ARTIFICIAL INTELLIGENCE IN PUBLIC ADMINISTRATION: OPPORTUNITIES, RISKS, AND THE ISSUE OF LEGAL LIABILITY

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Abstract: *The rapid development of artificial intelligence (AI) is transforming public administration across the world. Governments increasingly rely on AI-powered systems to improve efficiency, reduce costs, and enhance decision-making processes. However, the integration of AI into public governance also raises serious legal, ethical, and accountability concerns. This article examines the main opportunities provided by AI in public administration, analyzes the potential risks associated with its use, and explores the complex issue of legal liability when AI systems cause harm or make erroneous decisions. The study argues that while AI can significantly modernize public services, clear regulatory frameworks and accountability mechanisms are essential to ensure lawful and ethical implementation. The article concludes with recommendations for policymakers on balancing innovation with legal responsibility.*

Keywords: *artificial intelligence, public administration, legal liability, digital governance, algorithmic accountability.*

INTRODUCTION

Artificial intelligence has become one of the most influential technological developments of the 21st century. Its application in public administration is expanding rapidly, affecting areas such as tax collection, social welfare distribution, law enforcement, urban planning, and public health management. Governments view AI as a powerful tool to increase efficiency, reduce bureaucratic delays, and provide more responsive public services.

Despite these advantages, the growing reliance on AI systems raises important legal and ethical questions. Public administration operates under strict principles of legality, transparency, accountability, and protection of citizens' rights. When decisions are partially or fully automated, determining responsibility for errors, discrimination, or rights violations becomes more complicated.

This article explores three core dimensions of AI in public administration: (1) opportunities and benefits, (2) risks and challenges, and (3) the issue of legal liability. The analysis aims to contribute to the development of a balanced regulatory approach that encourages innovation while safeguarding the rule of law.

1. The Role of Artificial Intelligence in Modern Public Administration AI refers to computer systems capable of performing tasks that normally require human intelligence, such as learning, pattern recognition, prediction, and decision-making. In public administration, AI technologies are commonly used in:

1. automated document processing
2. predictive analytics for policy planning
3. intelligent chatbots for citizen services
4. fraud detection in tax and welfare systems

5. smart city management

Digital transformation strategies adopted by many governments emphasize the integration of AI into administrative processes. Properly implemented AI systems can significantly reduce administrative burdens and improve service delivery.

However, public administration differs from the private sector because it must strictly comply with constitutional principles and administrative law requirements. Therefore, the adoption of AI must be approached with particular caution.

2. Opportunities Created by AI in Public Governance

2.1. Increased Efficiency and Cost Reduction

One of the most significant advantages of AI is its ability to process large volumes of data quickly and accurately. Automated systems can handle repetitive administrative tasks such as application screening, data entry, and document verification. This reduces human workload and operational costs.

For example, AI-based systems can process social benefit applications within minutes, whereas manual review may take days. Faster processing improves citizen satisfaction and allows public servants to focus on more complex tasks.

2.2. Improved Decision-Making

AI-driven analytics can support evidence-based policymaking. By analyzing large datasets, governments can better predict social trends, economic risks, and public needs.

Predictive models are increasingly used in:
- healthcare resource allocation
- traffic management
- crime prevention strategies
- environmental monitoring

When used responsibly, AI can enhance the rationality and objectivity of administrative decisions.

2.3. Enhanced Public Service Delivery

AI-powered chatbots and virtual assistants enable governments to provide 24/7 public services. Citizens can obtain information, submit applications, and track requests without visiting government offices.

This contributes to:
- reduced waiting times
- improved accessibility
- greater administrative transparency
- higher citizen engagement

In developing countries, AI also supports digital inclusion by expanding access to government services in remote areas.

3. Risks and Challenges of AI in Public Administration

Despite its benefits, the use of AI in governance creates significant risks that must not be underestimated.

3.1. Algorithmic Bias and Discrimination

AI systems learn from historical data. If the training data contains bias, the algorithm may produce discriminatory outcomes. In public administration, this risk is particularly serious because government decisions directly affect citizens' rights and opportunities.

Examples of potential harm include:
- unfair welfare eligibility decisions
- biased risk assessments in policing
- discriminatory recruitment filtering

Algorithmic discrimination may violate constitutional equality principles and human rights standards.

3.2. Lack of Transparency ("Black Box" Problem)

Many AI systems, especially those based on deep learning, operate as "black boxes." Their decision-making logic may be difficult or impossible to explain.

In public administration, this creates tension with key legal principles such as:
- the right to receive reasons for administrative decisions
- procedural fairness
- judicial review

If citizens cannot understand how a decision was made, trust in public institutions may decline.

3.3. Data Protection and Privacy Risks

AI systems rely heavily on large datasets, often containing sensitive personal information. Improper data handling can lead to privacy violations, data breaches, or unlawful surveillance.

Public authorities must comply with data protection laws and ensure:
- lawful data collection
- purpose limitation
- data minimization
- cybersecurity safeguards

Failure to do so may result in serious legal consequences.

3.4. Overreliance on Automation

There is a growing concern that public officials may rely too heavily on automated recommendations without sufficient human oversight. This phenomenon, sometimes called "automation bias," can lead to unjust or erroneous administrative decisions.

Human review mechanisms remain essential, especially in high-risk areas such as social welfare, immigration, and law enforcement.

4. The Problem of Legal Liability for AI-Based Decisions

One of the most complex issues in AI governance is determining legal responsibility when harm occurs.

4.1. Traditional Liability Models

Under traditional administrative law, the public authority is responsible for decisions made by its officials. However, AI introduces new actors into the decision-making chain, including:
- software developers
- data providers

- system integrators
- public agencies

When an AI system makes an incorrect decision, assigning liability becomes legally challenging.

4.2. Possible Liability Approaches

Several models are discussed in legal scholarship:

1. Public Authority Liability

The government agency remains fully responsible for AI-assisted decisions. This approach protects citizens but may discourage innovation.

2. Developer or Producer Liability Software companies may be held responsible for defective algorithms. However, proving causation can be difficult.

3. Shared Liability Models

Responsibility is distributed among multiple actors depending on their role. This approach is more realistic but legally complex.

4. Strict Liability for High-Risk AI

Some experts propose strict liability regimes for high-risk AI applications in public administration.

Each model has advantages and limitations. Most scholars agree that existing legal frameworks require adaptation.

5. Towards Responsible and Lawful Use of AI in Public Administration

To balance innovation and legal protection, governments should adopt a comprehensive governance framework.

5.1. Clear Regulatory Standards

Legislation should define:

- high-risk AI systems
- mandatory human oversight
- transparency requirements
- audit obligations
- impact assessment procedures

Regulatory clarity reduces legal uncertainty and promotes responsible innovation.

5.2. Algorithmic Transparency and Explainability

Public authorities should prioritize explainable AI systems, especially when decisions affect individual rights. Citizens must be able to:

- understand automated decisions
- challenge outcomes
- request human review

Explainability strengthens procedural fairness and public trust.

5.3. Human-in-the-Loop Safeguards

Full automation in sensitive administrative areas should be avoided. Human supervision remains essential to ensure:

- contextual judgment
- ethical evaluation
- correction of algorithmic errors

Hybrid decision-making models are currently the most legally defensible approach.

5.4. Institutional Capacity Building

Public officials must be trained in digital literacy, AI ethics, and algorithmic governance. Without institutional competence, even well-designed systems may produce harmful outcomes.

Conclusion

Artificial intelligence is reshaping public administration by offering unprecedented opportunities for efficiency, data-driven policymaking, and improved public service delivery. However, these benefits are accompanied by serious risks related to bias, transparency, privacy, and accountability.

The issue of legal liability remains one of the most challenging aspects of AI deployment in the public sector. Traditional legal frameworks are not fully equipped to address the complex, multi-actor nature of AI-driven decision-making.

To ensure that AI strengthens rather than undermines the rule of law, governments must adopt comprehensive regulatory frameworks, maintain meaningful human oversight, and promote algorithmic transparency. Responsible integration of AI into public administration requires a careful balance between technological innovation and the protection of fundamental legal principles.

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