SUPREMO AMICUS

VOLUME 40 | February, 2026 ISSN 2456-9704

LEGAL CERTAINTY AND DUE PROCESS IN THE DIGITALISED PARADIGM OF AI DECISION-MAKING

By *Ravisha Seth*
From *Christ (Deemed to be University) Pune Lavasa*

By *Amrutha Rose J Valavi*
Assistant Professor at Christ University Pune Lavasa Campus

ABSTRACT

The conventional understanding of the legality, accountability, and justice are fundamentally changed as the digitalisation of governance and administration goes very fast courtesy of Artificial Intelligence (AI). With algorithmic decision-making turning into a part of the system, the essential principles of Legal certainty and due process are questioned. However, although there are international standards, such as the EU AI Act and OECD AI principles, a large gap remains on how to adapt classical legal doctrines, which constitutes a Black Box that has an impact on transparency and explainability in machine reasoning. The paper aims to assess how the established procedural safeguards are challenged and what mechanisms are proposed to preserve legal certainty by Automated Decision-Making. Ensuring due process requires that AI systems be designed with a mechanism to provide clear and comprehensible justifications, allowing for human oversight and intervention when necessary. By employing a normative legal analysis, the paper examines the existing regulatory framework and data protection laws, which reveal the deficiencies in algorithmic transparency and human oversight. It has been uncovered that, although the emerging regulation acknowledges the existing gap, there is a lack of enforceable standards for fairness and explainability. The paper highlights the growing convergence between technological order and legal fundamentals, as well as the need to incorporate human-in-loop mechanisms. There lies a prerequisite for envisioning due process and legal certainty not as static doctrines, but as evolving and adaptable fundamentals. The future research should focus on AI governance aligned with adaptive models, providing transparency and legitimacy.

Keywords: AI Decision-Making; AI Governance; Due Process; Legal Certainty; Transparency

INTRODUCTION

The growing digital revolution in the field of the public administration and governance has completely changed the historical scene of the legal decision-making process. The progress of Artificial Intelligence (AI), specifically, algorithms and automated decision-making technologies, has helped governments and institutions handle large amounts of data, increase the efficiency of the process, and conduct complex evaluative work more quickly than ever. The AI-based systems are currently applied in various industries including welfare provision, predictive law enforcement, medical care ranking, tax evaluation, immigration management, judicial decision aid, and credit evaluation[1]. With states becoming more involving in incorporating computational models in official processes, the dependence on machine-generated results in making decisions that have a direct impact on legal rights and individual liberties is still growing. Such a development marks a paradigm shift in the sphere of governance that is slowly being assisted, in most cases replaced, by the automated decisions[2].

In this transformed ecosystem the traditional principles of legal certainty and due process become issues of concern. Historically, the rule of law has

[1] Daly, S., "Artificial Intelligence, the Rule of Law and Public Administration: The Case of Taxation" (2024).
[2] Setiawan, H., Handayani, I.G.A.K.R., Hamzah, M.G., & Tegnan, H., "Digitalization of Legal Transformation on Judicial Review in the Constitutional Court" (2024).

been based on the principles of predictability, transparency, clarity, and availability of justifiable decisions[3]. Due process is fair because of the necessary checks and balances by the right to be notified, hearing, participation, and the right to appeal or judicial review of decisions. These teachings maintain legitimacy and faith in the legal systems. Nevertheless, the growing use of algorithmic governance puts these principles into question[4]. It is typical that AI systems are complicated and black box systems, so they do not have a straightforward and clear internal logic and reasoning processes, even by their authors. This obscurity negotiates the ability to offer explanations which jeopardize accountability and cast doubt upon the fairness of machine-made decisions.

The main issue addressed in this study is the issue of tension between the opportunities of AI efficiency and the maintenance of guarantees and constitutionality. Through automation of decision-making processes, there is a danger of getting biased, discriminative, or unverifiable results unless they are controlled[5]. Procedural injustice may also occur where people who are victims of algorithmic decisions do not have any good means of participation or review. The issues require critical scrutiny of the question of whether the current legal frameworks and new AI governance efforts are enough to provide transparency, fairness, and human control[6].

To respond to these questions, the paper will take a normative legal doctrinal methodology buttressed by comparative analysis of the international regulatory models such as the EU AI Act, OECD AI Principles and GDPR. This approach helps examine the structural weaknesses of existing structures and review the suggested protection like explainable AI and human-in-the-loop systems[7].

Finally, the growing integration of the technological systems and legal principles necessitates paradigm shift in the interpretation of due process and legal certainty in the context of digital administration. The AI decision-making can be left in line with the values, enshrined in the democratic law system, only under the condition of the enforceable transparency standards, significant human control, and ethical governance.

THE PRINCIPLE OF LEGAL CERTAINTY IN THE CONTEXT OF RULE OF LAW.

A fundamental principle of constitutional and administrative law and an element of the rule of law is legal certainty, which stipulates that laws and legal procedures should be predictable, transparent, and comprehensible. The principle guarantees that people can predict the effects of the law and make use of consistent legal standards as the guideline to behave[9]. The theory of the rule of law put forward by A.V. Dicey focuses on curbing arbitrary authority, and the inner morality of law developed by Lon Fuller as the

[3] Ramakrishna, M. D. “Legal Certainty in the Context of Artificial Intelligence and Legal Reasoning.” Indian Journal of Law and Technology 20, no. 1 (2024).
[4] Bayamlıoğlu, E., & Leenes, R., "The ‘rule of law’ implications of data-driven decision-making: a techno-regulatory perspective" (2018).
[5] Binkyte, Ruta, Ljupcho Grozdanovski, and Sami Zhioua. “On the Need and Applicability of Causality for Fairness: A Unified Framework for AI Auditing and Legal Analysis.” Frontiers in Artificial Intelligence 7 (2024).
[6] Ramakrishna, M. D. “Legal Certainty in the Context of Artificial Intelligence and Legal Reasoning.” Indian Journal of Law and Technology 20, no. 1 (2024).
[7] Nandy, A., Herrera, D.A., & Goucher-Lambert, K., "Adopting “blackbox” engineering advice: the influence of imperfect suggestions during AI-assisted decision-making with multiple objectives" (2025).
[8] Choudhury, M.M., Eisenbart, B., & Kuys, B., "Artificial intelligence (AI) in the design process – a review and analysis on generative AI perspectives" (2025).
[9] Petrova, Elena. “Algorithmic Governance and the Rule of Law: Reconciling Automation with Legal Certainty.” European Journal of Legal Studies 15, no. 2 (2023).

requirements of legal legitimacy, points on clarity, uniformity, disclosure, and permanence of laws.

Legal certainty traditionally requires that the judgments made by the authorities of people must be justified, understandable, and subject to criticism. It defends personal autonomy by making sure that the actions of the state are based on rational explanations and are not based on obscure or capricious processes[10]. As a procedural protection, judicial review is based on the capability of evaluating the rationality of administrative decisions.

Nevertheless, the introduction of AI-based decision systems is a deep threat to this doctrine. The use of automated decision-making is dependent on complex computational procedures, which are often based on the use of statistical modelling and machine learning, and produce results generated through probabilistic associations rather than supportable legal argument[11]. Such systems are often opaque Black Boxes in which internal logic is not easily interpretable and explainable even to the developers. Consequently, people can be issued with decisions without knowing the justification behind them, which does not support transparency and predictability. Courts have difficulty in exercising judicial review without a clear reasoning and this is what has caused the accountability erosion and undermined the trust people have in the governance[12].

1. **Due Process as a Basic Protection of Not Coming to Decision Arbitrarily**

Due process is a procedural and substantive right that guarantees fairness during legal/administrative practices. It includes the necessary safeguards like:

- Right to notice
- Right of hearing and being heard during proceedings.
- Right to a justified and reasonable judgment.
- Right of appeal and review.

Due process not only ensures that one is not subjected to arbitrary power but also ensures that the decision that affects his or her rights, liberties and rights is fairly evaluated. It demands openness and responsibility during decision making[13].

Automated systems based on AI are posing a considerable challenge to these requirements. To begin with, people might not know that a decision that concerns them was made not by a human power, but an automated device. Second, algorithmic reasoning makes it impossible to have any meaningful idea of the reasons why a decision was made, which hinders the right to challenge or appeal[14]. Third, most AI systems do not have an explainability option and instead present only results without the route of reasoning that took place to obtain the results.

In scenarios in which AI tools belong to the ownership of a private corporation, the intellectual property and trade secrets law can further limit the access to AI logic, which can cause obstacles to the transparency and deny a person a proper tool to challenge decisions. The possibility of training data or model design errors, like racial profiling in predictive policing or discriminatory welfare distribution, they might be not detected, and no corrective measures are implemented

[10] Aimen, T., "Cognitive freedom and legal accountability: Rethinking the EU AI Act's theoretical approach to manipulative AI as unacceptable risk" (2025).

[11] Carlsson, V., "Legal certainty in automated decision-making in welfare services" (2023).

[12] Munir, B., Abbasi, M.Z., Wilson, W.B., & Colombo, A. Jr., "Evaluating AI in Legal Operations: A Comparative Analysis of Accuracy, Completeness, and Hallucinations in ChatGPT-4, Copilot, DeepSeek, Lexis+ AI, and Llama 3" (2025).

[13] Drake, A., Keller, P., Pietropaoli, I., Puri, A., Maniatis, S., Tomlinson, J., Maxwell, J., Fussey, P., Pagliari, C., Smethurst, H., Edwards, L., & Blair, W., "Legal contestation of artificial intelligence-related decision-making in the United Kingdom: reflections K21for policy" (2022).

[14] Socol de la Osa, D.U., & Remolina, N., "Artificial intelligence at the bench: Legal and ethical challenges of informing—or misinforming—judicial decision-making through generative AI" (2024).

because accountability structures are not established[15]. Therefore, procedural fairness protection necessitates due process to develop to encompass explainability, transparency and meaningful human monitoring.

2. The Rise of AI-based Automated Decision-Making and Algorithms.

AI-based decision-making is the application of computer procedures in automating or assisting in making decisions that are historically made by human authorities. These systems are combined in algorithmic governance, which encompasses such areas of public administration as policing, medical triage, tax fraud detection and immigration control, and risk assessment in courts[16]. Automated Decision-Making (ADM) can be used in two different ways: to generate outcomes that are legally relevant, or to provide decision-support advice to human authorities. AI models are of two broad types:

- Rule-based systems, with the decisions being provided on a basis of predetermined logical prescriptions that can be verified.
- Machine-learning models especially neural and deep learning models that are used to find trends in large datasets and produce predictions without explicit programming.

Although rule-based systems are relatively consistent with traditional legal thinking because of their traceability and transparency, machine learning models present outputs because of extremely complicated internal processes. This opaqueness gives rise to what researchers refer to the Black Box issue where the reasoning behind a decision is not available because of:

- Technical opacity - complexity that is not understandable by man.
- Commercial secrecy - Trade secrecy which curtails disclosure[17].

These problems are significant threats to accountability, human rights, and democratic legitimacy as algorithmic governance grows. When automated systems have either biased or erroneous results from data like, but not limited to wrongful deductions of welfare, discriminatory risk scores, or unfair credit denials, the effects cannot be undone without any clear mechanism to check them. The lack of explainability and human control weakens the possibility of decision challenging, which negates legal certainty and procedural fairness[18].

3. Legal Certainty and Due Process Problems with AI Systems.

Related to traditional legal norms, the inherent obscurity of algorithmic reasoning is one of the biggest threats that the AI-based decision-making systems present to the legal system. Many developed machine-learning models are based on very complicated, non-linear computing functions that examine enormous amounts of information to produce predictive results. This contrasts with traditional rule-based decision systems, in which reasoning can be explicitly represented and followed, machine-learning models including neural networks produce their results in internal processes, which are hard or impossible to understand[19]. This is often termed as the

[15] Bavetta, F., "The AI-driven public actor: new challenges to fundamental rights and the role of the private sector" (PhD Thesis, Università Commerciale ‘Luigi Bocconi’, 2025).

[16] Li, Y., "The Applicability of Automated Administrative Penalties: Legal Challenges and Regulatory Responses" (2024).

[17] Munir, B., Abbasi, M.Z., Wilson, W.B., & Colombo, A. Jr., "Evaluating AI in Legal Operations: A Comparative Analysis of Accuracy, Completeness, and Hallucinations in ChatGPT-4, Copilot, DeepSeek, Lexis+ AI, and Llama 3" (2025).

[18] Kipāne, A., Vilks, A., Kuzņecova, K., & Krivins, A., "Prevention of security threats in public space in the context of urban development" (2025).

[19] Bayamlioğlu, E., "Transparency for contesting automated decisions: Impediments and affordances

Black Box problem, since there is no visibility into the way and the reasons why a specific decision was arrived at.

When deployed in a situation of public governance, like screening immigrants or predicting crime or detecting fraud, the issue of opacity is even greater on algorithmic systems. When a person is subjected to an adverse administrative decision, e.g. refusal to grant social benefits or an incorrect classification of him or her as a high-risk person, it is possible that he or she does not have access to the logic or criteria applied. They cannot be actively involved in the decision-making process, question errors, or demand a review, without the possibility to comprehend the arguments[20]. This is in direct opposition to the principle of transparency that is the foundation of both the legal certainty and due process.

In addition, trade secrets and intellectual property rights applied by the developers of AI tools privately also contribute to limiting the access of people to the process of algorithms. Governments that buy proprietary systems can also have a non-disclosure agreement that binds them to keep the internal operations confidential. Consequently, it puts people into a state of rights being influenced by automated assessments, which cannot be sufficiently justified by any human decision-maker, undermining judicial review and undermining institutional accountability[21].

THE BIAS OF ALGORITHMS, DISCRIMINATION, AND THE ABILITY TO DISREGARD UNFAIR RESULTS.

AI models are highly data-driven in both training and deployment processes, indicating that they are the projections of trends and biases existing in the datasets, where they are trained. In the case of training data that have historical inequality, incomplete reporting, structural discernment or biased demographic allocation, the ensuing algorithms replicate and increase discriminatory results[22]. This brings up some grave constitutional and ethical implications, because the automated decisions can focus on vulnerable or marginalised groups with no prior aim of doing so.

There have been examples around the world of unfair implications of algorithmic governance: predictive policing systems that unproportionately profile minority populations, automated hiring systems that result in fewer chances being offered to women candidates, and welfare fraud detection systems that discriminate against migrant families. In both scenarios, the output of the algorithm looks like a systematic objective, but all recreates structural bias which could not be tolerated by those who make decisions by humans.

Legally, the discriminatory algorithmic results undermine the values of substantive fairness and of equal protection. No one can realize that they were discriminated against, as the intellectual behind decisions is presented as detached and data-oriented[23]. More so, establishing discrimination is much harder with the logic used in decision making remaining secret or technically impossible to understand. In this way, the problem of algorithmic prejudice has a direct and immediate impact on procedural justice and a loss of trust in administrative rulemaking. The absence of enforceable principles of fairness and defence against unfair trials under the guise of AI-driven decisions

under EU Law" (Dissertation, Tilburg University, 2023).

[20] Kipāne, A., Vilks, A., Kuzņecova, K., & Krivins, A., "Prevention of security threats in public space in the context of urban development" (2025).

[21] Ricci, Daniela. “Artificial Intelligence and Legal Responsibility: Reconsidering the Concept of Liability in Automated Decision-Making.” International Journal of Law and Technology 18, no. 3 (2024).

[22] Nordström, M., "AI under great uncertainty: implications and decision strategies for public policy" (2022).

[23] Nikitas, A., Michalakopoulou, K., Njoya, E.T., & Karampatzakis, D., "Artificial Intelligence, Transport and the Smart City: Definitions and Dimensions of a New Mobility Era" (2020).

makes them prone to institutionalising hidden inequality behind the power of the computer.

REDUCTION OF HUMAN OVERSIGHT AND ACCOUNTABILITY MECHANISMS

Human control is traditionally seen as a guardian of unreasonable choice. But when the administration machines are used, the responsibility is divided and unclear. More human officials are becoming less important in decision-making and algorithms developed by technical experts hired by one of the companies are handling the process[24]. Whenever automated systems are used with little or no human interference, especially where the subject matter is of high stakes like welfare suitability screening, taxation assessment or policing, there is the risk of the human officials becoming passive observers instead of accountable judges of the results.

This modification in the governance alters the accountability of the governance. In case an automated decision is wrong, unjust, or discriminatory, it is hard to define who is responsible. The developers can disclaim liability by arguing that automated systems were used to make decisions and the developers are only relied on by the officers of the government where such decisions are made or the developers misread the results of the automated systems[25]. This poses a responsibility gap whereby no party can be held responsible which undermines the procedural protections required to guarantee redress and review.

Moreover, due to the emergence of automated decision-making that lacks significant human involvement, procedural barring might be present where the individuals are denied the right to hear or be able to challenge automated outputs before they have effects. Even in a legal procedure, post-hoc appeals are inadequate; the due process entails a chance to be a part of the decision-making procedures at the formative stages. Unless AI systems are equipped with mechanisms that ensure human review, these systems stand a risk of turning procedural fairness into a formality and not a privilege.

DATA PROTECTION, PRIVACY, AND VIOLATION OF PERSONAL AUTONOMY

The personal and behavioural data on which AI systems are fundamental is frequently profiled and monitored in large volumes. This type of data processing brings a complicated way of dealing with privacy, consent, and data management. Most jurisdictions do not even know how far their data is gathered, what are the aims of using this data or how this data is applied to make automated decisions[26]. This compromises the autonomy as it limits independent participation and the confidence in institutional processes.

Besides, automated summarizing can produce individuality-free decisions that are based on prediction patterns of group behaviour. This puts independence to the test, as it gives a risk score or an eligibility test depending on statistical similarity instead of separate judgment. In any case where automated processing of data produces legal or societal disadvantage that cannot be reviewed or fixed in advance, it is in destruction of known procedural norms of due process as well as legitimate benefits of integrity and privacy.

Though there are exertions by the data protection regimes to tackle these challenges by enshrining them in the rights supplies of the data protection

[24] Masuhara, D.M., "Artificial intelligence and adjudication: some perspectives" (2017).

[25] Kartskhiya, Aleksandr Amiranovich. “Legal Horizons of the New Artificial Intelligence Paradigm.” Legal Issues in the Digital Age 5, no. 2 (2024).

[26] Popartan, L.A., Cortés, À., Garrido-Baserba, M., Verdaguer, M., Poch, M., & Gibert, K., "The Digital Revolution in the Urban Water Cycle and Its Ethical–Political Implications: A Critical Perspective" (2022).

regulations, including the General Data Protection Regulation (GDPR), most authorities do not have such protections, and their application is uneven[27].

The legal outline and regulators are structurally limited in their adjustment to AI driven governance. The principles of judicial schemes are based on the idea of a logical ruling, the analysis of evidence, and the openness of the process. But algorithmic models tend to be technically complicated and do not need to be evaluated by an expert. Courts, administrative courts and auditors might not be strictly strong enough to question automated systems[28].

Such inability undermines the power of judicial review as the courts might not be capable of probing the logic of the procedure or disputing the power of computers. The lack of legal norms determining the conditions of explainability and the level of accountability makes the bench control symbolic instead of material.

ANALYSIS OF REGULATORY AND LEGAL FRAMEWORK.

1. **Unbalanced International Regulatory Reactions in regard to Automated Decision-Making.**

Since AI-based decision systems are proliferating in the field of governance and administration, various international organizations and national authorities have started developing legal regulations, which would control automated decision-making and mitigate issues related to transparency, fairness, and accountability. These efforts can be seen as the learning that the current legal principles are inadequate to handle the peculiar dangers that algorithmic reasoning presents.

The European Union Artificial Intelligence Act (EU AI Act) is the most comprehensive and powerful regulatory development ever that deploys a risk-based regulatory approach, providing disproportionate regulation in respect of the amount of risk caused by AI systems. The Act classifies AI systems as unacceptable, high risk, limited risk, and minimal risk applications, with stricter requirements encompassing transparency, human control, precision, and records in the case of high-risk applications including law enforcement applications, diagnostic systems, and benefits aids[29]. The Act accepts the necessity of protections to guarantee transparency and human control of automated decisions but is still criticized as lacking operational details of how to explain and provide human answerability, which can be enforced.

The OECD Principles on Artificial Intelligence are another important project as it was signed by more than forty countries. These values emphasize transparency, accountability, safety, and values that are human-focused. The OECD framework however is rather ethical and aspirational guidance as opposed to establishing legal obligations thus limiting enforceability. In the same vein, the Recommendation on the Ethics of AI issued by UNESCO offers a world-wide ethical framework in which equity, transparency, and human control are promoted, but otherwise optional[30].

Collectively, these tools indicate the emergence of an international apprehension of the issue of algorithmic

[27] López González, A., Moreno-Espino, M., Moreno Román, A.C., Hadfeg Fernández, Y., & Cepero Pérez, N., "Ethics in Artificial Intelligence: an Approach to Cybersecurity" (2024).

[28] Carstens, N., "Digitalisation Labs: A New Arena for Policy Design in German Multilevel Governance" (2023).

[29] Andreoulaki, Ioanna, Aikaterini Papapostolou, and Vangelis Marinakis. "Evaluating the Barriers to Blockchain Adoption in the Energy Sector: A Multicriteria Approach Using the Analytical Hierarchy Process for Group Decision Making." Energies 17, no. 6 (2024).

[30] Hossain, Sahadat, Mario Fernando, and Shahriar Akter. "Digital Leadership: Towards a Dynamic Managerial Capability Perspective of Artificial Intelligence-Driven Leader Capabilities." Journal of Leadership & Organizational Studies 32, no. 2 (2025).

responsibility but is constrained by the lack of meaningful enforcement policies.

2. The Significance of Data Protection Laws in the Rights Protection against Automated Decision-Making.

The other significant legal pillar that is facing algorithmic transparency is data protection laws. The General Data Protection Regulation (GDPR) presented innovative elements of automated decision-making, specifically Article 22, which provides people with the right not to be the subject of automated decisions which have critical legal or personal implications. It further sets rights to explanation, data access, and decision challenge, which strengthen the right to due process[31].

GDPR also imposes transparency requirements where data controllers should provide significant information about the logic of decisions made and the purpose of data usages. These are the initial efforts to institutionalise algorithmic transparency and fairness within the law.

Nevertheless, real-life implementation of GDPR has proved that there is a lot missing. The right to explanation is vague and loosely applicable as it is frequently presented only in cursory terms, but not in deep details of algorithmic thinkings. In addition, GDPR concerns only the decisions made exclusively in an automated format, excluding hybrid systems, where people purport to scrutinize automated results, but in fact, this does not happen under the scope of the regulation[32]. This ambiguity is abused by many states and individual organizations that simply accept the results of algorithmic decisions without even a review of them and thus bypass the protection of GDPR.

There is an emergence of data governance models in other jurisdictions. To give an example, the California Consumer Privacy Act (CCPA) and the LGPD (Brazil) offer data subject rights and transparency, whereas India has a data protection law, the Digital Personal Data Protection Act, 2023, which also has provisions on procedural protections of personal data. Nevertheless, these frameworks do not explicitly provide components that include automated decision-making and do not provide significant rights to explain or algorithmic responsibility.

3. Limitations and Gaps of Strategies in place within Current Regulatory Methodologies.

Although there is an increasing regulative focus, the current governance environment still has critical flaws. To begin with, most legal frameworks lack a clear, technical criterion of what is sufficient explainability or interpretability. Where there are no standardized benchmarks, compliance is individualized so that little or no disclosure can be made which might not be conducive to substantive review or engagement.

Second, implementation tools are still poor. A lot of the regulation tools are based on voluntary adoption, soft-law, self-regulatory industry practices. The dependence allows avoidance and uneven compliance between industries, which can ultimately see high-risk systems run without the proper level of scrutiny.

Third, regulatory frameworks do not sufficiently resolve what are termed as responsibility gaps when decisions are made due to complicated relationships between software developers, data providers, government agencies and deployment operators. Conventional liability arrangements, which are designed to be humanly determined, are not readily applicable to computational processes that are distributed. Consequently, victims of automated

[31] David M. Masuhara, "Artificial Intelligence and Adjudication: Some Perspectives" (2017).

[32] Pușca, Andy. "Legal Certainty between Tradition and Algorithm – A Comparative Analysis." Legal and Administrative Sciences in the New Millennium, European Integration - Realities and Perspectives. Proceedings, (2025).

decision-making in most cases do not have a distinct avenue of seeking redress[33].

Fourth, the general use of trade secrecy exceptions is a problem to transparency. In many cases, the protection under the intellectual property law is often asserted by a private company developing AI tools to guard the disclosure of the algorithmic logic, even though the systems can have a direct impact on the legal rights of people. The regulatory frameworks do not provide sufficient mechanisms at the moment to strike the balance between commercial confidentiality and the interest of the population in the fairness of the procedure.

Most existing strategies are technologically neutral, and they aim to use general administrative and privacy law to extremely specialised technological systems. This leads to the incompatibility of the doctrines whereby the legal requirements like a reasoning decision cannot be met by systems that do not produce intelligible explanations.

LEGAL CERTAINTY AND DUE PROCESS AS EMERGENT DOCTRINES

The growing use of AI and automated decision-making systems in governance is an indication that conventional understanding of legal certainty and due process as not being dynamic is no longer a sufficient condition to safeguard rights in a digital administrative context. In the past, such doctrines had been useful in such a setting as the human judgement and linear legal reasoning dominated the decision-making process[34]. But the computational decision models use probabilistic logic, statistical inference and adaptive learning which is in essence not human reasoning. Consequently, the strict adherence to classical doctrines causes the danger of making them ineffective.

Legal certainty and due process will have to be re-conceived as dynamic and responsive principles that can be flexible to technological complexity to make them relevant. They should also include the technical demands of transparency of algorithms, explainability, and human-centred oversight as opposed to concentrating on predictability and formal procedures only. Law certainty can no longer be defined in terms of law clarity but must add clarity of automated decision methodology. Due process should not just be a formality since it entails a substantive requirement of explaining and being accountable in algorithmically mediated decisions.

The relationship between technology and law is becoming more of a two-way exchange as opposed to the top-down approach. Legal processes are influenced by technological development and responsible innovation is influenced by legal frameworks. Thus, the connection between AI governance and legal norms should be considered as a co-evolutionary but not adversarial one. The legal doctrine should consider that new risks to do with algorithmic discrimination, opaque, and accountability can currently be solved through interdisciplinary cooperation between technologists, ethicists, legal scholars, and regulators.

A stagnant legal system will create too much dependence on post-hoc correction and an adaptive model of governance will predict risk and build prevention mechanisms in advance[35]. This change demands that the law does not just react to new technologies, but constantly revise interpretive resources, procedural protections, institutional

[33] Ramakrishna, M. D. "Legal Certainty in the Context of Artificial Intelligence and Legal Reasoning." Indian Journal of Law and Technology 20, no. 1 (2024).

[34] Petrova, Elena. "Algorithmic Governance and the Rule of Law: Reconciling Automation with Legal Certainty." European Journal of Legal Studies 15, no. 2 (2023).

[35] Ricci, Daniela. "Artificial Intelligence and Legal Responsibility: Reconsidering the Concept of Liability in Automated Decision-Making." International Journal of Law and Technology 18, no. 3 (2024).

capability. The courts and regulatory authorities should become technologically literate so that they can make meaningful engagement with the algorithmic systems and control the legality of the automated decisions.

The re-evaluation of legal certainty and due process requires the re-establishment of human agency as the centre of the administrative authority. AI cannot substitute human judgement in areas that touch on basic rights, freedoms, or rights and can only support them. Strategic combination of formal human control holds accountability, transparency, and legitimacy in place and upholds the moral and legal principles on which democratic governance is premised.

It is under such reforms that automated decision-making systems can be made legit by openness and human responsibility. Legal systems can be modified to safeguard the rights and permit responsible technological research by modifying fundamental legal principles instead of discarding them.

There is a need to reconceptualise the value of legal certainty and due process as active concept rather than as a static concept to preserve the values of rule-of-law in the era of algorithmic governance. The future of AI regulation will have to introduce the constitutional protections in the technical design of the system and human controls in all levels. It is only by using adaptive, transparent, and rights-centred systems of authority that AI decision-making systems will remain genuine and trusted by the population.

CONCLUSION AND WAY FORWARD

The paper has addressed what AI-driven automated decision-making means to the traditional legal principles of legal certainty and due process. The adoption of algorithmic systems in the day-to-day governance of the populace is causing vast imbalances in the well laid down legal protections that have traditionally guaranteed transparency, accountability, and procedural fairness. The lack of transparency of the algorithmic reasoning, the dangers of discrimination and prejudice, the weakening of human control, the incomprehensiveness of data regulation, and the insufficiency of regulatory frameworks all call the effectiveness of the current legal frameworks to defend the individual rights into question[36]. Although new rules and laws, including the EU AI Act, OECD Principles and the GDPR provisions are important steps in regulating the algorithmic systems, they are still inadequate because of their lack of enforceability, poor transparency and explainability standards, and lack of clear accountability frameworks.

The results show that conservative definitions of legal certainty and due process could not deal with the issues of automated decision-making. Such doctrines need to be reconceptualised as responsive, evolving and technologically in tune as opposed to fixed historical principles. Legal certainty should now go beyond the transparency of the laws to that of the transparency of the algorithmic cognitive, and due process should be transformed to ensure that there is an element of meaningful human oversight, enforceable rights to explanation, and fair possibilities of appeal and redress. In the absence of such change, automated governance will legitimize processes of making opaque and undisputable decisions and weaken societal trust in legal institutions.

The further studies must be aimed at creating adaptive AI governance designs that correspond to democratic legitimacy, establishing homogeneous international regulatory systems, assessing cross-jurisdictional implementation solutions, and incorporating research on computational interpretability definitions into legal practices. The law and technology convergence requires a cooperative investigation by the technical professionals, legal theorists, policy-makers, and actors of the civil society to develop systems that can uphold constitutional values in a digitalized world.

[36] Binkyte, Ruta, Ljupcho Grozdanovski, and Sami Zhioua. “On the Need and Applicability of Causality for Fairness: A Unified Framework for AI Auditing and Legal Analysis.” Frontiers in Artificial Intelligence 7 (2024).

It is one of the most significant changes in the modern government, as AI-informed decisions are applied. To be sure that this alteration empowers and not betrays democratic accountability, it is necessary to reconsider legal certainty and due process as dynamic doctrines that will be incorporated into technological systems. It is only in the case of clear, human-centred, ethically-based regulatory outlines that automated decision-making can obtain their legitimacy and trust, safeguard individual rights and be empowered to innovate.

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