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## The Amalgamation of AI in Medical Humanities: Enhancing Patient-Centered Care through Technology

**Himanshi Singh**

Research Scholar,

Department of English,

Banaras Hindu University,

Varanasi (Uttar Pradesh, India)

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### **Abstract:**

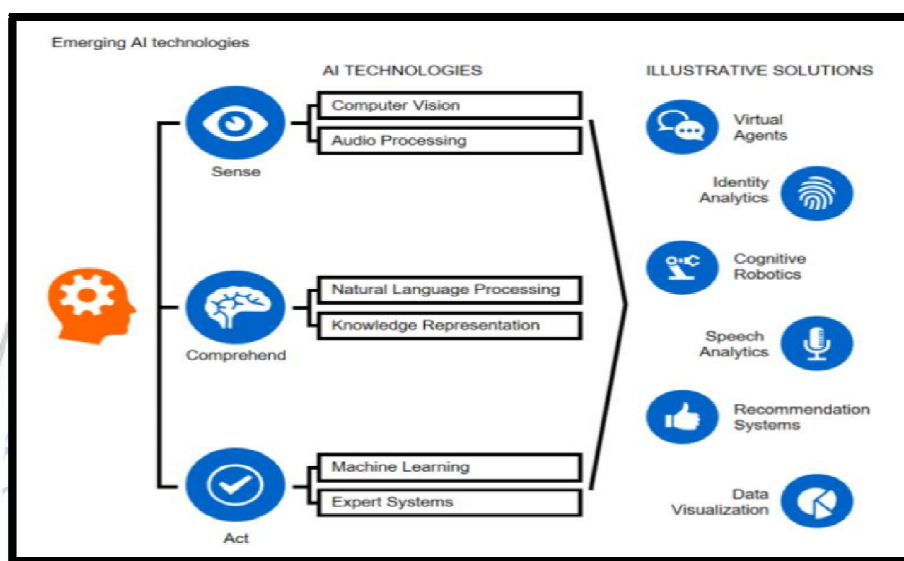
*This study aims to explore the intersection of artificial intelligence (AI), medical humanities, and its potential to enhance patient-centered care through the incorporation of advanced technologies. By investigating the synergies between AI and the humanistic aspects of medicine, the study seeks to identify how technology can be ethically integrated into healthcare practices to improve patient outcomes, foster empathetic communication, and promote a holistic approach to patient care. The incorporation of AI in healthcare has shown remarkable promise in augmenting diagnostic accuracy, treatment planning, and healthcare delivery efficiency. However, there is a growing concern about the potential dehumanization of medicine due to an overreliance on technology. This study aims to address these concerns by exploring the concept of medical humanities, which emphasizes the importance of compassion, empathy, cultural understanding, and ethical decision-making in healthcare. The findings of this research will shed light on the potential benefits and risks of integrating AI into medical practice while preserving the essence of humanistic care. Through a comprehensive review of literature, and case studies, the study reveals that when AI is thoughtfully integrated with medical humanities, it has the potential to revolutionize patient-centered care. AI-driven applications, such as natural language processing, predictive analytics, and personalized medicine, can facilitate early diagnosis, reduce medical errors, and optimize treatment plans. Additionally, AI can assist healthcare professionals in managing vast amounts of patient data, freeing up time for more meaningful interactions with patients. However, the study also emphasizes the need for robust ethical guidelines, data privacy safeguards, and ongoing training for healthcare professionals to ensure responsible and compassionate use of AI in patient care. This study advocates for a balanced approach that leverages the power of AI to complement rather than replace humanistic aspects of medicine. By embracing AI as a tool to enhance patient-centered care, healthcare providers can create a more empathetic and inclusive healthcare ecosystem that prioritizes the well-being and individuality of patients.*

**Keywords:** Artificial Intelligence, Medicine, Patients, Communication, Big data

### **Introduction**

- Gershgorn, D. (2018), 'If AI is going to be the world's doctor, it needs better textbooks', *Quartz*, 6 September 2018

The rapid advancements in artificial intelligence (AI) have brought about transformative changes in various sectors, and healthcare is no exception. The integration of AI technologies holds great promise for improving medical diagnostics, treatment planning, and patient outcomes. However, this promising landscape raises important questions about the potential implications for the humanistic aspects of medicine (Accenture). As the healthcare industry increasingly embraces AI, concerns have emerged about the potential erosion of the empathetic and compassionate interactions that have long been the cornerstone of patient-centered care (Mayer-Schönberger). This study delves into the intricate relationship between AI and medical humanities, aiming to uncover how these seemingly disparate domains can collaboratively enhance patient-centered care while preserving the essential human touch in healthcare practices.



**Figure 1: National Strategy for Artificial Intelligence #AIFORALL; Source - NITI Aayog, Government of India. 2018.**

In this era of technological innovation, healthcare professionals are presented with unprecedented tools to improve decision-making and streamline processes. AI, with its capacity to analyze vast datasets and predict outcomes, has demonstrated remarkable potential in assisting healthcare practitioners (Davenport). Yet, the essence of healthcare extends beyond clinical data points and treatment algorithms—it encompasses the intricate bonds between patients and providers, the understanding of cultural nuances, and the ethical considerations that guide medical decisions (Forbes). This study investigates the synergy between AI and medical humanities, recognizing that the convergence of these domains has the potential to redefine the landscape of patient care.

As AI technologies continue to evolve, there is a growing need to navigate the delicate balance between harnessing the power of automation and retaining the human touch that distinguishes medicine from other disciplines (Gershgorn). The medical humanities framework, with its emphasis on empathy, cultural competence, and ethical engagement, offers a lens through which to view the incorporation of AI in healthcare. By contextualizing AI within the broader canvas of

medical humanities, this study seeks to unravel the implications—both positive and concerning—of integrating technology into patient care.

Through an exploration of relevant literature, real-world case studies, and insights from experts in both medical and technological fields, this study contributes to a nuanced understanding of how AI and medical humanities can coalesce to advance patient-centered care. The findings of this research offer guidance to healthcare policymakers, practitioners, and technology developers who seek to embrace AI-driven innovations while safeguarding the values that underpin compassionate and comprehensive medical treatment. Ultimately, the study underscores the importance of thoughtfully navigating the intersection of AI and medical humanities to create a healthcare landscape that optimally serves both the medical and emotional needs of patients.

### **Application of AI in healthcare:**

The application of artificial intelligence (AI) in healthcare has ushered in a new era of possibilities, revolutionizing the way medical care is delivered, diagnosed, and managed. AI, with its remarkable ability to process vast amounts of data and identify patterns, has found diverse and transformative applications within the healthcare landscape (Rajiv Kumar Gupta).

AI's applications in the healthcare sector can be categorized into three main groups, as outlined by (Raghupathi) Descriptive usage involves quantifying past events, and leveraging this data to uncover trends and other insights.

- Predictive utilization entails making forecasts about the future based on descriptive data.
- The prescriptive function not only identifies trends and forecasts future outcomes but also proposes potential treatment options, applicable in fields like public health and clinical trials for research and development.

The scope of AI's potential benefits in healthcare is extensive. Various areas stand to gain, such as extracting insights from medical records, formulating treatment strategies, predicting occurrences of health issues like dengue or malaria, aiding repetitive tasks, facilitating virtual consultations (INDIAai.), supporting clinical judgments through analysis of radiological images for issue identification, managing medications, creating new drugs, promoting healthier decision-making, and addressing public health concerns by analyzing real-time data to pinpoint at-risk populations for various diseases (Gupta and Kumari, 2018).

A significant advantage of AI in healthcare lies in its capacity to fill gaps in regions where human resources are scarce, particularly in rural and remote locales.

One of the key areas where AI is making significant strides is medical diagnostics. AI-powered algorithms can analyze medical images such as X-rays, MRIs, and CT scans with unprecedented accuracy, aiding healthcare professionals in early and precise disease detection (Kalyanakrishnan). This not only speeds up the diagnostic process but also enhances the potential for

early intervention and improved patient outcomes.

AI's predictive analytics capabilities are driving advancements in personalized medicine. By analyzing patient data, including medical history, genetics, and lifestyle factors, AI can help tailor treatment plans that are uniquely suited to individual patients. This move towards precision medicine ensures more effective treatments, reduced adverse effects, and better patient experiences (Mahapatra).

Furthermore, AI is transforming patient care through remote monitoring and wearable devices. These technologies can continuously collect and analyze patient data, enabling timely interventions and real-time health tracking. Patients with chronic conditions can benefit from improved disease management, while healthcare providers can offer proactive care based on actionable insights (Paul).

In administrative tasks, AI is streamlining healthcare operations. Natural language processing allows for efficient documentation and data entry, freeing up healthcare professionals to spend more time with patients. AI-driven chatbots and virtual assistants are also enhancing patient engagement by providing instant responses to queries and scheduling appointments.

However, as the integration of AI in healthcare accelerates, ethical and regulatory considerations become paramount. Ensuring patient data privacy, maintaining transparency in AI decision-making processes, and addressing biases in algorithms are critical challenges that need to be addressed to maximize the potential benefits of AI while minimizing risks.

### **Application of the Technology Acceptance Model (TAM) to the context of integrating AI in healthcare.**

The Technology Acceptance Model (TAM) is a widely recognized theoretical framework that seeks to understand and predict users' acceptance and adoption of new technologies. Originally developed by Davis in 1986, TAM suggests that perceived usefulness and perceived ease of use are key determinants of users' behavioral intentions and actual usage of a technology (Hsiao C H).

In the context of healthcare, TAM has proven to be a valuable tool for comprehending how healthcare professionals, patients, and other stakeholders perceive and adopt technological innovations, particularly those related to the integration of AI and digital tools (Handayani P W). By assessing the perceived benefits and ease of use of these technologies, healthcare organizations and researchers can gain insights into the factors that drive or hinder their successful implementation.

TAM's application in healthcare involves examining how healthcare professionals view the usefulness of AI-powered diagnostic tools, electronic health records systems, telemedicine platforms, and other technological solutions (May C). Additionally, it investigates how these professionals perceive the ease with which they can incorporate these tools into their existing workflows (Zanaboni P).

For instance, when introducing AI-based clinical decision support systems, applying TAM can help determine whether healthcare practitioners believe that these systems will enhance patient care outcomes (perceived usefulness) and whether they find these systems easy to integrate into their daily practices (perceived ease of use) (H.). Understanding these perceptions can guide the development and implementation of technology in ways that align with users' needs and expectations.

TAM's emphasis on user-centered perspectives and its simplicity make it a valuable framework for healthcare organizations seeking to ensure the successful adoption of technology among both providers and patients. By addressing perceived barriers and enhancing perceived benefits, TAM facilitates the creation of technology-enhanced healthcare environments that effectively balance innovation and human-centered care.

### **1. Perceived Usefulness:**

*Example: AI-Assisted Diagnostics*

Healthcare professionals might perceive AI-powered diagnostic tools as highly useful due to their ability to rapidly analyze medical images and detect subtle anomalies. For instance, radiologists using AI algorithms to analyze mammograms can identify potential breast cancers at an early stage, improving patient outcomes.

### **2. Perceived Ease of Use:**

*Example: Voice-Activated Documentation*

Doctors might find AI-powered voice recognition software that transcribes spoken medical notes into electronic health records (EHRs) easy to use. This technology simplifies the documentation process, allowing physicians to quickly capture patient information without navigating complex EHR interfaces.

### **3. Behavioral Intention to Use:**

*Example: AI-Enhanced Treatment Planning*

Oncologists might express a strong intention to use AI systems that analyze genetic data to recommend personalized cancer treatment regimens. The perception that these AI tools can help them choose the most effective therapies for individual patients could drive their intention to adopt such technology.

### **4. Actual Use and Adoption:**

*Example: Wearable Health Devices*

If patients perceive wearable AI devices that monitor vital signs as useful and easy to use, they are more likely to incorporate them into their daily routines. Tracking heart rate, sleep patterns, and physical activity through wearables can provide patients with valuable insights into their health.

### **5. Factors Influencing Perceptions:**

*Example: Organizational Support*

A hospital's encouragement of using AI-powered chatbots for appointment scheduling can influence how doctors and patients perceive the technology. If the hospital provides training on using the chatbots and emphasizes their benefits, both parties might be more inclined to adopt this method of scheduling.

In this application of TAM, the perceived usefulness and ease of use of AI technologies in healthcare play a central role. Healthcare professionals and patients will be more likely to embrace AI solutions if they believe that these technologies genuinely enhance patient care, improve diagnostic accuracy, and streamline processes. Factors like peer recommendations, support from healthcare organizations, and training resources can further influence their perceptions and intentions to use AI.

By studying these components through the lens of TAM and integrating real-world examples, researchers can gain a comprehensive understanding of how AI is being accepted and adopted within the healthcare domain. This insight can guide the development of AI solutions that align with the needs and expectations of healthcare stakeholders, ultimately leading to successful integration and improved patient outcomes.

**Dehumanization of medicine due to the application of AI:**

AI is currently being used and has the potential for various applications in the field of healthcare. These include tasks such as diagnosing conditions, prioritizing patients, conducting screenings, allocating resources, analyzing risks, and even performing surgeries, either with AI assistance or in fully autonomous modes. As AI becomes more integrated into medical practice, ongoing research is underway to document the different ways AI is being applied and the results it's producing in real clinical scenarios (J. Yin).

However, an important aspect that this has not been yet thoroughly explored is the perspective of patients regarding the care they receive when it's facilitated by AI decision-making systems. This gap in our understanding is concerning because the introduction of AI in healthcare could significantly impact the relationship between patients and their healthcare providers (W.A. Rogers).

One crucial area for investigation is how the transition to AI-based decision-making influences how patients perceive the level of dignity and respect they experience when they undergo medical processes guided by AI.

The concepts of being treated respectfully and with dignity are fundamental in various ethical frameworks (M. Düwell); (P. Formosa), with particular significance within the healthcare context. People's perceptions of receiving treatment that upholds their dignity and respect are influenced by a range of factors. The identity and characteristics of the decision maker, as well as an individual's

attitudes towards them, play a pivotal role in shaping their overall experience of decision-making. For instance, individuals often form expectations about the appropriate role of a decision maker in specific situations, such as preferring a qualified healthcare professional to make choices rather than an administrative official or an automated AI. These expectations can be shaped by the nature of the task itself, including whether it is perceived as objective or subjective.

The involvement of AI in decision-making processes introduces concerns about reduced opportunities for human interaction, which holds significant importance in perceptions of respectful and dignified treatment. AI's reliance on algorithms and mathematical calculations can lead individuals to feel dehumanized, as if they are being depersonalized into mere statistical figures (R. Binns); (M.K. Lee); (A. M.K. Lee). This sense of dehumanization stands in direct contrast to the idea of being treated with dignity. Moreover, there is an argument that people might have lower levels of trust in decisions made by AI as opposed to human decisions, and experiencing decisions from an untrustworthy source could potentially lead to perceptions of unjust treatment in interactions.

Additionally, individuals' satisfaction with the outcomes of decisions holds sway over their perceptions of being treated with dignity. The way people evaluate their treatment is often tied to the specifics of the decision itself and how it impacts them (S. Banks), highlighting the importance of outcome satisfaction.

By considering factors such as perceptions of how interactions are justly conducted, the appropriateness of the decision maker's role, feelings of dehumanization, trust, and contentment with outcomes, we can gain a comprehensive understanding of the extent to which individuals who are subject to decisions made by others perceive themselves to be treated with dignity and respect. The instruments used to measure these variables are detailed in our methods section.

In terms of the influence of decision-makers, recent research is increasingly contrasting how people perceive decisions made by humans versus those made by AI. Certain tasks are categorized by individuals as either requiring human-oriented skills or mechanical-oriented skills. In this regard, algorithmic systems undertaking tasks requiring human-oriented skills tend to be met with less trust and positive reactions. Conversely, individuals are more at ease with these systems handling tasks that demand mechanical-oriented skills. Moreover, there is empirical evidence suggesting that people attribute unique qualities to humans, such as the capacity for nuanced judgment, emotional consideration, and the ability to contextualize decisions. These qualities are seen as essential, particularly in sensitive domains like medical contexts, and are perceived as lacking in AI decision-making (R. Binns); (D. M.K. Lee).

An assessment of the effects of automated and augmented decision-making reveals a diverse range of responses from potential healthcare consumers when it comes to various forms of automated

decision-making within medical settings. Their findings indicate that individuals hold varying perceptions regarding the accuracy of diagnoses made by automated systems, with a corresponding lower level of trust in such systems compared to human decision-makers. However, these responses seem to depend on the nature of the decisions being made. In accordance with Lee's previous discoveries (2018), decisions deemed to have moral significance might be regarded less favorably when handled by automated systems. On the other hand, tasks perceived as more mechanical in nature, executed by these systems, tend to be viewed as more acceptable (P. Palmisciano)

The body of evidence highlighting a general preference for human-led decision-making over AI in healthcare is expanding, although the situation is intricate. A key concern associated with AI is its perceived deficiency in comprehending the distinctive characteristics and circumstances of individuals. A study exploring the evaluative attitudes of patients and their relatives towards AI implementation in neurosurgery indicated that while participants found it suitable to employ AI for tasks like interpreting imaging, they advocated against complete AI autonomy. An investigation by (Bhandari) through a literature survey recognized additional patient concerns, including the absence of human interaction in AI-managed tasks like radiology and apprehensions regarding the absence of liability and accountability if AI makes an erroneous radiological diagnosis. It's notable that only a fraction of the studies within this review focused on patient populations, underscoring the need for more research involving this crucial stakeholder group.

The evolving evidence also underscores varying perceptions of AI contingent on its application. Lennartz et al. (2021) surveyed patients scheduled for tomography or magnetic resonance imaging regarding AI's role in diagnosing diseases. Their findings indicated a strong preference for physicians' opinions over AI's for most clinical tasks, with a prevailing inclination for diagnostic AI to be utilized under physician supervision rather than in complete autonomy. Demographic characteristics further shape attitudes towards AI in healthcare. A survey by Yakar et al. (2021) gauging the attitudes of the general population towards AI use in radiology, robotic surgery, and dermatology unveiled fluctuations in trust towards AI across different demographics. Their conclusion is that the general population exhibits more skepticism towards AI implementation in medicine than media portrayals might suggest.

While much of the research centers on AI's diagnostic applications, inquiries into AI's involvement in healthcare resource allocation decisions, an active domain, are less abundant. A pertinent study unveiled that consumers perceive AIs used for resource allocation as adhering to a "consequentialist decision strategy," making morally intricate trade-offs. Even if the overall outcome is optimal, individuals find these trade-offs ethically "problematic" (Dietvorst & Bartels, 2021). Shaikh (2020) posits that the increased integration of AI-driven decision support systems for resource allocation reflects healthcare's emphasis on concrete outcomes, like economic gains,



sidelining less tangible aspects such as equity or the quality of decision-making processes. This shift towards concreteness sidelines the inherently human decision-making process, which relies on empathy and intuition. Shaikh suggests a more human-centric approach in developing AI-based resource allocation systems. However, this perspective lacks empirical evidence concerning patient attitudes towards AI's involvement in healthcare resource allocation.

### **Limitations and Way Forward:**

The ethical dimensions of AI in healthcare are intricate. From data privacy concerns to the potential for algorithmic bias, navigating the ethical landscape is paramount. Striking a balance between technological advancement and ethical responsibility is a key challenge. The humanistic essence of medicine, including empathy and cultural understanding, risks being overshadowed by AI's efficiency. Preventing the dehumanization of patient care while integrating technology effectively is a significant challenge. With AI comes the need for massive data collection and analysis. Ensuring robust data security, compliance with regulations, and safeguarding patient information against breaches is a pressing concern. AI-generated recommendations may not always align with patients' preferences. Balancing the insights provided by AI with respecting patient autonomy and choices presents a challenge.

The development of robust ethical guidelines that prioritize transparency, fairness, and inclusivity in AI-driven healthcare. Collaborate with experts to establish ethical standards that uphold patient well-being. Position AI as a supportive tool, not a replacement, in patient care. Encourage interdisciplinary collaboration to create AI systems that align with humanistic values. Equip healthcare professionals with the skills to interpret AI insights, communicate effectively, and make informed decisions that integrate technology and humanism. Involve patients in AI system development to ensure solutions are tailored to their needs and preferences while upholding patient-centered care principles. Regularly assess AI system performance and impact, making iterative improvements based on real-world data and feedback. Foster research collaborations to explore AI's socio-cultural, psychological, and ethical dimensions in healthcare, informing context-sensitive solutions.

In embracing AI within medical humanities, addressing these challenges through ethical, patient-centric, and multidisciplinary approaches can lead to a future where technology and humanistic values coexist harmoniously, ultimately enhancing patient care.

### **Conclusion:**

This research paper has explored the intricate relationship between artificial intelligence (AI), medical humanities, and their collective potential to shape the future of patient-centered healthcare. The study set out to investigate how AI, when thoughtfully integrated with medical humanities, can augment patient care, while also recognizing and addressing concerns regarding the dehumanization

of medicine due to the increasing role of AI in healthcare.

The findings of this research underscore the transformative power of AI in various facets of healthcare, including diagnostic accuracy, personalized treatment planning, and administrative efficiency. AI-driven tools can expedite diagnoses, reduce errors, and enhance the overall patient experience, particularly when it comes to chronic disease management and remote monitoring. Nevertheless, this technological progress brings to light important ethical and humanistic considerations.

The dehumanization of medicine due to the application of AI has been examined in depth. Patient perceptions of dignified and respectful treatment are at the core of this issue. While AI offers substantial benefits, such as improved accuracy and efficiency, it also poses challenges related to trust, empathy, and the human touch in healthcare interactions. Patients often exhibit a preference for human decision-makers, especially in areas perceived as morally significant or emotionally sensitive. Concerns about being reduced to data points or percentages, rather than being treated as individuals, raise questions about the impact of AI on the patient-provider relationship.

Moreover, the role appropriateness of AI in healthcare decision-making varies depending on the nature of the task. While AI may be seen as suitable for tasks perceived as mechanical or objective, it faces resistance in areas requiring nuanced judgment, emotional intelligence, or contextual understanding. Patient satisfaction with AI-based decisions is another critical factor influencing perceptions of dignified treatment.

To address these complex dynamics, it is imperative to continue researching and designing AI solutions that prioritize both technological innovation and humanistic values. Robust ethical guidelines, transparent decision-making processes, and ongoing training for healthcare professionals are essential to ensure responsible AI integration. Balancing the advantages of AI with the preservation of empathetic, patient-centered care is the key to creating a healthcare ecosystem that optimally serves the medical and emotional needs of patients.

In conclusion, this research underscores the importance of a harmonious coexistence between AI and medical humanities. By leveraging AI as a tool to enhance rather than replace humanistic aspects of medicine, healthcare providers can pioneer a more compassionate and inclusive approach to patient care. As we navigate this intersection of technology and humanity, we must remain vigilant in our commitment to placing patients at the heart of healthcare innovation, fostering a healthcare system that embodies both the power of AI and the compassion of the human touch.

#### Reference:

1. Accenture. *Artificial Intelligence: Healthcare's New Nervous System*. 2017. Website. August 2023.
2. B.J. Dietvorst, D.M. Bartels. "Consumers object to algorithms making morally relevant

- tradeoffs because of algorithms' consequentialist decision strategies." *Journal of Consumer Psychology* (2021). Print Journal.
3. Bhandari, S.N. Purchuri, C. Sharma, M. Ibrahim, M. "Prior Knowledge and attitudes towards artificial intelligence in imaging ." *Clinical Imaging*, 80 (2021): 413-419. Journal.
  4. Davenport, T. and Kalakota, R. "The potential for artificial intelligence in healthcare." *Future Healthcare Journal*, 6(2) (2019): 94–98, doi:10.7861/futurehosp.6-2-94. e-Journal.
  5. Forbes. *AI and Healthcare – a Giant Opportunity*. Forbes, 2019. Magazine.
  6. Gershgorn, D. *If AI is going to be the world's doctor, it needs better textbooks*. 6 September 2018. Website. 2023.
  7. H., Chang. "Evaluation framework for telemedicine using the logical framework approach and a fishbone diagram." *Healthc Inform Res*, 21(04) (2015): 230–238. Journal.
  8. Handayani P W, Hidayanto A N, Pinem A A, Hapsari I C, Sandhyaduhita P I, Budi I. "Acceptance model of a Hospital Information System. ." *Int J Med Inform*. 99 (2017): 11–28. Journal.
  9. Hsiao C H, Chyan Y. "The intellectual development of the technology acceptance model: a co-citation analysis." *Int J Inf Manage* 31(02) (2011): 128–136. Journal.
  10. INDIAai. *INDIAai Centre Initiatives*. 2020. Website. 2023.
  11. J. Yin, K.Y. Ngiam, H.H. Teo. "Role of artificial intelligence applications in real-life clinical practice." *Journal of Medical Internet Research*, 23 (4) (2021). *J Med Internet Res* 2021; 23(4):e25759.
  12. J. Yin, K.Y. Ngiam, H.H. Teo. "Role of artificial intelligence applications in real-life clinical practice." *Journal of Medical Internet Research*, 23 (4) (2021): Article e25759. Journal.
  13. Kalyanakrishnan, Shivaram, Rahul Alex Panicker, Sarayu Natarajan, and Shreya Rao. "Opportunities and Challenges for Artificial Intelligence in India." *AAAI/ACM Conference on AI, Ethics, and Society*. New Orleans LA USA: ACM, 2018. 164-70. Online.
  14. M. Düwell, J. Braarvig, R. Brownsword, D. Mieth. *The Cambridge Handbook of human dignity*. Cambridge University Press, 2014. Journal.
  15. M.K. Lee. "Understanding perception of algorithmic decisions." *Big Data & Society*, 5 (1) (2018). Journal.
  16. M.K. Lee, A. Jain, H.J. Cha, S. Ojha, D. "Kusbit Procedural justice in algorithmic fairness Proceedings of the ." *ACM on Human-Computer Interaction* 3(CSCW) (2019 ): 1-26.
  17. M.K. Lee, D. Kusbit, E. Metsky, L. Dabbish. "Working with machines." *Human Factors in Computing Systems* (2015): 1603-1612. Conference Proceedings.
  18. Mahapatra, Dwarikanath. *Overview of AI in Indian Healthcare*. 2019. Website - <https://ai4bharat.org/articles/overview-of-ai-in-indian-healthcare>. 2013.

19. May C, Harrison R, Finch T, MacFarlane A, Mair F, Wallace P. "Telemedicine Adoption Study Group. Understanding the normalization of telemedicine services through qualitative evaluation." *J Am Med Inform Assoc* 2003;10(6):596–604. (n.d.). Journal.
20. Mayer-Schönberger, V. and Cukier, K. *Big Data: The Essential Guide to Work, Life, and Learning in the Age of Insight*. London: John Murray, 2017. Book.
21. P. Formosa. *Kantian ethics, dignity and perfection*. Cambridge University Press, 2017. Journal.
22. P. Palmisciano, A.A.B. Jamjoom, D. Taylor, D. Stoyanov, H.J. Marcus. "Attitudes of patients and their relatives toward artificial intelligence in neurosurgery." *World Neurosurgery*, 138 (2020): e627-e633. e-Journal.
23. Paul, Yesha, Elonnai Hickok, Amber Sinha, Udbhav Tiwari, and Pranav M Bidare. "Artificial Intelligence in the Healthcare Industry in India." (2018): 45. Website - <https://cisindia.org/internet-governance/files/ai-and-healthcare-report>.
24. R. Binns, M. Van Kleek, M. Veale, U. Lyngs, J. Zhao, N. Shadbolt. "It's reducing a human being to a percentage." *CHI Conference on Human Factors in Computing Systems*. 2018. 1-14.
25. Raghupathi, Raghupathi and. "Big data analytics in healthcare: promise and potential." *Health Information Science and Systems* 2:3 (2014): 9-10. [https://www.researchgate.net/publication/272830136\\_Big\\_data\\_analytics\\_in\\_healthcare\\_Promise\\_and\\_potential](https://www.researchgate.net/publication/272830136_Big_data_analytics_in_healthcare_Promise_and_potential).
26. Rajiv Kumar Gupta, Rashmi Kumari. "Gupta, Rajiv Kumar, and Rashmi Kumari. 2018. "Artificial Intelligence in Public Health: Opportunities and Challenges," 3." *JK SCIENCE* (2018): 191-192. Journal.
27. S. Bankins, P. Formosa, Y. Griep, D. Richards. "AI decision making with dignity?" *Information Systems Frontiers* (2022): 10.1007/s10796-021-10223-8. Journal.
28. W.A. Rogers, H. Draper, S.M. Carter. "Evaluation of artificial intelligence clinical applications." *Bioethics*, 35 (7) (2021): 623-633.
29. Zanaboni P, Lettieri E. "Institutionalizing telemedicine applications: the challenge of legitimizing decision-making." *J Med Internet Res*. 13(03) (2011): e72. e Journal.