

Algorithmic Governance and the Constitution: Reimagining Due Process in the Age of Automated Decision-Making

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I. INTRODUCTION

Digital technologies have significantly impacted governance in the twenty-first century. Governments worldwide have come to rely on automated systems and artificial intelligence to govern their administrative processes. This aspect of technology use in the administration of government affairs is referred to as algorithmic governance.¹

Algorithmic governance has the potential to deliver significant benefits. This is because automated systems can process vast amounts of information, recognize patterns, and make predictions with unparalleled speed and accuracy. In this regard, policymakers perceive artificial intelligence as an effective tool for increasing efficiency, reducing administrative burdens, and achieving policy success.² Despite this, the integration of algorithmic systems into the governance framework presents myriad constitutional issues. This is because “automated decision-making systems often depend on complex machine learning models that operate as opaque “black boxes.” Individuals affected by algorithmic decisions will not understand the rationale for those decisions or the mechanisms by which they can challenge them. Thus, the use of automated systems undermines the fundamental principles of due

process, transparency, and accountability that define constitutionalism.³

However, the trend toward the increasing role of algorithmic decision-making has led legal scholars to foresee the emergence of what they call the “algorithmic state,” in which technology is so significant that the distribution of rights, opportunities, and resources is significantly affected. In such a system, the classical protections afforded under administrative law and the Constitution⁴ may be inadequate to protect individual rights.⁵

The article discusses the issue of the constitutionality of the system of algorithmic decision-making, arguing that the existing due process principles have to evolve to address the challenges that the system of automated decision-making poses. In this context, it is argued that a doctrine of algorithmic due process must be developed, drawing on work from other disciplines and developments in other countries.

The Rise of Algorithmic Governance

Algorithmic governance is a term used to refer to the practice of relying on computer systems, data analysis, and machine learning models in the governance of a country. In this regard, there is a trend towards relying on these systems in a number of sectors, including

¹ Katzenbach, C., & Ulbricht, L. (2019). Algorithmic governance. *Internet Policy Review*, 8(4). <https://doi.org/10.14763/2019.4.1424>

² Yeung, K. (2018). Algorithmic regulation: A critical interrogation. In K. Yeung & M. Lodge (Eds.), *Algorithmic regulation*. Oxford University Press. <https://doi.org/10.1093/oso/9780198826626.003.0001>

³ Pollicino, O., & De Gregorio, G. (2021). Constitutional law in the algorithmic society. In H.-W.

Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, & G. De Gregorio (Eds.), *Constitutional challenges in the algorithmic society* (pp. 3–24). Cambridge University Press. <https://doi.org/10.1017/9781108914857.002>

⁴ Government of India. (n.d.). *Constitution of India*. National Portal of India. <https://www.india.gov.in/my-government/constitution-of-india>

⁵ Pollicino & De Gregorio, 2021

criminal justice, immigration, taxation, and the management of welfare services. In this context, the systems are able to analyze large volumes of data and come up with predictions on the way forward, which are used in the administration of the country.⁶

Experts have argued that the idea of algorithmic governance is an important change, one that is comparable to the development of the modern administrative state. In the traditional model, bureaucratic choices are made by individuals, albeit within the law. Algorithmic governance, on the other hand, refers to choices made by computer systems, which operate on a much larger scale than individuals.⁷ The increasing reliance on algorithmic systems is, in many respects, an extension of other developments in digital governance and data-based decision-making processes. For instance, governments collect significant amounts of data and use computer systems to identify patterns, which may be useful in decision-making processes. This, in essence, is supposed to make decision-making processes more efficient and effective.

However, algorithmic governance also alters the institutional dynamics of public administration. As decision-making becomes increasingly automated, the role of human officials shifts from active decision-makers to supervisors of computational systems. This transformation raises concerns regarding democratic accountability and constitutional legitimacy.⁸ Scholars who explore the implications of constitutional issues

in an algorithmic world suggest that, when it comes to constitutional issues, “Algorithmic governance is not simply a new technology, but a new way of governing.”⁹ This means that when algorithms are used to make decisions about matters that affect fundamental rights, such as social services, non-discrimination, and fairness, it fundamentally changes the legal landscape.¹⁰ As a result, as algorithmic governance becomes more prevalent, it is time to rethink the legal frameworks that govern government power.

Due Process as a Constitutional Safeguard

Due process is the idea that underlies the concept of constitutionalism. Born out of the need for fairness and justice, the idea of due process is the promise of the Constitution to ensure that no individual suffers loss of life, liberty, and property without the process of law.¹¹ This is the promise of the constitution in general: the promise of the rule of law and the protection of individual rights.¹² In the United States, the Supreme Court was instrumental in laying out the framework for the procedural aspect of the idea of due process in the 1976 *Mathews v. Eldridge* case.¹³ According to the Court, the question of what constitutes the idea of due process should be answered by calculating the individual’s interest in the outcome of the government’s action, the probability of error in the outcome of the process, and the government’s interest in the efficiency of the process.

⁶ Katzenbach & Ulbricht, 2019

⁷ De Hert, P., & Cocito, C. (2024). The added value of data protection within the framework of digital constitutionalism in Europe. In G. De Gregorio, O. Pollicino, & G. Sartor (Eds.), *The Oxford handbook of digital constitutionalism*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198877820.013.34>

⁸ Pollicino & De Gregorio, 2021

⁹ Gritsenko, D., & Wood, M. (2022). Algorithmic governance: A modes of governance approach *Regulation & Governance*, 16(1), 45–62. <https://doi.org/10.1111/rego.12367>

¹⁰ Fountain, J. E. (2023). The algorithmic state? Challenges to democracy in an era of artificial

intelligence. *Studies: An Irish Quarterly Review*, 112(445), 18–31.

<https://www.jstor.org/stable/27250412>

¹¹ Hawaldar, A. H. (2014). *Evolution of due process in India*. Manupatra Newslines. <https://docs.manupatra.in/newslines/articles/Upload/C64E2EB3-321D-470D-A4C8-0EE5E55BA21A.pdf>

¹² Legal Information Institute. (n.d.). *Due process test in Mathews v. Eldridge*. Cornell Law School. <https://www.law.cornell.edu/constitution-conan/amendment-14/due-process-test-in-mathews-v-eldridge>

¹³ *Mathews v. Eldridge*, 424 U.S. 319 (1976). <https://supreme.justia.com/cases/federal/us/424/319/>

Traditionally, the basis of due process is the assumption that humans make decisions, can explain their decisions, and make decisions unique to individuals. However, the advent of decision-making by machines completely negates this. When the decision is made by the machine, the internal logic of the decision may be unknown to the people affected by the decision.¹⁴As argued by various researchers, there are many algorithmic systems that are functioning as “black boxes.” The “black boxes” imply that the logic behind the decisions is hard to understand not just by the affected parties but even by the designers. Danielle Keats Citron argues that in “Technological Due Process,” there is the risk of undermining procedural fairness with automated systems used by the government since the affected parties may not have the capacity to understand them.¹⁵When the decision is made by the machine, people may struggle to make sense of the decision, appeal the decision, or request a review of the decision.

In the Indian constitutional system, the doctrine of due process has developed into a substantive right to fairness through the interpretation of Articles 14 and 21 by the courts. Indeed, the Supreme Court held in *Maneka Gandhi v. Union of India* that any procedure that impinges upon life or personal liberty must be “just, fair and reasonable.” As administrative actions become more subject to algorithmic control, the constitutional requirement necessarily extends to the operation of algorithms as well.¹⁶ This aspect of the decision made by the machine undermines the

procedural protections of due process. It has been suggested by legal thinkers that the law of the constitution must evolve with the times and incorporate additional principles for decisions made by machines.

Constitutional Challenges of Automated Decision-Making

The increasing integration of algorithmic systems in the process of governance has given rise to considerable constitutional concerns, especially with regard to transparency, equality, and accountability. The major problem here is the opacity of the algorithmic system, which is generally termed the ‘black box’ problem. The machine learning models function through complex statistical processes, which are often not easy to grasp, even for programmers.¹⁷ This problem affects the procedural fairness required for the due process of law, where the affected individual will not be able to grasp the reasoning behind the automated decision-making process. It has thus been argued that the opacity of the algorithmic system of governance results in a basic tension between the advancement of technology and the accountability of the government.¹⁸

Another important problem relates to the concept of bias and discrimination. It is a fact that the data used to train an automated system is generally collected from the past. These systems, which were trained on historical data, often reflect the biases that exist within that data. Research suggests that the systems that rely

¹⁴ Garrett, B. L. (2025). Artificial intelligence and procedural due process. *University of Pennsylvania Journal of Constitutional Law*, 27(5), 933–978. <https://doi.org/10.58112/jcl.27-5>.

¹⁵ Citron, D. K. (2008). Technological due process. *Washington University Law Review*, 85, 1249–1314. <https://www.law.virginia.edu/scholarship/publication/danielle-k-citron/1153811>

¹⁶ Shankar, P. (2025, February 4). *Automated decision-making by the state in India: Constitutional accountability under Articles 14 and 21*. Indian Journal of Law and Legal Research. <https://www.ijllr.com/post/automated-decision->

[making-by-the-state-in-india-constitutional-accountability-under-articles-14-and](#)

¹⁷ Huq, A. Z. (2024). ‘Digital constitutionalism’ and ‘American’ constitutionalism: Divided by a common tongue? In G. De Gregorio, O. Pollicino, & P. Valcke (Eds.), *The Oxford handbook of digital constitutionalism*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198877820.013.40>

¹⁸ Coglianese, C., & Lehr, D. (2019). Regulating by robot: Administrative decision-making in the machine-learning era. *Georgetown Law Journal*, 105(5), 1147–1223. <https://www.jstor.org/stable/27170531>

on algorithms, such as those that are used for predictive policing, recruitment, and risk assessment, can actually reinforce existing inequalities in society and result in disadvantaged minorities. O'Neil and Eubanks show that systems that rely on data-driven decision-making can actually reflect the bias that exists within historical data.¹⁹ As a result, the data used to train the system often reflects the existing social inequalities. As a result, the automated system will likely be biased towards the discrimination of minority groups. As revealed by empirical studies, there is a high probability of discrimination against minority groups in the results obtained from the automated system used for predictive policing, screening, and the prediction of criminal risk.²⁰ This problem is a challenge to the conventional approach to combating discrimination since the automated system is not based on any legal criteria but relies on statistical correlation.

Comparative Developments in Algorithmic Regulation

Across the globe, legal systems are grappling with the constitutional implications of algorithmic governance by establishing a set of regulations that promote transparency, accountability, and the protection of individual rights. In Europe, various scholarly works and regulations are focused on promoting individual rights in the digital age.²¹ Various European scholars and policymakers are advocating for more robust oversight mechanisms to regulate automated decision-making, which emphasizes the need for transparency,

accountability, and fairness in algorithmic decision-making.²² For instance, as the judicial and administrative branches of government begin to use AI-based technologies in the decision-making process, legal scholars are also stressing the importance of ensuring that these technologies are utilized in a fashion that does not undermine the due process and procedural justice of the legal system.²³

In India, legal and constitutional debates are also emerging, and their focal point is centered on the impact of artificial intelligence from a governance and judicial perspective. There are various scholarly opinions from legal experts that emphasize the need to preserve meaningful human oversight with regard to artificial intelligence. These debates are part of a broader consensus that constitutional law must adapt to tackle issues of technological governance, including artificial intelligence, in a manner that is consistent with the rule of law.²⁴

Regulatory developments in comparative jurisdictions can also be used to further demonstrate the emerging global response to algorithmic governance. For instance, the European Union has adopted a holistic approach to the regulation of algorithmic governance through the European Union Artificial Intelligence Act. This Act provides a risk-based approach to the regulation of artificial intelligence systems. This demonstrates the emerging global response to algorithmic governance through the requirement that

¹⁹ Baker, R. S., Hawn, M. A., & Lee, S. (2023). Algorithmic bias: The state of the situation and policy recommendations. In *OECD digital education outlook 2023: Towards an effective digital education ecosystem*. OECD Publishing. https://www.oecd.org/en/publications/oecd-digital-education-outlook-2023_c74f03de-en/full-report/algorithmic-bias-the-state-of-the-situation-and-policy-recommendations_a0b7cec1.html

²⁰ Singh, J., & Agarwal, Y. (2025, January 27). *Invisible hand of code: Reimagining constitutionalism in the age of algorithms*. NLIU Law Review Blog. <https://nliulawreview.nliu.ac.in/blog/invisible-hand-of-code-reimagining-constitutionalism-in-the-age-of-algorithms>

²¹ Kastanas, I., & Pavlidis, G. (2025). Algorithmic administration and the EU AI Act: Legal principles for public sector use of AI. *Journal of Ethics and Legal Technologies*, 7(2), 59–79. <https://doi.org/10.25430/pupj-JELT-2025-2-3>

²² European Commission. (2024, January 24). *Commission decision of 24 January 2024 establishing the European Artificial Intelligence Office* (C(2024) 390 final). <https://artificialintelligenceact.eu/wp-content/uploads/2024/02/2024.01.24-Decision-AI-Office.pdf>

²³ Fortes, P. R. B. (2020). Paths to digital justice: Judicial robots, algorithmic decision-making, and due process. *Asian Journal of Law and Society*, 7(3), 453–469. <https://doi.org/10.1017/als.2020.12>

²⁴ Shankar, P. (2024)

decision-making must be subject to democratic accountability.²⁵

Reimagining Constitutional Governance in the Algorithmic Age

This rise of algorithmic governance thus heralds an important shift in the interplay between technology and the contemporary state. The latter increasingly seeks to harness the power of automated technologies and artificial intelligence to govern complex administrative processes. Though the latter promise much in terms of efficiency, accuracy, and administrative capability, there are nevertheless important questions to be answered in terms of the implications for the protection of constitutional values.²⁶ The deployment of algorithmic technologies in the governance process arguably impacts rights, fairness, and accountability in a democratic system.

Therefore, in the sense that the algorithmic decision-making becomes part of the structure of the contemporary legal system, there is a need to ensure that the rules of the constitutional law evolve to be able to address the challenges related to the particular challenges of automated systems. In this sense, there is a need to strengthen the rules related to due process, transparency, and equality to avoid any rule of law.²⁷ Establishing an effective framework for constitutionalism in the context of algorithmic governance will require continued collaboration among various fields of study. However, the need for the rule of algorithmic governance has been emphasized by many researchers, who highlight the importance of the collaboration of law, technology, and public policies. Indeed, the governance of artificial intelligence requires the cooperation of legal entities and policymakers in the creation of a

regulatory framework that promotes transparency, accountability, and the respect of fundamental rights in the system of algorithmic governance.²⁸ It will be essential for legal experts, policymakers, technologists, and civil society organizations to work together to develop regulatory tools that will address the tension between the advancement of technology and the promotion of basic human rights. Through this collaboration, nations will be able to develop a model of governance that effectively utilizes the benefits of artificial intelligence while keeping the values of constitutionalism at the core of the exercise of power.²⁹

In order to harmonize technological innovation with constitutional guarantees, it is important to develop a doctrine of algorithmic due process. This would mandate that government decision-making algorithms provide basic procedural guarantees, such as algorithmic transparency, explainability of the decision, human oversight of the decision, auditability of the algorithms, and the ability for individuals to contest the decision.³⁰

CONCLUSION

The development and expansion of artificial intelligence and automated decision-making in the processes and mechanisms of the government signal a new and revolutionary change in the character and nature of contemporary governance. The development and expansion of algorithmic technologies in the processes and mechanisms of the government, which directly and indirectly influence and impact the administration and implementation of welfare, criminal justice, administration, and legal mechanisms, simultaneously signal a new and

²⁵ Kastanas, I., & Pavlidis, G. (2025)

²⁶ Fortes, P. R. B. (2020)

²⁷ Moses, L. B., & Chan, J. (2024). Algorithmic administration as constitutional governance. In the *Research handbook on public choice and public law*. Oxford University Press. <https://academic.oup.com/edited-volume/58210/chapter/481895698>

²⁸ Coglianese, C., & Lehr, D. (2019). Transparency and algorithmic governance. *Administrative Law Review*, 71, 1–56. <https://ssrn.com/abstract=3293008>

²⁹ Singh & Agarwal, 2025

³⁰ Murphy, N. (2024). Give me liberty or give me the source code: Challenging a black-box computer algorithm under *Daubert*. *Richmond Journal of Law & Technology*, 30(2). <https://scholarship.richmond.edu/cgi/viewcontent.cgi?article=1513&context=jolt>

revolutionary change in the character and nature of constitutional law.

In the face of these challenges, the article has proposed the development of a doctrine of algorithmic due process that adapts constitutional principles to the age of automated decision-making. By including safeguards such as transparency and explainability in algorithmic systems, effective human oversight in decision-making processes, algorithmic auditing, and effective procedural contestability, it is possible to ensure that the emerging algorithmic state is one in which technological innovation is balanced with the principles of constitutional democracy. Though the modality of the exercise of public power will be transformed by the advent of artificial intelligence, the core principles of fairness, accountability, equality, and the rule of law will continue to be the governing principles of the digital age. Finally, the legitimacy of the system of governance in the digital age will depend not on the power of algorithms but on the ability of constitutional law to subject the power of algorithms to the discipline of democracy.