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# ARTIFICIAL INTELLIGENCE REGULATION IN INDIA

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## INTRODUCTION

For the past few decades, large language models and Artificial intelligence have raised public concerns about their personal data and privacy. As technology advances the risk of misuse of personal information also increases. The firms and companies are coming up with more and more AI in their products and services.<sup>1</sup> In this aspect or concerns that are raised by the public, so that is why the regulations and policy landscape for the Artificial Intelligence is becoming a major issue for all the jurisdiction around the world including all the international firms and organizations like IEEE (Institute of Electricals and Electronics Engineers) and OECD (Organisation for Economic Co-Operation and Development)<sup>2</sup>. This paper will discuss the regulatory framework with respect to India as to how the Artificial Intelligence legislations must be implemented in India. In this paper, I will also do a comparative study of regulatory frameworks across different jurisdictions. The structure of this research paper will include the understanding & deciphering the concept of Artificial Intelligence, studying the current legislations in force in India, comparing the legislations of other jurisdictions & making suggestions to frame an effective regulatory mechanism in the Indian context. I will be drawing inspiration from legislations in force in countries like: United kingdom, United state of America, & Germany. The current regime of laws of any jurisdiction are not satisfactorily comprehensive & do not cater to the pace of Artificial Intelligence advancements. As of now many countries around the world has been engaged their work and enacting the laws with respect to AI, for example: EU AI Act, 2024 is the world first regulatory framework published by European Union and also DPDP Act, 2023 (Digital Personal Data Protection Act) which has been enacted by the Indian government last year which says “that balances the rights of individuals to protect their personal data with the necessity of processing such data for lawful purposes”<sup>3</sup>. But the act still does not talk about Artificial Intelligence specifically as the DPDP Act, 2023 more focuses on the data protection. But the EU AI Act, 2024 can be the blueprint

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<sup>1</sup> “AI Regulation Is Coming.” 2021. François Candelon, Rodolphe Charme di Carlo, Midas De Bondt and Theodoros Evgeniou. <https://hbr.org/2021/09/ai-regulation-is-coming>.

<sup>2</sup> *Regulation of artificial intelligence*. n.d. India: n.p.

<sup>3</sup> *What is India's Digital Personal Data Protection (DPDP) Act?* July 24, 2024. N.p.: Chris Brook.

for India to craft its own legislation. The balance between regulation and innovation is important for fortifying belief in AI and also safeguards the data, information. So to get the overview of the AI regulation of this paper, we will approach to different jurisdictions, framework needed to regulate the AI, the weakness of the current of law and policy, what approach India should take by considering the country's unique socio-economic and the political landscape and why we need urgent AI regulation around world. And at last the paper will summarize the whole paper and discuss the final thoughts on the future of AI regulation in India.

## CONCEPT OF AI REGULATION

The term "ARTIFICIAL INTELLIGENCE" has been popularly used around these days within every industry as a potential contributor into the global economy as Billions are poured into various industries like car manufacturing, transportation, health as to build AI based technologies around them. According to John McCarthy, a prominent name of the industry in AI, points out that "it is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable".<sup>4</sup> As the industry is going into his fourth revolution and in the middle of technological-economical shift from information technology laws to AI laws.

### 1. AI REGULATION

The management of complex systems like Artificial Intelligence will be controlled by a set of rules, methods and trends. Lawrence Lessig is a law professor and activist who proposed his regulatory methods in one of his books "*Code and other laws of Cybercrime*" in which he points out the market which affects economic forces, second is norms that are social conventions, third one is technological aspect. These are some tools which is used by government to make specific legislation<sup>5</sup>. As a result, these regulations may take different forms but this paper specifically takes broadly two categories. First strict law that can reduce negative, it includes laws that require adherence to statutory AI guidelines or code of transparency. Secondly, empowering legislations which promote innovation and productivity such laws

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<sup>4</sup> McCarthy J, "What Is Artificial Intelligence?" [2007] Journal of Mathematics and Computer Science

<sup>5</sup> Lessig L, 'Code and Other Laws of Cyberspace' (Lessig, Lawrence, 1999)

includes subsidies, fast track approvals in ambit of AI production and services. Although this paper has already been mentioned, these are broad two categories to define AI regulation so in order to generalize AI regulation both pieces of policy should be mixed together in order to make AI regulation more effective and comprehensive.

## 2. OBJECTIVE OF AI REGULATIONS

For the consideration of AI regulation or policy, it must contain a balanced approach between productivity, innovation and protect the individual rights from exploitation or infringement. The objective of AI regulation is to form a set of guidelines and rules in order to develop a safe, ethical and sustainable environment for the growth of society as a whole. The paper will define purpose of AI as to establish and ensure the good digital policy, unbiased AI algorithms rules, accountability (specifically for development of AI), transparency, discrimination, protection of individual rights, taking up responsibility (which involves liability), adaptiveness (creating flexible frameworks), fair growth and moving forward with the technology. These are the objectives of AI regulation as it is not an exhaustive list. Furthermore, since “on AI, trust is a must, not a nice to have”.<sup>6</sup>

## 3. CURRENT STATUS OF DIFFERENT JURISDICTIONS REGARDING AI REGULATIONS

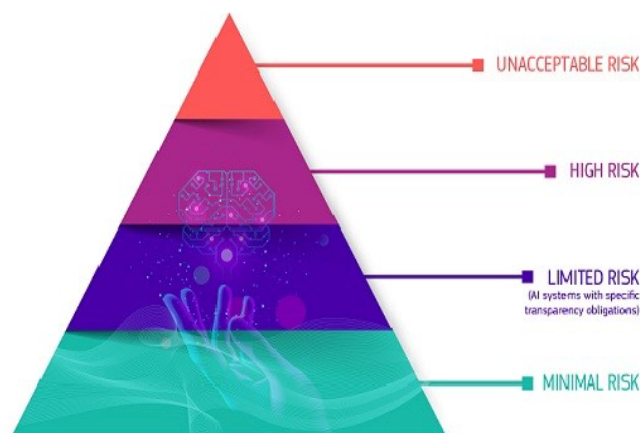
**EUROPEAN UNION:** The European countries show their concern regarding the data protection and privacy, so with regard to this there are no explicit AI regulations made by EU, but the proposed law Artificial Intelligence Act and it will be implemented by 2026. There was an amendment in the AI Act that is GPAI (General purpose AI systems) by the French government which defines, “such systems as systems that are intended by the provider to perform generally applicable functions such as image and speech recognition, audio and video generation”.<sup>7</sup> This definition simply categorizes the substantial area of AI application under the act.

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<sup>6</sup> Argrethe Vestager, Executive Vice-President for a Europe fit for the Digital Age 'The European Union AI Act Explained' (World Economic Forum), <<https://www.weforum.org/agenda/2023/03/the-european-union-s-ai-actexplained/>> accessed 01 May 2023

<sup>7</sup> Article 3(1b) AI Act (Council, General Approach, December 6, 2022) 'Draft AI Act' (*EUR*, 2023) <<https://eurlex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX%3A52021PC0206>> accessed 01 May 2023

The European Union focuses on their “EU digital single market strategy”<sup>8</sup> and its aim to set rules for development of AI products and services that are being used in the EU. The AI act also ensures “The AI Act promotes that all AI goods & services should have a free cross border movement. It directs the EU to develop a trustworthy mechanism which upholds the values of democracy & respects fundamental rights by requiring AI to be robust in legal, ethical & technical context. The proposed law takes into account four risk categories: unacceptable risk, high risk (like autonomous vehicles), limited risk, minimal risk (applications powered by AI). This approach taken under this AI act is one of its salient features. Though still it is not confirmed that high risk AI products and services. Structural frameworks must comply with human oversights. This paper also discusses the weakness in the AI Act, and that is every coin has two sides. The categorization of risk



could backfire to development of AI product, services and also be a headache to developers as well. As it will be difficult and ambiguous to define or categories which product and services fall into the specific category as there is no scope and definition properly in AI Act and there is still a lot to clear in that definition part of AI Act by European Union. Also due to these reasons it will hamper innovation and could lose to upcoming startups or companies as due to the stringent regulations.

**UNITED STATES OF AMERICA:** Currently there is no specific regulation and legislation regarding AI, as the White House Executive order on AI<sup>9</sup> in which they addressed various issues and premised on understanding the scope of AI for good and visualizing its benefit as well as its risks. Although Joe Biden government and the National Institute of Standards and Technology (NIST)<sup>10</sup> proposed “Blueprint for an AI Bills for Rights”<sup>11</sup>, as a right based approach regulation that puts a light on the AI legislation. Also this act proposed five principles or we can say it works as a guide book to help the developers. First one is “automated system”

<sup>8</sup> <https://www.upguard.com/blog/eu-digital-single-market-strategy#:~:text=The%20EU%20Digital%20Single%20Market%20Strategy%20focuses%20on%20removing%20virtual,content%20across%20the%20European%20industry.>

<sup>9</sup> <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-united-states>

<sup>10</sup> <https://www.progressivepolicy.org/blogs/an-overview-and-of-global-ai-regulation-and-whats-next/>

<sup>11</sup> Blueprint for an AI Bill of Rights' (*The White House*, 16 March 2023) <<https://www.whitehouse.gov/ostp/ai-billof-rights/>> accessed 01 May 2023

which involves safe and effective systems, data privacy, algorithms, biases, notice and expansion, and the last one is human alternatives. In september, 2023, the United States held a public conference in which the main issue was AI regulations<sup>12</sup> and also a close door meeting was held between U.S legislators and AI developers.

**Also Federal Government proposed few laws related to Artificial Intelligence:**

- The SAFE Innovation AI Framework, though it is just a set of rules not law for AI developers.<sup>13</sup>
- The Draft No FAKES Act, this act was proposed to voice and mimic sounds protection by AI generative apps.<sup>14</sup>
- The California Consumer Privacy Act,<sup>15</sup> which has protection against automated decision making applications. This act is expected to be enacted by 2024.
- The AI Research Innovation and Accountability Act,<sup>16</sup> This act is for those companies who want to develop high-risk AI systems, and also protect innovation by having accountability.
- But one act that stand out is Algorithmic Accountability Act, 2022<sup>17</sup> which says that, big tech companies must conduct the bias assessment test with respect to automated decision-making by the AI models. And if they don't conduct, the act may impose specific penalties for that breach. All these acts that this paper has mentioned earlier, are still in processing for legislation or still in process for more refined works in them.

**CHINA:** China is very eager to formulate its own regulation on Artificial Intelligence with compliance to innovation and technological advancement. The NISSTC ( National Information Security Standardization Technical Committee ) in May, 2024 was issued a draft regulation which outlines the security requirements for generative AI applications and processing, which

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<sup>12</sup> <https://www.commerce.senate.gov/2023/9/the-need-for-transparency-in-artificial-intelligence>

<sup>13</sup> [https://www.democrats.senate.gov/imo/media/doc/schumer\\_ai\\_framework.pdf](https://www.democrats.senate.gov/imo/media/doc/schumer_ai_framework.pdf)

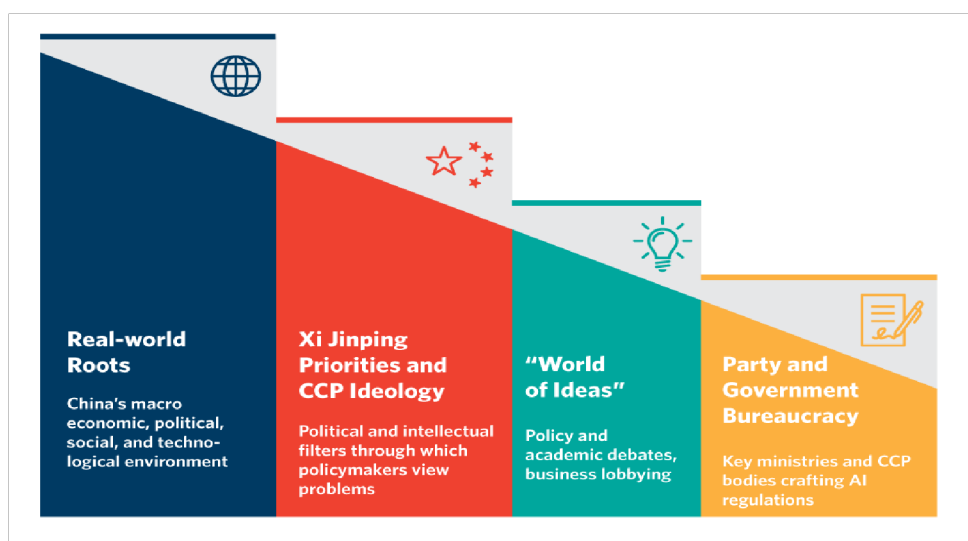
<sup>14</sup> [https://www.coons.senate.gov/imo/media/doc/no\\_fakes\\_act\\_one\\_pager.pdf](https://www.coons.senate.gov/imo/media/doc/no_fakes_act_one_pager.pdf)

<sup>15</sup> [https://leginfo.legislature.ca.gov/faces/codes\\_displayText.xhtml?division=3.&part=4.&lawCode=CIV&title=1.81.5](https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?division=3.&part=4.&lawCode=CIV&title=1.81.5)

<sup>16</sup> <https://www.congress.gov/bill/118th-congress/senate-bill/3312/text>

<sup>17</sup> <https://www.wyden.senate.gov/download/one-pager-bill-summary-of-the-algorithmic-accountability-act-of-2022>

showcase how serious China is about their AI responsible development.<sup>18</sup> This research paper also tells us about how China is approaching to formulate its regulation, as they are taking a four layers policy approach for AI regulation. And those layers are : real-world roots ( *China's macro economic, political, social, and technological environment* ), Xi Jinping and CCP ideology ( *Political and intellectual filters through which policymakers view problems* ), the world of ideas ( *Policy and academic debates business lobbying* ) and the party and state bureaucracies ( *key ministries and CCP bodies crafting AI regulations* ).<sup>19</sup> As shown in this figure:



As China's approach is clearly visible and they are taking inspiration from EU AI, Act as they are following on the same path for their regulation for AI. Also there is no hard deadline for the enactment of the law by China but a drafted version of regulation will come within 2024.

**SINGAPORE:** Due to the “human centric” approach adopted by the government of Singapore, the current situation shows that the country does not have any plans of introducing AI-specific regulations.<sup>20</sup> Drawing inspiration from the GDPR, the framework seeks to incorporate the principles of “explainability, transparency & fairness”, keeping in mind the importance of seeking public trust over such legislation. Certain instances show that in areas where AI is playing a significant role, government agencies are interested in coming up with necessary

<sup>18</sup> <https://www.china-briefing.com/news/china-releases-new-draft-regulations-on-generative-ai/#:~:text=China%20is%20striving%20to%20regulate,commitment%20to%20responsible%20AI%20development.>

<sup>19</sup> <https://carnegieendowment.org/research/2023/07/chinas-ai-regulations-and-how-they-get-made?lang=n>

<sup>20</sup> <https://fpf.org/blog/ai-verify-singapores-ai-governance-testing-initiative-explained/>

regulations. One such example is that of the Monetary Authority of Singapore (MAS) Guidelines are applicable to financial institutions & their integration with AI Technology while dealing with the aspect of Individual Accountability & Conduct (IAC). AI upon being used in financial data analytics is guided by the FEAT principles - fairness, ethics, accountability & transparency. The Singapore Personal Data Protection Act, 2012 (PDPA), deals with the framework for protection of data for collection, use & disclosure of personal data by Singapore based organizations & AI developers. These organizations are bound by the PDPA to give compelling grounds for processing of data<sup>21</sup>, which includes publicly available data as well as personal data in the interest of the nation. Here, stark similarities may be drawn between the Singapore Act & the GDPR, especially in the context of transparency with regards to collection of information & data security while processing the same, undertaken by organizations. A Model AI Governance Framework has also been outlined by Singapore's Personal Data Protection Commission which is to guide private sector organizations in addressing ethical & governance issues while integrating AI applications within the respective industries.

**SOURCE OF INSPIRATION FOR INDIA:** The European Union subscribes to a tiered system so as to ensure a strict control for high-risk applications in the process of promoting innovation in areas involving lower-risk.<sup>22</sup> This categorisation of AI systems based on risk reflects an approach of balanced framework which can prove to be helpful in the Indian context as well. India can also draw inspiration from Singapore's approach - transparency, fairness & accountability, as well as, AI Bill of Rights framed in the United States encouraging ethical use of AI Technology. China stands on a strong footing as well with its approach of multi-layered policy which precisely fosters collaboration between the government, academia & industry. With regards to building public trust & responsible development of AI, reliance may be placed on Singapore's PDPA (Personal Data Protection Act, 2012 ). Lastly, India can place reliance on the most effective AI regulation in the current scenario, i.e. the GDPR Regulation.

#### 4. CURRENT STATE OF AI REGULATION IN INDIA AND FUTURE PERSPECTIVES

Artificial intelligence will be a big opportunity as well as risks for all the countries and

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<sup>21</sup> PDPC: Singapore's Approach to AI Governance' (*PersonalData ProtectionCommission*)

<sup>22</sup> <https://www.brookings.edu/articles/the-eu-and-us-diverge-on-ai-regulation-a-transatlantic-comparison-and-steps-to-alignment/>

India is one of them. India is considered one of the largest economies (5th)<sup>23</sup> with its vast population and having a very much burgeoning labor force, this will have a positive impact to attract millions of dollars of foreign investment. According to the data, the FDI (foreign direct investment) is increased disastrous from 2014, In FY 2014-15, FDI inflow in India stood at mere \$45.14 Bn, which increased to \$60.22 Bn in 2016-17 and further to the highest ever annual FDI inflow of \$84.83 Bn reported during the FY 2021-22.<sup>24</sup> This shows that India could be the big player to become a global tech-market. AI programs and services are coming in numerous industries in India like healthcare, corporate sector, work labor industries as well. These are the points that forced policy makers of India to come up with its own regulation and laws.<sup>25</sup>

This paper very well discussed the potential risks about data privacy and discriminatory decision making by AI programs. In the last few years, India is also working on some guidelines and principles for the ethical development of AI programs and applications. Still there are no specific guidelines and regulations in India yet. For the task of developing AI regulation, NITI Aayog (National Institution for Transforming India) is one of the think tanks for establishment of policy regarding AI in India. In 2018, the NITI Aayog released the National Strategy for Artificial Intelligence #AIForAll strategy,<sup>26</sup> in which they featured and proposed guidelines for development with respect to all industries. Few year back in february and august 2021, NITI Aayog released two principles:

1. **“Principles for Responsible AI”**

2. **“Operationalizing Principles for Responsible AI”**

**PRINCIPLES FOR RESPONSIBLE AI:** This principle approach for an responsible AI system which was published by NITI Aayog in February 2021, which points out the need of strapping ecosystems that helps for twin purposes: R&D and scaling up the ecosystem globally. Despite the huge potential of AI in different fields, still the policy makers are worried and can see the negative impact of AI and hence, policy makers want to make sustainable regulation for managing AI responsibly. To establish the principles of moral, ethics use of AI NITI Aayog

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<sup>23</sup> <https://cleartax.in/s/world-gdp-ranking-list#>

<sup>24</sup> <https://www.investindia.gov.in/foreign-direct-investment>

<sup>25</sup> <https://www.morganlewis.com/blogs/sourcingatmorganlewis/2024/01/ai-regulation-in-india-current-stand-and-future-perspectives>

<sup>26</sup> *Ibid*



published a glance of its regulation by referring it as “Towards Responsible AI For All” and it can be contemplated as a roadmap of AI adoption.<sup>27</sup>

**LESSONS FROM THE REPORT:** There should be a fine line between adoption and implementation of AI for the protection of public good and societal interest. Also there are two considerations for upcoming challenges from AI: system consideration ( which means lack of knowledge of AI systems and its functioning ) and societal consideration ( which caused impact on employment )

**OPERATIONALIZING PRINCIPLES FOR RESPONSIBLE AI:** This was the second part of the document with respect to Responsible AI which specifically tells us about the consultation with AI developers, private sector engineers, big firms and non profitable organizations in order to use AI in ethical way and formulate regulation according to their big brains. Also the role of government becomes important here too, as harmony of all is needed like government, private sector and research institutions as well.<sup>28</sup>

Additionally, India is officially now a member of GPAI ( Global Partnership on Artificial Intelligence ) and meetings were held recently in New Delhi in respect of future AI technology and its commercialization. GPAI’s members restate and ensure the adoption of “OECD AI” principle in order to develop the regulation for global standards. The landscape of AI for India is still far away from completion, also NVIDIA Corporation recently announced their partnership with TATA Groups and Reliance Industries Ltd. to build an AI infrastructure platform.<sup>29</sup>

## 5. DIGITAL PERSONAL DATA PROTECTION ACT, 2023

Recently came up with the newly enacted privacy law called Digital Protection Data Privacy Act, 2023 on August 9. The central government is also working on enacting separate rules in support of the provision of the DPDP Act. To understand the potential scope of new law. The DPDP act applies to extraterritorial means outside India if that source of information

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<sup>27</sup> <https://indiaai.gov.in/research-reports/responsible-ai-part-1-principles-for-responsible-ai>

<sup>28</sup> <https://indiaai.gov.in/research-reports/responsible-ai-part-2-operationalizing-principles-for-responsible-ai>

<sup>29</sup> <https://nvidianews.nvidia.com/news/tata-partners-with-nvidia-to-build-large-scale-ai-infrastructure#:~:text=NVIDIA%20today%20announced%20an%20extensive,hundreds%20of%20startups%20in%20India.>

is transmitted by India.<sup>29</sup> According to a report by Boston Consulting Group regarding AI in India, the newly enacted DPDP Act didn't mention explicitly with regards to Artificial Intelligence.<sup>30</sup> But the core principle of the act is to preserve the rights of individuals and their private data. An Artificial Intelligence model basically works on a vast amount of data and an AI based model depends on these data bases. As per section 4 of DPDP Act, which provides “*mandates that valid consent or legitimate uses are required for the processing of Personal Data of a Data Principal*”.<sup>31</sup> Apart from technological aspects, there is another situation in which a particular prompt of data is given to the Generative AI model that can also be protected under the provision requirement of DPDP Act, but the irony is the LLM are trained on that data. This practice is violative under section 6(1) of DPDP Act which says “*The consent given by the Data Principal shall be free, specific, informed, unconditional and unambiguous with a clear affirmative action, and shall signify an agreement to the processing of her personal data for the specified purpose and be limited to such personal data as is necessary for such specified purpose*”.<sup>32</sup> Also section 5 declares that requests made to the data principal in section 6 with regards to consent shall be accompanied by notice given by the data principal. Another important task under construction is the DSR framework ( Design Science Research ). According to chapter 3 of DPDP Act which talks about “Right and Duties of Data Principal” from section 11 to section 14. It is required to determine the specific data set which includes personal information of an individual in order to exercise the rights of inspect and erasure. But it is technically infeasible to train an AI model to forget the data which was transferred to it and on which AI is trained on, as researchers are still working to achieve this sort of program. Columbia University developers proposed a machine unlearning through neuro cloaking but it is an enormous task to achieve.<sup>33</sup> So this is an idea that indicates AI can be helpful in the task of achieving DPDP Act regulation. Nonetheless, the regulation limitations that AI models may have, it is suggested AI models can be employed in the position of consent manager as defined under section 2(g) and can manage on the behalf of Data Principal. It can be possible to develop an AI predictive model to match the expectation of the consent manager in the near future.

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<sup>29</sup> <https://www.morganlewis.com/blogs/sourcingatmorganlewis/2024/01/ai-regulation-in-india-current-state-and-future-perspectives>

<sup>30</sup> <https://www.bcg.com/publications/2023/ai-in-india-a-strategic-necessity>

<sup>31</sup> <https://tsaaro.com/blogs/the-impact-of-the-dpdp-act-on-artificial-intelligence-and-machine-learning/>

<sup>32</sup> <https://www.meity.gov.in/writereaddata/files/Digital%20Personal%20Data%20Protection%20Act%202023.pdf>

<sup>33</sup> Yang Liu, *Learn to Forget: Machine Unlearning via Neuron Masking*, (2021).

## CONCLUSION

Significant regulatory & ethical challenges surround the technological evolution of Artificial Intelligence which offers a transformative potential. Integration of AI into different aspects of life & industry pushes us towards considering the need for nuanced & robust legislation. Talking about the current Indian legal scenario, it is fair to say that although we have a combination of emerging principles and promising guidelines, we still have an inadequate comprehensive & targeted legal structure dedicated to AI. A cornerstone in the area of AI, the Digital Personal Data Protection Act (DPDP Act), 2023, undoubtedly offers a critical step forward in addressing data privacy. As of now, the Act deals with protection of personal data, however, it does not delve into the purview of AI-specific issues like decision making using complex algorithms & system's transparency. What India needs right now is a regulation which caters to protecting data & governs ethical issues in deployment of use cases of AI. World has now become a global village & different jurisdictions are setting inspiration for us to look up into the ways they are dealing with AI deployment. Particularly talking about the EU AI Act which adopts a system of risk-based classification it can be observed that emphasis has been laid on adopting a structured approach for the purpose of managing AI's diverse applications. On the downside, the fact that it may be responsible for stifled innovation & causing ambiguity in creating risk-categorisation, may not be ignored. "Blueprint for an AI Bill of Rights" – the principle followed in the United States depicts a fragmentation while it comes to the regulatory environment but it is undeniable that it has made some strides at addressing biases and AI accountability. China offers a state driven regulation which lays emphasis on security as well as technological advancement. The Singapore Personal Data Protection Act and the Model AI Governance Framework reflects the necessity of having ethical considerations in the development of AI. Such an ethical framework as developed in Singapore bifurcates "human-centric" approach from an "AI-centric" approach, thereby providing a framework for AI being used in an ethical manner, wherein transparency & fairness is prioritized. India will always have the option of tailoring regulations to come up with a more suitable approach for its unique socio-economic and political context, upon drawing inspiration from other jurisdictions. India's burgeoning tech industry, growing foreign investments, and increasing AI integration requires an approach of balance that is capable of fostering innovation & ensuring robust safeguards for individuals. The initiatives like NITI Aayog taken by the Indian government & its participation in the Global Partnership on Artificial Intelligence (GPAI), paves its way to crafting a regulatory framework which is in alignment with global best practices while addressing local

needs. Moving forward, India's focus now should be on coming up with a comprehensive legislation which besides supporting AI innovation, also protects public interests and promotes ethical practices. If India manages to achieve these goals, it can visualise itself as a leader in development of responsible AI helping in fostering a regulatory environment that supports technological advancement while upholding the sanctity of fundamental rights.