

Artificial Intelligence and Electoral Democracy in India: Opportunities and Challenges

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Abstract:

Artificial Intelligence (AI) is revolutionizing election processes, contestation, and governance in India, the world's largest democratic nation. The paper discusses the ambivalent role of AI in the Indian electoral landscape: both as a means of improving the electoral process, such as the cVIGIL app, Voter Turnout App, and machine learning-aided audits, and as a means of risk, including deepfake technology, fake content, and algorithmic microtargeting, which threaten the autonomy of the voter and the accuracy of the information. The paper explores the lessons learnt from the 2024 Lok Sabha elections and the Oversight of Information Technology for Election Safety and Security Guidelines published by the Election Commission of India in the past, and the changes in Information Technology Rules made by the Ministry of Electronics and Information Technology in 2025-2026. It is also indicative of the interconnectedness of Aadhaar-electoral roll as a case of AI-adjacent administrative governance, in which there is a risk of disenfranchisement. The paper argues India has responded that there has been a lack of a systematic approach, and a failure to include focus on due process, freedom of expression, and the digital divide. It concludes with a blueprint for a rights respecting calibrated governance of AI in India's electoral future.

Keywords: Artificial intelligence, electoral democracy, deepfakes, Election Commission of India, digital governance

Introduction

India is the world's largest exercise of electoral democracy with 1 billion people cast their votes across a wide variety of linguistic, socio-economic and geographic contexts (CoinGeek, 2025). There are two trends in the way AI is coming to this: the machine learning and generative models' side, and the biometric authentication and automated content-detection side. The Election Commission of India (ECI) is one of the crucial election management organizations that has leveraged AI-driven applications to improve administrative effectiveness, address grievances, and audit processes. Specifically, the Election Commission of India (ECI) has embraced the use of AI tools to enhance administrative work, manage complaints, and streamline auditing procedures. On the other hand, political parties, campaign consultants and scoffed actors have been using generative AI to

produce synthetic media, deepfakes and micro-targeted messages that have the capacity to impact voters' perceptions at a far greater and faster rate than ever before (Global Network on Extremism and Technology [GNET], 2024). It was a "live laboratory" of AI in elections, and also caused "alarm" (Tech Policy Press, 2024) during the Lok Sabha general elections of 2024, which were held in seven phases from April to June.¹

The paper discusses the opportunities and challenges of AI to electoral democracy in India in three interlinked dimensions: AI's use by ECI in electoral processes, the potential of generative AI in electoral communication, and the response of the Indian state – including the recent changes in the Information Technology Rules by MeitY.

It also takes up the issue of linking Aadhaar with the electoral roll as a case-study of AI-adjacent administrative governance, and suggests a framework for calibrated regulation. The central thesis is that, as of now, the adoption of AI in the electoral domain in India has been productive, but at a narrow, technical, administrative level and not at the level of responding to the harms caused by the use of AI in the electoral domain, which remains reactive, fragmented and insufficiently examined.

AI as an Instrument of Electoral Administration

Over the past decade, the ECI has built an ecosystem of information and communication technology (ICT) applications that increasingly incorporate automated and AI-assisted functions across the electoral cycle (Election Commission of India [ECI], n.d.-a). Prominent among these is cVIGIL, a mobile application that allows citizens to photograph or record suspected violations of the Model Code of Conduct; the app automatically geo-tags submissions and initiates a 100-minute window for field units to investigate and resolve complaints (ECI, n.d.-b). During the 2019 general election, cVIGIL received over 142,000 complaints, of which the ECI resolved 99 percent, with roughly 80 percent found to be valid, a marked improvement over the 20 to 25 percent accuracy rate previously associated with manually reported Model Code of Conduct violations (ECI, n.d.-a). The application functions as a decision-support tool that channels citizen participation directly into enforcement, illustrating how automation can strengthen, rather than merely digitize, an existing regulatory function.

Complementary systems extend this logic across the electoral calendar. ERONET supports electoral roll management, from new registrations to roll purification, while the Voter Turnout application enables bi-hourly reporting of poll percentages, and the Know Your Candidate application allows citizens to check the criminal antecedents of contesting candidates (Chief Electoral Officer, Kerala, n.d.). Collectively, these tools situate the ECI within a broader Digital India push toward e-governance, in which mobile-first applications leveraging geo-tagging, camera access, and offline functionality substitute for paper-based administrative processes (Chief Electoral Officer, Kerala, n.d.).

A further frontier concerns the verification of Electronic Voting Machines through the Voter-Verified Paper Audit Trail (VVPAT), introduced in 2019 to reassure voters that their ballot was correctly recorded. Because physical VVPAT-EVM cross-verification is presently limited to five randomly selected machines per constituency, researchers have proposed an AI-powered VVPAT counter that applies image-processing and machine-learning algorithms to automate the matching of paper slips against machine tallies, a development that could, if adopted, substantially expand the scope of auditable machines without proportionately increasing the time or personnel required (Murugesan & Saganvali, 2022). Such proposals indicate a further potential trajectory for AI in Indian elections, embedding it not merely in campaign communication but within the technical infrastructure of vote counting and verification itself.

These applications demonstrate that AI-adjacent automation, when embedded in institutional processes with clear accountability structures, can enhance transparency, citizen participation, and administrative efficiency without displacing human oversight of core electoral functions.

The Shadow Side: AI-Enabled Threats to Electoral Integrity

The potential for generative skills is not without its capacity to cause harm, too. India is set to face its first 'big AI-generated deepfakes battle' in the next general elections (Al Jazeera, 2024). Synthetic media was used by political parties such as the Bharatiya Janata Party and the Indian National Congress for various reasons from making it funny to attacking people's reputation. One of the videos that were shared is the one in which Prime Minister Narendra Modi is dancing to a Bollywood song – contented as per the PM as a creative song, not condemned (as per Harvard Political Review 2024). In contrast, an AI-generated voice has been added to the Congress leader Rahul Gandhi's video, making it seem as if he said he resigned over his religious identity, as part of the party's campaign narrative (Harvard Political Review, 2024). With the help of deepfake technology the Dravida Munnetra Kazhagam (DMK) party brought back the former leader of the party M. Karunanidhi, who passed away in 2018 and campaigned for his son (Blackbird). The Communist Party of India (Marxist) used AI to let an elderly party leader give the speech it couldn't be without, and the AI was also used to project a missing party leader for the Bharatiya Janata Party (BJP) at the upcoming event in the town of Bijnor (The Economic Times, 2024).

The impacts were enormous, as Indian parties were estimated to have spent about \$50 million on AI-generated content for their campaigns in the run-up to the election, and independent observers reportedly identified over 50 million AI-generated voice-clone calls during the two months before the first phase of polling began (Harvard Political Review, 2024).²

In response to the growing volume of suspected deep fake videos, a coalition of fact checking organizations has created the Deepfakes Analysis Unit that launched the WhatsApp tipline to accept deep fake audio and

video files from the public, from the low-quality sort to the entirely AI-generated deepfake. To address the increasing numbers of suspected deep fake videos, a group of fact checking organizations launched the Deepfakes Analysis Unit, which started a WhatsApp tipline to allow the public to submit alleged deep fake audio and video materials, whether they're extremely low quality or totally AI-generated.³

Regulatory and Institutional Response

While there has been a lot of evolution in India's regulatory response to electoral harms facilitated by artificial intelligence, the majority of it has been in the form of executive advisories. MeitY has adopted a wait-and-watch stance and in April 2023, it informed Parliament that it was not in the business of regulating AI (Harvard Political Review, 2024). This was a change after the general election, when the public began to take notice of the following advisory, issued by MeitY, which requires that under-tested or unreliable generative AI tools be clearly marked as such and technology companies to be wary of introducing tools that could compromise electoral integrity: (Harvard Political Review, 2024). For its part, the ECI issued its first advisory on AI-generated content in May 2024, following a direction issued by Delhi HC out of a PIL stating its obligations under Model Code of Conduct and requesting flagging of content within three hours of notification without detailing the enforcement mechanism (Tech Policy Press, 2026).

The regulatory landscape became more solid at the end of 2025, and early in 2026. On 16 October 2025, the Ministry of Electronics and Information Technology (MeitY) issued the Draft Amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, which introduced a new definition of “synthetically generated information,” which refers to content that is created or modified using computational or algorithmic processes to seem real, accurate or genuine (S.S. Rana & Co., 2026). Meanwhile, a third advisory from the ECI was issued, suggesting that be at least 10 per cent of the visible area of the video, and that the content must be identified as belonging to a specific creator. (Tech Policy Press, 2026) These proposals have been formally notified and will take effect from February 20, 2026, and include requiring platforms to request declarations from users about whether their content is synthetic, and to label any synthetic visual content, among other requirements (Forbes India, 2026; S.S. Rana & Co., 2026).

The measures have been severally criticised. The definition of synthetically generated information has been criticized as being too broad as it does not distinguish between malicious deception and legitimate uses like satire, parody, translation or accessibility editing, in violation of the broad principle of vagueness laid out by the Indian Supreme Court in *Shreya Singhal v. Union of India* (Gupta, 2025). Some point to the absence of an independent adjudicatory body to question the decisions of the platforms with rule making, enforcement and adjudication all being conducted within MeitY, which conflicts with natural justice (Gupta, 2025). Industry associations have expressed their individual concern that the amendments from an advisory instrument to a

binding one for the first time have not received parliamentary approval and that they are also not granted parliamentary authorization.^{4,5}

Aadhaar-Electoral Roll Linkage: Algorithmic Governance and Disenfranchisement Risk

One aspect of AI for electoral governance is the connection between the biometric identity data and electoral registers. ECI attempted to Aadhaarise Electoral Photo Identity Cards (EPIC) during the National Electoral Rolls Purification and Authentication Programme in 2015 to delink duplicate and bogus entries in the Electoral Roll (Shankar IAS Parliament, 2025). This exercise was halted by the Supreme Court once it came to light that the linking process done in Andhra Pradesh and Telangana had an obvious fault in the process of excluding an estimated 30-55 lakh eligible voters from electoral rolls (The Wire, 2025). The Election Laws (Amendment) Act, 2021 then allowed for Aadhaar to be linked voluntarily with EPIC, but on the Eve of the Election, on the day of the elections the scheme is going to be enforced, this forced Aadhaar linkage has led to doubts regarding the scheme on the part of digital rights activists and opposition parliamentarians that it is an implicit mandatory linkage.

Technically, with the best of intentions, as of 2018 about 12 per cent of the voters in Aadhaar were either incorrectly identified or absent from the list, but this could sway the outcome in close elections (The Wire, 2025). Perhaps it's just as well, logically, that the process of getting Aadhaar as an "indigenous" citizen would not have been the basis for determining eligibility for voting in the first place, and even less for deciding who is entitled to vote and who isn't; besides, Aadhaar's declared objective is to identify non-citizen registrants (The Wire, 2025). Electoral and biometric databases have also been mentioned as having the possibility to be cross-referenced with each other, enabling a large-scale voter profiling process, which would be contrary to the Supreme Court's recognition of informational privacy as a fundamental right in Justice K.S. Puttaswamy v. Union of India (Shankar IAS Parliament, 2025). Every time, as the way in which AI-related government solutions seek to address administrative problems, but have not been fixed for mistakes, checked, or legislated, they have the potential to cause harm to the people they are designed to help.

Conclusion

In the realm of Indian electoral democracy, AI has emerged as an inveterate force, enhancing administrative capabilities and threatening the information underpinnings of fair and free elections. These were both vividly showcased in the 2024 general election, when the ECI's technology stack was growing and powerful, and there was a host of deepfakes, cloned voices and AI-generated political messaging. The way the regulatory response has evolved in India (from the executive advisories to the amendments in the Information Technology Rules in 2025-2026) is one towards institutional learning, but one that is legally fragile, legally bound to executive discretion and less responsive to the disenfranchisement risks shown in the Aadhaar-electoral roll experience.

To enable electoral democracy in an information space overwhelmed by Artificial Intelligence, it is time to move from reactionary advisories to one based on law, independent adjudication, and readily available access to the information in the digital format, so as to distinguish between valid democratic expression and electoral harm.

Endnotes

1. 2024 was dubbed a “super election year” by the United Nations Development Programme, with more national elections being held throughout the world than ever before, and AI being the center of attention of many observers of democratic processes across the globe (German Council on Foreign Relations, 2024).
2. Indeed, according to the Google's Project Shakti, which aims to trace election-related misinformation, while deepfakes and AI-generated content were likely involved in around two percent of the content the company analyzed, misinformation of more traditional types was more likely to be present on the political landscape during the 2024 election (Tech Policy Press, 2024).
3. The mention of Cambridge Analytica needs to be taken with a grain of salt: Reports have questioned the firm's own success in the use of its psychographic techniques, and the reporting has indicated that its powers are significantly less than what it is reported to have claimed.
4. The European Union example of a cautions comparative exercise is that during the 2024 elections to the European Parliament, synthetic videos have proliferated, and the labelling requirements are unlikely to prevent their spread (Ronin Legal Consulting, 2025).
5. The government has imposed a new regulation that will come into effect in September 2025, mandating the use of a consistent labelling system that includes visible and machine-readable digital signatures, and that the platforms are responsible for verifying the signatures (Ronin Legal Consulting, 2025).

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