



## Harnessing AI for Governance

*This editorial is based on “[Paris AI Action Summit: India should take the lead for the Global South](#)” which was published in *The Indian Express* on 11/02/2025. The article brings into picture the Paris AI Action Summit 2025, where India and France lead global efforts on AI governance. With its Digital Public Infrastructure and STEM expertise, India is poised to bridge AI divides and advocate balanced, inclusive regulation.*

**For Prelims:** [Global AI governance](#), Location of AI Action Summit, 2025, [India's Digital Public Infrastructure](#), [Bhashini](#), [Smart Cities Mission](#), [National Pest Surveillance System](#), [SUPACE \(Supreme Court Portal for Assistance in Court's Efficiency\)](#), [DIKSHA](#), [MuleHunter.ai](#), [EU's AI Act](#), [Digital Personal Data Protection Act](#).

**For Mains:** Key Applications of AI in Governance, Key Issues that AI Poses to India's Governance Landscape.

The **Paris AI Action Summit, 2025** co-chaired by India and France, marks a pivotal moment in [global AI governance](#), bringing together over **90 nations to address critical challenges from digital divide to AI safety**. [India's Digital Public Infrastructure](#) and **STEM expertise** position it to bridge the West's tech ambitions and the Global South's needs. As AI regulation gains momentum, India can champion a balanced approach, blending **innovation with pragmatic oversight** while leading AI safety for developing nations.

### What are the Key Applications of AI in Governance?

- **Enhancing Policy Formulation and Assist Decision-Making:** AI enables data-driven policymaking by **analyzing vast datasets to predict economic trends, assess social challenges, and optimize resource allocation**.
  - Governments can **use AI to simulate policy impacts before implementation**, ensuring informed decision-making.
  - For instance, in **April 2018**, [NITI Aayog](#) selected an **AI tool from IIT Delhi** which reveals and predicts socio-economic conditions of areas using satellite images.
    - The Indian government's [Bhashini project enhances multilingual communication](#), aiding policy outreach to diverse linguistic groups.
- **Strengthening Public Service Delivery and Efficiency:** AI-driven automation reduces **bureaucratic delays, minimizes human errors**, and ensures faster service delivery in governance.
  - Chatbots and virtual assistants streamline grievance redressal, while AI-based systems optimize welfare scheme disbursement.
  - For example, the [India Urban Data Exchange \(IUDX\)](#), an initiative by the Ministry of Housing and Urban Affairs, serves as a data exchange platform for Indian cities.

- Developed under the [Smart Cities Mission](#) and implemented by IISc Bengaluru, it enables seamless data sharing among urban stakeholders, enhancing governance and service delivery.
- **Improving Law Enforcement and Internal Security:** AI strengthens law enforcement by enabling **predictive policing, real-time crime mapping, and facial recognition-based surveillance.**
  - AI-based analytics help security agencies detect cyber threats, track terrorist activities, and prevent financial fraud.
  - For instance, [Delhi Police's AI-driven Facial Recognition System \(FRS\)](#) is assisting police in not only solving crimes, but also in locating missing children and identifying bodies
- **Revolutionizing Healthcare and Pandemic Management:** AI-driven diagnostics, robotic surgeries, and **predictive analytics improve healthcare accessibility and outcomes.**
  - AI-enabled disease surveillance **helps in early detection of outbreaks, allowing rapid government response.**
  - For example, **Niramai, a Bangalore-based start-up**, is using Machine Learning to detect **breast cancer at an early stage.** Another start-up, **ChironX**, employs deep learning algorithms for retinal abnormality detections
- **Optimizing Agricultural Productivity and Food Security:** AI-driven precision farming enhances crop yield predictions, optimizes irrigation, and reduces input wastage.
  - **Remote sensing with AI helps detect pest infestations,** soil health issues, and climate-related risks.
  - For instance, **'Kisan e-Mitra', an AI-powered chatbot**, has been developed to assist farmers with responses to the queries about the PM Kisan Samman Nidhi scheme.
    - [National Pest Surveillance System](#), for tackling the loss of produce due to climate change, **utilizes AI and Machine Learning** to detect pest infestation in crop issues, enabling timely intervention for healthier crops.
- **Enhancing Justice Delivery and Legal Systems:** AI accelerates case processing, reducing legal backlogs and improving judicial efficiency.
  - AI-driven legal research tools assist judges and lawyers in analyzing precedents and drafting judgments.
    - Automated translation tools improve access to justice in multilingual societies.
  - For instance, [SUPACE \(Supreme Court Portal for Assistance in Court's Efficiency\)](#) is an AI-powered tool that helps judges research cases.
    - It was introduced by Chief Justice of India S.A. Bobde in April 2021.
- **Tackling Climate Change and Environmental Management:** AI aids in hyperlocal weather forecasting, climate modeling, disaster prediction, and real-time environmental monitoring.
  - AI-powered sensors track pollution levels, enabling timely intervention in urban areas. Smart grids and AI-driven energy management optimize renewable energy consumption.
  - **Google's DeepMind** uses AI to improve weather forecasting. **IBM Watsonx.ai's** geospatial foundation model, **built on NASA's satellite data**, analyzes global **weather patterns, tracks land use changes, and predicts crop yields, functioning at both global and local scales.**
  - Also, the **CoS-it-FloWS** was introduced in the **Periyar and Chalakudy river basins**, leveraging **AI models** for flood prediction. It employs **dynamic visualization and interactive maps** to analyze climate data trends and enhance forecasting accuracy.
- **Enhancing Education and Personalized Learning:** AI-powered EdTech platforms provide adaptive learning, **ensuring customized education for students based on their learning pace.**
  - AI-driven language translation tools enable content accessibility in multiple regional languages.
  - The **global artificial intelligence** in education market was valued at \$2.5 billion in 2022, and is projected to reach **\$88.2 billion by 2032.**
  - India's Education Ministry is also exploring ways to integrate AI on govt's online education platform [DIKSHA](#)
- **Strengthening Urban Governance and Smart Cities:** AI-driven traffic management reduces congestion and enhances urban mobility.
  - AI-powered waste management systems optimize garbage collection and recycling.
  - For instance, **Bengaluru has implemented an AI-driven Adaptive Traffic Control**

**System (ATCS)** at 41 junctions, reducing the need for manual traffic management.

- **Improving Financial Governance and Taxation:** AI automated fraud detection, enhancing **financial transparency and reducing tax evasion**.
  - AI-powered chatbots simplify tax filing and grievance redressal for citizens. AI-based predictive analytics help optimize subsidy allocations, preventing leakages.
    - Automated auditing systems improve compliance monitoring in financial transactions.
  - For instance, the [Reserve Bank of India \(RBI\)](#) has developed an AI/ML-based model called **MuleHunter.ai** to tackle the issue of **mule accounts**, which are used for financial fraud.

## What are the Key Issues that AI Poses to India's Governance Landscape?

- **Job Displacement and Impact on the Labor Market:** AI-driven automation threatens millions of low-skilled and routine jobs, **especially in manufacturing, BPOs, and the gig economy**.
  - India's labor-intensive industries, which **rely heavily on a large workforce**, face risks of mass unemployment if reskilling efforts do not keep pace.
    - If AI adoption is not balanced with human-centric policies, rising inequality and job losses could trigger social unrest.
  - For instance, a study by the [World Economic Forum](#) suggests that AI could displace **75 million jobs in India by 2025**.
- **Algorithmic Bias and Discriminatory Outcomes:** AI models trained on datasets can potentially **reinforce caste, gender, and regional discrimination**, leading to unfair **governance decisions**.
  - For instance, in 2018, **Amazon discontinued its secret AI recruiting tool** after it was found to be biased against women.
  - Also, the **lack of diverse and representative datasets in India** exacerbates exclusionary outcomes, particularly for marginalized communities.
    - Without strong bias-mitigation frameworks, AI could replicate systemic prejudices rather than resolving them.
- **Privacy Violations and Mass Surveillance Risks:** AI-powered surveillance, including **facial recognition and predictive policing**, raises concerns about discrepancies and mass data collection without adequate safeguards.
  - For instance, the Delhi Police considers facial recognition technology (FRT) matches with over **80% similarity as positive results, which may raise concerns**.
  - Also, in 2024, **UPSC announced plans to adopt facial recognition and AI-powered CCTV surveillance** to prevent cheating and impersonation in exams. While a positive step for exam integrity, it may raise concerns over privacy and data security.
- **Deepfakes and Misinformation:** AI-generated deep fakes and misinformation campaigns can **undermine elections, disrupt governance, and erode public trust in institutions**.
  - The increasing sophistication of AI-generated content makes it harder to distinguish real from fake news, exacerbating social polarization.
  - Deepfake cases in India have surged by **550% since 2019**, with losses projected to reach Rs 70,000 crore in 2024 alone.
    - Deep Fake videos of **Prime Minister Modi and opposition leaders** went viral before India's **2024 general elections**, raising concerns about election integrity.
- **Cybersecurity Vulnerabilities and AI-Powered Attacks:** AI-powered cyberattacks, including phishing and automated hacking, pose severe risks to India's digital infrastructure.
  - Critical sectors like **banking, defense, and healthcare** face AI-enhanced security threats that existing cybersecurity measures may not withstand.
  - Without AI-powered countermeasures, India's digital ecosystem remains highly vulnerable to sophisticated threats.
  - Indians lost nearly **Rs 12,000 crore to cyber scams in 2024**, with scams increasing by **300%**, driven by Artificial intelligence.
- **Digital Divide and Unequal AI Access:** AI adoption remains **highly uneven**, favoring **urban areas while leaving rural India behind**, deepening the digital divide.
  - Limited internet penetration, lack of AI literacy, and infrastructure deficits prevent equitable AI benefits, particularly for marginalized communities.
  - According to the NSSO data, **only 24% of rural Indian households have [access to the](#)**

**Internet**, compared to a 66% penetration in cities, limiting AI-driven governance benefits in rural service delivery.

- NITI Aayog's report estimates **that only 22% of the firms in India use AI in any business process.**

- **AI-Induced Environmental Concerns:** AI systems require vast computing power, leading to increased **energy consumption and carbon emissions.**
  - The **growth of AI data centers in India** raises concerns over electricity demand and water usage for cooling infrastructure.
  - Without green AI policies, rapid AI expansion could conflict with India's sustainability goals.
  - According to the **International Energy Agency**, a single ChatGPT search consumes **2.9 watt-hours**, compared to 0.3 watt-hours for a Google search.
    - A Goldman Sachs report estimates that **AI demand will add 200 terawatt-hours** of annual power consumption in data centers from **2023 to 2030.**
- **Weak AI Regulations and Policy Gaps:** India lacks a **comprehensive AI regulatory framework**, leading to unchecked AI development and deployment. Unlike the **EU's AI Act**, India has yet to introduce **stringent AI-specific laws**, leaving legal loopholes.
  - Also, AI decision-making in governance raises fundamental ethical questions about accountability and transparency. .
    - The **absence of clear legal frameworks** makes it unclear who is responsible when AI-driven errors occur in governance.
- **Dependency on Foreign AI Technologies:** India relies heavily on foreign AI infrastructure, including **cloud services and advanced AI chips**, creating strategic vulnerabilities.
  - Without domestic AI innovation, **India risks economic dependency on US and Chinese AI firms**, affecting digital sovereignty.
  - The lack of indigenous AI R&D hampers self-reliance, making national security and economic interests vulnerable.
  - The recent, US administration's proposal for a new framework that **restricts the import of artificial intelligence chips** due to national security concerns **threatens India's AI hardware plans**

## What are the Key Issues that AI Poses to Global Governance?

- **Regulatory Fragmentation and Lack of Global AI Standards** :Countries have diverging AI policies, with the **EU enforcing strict regulations (AI Act)**, while the **US and China** take more open-market approaches, leading to **lack of harmonization** in AI governance.
- **AI-Driven Misinformation and Threats to Democracy:** Deepfakes and AI-generated disinformation are being used to manipulate elections and destabilize nations, as seen in **AI-powered misinformation during the 2024 US elections.**
- **AI Weaponization and Autonomous Warfare Risks:** The rise of **autonomous lethal weapons (killer drones)** and AI-driven cyber warfare increases security threats, with **the UN struggling to regulate AI in military use.**
- **AI Bias and Ethical Concerns in Decision-Making** - AI systems trained on biased data lead to discrimination in law enforcement, banking, and healthcare, as seen in **racial bias in AI policing tools in the US.**
- **Surveillance and Privacy Violations** - Governments and corporations misuse AI for mass surveillance, eroding privacy, as seen in **China's AI-powered social credit system.**
- **Global South's AI Disadvantage and Digital Colonialism:** AI development is dominated by the **US, China, and EU tech giants**, leaving **developing nations dependent on foreign AI infrastructure** and widening the digital divide.

## What Measures can India Adopt to Enhance AI Regulatory Framework and Shape Global AI Order?

- **Comprehensive AI Law with a Balanced Regulatory Approach:** India must **draft a dedicated AI law** that balances **innovation and regulation**, avoiding the extremes of the **EU's**

**over-regulation** and the **US's laissez-faire approach**.

- A flexible, **risk-based AI governance model** can classify AI systems into **low, medium, and high-risk categories**, ensuring **proportionate regulation**.
- AI-specific laws should include provisions for **algorithmic accountability, bias mitigation, and ethical AI development**.
  - Accelerating the passage of the **Digital India (AI) Act** with sector-specific guidelines would create a strong yet adaptable AI governance framework.
  - Also, India's **Digital Personal Data Protection Act (DPDP Act, 2023)** must be expanded to address **AI-specific risks**, particularly in **automated decision-making, AI surveillance, and deepfake prevention**.
- **Setting Up a National AI Regulatory Authority:** India can establish an AI Governance Authority (AIGA) to oversee AI ethics, compliance, risk assessment, and public-private collaboration.
  - The authority should mandate **AI audits, impact assessments, and algorithmic transparency standards** to prevent biased or harmful outcomes.
    - AIGA can also **certify AI products based on ethical compliance**, similar to how **BIS certifies electronic goods**.
  - Also, **UNESCO's Recommendation on the Ethics of AI** serves as a comprehensive framework for ensuring ethical governance of AI
- **Leading AI Safety for the Global South:** India can position itself as a **leader in AI safety for developing nations** by shaping **inclusive and equitable AI governance**.
  - By leveraging its **Digital Public Infrastructure (DPI) model**, India can assist Global South nations in **building AI regulatory capacity** while preventing **Western-dominated AI frameworks from dictating AI ethics globally**.
  - Establishing an **AI ethics consortium** within BRICS or G20 could help **develop alternative governance models** suited for emerging economies.
- **Promoting Explainable and Trustworthy AI:** India should mandate **Explainable AI (XAI) policies**, ensuring that **government and private AI models remain transparent and interpretable**.
  - Regulatory frameworks should include **algorithmic accountability rules**, where AI-driven decisions in **banking, recruitment, and governance** must be explainable to affected individuals.
- **Regulating AI in Law Enforcement and National Security:** AI in policing, surveillance, and cybersecurity should follow **clear legal safeguards** to prevent **mass surveillance, wrongful profiling, and human rights violations**.
  - The government should introduce an **AI Accountability Code for Law Enforcement**, ensuring AI-driven facial recognition, crime prediction, and biometric verification are used **transparently and with judicial oversight**.
  - India should also **develop AI-enabled cybersecurity strategies** to counter **AI-driven cyber threats and misinformation warfare**.
- **Creating AI Sandboxes for Innovation-Friendly Regulation:** India should set up **AI regulatory sandboxes**, where startups, businesses, and policymakers can **test AI applications in real-world conditions with temporary relaxations on certain regulations**.
  - These sandboxes can operate under **sector-specific AI guidelines**, allowing **financial, healthcare, and education AI models to be tested in a controlled legal environment**.
  - The **RBI's FinTech regulatory sandbox model** can be expanded to AI-driven **financial services, such as AI-powered credit scoring and fraud detection systems**.
- **Boosting Indigenous AI Development for Digital Sovereignty:** India must **reduce its dependence on foreign AI models, computing power, and semiconductor supply chains** by investing in **domestic AI chip manufacturing, cloud infrastructure, and sovereign AI models**.
  - The **IndiaAI Mission** and **National SuperComputing Mission** should focus on building **India's AI supercomputing capacity**, ensuring **self-reliance in AI research**.
- **Tackling AI-Driven Disinformation and Deepfake Threats:** India should **proactively regulate AI-generated deep fakes, misinformation, and electoral manipulation risk**.
  - The government should introduce an **AI-Verified Content Labeling System**, requiring platforms to **flag AI-generated media and misinformation in political campaigns**.
  - AI-powered **fact-checking tools** should be integrated into **government information**

- portals, preventing **fake news amplification on social media**.
- A **Deep Fake Regulation Rules** can be introduced under **Digital India Act (yet to be passed)** to criminalize **AI-generated political misinformation**, ensuring **election integrity and public trust in governance**.

## Conclusion:

The **Paris AI Action Summit** summit stands as a defining moment for global regulatory frameworks, with all eyes on its outcomes. As a **rising digital powerhouse**, India must take the lead in shaping balanced, future-ready regulations that foster innovation while ensuring ethical governance. By championing inclusive and adaptable policies, **India can set a global precedent, reinforcing its position as a key architect of the digital economy**.

### Drishti Mains Question:

Discuss the role of artificial intelligence in governance and analyze the challenges associated with its regulation in India. Also, suggest measures to establish a robust AI governance framework while balancing innovation and ethical concerns

## UPSC Civil Services Examination, Previous Year Question:

**Q. With reference to foreign-owned e-commerce firms operating in India, which of the following statements is/are correct? (2022)**

1. They can sell their own goods in addition to offering their platforms as market-places.
2. The degree to which they can own big sellers on their platforms is limited.

**Select the correct answer using the code given below:**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Ans: (b)**