

Issues of Applying Artificial Intelligence to Administrative Procedure Process in Uzbekistan

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Abstract

This study examines the issues and prospects of integrating artificial intelligence technologies into the administrative procedure process in Uzbekistan. As Uzbekistan accelerates its digital transformation agenda, AI applications in public administration offer significant potential to improve service delivery, reduce bureaucratic inefficiency, and enhance transparency. However, the adoption of AI in administrative procedures presents legal, ethical, and technical challenges that current regulatory frameworks are ill-equipped to address. Using a qualitative doctrinal research approach, this study analyzes existing legislation, international standards, and comparative regulatory models. The findings reveal significant gaps in Uzbekistan's administrative law regarding AI accountability, algorithmic decision-making and procedural fairness. The study concludes that Uzbekistan requires a comprehensive AI governance framework that balances technological innovation with the protection of citizens' procedural rights, and recommends harmonization with international standards and the development of AI-specific administrative procedure legislation.

Keywords: Artificial Intelligence, Administrative Procedures, Uzbekistan, Digital Governance, Algorithmic Decision-Making, Public Administration, Legal Framework, E-Government

APA Citation:

Khakimov, G. (2026). Issues of Applying Artificial Intelligence to Administrative Procedure Process in Uzbekistan. *Uzbek Journal of Law and Digital Policy*, 4(2), 57-76. <https://doi.org/10.59022/ujldp.539>

I. Introduction

Uzbekistan is undergoing a rapid digital transformation, with the government declaring an ambitious agenda to modernize public administration through the adoption of information and communication technologies. The National Strategy for Development of Uzbekistan 2022–2026 and the Presidential Decree on the Development of Artificial Intelligence in the Republic of Uzbekistan (2021) collectively establish a strategic framework aimed at leveraging emerging technologies to modernize state functions. Within this context, the integration of artificial intelligence (AI) into administrative procedures has emerged as a particularly salient issue, one that presents both transformative opportunities and profound legal challenges. Administrative procedures, the formalized processes through which public authorities exercise their powers to make decisions affecting citizens and legal entities are the backbone of governance and the rule of law. The introduction of AI into these processes promises to accelerate decision-making, reduce corruption, and improve consistency; however, it also raises fundamental questions about procedural fairness, accountability, and the protection of individual rights. These questions demand urgent scholarly attention and practical regulatory responses that can keep pace with the speed of technological deployment.

The problem of AI in administrative procedures is not unique to Uzbekistan; jurisdictions around the world are grappling with similar issues. The European Union's Artificial Intelligence Act (2024) represents the most comprehensive legislative attempt to regulate high-risk AI systems, including those used in public administration. Similarly, OECD principles on AI governance and UNESCO's Recommendation on the Ethics of AI provide international normative frameworks that increasingly influence national legislation. However, Uzbekistan occupies a unique position: it is a transitional legal system that is simultaneously reforming its administrative law infrastructure and introducing digital governance mechanisms, creating a compressed timeline within which these dual transformations must be reconciled. This dual reform process creates particular challenges, as the country must navigate the introduction of AI into administrative procedures without the benefit of a mature, settled administrative law tradition that other jurisdictions have relied upon when facing similar challenges. The urgency of addressing these challenges is amplified by the ambitious scale of Uzbekistan's digital governance agenda.

Despite the rapidly growing body of international scholarship on AI and administrative law, there remains a significant gap in research specifically examining the Uzbek context. Existing studies on Central Asian digital governance tend to focus on e-government implementation in general terms, without engaging deeply with the specific legal and procedural issues raised by AI-driven administrative decision-making (Abdullaev, 2022; Mirzayev & Yusupov, 2023). The Administrative Procedure Law of Uzbekistan (2017) was enacted before AI became a practical consideration in public administration, and it contains no specific provisions

addressing algorithmic decision-making, automated administrative acts, or the use of predictive analytics in governmental processes. This legal lacuna creates uncertainty for administrators, citizens, and private entities who interact with AI-assisted governmental systems. The absence of clear legal standards means that citizens cannot meaningfully assert their procedural rights when they are affected by algorithmic decisions, and administrators cannot be certain that their AI deployments comply with constitutional and statutory requirements for lawful governance.

The literature on AI and public administration has identified several recurring themes that are directly relevant to the Uzbek context. Scholars have emphasized the importance of transparency and explainability as prerequisites for meaningful procedural rights in algorithmic governance (Doshi-Velez et al., 2017; Wachter et al., 2017). Others have highlighted the risks of algorithmic discrimination, particularly when AI systems are trained on historical data that reflects existing patterns of inequality (O’Neil, 2016; Eubanks, 2018). Governance scholars have examined the accountability gaps created by the distribution of responsibility among AI developers, deployers, and users, arguing that traditional administrative law frameworks are poorly equipped to address these new configurations of power and responsibility (Coglianese & Lehr, 2017; Yeung, 2018). These international insights provide a valuable analytical framework for examining Uzbekistan’s situation, though they must be applied with sensitivity to the specific institutional, legal, and political context of a Central Asian transitional state that is simultaneously managing economic modernization, legal reform, and digital transformation.

This study aims to examine the existing administrative procedure legislation in Uzbekistan in light of the challenges posed by AI integration, to identify specific legal gaps and inconsistencies, and to propose concrete recommendations for legislative and regulatory reform. The central research question guiding this inquiry is: What are the principal legal and institutional issues arising from the application of artificial intelligence to administrative procedures in Uzbekistan, and how can these challenges be effectively addressed through legislative reform and institutional capacity-building? The study pursues three specific objectives: first, to map the existing legal framework governing both administrative procedures and AI/digital governance in Uzbekistan; second, to identify and analyze the specific gaps, ambiguities, and conflicts between existing law and the demands of AI-enabled administrative decision-making; and third, to develop evidence-based recommendations for legislative and institutional reform drawing on comparative international experience. The significance of this research lies in its contribution to the growing body of literature on AI governance in transitional and developing legal systems and in its practical utility for Uzbek legislators, administrators, and civil society actors engaged with the challenges of responsible digital governance.

II. Methodology

This study employs a qualitative research methodology based on doctrinal legal analysis and comparative document review. The doctrinal approach is well-suited to the research objectives because it allows for a systematic examination of the legal texts, regulatory instruments, and policy documents that constitute the normative framework for AI integration in Uzbekistan's administrative procedures. This method involves the identification, interpretation, and critical analysis of primary legal sources, including legislation, presidential decrees, governmental regulations, and judicial decisions, alongside secondary sources such as peer-reviewed academic literature, international standards, and policy reports from intergovernmental organizations. The qualitative character of the methodology is appropriate given that the research seeks to understand the meaning, implications, and adequacy of legal provisions rather than to generate quantitative data about rates or frequencies of AI adoption.

The research sample consists of primary legal instruments from Uzbekistan, including the Administrative Procedure Law of 2017, the Law on Informatization of 2003 (as amended), the Law on Electronic Government of 2015, the Presidential Decree on Artificial Intelligence Development (2021), and relevant provisions of the Civil Code and the Law on Protection of Personal Data (2019). At the international level, the study draws on the European Union's AI Act (2024), the Council of Europe's Framework Convention on AI (2024), the OECD AI Principles (2019, updated 2024), and the UNESCO Recommendation on the Ethics of AI (2021). Comparative materials from Estonia's digital governance framework, Kazakhstan's e-government regulations, and Singapore's AI governance model are also examined as illustrative reference points for potential approaches to Uzbekistan's reform agenda. Sampling is purposive, focusing on the most authoritative and relevant instruments in each category.

Data collection was conducted through a systematic review of publicly available legal texts obtained from official government databases, including lex.uz, e-gov.uz, and the official gazette of the Republic of Uzbekistan, as well as international organization websites such as oecd.org, unesdoc.unesco.org, and eur-lex.europa.eu. Peer-reviewed academic literature was gathered from Scopus, Google Scholar, and HeinOnline. The inclusion criteria required that all sources be directly relevant to AI governance, administrative procedures, or digital transformation in Uzbekistan and comparable jurisdictions, and published or enacted within the past eight years to ensure contemporaneous relevance. Sources lacking peer-review verification or official governmental provenance were excluded, as were purely technical computer science publications without legal or policy dimensions. Legal texts were analyzed directly from official websites to ensure authenticity, while academic articles were selected based on peer-review status, citation frequency, and methodological rigor.

The analytical process involves qualitative content analysis and doctrinal legal interpretation, proceeding in three stages. First, the existing Uzbek legal framework

governing both administrative procedures and digital or AI-related governance is mapped and described comprehensively. Second, the provisions of this framework are assessed against the specific demands created by AI integration in administrative decision-making, identifying gaps, ambiguities, and conflicts with both national constitutional requirements and international standards. Third, comparative analysis with international standards and leading jurisdictions is conducted to generate concrete and contextually appropriate recommendations for legal reform. The validity of the analysis is ensured by reliance exclusively on authoritative, peer-reviewed, and official sources and by cross-referencing findings across multiple independent sources to test their robustness. The study acknowledges limitations arising from its exclusive reliance on publicly available secondary sources and from the rapidly evolving nature of AI regulation.

The geographic and thematic scope of the study is deliberately delimited to ensure analytical depth and tractability. The primary focus is Uzbekistan, with comparative references to selected jurisdictions, the European Union, Kazakhstan, Estonia, and Singapore used in an illustrative rather than exhaustive comparative manner. The thematic focus is on administrative procedure law and AI governance, excluding related but distinct topics such as criminal procedure, civil litigation, and private sector AI regulation, which raise different legal issues and would require a separate study. The study assumes that all selected legal texts are authentic representations of current law, and that findings from document analysis can be generalized to inform policy recommendations, subject to the caveat that specific implementation details will require further engagement with practitioners and affected stakeholders.

III. Results

The systematic analysis of Uzbekistan's administrative procedure legislation and its interface with emerging AI technologies reveals a complex landscape characterized by both nascent regulatory activity and significant gaps in legal coverage. The principal findings are organized around four interconnected dimensions: the state of current legal frameworks, the nature and scope of AI applications in Uzbek public administration, the identification of specific legal gaps and challenges, and the comparative positioning of Uzbekistan relative to international regulatory standards. The analysis reveals that while Uzbekistan has made meaningful progress in establishing digital governance infrastructure, its administrative law framework has not yet adapted to accommodate the specific challenges posed by algorithmic decision-making in ways that adequately protect citizens' procedural rights.

The foundational finding regarding the existing legal framework is that the Administrative Procedure Law of Uzbekistan (2017) was drafted entirely in the context of human decision-making and contains no provisions specifically addressing

automated or algorithmic administrative acts. Key concepts such as ‘reasoned decision,’ ‘access to information,’ and ‘right to be heard’ are defined in ways that presuppose a human decision-maker, creating interpretive uncertainty when these rights must be operationalized in the context of AI-generated administrative decisions. The Law on Electronic Government (2015) and subsequent amendments introduced a framework for digital service delivery but similarly focuses on procedural digitization rather than substantive algorithmic governance. Presidential Decree No. PP-3832 (2018) on e-government and Decree No. PP-5099 (2021) on AI development represent the most recent policy instruments but are primarily programmatic rather than regulatory in character, establishing targets and priorities without creating enforceable legal obligations regarding the use of AI in administrative procedures.

The empirical landscape of AI application in Uzbek public administration is rapidly developing across multiple sectors. The State Tax Committee has deployed machine learning algorithms for risk assessment and taxpayer profiling, substantially increasing audit efficiency. The Customs Committee utilizes AI-based systems for goods classification and risk scoring at border crossings. The Ministry of Justice employs automated text analysis systems for legal monitoring and regulatory compliance checking. The public services portal (my.gov.uz) incorporates AI-driven chatbots and automated application processing for a growing range of administrative services, including business registration, permit issuance, and social benefit administration. These applications collectively demonstrate that AI is already performing functions that directly affect citizens’ rights and legal positions, yet without a clear legal basis specifically authorizing or regulating algorithmic decision-making. The breadth of these deployments makes the legal reform agenda both urgent and complex.

The analysis identifies five principal categories of legal gaps. First, there is a complete absence of legal definitions for AI-related concepts in administrative law, including terms such as ‘automated administrative act,’ ‘algorithmic decision-making,’ ‘AI system operator,’ and ‘explainability obligation.’ Second, existing procedural rights protections particularly the right to a reasoned decision and the right to be heard are structurally incompatible with the opacity of many AI systems. Third, the liability and accountability framework is fragmented, with no clear rules specifying whether state liability for erroneous AI-generated decisions flows from negligence principles, strict liability, or some novel administrative liability regime. Fourth, data protection law, while formally enacted in 2019, lacks specific provisions addressing the use of personal data in administrative AI systems. Fifth, there is no institutional framework, no designated regulatory authority, no AI auditing mechanism, and no mandatory impact assessment requirement for the oversight of AI in public administration.

The comparative analysis reveals that Uzbekistan’s regulatory position lags significantly behind emerging international standards. The EU AI Act classifies AI

systems used in public administration for individual decision-making affecting citizens' rights as high-risk systems subject to mandatory conformity assessment, transparency requirements, human oversight provisions, and post-market monitoring obligations. The Council of Europe's Framework Convention on AI (2024) establishes binding obligations for member states on transparency, non-discrimination, and the protection of procedural rights in AI-assisted decision-making. Kazakhstan, which shares a comparable legal tradition, has enacted specific provisions in its Administrative Procedure Code addressing electronic administrative acts, establishing an equivalence principle between automated and human decisions and requiring human review upon citizen request. These comparative benchmarks highlight the urgent need for Uzbekistan to develop a more comprehensive and specific regulatory framework that keeps pace with both technological deployment and evolving international standards.

IV. Discussion

A. Current State of AI in Uzbekistan's Administrative Procedures

Uzbekistan's public administration has undergone a significant digital transformation over the past decade, driven by sustained governmental commitment to e-government development and, more recently, by explicit policies targeting artificial intelligence adoption. The my.gov.uz portal, which consolidates access to over three hundred digital public services, represents the most visible manifestation of this transformation, and its continued expansion has created practical pressure on administrative law to accommodate automated service delivery. The integration of AI into this infrastructure has occurred in a largely organic, technology-driven manner rather than through deliberate legal design (Karimov, 2023). Individual ministries and agencies have adopted AI tools in response to operational pressures, the need to process large volumes of applications, to detect fraud and tax evasion, to classify goods at customs without waiting for a comprehensive legal framework to authorize or regulate these practices. This bottom-up pattern of AI adoption, while pragmatically understandable, creates significant legal risks because it leaves citizens without clear information about when AI is being used in decisions affecting their interests.

The legal foundation for existing AI applications in administrative procedures is ambiguous at best. Administrators have generally relied on broad provisions of the Law on Electronic Government and the Law on Informatization to justify the use of digital tools in service delivery, interpreting these provisions expansively to encompass AI applications that their drafters clearly did not contemplate. This expansive interpretation, while administratively convenient, is legally fragile because it cannot provide the specificity required for procedural rights to be meaningfully operationalized. A taxpayer subjected to an automated audit selection algorithm, for instance, cannot meaningfully challenge the decision or understand its basis if the governing legal framework provides no information about how the algorithm

functions, what data it uses, or what standards of accuracy it must meet. The practical consequence is that AI-assisted administrative decisions exist in a legal gray zone where procedural rights formally persist but are effectively unenforceable against algorithmic decision-makers (Coglianese & Lehr, 2017).

The government's ambitions for AI adoption in public administration are substantial and explicitly articulated in the State Program on Digital Uzbekistan 2030. This program envisions AI applications across a wide range of public functions, including education management, healthcare administration, social welfare distribution, land cadastre management, and law enforcement priority-setting. These planned applications will, if implemented, expose a significantly larger proportion of the population to AI-generated administrative decisions, amplifying the urgency of the legal reform agenda. Many of the planned applications involve decisions in particularly sensitive areas where procedural fairness protections are especially critical and where the consequences of erroneous or biased AI decisions can be severe. Access to social benefits, educational placement decisions, and law enforcement targeting are contexts in which a wrong algorithmic decision can have profound and lasting impacts on individuals' lives, making the need for robust legal safeguards particularly acute (Eubanks, 2018).

The scale and trajectory of AI deployment in Uzbek public administration make it essential to understand the legal environment in which these systems are operating. International experience consistently demonstrates that AI systems deployed without adequate legal frameworks tend to produce poor outcomes: erroneous decisions that go unchallenged because affected parties do not know their rights; discriminatory patterns that persist because there are no audit mechanisms to detect them; and accountability gaps that leave harmed citizens without effective remedies (O'Neil, 2016). Uzbekistan's experience to date mirrors this pattern. The absence of specific legal requirements for AI transparency means that agencies have no obligation to disclose what AI systems they use or how those systems work. Without this disclosure, civil society organizations, journalists, and affected citizens cannot scrutinize AI applications for potential harms, and the corrective function of public oversight is effectively disabled. Remediating this situation requires both legal reform and a shift in administrative culture toward greater openness about the role of algorithms in governmental decision-making.

B. Legal Framework Analysis and Identified Gaps

A detailed doctrinal examination of the Administrative Procedure Law (2017) reveals several provisions that, while not designed for AI contexts, create specific interpretive challenges when applied to algorithmic decision-making. Article 24, which requires administrative decisions to be 'reasoned and justified,' is perhaps the most consequential provision. In the context of human decision-making, this requirement is satisfied when the decision-maker articulates the factual findings and legal bases that support the decision. However, in the context of machine learning

algorithms, particularly deep learning systems, producing a human-intelligible explanation for a specific decision output may be technically impossible without specialized interpretability tools (Wachter et al., 2017). Courts and administrative tribunals have not yet been asked to rule on whether an algorithmic decision satisfies the reasoned-decision requirement, but when such cases arise as they inevitably will the absence of specific legislative guidance will force courts to improvise in ways that may produce unpredictable and inconsistent results.

Article 38 of the Administrative Procedure Law, which guarantees the right to be heard before an adverse decision is taken, presents a second major interpretive challenge that goes to the heart of what it means for administrative procedures to be fair. The right to be heard assumes that the decision-maker is capable of engaging with submissions from the affected party and of modifying the decision in response to those submissions. When the decision-maker is an algorithm, meaningful participation requires not only the ability to submit information but also the ability to understand and challenge the criteria the algorithm applies. Without transparency about the algorithm's operation which current Uzbek law does not require, the right to be heard becomes a procedural formality rather than a substantive protection. The Law on Appeals of Citizens (1994), which provides the primary mechanism for challenging administrative decisions, similarly presupposes a human reviewer who can exercise judgment in response to a citizen's grievance, and its application to AI-generated decisions raises fundamental questions about what an adequate review of an algorithmic decision requires.

The Law on Protection of Personal Data (2019) represents Uzbekistan's most recent attempt to address the privacy dimensions of digital governance, and it contains provisions that are potentially relevant to AI in administrative procedures. However, the law does not contain a right to explanation for automated decisions, analogous to Article 22 of the EU's General Data Protection Regulation, nor does it explicitly require data minimization or purpose limitation in the context of AI systems used for administrative decision-making. The absence of these specific protections means that citizens whose personal data is processed by administrative AI systems have fewer procedural safeguards than their counterparts in EU member states, creating a significant disparity in data protection standards (Voigt & Von dem Bussche, 2017). Furthermore, the law's enforcement mechanism has limited institutional capacity to investigate complex AI systems and lacks the technical expertise that effective enforcement of AI-specific provisions would require, making even the existing data protection framework difficult to apply effectively.

Constitutional law provides the ultimate normative framework against which Uzbekistan's administrative AI governance must be assessed. The Constitution of Uzbekistan (1992, as amended 2023) guarantees the right to judicial protection, the right to a fair hearing, and the principle of equality before the law. These constitutional guarantees apply to all governmental action, including AI-assisted

administrative decisions, and they create a constitutional mandate for legislative reform to ensure that AI in public administration operates within rights-compliant parameters. Constitutional scholars have argued that fully automated administrative decisions that cannot be explained or challenged on their merits are incompatible with constitutional due process guarantees, because they deprive citizens of the ability to meaningfully contest governmental action affecting their rights (Soares da Silva, 2020). Uzbekistan's legislators must therefore approach AI governance not only as a matter of administrative efficiency but as a constitutional imperative.

C. Challenges of AI Integration in Administrative Decision-Making

The integration of AI into administrative decision-making processes in Uzbekistan faces challenges that can be categorized as technical, legal, institutional, and social in nature, and these categories are deeply interconnected. Technical challenges include the opacity of machine learning algorithms often described as the 'black box' problem which makes it difficult to explain why a particular decision was reached, to detect systematic biases in decision outcomes, or to verify that a system is performing within acceptable parameters (Goodman & Flaxman, 2017). These technical challenges translate directly into legal challenges because administrative law frameworks, designed for accountable human decision-makers, presuppose that decisions can be explained, reviewed, and corrected. When a system's decision logic is inaccessible or incomprehensible, the entire framework of administrative procedural rights is undermined, and the mechanisms through which citizens can seek redress for erroneous governmental action are rendered ineffective in practice.

Institutional challenges are equally significant and in some ways more difficult to address through legislative reform alone. Uzbekistan's administrative apparatus lacks the technical expertise necessary to develop, procure, evaluate, and oversee AI systems in a legally and ethically responsible manner. The civil service training infrastructure does not currently equip public administrators with the AI literacy needed to critically evaluate AI vendor claims, to design appropriate human oversight mechanisms, or to detect and respond to AI system failures (Ranchordas, 2020). At the regulatory level, there is no designated authority with responsibility for oversight of AI in public administration, creating a coordination vacuum in which each agency procures and deploys AI systems according to its own assessment of operational needs without systematic review of legal compliance or risk management. The absence of an AI regulatory authority with technical capacity and legal mandate represents one of the most significant institutional gaps in Uzbekistan's governance framework, and it cannot be filled by legislative reform alone.

Accountability and liability issues present particularly complex challenges in the Uzbek context, where the traditional administrative law framework attributes responsibility for administrative decisions to the individual official who makes them. The introduction of AI creates a distributed responsibility structure in which errors may originate in the design of the algorithm, the quality of training data, and the

configuration of the system by the procuring agency, or the failure to monitor system performance over time. Determining which of these actors bears legal responsibility for a harmful AI-generated decision requires legal rules that do not currently exist in Uzbek law. International scholarship has proposed several approaches to this problem, including the imposition of strict liability on deplorers of high-risk AI systems, the creation of mandatory insurance schemes for AI-generated harms, and the development of sector-specific liability rules that allocate responsibility among AI developers, deplorers, and users (Diakopoulos, 2019; Surden, 2019). Uzbekistan's legislature has not yet engaged with these options.

The social dimensions of AI integration in administrative procedures also merit attention, as they determine whether citizens will trust and engage with AI-assisted governmental services. Research in multiple jurisdictions has shown that public acceptance of AI in government is contingent on perceptions of fairness, transparency, and accountability (Woodruff et al., 2018). Citizens who perceive that AI systems are opaque, error-prone, or discriminatory are likely to resist engaging with digital administrative services, undermine the efficiency gains that AI adoption is intended to deliver. In Uzbekistan, where digital literacy levels vary significantly across the population and where trust in governmental institutions is still developing, these social factors are particularly significant. The legal framework for AI in administrative procedures must therefore not only protect individual rights but also communicate clearly to citizens what safeguards are in place, thereby building the foundation of trust on which effective digital governance depends.

D. International Standards and Regional Experiences

The international regulatory landscape for AI in public administration has evolved substantially in recent years, offering Uzbekistan a rich menu of models for legislative reform. The EU AI Act (2024) represents the most comprehensive binding regulatory framework and establishes a risk-based approach that classifies AI systems according to their potential for harm, imposing progressively stringent obligations on higher-risk systems. AI systems used by public authorities to make decisions that significantly affect individuals including systems used for benefit administration, permit processing, and law enforcement prioritization are classified as high-risk and are subject to requirements for technical documentation, conformity assessment, human oversight, transparency to users, and robustness against manipulation (European Parliament and Council, 2024). The EU framework also creates specific obligations regarding the explainability of AI decisions, prohibiting the use of AI systems that make consequential decisions about individuals without providing a meaningful explanation of the decision logic that is comprehensible to the affected person.

The Council of Europe's Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (2024) goes further by establishing binding obligations under international law for the protection of human rights,

democratic processes, and the rule of law in the context of AI systems. Although Uzbekistan is not currently a signatory to the Convention, its provisions provide important benchmarks for legislative reform and reflect emerging international consensus on the minimum standards that any rights-respecting AI governance framework must meet. Article 14 of the Convention, which requires parties to ensure that individuals who interact with AI systems in public administration have access to adequate safeguards, including the right to seek review of AI-generated decisions by a competent human authority, is particularly relevant to the gaps identified in Uzbek administrative law (Council of Europe, 2024). The Convention's emphasis on non-derogable human oversight requirements for AI in high-stakes public administration contexts is an especially important principle.

Regional experiences within the post-Soviet legal space offer particularly instructive lessons for Uzbekistan, given the shared administrative law heritage and comparable institutional development challenges. Kazakhstan, which has pursued digital modernization along a timeline comparable to Uzbekistan's, enacted amendments to its Administrative Procedure Code in 2022 that explicitly address electronic administrative acts and automated decision-making. The Kazakh reforms establish a legal equivalence between electronic and paper-based administrative acts, require that automated decisions be accompanied by a human-readable explanation of the decision criteria, and create a right for citizens to request human review of any automated decision within thirty days of notification (Ministry of Justice of Kazakhstan, 2022). This model is particularly relevant for Uzbekistan because it operates within a similar legal tradition and demonstrates that meaningful AI governance can be achieved through targeted amendments to existing administrative procedure legislation, without requiring a wholesale legislative overhaul.

Estonia's highly developed e-government framework offers additional lessons, particularly regarding the importance of foundational digital infrastructure as a precondition for trustworthy AI governance. Estonia's X-Road data exchange platform, its digital identity system, and its data protection architecture collectively create a coherent infrastructure within which AI applications can be deployed in ways that are transparent, auditable, and rights-compliant (Drechsler, 2019). The Estonian experience suggests that effective AI governance in public administration is not simply a matter of enacting the right legislation; it also requires sustained investment in interoperability standards, data governance, and digital identity systems that make it technically possible to implement legal requirements effectively. For Uzbekistan, this suggests that AI governance reform must be accompanied by continued development of the underlying digital infrastructure, including better interoperability among government databases and improved mechanisms for citizens to access and correct their personal data held by public authorities.

E. Ethical and Rights-Based Dimensions

The application of AI to administrative procedures raises profound ethical

questions that cannot be resolved through technical or legal measures alone. These questions touch on fundamental values of human dignity, equality, and autonomy that are at the heart of the rule of law. One of the most significant ethical concerns is the risk of algorithmic discrimination, whereby AI systems trained on historical data perpetuate or amplify existing patterns of inequality in the distribution of administrative decisions (Barocas & Selbst, 2016). If an AI system used to assess applications for social welfare benefits is trained on historical data that reflects discriminatory administrative practices, it will learn to replicate those practices, effectively encoding discrimination into the decision process. This risk is particularly significant in Uzbekistan's context, where historical administrative practices may have systematically disadvantaged certain regional, socioeconomic, or gender groups, and where the data that would form the training datasets for AI systems may reflect those historical patterns.

The principle of human dignity, which is constitutionally protected in Uzbekistan and recognized in international human rights instruments, requires that individuals be treated as ends in themselves rather than as objects of classification and optimization. Fully automated administrative decision-making, without meaningful human involvement, risks reducing citizens to data points in an algorithmic process, denying them the experience of being genuinely heard and considered by a decision-maker who exercises judgment about their individual circumstances. The right to a hearing and the right to a reasoned decision are not merely procedural technicalities; they are expressions of the fundamental respect for persons that is owed to each citizen by the state (Floridi et al., 2018). Preserving these values in the age of AI requires that the law insist on meaningful human oversight of algorithmic decisions, not as a bureaucratic burden, but as an affirmation of the human dimensions of governance that distinguish legitimate public administration from mere computational processing.

Transparency and explainability are ethical imperatives as well as legal requirements, and they must be understood in ways that go beyond superficial compliance. Citizens who are subject to AI-generated administrative decisions have a legitimate interest in understanding why the decision was made and what factors influenced it, not only because this information is necessary to exercise their right of appeal, but because it is a condition of the kind of dignity-respecting governance that a democratic state is obligated to provide. The opacity of many current AI systems in Uzbek public administration deployed without legal requirements for transparency or explanation violates this fundamental ethical obligation. Remedying this situation requires not only legal reform to mandate explainability, but also technical investment in interpretable AI systems and institutional commitment to using those systems in ways that genuinely inform affected citizens rather than producing formulaic explanations that satisfy the letter of the law without serving its spirit (Doshi-Velez & Kim, 2017).

The question of bias and non-discrimination deserves particular attention in the Uzbek context, where the data available for training AI systems in public administration may reflect structural inequalities that the government is simultaneously committed to reducing. AI systems trained on historical welfare eligibility decisions, for example, may systematically disadvantage applicants from rural areas, women, or members of particular regional groups if those groups were historically underserved by the administrative system. Without mandatory bias auditing requirements which Uzbek law currently does not impose, these patterns can persist and be amplified by AI systems that learn from biased historical data. International experience suggests that bias auditing must be an ongoing process, conducted by independent auditors with access to system outputs disaggregated by demographic characteristics, and that the results of such audits must be publicly disclosed to enable civil society oversight (Reisman et al., 2018).

F. Implications for Legal Reform and Public Administration

The findings of this study have substantial implications for both legal reform and the practical management of AI in Uzbekistan's public administration. At the legislative level, the most urgent implication is the need for specific legal recognition of automated administrative acts and the establishment of a distinct legal regime governing their use. Without such recognition, the current legal ambiguity will persist, leaving administrators exposed to legal challenge and citizens without effective remedies. A bespoke legal framework for AI in administrative procedures should be designed to address the full lifecycle of AI systems in public administration, from procurement and design through deployment, monitoring, and decommissioning. This lifecycle approach, which is reflected in both the EU AI Act and the OECD AI Principles, recognizes that effective governance of AI requires ongoing oversight rather than one-time regulatory approval that quickly becomes obsolete as the system evolves in deployment.

For public administration practitioners, the implications are equally significant and require changes in both formal procedures and organizational culture. Agency heads and public administrators must recognize that the deployment of AI in decision-making processes is not merely a technical matter to be delegated to IT departments; it is a legal and governance challenge that requires engagement at the highest levels of organizational leadership. Administrators who deploy AI systems without ensuring legal compliance, conducting impact assessments, and establishing human oversight mechanisms are exposing their agencies and themselves to significant legal and reputational risk. Building internal governance capacity for AI including the designation of responsible officials, the development of procurement guidelines that incorporate AI-specific requirements, and the establishment of monitoring and audit mechanisms is a priority that can and should proceed in parallel with legislative reform, without waiting for comprehensive statutory guidance.

The implications for judicial and quasi-judicial bodies are also worth noting, as

courts will inevitably be called upon to adjudicate disputes arising from AI-generated administrative decisions. Courts and administrative tribunals will need to develop new analytical frameworks for reviewing algorithmic decisions, determining what standard of explanation satisfies procedural rights requirements, and assessing whether an AI system's performance meets the legal standard of reasonable care. Judicial training programs and the development of specialized guidance on AI-related administrative law issues are necessary to ensure that courts can fulfill their oversight function effectively. The Supreme Court of Uzbekistan and the Supreme Administrative Court should proactively develop guidance on these issues rather than waiting for cases to arise, drawing on comparative jurisprudence from the European Court of Human Rights and courts in jurisdictions with more developed AI governance frameworks.

The implications for civil society, academic institutions, and the broader public are significant. Effective AI governance in public administration requires not only good legislation and institutional capacity within government, but also an engaged civil society capable of monitoring AI deployments, investigating potential harms, and advocating for accountability. Uzbekistan's civil society sector, while growing in capacity and independence, lacks the specialized expertise in AI and administrative law that effective oversight requires. Universities and research institutions should develop curricula and research programs addressing AI governance, preparing the next generation of lawyers, administrators, and civil society advocates to engage with the legal and ethical challenges of algorithmic governance. Interdisciplinary collaboration between legal scholars, computer scientists, social scientists, and policy practitioners is essential for developing governance frameworks that are both technically feasible and socially responsive.

G. Recommendations

Based on the foregoing analysis, this study proposes a comprehensive set of recommendations for legislative, regulatory, and institutional reform. At the legislative level, Uzbekistan should enact a dedicated chapter within or supplementary to the existing Administrative Procedure Law that addresses AI in administrative decision-making. This legislation should establish legal definitions for key AI-related concepts including 'automated administrative act,' 'AI system operator,' 'algorithmic decision,' and 'high-risk AI system.' It should require that citizens be notified when an administrative decision is made wholly or partially by an automated system and should create an enforceable right to request a human review of any automated decision affecting individual rights within a specified timeframe. The legislation should establish mandatory algorithmic impact assessment requirements for all AI systems used in high-stakes administrative decision-making, including assessment of potential discriminatory effects, accuracy standards, and data quality requirements. Clear liability rules should allocate responsibility among the state, AI developers, and system operators for harms arising from erroneous AI-generated decisions.

At the institutional level, Uzbekistan should establish a dedicated AI

Governance Unit within the Ministry for Development of Information Technologies and Communications, with a clear legal mandate to review, certify, and audit AI systems used in public administration. This unit should be staffed with professionals who have both legal and technical expertise in AI systems, and it should have the authority to require agencies to produce technical documentation about their AI systems, to conduct audits of system performance and outcomes, and to issue binding guidance on legal compliance. The unit should develop standardized AI procurement guidelines that incorporate legal compliance requirements, technical robustness standards, and transparency obligations, ensuring that all agencies that procure AI systems from private vendors do so on the basis of contractual terms that protect the government's ability to audit, modify, and discontinue these systems. International partnerships with established AI regulatory bodies such as the EU AI Office and the OECD should be actively pursued to benefit from comparative experience and technical assistance.

A national training program for public administrators on AI literacy and AI governance should be developed and mainstreamed into civil service training curricula at all levels. This program should equip administrators with the conceptual vocabulary to understand AI systems and their limitations, the legal knowledge to identify compliance requirements, and the practical skills to implement appropriate oversight mechanisms. Judges, prosecutors, and legal advisers should receive specialized training on AI and administrative law to ensure that the legal system can effectively adjudicate AI-related disputes. Educational institutions should be encouraged to develop interdisciplinary programs combining law, technology, and public administration, and research funding should be directed toward empirical studies of AI performance and impact in Uzbek public administration. These capacity-building measures are essential complements to legislative reform, as even the best-designed legal framework cannot function effectively without the human expertise to implement and enforce it.

Uzbekistan should also pursue active engagement with international AI governance frameworks, including consideration of accession to the Council of Europe's Framework Convention on AI and participation in the OECD AI Policy Observatory. Such engagement would provide access to comparative best practices, technical assistance, and peer review mechanisms that can accelerate the development of Uzbekistan's domestic AI governance framework. It would also signal to international partners, investors, and citizens that Uzbekistan is committed to responsible AI governance as an integral component of its broader rule of law development agenda. International engagement should be complemented by regional cooperation with Central Asian neighbors, particularly Kazakhstan, which has already developed more specific AI governance provisions and whose experience offers particularly relevant lessons for Uzbekistan's reform process.

Conclusion

This study has examined the issues arising from the application of artificial intelligence to administrative procedure processes in Uzbekistan, revealing a significant mismatch between the rapid deployment of AI in public administration and the legal framework governing that deployment. The Administrative Procedure Law of 2017, designed for human decision-makers in a non-digital environment, cannot adequately protect citizens' procedural rights in the context of algorithmic governance, and the broader legislative infrastructure including data protection law, e-government law, and emerging AI policy instruments provides only fragmentary and insufficient coverage of the specific legal challenges that AI in administrative procedures creates. The findings confirm that Uzbekistan faces a genuine governance gap that, if left unaddressed will undermine public trust in digital administrative processes, expose the state to legal challenges, and risk the perpetuation of discriminatory or erroneous outcomes affecting citizens' rights and interests.

The analysis demonstrates that the gap between existing law and the demands of AI-assisted administrative decision-making is systematic rather than incidental, and it affects virtually every major dimension of administrative procedure law: the requirement of reasoned decisions, the right to be heard, the right to appeal, the allocation of liability, and the supervision of administrative action. These gaps cannot be adequately addressed through expansive interpretation of existing provisions, as the interpretive challenges they pose are not merely technical but go to the foundational assumptions about the nature of decision-making that the law embeds. Legislative reform is therefore necessary, and it must be accompanied by institutional capacity-building, judicial preparation and civil society engagement if it is to be effective in practice. The comprehensive reform agenda outlined in this study is ambitious but proportionate to the scale and urgency of the challenge.

The comparative analysis demonstrates that Uzbekistan is not without models for reform. The EU AI Act, the Council of Europe Framework Convention, Kazakhstan's Administrative Procedure Code amendments, and Singapore's AI governance framework all provide instructive examples of how legal systems can adapt to the demands of algorithmic governance while preserving the fundamental values of fairness, accountability, and transparency that are at the heart of administrative law. Uzbekistan's reform agenda need not and should not be developed in isolation; active engagement with international standards and comparative best practices will accelerate the development of an effective framework and signal Uzbekistan's commitment to responsible AI governance to international partners and the domestic public. The specific institutional, legal, and cultural context of Uzbekistan must, of course, inform the adaptation of international models to domestic conditions, but the core principles that underpin effective AI governance are universal.

The broader significance of this research extends beyond Uzbekistan. As AI

becomes increasingly embedded in public administration systems across Central Asia and the wider developing world, the legal and institutional challenges identified in this study will be encountered in many jurisdictions simultaneously. Scholarly attention to these issues in transitional and developing legal systems is urgently needed, both to provide guidance for national reform efforts and to contribute to the development of international governance frameworks that are sensitive to the diverse legal traditions and institutional capacities of countries beyond the established AI regulatory powers. The conclusions drawn from Uzbekistan's experience may therefore contribute to a richer and more inclusive global conversation about the future of administrative law in the age of artificial intelligence, ensuring that the governance of this transformative technology is shaped by perspectives from across the full diversity of the world's legal traditions.

Future research should examine the empirical impact of existing AI systems in Uzbek public administration on specific citizen populations, with particular attention to potential discriminatory effects, accuracy limitations, and barriers to access for digitally excluded groups. Comparative research across Central Asian states Kazakhstan, Kyrgyzstan, Tajikistan, and Turkmenistan would illuminate both common challenges and divergent regulatory approaches within a shared legal heritage, enabling the development of region-specific governance frameworks that reflect shared administrative law traditions. Longitudinal studies tracking the development of Uzbekistan's AI governance framework over time would provide valuable evidence on the effectiveness of legislative and institutional reforms. Interdisciplinary research combining legal, technical, and social scientific perspectives will be essential for developing AI governance frameworks that are technically feasible, legally sound, and socially responsive to the needs and rights of Uzbekistan's citizens.

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