APPLYING THE RULE OF LAW IN THE 21ST CENTURY: AN ANALYSIS OF THE USE OF ARTIFICIAL INTELLIGENCE IN THE INDIAN ADMINISTRATIVE FRAMEWORK

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ABSTRACT

The twenty-first century has seen rapid advancements in technology, developing new challenges to the rule of law in government. In India, the incorporation of Artificial Intelligence (AI) into the administrative structure raises serious concerns about how old legal concepts can be upheld in the face of changing technologies. The use of AI in governance creates chances to improve transparency, accountability, and efficiency. However, it raises substantial problems about fairness, bias, and ethical oversight. An analysis of AI applications in the Indian administrative system considers both possible benefits and inherent issues. Finally, while AI has the potential to strengthen governance, its implementation must be properly regulated to ensure compliance with the rule of law, fostering justice and equality.

A thorough review of AI applications in the Indian administrative setting exposes both the potential and drawbacks of these technologies. Case studies demonstrate effective AI utilization in resource allocation, law enforcement, and public service delivery, emphasizing how these tools can enhance governance while upholding the rule of law. On the other hand, instances of bias in algorithmic decision-making and difficulties with data governance emphasize the importance of effective regulatory frameworks that prioritize ethical considerations.

Keywords: rule of law, AI, Indian administration, e-governance, transparency, accountability, fairness, bias, ethics, regulation.

INTRODUCTION

In the 21st century, most countries across the world have introduced e-governance to help serve the needs of society to ensure transparency, and inclusive and equitable service to the society marking the digital era. E-governance aims to facilitate participation of citizens through electronic means thereby following the principles of good governance. Most of the developed countries in the world such as Estonia, Denmark, and Norway have seen a successful implementation of e-governance. Countries like India have introduced e-governance to provide services to citizens through e-governance building the pathway towards digitalisation. The principle of the rule of law states that nobody is above the law and all individuals regardless of their social status, position, gender, caste, or religion are treated equally in the eyes of the law. The rule of law also serves as the backbone for ensuring proper and systematic administration of the state. It is believed that e-governance can reduce issues like corruption and bureaucracy. However, these issues still exist in the Indian governance despite introducing e-governance. The rule of law in e-governance hasn't been properly enforced since issues such as corruption, transparency, inefficiency, and accountability play key challenges in implementing the system of good governance. The issue of corruption and inefficiency arises when there is data manipulation, unauthorized access, insider threats where the government officials misuse digital governance for their gain, embezzlement, and lack of digital literacy, transparency, and accountability[1]. This research paper aims to put an end to such issues by introducing artificial intelligence to provide a systematic framework to foster transparency and accountability to prevent inefficiency and ensure smooth and systematic e-governance by implementing the rule of law effectively thereby upholding the principles of good governance. For this purpose, let us dive deep into the research paper to find out the solutions.

LITERATURE REVIEW

1) Nils Kobis, Christopher Starke & Iyad Rahwan, Artificial Intelligence as an Anti-Corruption (AI-ACT) Potentials and Pitfalls for Top-down and Bottom-up Approaches, (February 2021).

The authors discuss how corruption is a major challenge to e-governance. As a result, they have

[1] https://www.researchgate.net/publication/343112947_New_Face_of_Indian_Governance_Sector_with_Artificial_Intelligence

implemented an AI-based anti-corruption tool (AI-ACT) using a top-down and bottom-up anticorruption approach which depends on the input data, algorithmic design, and institutional implementation. They highlight how the AI tool can be harnessed through machine learning languages. The AI tool can assess large data sets, detect, and predict the outcomes, and minimize the risk of bias in e-governance.

2) Kurlus Usman, Muhammad Rehana Suleman, Algorithmic Governance and Human Rights: Developing Standards for Fairness and Accountability in AI, (September 2024).

This research paper aims to develop a robust and effective AI algorithm for e-governance to protect the rights and interests of individuals promote fairness and prevent the risk of bias in algorithmic decision-making. The authors have highlighted the use of AI algorithms in egovernance to meet the needs and interests of individuals by ensuring equitable treatment of every individual from diverse groups by eliminating discrimination. The AI algorithms are designed to ensure transparency and accountability by implementing legal and ethical frameworks to address to protect the rights of individuals. It also provides a platform for individuals to address their needs and provide feedback to check the performance of the AI system.

3) Abdulaziz Al-Besher, Kailash Kumar, Use of Artificial Intelligence to enhance egovernment services, (September 2022).

This research paper focuses on developing and implementing the AI tool to improve efficiency and effectiveness in e-governance services by providing a framework and guidelines to deploy e-government services in a feasible manner that is widely available to all citizens thereby ensuring that their needs are satisfied. The AI tool is used for predicting the outcomes, detecting the anomalies, and securing the data by mitigating the risks of cyber-attacks. AI in egovernance provides better interaction between the government and citizens.

4) Kamal Upreti, Ankit Verma, Shikha Mittal, Prashant Vats, Mustafizul Haque and Shakir Ali, A Novel Framework for Harnessing AI for Evidence-Based Policymaking in EGovernance Using Smart Contracts, (October 2023).

This research paper highlights harnessing AI for evidence-based policymaking in e-governance which can analyse vast amounts of data and make informed decisions. The AI algorithms are

designed to analyse and predict the data providing a wide framework for providing services for enhancement of citizen engagement and participation. It can detect fraud and assess the risk associated with the policy. It also ensures that there is data privacy, algorithmic bias, and ethical considerations.

5) Wasif Ali, Farman Ayoub Ali, AI Ethics and Data Governance: Establishing Standards for Transparency and Accountability in Automated Systems, (September 2024).

The research paper aims to develop an AI system to ensure transparency and accountability in its services to the citizens while addressing ethical frameworks for implementing AI in egovernance to mitigate the risks and ensure fairness. An ethical framework is needed to mitigate bias and protect data privacy. There must be a regulatory body to monitor the AI's performance in e-government services.

6. Reddy, V., & Thakur, V. (2019). "AI in Indian Governance: Challenges and Opportunities"

Summary: This paper explores the application of AI in Indian governance, particularly its role in promoting the rule of law. The authors discuss how AI enhances transparency, reduces corruption, and improves efficiency in government processes, making governance more accountable. However, the paper also highlights challenges such as data privacy concerns, cybersecurity threats, and the digital divide, which can hinder equitable access to AI-driven services.

Key Points:

- AI's role in automating decision-making processes in governance.
- Challenges in data security and public trust.
- Opportunities to improve transparency and accountability.

Relevance: The study focuses on AI's potential to uphold the rule of law in India, particularly through more transparent and accountable governance.

7. Mishra, A. (2020). "Artificial Intelligence and the Rule of Law: Ethical Considerations in EGovernance"

Summary: Mishra addresses the ethical and legal implications of using AI in governance systems. The author discusses how AI can reinforce the rule of law by ensuring more impartial decision-making but also raises concerns about accountability and ethical responsibility when AI systems fail or make biased decisions. The paper advocates for the development of regulatory frameworks to manage these concerns.

Key Points:

- The importance of maintaining human oversight over AI systems.
- Ethical concerns related to algorithmic transparency and bias. Need for legal frameworks to regulate AI in governance.

Relevance: This review highlights the intersection of AI, ethics, and the rule of law, emphasizing the importance of regulating AI to prevent biases and ensure fairness in governance.

8. Bhatia, G. (2018). "The Role of AI in Upholding the Rule of Law in Digital Democracies"

Summary: Bhatia's work explores how AI can be leveraged to support the rule of law in digital democracies, with a focus on India. The paper highlights AI's role in improving public access to justice, especially through the use of legal information systems, online dispute resolution (ODR), and AI-powered legal chatbots. However, it also points out the risks of surveillance and privacy violations.

Key Points:

- Use of AI in legal services, including ODR and legal research. Concerns around privacy and the surveillance state.
- AI's potential to democratize access to legal resources.

Relevance: The paper provides insights into how AI can promote access to justice and the rule of law in a digital governance context, while also addressing privacy challenges.

9. Joshi, A. (2021). "AI and Governance in India: A Legal Perspective"

Summary: Joshi focuses on how AI is transforming governance in India from a legal standpoint. The paper examines the current legislative framework concerning AI in governance and how it aligns with constitutional principles, particularly the rule of law. It also delves into how AI can assist in areas like administrative decision-making, corruption reduction, and public service delivery.

Key Points:

- Legal framework for AI implementation in e-governance.
- Constitutional values such as equality, justice, and transparency. Potential for AI to reduce bureaucratic inefficiencies.

Relevance: The literature provides a thorough examination of the legal perspective on AI in governance, particularly in upholding rule of law principles like fairness, equality, and transparency.

10. Sundar, S. (2022). "Balancing AI, Data Privacy, and the Rule of Law in E-Governance"

Summary: This paper discusses the balance between adopting AI technologies in governance and ensuring that data privacy and security are not compromised. The author analyzes the legal obligations of governments under data protection laws and their responsibility to ensure that AI systems align with the principles of the rule of law, such as transparency, accountability, and legal certainty.

Key Points:

- Tension between AI-driven governance and data privacy concerns.
- Legal frameworks for protecting citizen rights in the digital age.
- Role of AI in ensuring timely and fair administration of justice.

Relevance: Sundar's review is essential for understanding how governments can adopt AI while balancing data privacy and security, critical for maintaining the rule of law.

RESEARCH METHODOLOGY

This research paper is based on the doctrinal method. The information is gathered by referring to the surveys, articles, research papers, and books available.

1.How can the rule of law be implemented by adopting AI in e-governance?

INTRODUCTION

The heritage of the argument about the rule of law begins with *Aristotle*[2], who said the law should be the supreme sovereign of the state. *Plato*[3] defined it as no one is above the law. The erosion of the rule of law was derived from the French word *"la Principe de legalite",* a principle of legality. In 1607, *Sir Edward Coke*[4] was the originator of the Concept of the Rule of law. In a Battle against the king, he maintained successfully that the king should be under God and law. He established the Supremacy of law against the executive. The *Montesquieu*[5] discussed the principle in *The Spirit of Law* (Nugent., 2001).

Later, in 1885, Albert Venn Dicey's book Introduction to Study of the Laws of the Constitution explained the three principles of the rule of law: Supremacy of law, Equality before law, and Predominance of legal spirit. According to Dicey, *"the rule of law is the absolute supremacy or majority of the regular law as opposed to the influence of arbitrary power* (London: T. Evans, 1777,4 vols. Vol. 1.)*".*

The concept of the rule of law has its roots in ancient Indian Epics like the *Ramayana* and *Mahabharata*, which were originally passed down orally before being written down. Other roots for the philosophy of the rule of law include the *Upanishads*, which say*, "The law is the king of the kings." No one is above the law. "Not even the king."*[6] Other commentaries include *Kautilya's Arthashastra* (4th-century BC), *Manu Smriti* (1st-3rd century CE), *YajnavalkyaSmriti* (3rd-5th century CE), and *Brihaspati Smriti* (15-16 CE).

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[2]"https://plato.stanford.edu/archivES/FALL2017/entries/aristotlepolitics/#:~:text=Aristotle%20explores%20the%20implications%20of"

[3] "https://www.jstor.org/stable/3129168"

[4] "https://assets.cambridge.org/97811070/69299/frontmatter/9781107069299_frontmatter.pdf#:~:text=Sir%20Edward%20Coke%20and%20the%20Reformation%20of"

[5] "https://www.cambridge.org/core/books/abs/montesquieu/defense-of-the-spirit-of-law-/72778C7B2133CD91DBC829F6CDE876FF"

[6] "https://www.jstor.org/stable/j.ctt2jbhxk.6"

Constitutional Framework

The rule of law has played an essential part in the evolution of Indian democracy. The Constitution of India is the country's supreme law. After Independence, The Indian Constitution's framers adopted the *Rule of Law*[7] from England and included corresponding provisions in the Indian Constitution. The *Indian Constitution*[8] enshrines the values of the rule of law, namely equality, liberty, and justice. The preamble of the Indian Constitution also reflects the rule of law. The rule of law has governed *Part III* and all of the essential rights guaranteed by the *Indian Constitution*[9]. Law, as described in *Article 13(3)(a)* of the *Indian Constitution*,[10] encompasses ordinances, orders, bylaws, rules, regulations, notifications, notices, customs, and use.

Article 14 of the *Indian Constitution*[11] ensures equality before the law, considered a part of the Rule of Law.

In the case of a violation of these rights, one may approach the Supreme Court or the High Court under Articles 32 and 226 of *the Indian Constitution*, respectively. The Constitution establishes a separate judiciary that is responsible for interpreting and enforcing the law. The judiciary serves as a check on the executive and legislative branches, ensuring that their activities are lawful. The Constitution also establishes a separation of powers, ensuring that no single branch of government has unlimited power.

ARTIFICIAL INTELLIGENCE IN E-GOVERNANCE[12]

The development, adoption, and promotion of AI have been prominently high on the list of priorities of the *Indian Government*,[13] an approach that is based on the notion that AI can make life easier and society more egalitarian. In 2018, the *Union government* (Aayog, (2018)) invested major financing towards research, training, and skilling in emerging technologies like AI, a 100% increase from earlier investments. *The National Institution for Transforming*

[7] "https://journals.sagepub.com/doi/full/10.1177/00195561241257461"
[8] "https://legislative.gov.in/constitution-of-india/"
[9] "https://legislative.gov.in/constitution-of-india/"
[10] "https://www.india.gov.in/"
[11] "https://legislative.gov.in/constitution-of-india/"
[12] "https://www.dgshipping.gov.in/Content/egovernanceeng.aspx"
[13] "https://www.india.gov.in/"

India[14] (commonly known as 'NITI Aayog'), a government-run think tank, has been tasked with developing a national AI policy to guide the government's AI activities.

India's e-governance system is rapidly growing, with an emphasis on using AI to improve efficiency, transparency, and accessibility. The Indian government's Digital India program has been a key driver for fostering AI integration into governance. AI-driven technologies are being increasingly integrated into various aspects of electronic governance, transforming the way government services are delivered and managed in the country.

EVOLVING THE LANDSCAPE OF E-GOVERNANCE IN INDIA[15]

- AI-Powered Citizen Services: India's government agencies are using AI to provide personalized and efficient services. Chatbots and virtual assistants are used to solve frequent concerns, decreasing the need for contact centers and improving user experience.

- Using Data Analytics to Make Informed Decisions: Government agencies are using AIdriven data analytics to process and analyze large amounts of acquired data. This enables data-driven decision-making and resource optimization.

- Digital Identity and AI in E-Government: Aadhaar uses artificial intelligence[16] for safe identity verification, fraud reduction, and service streamlining. AI in government portals and apps improves the user experience by personalizing content, making it easier for citizens to find information and services quickly.

- Transparency and Accountability: AI is being used to monitor and analyze government transactions and expenditures. This promotes transparency and helps identify irregularities or misuse of funds.

- The government invests in training programs to equip public officials with AI technology skills. This helps the workforce adapt to emerging e-governance trends.

[14] "https://www.niti.gov.in/"
[15] "https://www.dgshipping.gov.in/Content/egovernanceeng.aspx"
[16] "https://www.sas.com/en_us/insights/analytics/what-is-artificial-intelligence.html"

- Cybersecurity and Data Protection[17]: AI improves cybersecurity measures in egovernment systems. It protects government data by identifying and mitigating risks and vulnerabilities and preserving its integrity and confidentiality.

- AI-powered automation has reduced the administrative burden within government entities. Automating routine processes such as document processing, data input, and record-keeping frees up government employees to focus on strategic and value-added activities.

The Role of AI in E-Governance in Promoting the Rule of Law

AI has played a significant role in transforming e-governance in India. AI[18] has been implemented in various government sectors, including health care, education, transportation, and agriculture, and has improved efficiency and transparency in government systems. Several researchers, notably Reddy and Thakur (2019), have looked into AI applications in Indian governance. These applications include chatbots for citizen interaction, data analytics for decision-making, and predictive algorithms for resource allocation in government programs. Despite AI's role in the digital transformation of India's governance, implementation has created new opportunities and challenges. It is evident that officials lack awareness and require sufficient training on how to apply AI in e-governance[19] to derive the most benefits. Additionally, data privacy, security, and ethical concerns posed in utilizing AI in e-governance hinder the full utilization of these technologies. India has also had a history of interdepartmental conflicts and bureaucratic inertia, which continue to burden effective AI implementation in e-governance.

- **Increased Transparency**

The integration of AI into e-governance systems stands as a powerful catalyst for promoting transparency and accountability within government agencies. AI's real-time data reporting and tracking capabilities empower citizens to monitor the progress of their applications and transactions, effectively fostering a culture of trust and responsibility. This technological integration not only enhances the accessibility of information but also highlights the

[17] "https://www.cisco.com/site/in/en/learn/topics/security/what-is-cybersecurity.html"
[18] "https://www.ibm.com/think/topics/artificial-intelligence"
[19] "https://egovernance.vikaspedia.in/viewcontent/e-governance?lgn=en"

significance of AI in advancing responsible and citizen-centric governance, ultimately ushering in a new era of transparency and accountability within the government. This is consistent with the ideas outlined in ***State of Uttar Pradesh v. Raj Narain*** **(1975),**[20] in which the Supreme Court stressed the right to know and the necessity of government transparency. AI makes government acts accessible and traceable, strengthening the rule of law by eliminating opacity and increasing accountability.

- **Improved Efficiency**

By automating routine government tasks and processing large amounts of data, AI allows government officials to focus on higher-value responsibilities that require human judgment, ensuring faster decision-making and resource allocation. This efficiency reduces delays, a key factor in enforcing laws promptly, which is crucial to maintaining the rule of law. As stated in ***Hussainara Khatoon v. Home Secretary, State of Bihar*** **(1979),**[21] where the Court highlighted the importance of expediting legal processes.

- **Enhanced Accountability**

AI[22] systems provide a clear trail of government decisions and actions, which can be audited, ensuring greater accountability. Automated decision-making systems limit opportunities for corruption or arbitrary decision-making, promoting fairness and ensuring that public officials follow the law. AI's ability to keep track of actions ensures that no one, including government agencies, is above the law, a core principle of the rule of law.

- **Improved Access to Justice**

AI-driven platforms can provide automated legal assistance, especially for marginalized groups. These tools simplify legal processes, offering quick legal guidance or helping in filing applications. This ensures that citizens have equal access to justice, promoting fairness and upholding legal rights for everyone, a critical aspect of the rule of law. The principles brought out in ***Shreya Singhal v. Union of India*** **(2015)**[23] stressed the need for clarity and accessibility

[20] "State of Uttar Pradesh v. Raj Narain**,** (1975) 4 SCC 428"
[21] "Hussainara Khatoon v. Home Secretary, State of Bihar, (1979) AIR 1369, SCR (3) 532"
[22] "https://cloud.google.com/learn/what-is-artificial-intelligence"
[23] "Shreya Singhal v. Union of India, (2015) 5 SCC 1"

in the legislation. AI improves legal services by making them more accessible, particularly to citizens who might not otherwise be able to navigate complicated legal systems.

Challenges and Opportunities

- **Digital Divide**

The digital divide in India means that not all citizens have equal access to technology or essential services. Deploying AI in e-governance[24] must consider the equitable distribution of benefits and services.

- **Cybersecurity Threats[25]**

Ethical concerns revolve around the collection and use of citizen data. AI systems may process vast amounts of personal information, raising questions about data security, consent, and the potential for misuse. Balancing the benefits of AI[26] with privacy protection is a challenge. The security of government data is of paramount importance, and AI systems can be vulnerable to breaches or unauthorized access, making data security a significant challenge.

- **Resistance to Change**

Implementing AI-powered systems may encounter institutional resistance due to entrenched bureaucratic processes and a lack of knowledge of emerging technologies.[27] Overcoming these obstacles will need effective training, dealing with skepticism, and establishing an innovative culture.

- **Potential for Positive Impact**

Despite challenges, AI[28] has considerable potential to improve transparency, efficiency, and accountability in governance. By streamlining operations and decreasing human error, AI can

[24] "https://journals.sagepub.com/doi/full/10.1177/00195561241257461"
[25] "https://www.ncsc.gov.uk/section/about-ncsc/what-is-cyber-security"
[26] "https://www.ibm.com/think/insights/ai-privacy"
[27] "https://www.unesco.org/en/artificial-intelligence/rule-law/mooc-judges"
[28] "https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/artificial-intelligence/guidance-on-aiand-data-protection/how-do-we-ensure-transparency-in-ai/"

lead to more just and timely law enforcement, thereby promoting the concepts of the rule of law in today's digital society.

Conclusion

Incorporating AI into e-governance holds transformative potential for promoting the rule of law in India. AI can enhance transparency, improve administrative efficiency, and foster accountability, all while ensuring swift and fair law enforcement. However, challenges such as the digital divide, data privacy, and resistance to change must be addressed to maximize AI's impact. Continued efforts in developing inclusive, secure, and well-regulated e-governance systems[29] will be essential to strengthening the rule of law and advancing digital democracy in India.

2) What is the impact of introducing AI in e-governance while addressing the concerns regarding bias, transparency, and accountability?

The Indian government has made efforts to launch National AI Portal and Responsible AI for Youth to provide services to the citizens, they must ensure that AI can enhance transparency and accountability in the e-governance to curb corruption such taking effective steps to prevent insider threats where the government officials have unauthorized access to an information regarding national interest who try to steal the sensitive information for their personal gain, transmit such information to another country through the act of espionage or may sabotage the information where all these issues pose a major threat to the political stability or national security. There could be a possibility where some government officials may embezzle the funds allocated for the purpose of national interest, there could be a possibility of data manipulation or production of false identities. As a result, it is necessary for the government to introduce Artificial Intelligence to prevent such issues which can ensure transparency and accountability which can provide services to the citizens without causing any mishap to the progress of a nation[30].

The AI has the capability to perform various tasks provide accurate results unlike human beings. The AI can be used as a tool to prevent corruption in e-governance which can perform

[29] "https://www.legalserviceindia.com/legal/article-10720-analysis-of-artificial-intelligence-in-electronicgovernance-and-law.html"
[30] "AI to improve e-governance and eminence of life (book)"

the tasks such as predicting, detecting, and exposing corruption activities. It can also play the role of advising government policies by predicting its outcome on how it may or may not benefit the nation and its impact on citizens. AI can also be a user-friendly tool to serve the needs of citizens. Usually, the government keeps a check on the citizens who must obey the laws or else would face punishment for violating the laws. But there is flaw in this system since, some government officials indulge into corruption which can disrupt the progress of the nation and cause hardship to the citizens. So, the government must introduce AI in egovernance which can also help citizens to keep a check on activities performed by government officials which can ensure transparency and make government officials answerable to the citizens and the court of law thereby ensuring accountability[31]. When the AI is introduced in the e-governance platform it must designed with an algorithm which will maintain the records of every government official and monitor the tasks performed by them. For this purpose, there must be regulatory body which will control and monitor the efficiency of AI in delivering it's outcomes. The AI being regulated by a government established regulatory body will try to prevent insider threats or embezzlement of funds by tracking the records of government officials and tasks required to be performed which will analyse its outcome and predict its impact. It must also monitor how the government were allocated and what will be the purpose of its allocation[32]. Let us take an illustration, where the government has announced a scheme for providing housing facilities to the citizens by allocating 70,000 crores which will be announced to the public. The fund is then allocated to every government official (includes administrative officers, politicians from every state). AI will track and record the fund allocated to a particular government official, maintain records of how the fund was utilised and analyse its outcome. The AI will also maintain the records of personal information of the government official. If the government official does not completely utilise the given portion of fund, the AI will report the issue to the regulatory body that the fund allocated to that government official was not completely utilised to provide housing facilities to the citizens. The AI will also produce a record of how the fund was used by the government official and the regulatory body must conduct inquiry on how the fund was utilised. If it is found out that the government official hasn't initiated the project or utilised the fund completely then the regulatory body can take an action against such government official. The citizen who was a beneficiary under this scheme

[31]"https://www.researchgate.net/publication/349546498_Artificial_Intelligence_as_an_AntiCorruption_Tool_AI-ACT_--_Potentials_and_Pitfalls_for_Top-down_and_Bottom-up_Approaches"
[32] "(PDF) A Novel Framework for Harnessing AI for Evidence-Based Policymaking in E-Governance Using Smart Contracts (researchgate.net)"

can also report it to the AI that said person could not avail the benefits of the scheme which the AI will record and submit the report to the regulatory body. The e-governance must also provide a platform where the citizens can interact with AI and address their grievances. The citizens can also provide feedback with the help of AI through e-governance and rate their level of satisfaction of the government schemes and policies. The AI can also suggest few measures to be taken while framing laws and policies by assessing the risks associated and predicting it's outcome. This will help the government to reconsider the policy or laws and make changes while enforcing it to ensure that the needs of the citizens are satisfied.

AI in e-governance must also ensure that there is fairness and accountability while addressing the issues. The AI must be designed to provide unbiased outcomes which the developers must ensure its user friendliness. Bias poses as a major issue which must be developed and designed in such a way that does not discriminate any individual based on their background. The AI must be developed to provide services to people of different backgrounds such as gender, religion, race, caste, nationality, and socio-economic status to ensure that fairness[33]. Suppose a citizen is a beneficiary under a scheme who represents from a different caste or religion, the AI must not prohibit that person to avail the benefit based on his religion or caste. The established regulatory bodies must enforce laws to ensure that effective AI tools are deployed in the field of e-governance respecting diversity and must be regularly monitored or tested to prevent it's bias while delivering the output. The developers must also be monitored regularly to prevent them from feeding biased data into the AI system. There shall be stringent laws to ensure fairness and adequate training must be provided. The developer must be penalised if found violating the laws. The citizens can also provide their feedback or suggestions for improving the efficiency of AI. It must also uphold the rights of every individual and comply with the regulations. The goal of AI must be to safeguard the rights of individuals and generate accurate results in order the gain public trust[34].

The AI tool can also play a major role in determining the impact of policies or schemes introduced by the government. AI must be developed with bias detection algorithms such as measuring the ratio of favourable outcomes received by one group compared to another, assessing that there is equal representation of different groups. The AI must be developed to

[33] "(PDF) Algorithmic Governance and Human Rights: Developing Standards for Fairness and Accountability in AI (researchgate.net)"
[34] "(PDF) Data-Driven Decision Support Systems in E-Governance: Leveraging AI for Policymaking (researchgate.net)"

provide services to individuals from different background maintaining fairness and public trust. It must generate fair outcomes protecting the rights of individuals[35]. Let us take another illustration where the National Highway Authority of India calls interested road laying private companies to participate and apply for the road laying project covering 150 km between the cities of Bengaluru and Mysuru. This project is a part of 10 lane highway between the abovementioned cities. The contract will be awarded to the multiple private companies based on their expertise and budgetary allocations from the government of India and other requirements for such a project to be completed on or before the stipulated time frame. Complete details of the said project could be availed on NHAI website (e-governance portal). The interested companies are requested to apply with all their testimonials and quotations on the website. The application must be sent within 15 days from the date of notification. The best tender would be scrutinised by AI and the quote which satisfies all the requirements of the NHAI, that company will be awarded with the contract. Any application sent after the last day of submission will nt be entertained. The use of AI in scrutinising government contracts. The AI aims to prevent delay in providing contract to improve transparency in awarding contracts and to make both the parties accountable towards any corrupt practices, delay in completion of project, embezzlement of funds, cost escalation, to check the quality of work, prevent the use of substandard quality of materials to lay down the road. The AI will choose the best tender proposed by the private company which is feasible for the purpose of construction of highway by scrutinising every tender based on the following details; budget, duration of completion of project, testimonial of past performance and skills. The AI will play a major in this field since it will immediately predict the outcome of the project. This will help the government to award the contract to the best tender proposed by the private company to ensure that the project is completed within the stipulated time. AI also ensure diligence in performance task thereby nullifying the human error or bias.

The introduction of AI in e-governance can also prevent the creation of false identities and has the capability of identifying false identities. This can be enhanced by developing sophisticated tools with efficient training to detect false identities. The developers from the regulatory body must aim to prevent creation of false ID proofs such Aadhaar card, pan card, passport, passbook, driving license or for availing services provided by the schemes implemented by the government. Certain methods and techniques such as biometric analysis can be used to identify

[35] "https://medium.com/@manasbhuyan_4069/ai-governance-navigating-bias-detection-and-mitigation61c64c2dcc50"

and detect false identities since it can analyse and verify the physical characteristics of a person such as face, voice, fingerprints, signature, expressions, and skin texture. The AI must be designed to ensure efficiency with robust technology which can analyse the features of two identities, identify similar pattern and identify unusual patterns in the data. The AI tool must be developed through machine learning algorithms, deep learning neural networks, natural language processing, computer vision and predictive analysis[36].

The AI in e-governance must be designed in such a manner that it can provide services to individuals representing from diverse groups who speak different languages. India is multicultural country where people speak different languages and developing the AI to interact in one language is quite difficult to gain public trust. As a result, the regulatory body must ensure that the developers design the AI which can interact in all the Indian languages with every individual. This ensures that the individuals can address the needs to the government through online which can help the citizens to seek access to various facilities and provide greater satisfaction helping the government to gain public trust. Thus, introducing AI in e-governance can ensure transparency and accountability by reducing the risk of bias[37]. In this way, the rule of law can be successfully implemented through AI in e-governance.

However, introducing AI in e-governance can not only produce positive outcomes, but can also bring negative impact. Introducing AI in e-governance is quite expensive since it requires huge investment in research and development especially to provide efficient and effective training to individuals to develop the AI system in e-governance. AI cannot completely remove bias in e-governance since the developers of the government established regulatory body being influenced by the government can try to manipulate data by feeding bias data to protect the interests of government officials and safeguard their interests. AI can be designed to provide services to one sect of community without recognising the other community which can violate the rights and interests of the individuals. The government must invest more on cyber security which is expensive to regulate the AI prevent cyber-attacks since the AI system can be hacked by different countries who maintain hostile relations with India can misuse AI to create division or deny the services to the citizens such as the personal information of an individual can be misused and spread defamatory remark of that individual which can pose a hurdle towards

[36] "https://onfido.com/blog/ai-detecting-deepfake-fraud/"
[37] "(PDF) Algorithmic Accountability and Human Rights: Crafting Effective Governance Structures for Fair AI Systems (researchgate.net)"

maintaining the rule of law. Lack of digital literacy plays a key challenge in introducing AI in e-governance. According to NSSO data only 4.4% of rural households and 23.4% of urban households own computers. Only 42% of urban households and 14.9% of rural households can access internet. The government has taken steps to promote digital literacy and has made some achievement by ensuring efficient internet penetration. But to achieve higher rate of digital literacy will take more time because people living in urban areas can easily access internet but the major challenges exist in the rural areas since the pace of internet penetration is quite slow with 70% of rural households having no active internet facilities[38].

In the case of ***Justice K.S.Puttaswamy(Retd) And Anr. vs Union Of India*** And Ors.*,* the Supreme Court has emphasised on the issue of data privacy stating that privacy is a constitutional core value where informational privacy is a fundamental right and consent is essential for data collection, even though right to privacy is not expressly mention in the constitution but serves as a fundamental right and the invasions of data privacy is difficult to detect because they can be invisible. By applying the judgement given by the Supreme Court while adopting AI in e-governance, it is necessary to ensure data privacy of an individual is taken into consideration by creating robust algorithm. They must aim to enhance transparency and accountability[39].

In the case of ***Shreya Singhal v. Union of India***, the Supreme Court struck down section 66A of the Information Technology Act, 2000 declaring it unconstitutional since it violates Article 19(1)(a) and is not saved under the ambit of Article 19(2). The provision is criticised for being vague and uncertain since an innocent person can also be punished which had a chilling effect on the freedom of speech and expression. Based on this case, we can say that, there is a possibility that AI algorithms can inherit certain biases based on the data trained. It can also raise concerns regarding data privacy since personal information may be transferred to another third party thereby violating the right to privacy. Therefore, the government must establish a regulatory body to enforce strong data privacy regulation safeguarding the interest of the individuals and preventing bias through effective training systems to provide services to all individuals without any sort of discrimination[40].

[38] " https://sprf.in/digital-literacy-in-india-structural-constraints-and-the-nep-2020/"
[39] "Justice K.S.Puttaswamy(Retd) And Anr. vs Union Of India And Ors. on 24 August, 2017"
[40] "https://www.legalserviceindia.com/legal/article-10124-shreya-singhal-v-union-of-india-air-2015-sc1523.html"

Thus, we can say that by effectively implementing artificial intelligence in e-governance can ensure its transparency, accountability and mitigating the risk of bias thereby upholding the rule of law.

CONCLUSION

Introducing artificial intelligence in Indian e-governance[41] has positive impacts along with negative impacts. Overall, it is necessary to introduce an effective AI tool in e-governance since it can foster better interaction between the individuals and government ensuring transparency and accountability. The AI[42] tool can diligently perform the task by nullifying human error or bias. To achieve these positive results, the government must establish a regulatory body that can regularly monitor and regulate the AI system to prevent bias and to ensure that all the interests of the individuals are safeguarded to uphold the rule of law.

[41] "https://egovstandards.gov.in/"
[42] "https://www.informatica.com/resources/articles/ai-governance-explained.html"