

INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS



Open Access, Refereed Journal Multi-Disciplinary
Peer Reviewed

www.ijlra.com

DISCLAIMER

No part of this publication may be reproduced, stored, transmitted, or distributed in any form or by any means, whether electronic, mechanical, photocopying, recording, or otherwise, without prior written permission of the Managing Editor of the *International Journal for Legal Research & Analysis (IJLRA)*.

The views, opinions, interpretations, and conclusions expressed in the articles published in this journal are solely those of the respective authors. They do not necessarily reflect the views of the Editorial Board, Editors, Reviewers, Advisors, or the Publisher of IJLRA.

Although every reasonable effort has been made to ensure the accuracy, authenticity, and proper citation of the content published in this journal, neither the Editorial Board nor IJLRA shall be held liable or responsible, in any manner whatsoever, for any loss, damage, or consequence arising from the use, reliance upon, or interpretation of the information contained in this publication.

The content published herein is intended solely for academic and informational purposes and shall not be construed as legal advice or professional opinion.

**Copyright © International Journal for Legal Research & Analysis.
All rights reserved.**

ABOUT US

The *International Journal for Legal Research & Analysis (IJLRA)* (ISSN: 2582-6433) is a peer-reviewed, academic, online journal published on a monthly basis. The journal aims to provide a comprehensive and interactive platform for the publication of original and high-quality legal research.

IJLRA publishes Short Articles, Long Articles, Research Papers, Case Comments, Book Reviews, Essays, and interdisciplinary studies in the field of law and allied disciplines. The journal seeks to promote critical analysis and informed discourse on contemporary legal, social, and policy issues.

The primary objective of IJLRA is to enhance academic engagement and scholarly dialogue among law students, researchers, academicians, legal professionals, and members of the Bar and Bench. The journal endeavours to establish itself as a credible and widely cited academic publication through the publication of original, well-researched, and analytically sound contributions.

IJLRA welcomes submissions from all branches of law, provided the work is original, unpublished, and submitted in accordance with the prescribed submission guidelines. All manuscripts are subject to a rigorous peer-review process to ensure academic quality, originality, and relevance.

Through its publications, the *International Journal for Legal Research & Analysis* aspires to contribute meaningfully to legal scholarship and the development of law as an instrument of justice and social progress.

PUBLICATION ETHICS, COPYRIGHT & AUTHOR RESPONSIBILITY STATEMENT

The *International Journal for Legal Research and Analysis (IJLRA)* is committed to upholding the highest standards of publication ethics and academic integrity. All manuscripts submitted to the journal must be original, unpublished, and free from plagiarism, data fabrication, falsification, or any form of unethical research or publication practice. Authors are solely responsible for the accuracy, originality, legality, and ethical compliance of their work and must ensure that all sources are properly cited and that necessary permissions for any third-party copyrighted material have been duly obtained prior to submission. Copyright in all published articles vests with IJLRA, unless otherwise expressly stated, and authors grant the journal the irrevocable right to publish, reproduce, distribute, and archive their work in print and electronic formats. The views and opinions expressed in the articles are those of the authors alone and do not reflect the views of the Editors, Editorial Board, Reviewers, or Publisher. IJLRA shall not be liable for any loss, damage, claim, or legal consequence arising from the use, reliance upon, or interpretation of the content published. By submitting a manuscript, the author(s) agree to fully indemnify and hold harmless the journal, its Editor-in-Chief, Editors, Editorial Board, Reviewers, Advisors, Publisher, and Management against any claims, liabilities, or legal proceedings arising out of plagiarism, copyright infringement, defamation, breach of confidentiality, or violation of third-party rights. The journal reserves the absolute right to reject, withdraw, retract, or remove any manuscript or published article in case of ethical or legal violations, without incurring any liability.

AUTOMATED STATE DECISION-MAKING AND ARTICLE 21: CONSTITUTIONAL CHALLENGES OF ALGORITHMIC GOVERNANCE IN INDIA

AUTHORED BY – HARIPRIYA MANJUNATH
B.A. LL.B. (Hons.)
Rajiv Gandhi National University of Law, Punjab

Abstract

The move towards automated and algorithm-controlled types of governance by the Indian State is a major change to how decisions about the public will be made. Governance decisions relating to welfare allocation, predictive policing, taxes, and surveillance are increasingly moving from discretionary human decision-making to coded decision processes based on algorithms. Such systems are said to enable efficient, consistent, and fast administration; however, they also present significant issues regarding the Constitution. This paper will analyse the compatibility of automated decision-making by the State with the rights of fairness, non-arbitrariness, dignity, and procedural due process under Article 21 of the Constitution of India. The paper will primarily explore developments in jurisprudence under Article 21, including an analysis of the effects of *Maneka Gandhi v. Union of India* and *Justice K.S. Puttaswamy v. Union of India*. The author contends that the use of unaccountable and unregulated algorithmic systems is likely to violate fundamental rights unless there are sufficient safeguards in place. The author also notes the complications arising from judicial review of cases that exhibit algorithmic opacity and/or technical complexity. Through a doctrinal and comparative analysis, the author argues that constitutional scrutiny must develop to adapt to new technology-based forms of State power. Regulatory frameworks and mechanisms (such as audit functions, human oversight of algorithms, requirement at a transparent level of explanation, etc.) should be developed; thus, maintaining algorithmic management to organisational resources will be within the bounds of City Long Term Care (on an ongoing) and Country institutions.

Keywords: Algorithmic Governance; Article 21; Automated State Decision-Making; Due Process; Proportionality; Transparency; Judicial Review.

Introduction

Recent developments in algorithmic systems have caused profound changes in the operation of the modern State's public administration. Algorithmic systems can now help people make decisions that were traditionally made by a human and allow for data-driven decision making without the need for human input. Individuals can use algorithmic systems in numerous ways, including, but not limited to, law enforcement and surveillance activities, tax collection and collection of social benefits.¹ The transition to using algorithmic systems for decision-making reflects a broader change in governance that has shifted from being primarily supportive by using technology to being primarily used for decision-support.

Algorithmic governance is expected to contribute to a more rational and consistent system of administration; however, it introduces significant constitutional concerns. Automated systems perform rich and complex computational procedures that operate in an opaque manner and are often inaccessible to those whose decisions are made using those systems.² This lack of transparency, combined with the existence of bias and error as part of the operation of automated systems, increases the risk that the State may act arbitrarily against an individual. Individuals subjected to automated decision-making may find themselves deprived of the ability to obtain an understanding of the decision made, challenge that decision, or seek a review of that decision. These considerations affect the rights of individuals to experience fairness, dignity, and due process, which are guaranteed by Article 21 of the Constitution of India.³

Throughout its history, the scope of procedural fairness and substantive justice has continually been broadened by the evolving jurisprudence of Article 21. Judicial interpretation has made clear that all actions which affect life or personal liberty must be just, fair and reasonable.⁴ The challenge posed by algorithmic methods of governance is whether automated decision-making can meet these constitutional standards given that coded processes replace human discretion, thereby creating new issues related to accountability, delegation of authority and the ability to regulate through existing laws.

¹ NITI Aayog, *National Strategy for Artificial Intelligence* (2018).

² Frank Pasquale, *The Black Box Society* (2015).

³ Constitution of India 1950, art 21.

⁴ *EP Royappa v State of Tamil Nadu* (1974) 4 SCC 3 (SC).

This paper looks at the constitutional limitations of algorithmic governance in India by examining compatibility between Article 21 and related principles such as non-arbitrariness and natural justice. It argues that when the State uses automated decision making without sufficient safeguards such as transparency, human oversight and procedural accountability, it jeopardises basic rights and freedoms.⁵ The research adopts a doctrinal method using case law concepts from constitutional history in addition to limited comparative materials in assessing how constitutional examination will need to adapt due to technological governance.

This paper is analysing how the state can use automation systems and the rights and laws that apply to that use. The paper looks at what rules should be in place before the state can use the automation tools it has created. Additionally, this paper discusses what rules are required to ensure that technological advancement in governance does not come at the expense of constitutionally protected rights.

Conceptualising Algorithmic Governance in the Indian State

Algorithmic governance signifies an extremely broad transformation to public administration. Traditional models of governance were based on human judgement, analytical expertise of administrators, and the capacity of institutions to provide accountability. On the other hand, modern State activities are heavily reliant on data-driven systems and computation-based and predictive models that provide the framework to create a decision-making infrastructure across multiple sectors.⁶ Algorithmic governance describes a State's employment of automated systems, predictive analytics, and machine-learning technologies to direct or make binding administrative decisions.

In India, there has been an expansion of the utilization of algorithmic-based tools within the realm of social services, as well as within areas such as financial regulation, tax policy, cyber surveillance, and law enforcement. The use of algorithms provides the government with the ability to identify potential beneficiaries, determine eligibility for welfare benefits, and detect fraudulent activity, by providing the means for the extensive processing of large data sets. The systems described above are intended to provide enhanced efficiency, reduce delays in administrative processes, and create standardised outcomes throughout the various jurisdictions in which these programs operate. However, by relying on the use of automated

⁵ *Justice KS Puttaswamy (Aadhaar-5J) v Union of India* (2019) 1 SCC 1 (SC).

⁶ Karen Yeung, 'Algorithmic Regulation: A Critical Interrogation' (2018).

systems to perform administrative functions, the nature of State authority has changed from being exercised by human beings within an institution to exercising authority through technology.⁷

Transitioning from human judgement to algorithmic/coded decision-making creates new types of power/control in the governance environment. The way algorithm's function is based on predefined rules, predefined training datasets, and predictive/forecasting modelling. In many cases, these processes are opaque or not publicly reviewed, complicating the ability of individuals to understand the basis for their administrative decisions. Furthermore, there is concern about the neutrality of these systems, as algorithm-based outcomes may perpetuate bias present in the original data and/or bias built into the system design.

Another key aspect of algorithmic governance is accountability. In traditional administrative systems, there is a clear accountability path to specific individuals/departments that can be identified; in algorithmic decision-making, however, responsibility is spread out among software developers, data providers, and authorising agencies making it difficult to attribute responsibility within the system. The diffusion of responsibility undermines many of the traditional principles of administrative law, especially those relating to reasonableness of decisions and institutional accountability.⁸

Using algorithmic systems indicates a move towards using technology for prediction rather than just reacting to events or situations after the fact. More and more, governments are using technology not only to enforce policies but also to predict people's actions, predict risks, and implement strategies to enforce laws. Examples of this include predictive policing, digital identity systems, and automated fraud detection systems. Implementing predictive technology is an example of how governance is moving away from being about regulation and more towards being about anticipation. While this shift may enhance the ability for agencies to administer their programs; it also has the potential to make surveillance the norm, thereby increasing State power in ways that could infringe on individual rights.

Algorithmic governance represents more than just a change to technology; it completely changes the way people relate to their government. There are many challenges that arise from

⁷ Mireille Hildebrandt, *Smart Technologies, and the End(s) of Law* (2015).

⁸ NITI Aayog, *Responsible AI for All* (2021).

delegating authority for decision-making to automated systems, including issues relating to transparency, fairness, and accountability. As government agencies continue to utilize technology as an aid in carrying out their public obligations, it is critical that involve a similar evolution of the constitution to ensure that these evolving relationships continue to provide individuals with constitutional protections against arbitrary government action and provide individuals with their constitutional rights to have access to a judicial system for due process.

Article 21 and the Constitutional Framework of Decision-Making

Article 21 of the Indian Constitution guarantees the right to life and liberty and has become a broad source of substantive rights governing how the State exercises its power. As such, any action taken by the State that restricts an individual's liberty must meet a standard of fairness, reasonableness, and non-arbitrariness.⁹ These principles are the basis upon which any new form of governance, such as algorithm-based decision-making, will be evaluated.

The original purpose of Article 21 was to restrict the arbitrariness, injustice, or oppression of procedures established by law. The Supreme Court, in the case of *Maneka Gandhi v Union of India*, stated that in order for an action taken by the State to be valid, it must also be just and reasonable and that the protection of personal liberty cannot be separated from the establishment of procedural safeguards.¹⁰ Thus, the interpretation of Article 21 brought Indian law much closer to the concept of substantive due process. As a result, administrative decisions are not exempt from review and scrutiny based solely on compliance with statutory requirements; rather, the character, fairness, and effect of the procedures themselves may also be subject to constitutional review.

The doctrine of non-arbitrariness has strengthened the existing legal framework. In the case of *EP Royappa v State of Tamil Nadu*, the Supreme Court held that arbitrariness is directly opposed to equality and is also incompatible with constitutional governance.¹¹ Arbitrariness is the opposite of equality and is incompatible with the principle of constitutional governance; this indicates an interrelation between Articles 14 (equality) and 21 (the right to life). State action must not only be reasonable but also fair. The Court will therefore also examine all algorithmic systems that depend on predetermined rules and datasets to determine if they result

⁹ Constitution of India 1950, art 21.

¹⁰ *Maneka Gandhi v Union of India* (1978) 1 SCC 248 (SC).

¹¹ *EP Royappa v State of Tamil Nadu* (1974) 4 SCC 3 (SC).

in arbitrary outcomes or perpetuate existing patterns of structural inequality.

Furthermore, case law developed recently has broadened the meaning of liberty to now incorporate principles of dignity; right to self-autonomy; and access to confidential information without interference or intrusion. In *KS Puttaswamy v Union of India*, the Supreme Court determined that “the right to privacy is an aspect of the right to life and personal liberty¹² as guaranteed under Article 21 of the Constitution.”¹³ Accordingly, the State must act in ways that recognize an individual’s ability to choose how their personal information will be used. In the same decision, the Court acknowledged that rapid technological advancement has created more sophisticated ways for the State to invade individual autonomy and therefore new forms of special scrutiny under the Constitution. The Court also determined that data collection, data profiling, and digital surveillance can have a negative effect on a person’s dignity and freedom, even though there is no physical seizure of the person involved.

The Aadhaar judgment further examined the relationship between constitutional safeguards and technology by applying a proportionality test to determine if the State’s use of digital identity infrastructure was both necessary and appropriately tailored. This was a crucial step towards the recognition of the fact that technological governance must conform to constitutional standards with respect to necessity, proportionality, and procedural safeguards, and that judges are willing to examine complex technological systems through the lens of the Constitution.

Algorithmic governance shares many of these same issues but operates at a more structural level. Automated systems may make decisions for us related to welfare eligibility, tax collection/enforcement, assessing risk, and prioritizing enforcement by law enforcement agencies. The result of these decisions can influence how the outcome will be like without providing any reasoning as to how we arrived at those outcomes or a way to appeal them. When our ability to exercise administrative discretion is replaced by coded logic, it raises the question if our procedural safeguards contained within Article 21 will still have meaning. A lack of transparency and ability to explain the basis of an automated system will decrease the ability of individuals to appeal or challenge an adverse administrative decision.

¹² ‘Rights of Transgender People: Legal Service India - Law Articles - Legal Resources’ (*Legal Service India - Law, Lawyers, and Legal Resources*) <<https://www.legalserviceindia.com/legal/article-6512-rights-of-transgender-people.html>> accessed 21 February 2026

¹³ Justice KS Puttaswamy v Union of India (2017) 10 SCC 1 (SC).

A significant issue is the organization of decision making at all levels in the public sector through delegation to others. While administrative law allows delegation to pre-defined institutions, transferring functional authority to computer systems adds complexity to this delegation. Decision making can become diluted across the different individuals responsible for either the design or maintenance of the software, as well as the data used by that software, therefore decision making may not be held to the same rules as previously were the case in making good, reasoned decisions. The reason for concern is that Article 21 of our Constitution guarantees certain protections for individuals that are no longer available because individuals may not be able to ascertain what are the basis or data underlying a decision or who has the authority for that decision.

Judicial review also faces structural challenges due to the difficulties raised by algorithmic decision making. For a court to determine whether an administrative activity is lawful, the court relies on records, reasoning, and evidence. Much of the time, however, automated decision-making systems utilize complex models that are not easy to understand unless you are an expert in that technology. The result of the difficulties involved with algorithmic decision-making systems is that courts will be limited in their ability to determine if the decision made by those systems are arbitrary, biased, or disproportional when compared to other individuals' expectations of their rights or legal protections. The result is that there exists, as evidenced by the above discussion, a gap between the constitutional guarantees and the institutional capacity to fulfil those guarantees at present.

Nonetheless, while the above examples highlight the difficulties involved with technology-based governance, Article 21 of the Constitution does create a general framework for addressing issues resulting from technological-based governance. The principles of fairness, dignity, accountability, and proportionality are adaptable to three distinct types of governmental authority. In addition, the parameters for determining whether an individual has violated a Constitutional right (or other constitutional protections) do not relate directly to the form of government, but rather to how the government's actions affect an individual's ability to enjoy their personal freedoms (liberty). Therefore, whether a decision is made by a human authority or an automated system, the decision must comply with the same constitutional requirements. Algorithmic governance must therefore be analysed within the context of the established jurisprudence regarding Article 21 so that the technological efficiency of an algorithmic government system does not create an infringement of fundamental rights.

Automated State Decisions and Constitutional Guarantees

As government agencies increasingly rely on automated systems to fulfil their mandates, we are compelled to raise fundamental queries as to whether decision-making via such systems can be compatible with constitutional guarantees. Although technology can provide administrative efficiencies and uniformity, constitutional law concerns itself with not only potential outcomes of decisions but also with the methodologies employed to arrive at those outcomes. State action must remain transparent, accountable, and, as much as possible, subject to procedural due process protections. When decisions are made based upon algorithmic systems that do not provide clear reasoning and audience visibility, there is an elevated risk of violating constitutional protections.¹⁴

Transparency is one of the most notable issues; administrative laws have historically required that all decisions affecting individuals include rationale for reaching those decisions, and that individuals are able to scrutinise the rationale for each decision made. Automated systems generally rely upon complex computational models that are difficult, if not impossible, for individuals to understand.¹⁵ A lack of an ability to understand the reasons behind reasoned conclusions prevents individuals from understanding how the algorithm reached its conclusion and thus limits their ability to challenge or seek review of an unfavourable decision. Procedural fairness is lost as a result of this lack of explanation, and the result is an inability to fully participate in the decision-making process.

Concerns have been raised about the potential arbitrariness and discrimination by machine learning algorithmic decisions. Machine Learning systems employ predictive models and datasets that can reproduce previous instances of systemic bias and historical inequalities. Whether due to welfare targeting, law enforcement, or credit evaluation, automating the decisions made in these sectors could have severe consequences for marginalized communities. Article 14 and Article 21 of the Constitution of India mandate that the actions of the State will be based on the principles of reasonableness and fairness. As a result of the potential for biased outcomes produced from an automatized process without justification, they could be deemed as unconstitutional arbitrariness.

Another important issue associated with algorithmic decision-making is the absence of

¹⁴ S.N. Mukherjee v Union of India (1990) 4 SCC 594 (SC).

¹⁵ Cathy O'Neil, *Weapons of Math Destruction* (Crown 2016).

procedural protections that would otherwise be incorporated into a traditional administrative decision-making process, in which individuals receive varying opportunities to provide notice of hearing and appeal.¹⁶ Whereas the automated services behind algorithmic decision-making typically do not provide any of these processes, they may provide outcomes without any interactively with the affected individuals. The absence of human involvement in these points of interaction provides reduced opportunities for corrections, appeals, or reconsiderations. The movement toward algorithmic outputs will deteriorate the basic tenets of natural justice contained in constitutional governance.

Delegation of authority is another constitutional issue created through delegation of powers to “technical tools.” While the State will be able to use technical tools to enhance governance, effective delegation of authority to algorithmic systems raises questions about accountability and legitimacy. When algorithmic systems are used to determine outcomes, authority becomes dispersed among the developers, administrators, and data managers. This dispersal of authority complicates the process of attributing responsibility for actions and reduces institutional accountability (which is a key aspect of constitutional administration).

The expansion of surveillance-type technologies only exacerbates these problems. Algorithmic systems used for policing, identity verification, and predictive risk assessment may facilitate the continued surveillance and profiling of persons. Surveillance in this manner results in violations of privacy, dignity, and autonomy, all of which are protected by article 21. As surveillance becomes a component of decision-making in the public sector, it has the potential to change the relationship between the citizen and the State; thereby, normalizing invasive forms of governance.

Judicial review is one of the primary methods of ensuring that the State acts in a constitutional manner. The exercise of judicial review will encounter inherent limitations when dealing with cases of algorithmic governance. Courts traditionally rely on evidence, reasoning, and a clearly identified decision-making process to assess the legality of an action. The lack of clear records demonstrating reasoning for a decision may cause courts to be unable to determine whether a particular decision is reasonable or proportional. Moreover, the technical complexity of algorithmic systems will create evidentiary obstacles, hindering effective constitutional

¹⁶ Andrew D Selbst and Solon Barocas, ‘The Intuitive Appeal of Explainable Machines’ (2018) 87 Fordham L Rev 1085.

scrutiny of actions taken by the State.¹⁷

Technology can be used to enhance good governance by supporting its principles. Although there are several categories of risks, the most significant challenge to implementing technology in governance is ensuring that automated systems comply with the values of transparency, accountability, and procedural protections. Constitutional guarantees that protect these principles do not preclude technological advancements; they will, however, require that any public powers that are exercised (regardless of their method) be consistently applied and conducted in an equitable and dignified manner. Therefore, algorithmic governing must be accomplished in such a way as to promote efficiency in administration without compromising individual rights.

Judicial Readiness and Institutional Capacity in Reviewing Algorithmic Governance

In sum, the constitutional legitimacy of algorithmic governance is related to the extent to which courts are able to undertake proper judicial reviews of automated decision-making processes. Judicial review is the primary mechanism of enforcing against the arbitrary and/or disproportionate use of public authority. However, the structural attributes of algorithmic systems create unique problems for existing review mechanisms.

Judicial assessments of administrative decisions typically involve considerations of legality, procedural fairness, and proportionality. As a part of the doctrine of judicial review, decision-makers must also act within the limits of their authority and apply principles of reasonableness.¹⁸ Yet, when automated systems are used to produce decisions; it can become difficult to determine who possesses the locus of authority. The specific public official responsible for the use of the system may be different from the specific public official responsible for establishing the system's operational framework, which may be again different from the entity responsible for creating the system itself (e.g., the actual creator of the software that comprises the algorithm). The ambiguity associated with the determination of the locus of authority therefore presents problems to allow for effective accountability and subsequent review of the decisions produced by automated systems.

¹⁷ Andrew D Selbst and Solon Barocas, 'The Intuitive Appeal of Explainable Machines' (2018) 87 Fordham L Rev 1085.

¹⁸ *Tata Cellular v Union of India* (1994) 6 SCC 651 (SC).

The structure of algorithm-based systems is yet another challenging aspect for courts because courts' ability to scrutinize their evidentiary basis is heavily reliant on access to the records, reasons and materials relied upon by the decision-making authority. Instead, automated decision-making is often based on training datasets, statistical models and/or internal parameters which may not be readily available or understandable to courts. In addition, even where such information is available, technical obfuscation may still limit courts' ability to determine whether the relevant factors were appropriately considered.¹⁹ Without interpretability of decision-making processes the administrative law courts' standard tools for review may be ineffective.

In order to provide a structured approach to evaluating State action that affects fundamental rights under Indian constitutional law today's principles of proportionality are an effective method of doing so. By requiring that an action is intended to achieve a legitimate purpose; is rationally connected to achieving that purpose; is necessary in order to achieve that purpose (e.g., no less intrusive option(s) exist) and achieves a balance between the individual's rights and the public interest, proportionality requires that when applying an algorithm to governance courts must examine not just the outcome(s) of an algorithm but also its design. This means that courts will need to examine the quality of the data input into the algorithm, as well as the error rate of any algorithm that has been implemented and will need to ensure that measures have been taken to avoid any potential bias, as well as ensuring appropriate human oversight. The issue of institutional competence is also of concern. Courts are not courts of technical expertise, but they are increasingly being asked to resolve disputes involving digital infrastructure and computational systems. The lack of specialised expertise can affect the quality of judicial review of algorithmic processes. Litigation in comparable jurisdictions shows that courts are trying to address this issue, particularly in regard to the use of automated risk assessments and data-driven policing. To help facilitate a smooth and effective complex review process, the India judiciary will need to implement procedural methods, such as technical audits and expert testimony, to help ensure that decision-making in the judicial system is adequate and effective.

One component in the evaluation of whether or not the judicial process has been successful will include how accessible justice was to all Indian citizens. Algorithmic systems often impact

¹⁹ Sandra Wachter, Brent Mittelstadt and Chris Russell, 'Counterfactual Explanations without Opening the Black Box' (2018) 31 Harvard Journal of Law & Technology 841.

large groups of people by making automated classifications/eligibility determinations at scale. Individual challenges may take up a great deal of resources and present significant technical obstacles. An avenue for structural examination exists through the use of public interest litigation as it relates to algorithmic governance, but the institutional willingness to address the complexity within these technical matters determines the future of constitutional oversight regarding algorithmic governance. The doctrinal development and innovative procedural ideas are critical to creating constitutional provisions for oversight of algorithmic governance. Other factors considered in creating or amending procedural frameworks also affect the creation or amendment of the procedures associated with constitutionalizing the governance of algorithmic functions.²⁰

While challenges exist, the judicial review framework can continue to be re-evaluated.²¹ Courts have developed constitutional doctrines over time, such as due process or proportionality that have been expanded by the courts to meet new determinations of state authority as they arise. The use of the same principles to conduct a review of algorithmic decision making will be equally possible. Rather than creating an entirely separate set of principles for determining legality, accountability, and proportionality in relation to a particular technology, these concepts should, if applied appropriately, provide to the courts a robust means of assessing technology providing public services.

Comparative Approaches to Algorithmic Governance

There are significant similarities among jurisdictions when looking at how to respond to the increased use of algorithmic decision-making by public authorities through comparative development. While the form of governance may vary, the common thread that runs through these comparisons is concerns regarding transparency, accountability, and individual rights.

Regulatory approaches within the European Union have had a focus on risk-based oversight in relation to automated systems. This regulatory approach provides a law-based framework for the use of automated decision-making that includes requirements for documentation of

²⁰ State v Loomis 881 NW 2d 749 (Wis 2016).

²¹ Doreen Lustig, J H H Weiler, Judicial review in the contemporary world—Retrospective and prospective, *International Journal of Constitutional Law*, Volume 16, Issue 2, April 2018, Pages 315–372, <https://doi.org/10.1093/icon/mov057>

algorithmic systems, and safeguards against discriminatory outcomes.²² The intent of this regulation is not to prohibit the use of algorithm-based governance, but rather to ensure that algorithmic systems continue to be subject to the regulation of the law and are restrained by rights-based regulations.

Judicial engagement in the United States has largely been demonstrated through lawsuits challenging the constitutionality of predictive policing and automated risk assessment systems.²³ Court decisions have responded to the concern regarding the use of algorithms and their potential impact on due process when there is no ability for the individual affected to view or contest the rationale behind the algorithm's outcomes. The lawsuits demonstrate an ongoing challenge to align the technological efficiency provided by these automated systems with the need for procedural fairness to the individuals governed by them.

Examples from other countries confirm that the governance of algorithms must encompass structured oversight processes instead of relying solely on the assumption that technology operates in a neutral manner. Every country with a developed (as opposed to developing) economy places a strong emphasis on human accountability and explainability of algorithms and on an individual's right to have an algorithmic decision reviewed by a human. The aforementioned examples can inform how similar administrative law issues arising within India from the use of automated decision making by its government will be answered by the courts under India's constitution.

Safeguards and Constitutional Pathways for Algorithmic Governance

The major constitutional issues associated with algorithmic governance will not necessarily lead to a rejection of technological innovation; they will generate the need to create protections that will allow for the ongoing use of technology in the exercise by government of its public power in accordance with the principles of legality, accountability, and fairness. The challenge will be for the regulatory and procedural frameworks that have been developed to preserve the constitutional protections while permitting the administrative systems to take advantage of technological advances.

²² European Commission, *Proposal for a Regulation on Artificial Intelligence (Artificial Intelligence Act)* COM/2021/206 final.

²³ *State v Loomis* 881 NW 2d 749 (Wis 2016).

Transparency about what processes were utilized in reaching automated decisions is a fundamental level of protection. Individuals who are impacted by an automated decision should be given access to sufficient and high-quality information regarding the basis of the decision so as to allow for an evaluation of that decision. Information should include criteria used; basis of data that was used; and institutional authority of who will enact the automated decision.²⁴ Transparency allows individuals to understand how an automated decision was made and enables them to hold the administrative body accountable for that decision.

Supervision by persons is still a critically important requirement when it comes to automated systems supporting decision making, but only public officials (who are answerable) should have the decision-making authority once a review and where necessary, corrective action has been made. Supervision can ensure the use of technology is not an independent source of power, but technology is used in a manner that places it under administrative responsibility and constitutional control.

Procedural safeguards will also change because of automation in governance. The provision of the opportunity to appeal against an unfavourable decision, to have a review conducted and to have written reasons given for the decision will all be necessary features of automated governance. If people have access to an effective system of grievance redress, this will assist with protecting their right to due process and prevent the establishment of automated arbitrariness as the norm. The importance of these procedural safeguards increases in those areas of governance that involve the performance of automated system processes in the delivery of welfare, the enforcement of laws through surveillance processes and the determination of eligibility. The impact of an automated error in these systems can be so large.

Auditing and accountability will be necessary to confirm the continuing equilibrium of the governing system with constitutional standards. Periodic investigations of Algorithmic Governance will consist of evaluating Algorithms for bias, error rates, and proportionality; Independent Review Boards can monitor Algorithmic Governance compliance, particularly when Technological Governance operates on a large scale across various public institutions.

Legislative clarity creates a fundamental pathway for implementing Algorithmic Governance.

²⁴ Ministry of Electronics and Information Technology, *Report of the Committee of Experts under the Chairmanship of Justice BN Srikrishna on a Data Protection Framework for India* (2018).

The implementation of Algorithmic Governance will require a statutorily defined Framework that clearly states the parameters of authority, the permissible use, and the level of Accountability associated with Algorithmic Governance. Legislative clarity will eliminate any potential for unchecked delegation and will also reinforce the Democratic Control of Algorithmic Governance. The Regulatory Framework can establish documentation requirements and require impact assessments and reviews; thus, providing the Administrative Framework the Constitutional protections contained in the Administrative Framework.

Judicial criteria must keep pace with changes in the law. More court cases will involve issues related to reliability of data, algorithmic bias, and proportionate use of technology. The use of procedural tools like expert assistance and structured review models would enhance constitutional checks and balances.²⁵ The judiciary can uphold the importance of upholding constitutional rights by further applying principles to technological contexts.

Ultimately, this is not about restricting how far governments can govern but about aligning the ongoing development of technology with constitutional protections. Algorithmic systems must be developed with human dignity, due process, and accountability in mind; therefore, they must be designed to allow for transparency, human review, access to remedies, and the creation of statutes that provide constitutional bases for balancing administrative efficiency and fundamental human rights.

Conclusion

Advances in algorithmic governance represent a key turning point in the long-term development of public administration. Today, automated systems are having a significant impact on policies that govern the provision of welfare services, surveillance, taxing citizens, and enforcing the law and thereby transforming the way state power has been exercised. Although proponents cite efficiency and uniformity as benefits of algorithmic governance, there are also serious concerns about structural risks to constitutional protections within the public service's administrative process and this includes the long-standing ability of individuals to hold government authorities or private corporations accountable for how they make decisions.

²⁵ P Gopalakrishnan v State of Kerala (2020) 9 SCC 161 (SC).

In this context, the constitutional standard established in Section 21 provides the basis to evaluate algorithmic governance. The judicial interpretation of the constitutional standard has long recognized that all exercises of public authority that have an impact on the right to life or the rights to personal liberty must be done in a fair, reasonable, and non-arbitrary manner. This requirement will continue to apply regardless of whether the decision is made by a human authority or through an automated decision-making process. Therefore, there should not be any algorithmic governance activity that takes place without the constitutional checks and balances that allow for reviews of the legitimacy of administrative decisions that are made through automation. Algorithmic governance can only be viewed as legitimate if it takes place within the framework of due process and other legal principles that support dignity and proportionality.

This paper's examination of automated decision-making has produced an understanding of the concerns created by this type of decision-making:

1. Opacity
2. Diffusion of accountability
3. Limited access to remedies

Without sufficient safeguards, these kinds of systems could disrupt the procedural protections that are integral to constitutional governance. However, there are no legal impediments in constitutional law to the advancement of technology; rather, the challenge lies in introducing a framework of normative principles into the introduction of technology, protecting individual rights, and preserving democratic accountability.

The establishment of safeguards that have the capacity to promote transparency obligations, human oversight, methods for public review, and legislative clarity can bridge the gap between technology and constitutional values and will ensure that technology will be used as tools of governance, rather than sources of independent authority of their own. A vital component that shapes the area of algorithm-based decision making is the involvement of courts in altering the different test standards and adding institutional capabilities.

While algorithmic governance represents an evolution in the operation of states, the basic principles that govern a state's actions and the way in which they govern remain unchanged by the use of algorithms to govern. The idea of fairness, dignity, and accountability as recognized

in the constitution will continue to provide the basis for responding to these modern technologies. The ongoing applicability of Article 21 (the right to life) remains those constitutional principle's capacity to adapt to new forms of governance. As governance evolves towards being more data-driven, individual liberties will rely on a constitutional doctrine that is principled and regularly upholds the rule of law.

