

AI has Revolutionized the World: Regulation of AI in Governance - A Comparative Analysis Between India and the European Union

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ABSTRACT

This paper delves into the functioning and development of regulations for AI use in the current era. AI has significantly transformed the global landscape, especially in terms of governance. The future of AI involves governing its use, and this necessitates a comparative analysis between India and the European Union. Businesses globally are confronted with a choice between swiftly introducing AI-powered solutions to the market and establishing robust AI governance capabilities. Organizations that are proactive in creating and enforcing their AI management policies and principles, which promote trust, transparency, and high ethical standards, can help shape regional and global oversight and are more likely to succeed once regulations are in place.

Experts are concerned about the ethical implications of opaque black box algorithms as AI systems are used for more complex tasks. Anyone affected by AI-assisted or automated decision-making should have adequate information to contest the outcome. To achieve this, data, AI systems, and other technologies need to be leveraged. This study compares India, which has introduced a digital bill, and the established regulations by the European Union. This research not only acknowledges current issues but also helps safeguard both governments from potential future criminal activities that could arise from artificial intelligence.

AI is revolutionizing a wide range of industries, including finance, manufacturing, agriculture, and healthcare. It is enhancing operations and reshaping the nature of work. AI is enabling smarter fleet management and logistics, optimizing energy forecasting, creating more efficient use of hospital beds by analyzing patient data and predictive modeling, improving quality control in advanced manufacturing, and creating personalized consumer experiences.

Keywords: Artificial Intelligence, Technology, Regulation, Policies, Crime

INTRODUCTION

In a future where intelligence is ubiquitous, it is essential to have appropriate compliance and oversight systems in place. This promotes openness, addresses personal data security and privacy concerns, and encourages an ethical AI mindset.

Internal organizational frameworks, roles and duties, performance indicators, and responsibility for AI system outputs are all required for effective AI governance. It is critical to recognize how AI technology may stimulate organizational innovation while also increasing efficiency as well as return on investment. It is also vital to examine the ethical elements of AI technology because as AI advances, it is conceivable that a point will be reached at which computers will be able to program themselves and acquire increasingly greater amounts of fresh knowledge. Similarly, the growing use of artificial intelligence in privacy has allowed organizations to acquire data on individuals such as their purchasing habits, social networking content, geographic location data, and more. A complete artificial intelligence (AI) foundation to allow and implement trust, accountability, and transparency is frequently inadequate or missing in most organizations today. Similarly, good recommendations, leading practices, and government rules take time to follow.

Businesses all around the world are forced to choose between bringing AI-powered solutions to market quickly and developing extensive and fundamental AI governance skills. While organizations are aware of the

serious risk that lack of confidence in AI presents, they are stuck in an AI space race, whether they have been established or young and agile startups utilizing AI to expand at pace. Adopting an AI leadership structure that includes solutions enabled by technology can assist leadership in addressing the inherent dangers of AI. It may help them by driving an equitable governing strategy. Both businesses and governments recognize that effective and environmentally friendly regulation of AI requires collaboration and involvement to guarantee that innovation, business development, & trust in AI can live peacefully.

Research Objective

The research puts forth, Firstly, an analysis of what the regulations are on artificial intelligence and how a governance mechanism can be made for it. Secondly, This paper also examines several factors that contribute to critical activities that involve or involved artificial intelligence systems. and Thirdly, gives a wider picture of European and Indian regulations. Lastly, The authors of this paper will also go over a variety of suggestions and recommendations, which will be a step towards curbing the illegal usage of new technology and will certainly raise AI users' awareness.

RESEARCH METHODOLOGY

The lack of Artificial Intelligence literature complicates study in this field. The approaches taken to solve the problem are diverse and extensive. The following procedures were used: initially, direct observation; data was acquired by observing society. In addition, the writers examined the electronic materials, which included multiple articles and research papers that were published in a variety of publications. At last, it seems reasonable to infer that the study relied on sources that were both primary and secondary.

Importance Of Ai Regulation

Any AI governance system must address openness when communicating with all parties, including and not limiting to workers and stakeholders, so that they can realize when AI is having an unmonitored influence on them. There should be a quick method for anyone to contest the AI system's use or outcomes. Organizations should create an AI governance policy while interacting with customers and other stakeholders concerning how AI projects, its expected results and advantages, and how it can be utilized to make customer-impacting choices.

Since this data is very sensitive, enterprises need to establish specific duties and duties for AI, embracing all personnel, from upper management to middle managers and engineers. Personnel must be educated and aware of the ethics and management implications of AI, and they should be given the resources and advice they need to carry out their tasks related to the governance of artificial intelligence and ethics. The International Organization for Economic Cooperation and Development (OECD) developed its AI Guidelines to foster credible development that respects human rights and democratic ideals. The principles were endorsed by 44 different countries 37 members and 7 non-members to allow debate about incorporating them in policy and legislation. In addition to establishing a guiding group for the Concepts of AI, the Organization for Economic Development (OECD) established the AI Regulation Observatory, a discussion board, and best practice knowledge structure to assist "nations in enabling, nurturing, and monitoring the responsible development of dependable artificial intelligence for the betterment of society."

The following concrete proposals regarding public strategies and policies are essential to the OECD Principles:

1. Artificial intelligence should be created with the principle of natural justice in mind, and adequate protections should be included.
2. Artificial Intelligence systems must work in a sturdy, reliable, and reliable manner.
3. Organizations and persons creating, deploying, or running AI systems must be held responsible for the correct functioning following the Guidelines.

Regulation Of Ai By International Governments And Its Purview To The Future

As artificial intelligence (AI) systems are employed to do more complicated tasks, experts have raised concerns about the moral implications of unintelligible black box algorithms.

Anyone affected by AI-assisted or automated making choices ought to be given adequate information to question the outcome. To make this feasible, the data, artificial intelligence systems, and AI company strategies must be sufficiently exposed.

Nevertheless, exposing reams of code may not be the greatest way to respond to the need for openness, considering that there has been a limit to the quantity of data humans can absorb and comprehend.

The shift to the online world is well underway and is accelerating. The development of artificial intelligence (AI) is posing new difficulties and placing strain on government organizations to adapt. Both governments and businesses are growing more dependent on algorithms. They are transforming job duties with the use of computerized assessment instruments, assisting in the delivery of public amenities, simplifying government procedures, transforming criminal justice by way of predictive policing, and reshaping educational systems through the use of automated evaluation tools. However, many of these changes are opaque and lack public information and oversight mechanisms. The dangers associated with this shift are equally significant, providing serious governance issues.

AI systems demonstrate impressive human-level content generation skills, such as writing, media outlets, and software code. Furthermore, they present major questions regarding safety, responsibility, comprehensibility, integrity, intellectual property rights, equality, precision, prejudice, and privacy. Some people believe that an AI-powered future would be beneficial. For example, renowned investor Reid Hoffman believes AI has the potential to enhance mankind. Others are less optimistic. Geoffrey Hinton, known as the pioneer of contemporary AI, perceives an obvious and imminent danger in artificial intelligence (AI) technologies that may outperform human knowledge. Certain business leaders have even suggested that artificial intelligence may be as lethal as nuclear weapons. Self-regulation based on the market might foster innovation. The lack of any comprehensive AI governance framework, on the other hand, may create competition amongst industrial and national superpowers to construct the most powerful AI system.

European Ai Act

1. **Foundation to establish AI that is accountable in practice:** Organizations may use it to implement a methodical approach to governance for artificial intelligence that encompasses all aspects of AI system design and maintenance. The OECD's artificial intelligence systems lifecycle concept is used to map the AI governance tasks.
2. **Enables conformance of the impending European AI law:** This is significant for organizations that build AI systems in-house, especially in extremely dangerous areas of application. Additionally, the framework may be used as a practical roadmap for any organization interested in moving into a more ethical AI system.
3. **Offers a structure for those making decisions to answer crucial AI-related topics:** The template may be used by organizations to determine and carry out practices for employing AI in a society being socially and not unethically acceptable.
4. **Value-impartial:** It does not prioritize any one ethical position but rather is intended to assist with the design and adoption of translucent responsible, truthful, and non-malevolent artificially intelligent systems.

Future Of Ai In The European Union

Faced with significant advances in AI, the European Union offers an unusual opportunity to shape a worldwide legal framework for future technology. As artificial intelligence evolves to push the frontiers of what is conceivable, it comes with it a plethora of potential advantages and threats. The European Union's strategy for artificial intelligence is based on quality and trust, to increase study and industrial capacity while

safeguarding safety and fundamental liberties.

The EU is at the forefront of technology governance, especially in the fields of privacy, protection of personal data, market surveillance, and antitrust. For instance, the GDPR (General Data Protection Regulation) was established in 2018 and has established standards on the collection, use, and retention of personal data and, through its extraterritorial application, has influenced data protection practices worldwide.

The European Union is currently engaged in applied research and advising decision-makers on the implementation of the Artificial Intelligence Act (AI Act) in order to ensure that developers are incentivized to upskill in areas such as trustworthiness, RQ and QM, safety and security, precaution and overall compliance with fundamental rights in a credible and cost-effective manner. Since 2022, the EU has conducted research on General-Purpose AI Systems (GPAIS) and has provided EU regulators with information on the potential risks and opportunities associated with these systems, as well as advocating for investment in research and comparison in order to gain a better understanding and thus regulate advanced AI systems.

To avoid becoming obsolete in the world arena in the long run, the EU must broaden the focus of its foreign policy. The EU's task is to remain relevant in the face of rising competition between the US and China. It simply occurs that these two nations are the world's primary AI development centers. As an essentially neutral actor, the EU has a chance to cement itself as the inventor, mediator, and organizer of a worldwide effort to minimize and eliminate the dangers connected with AI.

REGULATION OF AI BY THE INDIAN GOVERNMENT

The Indian government's stance on the regulation of Artificial Intelligence has fluctuated from non-regulation to a policy based on a risk-based, harm-free approach. The Indian government announced in April of the year 2023 that it will not regulate Artificial intelligence to foster an environment that is beneficial to innovation, which could potentially propel India to a leading position in the global market for AI-related technologies.

In a reversal of its previous stance of non-regulation of Artificial Intelligence, two months after the introduction of the Digital India Act, the Minister for Electronics and Information Technology, Mr. Rajeev Chandrasekhar announced that India would be looking into the regulation of AI through the lens of user harm created intentionally or unintentionally.

India has adopted a distinct strategy for its national Artificial Intelligence initiatives, with a focus on how India can harness AI for both economic growth and social inclusion. This approach, which was developed by the government think tank NITI Ayog, is referred to as "#AIforAll".

The strategy's objectives are to:

1. Improve and equip Indians with the necessary skills to secure high-quality employment opportunities.
2. Invest in research and areas that can lead to increased economic growth and social impact.
3. Extend Indian-developed AI solutions to other developing countries.

Digital India Act, 2023

Since the enforcement of the Information Technology Act of 2000, it has undergone numerous revisions and alterations to delineate the digital space it regulates while attempting to emphasize data handling policies more prominently. However, due to its initial purpose of protecting e-commerce operations and defining cyber-criminal offenses, the IT Act did not adequately address the complexities of the modern cybersecurity environment or the rights of data privacy.

The Act proposes the development and implementation of Artificial Intelligence (AI) should be subject to stringent criteria, which may have implications for the regulation and protection of novel technologies such as machine learning, web 3.0 (W3), wearable, autonomous, blockchain, virtual reality, and more.

Objectives of DIA Bill

1. **Protecting user privacy and data:** provide a comprehensive set of regulations for the protection of user privacy and data, as well as the establishment of mechanisms for the secure disposal of user information. This would help to reduce the potential for the unauthorized disclosure of personal information and enhance the trustworthiness of digital services. Additionally, the DIA seeks to regulate wearable technology, including spy camera glasses, by introducing stringent Know Your Customer (KYC) requirements for retail sales, as well as criminal law sanctions.
2. **Strengthening cyber-security-** improve cybersecurity measures to safeguard against cyber-attacks and data breaches, as well as other forms of online crime.
3. **Promoting digital innovation-** anticipate fostering digital innovation by providing clear regulations and frameworks for the development of cutting-edge technologies and services, including autonomous systems/robots, virtual and augmented reality, and real-time language translation.
4. **Boosting E-Commerce-** It is now widely accepted that the influence of major internet companies such as Twitter, Facebook and Google have a considerable influence on the social, economic and political life of a nation. In the case of India, the absence of regulations on social media has allowed for the freedom of expression, however, this has also led to issues such as online bullying and incitement to hatred. The Act seeks to address these issues by regulating dominant advertising technology platforms and encouraging start-ups to access digital services and platforms without discrimination. This, in turn, will help to foster e-commerce growth in India by levelling the playing field and guaranteeing fair competition.
5. **Enhancing digital literacy-**include measures to encourage digital literacy and comprehension among the public in order to ensure that all individuals can take advantage of digital technologies.
6. **Protection of minors-** safeguard the data, security, and privacy of minors through the implementation of age-based controls and the regulation of technologically addictive technologies. Additionally, the proposed DIA includes a mandatory requirement for the implementation of a do-not-track system to ensure that children are not subject to advertising targeting.

Future Of Ai In India

To encourage its adoption, the Indian government is actively investing in AI and researching potential uses. According to an AIM Research report known as "How The Indian Government Is Championing The AI Revolution," the Indian Government's use cases of AI include facial detection and internet access examination, biometric verification, investigation of criminal activity, traffic jam flow along with crowd control, wearables to ensure women's safety and security, utilization of revenue in the woods, tidying waterways, digital agriculture, student's assessment and progress observation with records, and more.

These are just a few examples of how the Indian government employs AI and related technologies to assist in improving and benefiting its inhabitants. Nonetheless, many other industries are underserved and might profit from the use of AI technology. Although the initial wave of AI focuses on easy problems and offering feasible answers, the subsequent wave will focus on complicated challenges and giving tailored solutions.

The development of three "centers of excellence" for AI was announced in the Union Budget. These will be linked to academics, business, and start-ups. Working groups for creating Indian dataset platforms and centers of excellence have already been formed. The government would invest around Rs. 1635 crore in developing this AI ecology and making e-governance systems more intelligent.

The following are the deployment priorities:

- India Stack governance applications
- Increasing the size of the huge model of languages for the Digital India Bhashini
- Creating Intelligent Health Care Services

The India Stack is a large set of open-source software application programming interfaces (APIs) for

government-backed systems such as Aadhaar, United Payments Interface, e-Sign, and Digi-Locker. Since it is open-source, anybody can connect. This has sparked the development of several apps with diverse architectures, APIs, frameworks, and user interfaces. The Stack creates a large amount of data across its numerous use cases.

How Is Crime Getting Affected By Ai?

India

Predictive Policing-

Predictive policing has developed as a strong instrument in crime prevention in the ever-changing world of law enforcement. At the heart of this novel strategy is the use of artificial intelligence (AI) algorithms to evaluate massive volumes of data and forecast future criminal behaviors. Predictive policing strives to proactively target areas of high crime, improve resource allocation, and improve public safety by leveraging AI capabilities. Here, we will look at the function of artificial intelligence in police prediction and its potential influence on crime prevention.

Predictive policing involves a proactive method that forecasts where and when offences are probable to occur using analysis of data, statistical analysis, and AI algorithms. It identifies areas of increased crime and patterns using previous crime statistics, geographic details, weather trends, and other pertinent elements.

AI-powered prediction algorithms analyze this data to produce insightful findings for law enforcement organizations. The purpose is to properly deploy resources, dissuade criminal activity, and prevent crimes from occurring. Predictive Policing is of various types and its application differs for various kinds; they are as follows.

Hot Spot Analysis

AI systems evaluate past crime data to find geographic regions where crime is more likely. To dissuade criminal activity, law enforcement may then target attention on these hotspots, boosting patrols and monitoring.

Crime Trend Analysis

AI algorithms may predict particular sorts of criminal activity that may rise or repeat in specific places by finding trends and patterns in crime data. This understanding allows for proactive intervention and focused preventative measures.

Repeat offender identification

Data analytics may be used to detect repeat criminals who might be engaged in various illegal activities. This information enables law enforcement to keep a close eye on people at risk and interfere prior to them committing new felonies.

Resource Optimization

By selecting places and periods with significant crime risks, AI algorithms aid in improving the utilization of resources such as patrolling routes and personnel. This guarantees that law enforcement authorities employ their resources as efficiently as possible.

Europe

Artificial intelligence applications are those that are based on data. The data that is used to train an artificial intelligence system, as well as the data that is processed by the AI system, is contingent upon the nature of the tasks that the system is intended to accomplish. Law enforcement AI systems are no exception to this, as

they necessitate a wide range of data, whether it is personal or not. Many European countries have utilized tools that anticipate the time and destination where specific criminal activities tend to occur. Similar technologies for identifying probable suspects have been created and are commonly used in the United States and, increasingly, in Europe.

Fair Trials, European Digital Rights (EDRi), and forty-nine other civil society organizations issued a joint statement urging the EU to include a prohibition on predictive law enforcement technologies in the legislation known as the Artificial Intelligence Act. In the EU, forecasting, establishing a profile and risk assessment artificially intelligent systems are already causing substantial damage, particularly.

Violation of the right to liberty, to receive a fair trial, and to be presumed innocent:

Criminals have been identified and characterized as individuals, organizations, and places. This leads to harsh crime as well as civil justice consequences and sanctions, the inclusion of deprivation of liberty, even ahead of the accused offense being committed. These systems' outputs are not valid proof of actual or potentially criminal behavior and ought not to be utilized to justify any governmental act.

Inadequate accountability, candor, and access to effective redress:

Law enforcement AI systems frequently face technological or economic constraints that limit effective and meaningful monitoring, openness, and accountability. Consumers affected by these systems' judgments must be aware of their usage and have readily available avenues to oppose them.

Discrimination, especially over-policing, and espionage

Prospective AI systems perpetuate and reinforce prejudice according to factors such as racial and ethnic background, socioeconomic and employment position, handicap, migratory status, and nationality. The data utilized to build, train, and run AI systems is frequently representative of historical, systematic, organizational, and social prejudice, resulting in racialized persons, communities, and geographical areas being heavily policed and unjustly surveilled, inquired, arrested, and incarcerated.

Prognostic and profiled AI systems should be prohibited.

The undersigned groups encourage the European Union Council, Parliament, and all European member state legislatures to include in the legislation known as the Artificial Intelligence Act a prohibition. Ongoing AIA negotiations must be informed by a thorough examination of the basic freedoms and social effects related to anticipatory methods in enforcement and justice systems, and the crucial rights of people of all ages and society as a whole must be prioritized.

Suggestions

Governments are presented with a unique opportunity to revolutionize public services through the utilization of Artificial Intelligence (AI) technologies. Through the integration of resources and the anticipation of human needs, AI applications can be used to facilitate the processing of life events, such as births and deaths. However, in order to make the most of AI as observed in the above problems EU and India can take a note and ensure its human-centered nature, governments should take the following steps to ensure an AI-driven transformation that is reliable, open, ethical, and responsible:

1. **Conduct the required, independent assessments for prejudices** within the development and pre-deployment processes. period, in addition to on an ongoing basis after implementation.
2. Since it is necessary to conduct this investigation, **information on The criminal justice system** must be accessible, and Statistics must be divided according to ethnic background, racial background, and gender country of origin.
3. **Enhancing Data Sharing Capabilities-** Government agencies should work together to unify data and foster collaboration between the public and private sectors in a secure and open manner.
4. **Scaling AI Literacy and Upskilling-** It is essential that public officials are provided with the necessary

training and education to be able to effectively utilize Artificial Intelligence and comprehend its influence on government policies and decisions.

5. **Augmenting Data Governance Practice**-Data governance principles should encompass the prudent utilization of Artificial Intelligence (AI) to ensure that data is gathered and utilized in a manner that is transparent, equitable, and moral while safeguarding the privacy of individuals.
6. **Creating Dynamic Regulatory Framework**- Governments should be proactive in raising awareness of the potential consequences of technologies such as Artificial Intelligence (AI) and collaborate with private sector entities to create regulatory frameworks that are in line with the current practice of affairs.

Europe

1. **Build up new government tailored AI safety frameworks**- In order to expedite government action, it is beneficial to build upon existing or developing governmental frameworks to promote AI safety. With the completion of the EU Artificial Intelligence Act, the European Union could explore the possibility of implementing procurement rules to encourage the implementation of relevant AI frameworks that are trustworthy. For example, when procuring AI systems with high risk, EU procurement bodies could mandate that suppliers undergo third-party audits to ensure compliance with applicable international standards.
2. **Safety Breaks For AI Systems That Control Critical Infrastructure**- The government is proposing to establish a definition of the highest-risk Artificial Intelligence systems that are capable of controlling critical infrastructure and thus necessitate the implementation of such safety measures in a comprehensive system management approach. The proposed legislation would necessitate operators of such systems to incorporate safety brakes into their AI systems by default. Additionally, operators would be required to conduct regular testing of the systems. Finally, the systems would only be deployed in AI data center licenses, which would provide an additional layer of security.
3. **Develop a legal and regulatory framework**- It is essential to assign regulatory obligations to different entities based on their respective roles in the management of various aspects of Artificial Intelligence technology. Those who are closest to making decisions regarding design, implementation, and use are the most likely to be able to meet the relevant obligations and reduce the associated risks, as they are the most knowledgeable about the particular context and application. This may seem simple, however, as the debates in the European Union have demonstrated, it is not always the case.
4. **Promotion of transparency and ensuring academic usage and nonprofitable access** - It is essential to enhance the visibility of Artificial Intelligence (AI) systems and expand the availability of AI resources. Although there are some inherent conflicts between transparency and the requirement of security, there are numerous potential avenues for AI systems to become more transparent. The Artificial Intelligence Act will necessitate that AI providers inform users that they are engaging with an AI system; similarly, any AI system that is used to generate artificially generated content should be easily identifiable.

India

1. **Reskilling the workforce**- The government should prioritize reskilling initiatives in order to ensure that the workforce is adequately prepared to take advantage of Artificial Intelligence technologies. This is not only beneficial for economic growth, as it allows for a higher quality of work to be moved up the value chain but also helps to reduce the number of job opportunities that could be lost to the Large Language Model, particularly for the basic coding and testing tasks that are expected to become increasingly automated in the AI age.
2. **International Cooperation**- As Artificial Intelligence is increasingly utilized in the broader economy for operational and governance purposes, regulatory frameworks related to medical practices, transportation, infrastructure, production, financial institutions, banking, public procurement, and a variety of other sectors may necessitate periodic adjustments.
3. **Capacity Building**- It is essential to cultivate an understanding of Artificial Intelligence among regulatory, policy-making, and law enforcement personnel.

- a. Through the implementation of educational programs and the exchange of knowledge, AI regulation can be made more effective. The implications of Artificial Intelligence (AI) for society are far-reaching. Gathering public feedback through consultations and debates can be beneficial in order to ensure that regulations are representative of a broad range of views.
4. **Bias and Fairness** – The issue of addressing the potential for bias in Artificial Intelligence (AI) algorithms is a major source of concern. To ensure impartiality in the decision-making process and to avoid discriminatory outcomes, technical and ethical considerations must be considered.
5. **Prioritizing other areas of law**- There are a number of other fields of law that may become increasingly important in the future, such as telecommunications, competition, intellectual property rights, and product liability laws.

CONCLUSION

This tremendous authority entails enormous accountability. Several nations are currently engaged and working on understanding more about the effects AI may have. As policymakers persist on this route, the laws they write may aim to affect the process of creative thinking and AI application within an extensive variety of businesses and use cases. AI deployment organizations put responsible artificial intelligence ideas into practice and connect their AI processes and regulations with the upcoming European AI Act. Governance considerations are included in the hourglass paradigm at the external factors organizational, & technological layers. We integrate accountability needs to AI system life cycles at the system level in order to guarantee governance across the system's entire development cycle. The framework for governance emphasizes the systemic character of AI administration and offers up new areas for study into its actual implementation, the processes that link multiple AI administration layers, particularly the interactions between AI governance players. The model also serves as an introduction for organizational decision-makers to explore the organizational parts required to ensure social acceptance, manage risks, and realize AI's maximal potential.

Organizations who are assertive in developing and implementing their own artificial intelligence (AI) management policies and principles — ones that foster trust and demonstrate transparency and high standards of ethics — can assist authorities in shaping regional and global oversight and will be more likely to succeed once regulation is implemented. Through engaging today, businesses can help shape AI policy that benefits the entire population.

REFERENCES

1. Mucci, T., & Stryker, C. (2025, July 29). AI governance. ibm. <https://www.ibm.com/analytics/common/smartpapers/ai-governance-smartpaper/>
2. Mucci, T., & Stryker, C. (2025, July 29). AI governance. ibm. <https://www.ibm.com/analytics/common/smartpapers/ai-governance-smartpaper/>
3. KPMG. (n.d.). The shape of AI governance to come. KPMG. <https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2021/01/the-shape-of-ai-governance-to-come.pdf>.
4. Organization for Economic Co-operation and Development. (n.d.). OECD. <https://www.oecd.org/>
5. Nakadate, M. (1991). OECD: Organization for Economic Co-operation and Development. Japan Journal of Water Pollution Research, 14(7), 437–443. <https://doi.org/10.2965/jswe1978.14.437>
6. Organization for Economic Co-operation and Development (OECD). (2021). Artificial intelligence: Regulation can support innovation. OECD. <https://www.oecd.org/digital/artificial-intelligence/>
7. Organization for Economic Co-operation and Development (OECD). (2019). OECD principles on artificial intelligence. OECD. <https://oecd.ai/en/ai-principles>
8. European Commission. (2021). Ethics guidelines for trustworthy AI. FUTURIUM – European Commission. <https://ec.europa.eu/futurium/en/ai-alliance-consultation.1.html>
9. Artificial Intelligence Governance and Auditing (AIGA). (2021a). Theme 1: Detailed knowledge. <https://ai-governance.eu/about-aiga/activities/theme-1/>
10. Personal Data Protection Commission (PDPC). (2020). Model artificial intelligence governance framework (2nd ed.). PDPC. <https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Resource-for->

- Organisation/AI/SGModelAIGovFramework2.pdf
11. Hagendorff, T. (2020). The ethics of AI ethics: An evaluation of guidelines. *Minds and Machines*, 30(1), 99–120. <https://doi.org/10.1007/s11023-020-09517-8>
12. World Economic Forum. (2023, May 1). These are the jobs most likely to be lost – and created – because of AI. World Economic Forum. <https://www.weforum.org/agenda/2023/05/jobs-lost-created-ai-gpt/>
13. Pomares, J., & Abdala, M. B. (n.d.). Global solutions initiative. Global Solutions Initiative. https://www.global-solutions-initiative.org/wp-content/uploads/2020/04/GSJ5_Pomares_Abdala.pdf
14. Jasanoff, S. (2016). *The ethics of invention: Technology and the human future*. W. W. Norton and Company.
15. Reid Hoffman. (n.d.). About. <https://www.reidhoffman.org/about/>
16. Metz, C. (2023, May 1). “The godfather of A.I.” leaves Google and warns of danger ahead. *The New York Times*. <https://www.nytimes.com/2023/05/01/technology/ai-google-chatbot-engineer-quits-hinton.html>
17. Stalla-Bourdillon, S., et al. (2019, September). Warning signs: Identifying privacy and security risks to machine learning systems. *Future of Privacy Forum*. https://fpf.org/wp-content/uploads/2019/09/FPF_WarningSigns_Report.pdf Ibid.
18. Dentons. (2023, July 27). The future of AI global governance. Dentons. <https://www.dentons.com/en/insights/articles/2023/july/27/the-future-of-ai-global-governance>
19. Mäntymäki, M., Minkinen, M., Birkstedt, T., & Viljanen, M. (2022). Putting AI ethics into practice: The hourglass model of organizational AI governance. *arXiv*. <https://doi.org/10.48550/arXiv.2206.00335>
20. Artificial Intelligence Governance and Auditing (AIGA). (2021a). Theme 1: Detailed knowledge. <https://ai-governance.eu/about-aiga/activities/theme-1/>
21. AIGA. (2022). AIGA AI governance framework. In *Artificial intelligence governance and auditing*. <https://ai-governance.eu/ai-governance-framework/>
22. European Commission. (2025). AI Continent Action Plan: A roadmap for Europe's leadership in artificial intelligence. <https://digital-strategy.ec.europa.eu/en/policies/ai-continent-action-plan>
23. European Union. (2023). Regulation (EU) 2023/xxx of the European Parliament and of the Council on artificial intelligence. *Official Journal of the European Union*. <https://artificialintelligenceact.eu/>
24. Gstrein, O. J. (2024). General-purpose AI regulation and the European Union AI Act. *Policy Review*, 12(3), 45-60. <https://policyreview.info/articles/analysis/general-purpose-ai-regulation-and-ai-act>
25. The Future Society. (2023). European AI governance. <https://thefuturesociety.org/theme/european-ai-governance/>
26. European Commission. (2025). EU mobilizes €200 billion in AI race against US and China. <https://www.theverge.com/news/609930/eu-200-billion-investment-ai-development>
27. Gayer, P. (2023, July 7). The EU’s chance to lead: Forging a global regulatory framework for artificial intelligence amidst exponential progress. *Harvard International Review*. <https://hir.harvard.edu/the-eus-chance-to-lead-forging-a-global-regulatory-framework-for-artificial-intelligence-amidst-exponential-progress/>
28. The Economic Times. (2023, July 29). Why India can afford to wait and watch before regulating AI. *The Economic Times*. <https://economictimes.indiatimes.com/tech/technology/why-india-can-afford-to-wait-and-watch-before-regulating-ai/articleshow/102269393.cms>
29. AI For All. (n.d.). All AF self-learning online program. AI For All. <https://ai-for-all.in/>
30. Telecommunications Engineering Centre. (2023). Artificial intelligence (AI) policies in India: A status paper. <https://www.tec.gov.in/pdf/Studypaper/AI%20Policies%20in%20India%20A%20status%20Paper%20final.pdf>
31. Government of India. (2000). *The Information Technology Act, 2000*. Ministry of Law, Justice and Company Affairs. <https://www.meity.gov.in/content/information-technology-act-2000>
32. NITI Aayog. (2018). National strategy for artificial intelligence #AIForAll. *INDIAai*. <https://indiaai.gov.in/research-reports/national-strategy-for-artificial-intelligence-aiforall>
33. India Briefing News. (2023, March 24). Digital India Bill 2023: Key provisions and stakeholder concerns. *India Briefing*. <https://www.india-briefing.com/news/digital-india-bill-2023-key-provisions->

- stakeholder-perspectives-28755.html
34. Upadhyay, S. N. (2023, April 14). Digital India Act: Expectations & concerns. Analytics India Magazine. <https://analyticsindiamag.com/digital-india-act-expectations-concerns>
35. (India Briefing News, 2023)
36. (India Briefing News, 2023)
37. LegalServiceIndia. (n.d.). Objectives of Global standard cyber laws under the Digital India Act, 2023. LegalServiceIndia. <https://www.legalserviceindia.com/legal/legal/legal/article-17463-breaking-down-the-digital-india-act-2023.html> (LegalServiceIndia, n.d.)
38. Thomas, S. (2020). Use cases of AI in Indian government: A comprehensive report by AIMResearch. Analytics India Magazine. <https://analyticsindiamag.com/use-cases-of-ai-in-indian-government-a-comprehensive-report-by-aimresearch/>
39. Sigfrids, A., Leikas, J., Salo-Pöntinen, H., & Koskimies, E. (2023). Human-centricity in AI governance: A systemic approach. Frontiers. <https://www.frontiersin.org/articles/10.3389/frai.2023.976887/full>
40. AIMResearch. (2020, September 3). Use cases of AI in Indian government: A comprehensive report by AIMResearch. Analytics India Magazine. <https://analyticsindiamag.com/ai-features/use-cases-of-ai-in-indian-government-a-comprehensive-report-by-aimresearch/>
41. Ministry of Finance. (2023, February 1). Union Budget 2023–24: Key highlights. Government of India. <https://www.indiabudget.gov.in/>
42. MeitY (Ministry of Electronics and Information Technology). (2023). Digital India Bhashini. Government of India. <https://www.digitalindiabhashini.gov.in/>
43. India Stack. (n.d.). India Stack: Open APIs for the world. <https://www.indiastack.org/>
44. MyGov. (n.d.). AI can be the backbone of India's governance through tech. MyGov Blogs. <https://blog.mygov.in/editorial/ai-can-be-the-backbone-of-indias-governance-through-tech/>
45. Pearsall, B. (2010, June). Predictive Policing: The Future of Law Enforcement? NIJ Journal, Issue 266. National Institute of Justice. <https://www.ojp.gov/pdffiles1/nij/230414.pdf>
46. IBM. (2015). AI Governance: Ensuring your AI is transparent, compliant, and trustworthy. IBM. <https://www.ibm.com/analytics/common/smartpapers/ai-governance-smartpaper/#need-for-ai-governance>
47. Meijer, A. (2019). Predictive policing: Review of benefits and drawbacks. International Journal of Public Administration. <https://doi.org/10.1080/01900692.2019.1575664>
48. erry, W. L., McInnis, B., Price, C. C., Smith, S. C., & Hollywood, J. S. (2013). Predictive policing: The role of crime forecasting in law enforcement operations. RAND Corporation. https://www.rand.org/pubs/research_reports/RR233.html
49. Ganguli, P. (2023, August 21). Predictive policing and crime prevention: The role of AI. INDIAai. <https://indiaai.gov.in/article/predictive-policing-and-crime-prevention-the-role-of-ai>
50. Kafteranis, D., Turksen, U., & Sachoulidou, A. (2023, June 1). Artificial intelligence in law enforcement settings: AI solutions for disrupting illicit money flows. eucrim. <https://eucrim.eu/articles/artificial-intelligence-in-law-enforcement-settings/>
51. European Digital Rights. (2021, November 30). Civil society calls on the EU to put fundamental rights first in the AI Act. European Digital Rights (EDRI). <https://edri.org/our-work/civil-society-calls-on-the-eu-to-put-fundamental-rights-first-in-the-ai-act/>
52. Amnesty International EU Office. (2022, January 20). An EU Artificial Intelligence Act for fundamental rights. European Institutions Office. <https://www.amnesty.eu/news/an-eu-artificial-intelligence-act-for-fundamental-rights/>
53. Fair Trials. (2022, January). A measure of last resort? The practice of pre-trial detention in the EU. <https://www.fairtrials.org/app/uploads/2022/01/A-Measure-of-Last-Resort-Full-Version.pdf>
54. Fair Trials. (2021, December 14). Automating injustice. Fair Trials. <https://www.fairtrials.org/articles/publications/automating-injustice/>
55. IBM. (n.d.). IBM's principles for trust and transparency. IBM Policy. <https://www.ibm.com/policy/trust-principles/>
56. Sanaullah, N. (2022). Data-driven policing: The hardwiring of discriminatory policing practices across Europe. European Network Against Racism (ENAR). <https://www.enar-eu.org/data-driven-policing-the-hardwiring-of-discriminatory-policing-practices-across-europe/>

57. Fair Trials. (2022, March). Civil society, rights groups call on the EU to prohibit predictive and profiling AI systems in law enforcement and criminal justice. <https://www.fairtrials.org/app/uploads/2022/03/Prohibit-predictive-and-profiling-AI-systems-in-law-enforcement-and-criminal-justice-January-20239828ca9d610e35808e4baf8ff26014fb406cb1bfdffa979b037f53a387896e87.pdf>
58. Amnesty International EU Office. (2022, January 20). An EU Artificial Intelligence Act for fundamental rights. European Institutions Office. <https://www.amnesty.eu/news/an-eu-artificial-intelligence-act-for-fundamental-rights/>
59. MyGov. (n.d.). AI can be the backbone of India's governance through tech. MyGov Blogs. <https://blog.mygov.in/editorial/ai-can-be-the-backbone-of-indias-governance-through-tech/>
60. Thomas, S. (2020). Use cases of AI in Indian government: A comprehensive report by AIMResearch. Analytics India Magazine. <https://analyticsindiamag.com/use-cases-of-ai-in-indian-government-a-comprehensive-report-by-aimresearch/>
61. (IBM, 2015; Ganguli, 2023).
62. (Fair Trials, 2022; Sanaullah, 2022)
63. (IBM, 2015; Ganguli, 2023).
64. (MyGov, n.d.; Thomas, 2020).
65. (IBM, 2015; European Digital Rights, 2021).
66. (Gayer, 2023; The Future Society, 2023)
67. IBM. (n.d.). Trustworthy AI foundations: AI governance framework. IBM. <https://www.ibm.com/think/insights/trustworthy-ai-foundations>
68. Europol. (2022). Artificial intelligence and policing: Opportunities and challenges. Europol. <https://www.europol.europa.eu/cms/sites/default/files/documents/AI-and-policing.pdf>
69. Coventry University. (2023). TRACE project: Artificial intelligence solutions in law enforcement. PurePortal. <https://pureportal.coventry.ac.uk/en/publications/artificial-intelligence-in-law-enforcement-settings-ai-solutions>
70. Amnesty International EU Office. (2022, January 20). An EU Artificial Intelligence Act for fundamental rights. European Institutions Office. <https://www.amnesty.eu/news/an-eu-artificial-intelligence-act-for-fundamental-rights/>
71. European Digital Rights (EDRI). (2021, November 30). Civil society calls on the EU to put fundamental rights first in the AI Act. European Digital Rights. <https://edri.org/our-work/civil-society-calls-on-the-eu-to-put-fundamental-rights-first-in-the-ai-act/>
72. NITI Aayog. (2021). National strategy for artificial intelligence #AIFORALL. INDIAai. <https://indiaai.gov.in/research-reports/national-strategy-for-artificial-intelligence-aiforall>
73. Analytics India Magazine. (2023, March 15). Digital India Act: Expectations and concerns. <https://analyticsindiamag.com/digital-india-act-expectations-concerns/#:~:text=It%20proposes%20to%20subject%20AI>
74. India Briefing News. (2023, January 10). Digital India Bill 2023: Key provisions and stakeholder concerns. <https://www.india-briefing.com/news/digital-india-bill-2023-key-provisions-stakeholder-perspectives-28755.html>
75. Ganguli, P. (2023, August 21). Predictive policing and crime prevention: The role of AI. INDIAai. <https://indiaai.gov.in/article/predictive-policing-and-crime-prevention-the-role-of-ai>
76. MyGov. (n.d.). AI can be the backbone of India's governance through tech. MyGov Blogs. <https://blog.mygov.in/editorial/ai-can-be-the-backbone-of-indias-governance-through-tech/>