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## **CODING THE LAW: LEGAL ASPECTS OF AI AND MACHINE LEARNING IN INDIA**

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### **INTRODUCTION:**

*Who do we prosecute when a machine crosses the line?*

Artificial Intelligence and Machine Learning aren't just tech terms anymore- they have become a part of our everyday lives. From recommendations we see online, the voice assistants we use to smart tools used in self-driving cars, medical sector, banking or even court rooms- AI is everywhere. But as machines grow smarter, they also raise legal and ethical questions. Who's responsible when an AI tool makes a mistake? How safe is our data when algorithms are constantly learning from it? As Stephen Hawking once said, "*AI could be the best or the worst thing to happen to humanity*". It's a good reminder that as we make strides in AI, we really need some solid rules to make sure that it's used properly. This blog aims to define AI and Machine Learning, explore the legal questions they pose, outline its regulatory frameworks in India.

### **Overview of AI and Machine Learning:**

**Artificial Intelligence** refers to computer-based systems that can perform tasks normally requiring human-like intelligence such as reasoning, learning, perception or decision making. It can be defined as a "set of technologies that enable computers to perceive, learn, reason and assist in decision-making to solve problems in ways that are similar to what people do" or as defined by OECD (an international policy body)<sup>[1]</sup> "AI is a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments".<sup>[2]</sup> This covers everything from spam filters and facial-recognition software to voice assistants and self-driving cars.

**Machine Learning** is a subset of AI that involves training machines to learn from data and improve over time without being explicitly programmed. It is a software with the ability to get smarter with experience. ML program looks at many examples (often called a training dataset) and “learns” patterns or rules. One popular ML approach is deep learning, which uses large neural networks inspired by the human brain. These deep networks can automatically extract features from raw data (like pixels in an image or sounds in a recording) through many layers of processing. Because of this, deep learning has become a “killer app” of AI today, driving advances in computer vision, speech recognition, natural language processing and more.<sup>[3]</sup>

## **LEGAL ASPECTS OF AI AND MACHINE LEARNING IN INDIA:**

As AI continues to evolve and integrate into various sectors, the focus has shifted from its capabilities to accountability in cases of malfunction. The legal system is now encountering unprecedented challenges due to its operational nature, like;

- **Data Protection and Privacy:** Most AI applications rely on large datasets, often containing personal information about individuals. This means AI systems must use personal data in a way that is fair, lawful and transparent and must respect individuals’ privacy rights. Regulators have noted that AI introduces new privacy concerns – for example, the use of opaque algorithms, the tendency to collect “all the data” available, and repurposing data for new analyses. Companies need to do impact assessments for AI projects and ensure data security and user consent just as they would for any data-driven project.<sup>[4]</sup>
- **Liability and Accountability:** AI systems can independently examine data, make decisions, and take actions without any human intervention, complicating liability. In cases of harm, it may be impossible to pin blame on a single actor because the AI’s decisions derive from algorithms, data providers, and system operators working together. This “absence of adequate legal frameworks” for AI liability leaves a gap when accidents or injuries occur.<sup>[5]</sup>
- **Intellectual Property:** The intersection of AI and intellectual property (IP) law remains unsettled. While Indian copyright law attributes authorship to the person who causes the work to be created, AI-generated content poses problems for originality and human authorship requirement<sup>[6]</sup>. The Patents Act, 1970 does not accommodate non-human inventors. Consequently, AI-created inventions or artworks occupy a grey area, both legally and doctrinally<sup>[7]</sup>.

- **Cybersecurity and Criminal Conduct:** AI tools are now being used in cybercrime—from AI-generated deepfakes to autonomous hacking bots <sup>[8]</sup>. Under Information Technology Act, 2000, cybercrimes like identity theft, unauthorized data access etc. are punishable. However, the law lacks AI-specific provisions, raising concerns about whether it can adequately address technologically sophisticated threats <sup>[9]</sup>
- **Bias and Discrimination:** AI systems can mirror or magnify biases in their training data, leading to discriminatory decisions. For instance, an AI recruitment tool might inadvertently favour one gender or ethnicity based on historical data. Such outcomes implicate anti-discrimination and equality laws creating complex legal and ethical issues. <sup>[10]</sup>

## LEGAL FRAMEWORKS IN INDIA:

India's legal regime is gradually adapting to AI's arrival. Though no dedicated AI law exists, several existing and proposed instruments are relevant:

- **Information Technology Act, 2000:** This is the foundational cyberlaw in India. The IT Act is India's primary cyber law, covering electronic records, cybercrime, and data security. While it addresses offenses such as hacking and identity theft, it does not contain provisions specifically tailored to AI systems
- **Personal Data Protection:** The *Digital Personal Data Protection Act, 2023* (DPDP Act) is a landmark new law it safeguards the right of individuals to protect their personal data... and regulates the personal processing of data outside India and penalizes for misuse. These rules directly impact AI, since AI models typically process vast personal datasets. <sup>[11]</sup>
- **NITI Aayog's AI Strategy and Guidelines:** India's National Strategy on Artificial Intelligence, issued by NITI Aayog, emphasizes inclusive growth, ethical AI development, and sectoral focus areas like healthcare, agriculture, and smart mobility. While not legally binding, these guidelines lay the groundwork for AI governance and inform administrative practices <sup>[12]</sup>
- **IndiaAI mission:** Announced in 2024 with a ₹10,300 crore budget, the IndiaAI Mission seeks to establish compute capacity, public datasets, and foundational models <sup>[13]</sup>. Though infrastructural in nature, it complements legal frameworks by fostering standardized, open, and privacy-respecting AI practices.

## CONCLUSION:

AI and ML are transforming society, but India's legal system is still adapting. With initiatives like the National AI Strategy and proposed data protection laws, India aims to balance innovation with rights protection. Legal professionals must address emerging challenges, ensuring ethical and legal frameworks for AI's responsible and equitable integration into daily life.

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