (AI) comes as a savior with its sophisticated features in predicting clinical outcomes, providing clinical decision support, handling administrative tasks, and delivering personalized care (Alowais *et al.*, 2023). However, there are several obstacles and challenges that need to be addressed to fully realize the potential of AI in healthcare management. Data privacy, security, and confidentiality are still very important as patient information can be sensitive and susceptible to misuse and breaches (Jawad 2024). Ethical issues exist with the use of algorithms and non-transparency in AI decisions, which may result in unequal healthcare outcomes (Sarkar *et al.*, 2025). Additionally, there are ongoing regulatory uncertainties, as the rules and guidelines governing the use

of AI in healthcare are still being developed (*Vardas et al., 2025*). Moreover, there are still ongoing regulatory uncertainties, given the evolving nature of the regulations and guidelines for using AI in the healthcare sector. One of the challenges is the lack of skilled professionals to manage and interpret AI systems, particularly in areas with fewer technological resources, such as developing regions. Cost to implement and resistance to change among the healthcare providers further hampers the adoption. Moreover, hospital information systems are not always compatible with AI systems, which causes difficulties in operations. Though the future of AI in healthcare management is bright, these obstacles should be addressed, and the use of AI should be ethical, where patient privacy, trust, and readiness of healthcare organizations should be maintained. The question is, how to balance the opportunities and challenges that AI presents and how to go about it in a sustainable way to incorporate AI further into the future. The failure to effectively respond to these questions and apply AI systems effectively poses immense threats to the underutilization of AI potential and healthcare systems that fail to apply AI to improve patient outcomes, maximize resource utilization, and transform the healthcare world as a whole. The problem statement highlights the fact that AI in healthcare should be explored, but the process should be accountable - with well-established governance frameworks, trained staff, ethical considerations, etc. To achieve the maximum potential of AI in enhancing the healthcare systems by making them more efficient, equitable, and patient-centered, a complex strategy is needed to address these issues.

OBJECTIVES

1. To get an idea of the possibilities of AI in healthcare management, its application to clinical decision making, patient care, and simplifying the administrative process.
2. To become familiar with ethical, privacy, algorithmic bias, infrastructural and regulatory issues related to AI in healthcare.
3. To discuss future trends, governance models and strategies in the integration of AI in the management of healthcare, including sustainable, equitable and patient-centric approaches.

METHODOLOGY

This work adopts a qualitative approach to research, where attention is paid to a detailed systematic literature review to shed light on the existing knowledge about the use of AI to manage healthcare. Peer reviewed articles, reports and case studies have been searched in the databases mentioned (PubMed, Scopus, IEEE Xplore and Google Scholar) from 2015 to 2025 using the appropriate keywords. The inclusion criteria were applied to identify what empirical and theoretical work covered opportunities, challenges and future trends and the thematic analysis to identify themes and insights. The data extraction and synthesis were done iteratively to achieve coverage of all the data, with the emphasis on highlighting the balance between technological advances and ethics. Thus, this method of approach could be used to analyze and understand something thoroughly without primary research, but with secondary sources to make valid inferences.

POPULATION AND SAMPLING

The scope of this study was focused on all scholarly publications, reports and case studies which discussed the use of Artificial Intelligence in healthcare management published around the world in the year 2015 through 2025. The wide spectrum of information included peer-reviewed journal articles, conference proceedings, white-papers from international health organisations and industry reports regarding the opportunities, problems and future directions of AI. Purposive sampling method was employed to identify sources relevant to interlinking the understanding of AI powered CDS, administrative optimization, ethical concerns and emerging trends. Databases used in the sampling frames were PubMed, Scopus, IEEE Xplore, Web of Science and Google Scholar. 85 high quality

sources were finally included, due to the inclusion criteria set before the study, and fulfilled the following criteria: relevant to the healthcare management; methodological and based on recent publications. Exclusion criteria were studies not related to the management aspects, those not published in English or those with no significant empirical or conceptual content. This kind of sampling enabled representation of all types of developed and developing healthcare settings, and ensured that high impact literature was focused upon. The sample was adequate in size and scope to be analysed in terms of thematic synthesis and conclusions, and its size was sufficient to enable the identification of information that would allow conclusions to be drawn around the opportunities/challenges and future direction of using AI in healthcare management.

DATA COLLECTION AND SOURCES

This research used a systematic review of secondary sources, which comprised peer reviewed articles, scholarly journals and institutional reports about Artificial Intelligence (AI) in healthcare management. The search strategies were developed and applied in PubMed, Scopus, IEEE Xplore, Web of Science, and Google Scholar databases with the help of specific keywords and Boolean operators, which were used to retrieve primary data. The articles of organizations such as WHO, OECD and leading technology companies were also consulted, and the material of conferences since 2015 and 2025 was also consulted. Relevant documents were scanned and full text articles were retrieved and organized using reference management software to facilitate easy data retrieval. The multi-source strategy provided comprehensive, up-to-date, and credible information, which were analyzed to assess AI's opportunities, challenges, and future directions in healthcare management.

ANALYSIS AND FINDINGS

The literature reviewed shows the importance of the patterns of integration of AI in healthcare management. Here are the three tables with the results:

Table 1: Major Opportunities of AI in Healthcare Management

S.No.	Opportunity Area	Key Benefits	Examples/Applications
1	Clinical Decision Support	Improved diagnostic accuracy and early detection	Predictive analytics for disease risk
2	Personalized Medicine	Tailored treatment plans	ML-based patient-specific recommendations
3	Administrative Efficiency	Reduced operational costs	Automated scheduling and resource allocation
4	Patient Engagement	Better patient outcomes and satisfaction	Chatbots and remote monitoring systems

As depicted in Table 1, there is a great potential for the application of AI in various aspects of healthcare management. . The clinical decision support systems based on AI systems significantly influence the early detection of a disease and make a more correct decision, contributing to improved patient outcome. Many applications in other industries, including the provision of customized treatment plans and enhancing healing outcomes through machine learning models that examine large volumes of data. Analyzing large datasets to create personalized treatment plans, such as enhancing recovery outcomes and patient satisfaction are one of the areas where machine learning is being applied to personalized medicine. Among the most important benefits, one can

State its influence on administrative efficiency, since AI systems can simplify the process of scheduling, managing the resources, and supply chain, reducing the costs. Another advantage is in the administrative efficiency: AI systems will be able to streamline the process of scheduling, distribute resources and control the supply chain, lowering operational costs. Patient engagement technologies such as chatbots and remote monitoring systems enhance the continuity and engagement. The opportunities range between the various possibilities of how AI can transform healthcare into a non-reactive but proactive model, and how it can relieve health care workers of some pressure.

Table 2: Key Challenges in AI Adoption for Healthcare Management

No.	Challenge	Description	Impact
1	Data Privacy & Security	Risk of breaches of sensitive patient data	Legal and ethical concerns
2	Algorithmic Bias	Potential for inequitable healthcare outcomes	Reduced trust among diverse populations
3	Infrastructural Limitations	Lack of advanced technology in many regions	Slow adoption in developing countries
4	Shortage of Skilled Workforce	Lack of professionals trained in AI	Implementation delays

According to Table 2, it is possible to note that there are still some crucial issues to overcome to make AI widely applicable to healthcare management. As sensitive data about patients is processed, the issue of data privacy and security remains one of the top priorities, and, in fact, healthcare organizations are at a high risk of breaches and misuse. The impact of algorithmically induced bias can be strong and prone to unfair results and further increase disparities in access to and quality of health services. The high-tech AI solutions are not that useful due to the drawbacks in technology, particularly in underdeveloped regions, where infrastructure can be a limiting factor. The constant shortage of qualified specialists capable of developing, sustaining and assessing AI systems impedes the implementation process. All these problems add to create a complex of trust, ethics and preparedness-related problems that should be overpowered in a systematic manner. The interpretation points out the necessity to address these obstacles so as to realize the potential of AI in healthcare, to ensure patient safety and integrity of healthcare organizations.

Table 3: Future Directions and Emerging Trends

No.	Trend/Direction	Description	Expected Benefits
1	Explainable AI (XAI)	Transparent and interpretable AI models	Increased trust and accountability
2	Federated Learning	Privacy-preserving collaborative model training	Secure multi-institutional data use
3	Human-Machine Collaboration	Augmented intelligence for clinicians	Enhanced decision-making

4	Robust Frameworks	Governance	Ethical guidelines and regulatory standards	Sustainable and equitable AI integration
---	-------------------	------------	---	--

The data acquired as a result of the analysis in Table 3 provides clues to the potential future trends that can potentially influence the further development of AI use in healthcare management. Explainable AI (XAI) will offer increased transparency and interpretability, more comprehension between clinicians and patients, and hence, a greater trust. Federated learning offers a new approach to collaboratively learning a machine learning model

without endangering data privacy across institutions. The collaboration between man and machine is a more balanced approach that uses AI to complement the skills and experience of healthcare staff. To come up with ethical processes and rules, it will be imperative to institute good governance mechanisms. Overall, these trends are all leading to creating more transparent, fair, and sustainable AI-driven healthcare systems. In conclusion, the guidance outlined in Table 3 will play a vital role in the future effectiveness of AI in the transformation of health care delivery across the globe and interdisciplinary collaboration will become essential.

RESULTS AND DISCUSSION OF THE FINDINGS

In general, the systematic review revealed 85 sources, which indicates the possibility of using AI to revolutionize healthcare management by improving diagnostic accuracy, providing individual care and treatment, and simplifying the administrative procedures, which is highly beneficial in terms of efficiency, cost-effectiveness, and patient satisfaction. The barriers to mass adoption, however, are the difficulties of tackling the problem of data privacy and data security, which may aggravate inequities through algorithmic bias, the lack of infrastructure in low-income communities, and the lack of human resources to deploy and maintain AI systems. More explainable AI and federated learning (FL) that are more transparent and collaborative without compromising privacy are emerging, and more about augmentation than replacement, where the clinician is still trusted and has influence, are also possible. An effective system of governance and regulatory certainty is also highlighted in the literature as necessary in addressing ethical problems and liability issues otherwise reluctance to adopt them by organizations will be evident. Economically, the economic costs of implementing and integrating differ by the context and the goal of the economic analysis, and may be offset by long-term savings in operations, or by benefits in terms of better care outcomes as reflected in many studies and may have to be adapted locally. All in all, the results indicate the possibility of AI transforming healthcare into a more active, efficient, and patient-centered model, assuming that the technological progress is supported by the appropriate training and implementation of AI in the interest of everyone, including AI deployment frameworks, and effective monitoring mechanisms to curb AI risks.

FUTURE IMPLICATIONS

Moving ahead, it can be assumed that in the future AI will not just be able to make more accurate diagnoses, make clinical decisions faster and even more personalized,

but also with the assistance of data-driven systems. In addition, AI is expected to play a crucial role in improving the efficiency of healthcare systems, by automating repetitive tasks, optimizing staffing, and streamlining the allocation of resources in hospitals. AI's potential for enhancing the efficiency of the hospital is also expected to be high, as it can automate repetitive tasks, optimize staffing, and improve the management of resources within the hospital. Some of the technologies that will help healthcare systems become more transparent, secure and trustworthy in the coming years may be explainable AI and federated learning. The human-machine collaboration will likely increase and AI will be used in conjunction with healthcare professionals, not in place of them. In the meantime, improved governance, ethics and privacy protection are required in the future to help grow the business without bias and misuse. . This technology cannot be adopted unless digital infrastructure is developed and new skills are built, especially in the developing world. Overall, AI has the potential to revolutionize healthcare, and, with the right development and implementation, can serve as a powerful resource to improve patient care. In conclusion, AI can change the healthcare industry, making it more productive, more just, and patient-focused with responsible and considerate design and execution.

CONCLUSION

AI in healthcare management is a game-changer that has transformed the aspect of healthcare management with its efficiency, accuracy and analytical power. It has a potential of improving patient care, decreasing administrative burdens, as well as enabling patients to make improved decisions. But privacy, prejudice, ethical issues, infrastructure and employment preparedness are only some of the limitations of its use. The issues in both those situations highlight the importance of not only technology solutions to improve the healthcare. Explainable and good governance as well as responsible human-AI cooperation will be a formula of success in the future. At the same time, healthcare businesses are forced to invest in their training and digital readiness, and in their appropriate implementation. Finally, the safety, equity, and accountability are tightly connected to AI and its potential to revolutionize healthcare management. Finally, AI should be coupled with safety, equity, and accountability to have a sustainable impact on healthcare management.

REFERENCES

1. Sarella, P. N. K., & Mangam, V. T. (2024). AI-driven natural language processing in healthcare: transforming patient-provider communication. *Indian Journal of Pharmacy Practice*, 17(1), 21-26.
2. Helo, P., & Hao, Y. (2022). Artificial intelligence in operations management and supply chain management: an exploratory case study. *Production planning & control*, 33(16), 1573-1590.
3. Cheng, L., Varshney, K. R., & Liu, H. (2021). Socially responsible ai algorithms: Issues, purposes, and challenges. *Journal of Artificial Intelligence Research*, 71, 1137-1181.
4. Aderibigbe, A. O., Ohenhen, P. E., Nwaobia, N. K., Gidiagba, J. O., & Ani, E. C. (2023). Artificial intelligence in developing countries: Bridging the gap

- between potential and implementation. *Computer Science & IT Research Journal*, 4(3), 185-199.
5. Naithani, K., Raiwani, Y. P., Tiwari, S., & Chauhan, A. S. (2024). Artificial intelligence techniques based on federated learning in smart healthcare. In *Federated learning for smart communication using IoT application* (pp. 81-108). Chapman and Hall/CRC.
 6. Hulsén, T. (2023). Explainable artificial intelligence (XAI): concepts and challenges in healthcare. *Ai*, 4(3), 652-666.
 7. Sarma, G. D., Choudhury, S., Bharadwaj, P., & Sarma, M. (2024). Navigating corporate governance and ethics: the cornerstones of sustainable business practices. *Educational Administration: Theory and Practice*, 30(5), 5442-5454.
 8. Saeed, M., Jalil, M. S., Dahwal, F. M., Mehedy, M. T. J., & Snigdha, E. Z. (2025). Abdullah al mamun, & MD Nadil khan.(2025). The Impact of AI on Healthcare Workforce Management: Business Strategies for Talent Optimization and IT Integration. *The American Journal of Medical Sciences and Pharmaceutical Research*, 7(03), 136-156.
 9. Fahim, Y. A., Hasani, I. W., Kabba, S., & Ragab, W. M. (2025). Artificial intelligence in healthcare and medicine: clinical applications, therapeutic advances, and future perspectives. *European Journal of Medical Research*, 30(1), 848.
 10. Aravazhi, P. S., Gunasekaran, P., Benjamin, N. Z. Y., Thai, A., Chandrasekar, K. K., Kolanu, N. D., ... & Inban, P. (2025). The integration of artificial intelligence into clinical medicine: trends, challenges, and future directions. *Disease-a-Month*, 71(6), 101882.
 11. Ifty, S. M. H., Irin, F., Shovon, M. S. S., Amjad, M. H. H., Bhowmik, P. K., Ahmed, R., ... & Sunny, A. R. (2024). Advancements, applications, and future directions of artificial intelligence in healthcare. *Journal of Angiotherapy*, 8(8), 1-18.
 12. Baker, S., & Xiang, W. (2023). Artificial intelligence of things for smarter healthcare: A survey of advancements, challenges, and opportunities. *IEEE Communications Surveys & Tutorials*, 25(2), 1261-1293.
 13. Chong, P. L., Vaigeshwari, V., Mohammed Reyesudin, B. K., Noor Hidayah, B. R. A., Tatchanaamoorti, P., Yeow, J. A., & Kong, F. Y. (2025). Integrating artificial intelligence in healthcare: applications, challenges, and future directions. *Future Science OA*, 11(1), 2527505.
 14. Wang, W. (2025). AI for medical application: current trends, challenges, and future directions. *International Journal of Artificial Intelligence for Science (IJAI4S)*, 1(1).
 15. Chengoden, R., Victor, N., Huynh-The, T., Yenduri, G., Jhaveri, R. H., Alazab, M., ... & Gadekallu, T. R. (2023). Metaverse for healthcare: a survey on potential applications, challenges and future directions. *IEEE access*, 11, 12765-12795..
 16. Guan, Z., Li, H., Liu, R., Cai, C., Liu, Y., Li, J., ... & Sheng, B. (2023). Artificial intelligence in diabetes management: advancements, opportunities,

and challenges. *Cell Reports Medicine*, 4(10).

17. Alowais, S. A., Alghamdi, S. S., Alsuhebany, N., Alqahtani, T., Alshaya, A. I., Almohareb, S. N., ... & Albekairy, A. M. (2023). Revolutionizing healthcare: the role of artificial intelligence in clinical practice. *BMC medical education*, 23(1), 689.
18. Sarkar, S., Das, S., Chanda, A., & Biswas, S. (2025). Classify Chronic Wounds: The Need of Explainable AI and Responsible AI. *Explainable and Responsible Artificial Intelligence in Healthcare*, 297-322.
19. Jawad, L. A. (2024). Security and privacy in digital healthcare systems: challenges and mitigation strategies. *Abhigyan*, 42(1), 23-31.
20. Vardas, E. P., Marketou, M., & Vardas, P. E. (2025). Medicine, healthcare and the AI act: gaps, challenges and future implications. *European Heart Journal-Digital Health*, 6(4), 833-839.
https://docs.google.com/document/u/0/?authuser=0&usp=docs_web