IMPACT PAPER

Contents

Abstract

As nations across Global South ascend with renewed prospects and aspirations, the advent of artificial intelligence heralds a transformative era of opportunity. The global governance of Artificial Intelligence (AI) is rapidly evolving, with countries across continents developing distinct strategies to harness its potential while ensuring ethical and responsible use. The European Union's landmark AI Act sets a precedent with its risk-based regulatory framework, compelling compliance from developers globally. In the Middle East, nations like the UAE, Qatar, and Saudi Arabia are integrating AI into governance, healthcare, tourism, and economic diversification, backed by national strategies emphasising ethics, education, and infrastructure. India, through the IndiaAI Mission, is investing heavily in compute infrastructure, foundational language models, digital public infrastructure, and workforce development to become a global AI powerhouse. Meanwhile, the USA and Canada continue to lead with open-source innovation, AI defence applications, and public-private collaborations. However, the proliferation of AI presents significant ethical, environmental, and societal challenges, including deepfakes, bias, and high resource consumption. Addressing these issues demands global cooperation and regulatory mechanisms. Recommendations include the use of renewable energy, anti-deepfake technologies, global AI funds for the Global South, and international alliances modelled after successful climate coalitions. A balanced and inclusive approach to AI governance is essential to ensure equitable access, ethical use, and sustainable development of AI technologies across the world.

Keywords - AI, Governance, Regulation, AI in Global South, AI Regulation

Objective

The objective of the study is to

- Understand how the global AI governance realm is shaping in contemporary times.

- How the Global South is dealing with the advent of AI and frameworks being developed for the same
- Analysing the issues associated with Artificial Intelligence and measures to promote responsible AI development

Introduction

Artificial intelligence, i.e. the ability of machines to replicate the thinking ability and prowess of human beings, has been a topic of discussion since 1950, when famous Mathematician Alan Turing posed the idea 'can machines think' in his monumental paper ' Computing Machinery and Intelligence, with the term 'Artificial Intelligence' only being coined in 1956 by John McCarthy, at Dartmouth College. Since then, artificial intelligence has made significant progress, ranging from academic discussions to scientific experiments, with the most notable example being 'Deep Blue' - an IBM supercomputer that defeated World Chess Champion Garry Kasparov in May 1997. Fast forward to the post-COVID-19 period, and artificial intelligence has established itself as a formidable force in world affairs, with its influence being felt in sectors ranging from education, healthcare to weather monitoring.

However, artificial intelligence brings along with it a host of issues that range from cybersecurity threats to deepfake creation, thus affecting the reliability of Artificial Intelligence as a form of technology, eventually resulting in governments across the globe developing and implementing frameworks aimed at restricting the misuse of AI technology.

Methodology

This section of the paper provides insights into the methodological framework employed in the study, which relies strongly on secondary sources.

Secondary-Data-Based Study: Accessibility of published material in this domain assisted us in basing our paper on the

findings of research and surveys conducted in the past in this domain.

Data Collection - An Extensive search was conducted to find credible data in this domain.

Data Sources - A myriad of sources were referred to for gaining in-depth insights about the pressing issue.

Data Visualisation and Presentation

Ethical Considerations - Adherence to ethical standards was the priority, with proper citation provided wherever necessary. Further, all sources are duly acknowledged in the reference list.

Interpretation

The realm of artificial intelligence governance is constantly changing and evolving, with several countries implementing or in the process of establishing frameworks to regulate artificial intelligence with the sole objective of ensuring AI innovation and responsible use of AI.

i) EU AI Act

The EU AI Act, which came into force on 1 August 2024, is the first of its kind in the realm of AI governance and established the framework of risk-based AI classification. Under this system, the AI tools have been classified into risks of four different types - Unacceptable risk, High risk, Limited risk and Minimal risk; with each set of risk coming along with itself a host of regulatory mechanisms with Unacceptable risk being prohibited which includes the likes of manipulative AI to Minimal risk being unregulated which includes AI generated video games and spam filters.

Further, it places the onus of fulfilling obligations on the developers, especially in the case of High-risk AI systems, irrespective of the fact that they are located in the EU or in any third country. It also touches upon the general-purpose AI models with the following provision:

- All GPAI model providers must provide technical documentation, instructions for use, comply with the Copyright Directive, and publish a summary about the content used for training.
- Free and open licence GPAI model providers only need to comply with copyright and publish the training data summary, unless they present a systemic risk.
- All providers of GPAI models that present a systemic risk – open or closed – must also conduct model evaluations, adversarial testing, track and report serious incidents and ensure cybersecurity protections. [3]

ii) UAE

The UAE, in the heart of Middle East, is turning tides in the realm of Artificial Intelligence by bringing about a revolution in its country through AI integration in real-life operations, backed by a far-sighted UAE government. Under the National Strategy for Artificial Intelligence 2031, the UAE seeks to become a world leader in this domain by investing in people and industries - twin pillars of its success. Furthermore, it aims to train 1 million talents by 2027 to provide an AI-ready workforce. Some of the examples of real-world integration are:

a) **Governance** - AI has joined the UAE cabinet, though without the power to vote, but will aid the cabinet by providing them data-backed advice, predicting outcomes and helping fine-tune decisions.
b) **Health** - A new WhatsApp-based platform now lets people check their health risks from home. These AI tools monitor heart rate, stress levels and other indicators before symptoms appear.
c) **Sports** - At the Tour de France, the 2025 helmet worn by the UAE team was made using generative AI, which helped to map airflow and friction and thus make the helmet lighter and faster.

Apart from developing the AI field, the UAE is committed towards making AI systems safe in the following manner:

The UAE is committed to AI ethical standards, as demonstrated by its adoption of the "AI Principles and Ethics" framework,

which outlines eight principles to preserve human values and ensure fair and safe treatment for all members of society. These principles are: fairness, ensuring AI systems operate without bias; accountability, with clear assignment of responsibility; transparency, ensuring decision-making processes are understandable; explain ability, making AI decisions interpretable for non-experts; resilience, with AI systems being reliable and flexible; safety, prioritizing the physical and digital safety of individuals and communities; human values, ensuring technology respects individual dignity and rights; sustainability, contributing to environmental sustainability; and privacy protection, ensuring AI systems safeguard personal data in line with the latest security standards. [4]

Further, in July 2025, Dubai became the first city to launch a system that helps one to predict whether any sort of content was made by a machine, or a human, or both - a game changer in the realm of deepfakes and acts as a model for promoting transparency in the realm of AI.

iii) Qatar

Qatar has made great strides in the domain of Artificial Intelligence and has become one of the first countries in the region to adopt measures to become an AI-driven nation and dominate the global order. A host of programmes and frameworks have been established to drive AI growth in the country.

1) **National AI Strategy** - The *National Artificial Intelligence Strategy for Qatar (2019)* is a comprehensive plan designed to position Qatar as a leader in the AI-driven global economy. Its purpose is to harness the power of AI to secure Qatar's economic diversification, enhance societal development, and advance the nation's technological capacity in line with the *Qatar National Vision 2030.* [10] The AI strategy is based on certain pillars, which incorporate the following aspects:
    - **Education and Talent Development** - The strategy aims to build an AI-ready workforce by integrating it at all levels of education. Further capacity-building programmes are to be introduced for professionals and teachers to familiarise them with technological developments and consequently adapt to a changing environment.

- **Data Access** - It aims to establish a national data strategy that focuses on promoting data sharing between entities, as data holds the key to the development of AI technology.
- **Employment Transformation** - A special focus of this policy is to upskill Qatari citizens to ensure their employability is maintained. Further exposing them to new AI-related jobs is another aspect of this pillar.
- **New Business and Economic Opportunities** - Qatar's economic diversification relies on fostering AI-driven innovation across strategic industries, such as oil and gas, finance, and logistics. The strategy calls for investment in AI infrastructure, regulatory frameworks, and support for AI startups, ensuring businesses embrace AI to remain competitive in a globalised economy. [10]
- **Ethics and Public Policy** - Ethical considerations are central to Qatar's AI strategy. The strategy stresses the importance of creating transparent, fair, and accountable AI systems. It advocates for governance frameworks that align with Qatari cultural and social values while addressing global ethical challenges associated with AI. [10]

2) **GovAI Program** - It is the result of a strategic partnership between the Ministry of Communications and Information Technology (MCIT) and several strategic partners to accelerate and maximise the adoption of Artificial Intelligence (AI) solutions in the State of Qatar, ensuring a better and wider impact of AI across all sectors. [8] There are four main objectives of the programme:

- **AI-Powered Innovation** - Accelerating AI adoption across government entities by supporting innovation, entrepreneurship and digital transformation across all sectors.
- **Advanced Infrastructure** - Boosting the digital infrastructure to be more advanced to meet the growing needs of the economy and society, and help

Qatar become an AI hub for emerging digital technologies.

- **Strategic Partnerships** - Enhancing the ecosystem of local, regional and global partners to attract more players, grow the partner ecosystem and accelerate AI adoption.
- **Improved Services** - Supporting innovative AI solutions that promote government efficiency and, in turn, improve the quality of services provided to citizens in the State of Qatar. [8]

One of the programmes proposed by Qatar Tourism is AI Tourist Companion, an AI chatbot designed to revolutionise the tourist experience. It incorporates in itself components of pre-trip planning, in-trip enhancements and post-trip engagement. It is estimated to boost the website visitor rate of Qatar Tourism by 15% and an estimated 50% rise in mobile active users, thus transforming Qatar's tourism industry.

Another programme is AI Labour Contract Compliance. The project developed by the Ministry of Labour seeks to implement advanced contract management solutions in the country known as Contract Compliance, and thus aims to improve the operations.

This sophisticated system is engineered to automate the review process by systematically indexing labour contracts, identifying inconsistencies or contradictory terms, assessing compliance with Qatar's Labour Law and verifying the authenticity of stamps from the Ministry of Foreign Affairs and the Ministry of Municipality. By optimising these processes, smart contracts will be adopted to enhance the efficiency of reviewers, thereby significantly reducing review time and improving compliance with labour regulations. This critical enhancement not only minimises human errors but also has a positive impact on the hiring process in the State of Qatar. [8]

iv) Saudi Arabia

Saudi Arabia, as a country dependent on oil, seeks to diversify its economy into other sectors and thus provide for a resilient economy in the wake of changing geopolitical situations in the realm of international trade. Consequently, AI as a domain is emerging as a major aspect for Saudi Arabia

to develop its economy, with it taking a host of measures to promote its development:

a) **National Strategy for Data & AI -** Saudi Data & AI Authority (SDAIA) was established to drive the national agenda for Data & AI to elevate the Kingdom as a global leader in the elite league of data-driven economies.

   To capitalise on Data & AI for the Kingdom economically and socially through national combined efforts by all stakeholders, SDAIA has developed the National Strategy for Data & AI.

b) **Project Transcendence** - It is an initiative launched by Saudi Arabia to make investments amounting to 100 billion dollars in the field of AI to establish itself as a dominant force in the field of AI and advanced technology. It is to be initiated through a Public Investment Fund in collaboration with Google, a Big 4 software development company. Project Transcendence focuses on developing a comprehensive AI ecosystem within Saudi Arabia. Key components include the construction of state-of-the-art data centres, support for local tech startups, and the creation of employment opportunities in the technology sector. The initiative also emphasises fostering collaborations with international technology firms to position the Kingdom at the forefront of regional innovation.[17] Another important aspect of this project is the development of an Arabic-language AI model, which will help to overcome the gap in accessibility of AI in the region.

c) Investment in Education and Training - Saudi Arabia, as a country, is investing heavily in providing the necessary skills and training to its population to make them AI-ready. For instance, at King Abdullah University of Science and Technology, specialised courses and research opportunities in AI and related fields.

d) Saudi Arabia is trying to attract global AI talent to its country by providing a host of benefits, which include competitive incentives and fostering a conducive environment for innovation. Further, it has hosted global summits like the Global AI Summit, bringing together

industry leaders, policymakers, and researchers to discuss advancements in AI.

One of the major fields benefiting from AI is the healthcare sector. The healthcare sector, in particular, stands to benefit from the integration of AI technologies. By leveraging AI for diagnostics, treatment planning, and patient monitoring, the Kingdom aims to improve healthcare outcomes and efficiency. This aligns with broader efforts to enhance the quality of life for Saudi citizens and modernise public services.[17]

iv) India

India, just like other nations of the world, has undertaken the task of building AI technology in the country, with the central government launching programmes, policies and schemes of different kinds to support the AI industry in the country. These efforts align with the vision of Viksit Bharat by 2047, where India aspires to become a global AI powerhouse, leveraging cutting-edge technology for economic growth, governance, and societal progress.

AI Compute and Semiconductor Infrastructure

India is rapidly building a strong AI computing and semiconductor infrastructure to support its growing digital economy. With the approval of the IndiaAI Mission in 2024, the government allocated $1.2 billion

over five years to strengthen AI capabilities. A key focus of this mission is the development of a high-end common computing facility equipped with 18,693 Graphics Processing Units (GPUs), making it one of the most extensive AI compute infrastructures globally. This capacity is nearly nine times that of the open-source AI model DeepSeek and about two-thirds of what ChatGPT operates on.

Scaling AI Compute Infrastructure: The initial phase of the mission has already made 10,000 GPUs available, with the remaining units to be added soon. This will enable the creation of indigenous AI solutions tailored to Indian languages and contexts.

Opening Access to High-Performance Computing: India has also pioneered the launch of an open GPU marketplace, making high-performance computing accessible to startups, researchers, and

students. Unlike many countries where AI infrastructure is controlled by large corporations, this initiative ensures that small players have an opportunity to innovate.

Robust GPU Supply Chain: The government has selected 10 companies to supply the GPUs, ensuring a robust and diversified supply chain.

- **Affordable Compute Access:** A new common compute facility will soon be launched, allowing researchers and startups to access GPU power at a highly subsidised rate of $1.13 per hour, compared to the global cost of $2.5 to $3 per hour.
- **Strengthening Semiconductor Manufacturing:** In parallel, India is advancing semiconductor manufacturing, with five semiconductor plants under construction. These developments will not only support AI innovation but also reinforce India's position in the global electronics sector.

India's AI Models & Language Technologies

The government is facilitating the development of India's foundational models, including Large Language Models (LLMs) and problem-specific AI solutions tailored to Indian needs. To carry out AI research, multiple Centres of Excellence have also been set up.

- **India's Foundational Large Language Models:** IndiaAI has launched an initiative to develop indigenous foundational AI models, including LLMs and Small Language Models (SLMs), through a call for proposals.
- **Digital India BHASHINI:** An AI-led language translation platform designed to enable easy access to the internet and digital services in Indian languages, including voice-based access, and support content creation in Indian languages.
- **BharatGen:** The world's first government-funded multimodal LLM initiative, BharatGen, was launched in 2024 in Delhi. It aims to enhance public service delivery and citizen engagement through foundational models in language, speech, and computer vision. BharatGen involves a consortium of AI researchers from premier academic institutions in India.
- **Sarvam-1 AI Model:** A large language model optimised for Indian languages, Sarvam-1 has 2 billion parameters and supports ten major Indian languages.

It is designed for applications such as language translation, text summarisation, and content generation.

- **Hanooman's Everest 1.0:** A multilingual AI system developed by SML, Everest 1.0 supports 35 Indian languages, with plans to expand to 90.

AI Integration with Digital Public Infrastructure

India's Digital Public Infrastructure (DPI) has redefined digital innovation by combining public funding with private sector-led innovation. Platforms like Aadhaar, UPI, and DigiLocker serve as the foundation, while private entities build application-specific solutions on top of them. This model is now being enhanced with AI, integrating intelligent solutions into financial and governance platforms. The global appeal of India's DPI was evident at the G20 Summit, where several countries expressed interest in adopting similar frameworks. Japan's patent grant to India's UPI payment system further underscores its scalability.

For Mahakumbh 2025, AI-driven DPI solutions played a crucial role in managing the world's largest human gathering. AI-powered tools monitored real-time railway passenger movement to optimise crowd dispersal in Prayagraj. The Bhashini-powered Kumbh Sah'AI'yak Chatbot enabled voice-based lost-and-found services, real-time translation, and multilingual assistance. Its integration with Indian Railways and UP Police streamlined communication, ensuring swift issue resolution. By leveraging AI with DPI, Mahakumbh 2025 set a global benchmark for tech-enabled, inclusive, and efficient event management.

AI Talent & Workforce Development

India's workforce is at the heart of its digital revolution. The country is adding one Global Capability Centre (GCC) every week, reinforcing its status as a preferred destination for global R&D and technological development. However, sustaining this growth will require continuous investment in education and skill development. The government is addressing this challenge by revamping university curricula to include AI, 5G, and semiconductor design, aligning with the National Education Policy (NEP) 2020. This ensures that graduates acquire job-ready skills, reducing the transition time between education and employment.

- **AI Talent Pipeline & AI Education:** Under the IndiaAI Future Skills initiative, AI education is being expanded across undergraduate, postgraduate, and Ph.D. programs. Fellowships are being provided to full-time Ph.D. scholars researching AI in the top 50 NIRF-ranked institutes. To enhance accessibility, Data and AI Labs are being established in Tier 2 and Tier 3 cities, with a model IndiaAI Data Lab already set up at NIELIT Delhi.

- **AI Innovation:** India has emerged as the fastest-growing developer population globally and ranks second in public generative AI projects on GitHub. The country is home to 16% of the world's AI talent, showcasing its growing influence in AI innovation and adoption.

- **AI Talent Hubs:** The India Skills Report 2024 by Wheebox forecasts that India's AI industry will reach USD 28.8 billion by 2025, with a CAGR of 45%. The AI-skilled workforce has seen a 14-fold increase from 2016 to 2023, making India one of the top five fastest-growing AI talent hubs, alongside Singapore, Finland, Ireland, and Canada. The demand for AI professionals in India is projected to reach 1 million by 2026.

AI Adoption & Industry Growth

India's Generative AI (GenAI) ecosystem has seen remarkable growth, even amid a global downturn. The country's AI landscape is evolving from experimental use cases to scalable, production-ready solutions, reflecting its growing maturity.

- **Businesses Prioritising AI Investments:** According to BCG, 80% of Indian companies consider AI a core strategic priority, surpassing the global average of 75%. Additionally, 69% plan to increase their tech investments in 2025, with one-third allocating over USD 25 million to AI initiatives.

- **GenAI Startup Funding:** According to a November 2024 report by the National Association of Software and

Service Companies (NASSCOM), Indian GenAI startup funding surged over six times quarter-on-quarter, reaching USD 51 million in Q2FY2025, driven by B2B and agentic AI startups.

- **AI Transforming Workplaces:** The Randstad AI & Equity Report 2024 states that seven in 10 Indian employees used AI at work in 2024, up from five in 10 a year earlier, showcasing AI's rapid integration into workplaces.

- **AI Empowering Small & Medium Businesses (SMBs):** AI-driven technologies, such as autonomous agents, are helping SMBs scale efficiently, personalise customer experiences, and optimise operations. According to Salesforce, 78% of Indian SMBs using AI reported revenue growth, while 93% stated AI has contributed to increased revenues.

- **AI Startup Support Ecosystem:** India hosts 520+ tech incubators and accelerators, ranking third globally in active programs. 42% of these were established in the past five years, catering to the evolving needs of Indian startups. AI-focused accelerators like T-Hub MATH provide crucial mentorship in product development, business strategy, and scaling. In early 2024, MATH supported over 60 startups, with five actively discussing funding, highlighting India's growing AI startup landscape. [15]

vi) USA and Canada

The USA, to continue its dominance in the realm of AI, has undertaken a host of measures for the promotion and development of AI, which comprises the following aspects:

- **America's AI Action Plan (July 2025):** An important plan that emphasises accelerating innovation in the realm of AI, building the necessary infrastructure, and ensuring that the ideals of transparency and free speech of individuals aren't hindered by AI technology development in the USA.

- **Open-Source AI & Regulatory Reform:** The main objective of this policy is to provide an atmosphere wherein companies can freely develop AI tools without any sort of regulatory measures acting as hurdles in their way. This will help to promote faster development of AI technology in the US and enable it to keep up with other nations of the world in the realm of AI.

- **AI in Government & Defence:** The idea stems from the multifaceted use case of AI as a technology, and thus the government of the USA wishes to utilise AI's prowess in the fields of defence, public services, cybersecurity and semiconductor manufacturing.
- **Global Diplomacy & Ethics:** Through the U.S. Department of State, the U.S. is leading international efforts on responsible AI, including the Partnership for Global Inclusivity on AI (PGIAI) with major tech firms.
- **Research & Infrastructure:** This domain focuses on investing in the field of AI-enabled science and the creation of world-class datasets, along with the development of AI evaluation ecosystems to ensure transparency and safety.

Canada is making strides in the field of development of AI technology in its country and improving the efficiency of different tasks. Some of the key initiatives are as follows:

- **Pan-Canadian AI Strategy:** This strategy was launched in 2017, with it emerging as the world's first strategy in the realm of AI development and is a testament to Canada's willingness to grow and lead the world in this domain. Through this strategy, the Government of Canada seeks to make investments to drive the adoption of AI in Canada's economy and society. The strategy of the government is based on three pillars:

a) <u>Pillar 1: Commercialisation</u>

National Artificial Intelligence Institutes: The National Artificial Intelligence Institutes – Amii in Edmonton, Mila in Montreal, and the Vector Institute in Toronto – are helping to translate research in artificial intelligence into commercial applications and growing the capacity of businesses to adopt these new technologies. The government is supporting this initiative with $60 million provided in Budget 2021, with each institute eligible to receive up to $20 million in funding over five years, from 2021-22 to 2025-26.

Canada's Global Innovation Clusters: Canada's Global Innovation Clusters – Digital Technology, Protein Industries Canada, Next Generation Manufacturing Canada, Scale AI, and Canada's Ocean Supercluster – are strengthening Canada's innovation landscape by promoting the adoption of made-in-Canada artificial intelligence technologies by businesses in key industries, and by public and not-for-profit entities. The government is supporting this initiative with $125 million in funding provided in Budget 2021, over five years, from 2021-2022 to 2025-2026.

b) Pillar 2: Standards

Through the Standards Council of Canada, the Government of Canada is supporting efforts to advance the development and adoption of standards related to artificial intelligence. The government is supporting this initiative with $8.6 million in funding provided in Budget 2021, over five years, from 2021-2022 to 2025-2026.

Pillar 3: Talent and Research

CIFAR: CIFAR is enhancing programs to attract, retain and develop academic research talent, and maintain centres of research and academic training at Amii, Mila, and the Vector Institute. In addition, CIFAR is renewing its advanced research, training, and knowledge mobilisation programs. The government is supporting these initiatives with $208 million in funding provided in Budget 2021, over ten years, from 2021-2022 to 2030-2031.

Compute: The Digital Research Alliance of Canada is providing dedicated computing capacity for artificial intelligence researchers across Canada to support the objectives of the strategy. The government is supporting this initiative with $40 million in funding provided in Budget 2021, over five years, from 2022-2023 to 2026-2027. [14]

- **Canadian Artificial Intelligence Safety Institute:** It focuses on safe and ethical AI development.
- **Sovereign AI Compute Strategy:** Promotion of investments in national infrastructure for AI compute power
- **2025 National AI Strategy:** Based on pillars of sustainability, inclusivity, and fairness in AI applications, thus ensuring AI technology isn't utilised in the wrong manner by miscreants and ensures protection of all in society.
- **Industry Applications:** Development of vertical AI systems for healthcare, agriculture, energy, and government. Example: AltaML's wildfire prediction AI improved emergency response and saved millions in costs.
- **International Collaboration:** Canada collaborates with the USA and UK on AI and cybersecurity through defence agencies like DARPA and Defence Research and Development Canada. Projects include CASTLE (Cyber Agents for Security Testing and Learning Environments), enhancing autonomous network defence and military medical triage.

Recommendations

An in-depth study of AI initiatives in the countries above provides a picture of how AI, as a domain, is expanding and

establishing its presence at the global level. AI, though beneficial in different sectors, brings along with it a host of issues:

a) **Ethical Issues** - Training of AI models by companies gives way to ethical concerns issues which include the likes of violation of IPR and copyrights. Companies are being accused by organisations and newspapers like Washington Post of utilising their data without receiving their consent. Certain famous instances of ethics violations are:
   - Healthcare Industry - The U.S. healthcare providers are using Artificial Intelligence algorithms to guide health decisions, such as which patients require extra care or medical privileges. Researchers at UC Berkeley, Obermeyer et al., identify signs of racial bias in algorithms. It is noticed that the algorithm is assigning the same level of risk to Black patients, yet sicker than white patients. White patients were given higher risk scores, thus more likely to be selected for extra care.
   - Banking and Finance - "Apple Card," the AI system of Apple, is biased against gender. It was offering significantly different interest rates and credit limits to different genders. It is giving large credit limits to men as compared to women.
   - Human Resources - Amazon attempted to leverage the HR teams using their AI recruiting and hiring tool. It allows organisations to take thousands of resumes and then select the top 5. But in 2015, it was noticed that the system had a bias against women for rating candidates for software development and other technical positions. [20]

b) **Problem of Deep Fakes -** Deepfakes are a creation of AI technology, which involves videos wherein the face or body of a person in a video is digitally altered so that they appear to be someone else. These deepfakes are posing issues of the spread of rumours on different social media platforms, ways to demean the authority of women, etc. One notable example of the use of deepfakes is the creation of a video showcasing the call to

surrender by Volodymyr Zelenskyy amidst the ongoing Russia-Ukraine War and asking his soldiers to fall back. Further, deepfakes have been used to demean the authority of famous personalities and female superstars across the world by certain miscreants in society.

c) **Environmental Issues -** AI further poses environmental issues, contributing to climate change problems. It is estimated that the amount of carbon emissions emitted to perform a single query by AI systems is equivalent to a diesel car running for its entire life. The amount of water used to cool down the systems on average is 1-9 litres, eventually causing greater water utilisation.

To overcome problems, certain solutions are thus suggested, which are as follows:

- Utilisation of renewable energy sources like Biofuels, Solar Power, Nuclear Energy, etc., to drive AI systems, thus ensuring minimal environmental costs and reduced carbon emissions.
- Development of a mechanism that traces the deepfakes on different social media platforms and ensures they are taken down by the respective social media companies to avert the spread of rumours.

- Developing AI models in a balanced manner that averts bias and promotes ethical utilisation of AI in different sectors.

- Development of an AI fund on the grounds similar to COP 29, 300 billion dollars Climate Fund to provide financial assistance to the Global South nations to develop indigenous AI models and promote AI training within their respective countries.

- Adoption of acts on the lines similar to the EU AI Act by different countries to ensure the growth of AI occurs in a secure and controlled manner, not affecting people in a negative manner.

Conclusion

The big challenge of this century is to adopt and regulate artificial intelligence. Much of the Global South still faces acute shortages in electricity generation, as well as bandwidth and internet connectivity issues. Deepfakes could have devastating consequences in the southern hemisphere, where digital literacy remains very low. On the other hand, most of the private giants are headquartered in the West, the governments should be highly cautious of the ill effects of the AI usage. The initiatives undertaken by countries such as the EU, India, the UAE, Qatar, Saudi Arabia, the USA, and Canada reflect both the potential of AI and the urgent need for thoughtful governance. While innovation is at the heart of global AI strategies, the associated risks such as ethical violations, deepfakes, algorithmic bias, and environmental degradation - pose real and pressing challenges. The path forward requires a multi-pronged and collaborative effort. Countries must adopt frameworks that regulate AI development with the sole objective of responsible development, ensuring AI systems are transparent and fair, and safeguarding individual rights. At the same time, investments in AI education, infrastructure, and inclusive talent pipelines are integral to democratising the benefits of AI. Establishing global mechanisms - such as an AI Development Fund and international alliances for ethical AI - can empower the Global South and promote knowledge sharing. As the world moves towards greater AI integration, the focus must remain on building resilient, equitable, and sustainable AI ecosystems that enhance human potential rather than undermine it. If a proper compliance and regulation strategy is adopted by nations, AI can truly become a force for good across all societies.

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