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#### www.whiteblacklegal.co.in Volume 3 Issue 1 | March 2025

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WHITE BLACK LEGAL is an open access, peer-reviewed and refereed journal providededicated to express views on topical legal issues, thereby generating a cross current of ideas on emerging matters. This platform shall also ignite the initiative and desire of young law students to contribute in the field of law. The erudite response of legal luminaries shall be solicited to enable readers to explore challenges that lie before law makers, lawyers and the society at large, in the event of the ever changing social, economic and technological scenario.

With this thought, we hereby present to you

LEGAL

# AI AND ITS LIABILITY IN HEALTHCARE SECTOR

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### ABSTRACT

The paper introduces the issues surrounding autonomous robots and AI in healthcare, with particular focus on liability regarding injuries to patients. With growing applications across each area of medicine-from simple diagnostics to highly complex surgeries-the exposure of AI technology has made it pertinent to question the capacity of traditional liability frameworks. This paper describes and analyses theories of liability and discusses their scope of applicability regarding health care robots empowered by artificial intelligence. It calls for the distinction of robots along the autonomy continuum by providing a basis for application where liability rules would depend on whether the robot acted autonomously or under human supervision. The article encourages reform in law to adequately regulate AI in healthcare. The authors predict major developments in AI but, at the same time, are wary that the kinds of legal and ethical issues arising mainly in medical negligence will weigh heavy. It finally addresses the broader implications of AI in health within the deeper purview of tort law and medical liability, and it puts forward considerations that can be that can be approached for future regulatory frameworks.

The method used here is a doctrinal method of research.

KEYWORDS: Liability, Autonomy, Tort Law, Regulatory Framework

### I. INTRODUCTION

Global interest in artificial intelligence (AI) saw a significant transformation in late 2022 with the launch of OpenAI's ChatGPT and the rapid growth of generative AI (GenAI). For the first time, a highly sophisticated AI system capable of human-like conversations was made widely accessible, allowing billions of people to interact with it. While risks attendant to the AI "hype cycle" are well known, and some have even described this era as the "Dawn of Creation" for AI, it seems that we are entering a new and potentially pivotal phase in our interaction with

### Volume 3 Issue 1 | March 2025

these technologies. Currently, people have been using AI tools like ChatGPT and large language models (LLMs) for creating jokes and programming codes as well as for scripts or business ideas and even more importantly for diagnosing a medical condition. Earlier in 2023, the rapid pace at which AI was running ahead that brought together figures like Elon Musk and Steve Wozniak, along with leading AI and academic experts, to sign an open letter calling for a six-month pause on the development of AI systems more advanced than GPT-4, warning about careful evaluation of their effects.

OpenAI Chief Executive Sam Altman testified on the need for regulation to be able to mitigate risks from increasingly more powerful models before the U.S. Senate. Globally, Italy has temporarily banned ChatGPT due to privacy concerns, legislative efforts are underway around the world to balance the potential uses of AI with its risks.<sup>1</sup>

Even in the healthcare sector, AI and machine learning are already revolutionizing the industry, and AI-driven robots and medical devices are going to play an even more crucial role in the days to come. However, despite their increasing roles, AI and robotic systems have not yet successfully claimed any full autonomy in healthcare or elsewhere. While full autonomy is realized, it will create tremendous legal challenges that must be foreseen. Such autonomous AI systems would thus lead to harm that would necessitate the development of legal frameworks for accountability regarding liability and responsibility. Among the strategies proposed in law as remedies have been accordions of personhood, collective evidence and procedural mechanisms in easing burden of proof, and establishment of compensation funds to account for harm related to AI. Such measures are meant to weigh the risks against the benefits of the further development of AI technologies.

This paper tends to the critically analyse the issue of liability in the context of autonomous robots and AI technology in healthcare, focusing on potential legal challenges that it may pose. As the technological advancement takes place, its influence can also been particularly seen in areas like diagnosis and surgery, the question of liability for patient's injury is becoming increasingly relevant and concerning. The paper aims to explore whether the existing liability doctrines and legal framework governing AI is enough or a new legal framework Is required.

<sup>&</sup>lt;sup>1</sup> Solaiman, B. and Cohen, I.G. (2024) Research Handbook on Health, AI and the law. Cheltenham, UK: Edward Elgar Publishing Limited.

## II. AI AND HEALTH CARE INDUSTRY

India has 135 crore people, one physician for every 1,445 people, and lags behind the World Health Organization's norm where one physician is maintaining per 1,000 people. That deficit could be thus fulfilled in healthcare services with the implementation of AI, which will provide treatment in an accessible and efficient manner. AI could change the disease monitoring and control scenario, especially in infectious diseases with minimal human-to-human transmission.<sup>2</sup>

Although the notion of smart machines is not that new, as they were even available in the early 1980s in the shape of smart surgical robots, it is their applications in the health care industry that have grown so much. While neurosurgical biopsies were the first indication for the PUMA 560 robot, which dates back to 1985, ROBODOC was the first FDA-approved intelligent robot, which became available for hip replacement surgeries<sup>3</sup>. AI has already started substituting some of the tasks, which were traditionally performed by doctors like the reading of X-rays, ordering of diagnostic tests, and finally, interpreting results on the basis of those symptoms. AI is even being used as a "consulting physician."

But probably one of the most important applications of AI in healthcare is building up a smart home especially for geriatric or chronically ill patients with high-end sensors and connectivity over long periods of observation.

Telemedicine and telehealth play a very significant role within this area. The other technological advancement is in the technology research on robotic surgical devices; this has led to machines that can be programmed to navigate an oscillating heart on their own. Pierre Dupont and others designed an automatic catheter, whose algorithm came up with decisions after assessing 2,000 images of the inner working of a heart to test in five pigs with valvular insufficiency. As many as 83 trials of this design were successfully conducted with 95% accuracy.

Researchers are working hard in creating synthetic skin for robots that can feel touch, {report

<sup>&</sup>lt;sup>2</sup> Press Trust Of India,India's doctor-patient ratio still behind WHO-prescribed 1:1,000: Govt, BUSINESS STANDARD,Nov 19 2019, 22:45 IST ,<u>https://www.business-standard.con/article/pti-stories/doctor-patient-ratio-in-india-less- thanwho-prescribed-norm-of-1-1000-govt-119111901421 1.html</u>

<sup>&</sup>lt;sup>3</sup> https://www.researchgate.net/publication/341528399\_A\_review\_of\_medical\_artificial\_intelligence.

Benjamin and his team}. This development has the possibility of discrimination between soft and hard objects. This can be understood with the help of an example, like difference between a plastic and stress ball. Through this development, perhaps in the near future, robots might actually feel a long-overdue improvement that would make a difference between healthy tissue and tumors in surgeries and take appropriate action. Such developments indicate that the very essence of surgical practices may undergo a drastic change in the next decade.

### • CHALLENGE OF IMPLEMENTING AI IN HEALTHCARE SECTOR

Dr. Aachi Mithin, a senior orthopedic surgeon in Apollo Hospitals at Secunderabad has estimated that it may take another 15 years for the perfect and flawless robotic and AI technologies to come up in the hospital's operating room. AI in healthcare is going to rise greatly, but like humans, AI also tend to makes mistakes. AI is though is a machine but there are some drawbacks to. Robots lack the empathy and unique human bonding that is so crucial in surgery and patient care. The human involvement and warmth, which are paramount in clinical care, cannot be rivaled by artificial intelligence systems. In addition, the costs and practicality of full-scale AI deployment are other challenges against its acceptance.

Training methods explicitly include programming with observation of surgeries as well as virtual reality training. Individuals learn from videos or live surgical procedures, and they can learn these skills much more rapidly than a human. The early attempts at surgical robots were best described as task decomposition and performing relatively simple surgical procedures, such as suture of wounds, autonomously. Truly intelligent robots face the challenge of accomplishing the goal, and this is not only the ability to process sensory information but also the knowledge required to perform a surgical procedure safely.

According to assistant professor of surgery and medicine in Stanford University School of Medicine, Dr. Ross, artificial intelligence should not replace medical professionals or choices they make. She clarified that AI is meant to complement human capabilities, to serve as a support tool, identify shortcomings, and enable healthcare providers to improve their decision-making for better patient outcomes and not completely replacing them.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> <u>https://www.generalsurgerynews.com/In-the-News/Article/07-21/AI-for-Surgeons-Current-Realities-Future-Possibilities/64040</u>.

### III. LIABILITY CONCERNS OF AI

When it comes to programming, artificial intelligence can be equated to a set of algorithms written by a person, therefore limiting the intelligence of the AI to the comprehension and interpretation of the programmer. However this poses great challenges in the issue of liability in the event of medical malpractice. In as much as AI is implemented in healthcare practices, for better results, healthcare providers usually control these machines. This implies that though AI systems promise to become instruments of medical practice, there will always be a need for human interference. Fully automated hospitals where patients are attended to by machines without doctors are not possible.

Another major problem is the fact that a lot of artificial intelligence systems are developed as black boxes, which means that their functions are opaque and their understanding does not come as easy. This creates problems of error tracing because if there is a defect, it is not easy to isolate the source of the defect. Accordingly, this also raises the question of responsibility, when in an instance of medical negligence with AI involved, where it is itself not a legal person, the maker/programmer of the AI system, the medical institution that adopted the technology or the physician who used it is to be blamed.

Such questions pose challenges as some aspects of the process can be a source of responsibility. The manufacturer may incur responsibility for the risk of defect in its device if the AI's commits an error as a result of a flaw in its algorithm. The hospital, on the contrary, may be responsible for the incorporation of AI technology where there were no controls or training measures in place. Lastly, in case the AI system or its recommendations were misused because the physician in charge did not ensure correct usage of the system, such a physician may be held answerable. Each of these actors plays a role, and as AI continues to evolve in healthcare, legal frameworks will need to address these questions of liability to ensure patient safety and justice.

Some of the options available to solve this liability concerns are:

### • CONCEPT OF STRICT LIABILITY

Under the principle of strict liability, a tort law finds that the responsibility of defective products lies completely and solely with the manufacturers-not because they were necessarily negligent or had the intention to create such a situation. It is a practice not just applicable to

#### Volume 3 Issue 1 | March 2025

#### ISSN: 2581-8503

manufacturers, but also to the distributors and retailers, by targeting any damage which may occur from the products they oversee. The broadened liability scope suggests that even welldesigned, and correctly manufactured products may also end up injuring people due to its unpredictable defects or mistakes that could not have been foreseen during its manufacturing. The manufacturer might then face the law under these circumstances when they have strictly adhered to the safety requirements and standards. This particular facet of strict liability might appear excessively severe, as it has the potential to impose considerable legal and financial burdens on companies, regardless of the extent of their diligence in ensuring product safety.

In the context of robotic surgery, strict liability introduces further complexity, particularly relating to what type of events should be considered in curriculum for professional and technological education and training and certificate processes for medical personnel.

Determining what exactly deserves focus in such education programs is a need in pursuing safety and efficacy in robotic surgery. In distinction, as a landmark surgical method, robotic surgery only requires the most advanced technology and whose flaws can potentially malfunction or act erratically, thus making it challenging to determine liability when an error occurs. Furthermore, subjects like minors, animals, and AI fall within the law's definition of "innocent" due to their inability to possess the requisite mental capacity to provide mens rea, or criminal intent. The doctrine of innocence also affects strict liability cases.

If the individual who lacks this capacity causes harm while acting under the instructions of another-a supervisor, trainer, or medical professional, for example-the person who issued the instructions is legally responsible for any damage caused. This means there is clear distinction in liability: the AI or robotic system is considered a victim of circumstance, while the individual or organization responsible for design, programming, and oversight is liable. In practice, this means that if anything goes wrong regarding AI systems in healthcare settings, the loss would be attributed to the developers or users of AI technology, not to the technology itself.

This difference has significant implications as it underscores the need for robust training curricula and legislative policies, both of which are essential elements to ensure that professionals responsible for monitoring AI in medical services are adequately prepared to administer the risks associated with this technology. With robotic surgery increasingly

becoming a mode of choice, understanding and addressing these complexities related to liability and accountability will be crucially important for facilitating safe and effective healthcare practices.<sup>5</sup>

### • FAULT BASED LIABILITY (NEGLIGENCE)

As AI technologies spread throughout health care, fault-based liability, and negligence in particular, is assuming an increased importance in the medical world. Negligence is the failure to exercise such care as a reasonably prudent person would under similar circumstances. In the healthcare area, this can take several forms, including misdiagnosis, improper treatment, or errors within surgery. Generally, four elements must be established in a negligence claim: the duty of care owed by the healthcare provider or AI system operator to the patient; breach of that duty, that is, what it brings into question is whether the AI's decision-making process complies with accepted medical standards; causation showing a direct link between breach and patient harm; and damages,

or actual harm suffered by the patient. With the rise of such broad AI technologies, applications of negligence become even relevant in diagnostic tools, robotic surgery, patient monitoring systems, and thus even more complicated determining this duty of care because AI systems do not have legal personhood and therefore cannot be found liable per se for negligence; it is the healthcare providers who will most probably become liable. As the bounds of what constitutes good performance expand with technological advance, so may those of what constitutes a breach of duty. But causation will need to be established by an understanding of how the AI system makes its decisions-and calls to limits on "black box" type AI technologies are already being advanced. The plaintiff must also demonstrate that the alleged injury was the result of the defendant AI's actions.

This presents some challenges for fault-based liability, for example, the technical sophistication of AI systems, which might blur the line about the liability in question. The standards of care applicable in current AI systems may not reflect advanced technological capabilities in adequate terms. Determination of liability may also demand shared liability between healthcare providers and developers, hence complicating negligence claims. As a result, regulatory frameworks defining the rights and responsibilities of both healthcare

<sup>&</sup>lt;sup>5</sup>Amishi Aggarwal, \*Analysing the Possibility of Imposing Criminal Liability on AI Systems\*, The Criminal Law Blog (Jan. 19, 2021), https://criminallawstudiesnluj.wordpress.com/2021/01/19/analysing-the-possibility-of-imposing-criminal-liability-on-ai-systems/.

#### Volume 3 Issue 1 | March 2025

providers and AI developers have emerged as a vital challenge to be best met with actions that promote patient safety above everything else.<sup>6</sup>

### • **PRODUCT LIABILITY**

A typical product liability would involve manufacturers of finished goods and producers of component parts that compose such finished products. Liability can be extended to an importer, wholesaler, or retailer. However, the liability pertaining to AI medical devices and systems seems quite complicated because it is still not clear whether product liability rules apply to algorithms, and how AI robotics relates with hardware and software components. This means that the Restatement (Third) of Torts: Products Liability defines a product to be "tangible personal property distributed commercially for use or consumption." That makes services and intangible information and ideas not qualify. The definition has only been recently expanded to include AI-enabled software, as in Rodgers v. Christie (2020). This case marks a landmark in recognizing the development of possible product liability claims involving AI software. Recognizing AI-enabled software as a product opens the door for plaintiffs to claim remedies against products for technological failures. The case serves as a precedent on what courts might do in the future to deal with such or similar issues as AI becomes widespread and penetrates many sectors, including healthcare. It throws light on the manufacturer's and developer's need to be keenly interested in ensuring their AI products are safe and reliable enough to avoid entanglement in liability issues. To consider this, the courts look to the U.S. Food and Drug Administration (FDA) to achieve at least a glimpse of guidance on AI medical devices and systems. The FDA does not regulate medical practice but does regulate medical devices. If self-learning healthcare systems are considered to be medical devices, it would bring a potential significant impact on product liability. In January 2021, the FDA reported on an action plan in modernizing its regulatory framework to accommodate adaptive AI technologies that are increasingly applied in healthcare.

Even though the AI-based medical systems can be considered a product, it becomes challenging to determine exactly what kind of defect it is, which leads to the AI-related harm.<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> Ritika Raj, \*Can AI Be Held Accountable for Medical Negligence\*, 2 Int'l J. Legal Sci. & Innovation 325 (2020), https://www.ijlsi.com/wp-content/uploads/Can-AI-Be-Held-Accountable-for-Medical-Negligence.pdf.

<sup>&</sup>lt;sup>7</sup> McCarter & English, LLP, Artificial Intelligence Product Liability (2023), <u>https://www.mccarter.com/insights/artificial-intelligence-product-liability/</u>.

#### Volume 3 Issue 1 | March 2025

The Restatement (Third) has classified the types of product defects into three: manufacturing defects, design defects, and inadequate instructions or warnings. Most courts are in agreement also, that issues arising from the design or coding of any particular AI algorithm are matters of design defects and can impact an entire product line. For the plaintiffs, establishing a design defect is somewhat of an uphill battle because they have to prove that it was possible to design a viable alternative that would have feasibly reduced the risk of harm at a reasonable cost. This can be heavy, disputed and costly enough to trigger massive attorney and expert charges to the litigants. Product liability becomes complex when, as in the case of AI-enabled medical appliances, it is altered after manufacture, especially if using open-source software. It can then become very difficult to hold the original manufacturer liable for damages caused by such a modified product. In addition, AI medical equipment can perform independently based on their own experience and can be prone to errors without traceability to the actions of manufacturers, vendors, or users. As such, since they apply no action in producing such unpredictable results, it wouldn't be fair to hold manufacturers liable if they did nothing toward such a result.

### • VICARIOUS LIABILITY

The employer is vicariously liable if the conduct of the employee, in the course of that employment, causes injury to third parties, according to the doctrine of vicarious liability. Related to this, healthcare providers that implement AI-based medical devices are liable for the injury where such self-functioning machinery causes harm during its operation. The approach is designed to distribute the liability for injury by AI among the hospitals and other third parties so that relevant damages could be recovered by the patients. However, the use of vicarious liability to AI and robotics has also been criticized. On the one hand, such highly autonomous medical robots and systems seem to introduce the possibility that their outputs would be influenced by factors other than the initial inputs. In addition, there is somewhat ambiguity over whether the AI robot can be fully put under the control of a hospital or even whether it could be treated as an "agent," "physician," or "employee" of the hospital in regard to the issue of responsibility under the institution.

Hence, most likely, these intelligent robots will soon be handled as something subject to a degree of subjective characterization or very minimal legal capability. The exact timing of this development will depend on how technological improvements can make such devices more robust, sophisticated, and autonomous. Once we reach that stage, it will perhaps be at least arguable to attribute a kind of legal personhood, to be treated in much the same way as human

Volume 3 Issue 1 | March 2025

workers, but differently in keeping with their characteristic algorithmic functions.

### • LEGAL PERSONALITY TO AI

It has incited debates within and outside the academy whether medical robots must be granted legal personality. It is too early to make such a conclusion, though; it all depends on how advanced and reliable AI robots become before they can be recognized as legal entities capable of independent actions and not just merely following commands. A medical robot that was granted legal personality would hold responsibility for its actions in the same ways as any human, but this status could not be used to grant the robot unfettered authority to bind its owners or operators. There are many advantages to this concept.

The invention of AI has created questions about who is responsible for the activities that result from the capability of AI to learn and perform on their own. This autonomy makes AI useful for medical diagnosis and surgery but raises questions of ethics over holding doctors accountable for such processes when they have minimal control over them. In providing liability at the end of the medical device itself, this approach may exempt operators and owners from liability, thereby simplifying the judicial compensation process. In its practical implementation, however, there are challenges. First, if the medical robot is considered a juridical person, then this means it requires its financial sources to face liabilities that must eventually emerge from extraneous grounds.

Secondly, the hospitals will also be responsible for their robots' misdeeds under the doctrine of vicarious responsibility and, therefore, claims for medical malpractices may be brought against doctors in case they fail to monitor or make amends for faults. Further, in some cases, the protections acquired by law for the robot can be ignored just like corporate protections. The second aspect is regarding proof of causality. Though legal personality granted to the medical robot makes it convenient to sue the robot itself, it doesn't explain the litigation process.

To charge the AI with liability, there must be a clear demonstration that the injury was due to what the robot did, rather than due to the hospital, the medical staff, or problems with the design of the software or with what is input into it. So adding another legal party to the litigation could make things more complicated than they would otherwise need to be-completing the process with yet another legal party that has to be represented. There has been much Volume 3 Issue 1 | March 2025

#### ISSN: 2581-8503

controversy over this proposal, mainly because robots are man-made artifacts that do not possess the cognitive capacities attributed to intention. Those who argue against considering robots as intentional legal persons appeal to Searle's theories, in which he claims that cognitive abilities are non-physical processes that are more related to the soul than to the physical. However, this view has criticisms too; there lacks concrete proof that intentionality is only associated with an organism's soul, or that processes in the brain cannot be simulated computationally. In order to know whether a robot with cognitive capabilities is an AI, one needs to assess whether this robot can rationally reach its goals.<sup>8</sup>

If so, then one could ascribe cognitive states and intention to the robot. While this idea is interesting at first, we are still far from achieving that. So in all practicality maybe there are other ways to deal with the results that might come from these AI robots. To date, only one AI robot has received legal personality, Sophia.

# IV. ETHICAL CONCERNS POSED BY AI IN MEDICAL SECTOR

The growing dependence on AI health applications and bots—everything from nutrition advice and medical diagnoses to reminders to maintain a course of treatment, alongside analysis of monitoring device data—raises substantial bioethical questions, especially around issues of consent. Unlike traditional written consent documents, most user agreements for these applications are simply accepted without any direct interaction with any individual. Most people also don't read the agreements with care as people are rarely interested in their detailed contents. Second, these policies are always being updated; hence it becomes extremely hard for users to know the terms of service; this situation complicates the establishment of ethical terms of service, especially the issue of the user's data. The greatest concern is the breach of data privacy because for AI in health care to function appropriately, there must be patients' and health care providers' trust in AI. Such trust must be assured through open communication with patients who should be clearly informed on the use of their data. The most recent cases include Dinerstein v. Google and Google's Project Nightingale with Ascension, cases that have stirred most concerns about the confidentially of the patient over the issues of data sharing and AI applications.

<sup>&</sup>lt;sup>8</sup> Henry Jones, The "Limited Legal Personality Theory": An Approach to Endowing Artificial Intelligence with Legal Rights, 12 J. Int'l & Priv. Law 23, 25 (2024), https://www.scirp.org/journal/paperinformation?paperid=122946.

#### Volume 3 Issue 1 | March 2025

#### ISSN: 2581-8503

The risk of algorithms to give better control to the legal sector has been established through perpetuation of harmful biases. For example, some AI systems have inaccurately reported that black defendants are twice as likely as white defendants to recidivate. The problem is dangerous because the more removed AI is from human subjectivity—that is, the less subjective AI is—the safer it can be made. A review of a clinical risk prediction system given to nearly 200 million Americans discovered systemic racism. This system, which was supposed to identify the patients needing more treatment, discriminated against Black patients and favored White patients. This is because, before its application, the algorithm had not been tested on a broad and diverse group of races. Even in entertainment zones like drama casting, AI has been proven to succeed based on stereotypical actions.

These are some of the pressing ethical dilemmas for health care. Another significant risk associated with AI is cybersecurity. And with such severe competition in the healthcare industry, it is even more likely to see the rivalry go toxic as a hospital's AI systems could be injected with lethal software. To tell that, 88% of all malware attacks last year went to the U.S. healthcare sector. This category includes the hospital systems and diagnostic tools, trackers, wireless sensors, and AI-driven medical equipment. In the case of a virus catching a device, it harms the reputation of the hospital and also patient care. <sup>9</sup>

### V. CONCLUSION

There are pros and cons in the absence of any regulations related to data.

It is easier to collect data for a start-up, but the uncertainty about future development at the same time remains. In the healthcare industry, correct and trustworthy information is of very great importance since incorrect information may prove fatal for patients' lives. Service providers in healthcare usually depend on databases that keep records of patients' medical history along with treatments they received and services they were provided with. Mistakes in such records make the whole treatment process useless or even dangerous. For example, it means that if a patient has different records under his various names, then there will be inconsistent and incomplete data available, which could even lead to misdiagnosis or inappropriate treatment. Moreover, if a patient receives care from someone else utilizing another patient's medical records, it results in some financial and administrative difficulties.

<sup>&</sup>lt;sup>9</sup> Rohinikrishna Nair, Criminal Liability of Artificial Intelligence in Healthcare and Medical Services, 4 INDIAN J.L. & LEGAL RSCH. 1 (2022).

#### Volume 3 Issue 1 | March 2025

Sometimes, it means billing another person whose records may have been wrongly used for services they didn't receive, insurance claims are rejected on the date of service. All these complications emphasize the need for clean and consistent medical database to ensure accurate patient records, effective treatments, and quality healthcare services.

This problem can be solved by the following potential solutions:

#### **Education of Future Practitioners**

It is essential to prepare both the current and the future workforce concerning the skills and knowledge that will help them apply AI effectively.

Concerning health care workers, education and training that begins from medical school should be undertaken at areas where health care and social impacts concerning AI are studied to raise awareness concerning technical competencies and ethical considerations at application. Courses on ethics, transparency, and accountability should be included for engineering and IT programs so that engineers and programmers are fully informed about the possible impact of technologies that they are developing. Therefore, India needs to establish a regulatory framework for AI.

Although there is no specific **government regulation on AI in India** at present, there is the fear that excessive regulation would limit further innovation. This very situation, however, also points to the need for a national body that should regulate AI developments but balance them between fostering innovation and ethical standards. A comprehensive regulatory architecture should be followed to ensure integrity and transparency on behalf of AI systems while encouraging their development.

#### **Empowerment of Consumers in Making Informed Choices**

The majority of the newly and established medical technology companies rely on the users for their success. Consumers play a significant role because the innovation process is significantly driven by the needs of consumers. For this reason, consumers are very important in the decision-making and development processes. For this reason, consumers should necessarily take time to read the conditions and ensure that they are comfortable before accepting the terms of an AI-driven product. For instance, if a person has the fear that their genetic information may be disclosed to an insurance company, then they must change their decision of contributing to services like blood donation. Similarly, the patients would also wish to have a

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much more critical consultation with doctors over treatment and not just entrust recommendations provided by AI systems. Both user data and feedback should be treated with caution, while consumers should also raise issues when necessary to ensure the proper use of AI in healthcare. The integration of AI with surgical technologies can sharpen the surgical skills of a clinician, contribute to better patient outcomes, and improve access to care.

However, AI is still not considered under national or international law an independent entity. It thus means that no liability can be attributed to it over the damage that it causes. As such, the Article 12 of the United Nations Convention on the Use of Electronic Communications in International Contracts principle seems to stretch from the one holding liable for acts of misconduct or signals transmitted by the device the one who controlled the actions of the system to including AI liability. AI is also evolving from a product owned by people to be an indispensable feature of modern electronic systems.<sup>10</sup>

The rapidly growing trend of using AI in decision-making processes dictates that such decisions should be taken responsibly and with zero bias. Only if transparent, reliable, and accountable AI systems are developed, will such decisions be handled responsibly. There is already evidence that AI algorithms are making their mark in enhancing patient care as well as surgical outcomes-for instance, by doing better than humans at several critical tasks. In this sense, when hospitals and healthcare providers prepare to migrate to the new AI era, the technology will either complement or replace an existing system. Not utilizing AI in such situations could be described as unethical and illogical alike.

<sup>&</sup>lt;sup>10</sup> David W. Bates et al., \*Reporting and Implementing Interventions Involving Machine Learning and Artificial Intelligence\*, 172 Annals of Internal Medicine S137 (2020), https://pubmed.ncbi.nlm.nih.gov/32479180/.