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Regulation of Artificial Intelligence in India: Need for Comprehensive Legal Framework

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Regulation of Artificial Intelligence in India: Need for Comprehensive Legal Framework

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Abstract

The advent of Artificial Intelligence (AI) has become one of the most revolutionary technologies of the 21st century affecting different sectors like healthcare, finance, education, governance, and corporates. With India emerging as one of the fastest growing economies in the digital sector, it is increasingly making use of AI technology in order to boost economic progress. The speedy adoption of artificial intelligence has led to many legal, ethical issues and regulatory concerns including data privacy, accountability, cyber security, algorithmic bias, intellectual property rights, and fundamental rights protection.¹

This research paper highlights the requirement for a comprehensive legal framework for regulating artificial intelligence in India. The paper critically evaluates the existing legal framework, including the Information Technology Act, 2000, Digital Personal Data Protection Act, 2023, and government measures, like NITI Aayog's National Strategy for Artificial Intelligence.² This research also examines some of the regulatory frameworks for AI that have been followed by countries like the EU, UK, and USA in order to find out the best practices in AI governance around the world.³

The paper argues that India needs a specific and detailed legal framework backed by the existence of a regulating body along with certain ethical codes and rules related to liability. It suggests a balanced approach that promotes innovation while safeguarding constitutional rights and public interest.

Keywords: *Artificial Intelligence, AI Regulation, Indian Legal Framework, Data Protection, Technology Law, Digital Governance, AI Policy, Corporate Law*

1. Introduction:-

Artificial Intelligence is one of the most important technological innovations of the modern era that has changed how societies and economies run. The creation of machines that can execute processes requiring human intelligence has had a huge impact on different industries and the process of governance around the world. The application of artificial intelligence has been made across industries like healthcare, financial services, corporate management, defense, governance, and education, among others, making it a fundamental part of any digital transformation. India is a nation that is fast becoming a digital economy and is making use of artificial intelligence.

¹ Stuart Russell & Peter Norvig, *Artificial Intelligence: A Modern Approach* (4th ed., Pearson 2021).

² NITI Aayog, *National Strategy for Artificial Intelligence #AIforAll* (2018).

³ European Commission, *Artificial Intelligence Act Proposal* (2021).

The advent of AI technology into people's daily lives brings both benefits and threats. The use of AI is based on algorithms and a huge amount of data, which sometimes includes sensitive data about individuals. Privacy issues and data protection become very important because of that. The recognition of the right to privacy as a fundamental right by the Supreme Court of India in **Justice K.S. Puttaswamy v. Union of India**⁴ highlights the constitutional importance of safeguarding personal data.

At present, there exists no specific legislation in the Indian legal system for regulating artificial intelligence. Though there are various acts, including the Information Technology Act, 2000⁵, and the Digital Personal Data Protection Act, 2023⁶, that protect data and cyber security to some extent, it is inadequate to regulate artificial intelligence. It has been observed that the government of India is considering the creation of a legal framework for regulating artificial intelligence in view of several governmental strategies like the National Strategy for Artificial Intelligence by NITI Aayog and different policy frameworks related to the Digital India Act. Nevertheless, all these actions are merely policies, and there is no proper legal framework yet that clearly defines liability, accountability, and regulatory standards for artificial intelligence. In the international context, different countries have taken different paths in regulating AI. Europe has enacted an Artificial Intelligence Act based on risk assessment, whereas the UK has adopted a flexible approach, and the USA focuses on policy-based governance. This clearly demonstrates the global relevance of regulating AI and the need for India to adopt a comprehensive legal framework.

The requirement for an all-encompassing legal framework for AI in India becomes even more necessary in view of the application of AI in business and commerce sectors. AI has been utilized for corporate governance, financial decision-making, automated contracts, and business analysis, and thereby raises legal issues in relation to corporate responsibility, intellectual property law, and contractual law. The lack of clarity in legal rules could lead to uncertainties in the legal system due to disputes that arise from AI decisions. Therefore, it is essential to develop a regulatory framework that ensures accountability and legal clarity while promoting innovation and economic development.

Another important issue that arises in relation to artificial intelligence is the ethical implications and social consequences of such a technology. There is no doubt that artificial intelligence could affect jobs, privacy, human dignity, and democracy in a negative way. In addition, AI-powered tools such as surveillance and facial recognition systems could lead to unethical practices in the collection and processing of personal data in a manner contrary to human dignity, liberty, and other rights protected by the Constitution of India. Moreover, algorithmic bias and lack of transparency in AI decision-making can lead to discrimination and unfair outcomes, which may adversely affect vulnerable sections of society⁷. These concerns highlight the urgent need for a legal framework that balances technological advancement with ethical and constitutional values.

This paper intends to look at the need for regulation of artificial intelligence in India and also suggest an appropriate legal framework. This research is based on the analysis of current legal frameworks, foreign examples, and legal issues related to the topic. It also highlights the necessity for India to follow a structured regulatory approach that balances innovation with the protection of fundamental right.

⁴ Justice K.S. Puttaswamy v. Union of India, (2017) 10 SCC 1.

⁵ Information technology act, 2000 (21 of 2000) I.T. (Government of India Ministry of Information Technology).

⁶ Digital personal data protection act, 2023 (Gazette of India.).

⁷ Floridi, L., Cows, J., Beltrametti, M. *et al.* AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations. *Minds & Machines* **28**, 689–707 (2018).

<https://doi.org/10.1007/s11023-018-9482-5>

2. Objectives of the Research:

The specific objectives of the research include:

1. To gain insight into the meaning and development of artificial intelligence in contemporary technology.
2. To explore the need for regulating artificial intelligence in India.
3. To review the current legal system that governs artificial intelligence in India.
4. To study international regulatory approaches to artificial intelligence.
5. To identify issues relating to legal, moral, and societal concerns about artificial intelligence.
6. To propose an appropriate legal system for regulating artificial intelligence in India.
7. To provide practical recommendations for effective AI regulation.

3. Concept of Artificial Intelligence

AI is defined as the ability of machines and computers to accomplish those tasks that normally demand the presence of intelligence in a human being. These tasks include reasoning, thinking, decision-making, and problem-solving.⁸ The technology employed in this kind of system allows it to analyze enormous amounts of information and produce outcomes with little human interference. This ability makes artificial intelligence a powerful tool in modern technological and economic development.

The various categories of artificial intelligence can be broadly classified according to their capabilities. The first category is narrow AI, which is also referred to as weak AI since it only performs specified functions such as voice recognition, recommendations, and image processing. General AI, on the other hand, is defined as artificial intelligence that can undertake any intellectual function performed by humans, although it is not yet available. Finally, Super AI is a theoretical concept referring to machines that surpass human intelligence in all aspects.⁹ AI works on different technological aspects like machine learning, deep learning, natural language processing, and robotics. Machine learning provides the ability to learn from experience and enhance their functioning without programming explicitly. Natural language processing allows machines to understand and interpret human language, while Robotics makes it possible for machines to perform physical activities.¹⁰

AI technology is being employed in various sectors like healthcare, finance, agriculture, education, and governance in India. AI technology is being used in fraud detection in the financial sector, disease detection in the healthcare sector, and policy formulation by the government.¹¹ The use of AI technology improves efficiency, but it also poses problems regarding data security, accountability, and ethics.

The idea of artificial intelligence is very close to digitalization and economic growth. But at the same time, the absence of a legal system may lead to many dangers related to the improper use of information, bias, and lack of responsibility. Therefore, understanding the concept of artificial intelligence is essential for developing a comprehensive legal framework.

⁸ Bostrom, Nick. *Superintelligence: Paths, Dangers, Strategies*. United Kingdom: Oxford University Press, 2014.

⁹ Russell, S. J., & Norvig, P. (2021). *Artificial Intelligence: A Modern Approach* (4th ed.). Pearson. <https://www.amazon.com/Artificial-Intelligence-A-Modern-Approach/dp/0134610997>

¹⁰ Floridi, L., Cowls, J., Beltrametti, M. *et al.* AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations. *Minds & Machines* **28**, 689–707 (2018). <https://doi.org/10.1007/s11023-018-9482-5>

¹¹ Press Information Bureau, Gov't of India, Transforming India with AI: Over ₹10,300 Crore Investment & 38,000 Graphics Processing Unit (GPUs) Powering Inclusive Innovation (Dec. 30, 2025), <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2209737>.

4. Need for Artificial Intelligence Regulation in India

Artificial Intelligence has rapidly transformed the digital and economic landscape of India, creating new opportunities for innovation, industrial growth, and efficient governance. With the growing implementation of artificial intelligence in various domains, including health care, financial institutions, businesses, online commerce, military, and public services, the importance of establishing a legal framework for artificial intelligence has become more significant than ever before. There is an urgent necessity to create a legal framework for regulating the use of artificial intelligence to mitigate various risks associated with privacy, liability, discrimination, and security.

The fundamental reasons for regulation of artificial intelligence in India include the protection of fundamental rights guaranteed in **Article 21** of the constitution. In the case of **Justice K.S. Puttaswamy v. Union of India**¹², the Indian Supreme Court established that privacy was a fundamental right and highlighted the importance of ensuring data protection in the age of digital Era. AI systems, which rely heavily on personal data, pose a significant threat to privacy if not regulated properly. Use of technology like facial recognition, biometric identification, and surveillance technology poses an immense risk to the privacy of individuals.

One other vital aspect to consider is the question of liability and accountability of AI decision-making. Since artificial intelligence is autonomous, it becomes problematic to establish liability when something goes wrong. There are no provisions in the Indian legal system that address the liability of damages that occur through the use of artificial intelligence. As seen in the case of **Shreya Singhal vs. Union of India**¹³, the Supreme Court recognized the necessity of protecting the rights of individuals from any arbitrary actions of the state in digital spaces, which indirectly highlights the need for accountability in technological regulation.

There is a need for the regulation of artificial intelligence in order to avoid discrimination and bias. The training of artificial intelligence models takes place using datasets which could be socially and economically biased. As a result of this, discrimination will occur when it comes to fields like employment, credit rating, law enforcement, and provision of public services. **Article 14**¹⁴ and **15**¹⁵ of the Constitution protect individuals from discrimination, and therefore there is a possibility that the lack of proper regulation will violate the constitution.

In addition, economic and corporate governance issues emphasize the importance of having an artificial intelligence regulation in India. Artificial intelligence plays a major role in many activities in corporations, including decision-making, fintech, and business analysis. As a result, there arise legal implications concerning intellectual property, competition laws, and contractual duties. Corporations are using the power of AI in decision-making, planning, and analyzing risks, which could pose a problem in case of failure of the technology. A comprehensive legal framework can provide clarity and stability in corporate operations and encourage responsible use of artificial intelligence in the business environment.

Another important aspect which highlights the importance of regulating artificial intelligence is that of cyber security and national security. The misuse of artificial intelligence could lead to cyber-attacks, data manipulation, and digital warfare, which would endanger the nation's security. Artificial intelligence can be used to conduct cybercrimes and create deep fakes that can affect the democratic process, economy, and government functioning. In the case of **Anuradha Bhasin v. Union of India**¹⁶, the Supreme Court stressed on striking a balance between technology and fundamental rights along with national security aspects.

In conclusion, the need for artificial intelligence regulation in India arises from concerns related to privacy, accountability, discrimination, corporate governance, cyber security, and national

¹² Justice K.S. Puttaswamy v. Union of India, (2017) 10 SCC 1.

¹³ Shreya Singhal v. Union of India, (2015) 5 SCC 1.

¹⁴ Ind. Const. art. § 14.

¹⁵ Ind. Const. art. § 15.

¹⁶ Anuradha Bhasin v. Union of India, (2020) 3 SCC 637.

security. A comprehensive legal framework is essential to address these challenges and ensure responsible use of artificial intelligence.

5. Existing Legal Framework Governing Artificial Intelligence in India

At present, there is no legislation specifically formulated in India that pertains to artificial intelligence regulations. However, several other pieces of legislation, policies, and government schemes serve to regulate artificial intelligence, forming the legal foundation for artificial intelligence regulations. The legislation mainly deals with information technology, data protection, cyber security, and digital governance – all of which are directly related to the regulation of artificial intelligence.

The Information Technology Act, 2000 is the main law that governs digital technologies in India. This Act legally recognizes electronic documents and digital signatures through **Section 4**¹⁷ and **5**¹⁸ respectively. Penalties for cybercrimes are provided in **Sections 43**¹⁹ and **66**²⁰. **Section 79**²¹ of the Act provides safe harbour protection to intermediaries, subject to due diligence requirements. While the Act does not specifically discuss artificial intelligence, it serves an essential purpose in regulating digital platforms in which AI systems run.

The Digital Personal Data Protection Act, 2023 is an important step towards data protection law in India. The Act focuses on the principle of data processing based on consent, data minimization, and liability of data fiduciaries²². As artificial intelligence depends largely on personal data, this act has become very important for data protection and privacy. But it does not deal with problems of artificial intelligence like algorithmic transparency and automated decision-making. The Act contains penalties for using personal data, which can be used to avoid misuse of artificial intelligence.

Government policy interventions are also crucial in the governance of AI technology. The National Strategy for Artificial Intelligence presented by **NITI Aayog** aims at the promotion of responsible AI development and specifies critical sectors that need to utilize AI technology.²³ The sectors mentioned include health care, agriculture, education, and smart cities. In these sectors, AI technology can contribute significantly to economic development. Nevertheless, the document is not legally binding.

The proposed Digital India Act is yet another significant milestone in ensuring that artificial intelligence and digital technologies are regulated. This act seeks to replace the Information Technology Act, 2000 and establish new laws in support of emerging technologies such as artificial intelligence, block chain, and digital platforms²⁴. Although this legislation is mainly concerned with ensuring user safety, privacy, and accountability among digital technology service providers, it indirectly ensures regulation of artificial intelligence technologies. However, this proposed act is yet to be finalized and implemented in its entirety. India also adheres to a number of international standards for artificial intelligence technologies.

¹⁷ The Information Technology Act, 2000 (Act 21 of 2000), s. 4

¹⁸ Id., s. 5

¹⁹ Id., s. 43

²⁰ Id., s. 66

²¹ Id., s. 79

²² Digital Personal Data Protection Act, 2023 (India).

²³ NITI Aayog, National Strategy for Artificial Intelligence #AIforAll (2018).

²⁴ MoS Raveesh Chandrasekhar to hold a Digital India Dialogues' session tomorrow in Mumbai on principles of Digital India Act, Press Information Bureau (May 22, 2023), <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1926443@=3&lang=2>.

There are several weaknesses in the current legal regime of India when it comes to artificial intelligence regulation. The present laws only cover concerns related to data privacy and cyber security, but there are still many other pressing issues like algorithmic accountability and transparency, liability, ethics, and regulations that remain untouched. Thus, an additional legal mechanism for regulating AI should be developed.

6. International Artificial Intelligence Regulatory Framework

The rapid advancement of artificial intelligence technology around the world has motivated many nations and international institutions to create regulatory frameworks that regulate their usage. Artificial intelligence cannot be contained within a single nation, as digital technologies transcend borders and impact the global economy and governance systems. Thus, international cooperation and regulatory frameworks become an essential component of the national AI policy formation process. The EU, the UK, US, and OECD have taken up roles as global players who lead the regulation of artificial intelligence. Through the analysis of the regulatory frameworks, one can learn about global best practices and obtain essential knowledge needed to formulate a legal framework in India. International frameworks for regulating AI address such concepts as transparency, accountability, privacy and security, ethical governance, and risk-based regulation. Such concepts strive to regulate the use of artificial intelligence technology so that it does not harm human rights and democracy. Through an analysis of international approaches, India can devise a well-balanced regulatory framework.

i. European Union Artificial Intelligence Framework

One of the most extensive measures to regulate artificial intelligence has been introduced by the European Union via the Artificial Intelligence Act. The European Union uses a **risk-based regulation system** where artificial intelligence systems are classified depending on the level of danger they create for society. In total, there are four categories of AI systems, including unacceptable risk, high-risk, limited-risk, and minimum risk.²⁵ Unacceptable risk AI systems like social scoring and manipulation technologies are banned; on the other hand, high-risk AI systems face many requirements.

Transparency, accountability, and human oversight are three important concepts within the European Union's AI regulation policy. High-risk AI systems need to be developed under specific legal standards that involve risk assessments, checking the quality of data, and documenting AI algorithm.

Another important aspect of the EU also integrates its **AI regulation with the General Data Protection Regulation (GDPR)**, which strengthens data privacy protections. The European Union approach provides an important lesson for India by demonstrating the importance of a dedicated AI law that clearly defines risk categories, regulatory standards, and accountability mechanisms. A similar risk-based approach can be adopted in India to regulate artificial intelligence effectively.

ii. United Kingdom Artificial Intelligence Regulatory Approach

The United Kingdom pursues a **regulatory strategy** that encourages innovation and is flexible and sector-based rather than adopting an overall AI Act. The United Kingdom places emphasis on sector-based regulations and guidelines for responsible AI adoption. The UK government has outlined some guiding principles like **safety, transparency, fairness, accountability, and contestability** for artificial intelligence governance.²⁶

The approach of the UK towards regulating AI technology involves enabling existing regulatory agencies to regulate AI within their domains. For instance, if a certain use of AI is

²⁵ European Commission (2021) Artificial Intelligence Act Proposal.

²⁶ *A pro-innovation approach to AI regulation*, GOV.UK (Mar. 29, 2023), <https://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paper>.

involved in banking, then that will be regulated by the appropriate financial regulators. On the other hand, AI usage in health facilities would be controlled by the healthcare regulatory agencies. This decentralized regulatory structure promotes innovation and allows industries to adapt to technological changes more efficiently. The UK approach aims to balance regulation with technological growth and economic development.

Ethics and responsibility in the AI policy are another key aspect of UK's strategy. The government supports businesses in creating accountable and transparent systems that meet both the legal and ethical requirements. Such an approach allows flexibility and encourages private sector participation in the development of AI.

However, the lack of a single and overarching law may cause problems in some sectors. The experience of the UK in implementing flexible and innovative laws may prove helpful in formulating an appropriate law for AI in India.

iii. United States Artificial Intelligence Regulatory Framework

Sectoral and Policy-Based Approach of Artificial Intelligence Regulation in the United States. As opposed to Europe, which has a specific legislation in place concerning artificial intelligence, the US relies on the sectoral and policy-based AI regulations. The focus of the United States framework is on innovation, national security, and ethical AI development.

An important part of the US framework is the **Blueprint for an AI Bill of Rights**, which covers principles including data privacy, algorithmic transparency, and safeguards against biased AI algorithms²⁷. The goal of the US framework is to guarantee that the AI system supports the civil liberties of its citizens. Policy guidelines have been released by the US government to encourage responsible use of artificial intelligence and provide transparency in AI systems.

Another key component of the U.S. system is its emphasis on **national security and technological superiority**. AI technology is classified as strategic, and substantial funds are allocated for research and development purposes. The U.S. promotes innovation and cooperation among governmental agencies, the private sector, and academia to enhance AI governance. The U.S. model highlights the necessity of promoting innovation and technological superiority in addition to providing proper regulatory frameworks and safeguards. India could take inspiration from this system and promote private sector involvement and AI research.

iv. OECD Principles on Artificial Intelligence

The Organization for Economic Co-operation and Development (OECD) has developed global principles for artificial intelligence governance that are widely accepted by many countries. The OECD principles focus on promoting trustworthy artificial intelligence that respects human rights and democratic values. These principles include **transparency, accountability, safety, fairness, and human-centered** AI development.

The OECD AI Principles²⁸ emphasize:

- Transparency and explainability
- Robustness and safety
- Accountability
- Human-centered values
- Inclusive growth

Although these principles are not legally binding, they serve as a global policy framework influencing national AI regulations across multiple countries, including India.

²⁷ White House (2023) Blueprint for an AI Bill of Rights.

²⁸ Ai Principles | OECD, AI PRINCIPLE, OECD, <https://www.oecd.org/en/topics/ai-principles.html> (last visited Apr 27, 2026).

7. Legal and Ethical Issues of Artificial Intelligence in India

Growth in artificial intelligence in India has generated various ethical and legal challenges that call for stringent regulation measures. In many sectors, including healthcare, financial sector, policing, governance, and public administration, decisions are now being made through artificial intelligence mechanisms. While these mechanisms help make work efficient and innovative, they also pose serious challenges, ranging from privacy, accountability, transparency, and protection of fundamental rights. The absence of a comprehensive legal framework makes it difficult to address these issues effectively, which highlights the urgent need for regulatory intervention.

a) Privacy and Surveillance Challenges

The other significant concern in the regulation of artificial intelligence is the question of **data privacy**. The AI model necessitates the use of massive amounts of data, some of which is sensitive personal data. However, this directly contradicts **Article 21** of the Constitution of India, where privacy is recognized as a constitutional fundamental right. In the landmark judgment of **Justice K.S. Puttaswamy v. Union of India**²⁹, the Supreme Court held that privacy was a fundamental right.

b) Accountability and Liability Issues

Yet another legal dilemma associated with AI technology is the question of liability when using such systems to make decisions. The fact is that Artificial Intelligence works independently based on certain algorithms. Thus, there is no one particular person accountable for possible errors or accidents that may occur when using it. This lack of clarity in liability creates legal uncertainty and increases the risk of disputes. A comprehensive legal framework is necessary to define liability rules and establish accountability mechanisms to ensure that artificial intelligence systems operate responsibly.

c) Intellectual Property Rights in AI Systems

The issue of artificial intelligence poses other unresolved questions in respect of intellectual property laws. Artificial intelligence machines can create original works, invent new devices and innovate without any input from humans. Nevertheless, under the present Indian intellectual property laws, there is no provision regarding whether the artificial intelligence machine would be considered an author or inventor of any such invention. As a result, there arises an ambiguity on the question of legal ownership in the case of artificial intelligence creations.

The Copyright Act, 1957³⁰ and **Patents Act, 1970**³¹, are primarily designed for human authorship and inventorship, and therefore require reform to accommodate AI-generated outputs in the future digital economy.⁵

d) Employment and Socio-Economic Impact

AI-driven automation is significantly impacting employment patterns across industries. While AI enhances productivity, it also leads to job displacement, particularly in sectors involving repetitive tasks. This raises socio-economic concerns relating to labour rights and economic inequality.

8. Challenges in Artificial Intelligence Regulation in India

Despite the growing importance of artificial intelligence regulation, India faces several challenges in developing and implementing a comprehensive legal framework. These challenges arise from technological complexity, regulatory gaps, lack of infrastructure, and limited awareness about artificial intelligence governance. Addressing these challenges is essential to create an effective and balanced regulatory system.

²⁹ Justice K.S. Puttaswamy v. Union of India, (2017) 10 SCC 1.

³⁰ The Copyright Act, 1957, No. 14, Acts of Parliament, 1957 (India).

³¹ The Patents Act, 1970, No. 39, Acts of Parliament, 1970 (India).

- One of the major challenges in artificial intelligence regulation is the **rapid pace of technological development**. Artificial intelligence technologies evolve quickly, making it difficult for laws and regulations to keep up with new developments. Traditional legal frameworks are often slow and rigid, while artificial intelligence requires flexible and adaptive regulatory mechanisms. This gap between technological advancement and legal regulation creates difficulties in implementing effective governance.
- Another challenge is **the lack of a dedicated legal framework** specifically designed for artificial intelligence. Existing laws in India primarily focus on data protection and cyber security, but they do not address broader issues such as algorithmic accountability, ethical governance, and liability.
- **Limited technical expertise and infrastructure** also pose significant challenges in artificial intelligence regulation. Developing and regulating artificial intelligence requires skilled professionals, advanced technology, and strong institutional support. India is still developing its technological infrastructure, and there is a shortage of experts in artificial intelligence law and policy.
- **Data governance and cross-border data flow** also create challenges in artificial intelligence regulation. Differences in legal frameworks and data protection laws across countries create difficulties in regulating artificial intelligence at a global level. India must develop policies that align with international standards while protecting national interests.

In conclusion, challenges such as rapid technological development, lack of legal framework, limited expertise, regulatory gaps, data governance issues, and low public awareness make artificial intelligence regulation in India a complex task. Addressing these challenges requires strong government initiatives, institutional support, and international cooperation

9. Recommendations and Suggestions

To regulate artificial intelligence effectively in India, it is necessary to adopt a structured and balanced legal approach that addresses technological, legal, and ethical challenges. The following recommendations and suggestions can help in developing a comprehensive legal framework for artificial intelligence in India.

a) **Enactment of a Dedicated Artificial Intelligence Law**

India needs to develop a separate legislation that can outline the scope, purpose, and framework of regulation regarding AI. The bill should include detailed definition of AI, decision-making process through automation, and algorithms. The legislation should have legal principles governing accountability, transparency, and ethical usage of artificial intelligence. This will help fill existing gaps in legislation and proper governance of AI technology.

b) **Establishment of an Artificial Intelligence Regulatory Authority**

A specialized regulatory authority should be established to monitor and regulate artificial intelligence systems in India. This authority can oversee the development, implementation, and use of artificial intelligence technologies and ensure compliance with legal and ethical standards. The regulatory authority should also have the power to impose penalties and take action against misuse of artificial intelligence. This will strengthen regulatory enforcement and ensure accountability.

c) **Adoption of Risk-Based Regulatory Approach**

The Indian government should consider adopting a risk-based approach for regulating AI that aligns with global standards in which AI technology is categorized according to the risks it poses to society. The high-risk category of AI technologies such as facial recognition, health care AI and financial AI should be subjected to stringent regulations

while AI technologies that have less risk can be regulated through generic guidelines³². This approach will ensure effective regulation without restricting innovation.

d) Strengthening Data Protection and Privacy Laws

Data protection forms an important part of AI regulation. This is because AI technologies make use of significant amounts of personal data. **The Digital Personal Data Protection Act of 2023**³³ establishes a legal framework for this. However, more regulation is required to address issues surrounding automated decision-making and profiling. It is worth noting that the constitutional recognition of the right to privacy in the case of **Justice K.S. Puttaswamy v. Union of India**³⁴ also supports this.

e) Ensuring Transparency and Explainability in AI Systems

The use of artificial intelligence should be transparent and understandable to hold individuals accountable for their decisions. Companies must be compelled to explain how they reach their decisions using AI. This transparency would assist in avoiding prejudice and discrimination and facilitate impartial decision-making. There should be legal measures that compel companies to document the use of AI in decision-making.

f) Development of Ethical Guidelines for Artificial Intelligence

Ethical guidelines ought to be formulated to ensure proper application of artificial intelligence. Such guidelines must emphasize fairness, accountability, non-discrimination, and responsible design of AI for the benefit of humankind. Both the government and the regulatory agencies must support ethical AI implementation by encouraging the organizations to apply responsible innovation approaches. Global guidelines like those by the **OECD**³⁵ AI Principles and **UNESCO**³⁶ point out the significance of ethical AI governance that is grounded in human rights and democracy.

g) International Cooperation and Global Alignment

Artificial intelligence regulation requires international cooperation and alignment with global standards. India should actively participate in global AI governance and collaborate with international organizations to develop common regulatory principles. This will help in addressing cross-border data issues and ensure effective global governance of artificial intelligence.

³² European Commission (2021) Artificial Intelligence Act Proposal.

³³ Digital Personal Data Protection Act, 2023.

³⁴ Justice K.S. Puttaswamy v. Union of India, (2017) 10 SCC 1.

³⁵ OECD, AI PRINCIPLE

³⁶ *Ethics of Artificial Intelligence*, Creative Cities Network <https://www.unesco.org/en/artificial-intelligence/recommendation-ethics>.

Conclusion

Artificial Intelligence has emerged as a transformative technological force that is reshaping governance, corporate operations, economic systems, and social structures across the globe. In India, the rapid adoption of artificial intelligence in sectors such as healthcare, finance, public administration, and corporate governance has significantly enhanced efficiency and innovation. However, this technological advancement has also introduced complex legal, ethical, and regulatory challenges that cannot be effectively addressed under the existing fragmented legal framework.

This research has demonstrated that the current Indian legal system, primarily governed by statutes such as the Information Technology Act, 2000 and the Digital Personal Data Protection Act, 2023, provides only a limited foundation for regulating artificial intelligence. These laws focus largely on data protection and cyber security but fail to address critical issues such as algorithmic accountability, liability for autonomous systems, and ethical governance of AI technologies. As a result, there exists a significant regulatory gap that creates uncertainty in both legal enforcement and technological development.

The study further highlighted the constitutional implications of artificial intelligence, particularly in relation to fundamental rights. The recognition of the right to privacy as a fundamental right in Justice K.S. Puttaswamy v. Union of India underscores the necessity of safeguarding personal data in AI-driven systems. These constitutional considerations establish that AI regulation is not merely a technological issue but a matter of protecting fundamental rights and democratic values.

Through comparative analysis, this research examined international approaches to artificial intelligence regulation, including the risk-based model of the European Union, the flexible and sector-specific approach of the United Kingdom, and the innovation-driven framework of the United States. The OECD principles further provide a global ethical foundation for AI governance. These international frameworks demonstrate that effective regulation requires a balanced approach that combines legal certainty with flexibility and innovation.

The research also identified key legal and ethical challenges associated with artificial intelligence in India, including issues of data privacy, liability, algorithmic bias, intellectual property rights, transparency, and employment displacement. In response to these challenges, the study proposed several recommendations, including the enactment of a dedicated artificial intelligence law, establishment of a regulatory authority, adoption of a risk-based approach, strengthening of data protection mechanisms, and promotion of ethical AI governance. These measures aim to ensure accountability, transparency, and fairness while fostering innovation and economic growth.

In conclusion, the regulation of artificial intelligence in India is necessary. A comprehensive legal framework will not only address the legal and ethical challenges posed by AI but also provide clarity, stability, and confidence for stakeholders, including government, industry, and society. India must adopt a forward-looking and balanced regulatory approach that aligns with global standards while addressing domestic priorities.

Legislations

1. The Constitution of India (as amended up to 2024).
2. Digital Personal Data Protection Act, 2023 (No. 22 of 2023).
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4. European Commission, Artificial Intelligence Act Proposal (2021).
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7. White House (2023) Blueprint for an AI Bill of Rights.
8. The Copyright Act, 1957, No. 14, Acts of Parliament, 1957 (India).
9. The Patents Act, 1970, No. 39, Acts of Parliament, 1970 (India).

Case Laws

1. Justice K.S. Puttaswamy v. Union of India, (2017) 10 SCC 1.
2. Shreya Singhal v. Union of India, (2015) 5 SCC 1.
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