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A Comparative Study of Ethical Guidelines on Artificial Intelligence of Major Nations with India

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Abstract

Artificial Intelligence (AI) is not only the buzz word of computer science but it's drawing attention from the entire science community. Scientists, researchers, and institutions are merely pushing it to newer heights with newer developments being introduced into already widening horizons. Governments everywhere are also getting on board, creating space to facilitate AI research and development to stay competitive in this rapidly changing sector. As AI continues to grow, it's becoming increasingly integrated into sectors such as healthcare, finance, education, and the defence and affecting not only businesses but also everyday life. With this rapid rollout comes the pressing need for open legal guidelines, policies, and standards to ensure AI is responsibly developed and utilized. This chapter examines the status of regulations on AI in the European Union (EU), the USA, the UK, Japan, China, and India with particular emphasis on worldwide initiatives towards ethical, open, and responsible AI systems. The EU has also led the way, creating an important precedent by introducing the globe's first holistic legal framework for AI, with risk-based regulations for developers working in the region. USA, UK, Japan & China have also contributed in making safe deployment and development of AI Systems happen by guidelines and frameworks so that AI systems adhere to ethical norms upon deployment but don't legislate for the same so that innovation as well as free speech can be promoted. India is set to

witness a massive surge in AI development within its jurisdiction, yet only highly limited ethical frameworks, advisory in type, are provided to organizations to regulate the AI development within the state compared to the enormous amounts of investments being put towards innovation within the AI sector within the country.

1. Introduction

Artificial Intelligence (AI), is the new term for curiosity and excitement in not only the Computer Science world but also the scientific community. AI is basically the branch of Computer Science that deals with how to make a computer or machine think and act like a human. The applications of AI are even more diverse. From the field of medical to humanities, AI has its uses for one and all. Helping medical professionals to detect diseases and suggesting diagnosis, feedback to businesses regarding customer data, or building human interactive devices, you name it, AI does it.

However, great power brings with it great responsibility. Whenever we speak of AI, a term that comes to our mind is 'safety'. Humans are governed by laws& morality, but who governs AI? Who makes sure that AI doesn't end up as a unsafe tool? For any machine to be safe and ethical, there needs to be some rules laid down. In the pursuit of the development of AI, are we also equally concerned about laying down protocols that concern human safety, morality, ethics and also privacy? Also, for nation like India, where manual labor constitutes a large part of the workforce, the deployment of AI powered machines into the workforce raises the issue of increase in unemployment. So, does there need to be laws in place that take care of such issues as well?

Across the world, the laws governing AI has not been up to par compared to the development & deployment of AI models. Some progressive nations and regions have taken the initiative to introduce laws specifically for AI, with the EU leading the way but most nation still fail to introduce laws for it.

2. Literature Review

Arcilla et al., (2023) in their paper conducted a comparative analysis on ethical guidelines of Artificial Intelligence from the USA, European Union, India, and the Philippines highlighting key terms and themes. It identifies significant policy differences, particularly in the emphasis on ethics and fairness, which are less pronounced in existing frameworks. The paper suggests that the Philippines should define ethical principles, establish fairness mechanisms, ensure security, and assess AI impacts, thereby providing insights into effective implementation strategies for AI governance in the context of India and other nations.

Daly et al., (2021)highlights that governance of AI and ethical initiatives are most better in China and the EU, with the USA rapidly catching up. In contrast, India lacks articulated AI ethics principles, making it an outlier among major jurisdictions. Australia faces challenges as a smaller player in establishing its own path. The focus is shifting towards legally enforceable outcomes, necessitating practical operationalization of norms, which may not always yield desirable results across different nations.

Daly et al., (2019) outlines that governance of AI and ethics approaches in China, Europe, India, and the USA, highlighting policy differences and implementation strategies. It reviews recent initiatives from public and private sectors, including Microsoft, emphasizing varied ethical frameworks across these regions.

Ko, (2023) examines international AI ethics policy regulations, with special emphasis on UNESCO, OECD, and EU policies and policy measures and standards. It does mention Korea's required international coordination and multi-stakeholder initiative, but is not comparative in India's policies and plans**.**

Lee et al., (2020) contrasts the economically developed world's AI R&D guidelines and finds the same core words such as AI, human, and development. It does not directly mention India's ethical guidelines or implementation plans but cross-compares them internationally on a wider level.

Bhatia, (2024) In this paper analyses China's ethical principles for AI best prioritize fairness, privacy, and responsibility, and are

backed by robust regulations. India's decentralized structures, on the other hand, have no one administration and uniform policies, which emphasize striking differences in implementation strategies and ethical considerations in AI research.

Harmon et al., (2024)in this paper discusses India's distinctive AI governance strategy, its regulatory system, and trade-offs, but not a comparative analysis of ethical guidelines of leading nations and India, nor policy differences and implementation strategies.

Khalid et al. (2024) mainly focused on Indian-specific ethical challenges. But it does not carry out a comparative study of artificial intelligence ethical frameworks in leading countries and India, nor is it focused on policy variations and implementation plans.

Kadambi et al., (2024) The paper reviews the scenario of AI regulations in India, stressing the necessity for effective laws and enforcement. However, it does not provide a comparative analysis of ethical guidelines between India and other nations, focusing instead on public perceptions and policy effectiveness.

3. Guidelines for AI across Nations

There are a total of 193 countries in the world. According to Visual Capitalist, there are 174 countries that are ranked in the AI preparedness index with Singapore ranking No.1, followed by Denmark, US, Netherlands, Estonia, Finland, Switzerland, New Zealand, Germany, Sweden in the Top 10. One of the factors determining the rank of a country in AI Preparedness Index is "Legal frameworks" (Zhu, 2024)

A lot of nations have been introducing guidelines and policies that suggest a framework of ethical & safety standards for individuals or organizations to adhere to, but these are just guidelines and not legislations or laws that a individual or organisation must comply while dealing with a AI powered technology. In this regard, the European Union(EU) has set a benchmark by becoming the first region to introduce legislation passed by the Parliament to govern AI powered technologies (Lordache, 2024). Before we dive into the European Union AI Act that has indeed set a global benchmark for lawmakers to bring AI specific legislation, let us first take a

brief look into all the nations who have introduced guidelines policies & guidelines for AI powered technologies.

United States

In 2022, the AI Bill of Rights Blueprint, was released by Office of Science and Technology Policy of the White House. Five guidelines are provided in the proposal for any automated system that might "significantly affect people's or the utilization of rights, opportunities, or access by communities:

- **Secure and Effective Systems**: Systems that are automated have to be safe, secure and effective. To find and reduce hazards to safety and efficacy, they should be independently assessed and routinely observed. Evaluation findings should be made public whenever possible, noting how possible effects are being reduced.
- **Algorithmic Discrimination Protections**: Members of protected groups shall not be disadvantaged by automated systems that "contribute to unjustified different treatment." In order to ensure accessibility for individuals with disabilities, use representative data sets, keep an eye out for proxies for protected characteristics, Identify and address inequalities at every stage of the system's development and incorporate proactive equity assessments into their design processes, designers, developers, and etc.
- **Data Privacy**: People should have ownership over their data and be shielded from unethical data practices. To guarantee that automated systems incorporate privacy by default, privacy engineering should be used. The design, development, and usage of automated systems should adhere to the idea of data minimization, which collects only the data that is absolutely required for the particular context, as well as people's expectations around their data.
- **Notice and Explanation**: Automated system operators should notify those impacted by its outputs of the time, manner, and reason of the system's impact. Even "in situations where the automated system is not the only input influencing the result," this approach is applicable. Notifications and explanations must to be prompt, unambiguous, and written in simple terms.

- **Human Alternatives, Consideration and Fallback**: Whenever they find appropriate, humans should be allowed to choose not to have automated systems make decisions for them instead. Humans ought to be able to appeal to automated judgments

These specific actions will typically be compatible with existing recommendations for best practices for organizations creating, acquiring, and using AI and other automated technologies (Schildkraut, 2022).

In 2023, an executive order was signed by the then President of the United States that presented comprehensive guidelines to direct the creation and application of AI technology. The eight key points mentioned in the Executive Order are as follows:

- **Safety & Security**: AI systems are to be tested and evaluated before an AI powered system is put to use in the real world. Also, contents that are generated by AI such as images, videos, texts, etc. are to be labelled.
- **Innovation, Collaboration & Competition:** investments in AI education, research, development, and training to advance AI technology and address real-world issues while safeguarding creators' and innovators' intellectual property.
- **Inclusion of American Workers**: Ensuring that the American workforce is able to work in the jobs and industries created by AI in any capacity and also ensuring the safety, security and rights of the workers.
- **Adhering to Federal Equality & Civil Rights**: Ensuring that the AI systems adhere to all the federal laws, ensures equality and prevents any discrimination, bias, etc.
- **Protection of Users**: Specifically in the areas of housing, legal services, healthcare, banking, education, and transportation, enforcement of consumer protection legislation and the implementation of safeguards against fraud, bias, privacy violation, and other damages.
- **Protection of Privacy**: Ensuring that personal data is gathered, used, and kept in a way that is legal, safe, private, and secret.

- **Regulation &Governance**: Utilizing the internal resources of the federal government to control and oversee the proper use of AI, including hiring AI experts to support the government and designating AI Officers in each federal department.
- **Global Partnership**: Engagement with international allies and organisations to work together to develop a common framework to find solutions to common problems and challenges related to AI and also sharing of technological advancements.

In addition to the aforementioned aims and principles, the AI EO mandates particular agency actions within predetermined timeframes(The White House, 2023).

United Kingdom

The UK government, like most other nations, have chosen to delay the creation of legislation for AI powered technology as it could impose excessive burdens on businesses. Rather they have decided to develop a regulatory framework for the same. In the Spring of 2023, a document titled "A pro-innovation approach to AI Regulation", was published by the Government of the United Kingdom, which defines five standards to support their AI regulation approach. The give standards are:

Safety, Security & Robustness: AI powered systems must be developed and trained using reliable data.

Transparency & Explainability: Users of AI should be able to comprehend how the system works.

Fairness: AI shouldn't compromise people's legal & fundamental rights.

Accountability: Clear lines of responsibility and proper control over its use must be made essential for AI systems.

Contestable & Redress: The working of the AI systems must be open to debates and arguments and also rectify its outcomes when & if needed.(Rennie, 2024)

Notably, the UK also hosted the AI Safety Summit 2023, which focused on addressing key issues related to safe use of AI such as misinformation, misuse of general-purpose AI.

China

As of 2024, China has refrained from the creation of legislation for AI systems. However, it has declared some provisions that are to be met when deploying AI powered systems by Chinese vendors or companies based outside China but also providing services to users in the Chinese nation.

Provisions on the Administration of Algorithm Recommendation for Internet Information Services (2021)

On December 2021, the Cyberspace Administration of China (CAC) released the "Provisions on the Administration of Algorithm Recommendation for Internet Information Services".

The provisions mentioned in the document are:

- The Algorithm Recommendation service provider must uphold social morality, laws, business ethics, and principles of justice, fairness, sincerity, trustworthiness, and fairness.
- Service providers must uphold values, optimize mechanisms, promote good energy, use algorithms for good cause, avoid unlawful use, implement management systems, publish rules for algorithm recommendation services, and provide qualified personnel.
- The text prohibits the creation of algorithm models that encourage overindulgence, violate laws, or violate ethics, enhance feature databases for illegal information detection, manipulate user accounts, or engage in activities that influence online public opinion or evade oversight.
- Algorithm Recommendation Service Providers must give consumers a clear indication of the state of their services, choices that do not target their personal information, or an easy way to turn off the Algorithm Recommendation Service on their systems, devices, or apps.
- Companies that offer Algorithm Recommendation Services to minors must comply with the legal requirements for network protection for minors; companies that offer services to the elderly must uphold the legal rights of the elderly by offering intelligent services that are appropriate for the elderly.

The Algorithm Recommendation Service Providers that violate the said provisions shall be issued warnings, served notice of criticism, order to rectify the violations with a specific period, and can be imposed a fine by the cyber security, public security and other concerned agencies (Lu, 2022).

Provisions on the Administration of Deep Synthesis of Internet-based Information Services (2022)

The Cyberspace Administration of China (CAC), along with other Ministries of the nation jointly released the "Provisions on the Administration of Deep Synthesis of Internet-based Information services" on November 2022,

This provision focuses on false content that is created using the Deep Synthesis technology which uses Deep Learning to create falsified content in the form of audio, video or images.

Clarifying the guidelines for managing deep synthesis data and technologies, the document calls on deep synthesis service providers and technology supporters to make sure that laws and regulations are followed in a number of important areas.

According to the provision:

- **Data Security & Personal Information Protection**: By taking the required actions in compliance with the current Personal Information Protection Law and Data Security Law, service providers must fortify data protection. Additionally, service providers must set up and improve management systems for user registration, staff training, algorithm reviews, data security, child protection, and personal information protection.
- **Transparency**: Guidelines must be established for recognizing false or damaging information by the Deep Synthesis Service Providers and they also must address those who generate inaccurate or harmful information using this technology. Enhancing service agreements, putting in place a real-identity information authentication system, and creating and disclosing management rules and platform norms are all necessary under this provision.

- **Content Management & Labelling**: Service Providers must create a robust mechanism for dispelling false information, filter fake news and they must keep record these instances and report these instances to the relevant authorities. Additionally, the new rules require that media produced with deep synthesis technology include labels. Voice simulation, intelligent writing or conversation that mimics a genuine person's style, facial image synthesis, and face manipulation are all included.
- **Technical Security:** When offering models, templates, and other tools that let users alter biometric information and other non-biometric information that may involve national security, and public interests, the service providers must periodically review algorithms and carry out security assessments in order to improve users' safety on a technical level (Interesse, 2022).

Cybersecurity Technology – Basic Security Requirements for Generative Artificial Intelligence (AI) Service (2024)

"Cybersecurity Technology – Basic Security Requirements for Generative Artificial Intelligence (AI) Service" is the title of new draft rules published by the National Information Security Standardization Technical Committee (NISSTC) on May 23, 2024. It lists a number of safeguards for generative AI services. It addresses crucial topics including safeguarding AI models, preserving training data, and putting general security procedures into place.

Key Aspects of the Draft:

1. **Training Data Security**: In the draft, much emphasis is given to securing data involved in the training of AI models. Service providers have been mandated to employ various safeguards to protect against unauthorized access or alteration of training data.
2. **Model Security**: The models that the providers have developed must be protected against any possible threat throughout the entire lifecycle. Protection would extend not only against unauthorized modifications but also include functional integrity and security against attacks.

3. **Security Measures**: The essential security controls that the draft proposes should minimize the risk of generative AI services. These shall cover data protection protocols; access controls; and constant monitoring to detect and respond to security incidents in a timely manner.
4. **Safety Assessments**: Service providers are encouraged to carry out periodic safety evaluations to assess the efficacy of their security measures. Such assessments should locate potential weaknesses and affirm compliance with the given security requirements (Interesse, 2024).

Japan

As of right now, AI is not officially regulated by any laws in Japan. Japan is now supporting the policy objective of promoting innovation while reducing predictable harms in an indirect manner. Also, Japan published a "AI Guidelines for Business Version 1.0" on the 19th of April, 2024". The Guidelines are meant to encourage and promote volunteer activities, but they are not legally obligatory by AI system developers, suppliers, and business users by adhering to widely accepted AI principles and using a risk-based approach.

AI Guidelines for Business Version 1.0

Although AI business actors are expected to integrate the Guidelines' general principles into the training and implementation of their products and services, it is up to each business actor to decide how to implement the principles while taking the potential risks into account. The principles are:

- **Human-centric**; The fundamental human rights protected by the constitution and international norms must not be violated by the use of AI.
- **Safety**: Every AI business actor should take care to protect stakeholders' bodies, brains, and property.
- **Fairness:** Removal of damaging and unjust prejudice and discrimination
- **Privacy Protection**: Every AI company needs to respect and safeguard privacy.

- **Ensuring Security**: Every AI company has to maintain security to guard against unauthorized manipulations that might accidentally change or halt AI's activities.
- **Transparency**: Every AI provider must ensure authenticity of the AI service while supplying information to stakeholders in a way that is both technically possible and reasonable.
- **Accountability**: Depending on their respective roles and the level of risk that the AI service poses, each AI service provider is answerable to parties for upholding common guiding principles and guaranteeing traceability.
- **Education**: In addition to educating stakeholders about complexity, false information, and the potential for deliberate misuse, each AI service provider is expected to educate those involved in its operations about knowledge, literacy, and ethics related to the use of AI in a socially acceptable manner.
- **Ensuring fairness**: To encourage the development of new AI-based companies and services, each AI service provider is expected to uphold a level playing field for competition.
- **Innovation**: It is expected of every AI business player to foster innovation and take interconnection and interoperability into account.

Guidelines promulgated by ministries in Japan are often followed closely by companies and the public, even though they are not binding law.

India

India is set to be one of the big players of AI in the upcoming years. However, India does not yet have a specific regulatory structure for artificial intelligence. The administration has, however, enacted key policies to ensure artificial intelligence studies adhere to ethical norms.

National Strategy for Artificial Intelligence (2018)

In 2018, NITI Aayog introduced India's first National Strategy for Artificial Intelligence (NSAI), laying out a vision for AI-driven progress while keeping inclusivity at its core. The strategy focused on five key areas: Healthcare, Agriculture, Education, Smart Cities,

and Transportation. The plan also proposed setting up Centres of Research Excellence (COREs) in the country. It introduced the FAT framework (Fairness, Accountability, and Transparency) as a guideline for ensuring AI is developed responsibly. The report mentioned that data he handles carefully, keeping security and privacy in check. The report also recommended sector-specific regulations and data protection policies (NITI Aayog, 2018).

Principles for Responsible AI (2021)

In February 2021, NITI Aayog released the Principles for Responsible AI, building on India's National AI Strategy from 2018. NITI Aayog lays out seven key principles for responsible AI: Safety and Reliability, Equality, Inclusivity and Non-Discrimination, Privacy and Security, Transparency, Accountability, and the Protection of Human Values. These principles align with global standards and are rooted in India's Constitution.

The paper wraps up with the clear message that India needs a balanced approach that encourages innovation while keeping risks in check. To make AI truly responsible, the government, private sector, and research institutions must work together to build a system that people can trust (NITI Aayog, 2021).

Operationalizing Principles for Responsible AI (2021)

In August 2021, NITI Aayog released the second part of its principles for responsible AI, It report emphasizes the need for collaboration between the government, businesses, and academic institutions. It highlights the importance of building AI-related skills, implementing regulatory and policy measures, and fostering ethical practices within private organizations. Additionally, it outlines a clear roadmap for integrating ethical AI in India, advocating for risk-based regulations, strong ethical standards, and the establishment of a multidisciplinary advisory council (CET) to oversee AI governance. The report also raises concerns about the risks associated with AI, including misuse, bias, and lack of transparency -issues that could deepen existing social inequalities and widen the digital divide (NITI Aayog, 2021).

Digital Personal Data Protection (DPDP) Act, 2023

The Government of India's August 2023 enactment of the DPDP Act, 2023, which again does not specifically address or regulate AI systems. However, in the realm of AI, it does provide a framework on protecting personal data such as how data can be collected, stored, processed, and shared, making it highly relevant for AI systems that handle large volumes of personal data.

Some provisions of this Act relevant to AI are:

- Data Protection Principles: AI platforms must get user consent before processing personal information, maintain openness, and provide consumers the option to revoke their consent.
- Data Localisation: AI systems that depend on cross-border data transfers are impacted by the need that some sensitive data be kept in India.
- Data Breaches: businesses using AI are required to notify regulatory bodies of data breaches within a predetermined window of time (Agrawal, 2024).

India is yet to bring solid and dedicated legislations to govern the creation and implementation of AI systems for the masses. However, it has shown some intent by publishing policies and frameworks that are advisory in nature and should be followed by AI developers but not binded to.

Europe

In 2024, the European Parliament, which is the legislative body of the nations in the European Union (EU), passed the Artificial Intelligence Act (the AI Act). The Act was passed with a overwhelming majority in the Parliament, which shows a deep concern of the lawmakers regarding the safe deployment and use of AI in the region consisting of 27 member states of Europe.

The first of its type, the European Union's Artificial Intelligence Act (EU AI Act) is a full legislative structure intended to control the creation, promotion, and application of AI inside the EU. The Act is structured into multiple chapters and articles, each detailing specific provisions and requirements to be followed by AI businesses.

The Act takes a risk-based approach to technology regulation in an effort to keep up with the quick developments in artificial intelligence. As a result, in order to provide enough and appropriate protection for every single system, compliance requirements are based on and customized to the corresponding degree of risk.

The EU AI Act recognises four different levels of risk with AI systems:

1. Unacceptable risk
2. High risk
3. Limited risk
4. Minimal or no risk

1. Unacceptable risk

The term "unacceptable risk" describes AI systems that go against the principles of democracy, freedom, equality, human dignity, the rule of law, and basic rights of the EU. AI systems that fit within this category are thus forbidden.

The following AI systems are prohibited under the AI Act:

- AI systems can manipulate and persuade persons to engage in unwanted behaviours or make decisions they otherwise would not have.
- AI programs that take advantage of a person's or a group of people's weaknesses because of their age, a disability, or a particular social or economic circumstance.
- Biometric categorization systems that use a person's biometric information, such as a fingerprint or face, to infer or infer a person's attributes, such as political beliefs, sexual orientation, or race.
- For law enforcement, "real-time" remote biometric identification systems are utilized in areas that are open to the public (with limited caveats).
- Commonly referred to as social scoring, AI systems that assess or categorize natural individuals or groups over a given time period according to their social behaviour or personality traits.

- AI systems that gauge people's emotional states in work-related and educational contexts need to be outlawed..

Note that fines in this category are capped at 7% of global turnover or €35m.

2. High risk

High-risk AI systems have to be restricted to those that seriously jeopardize the safety, health, and basic rights of Union citizens. To reduce hazards, such systems have to meet a handful of regulatory standards.

High-risk AI systems, as per the Act**:**

1. Biometrics, including remote biometric identification systems, biometric categorisation, and emotion recognition systems.
2. Safety components in critical infrastructure, e.g. road traffic, water, gas, and electricity.
3. Access to education and vocational training and evaluation of performance.
4. Access to employment, recruitment and promotion and evaluation of employees in the workplace, where outputs may result in decisions that impact conditions of work.
5. Essential private and public services, including credit scoring, risk assessing and pricing in health and life insurance.
6. The remainder all relate to law enforcement, migration and the judicial system.

3. Limited / transparency risk

Concerns about limited risk are related to the opaqueness of AI use. Consequently, it is important that AI systems that communicate directly with humans—such as chat bots and deep fakes—be designed to make sure that the user knows that they are communicating with an AI powered system.

Note that limited risk applies in any of the following criteria is fulfilled where the AI system is used:

1. To complete a specific procedural task.
2. To enhance the outcome of a human effort that has already been finished

3. To identify trends in decision-making or departures from past trends; it is not intended to take the place of or have an impact on the previously finished human evaluation without a suitable human review.

General-purpose AI has also been added to the list of limited-risk AI systems and now carries a number of additional obligations under the Act.

4. Minimal or no risk

AI systems that do not fit into the three aforementioned categories are considered minimal or no-risk.

The EU AI Act consists of 13 Chapters that have a total of 113 Articles divided between them.

Chapter 1: General Provisions (Art 1-4)

Chapter 2: Prohibited AI Practices (Art 5)

Chapter 3: High-risk AI Systems (Art 6-49)

Chapter 4: Transparency obligations for providers and deployers of certain AI systems (Art 50)

Chapter 5: General-purpose AI models (Art 51-56)

Chapter 6: Measures in support of innovation (Art 57-63)

Chapter 7: Governance by Competent Authorities (Art 64-70)

Chapter 8: EU database for high-risk AI systems (Art 71)

Chapter 9: Post-market monitoring, information sharing and market surveillance (Art 72-94)

Chapter 10: Codes of conduct and guidelines (Article 95-96)

Chapter 11: Delegation of Power and Committee procedure (Art 97-98)

Chapter 12: Penalties (Art 99-100)

Chapter 13: Final provisions (Art 102- 113)(European Commission, 2024).

4. Conclusion

The United States has implemented a values-driven approach to AI regulation, prioritizing ethics, responsibility, safety, fairness, transparency, and innovation, contrasting with India's limited regulatory framework and enforcement mechanisms.

The UK and India are implementing pro-innovation AI regulations, focusing on accountability, safety, transparency, and fairness, while addressing misinformation and misuse.

Unlike India, which has adopted a more general and advisory approach to AI governance, China has been more proactive in regulating specific AI applications—even though it has yet to establish a comprehensive AI law.

Japan is implementing AI regulations in an early stage, focusing on human-centricity, safety, and transparency, while the AI Act proposes governance for high-performance models, similar to India. Similar to India, Japan's approach remains non-mandatory; however, it bears a sharper focus on fostering innovation and development with ethical principles in the context of AI.

In Europe, the world's most comprehensive AI legislation - the EU AI Act - has come up with an appropriate risk-based approach for imposing delinquencies for high-risk AI systems. The EU's framework, binding and enforceable, can have penalties for noncompliance.

On the face of it, there is no AI-specific legislation in India. As of now, it relies on advisory guidelines and existing laws such as: Digital Personal Data Protection Act (2023) and the Information Technology Act (2000).India is behind countries like the EU and US and China in having a proper legislative and enforceable framework for AI implementation. Although India has made preparatory efforts through guidelines and advisories, they mostly lack a binding legal character and are too fragmented, being too diverse to be clear and effective in terms of enforcement.

To get itself abreast with other countries, India has to move to the next level by having to move beyond advisory guidelines towards developing a unified, binding regulatory framework that makes it possible for innovation to go hand in hand with ethical and safety concerns. And in this regard, emulating the EU risk-based

approach, as well as the US principles-based guidelines, would help to create a really strong AI governance framework in India that would be beneficial to innovation without failing to take into account the societal interests at stake.

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