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## ALGORITHMIC GOVERNANCE AND ARTICLE 14: A CONSTITUTIONAL EXAMINATION OF AUTOMATED DECISION-MAKING IN INDIA

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By- Bhuvan Raj A<sup>1</sup> & Simran P Kanchagar<sup>2</sup>

### ABSTRACT

*The growing popularity of algorithmic and automated decision-making (ADM) system in government poses both an opportunity for a reform and a serious threat to the Constitution of India. ADM has the potential to improve efficiency, accuracy, and scalability in any aspect of governance, including welfare distribution, policing, and financial regulation; yet, it also introduces issues such as confusion, arbitrariness, and centralized bias. In a country like India, where governmental acts are judged on the basis of non-arbitrariness, as required by Article 14 of the Constitution of India- equality before the law and non-arbitrary action- the use of ADM requires a constitutional scrutiny.*

*This paper argues that ADM, if unregulated, could have an effect of creating classifications that ultimately cannot satisfy intelligible differentia and a rational nexus, or decisions that reflect "manifest arbitrariness." Based on its review of the constitutional case law from E.P. Royappa<sup>3</sup> to Shayara Bano<sup>4</sup>, and through a global context of algorithmic accountability; this paper explores whether ADM is compatible with constitutional guarantees. This paper's*

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<sup>1</sup>Student, Christ academy institute of law Bangalore.

<sup>2</sup> Student, Christ academy institute of law Bangalore

<sup>3</sup> E.P. Royappa v. State of Tamil Nadu, (1974) 4 S.C.C. 3

<sup>4</sup> Shayara Bano v. Union of India, (2017) 9 S.C.C. 1

*analysis frames ADM<sup>5</sup> within the wider principles of natural justice, transparency and accountability; and it proposes a framework for judicial and legislative advice. Ultimately, this paper argues that Article 14 is capable of governing algorithmic state action, and may further develop in doing so, while emphasizing the constitution's resilience through equality in the digital age.*

**KEYWORDS:** Algorithmic Governance, Article 14 – Equality and Non-Arbitrariness, Automated Decision-Making (ADM), Constitutional Accountability in Technology, Algorithmic Bias and Transparency.

## **1. INTRODUCTION**

The government's engagement with technology is not a new matter. The Indian administrative framework has been data-driven for a long time and has used data to make decisions, whether census data or statistical planning. Overall, the thrust of technology today is the discretionary decisions become automated; decisions that were once made by humans are now performed by algorithms. This system of government, also known as "algorithmic governance," includes the use of artificial intelligence (AI), machine learning, and predictive analytics to distribute welfare benefits, detect fraud, or identify high-risk individuals to survey.

We now see evidence of ADM replicated across India:

- Welfare Administration: Biometric authentication using Aadhaar for both the Public Distribution System (PDS) and Direct Benefit Transfers.
- Law enforcement: use of facial recognition technology by the Delhi Police and of predictive policing software being piloted in a few cities. Financial

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<sup>5</sup> A.K. Kraipak v. Union of India, (1969) 2 S.C.C. 262

- Regulation: Automated credit scoring models deployed by Fintech companies, often in combination with government sponsored mechanisms, such as Jan Dhan accounts and Aadhar.

While his supporters laud ADM as a resolution to the issues of corruption and inefficiency, critics suggest that the opacity of algorithms undermines constitutional guarantees even though they may have the law on their side. A unique aspect of the Indian Constitution as compared to other constitutions, is that Article 14 is characterized as a living document or principle, prohibiting discrimination and arbitrariness<sup>6</sup> in the state. This nuance, in conjunction with contemporary debates around surveillance and facial recognition, offers India a rich context to consider constitutional checks on ADM. The situation is not a theoretical one. Reports are already surfacing regarding welfare exclusion caused by biometric mismatch, misidentification in surveillance contexts, and algorithm bias in financing contexts. In these instances, the citizen affected finds themselves with the almost impossible task of contesting an algorithm's decision when humans are unable to understand the algorithm's reasoning.

Accordingly, this paper asks: Could ADM systems purposed by the state survive scrutiny under Article 14 of the Indian Constitution? And if not, how do we adapt the constitutional framework to meaningfully engage with this new frontier?

## **2. ARTICLE 14: THE CONSTITUTIONAL CORNERSTONE**

The Indian Constitution defines the principle of “equality before the law” and the principle of “equal protection of the laws” in Article 14. Over the years, judicial interpretation has made this most basic principle a vibrant and satisfactory doctrine to examine the validity of both legislative and executive

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<sup>6</sup> Maneka Gandhi v. Union of India, (1978) 1 S.C.C. 248

action. Article 14 has legally evolved mostly in four broad stages: early notions of classification<sup>7</sup>, expansion to arbitrariness, crystallization of the principle of manifest arbitrariness, and acceptance of substantive fairness as part of equality<sup>8</sup>. Each of these stages provides a distinct vantage point through which the constitutional validity of algorithmic decision making (ADM) can be assessed.

### 2.1 Early Doctrine of Classification

The earliest judicial jurisprudence<sup>9</sup> under Article 14 was dismissive of factual classifications<sup>10</sup> by the legislature. A seminal precept in this regard is the case of *State of West Bengal v. Anwar Ali Sarkar* (1952), where the Court invalidated a specially enacted code of criminal procedure to be applied only to “special cases.” The Court held that the legislative classification of “special cases” lacked a rational nexus with the articulated intent of the law. The court developed the traditional two-prong test:

- The law must create an intelligible differentia distinguishing those grouped together from those outside the class.
- A rational relationship must exist between the grounds of distinction and the aim of the law.

This test served as the foundation of the Court’s Article 14 jurisprudence for the next twenty years. The focus was, again, to ensure legislative classifications<sup>11</sup> were not arbitrary or fanciful, but based on sufficient distinctions linked to the state’s legitimate objective. As applied to algorithmic

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<sup>7</sup> *State of W.B. v. Anwar Ali Sarkar*, A.I.R. 1952 S.C. 75

<sup>8</sup> *Navtej Singh Johar v. Union of India*, (2018) 10 S.C.C. 1

<sup>9</sup> M.P. Jain, *Indian Constitutional Law* (8th ed., LexisNexis, 2018)

<sup>10</sup> H.M. Seervai, *Constitutional Law of India* (4th ed., Universal Law Publishing, 2013)

<sup>11</sup> Tarunabh Khaitan, *Equality: Legislative Review under Article 14 of the Indian Constitution* (2004)

decision-making, the classification doctrine raises urgent issues. Algorithms frequently<sup>12</sup> and quickly sort individuals into groups such as “eligible” and “ineligible” for welfare benefits, loans, or security clearances. These classifications may rely on convoluted correlations of people’s behaviour in data such as phone usage, feeds of where people are located or even how people type that may not have a rational relationship to the state’s objective. To the extent these correlations cannot be stated, agreed, and verified with transparency, the ADM system is likely to breach the constitutional requirement of legitimate classification. Thus, the doctrine requires that governments ensure back of the algorithm, algorithmic outputs are explainable, auditable, and justifiable under Article 14.

## 2.2 Expansion to Arbitrariness<sup>13</sup>

The doctrinal basis of equality shifted in a completely new direction in *E.P. Royappa v. State of Tamil Nadu* (1974). In that case, the Court moved away from the narrow classification test and famously held: “Equality is the opposite of arbitrariness. Equality and arbitrariness are in effect, sworn enemies.” In this context, Article 14 is transformed into a protection against arbitrary state action, rather than solely a limiting function applied to unreasonable classifications. Further, this principle was reiterated in *Maneka Gandhi v. Union of India* (1978), in which the Court stated that together, Articles 14, 19, and 21 framed a -golden triangle- embodying fairness, rationality, and due process. This embodies a broadening of interpretation that, all instantiation of arbitrary, unreasonable, or unjust state actions could be struck down under Article 14<sup>14</sup>.

## 2.3 Manifest Arbitrariness

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<sup>12</sup> Solove, Daniel J., “A Taxonomy of Privacy” (2006) *University of Pennsylvania Law Review*

<sup>13</sup> Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (2018)

<sup>14</sup> *Maneka Gandhi v. Union of India*, AIR 1978 SC 597

The arbitrary principle evolved into a higher standard of "manifest arbitrariness" in *Shayara Bano v. Union of India* (2017), where the Court invalidated the practice of instantaneous triple talaq. The opinion claims that laws or practices are unconstitutional where they are "capricious, irrational, and without sufficient determinative principle." This concept of arbitrariness is distinguishable from the earlier notion of reasonable classification, as it gives the courts the ability to strike down state action or laws that cannot invoke principle, fairness or consistency.

When applied to ADM, the standard ostensible arbitrariness takes on newfound significance. Many of these hybrid and algorithmic systems exist as "black boxes", where even the coding developers would be unable to comprehend the specifics of the decision pathways that the algorithm is perpetrating. This inaccessibility, in terms of understanding decision criteria, undoubtedly leads to them generating outputs that would constitute absolute as well as manifestly arbitrary forms of decision making. Moreover, for example, when loans are declined by algorithms based on non-explanatory correlations (for example, shopping behaviours or neighbourhood data) this may enforce manifestly arbitrary behaviours. The arbitrary principle focuses on the need for algorithmic governance to be transparent, publicly available, easily explainable and to be based on accessible principles in order to pass constitutional muster.

#### 2.4 Equality as Substantive Fairness

The trajectory of Article 14 jurisprudence eventually reaches a current understanding that Article 14 guarantees substantive equality. This development can be witnessed in cases like, *Navtej Singh Johar v. Union of India* (2018), in which the Court interpreted Article 14 with a lens of constitutional morality to strike down Section 377 of the Indian Penal Code, to the extent of criminalizing consented same-sex relations. The judgment made

a point that equality is not simply formal (like for like) but substantive being called for the dismantling of systemic inequalities and ensuring fair outcomes. This understanding presents serious implications for ADM. Algorithms tend to replicate existing social biases, whether in recruitment, policing or even welfare distribution, given they are trained on historical data. Of course, if uncontested, ADM would only continue and reinforce structural inequalities. With the substantive fairness understanding in mind, however, the State is constitutionally required to not only refrain from acting arbitrarily, but design and use ADM in a way that proactively attempts to dismantle and minimize historically sanctioned inequities. Equality would thus require algorithmic accountability mechanisms, impact assessments and bias mitigation action to ensure ADM does not discriminate against at-risk groups.

### 3. AUTOMATED DECISION-MAKING: FRAMEWORK AND THREATS

The inclusion of automated decision-making (ADM) within governance frameworks is hailed for its efficiency, scale, and objectivity. However, the very properties rendering ADM attractive also create considerable constitutional threats. Before assessing ADM under Article 14, it is important to first understand ADM's architecture, next to elucidate ADM's threat indices within governance, and lastly, use solid Indian instances where such risks have already occurred.

#### 3.1 How does it work?

ADM frameworks are typically composed of three interrelated components:

**Data Collection** – ADM's architecture is premised on data harvesting or collection at scale. This may include biometric data or identifiers, such as fingerprints or iris recognition, histories of financial transactions, or even behavioral traces, like social media activity or geolocation. Governments, too,

are increasingly relying on such datasets to render welfare distribution and policing as more “scientific” and “data-driven.”<sup>15</sup>

**Model Training** – Algorithms are trained on historical datasets using machine-learning methods, seeking to uncover and “learn” patterns and relationships in data. For instance, a past dataset containing historical welfare fraud, could be used to train a new ADM system, theorizing that the system may detect “future” risk of welfare fraud. The main concern here is that if historical datasets exhibit unwarranted, entrenched bias, the algorithms will also learn and reproduce the same bias when trained.

**Automated Outputs** - Once the model is trained and its outputs will have irreversible<sup>16</sup> real-world status: as approval or disapproval of welfare benefits, a designation of credit score (or not), a flag designating someone as “high risk” by law enforcement. When presented to the public, these outputs are often cloaked in assurances of objectivity or neutrality - masking their dependence on the same biases evident in the original training data and the design choices of the system's creators. This all sounds efficient, but it becomes a serious peril when projected onto constitutional paradigms such as Article 14.

### 3.2 Risks of ADM in Governance Contexts

The risks of ADM in governance is not a hypothetical concern - there is ample precedent from other jurisdictions that raises these concerns, with particular implications for the governance under India's constitutional order.

**Opacity (The Black Box Problem)** - The most complex machine learning models - with an emphasis on deep neural networks - generate outcomes via

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<sup>15</sup> *K.S. Puttaswamy v. Union of India*, (2017) 10 SCC 1

<sup>16</sup> Shoshana Zuboff, *The Age of Surveillance Capitalism* 198–202 (PublicAffairs 2019)

entirely opaque mechanisms. Outcomes are opaque even to experts, and this opacity raises difficulty associated with the *prima facie* <sup>17</sup>constitutional requirement that state action must be accompanied by reasons which are intelligible to those affected by the action. When a citizen is unjustly flagged as a "security risk" or denied assistance, and neither the citizen nor the state can provide intelligible reasons regarding decision, the resulting state action becomes arbitrary in the context of Article 14.

**Bias and Discrimination** – Historical datasets often reflect differences such as caste, gender, and socio-economics. Algorithms learned from such datasets may compound structural discrimination. As the U.S. has shown with its use of predictive policing concepts which have explicitly targeted certain minority communities across the nation, the algorithms developed to aid comfort in policing and the process of arrest. Similarly, through the advancement of AI, datasets in India based off caste can appropriately mark distinctions in social order, likely resulting in classifications that do not meet the rational nexus requirement or manifest arbitrariness associated to members based in caste.

**Lack of Accountability** - The issue of responsibility becomes almost completely blurred when governments pass decision-making processes onto private vendors, or say, third party algorithms. If public welfare <sup>18</sup>is determined by a matching algorithm that is the property of a vendor, where is the accountability: the state? the vendor? the algorithm? This distribution of accountability undermines the constitutional guarantee of effective but possible remedy.

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<sup>17</sup> *Kesavananda Bharati v. State of Kerala*, AIR 1973 SC 1461

<sup>18</sup> Granville Austin, *The Indian Constitution: Cornerstone of a Nation* (Oxford Univ. Press 1966)

**The Scale of Harm** - Human officials make mistakes and the error may lie with a limited number of individuals, but with an algorithm, it can produce repetition of the bias or error for millions of cases at once. This widening of the scale makes people's mistreatment more amplified, and impacts their rights and Article 14 concerns heightened, as entire classes of citizens can be excluded from inclusion and not have hope of seeking any redress.

#### 4. CASES FROM INDIA

The following examples from India help demonstrate these risks.

**4.1 Welfare Exclusions<sup>19</sup> from Aadhaar** - Civil society organizations, such as the Right to Food Campaign, for example, have reported that some beneficiaries were excluded from ration entitlements because of authentication failures in Aadhaar, though they were legally entitled under the National Food Security Act. Varying technical incompatibilities have rendered vulnerable populations as unassured even though specific legal protections exist, and this constitutes a clear affront to the Article 14 conditions of equality and non-arbitrariness.

**4.2 Facial Recognition Technology used by Police** - Reports indicate that the Delhi police have been employing facial recognition technology<sup>20</sup> which has been shown to have up to a 42% false positive rate in controlled testing environments resulting in exacerbated wrongful arrest risks particularly for marginalized communities. This constitutes not just arbitrariness, as exhibited by the policing constitution, but also

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<sup>19</sup> Jean Drèze & Amartya Sen, *An Uncertain Glory: India and its Contradictions* (Princeton Univ. Press 2013)

<sup>20</sup> Clare Garvie, *Facial Recognition Technology: Privacy and Civil Liberties Considerations* (Georgetown Law Center on Privacy & Technology 2016)

a failure to ensure substantive fairness, which also is required under Article 14.

**4.3 Credit Scoring Algorithms** - Emerging Fintech platforms in India are relying on models that assess credit using non-traditional datasets, such as SMS metadata and call logs as opposed to traditional measures of identity verification. Although these are touted correspondingly as enabling financial inclusion<sup>21</sup>, this same model often produces negative habits for the poor, who may lack stable financial or digital behaviour. Such models also violate linkage criteria and substantive equality required by Article 14, by baking into model designs the social inequities faced by certain populations.

#### **4.4 Arbitrariness**

In the context of expanded Article 14 in *E.P. Royappa and Maneka Gandhi*, arbitrariness has emerged as the sworn enemy of equality. In the setting of ADM, arbitrariness arises when algorithms trained on incomplete, biased, or opaque data result in outcomes that are unreasonable, disproportionate, or inexplicable.

For example, if an algorithm rejects a student's scholarship application without the state being able to explain what reasoning process has led to this decision, then the decision may be arbitrary. The aspect of machine learning model opacity often referred to as the "black box problem"<sup>22</sup> is in direct conflict with the constitutional tenet that state action must be reasoned and justified. The possibility of unexplained and irrational outcomes may fall under the rubric of "manifest

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<sup>21</sup> Government of India, National Strategy for Financial Inclusion 2019-2024

<sup>22</sup> Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* (Crown Publishing 2016)

arbitrariness” under the Shayara Bano case<sup>23</sup>, and ADM systems would therefore be subject to possible constitutional invalidation.

#### **4.5 Procedural Fairness and Natural Justice**

The notion of natural justice, and in particular the principle of audi alteram partem (the right to be heard), has been recognized by the Supreme Court as a central feature of administrative action. In the case of A.K. Kraipak v. Union of India <sup>24</sup>, the Supreme Court reduced the distinction between administrative and quasi-judicial functions, and found that the same idea of fairness must apply to every state action.

### **5. INTERACTION WITH ARTICLE 21**

Even though this chapter principally discusses Article 14, the case of ADM also implicates Article 21 particularly in light of Maneka Gandhi which saw Articles 14, 19 and 21 linked together as emanating the idea of procedure that is fair, just and reasonable. As a result, any algorithmic process that deprives people of welfare, liberty, or the right to earn a livelihood must also adhere to the requirement for a fair procedure under Article 21.

Together, Articles 14 and 21 require that ADM is transparent, reasoned, and procedurally fair. They will prohibit classifications due to technological accidents stemming from data biases, arbitrary outcomes due to biased data, and exclusions without a right to notice or hearing. The constitutional framework gives courts the ability to test and interrogate ADM.

### **6. TOWARDS A CONSTITUTIONAL FRAMEWORK FOR ALGORITHMIC GOVERNANCE**

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<sup>23</sup>Shayara Bano v. Union of India, (2017) 9 SCC 1 : AIR 2017 SC 4609.

<sup>24</sup> A.K. Kraipak v. Union of India, (1969) 2 SCC 262 : AIR 1970 SC 150.

If the deployment of ADM is to be sustainable in a constitutional sense, the use of algorithmic decision-making in governance must be carved out of an approach to protections, safeguards, and principles influenced by the jurisprudence found in Article 14. A forward-looking constitutional framework can be imagined through five interconnected principles.

### **6.1 Transparent and Explainable**

The bare minimum a constitutional framework would require is some measure of transparency in algorithmic processes. This can be exemplified by the European Union's General Data Protection Regulation<sup>25</sup>, which has granted a "right to explanation" for automated decisions. In India's case, this would mean that citizens would have a right to know why an algorithmic decision-making system, for example, denied them the benefit to which they were entitled, found them suspicious, or assigned them a low-risk score.

Explanations need to be understandable and not only filled with technical terms, as per Article 14's requirement for reasoned state action.

### **6.2 Auditing Algorithms**

To protect against hidden biases and to ensure that equality norms are followed, ADM systems should be audited regularly and in a transparent manner, by experts that are independent of the ADM system<sup>26</sup>. Auditing algorithms<sup>27</sup> would uncover if particular groups are disproportionately disadvantaged by the algorithms, whether they reproduce the same caste or gender inequalities, or fail to meet constitutional standards of review. Auditing

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<sup>25</sup> GDPR, Reg. 2016/679, O.J. (L 119) 1 (EU)

<sup>26</sup> I.P. Massey, *Administrative Law* (LexisNexis 9th edn., 2019)

<sup>27</sup> Karen Yeung & Martin Lodge (eds.), *Algorithmic Regulation* (Oxford Univ. Press 2019)

systems are in line with Article 14's simplicity of systems being rational and not discriminatory, while also throwing a light on injustice.

### **6.3 Human Interaction**

Significant decisions, for example, regarding the distribution of welfare benefits, healthcare, or policing, should never be fully automated. Keeping a human input into the scope of the final decision still leave responsibility in order to hold the accessing official of accountable of duty. Auditing systems present a constitutional protection from mechanical arbitrariness, and the challenges of attending to individual circumstances, or following natural justice principles.

### **6.4 Remedies / Redressal**

Constitutional governance should ensure citizens are capable of bringing opinions on the decisions arrive to Automated Decision-Making Systems. Access should also mean that citizens have access to appeal mechanisms to courts or tribunals to compel the decision to disclose processes and to order remediation or consultation. While there is no simplified or straightforward mechanism for accessing for redressal, like that which implemented is at the discretion of their approach, unaccountable governance is likewise unaccounted for, resulting in what diverges outside of the protection of any level of judicial oversight, violating Article 14 rights.

## **7. COMPARATIVE LESSONS**

India can draw from existing experiences in other countries while developing its own.

**European Union (GDPR and AI Act)** - The GDPR Article<sup>28</sup> calls for transparency in automated decision making, while the future AI Act will introduce mandates of risk assessments and safeguards for “high-risk” AI.

**United States** - Courts have examined predictive police tools under the Due Process<sup>29</sup> Clause, with some initiatives aimed at explaining and procedures safeguards.

**India**- Rather than duplicate models from abroad, India should clearly identify an “Algorithmic Equality Standard” under Article 14. This would apply the classification and arbitrariness doctrines and the existing commitments to substantive fairness to ensure that ADM promotes constitutional equality rather than degrades it.

## 8. CONCLUSION

Automated Decision Making will likely be an important constitutional issue of the 21<sup>st</sup> Century. While ADM implies efficiency and objectivity, ADM brings exposure to embedding autonomy, opacity, and structural biases into our governing systems. Article 14, with its two parts of non-discrimination and non-arbitrariness components, provides extraordinarily robust framework <sup>30</sup>to respond to exposure of arbitrariness and biases. For an ADM to be constitutionally permissible, courts must allow pre-existing doctrines and legislative must create proactive safeguards. Meaning transparent and rational classifying<sup>31</sup>, explainable assessments, and meaningful recourse for citizens.

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<sup>28</sup> European Union, General Data Protection Regulation (Regulation (EU) 2016/679, OJ L 119/1, 27 April 2016), arts 13–15.

<sup>29</sup> Maneka Gandhi v. Union of India, AIR 1978 SC 597: (1978) 1 SCC 248

<sup>30</sup> Amartya Sen, Development as Freedom (Oxford Univ. Press 1999)

<sup>31</sup> Ram Krishna Dalmia v. Justice S.R. Tendolkar, AIR 1958 SC 538: 1959 SCR 279