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OPACITY AS UNCONSTITUTIONALITY: REFRAMING EXPLAINABILITY AS A FUNDAMENTAL RIGHT IN ALGORITHMIC DECISION-MAKING

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ABSTRACT

Algorithmic systems have become embedded within the architecture of modern governance, increasingly determining access to fundamental rights, entitlements, and opportunities. These systems operate across domains such as welfare distribution, taxation, employment screening, credit scoring, policing, and judicial decision-making. While frequently justified on grounds of efficiency, neutrality, and scalability, they introduce a profound constitutional tension: the replacement of reasoned human adjudication with opaque computational processes.

This paper argues that algorithmic opacity constitutes a structural constitutional infirmity when such systems are deployed by the State or its instrumentalities. It contends that explainability is not merely a regulatory safeguard or design principle, but a constitutional necessity grounded in Articles 14 and 21 of the Indian Constitution. Through doctrinal analysis, comparative constitutional insights, and administrative law theory, the paper develops a framework in which opacity is understood as incompatible with the rule of law, equality, fairness, and dignity.

The paper ultimately proposes the recognition of a fundamental right to algorithmic explainability, requiring that all rights-impacting automated decisions remain intelligible, contestable, and subject to meaningful review.

Keywords – Algorithmic Governance, Algorithmic Explainability, Constitutional Law, Article 14, Article 21, Artificial Intelligence (AI) Governance

INTRODUCTION – ALGORITHMIC GOVERNANCE AND THE CONSTITUTIONAL SHIFT IN STATE POWER

The twenty-first century has witnessed an unprecedented transformation in the architecture of governance. Across jurisdictions, public authorities increasingly rely on automated and data-driven systems to perform functions traditionally exercised through human discretion. From determining welfare eligibility and identifying tax fraud to assisting judicial decision-making and predictive policing, algorithmic systems have become embedded within the everyday functioning of the modern administrative state.¹ This phenomenon, commonly described as “algorithmic governance,” refers to the use of computational models, artificial intelligence (AI), machine-learning systems, and predictive analytics to guide, support, or automate governmental decision-making.²

The rise of algorithmic governance represents a significant departure from the classical conception of public administration. Constitutional democracies have historically premised the exercise of state power upon transparency, accountability, and reasoned decision-making. Administrative actions affecting rights and liberties were expected to be supported by intelligible reasons, capable of scrutiny by affected individuals and review by courts.³ The legitimacy of state action was therefore derived not merely from outcomes but from the procedural fairness of the decision-making process itself. This commitment is reflected in the Indian constitutional framework through Articles 14 and 21, which collectively require fairness, non-arbitrariness, and procedural due process in all exercises of public power.⁴

The increasing reliance on algorithmic systems challenges these foundational assumptions. Unlike traditional administrative decisions, algorithmic outputs are frequently generated through highly complex computational processes that remain inaccessible to citizens, administrators, and even system designers. Modern machine-learning models often operate as “black boxes,” producing decisions without providing comprehensible explanations for how particular outcomes were reached.⁵ As a consequence, individuals affected by such decisions

¹ Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* 3–18 (Harvard Univ. Press 2015), <https://archive.org/details/blackboxsociety>

² Karen Yeung, Algorithmic Regulation: A Critical Interrogation, 12 Regulation & Governance 505, 506–08 (2018), <https://onlinelibrary.wiley.com/doi/full/10.1111/regg.12158>.

³ Martin Krygier, The Rule of Law: Legality, Teleology, Sociology, in *Relocating the Rule of Law* 45, 46–49 (Gianluigi Palombella & Neil Walker eds., 2009), <https://ssrn.com/abstract=1857152>

⁴ INDIA CONST. arts. 14, 21

⁵ Jenna Burrell, How the Machine ‘Thinks’: Understanding Opacity in Machine Learning Algorithms, 3 Big Data & Soc’y 1, 2–5 (2016), <https://journals.sagepub.com/doi/10.1177/2053951715622512>

may be denied meaningful opportunities to understand, challenge, or seek review of actions that directly impact their rights, entitlements, and liberties.

This phenomenon gives rise to what scholars describe as “algorithmic opacity.”⁶ Opacity is not merely a technical characteristic arising from complexity; rather, it constitutes a structural challenge to constitutional governance. A decision-making process that cannot be understood cannot be effectively scrutinized. Where the reasoning underlying state action is concealed within proprietary software, inaccessible datasets, or inscrutable machine-learning architectures, traditional mechanisms of accountability become significantly weakened. Judicial review, administrative oversight, and public participation all central pillars of constitutional democracy, risk becoming ineffective when confronted with opaque technological systems.⁷

The constitutional implications of such opacity are particularly significant in India. Article 14 of the Constitution prohibits arbitrariness and requires that state action be fair, reasonable, and non-discriminatory.⁸ Simultaneously, Article 21 protects life and personal liberty and has been expansively interpreted by the Supreme Court to encompass procedural fairness, dignity, informational autonomy, and the right to receive reasons for decisions affecting individual rights.⁹ The jurisprudence of the Court consistently emphasizes that transparency and reasoned decision-making are indispensable components of constitutional governance.¹⁰ Yet algorithmic systems increasingly exercise public power without satisfying these requirements.

The challenge is further intensified by the emergence of large-scale digital governance initiatives involving biometric identification, predictive analytics, automated welfare administration, and data-driven public service delivery. While these technologies promise efficiency, consistency, and improved administrative capacity, they also introduce risks of hidden bias, discriminatory outcomes, erroneous classifications, and unreviewable exercises of state power.¹¹ The concentration of decision-making authority within opaque computational

⁶ Sandra Wachter, Brent Mittelstadt & Luciano Floridi, Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation, 7 Int'l Data Privacy L. 76, 77–80 (2017), <https://academic.oup.com/idpl/article/7/2/76/3860948>

⁷ Danielle Keats Citron, Technological Due Process, 85 Wash. U. L. Rev. 1249, 1252–58 (2008), https://openscholarship.wustl.edu/law_lawreview/vol85/iss6/2

⁸ E.P. Royappa v. State of Tamil Nadu, (1974) 4 SCC 3.

⁹ Maneka Gandhi v. Union of India, (1978) 1 SCC 248.

¹⁰ Kranti Associates Pvt. Ltd. v. Masood Ahmed Khan, (2010) 9 SCC 496

¹¹ K.S. Puttaswamy v. Union of India, (2017) 10 SCC 1.

systems threatens to replace the constitutional ideal of accountable governance with what has been termed “rule by algorithm.”¹²

This paper argues that algorithmic opacity should not be viewed merely as a technological or regulatory concern but as a constitutional violation. The absence of meaningful explanations undermines the guarantees of equality, fairness, dignity, and procedural justice embedded within Articles 14 and 21 of the Constitution. Consequently, the paper advances the central thesis that explainability in algorithmic decision-making must be recognized as a constitutional requirement and, where state action significantly affects rights, as an integral component of the fundamental rights framework itself. Such recognition is essential to ensure that technological innovation remains subordinate to constitutional values and that the digital state remains accountable to the citizens it governs.

LITERATURE REVIEW: THE INTELLECTUAL FOUNDATIONS OF ALGORITHMIC OPACITY

Academic literature across law, political theory, and computer science converges on the conclusion that algorithmic systems generate structural opacity with significant governance consequences.

Frank Pasquale’s foundational concept of the “black box society” describes how modern institutions increasingly rely on systems whose internal logic is inaccessible to public scrutiny, thereby concentrating informational power in private and state actors.¹³ Jenna Burrell identifies three dimensions of opacity:

1. Intentional secrecy arising from proprietary protections
2. Technical complexity inherent in machine learning models
3. Epistemological limits on human interpretability¹⁴

¹² Frank Pasquale, Toward a Fourth Law of Robotics: Preserving Attribution, Responsibility, and Explainability in an Algorithmic Society, 78 Ohio St. L.J. 1243, 1246–48 (2017), <https://kb.osu.edu/items/4f539e6f-b1ea-55dc-9865-fcde13a78b0e>

¹³ Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Harvard Univ. Press 2015).

¹⁴ Jenna Burrell, How the Machine “Thinks”: Understanding Opacity in Machine Learning Algorithms, 3 *Big Data & Society* 1 (2016), <https://doi.org/10.1177/2053951715622512>

Danielle Citron develops the concept of “technological due process,” arguing that automated systems must comply with procedural fairness requirements analogous to traditional administrative law standards.¹⁵

Mireille Hildebrandt emphasizes that algorithmic systems replace legal reasoning with predictive computation, fundamentally altering the nature of law from interpretive reasoning to statistical inference.¹⁶ Virginia Eubanks demonstrates how automated systems often reproduce structural inequality under the guise of neutrality, disproportionately affecting marginalized populations.¹⁷

Sandra Wachter and colleagues critically examine the European GDPR’s “right to explanation,” highlighting its doctrinal limitations and enforcement challenges, particularly in cases involving complex machine learning systems.¹⁸

Collectively, this literature establishes that opacity is not incidental but structurally embedded in algorithmic governance systems.

RESEARCH METHODOLOGY

This paper adopts a doctrinal, analytical, and comparative legal methodology to examine the constitutional implications of algorithmic governance and opacity in automated decision-making systems.

The methodology involves:

- Interpretation of constitutional provisions, particularly Articles 14, 21, and 32 of the Constitution of India, in light of evolving digital governance practices.
- Analysis of Indian Supreme Court jurisprudence concerning arbitrariness, procedural fairness, reasoned decision-making, natural justice, transparency, privacy, and judicial review.
- Examination of administrative law principles governing accountability, non-arbitrariness, due process, and the obligation to provide reasons for decisions affecting rights and interests.

¹⁵ Danielle Keats Citron, *Technological Due Process*, 85 *Wash. U. L. Rev.* 1249 (2008).

¹⁶ Mireille Hildebrandt, *Law for Computer Scientists and Other Folk* (Oxford Univ. Press 2020).

¹⁷ Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (St. Martin's Press 2018).

¹⁸ Sandra Wachter, Brent Mittelstadt & Luciano Floridi, *Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation*, 7 *Int'l Data Privacy L.* 76 (2017).

- Comparative evaluation of international regulatory frameworks, including the European Union's General Data Protection Regulation (GDPR), OECD Principles on Artificial Intelligence, and other emerging standards on algorithmic accountability and transparency.
- Engagement with interdisciplinary scholarship in law, ethics, artificial intelligence, data governance, and computational theory to understand the nature and consequences of algorithmic opacity.
- Assessment of the constitutional challenges posed by automated decision-making systems, particularly in relation to equality, dignity, access to remedies, and democratic oversight.
- Evaluation of existing legal mechanisms for reviewing algorithmic decisions and identifying potential gaps in constitutional protection.
- Development of a normative framework for algorithmic explainability grounded in the principles of constitutionalism, rule of law, transparency, and accountability.

The study is primarily normative in orientation and seeks to construct a constitutional framework through which explainability may be recognized as an essential safeguard under Articles 14 and 21 of the Constitution of India.

RESEARCH QUESTIONS

1. To what extent does algorithmic opacity in public decision-making undermine the constitutional guarantees of equality, non-arbitrariness, procedural fairness, and dignity embodied in Articles 14 and 21 of the Constitution of India?
2. Whether the constitutional principles of transparency, reasoned decision-making, and accountability support the recognition of a right to algorithmic explainability as an integral component of fundamental rights jurisprudence?
3. How can existing Indian constitutional and administrative law doctrines governing reasoned decisions, natural justice, and judicial review be adapted to address algorithmic decision-making systems?
4. What are the constitutional, institutional, and regulatory safeguards necessary to ensure that the deployment of artificial intelligence and automated decision-making systems remains consistent with the rule of law and democratic accountability?

THE ARCHITECTURE OF ALGORITHMIC OPACITY

Algorithmic opacity is not a single defect inherent in artificial intelligence systems but a complex phenomenon that manifests at multiple levels of governance. The inability of individuals to understand, challenge, or scrutinize algorithmic decisions stems from a combination of technological complexity, institutional arrangements, and regulatory shortcomings. Together, these factors create barriers to transparency and accountability, particularly when algorithmic systems are used to make decisions affecting rights and entitlements.¹⁹

(a) Technical Opacity

Technical opacity arises from the design and operation of modern machine-learning systems. Unlike conventional software that follows predetermined instructions, machine-learning models identify patterns and correlations within large datasets to generate predictions or decisions. As these systems become increasingly sophisticated, their internal decision-making processes often become difficult to interpret or explain in human-understandable terms.²⁰

This creates the well-known “black box” problem, where individuals affected by a decision may know the outcome but remain unable to understand how or why it was reached. Such opacity becomes particularly concerning when algorithmic systems are employed in areas such as welfare distribution, credit assessment, recruitment, law enforcement, or public service delivery, where errors or biases can have significant consequences for individual rights.

(b) Institutional Opacity

Institutional opacity emerges from the manner in which governments procure and deploy algorithmic systems. Public authorities frequently rely on private technology companies to design and maintain digital decision-making tools. These systems are often protected by claims of commercial confidentiality, trade secrets, or intellectual property rights, limiting public access to information regarding their functioning.²¹

¹⁹ Supra Footnote 13

²⁰ Supra Footnote 14

²¹ Supra Footnote 15

As a result, individuals affected by algorithmic decisions may be unable to ascertain the basis of those decisions, while courts and oversight bodies may face difficulties in conducting meaningful review. The delegation of public functions to proprietary technological systems therefore creates an accountability deficit that can weaken traditional mechanisms of democratic and constitutional oversight.

(c) Legal and Regulatory Opacity

Legal and regulatory opacity refers to the absence of clear legal standards governing algorithmic transparency and explainability. Although constitutional principles of fairness, non-arbitrariness, and natural justice continue to apply to state action, most legal systems have yet to develop comprehensive rules addressing the unique challenges posed by automated decision-making.²²

In India, there is currently no dedicated statutory framework imposing a general obligation on public authorities to disclose the reasoning behind algorithmic decisions or subject such systems to independent audits. Consequently, individuals often lack effective remedies against opaque algorithmic outcomes, even when those outcomes substantially affect their rights or interests.

Systemic Consequences

The interaction of technical, institutional, and legal opacity creates a broader system in which decision-making becomes increasingly difficult to understand, contest, and review. When the reasons underlying a decision are inaccessible, affected individuals cannot effectively challenge adverse outcomes, and courts may struggle to assess the legality of administrative action. Algorithmic opacity therefore raises concerns that extend beyond technology, implicating core constitutional values such as transparency, accountability, fairness, and the rule of law. It is this erosion of explainability within public decision-making that forms the central constitutional challenge of algorithmic governance.

ARTICLE 14: EQUALITY, RATIONALITY, AND THE PROBLEM OF UNREVIEWABLE CLASSIFICATION

²² Supra Footnote 18

Article 14 of the Constitution of India guarantees equality before the law and equal protection of the laws. Over time, the Supreme Court has interpreted this provision as embodying not merely formal equality but also a constitutional prohibition against arbitrary state action. Through decisions such as *E.P. Royappa v. State of Tamil Nadu*²³ and *Ajay Hasia v. Khalid Mujib Sehravardi*²⁴, the Court established that arbitrariness is inherently antithetical to equality and that every exercise of public power must be guided by rationality, fairness, and constitutional justification.

The doctrine of reasonable classification requires that any distinction drawn by the State satisfy two essential conditions:

- The classification must be founded upon an intelligible differentia that distinguishes those included from those excluded.
- The differentia must bear a rational nexus to the objective sought to be achieved.

In addition, contemporary Article 14 jurisprudence requires that state action be free from arbitrariness, manifest unreasonableness, and irrationality.²⁵

The growing use of algorithmic systems in public administration complicates the application of these constitutional standards. Automated decision-making systems increasingly classify individuals based on behavioural patterns, predictive indicators, and large-scale data processing. Such classifications may influence access to welfare schemes, employment opportunities, educational admissions, law-enforcement interventions, and financial services. However, the criteria used to generate these classifications often remain concealed within complex computational processes.

The constitutional difficulty arises because Article 14 review is fundamentally dependent upon the ability to examine reasons. Courts can evaluate whether a classification is constitutionally valid only when the underlying rationale is accessible and capable of scrutiny. Where algorithmic systems operate opaquely, the constitutional inquiry itself becomes impaired.²⁶

In such situations:

²³ *E.P. Royappa v. State of Tamil Nadu*, (1974) 4 SCC 3.

²⁴ *Ajay Hasia v. Khalid Mujib Sehravardi*, (1981) 1 SCC 722.

²⁵ *Shayara Bano v. Union of India*, (2017) 9 SCC 1

²⁶ Solon Barocas & Andrew D. Selbst, Big Data's Disparate Impact, 104 *Calif. L. Rev.* 671 (2016).

- The basis of classification may remain undisclosed or unintelligible.
- The existence of an intelligible differentia cannot be independently assessed.
- The relationship between the classification and the governmental objective cannot be meaningfully verified.
- Individuals affected by adverse decisions are deprived of the opportunity to challenge the logic underlying their treatment.
- Courts are constrained in exercising effective judicial review over algorithmically generated outcomes.

These concerns are reinforced by emerging scholarship demonstrating that algorithmic systems can replicate and amplify existing social biases while presenting an appearance of neutrality and objectivity. Because machine-learning models derive patterns from historical data, they may reproduce discriminatory outcomes without explicitly relying upon prohibited grounds of classification.²⁷ The opacity of such systems further obscures the detection of these biases, making constitutional scrutiny considerably more difficult.

Consequently, algorithmic opacity threatens to undermine the substantive content of Article 14. Equality cannot be reduced to the mere absence of visible discrimination; it also requires the availability of reasons capable of constitutional examination. Where the logic of state action is inaccessible, the doctrines of classification, rationality, and non-arbitrariness lose much of their practical force. The constitutional promise of equality therefore demands not only fair outcomes but also transparency sufficient to permit meaningful review of the processes through which those outcomes are produced.

ARTICLE 21: DIGNITY, FAIR PROCEDURE, AND INFORMATIONAL AUTONOMY

Article 21 of the Constitution of India has undergone a remarkable transformation from a narrow protection against unlawful deprivation of life and personal liberty into a comprehensive guarantee of due process, dignity, and individual autonomy. Beginning with *Maneka Gandhi v. Union of India*²⁸, the Supreme Court rejected a purely procedural interpretation of Article 21 and held that any procedure affecting life or liberty must be “just,

²⁷ Tarleton Gillespie, *The Relevance of Algorithms*, in *Media Technologies: Essays on Communication, Materiality, and Society* 167 (2014).

²⁸ Supra Footnote 9

fair and reasonable.” This decision firmly embedded substantive due process within Indian constitutional jurisprudence and established fairness as an indispensable requirement of state action.

Subsequent decisions have expanded the scope of Article 21 to include dignity, privacy, autonomy, and informational self-determination. In *K.S. Puttaswamy v. Union of India*²⁹, the Supreme Court recognized privacy as a fundamental right and emphasized that informational autonomy is essential to preserving individual dignity and freedom in a digital society. The Court acknowledged that technological developments have significantly altered the relationship between individuals and the State, thereby necessitating stronger constitutional safeguards against opaque and intrusive forms of governance.

Against this constitutional backdrop, the increasing use of algorithmic systems in public decision-making raises serious concerns. Decisions relating to welfare entitlements, employment, surveillance, law enforcement, healthcare, and access to public services are increasingly influenced by automated systems whose internal logic often remains inaccessible to affected individuals. Such opacity undermines the procedural and dignitary guarantees embedded within Article 21.

Algorithmic opacity violates Article 21 in multiple ways.

(a) Epistemic Deprivation

A fundamental aspect of procedural fairness is the individual's ability to understand the reasons underlying a decision that affects his or her rights and interests. Opaque algorithmic systems deprive individuals of this knowledge by concealing the basis upon which decisions are reached.³⁰ When reasons are unavailable or incomprehensible, individuals are effectively denied meaningful insight into the exercise of public power affecting them.

(b) Procedural Disempowerment

The right to challenge an adverse decision presupposes an understanding of the grounds upon which that decision was made. Where algorithmic reasoning remains hidden, affected persons are unable to identify errors, contest inaccurate assumptions, or seek effective review before

²⁹ Supra Footnote 11

³⁰ Supra Footnotes 7

administrative authorities and courts. The absence of explainability therefore weakens the procedural safeguards that form the cornerstone of Article 21's guarantee of fairness.³¹

(c) Dignitary Harm

Article 21 protects not merely physical liberty but the inherent dignity of the individual. Human dignity requires that persons be treated as autonomous rights-bearing subjects capable of understanding and participating in decisions that affect their lives. Opaque algorithmic systems risk reducing individuals to collections of data points assessed through statistical correlations rather than as persons entitled to justification and respect.³² Such treatment undermines the constitutional commitment to dignity by denying individuals meaningful agency in processes that shape their opportunities, entitlements, and freedoms.

Consequently, the constitutional injury caused by algorithmic opacity extends beyond concerns of efficiency or technological design. It strikes at the very values of fairness, autonomy, and dignity that Article 21 seeks to protect. If constitutional governance requires that individuals be able to understand, question, and challenge exercises of public power, then explainability must be regarded as an essential procedural safeguard. In this sense, the right to receive intelligible reasons for algorithmically generated decisions emerges as a logical extension of the constitutional guarantees of dignity, due process, and informational autonomy under Article 21.

REASON-GIVING AS A CONSTITUTIONAL IMPERATIVE

The obligation to provide reasons is a foundational principle of Indian administrative law and an essential safeguard against arbitrary exercises of public power. The requirement of reasoned decision-making ensures that governmental action remains transparent, accountable, and capable of constitutional scrutiny. It reflects the broader commitment of the Constitution to fairness, non-arbitrariness, and the rule of law.

In *Kranti Associates Pvt. Ltd. v. Masood Ahmed Khan*³³, the Supreme Court emphatically held that the recording of reasons is an indispensable component of natural justice and a

³¹ Lilian Edwards & Michael Veale, *Slave to the Algorithm? Why a Right to an Explanation Is Probably Not the Remedy You Are Looking For*, 16 *Duke L. & Tech. Rev.* 18, 24–31 (2017).

³² *Supra* Footnote 17

³³ *Kranti Associates Pvt. Ltd. v. Masood Ahmed Khan*, (2010) 9 SCC 496

hallmark of good governance. ¹ The Court observed that reasoned decisions promote public confidence in the administration of justice and ensure that decision-makers remain accountable for the exercise of their authority.

The constitutional significance of reason-giving lies in its ability to perform several interconnected functions:

- It enables effective judicial review by allowing courts to examine the legality, rationality, and fairness of administrative action.
- It promotes transparency and accountability by revealing the basis upon which decisions are made.
- It prevents arbitrariness, bias, and abuse of discretion by requiring decision-makers to justify their conclusions through rational reasoning.
- It facilitates meaningful participation by enabling affected individuals to understand and challenge adverse decisions.

Algorithmic decision-making systems pose a direct challenge to this doctrinal framework when they generate outcomes without providing intelligible explanations. Where the reasoning process remains inaccessible or incomprehensible, affected individuals cannot ascertain why a particular decision was reached, nor can courts effectively assess whether the decision complies with constitutional standards. The absence of reasons therefore weakens the safeguards of natural justice and risks insulating state action from meaningful constitutional scrutiny.

Consequently, if the duty to provide reasons is regarded as an essential element of fairness and accountability in traditional administrative decision-making, there is a strong constitutional basis for extending the same requirement to algorithmic systems that exercise or significantly influence public power.

5.5 ALGORITHMIC SYSTEMS AND THE COLLAPSE OF JUDICIAL REVIEW

Judicial review is one of the most significant safeguards against the arbitrary exercise of public power. Its effectiveness, however, depends upon the availability of intelligible reasons capable of scrutiny by courts. Constitutional adjudication is not concerned solely with outcomes; it also examines the process through which decisions are reached, the factors considered, and the

justification offered by the decision-maker. The legitimacy of judicial review therefore rests upon the ability of courts to access and evaluate the reasoning underlying state action.

The growing reliance on algorithmic decision-making systems poses a serious challenge to this framework. When decisions are generated through opaque computational processes, courts may be confronted with outcomes whose underlying logic remains inaccessible or incomprehensible. In such circumstances, the traditional tools of constitutional review become significantly weakened.

Without access to intelligible reasons:

- Courts cannot meaningfully assess whether a measure satisfies the requirements of proportionality.
- Courts cannot evaluate whether the decision is rationally connected to a legitimate governmental objective.
- Courts cannot effectively test allegations of arbitrariness, discrimination, or procedural unfairness.
- Courts cannot determine whether irrelevant considerations influenced the outcome or whether relevant factors were ignored.
- Individuals challenging adverse decisions are deprived of the evidentiary basis necessary to seek meaningful judicial remedies.

The consequence is the emergence of what may be described as **structural unreviewability**, a condition in which state action remains formally subject to judicial review but is practically insulated from effective scrutiny due to the opacity of the decision-making process. The constitutional concern is therefore not merely technological; it is institutional. As algorithmic systems increasingly influence governmental decisions, they risk undermining the judiciary's ability to perform its constitutional role as a check on public power.

This development marks a significant shift in the nature of governance. Traditional administrative law presupposes that public authorities can explain and justify their decisions. Algorithmic opacity, by contrast, threatens to replace reasoned decision-making with outcomes that are difficult to interrogate, challenge, or review. Where constitutional adjudication depends upon reasons, decisions that operate without accessible reasons risk creating zones of authority

beyond meaningful judicial oversight. In such a framework, the constitutional promise of accountability is weakened, and the rule of law itself is placed under strain.

DISCUSSION: CONSTITUTIONAL IMPLICATIONS OF ALGORITHMIC OPACITY

The growing use of algorithmic systems in governance raises concerns that extend far beyond questions of efficiency and technological innovation. At its core, the problem of algorithmic opacity is a constitutional one. Democratic governance depends upon transparency, accountability, and the ability of citizens to understand and challenge the exercise of public power. When important decisions are made through systems whose reasoning cannot be meaningfully explained, these foundational principles begin to erode.

(a) Collapse of Accountability

A basic premise of constitutional governance is that those who exercise public power must be answerable for their decisions. Algorithmic systems complicate this principle by obscuring who is ultimately responsible for a particular outcome. When an adverse decision is attributed to a complex technological process rather than a human decision-maker, accountability becomes diffused and difficult to enforce. Citizens may find themselves affected by decisions for which no individual or institution is willing—or able—to provide a satisfactory explanation.

(b) Erosion of Equality Review

The constitutional guarantee of equality is meaningful only when courts can examine the basis upon which distinctions are drawn between individuals. Algorithmic systems often classify people using data-driven criteria that remain hidden from public view. As a result, it becomes difficult to determine whether a particular decision is based on legitimate considerations or whether it reflects hidden biases and discriminatory assumptions. Without access to the logic underlying these classifications, constitutional review under Article 14 risks becoming increasingly superficial.

(c) Procedural Hollowing of Article 21

Fair procedure requires more than the mere existence of a decision-making process; it requires that individuals understand how decisions affecting their rights have been reached. If a person

is denied a benefit, subjected to surveillance, or adversely affected by an administrative decision, fairness demands an opportunity to know the reasons and challenge them. Opaque algorithmic systems undermine this possibility. When explanations are unavailable, procedural protections become largely symbolic, depriving individuals of meaningful participation in decisions that directly affect their lives.

(d) Transfer of Sovereign Authority

Another significant concern is the gradual shift of decision-making power from public institutions to technological infrastructures that operate beyond ordinary public scrutiny. Governments increasingly rely on complex digital systems developed and maintained by private actors. While these systems may assist in governance, they also shape outcomes that have public consequences. This creates the risk that important aspects of sovereign authority are exercised through mechanisms that are not subject to the same standards of transparency, accountability, and democratic control that traditionally govern state action.

Constitutional Consequences

Taken together, these developments point to a deeper transformation in the relationship between citizens and the State. Constitutional democracy assumes that public power is visible, explainable, and reviewable. Algorithmic opacity challenges each of these assumptions. When decisions are made through processes that cannot be understood, questioned, or scrutinized, the safeguards that protect individuals from arbitrary power begin to weaken.

The concern, therefore, is not that technology is being used in governance, but that governance may increasingly occur without adequate constitutional visibility. A system in which decisions are produced without meaningful explanation risks creating forms of authority that are difficult to challenge and even harder to hold accountable. Such a model sits uneasily with the constitutional commitments to equality, dignity, fairness, and the rule of law that lie at the heart of the Indian constitutional framework.

FINDINGS

The study arrives at the following key findings:

1. **Algorithmic opacity is a structural feature of contemporary computational governance rather than a temporary technological limitation.** The complexity of modern machine-learning systems, combined with institutional and regulatory barriers to transparency, often renders decision-making processes inaccessible to affected individuals and oversight bodies.
2. **Indian constitutional and administrative law already recognizes reason-giving as an essential requirement of legitimate state action.** The principles of natural justice, fairness, accountability, and non-arbitrariness consistently require public authorities to provide intelligible reasons for decisions affecting rights and interests.
3. **Articles 14 and 21 together provide a strong constitutional foundation for a right to algorithmic explainability.** While Article 14 safeguards against arbitrary and irrational state action, Article 21 protects procedural fairness, dignity, and individual autonomy. Opaque algorithmic decision-making undermines these guarantees by preventing meaningful scrutiny and participation.
4. **Effective judicial review becomes significantly weakened in the absence of transparency and explainability.** Courts can review the legality, rationality, and proportionality of administrative action only when the reasoning underlying a decision is capable of examination. Algorithmic opacity therefore creates serious obstacles to constitutional oversight.
5. **Existing legal and regulatory frameworks remain inadequate to address the constitutional challenges posed by algorithmic governance.** Current mechanisms do not provide comprehensive safeguards relating to transparency, auditability, accountability, or the right to obtain meaningful explanations for automated decisions.
6. **The increasing reliance on algorithmic systems in governance risks creating decision-making structures that operate beyond traditional constitutional checks and balances.** Without adequate safeguards, algorithmic governance may dilute democratic accountability and weaken the constitutional commitment to transparent and reasoned exercise of public power.
7. **Explainability should be viewed not merely as a technical requirement but as a constitutional safeguard.** Ensuring that individuals can understand and challenge decisions that affect their rights is essential for preserving the values of equality, dignity, fairness, and the rule of law in the digital age.

CONCEPTUALIZING A FUNDAMENTAL RIGHT TO EXPLAINABILITY

The rapid integration of algorithmic systems into public administration necessitates a re-examination of constitutional safeguards in the digital age. While the Constitution does not expressly recognize a right to explainability, such a right can be derived from the principles of equality, fairness, reasoned decision-making, and procedural due process embodied in Articles 14 and 21. The legitimacy of any state action depends not merely upon the correctness of its outcome but also upon its ability to be explained, justified, and challenged.

A constitutional right to explainability should encompass the following elements:

- **Right to intelligible reasons** – Individuals should receive clear and understandable explanations for algorithmically assisted decisions that affect their rights or interests.
- **Right to contest automated decisions** – Every person should have an effective opportunity to question, appeal, or seek review of an adverse algorithmic outcome before a competent authority.
- **Right to meaningful human intervention** – Decisions involving significant consequences, such as deprivation of liberty, welfare benefits, employment, or other legal entitlements, should remain subject to meaningful human oversight.
- **Right to disclosure of algorithmic involvement** – Public authorities should be under a duty to inform individuals whenever an automated system has substantially influenced or determined an administrative decision.
- **Right to independent algorithmic audit** – Individuals should be entitled to seek review or independent assessment of state-deployed algorithmic systems where there are credible concerns regarding bias, arbitrariness, or procedural unfairness.

Recognizing these safeguards would ensure that technological innovation remains consistent with constitutional values rather than operating beyond them.

RECONCILING TRANSPARENCY AND PROPRIETARY INTERESTS

One of the principal challenges in implementing algorithmic transparency is balancing constitutional accountability with the legitimate commercial interests of private technology providers. Governments increasingly rely on proprietary software developed by private entities, raising concerns regarding intellectual property rights, trade secrets, and confidential business information.

However, these commercial interests cannot override constitutional guarantees where fundamental rights are implicated. The objective of explainability is not necessarily to compel disclosure of source code or proprietary algorithms in every case. Rather, the constitutional requirement is that affected individuals receive a meaningful explanation of how a decision was reached, the principal factors considered, and the basis upon which the outcome was determined.

A distinction must therefore be maintained between:

- **Source code disclosure**, which may not always be necessary and may legitimately remain protected.
- **Functional explanation**, which is constitutionally essential to ensure fairness, accountability, and meaningful judicial review.

The constitutional standard should therefore be one of **meaningful intelligibility** rather than complete technical transparency. What the Constitution demands is an explanation sufficient to enable understanding, participation, and effective challenge.

INSTITUTIONAL DESIGN REQUIREMENTS

Recognizing explainability as a constitutional principle must be accompanied by institutional reforms capable of ensuring its practical implementation. Effective governance requires not only legal recognition of rights but also mechanisms through which those rights can be exercised and enforced.

To operationalize explainability, the following measures should be considered:

- Mandatory Algorithmic Impact Assessments before deploying high-risk algorithmic systems in public administration.
- Establishment of independent audit and oversight authorities empowered to assess algorithmic systems for legality, fairness, accuracy, and bias.
- Creation of public registries identifying algorithmic tools used by government agencies, their intended purpose, and the authorities responsible for their deployment.
- Enactment of statutory transparency obligations requiring documentation, record-keeping, and disclosure of the factors influencing algorithmic decisions.
- Development of judicial guidelines governing the admissibility, evaluation, and evidentiary treatment of algorithmically generated decisions in constitutional and administrative proceedings.

These institutional safeguards would promote public confidence while ensuring that algorithmic governance remains consistent with democratic principles and the rule of law.

JUDICIAL ROLE

The judiciary has historically played a central role in adapting constitutional principles to emerging forms of governmental power. As algorithmic systems increasingly influence administrative decision-making, courts will be required to ensure that technological innovation does not dilute constitutional protections.

Accordingly, courts should:

- Recognize algorithmic opacity as a significant constitutional concern, particularly where it impairs equality, fairness, or effective judicial review.
- Require public authorities to disclose the reasoning process underlying algorithmically influenced decisions whenever fundamental rights are affected.
- Develop proportional standards of transparency, balancing legitimate confidentiality interests against the individual's right to a meaningful explanation.

- Extend established principles of natural justice, procedural fairness, and reasoned decision-making to administrative decisions substantially influenced by automated systems.
- Encourage the development of constitutional standards that preserve accountability while permitting responsible technological innovation in governance.

Through these measures, the judiciary can ensure that algorithmic governance remains subject to the same constitutional disciplines that have traditionally governed all exercises of public power. The objective is not to prohibit the use of artificial intelligence in governance, but to ensure that its exercise remains transparent, accountable, and consistent with the guarantees of the Constitution.

CONCLUSION

The increasing reliance on algorithmic systems marks a significant shift in the manner in which the State exercises public power. While these technologies promise greater efficiency, consistency, and administrative convenience, they also introduce new constitutional challenges that cannot be addressed through traditional legal frameworks alone. When decisions affecting fundamental rights are produced through opaque computational processes, the constitutional principles that have long governed administrative action are placed under considerable strain.

This paper has argued that algorithmic opacity is not merely a technical limitation but a constitutional concern. The inability to understand, question, or review algorithmically generated decisions undermines the guarantees of equality under Article 14 by rendering classifications and state action difficult to scrutinize. At the same time, it weakens the protections of Article 21 by denying individuals fair procedure, meaningful participation, and the dignity that accompanies reasoned and accountable decision-making. The absence of intelligible reasons also impairs judicial review, reducing the ability of courts to examine the legality, rationality, and proportionality of state action.

The existing principles of Indian constitutional and administrative law already provide a strong normative foundation for addressing these concerns. The doctrines of non-arbitrariness, natural justice, reasoned decision-making, and procedural fairness collectively support the recognition of explainability as an essential constitutional safeguard. Rather than requiring an entirely new

constitutional right, explainability can be understood as a natural extension of the values already embedded within Articles 14 and 21.

As algorithmic governance becomes increasingly embedded in public administration, constitutional law must evolve to ensure that technological innovation remains consistent with democratic accountability and the rule of law. Public authorities cannot be permitted to exercise power through systems whose reasoning is inaccessible to those affected by their decisions. Transparency, intelligibility, and the ability to contest automated outcomes are indispensable to preserving the legitimacy of constitutional governance.

Ultimately, the question is not whether governments should employ artificial intelligence in decision-making, but whether such technologies can be used in a manner that remains faithful to constitutional values. A constitutional democracy cannot permit the exercise of public power without justification or accountability. Recognizing a right to meaningful explainability is therefore not simply a response to technological change; it is a constitutional necessity for ensuring that governance in the digital age remains transparent, reviewable, and firmly anchored in the principles of equality, dignity, fairness, and the rule of law.

