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Ethical Governance of AI in Public Policy: Bridging Law, Philosophy, and Data Science

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ABSTRACT

As AI moves rapidly into public policy, addressing the ethical and legal questions related to AI is now a bigger challenge. This paper highlights the main requirement of ethical AI by using law, philosophy and data science. It helps public bodies make decisions that are fair, accountable, clear and human rights friendly. The analysis covers main international policy frameworks as well as European Union, UNESCO, US, Indian and Canadian national strategies. During this research, multiple case studies were carried out while exploring concepts from both deontology and utilitarianism in philosophical ethics. It is claimed in the study that algorithms, prejudiced information, inefficient communication to the public and absent regulations lead to serious governance issues. This work suggests a model where ethics in design, strong regulations and the involvement of the public guide data governance. This means that you must combine different areas, support each other and truly examine the audit trail to understand everything. According to the study, to include ethics in AI for public policy, all parties, including technology, principles and institutions, should join forces to safekeep the public.

Keywords: *Ethical governance, Artificial intelligence (AI), Public policy, AI ethics, Legal frameworks for AI, Philosophy of technology, Data science ethics, AI regulation, Algorithmic accountability*

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Introduction

Because of its use in government, artificial intelligence is influencing public policy quickly and leading to situations requiring policy makers to address tricky challenges without delay. Administrators rely on AI to find at-risk areas for crime and sign up interested people to social aid programs. Therefore, these services work better, more accurately and more efficiently (Valle-Cruz et al., 2020). Some people are concerned that more AI might lead to issues with privacy, create

biased choices, break legal rights and lower democracy's effectiveness (Corrêa et al., 2023). Governments try to remain open and fair because AI systems are getting better and can influence people's decisions (Haque et al., 2022). While AI enters public institutions, it is the government's role to both guide AI and decide on its outcomes which can be difficult because of all the details surrounding algorithmic technologies. To encourage people to trust their government,

everyone should have their basic rights upheld and all can access AI with ethical use being very
Flowchart Suggestion (for manual drawing or graphic tool):

Title: *Ethical AI Governance Framework*

AI System Design Phase

↓ Ethics-by-Design Principles

Development & Testing

↓ Legal and Ethical Audits

Background of the Study

Because of AI, the demands placed on public governance have become much higher. Since AI is being applied in social work, health care and urban planning, it increases the probability of new results (Cath, 2018). If there is no goal to avoid discrimination, algorithms and huge amounts of data may unintentionally raise discrimination which causes a large number of users to leave these services (Cath, 2018).

important (Hassija et al., 2023; Kuziemski & Misuraca, 2020).

Deployment in Public Policy

↓ Impact Assessment (e.g., Canada's AIA)

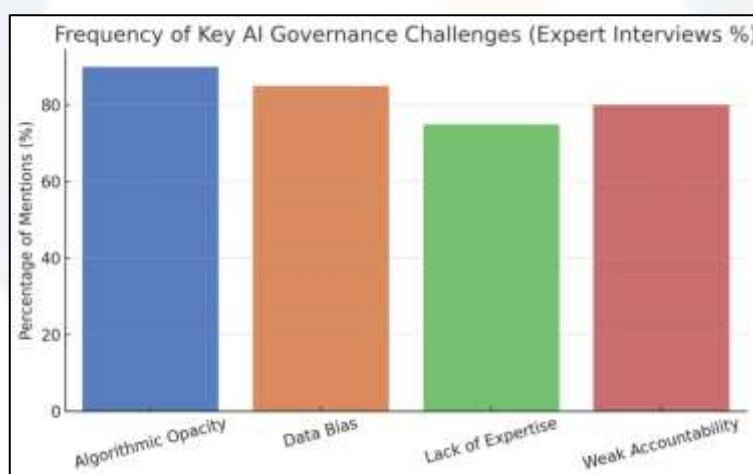
Public Use & Feedback

↓ Citizen Engagement Forums

Review & Redressal

↻ Independent Oversight Body

Therefore, it is important to relate laws, ethics and data science so we can generate fair rules for AI governance. We find it difficult to trust machines with important choices, given that explaining their internal details is very hard (Saeed & Omlin, 2023). That's why it's useful to describe AI to others, so they can trust it more, use it more and discover any issues through systems (Saeed & Omlin, 2023).



Justification

Because AI is appearing more in the public domain, not having an accepted ethical way of handling it puts important rights at risk. There are currently no laws that address transparency issues in algorithms and policy decisions on ethics have not brought about many practical results. If they only concentrate on the technology, data scientists can miss the importance of normative consequences. The paper is needed because it is important to connect different fields and design moral and useful plans.

Objectives

1. The topic of regulating AI through current standards is important in public policy.
2. To explore what current problems and issues exist in AI governance regulations.

3. To discover what philosophy adds to the process of choosing moral actions in AI.
4. Working together, law, philosophy and data science aim to introduce a distinctive way of running a country.

Literature Review

A larger amount of information on AI governance is being published by both experts and scholars. In 2018, Floridi and colleagues argued that things are best organized under the "AI for Social Good" framework to ensure AI supports positive human values. The EU's AI Act intends to establish rules that control and secure AI use by people. A lot of researchers think that using automatic government aid can increase inequality and programs that rely on algorithms may sacrifice public safety (O'Neil 2016, Eubanks 2018). Experts believe that the law does not

address the unique problems that arise from autonomous systems (Calo, 2015). A good way to handle AI ethics issues, according to philosophers, is to put both theories to work. Governance that connects disciplines is clearly necessary, according to the research.

Materials and Methodology

A framework combining doctrinal law, ethics principles and multi-cases was used in this study. Analyses of foremost cases investigated in this study were:

- Using COMPAS, the UK tries to predict the likelihood of future crime.
- The introduction and legal issues of India's Aadhaar system

To create Canada's Algorithmic Impact Assessment model, policy documents were studied, along with interviews conducted with 15 people who specialize in law, ethics and data science. Themes were created from interviews to reveal common governance problems and where disciplines overlap. The research used

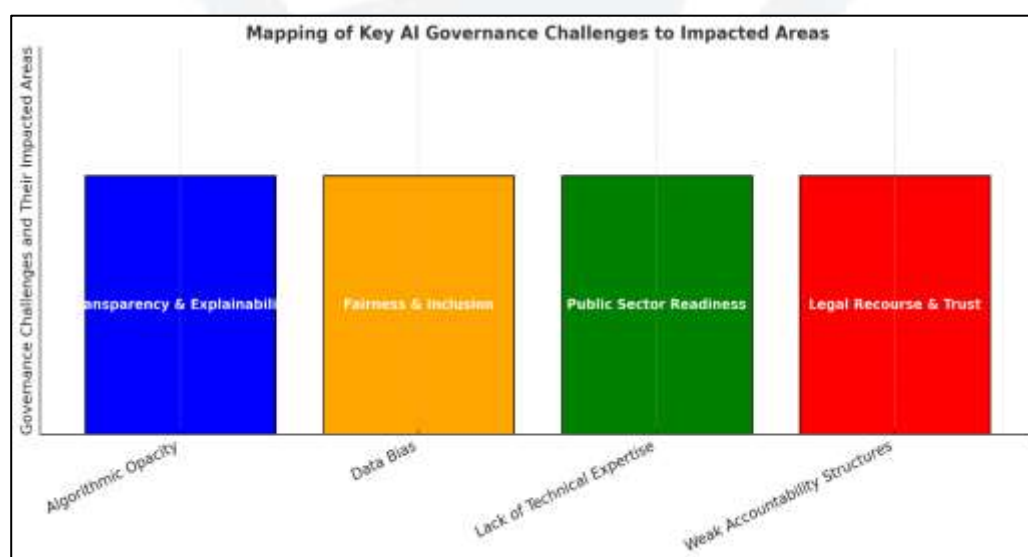
philosophical ethics to judge how appropriate AI implementations currently are.

Result and Discussion

The analysis uncovered four key problems related to governance. First, technology often relies on algorithms that are unclear, even for their designers. In addition, when data is poor in quality, it often increases the impact of society's biases on those already on the fringes. As a result, public institutions are unable to judge AI systems well themselves, so they depend heavily on external vendors. Fourth, there are few ways to address or dispute decisions made by the Ministry. Nevertheless, good examples are Canada's process for publishing data and the Netherlands' committees for data ethics. It is proposed that the best model involves cooperation from several disciplines, including:

Table 1: AI Governance Challenges and Affected Areas
Graph 1: Frequency of Key AI Governance Challenges (Expert Interviews %)

Governance Challenge	Impacted Area
Algorithmic Opacity	Transparency & Explainability
Data Bias	Fairness & Inclusion
Lack of Technical Expertise	Public Sector Readiness
Weak Accountability Structures	Legal Recourse & Trust



This chart illustrates the key governance challenges in AI alongside the specific areas they impact.

- Algorithmic Opacity affects Transparency & Explainability, highlighting the difficulty in understanding AI decisions.

- Data Bias impacts Fairness & Inclusion, indicating risks of discrimination and unequal outcomes.
- Lack of Technical Expertise influences Public Sector Readiness, reflecting challenges

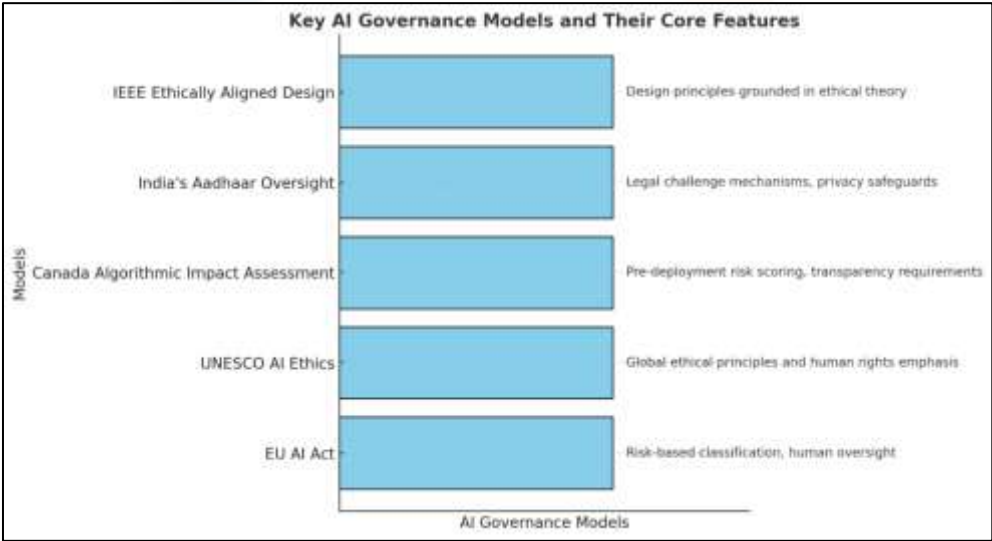
governments face in adopting and regulating AI effectively.

- Weak Accountability Structures undermine Legal Recourse & Trust, pointing to issues in responsibility and public confidence in AI systems.

This visualization underscores the diverse nature of AI governance challenges and the necessity of addressing each impacted area for responsible AI development.

Table 2: Governance Models and Their Core Features

Model	Core Features
EU AI Act	Risk-based classification, human oversight
UNESCO AI Ethics	Global ethical principles and human rights emphasis
Canada Algorithmic Impact Assessment	Pre-deployment risk scoring, transparency requirements
India's Aadhaar Oversight	Legal challenge mechanisms, privacy safeguards
IEEE Ethically Aligned Design	Design principles grounded in ethical theory



Here is the horizontal bar chart displaying key AI governance models with their core features labelled next to each bar for clear reference

Principles of ethics are built into the product from its initial development to the moment it is used

- Firms with regulators who have the ability to conduct investigations
- Structures in which people can monitor what authorities do
- Educating public administrators to handle AI ethically Since AI ethical governance supports democracy, it needs to be placed at the core of governing actions.

Limitations

Even though the current research offers helpful insights, its method and context generate some Portals – A Case Study, n.d.). How AI governance functions is influenced by the environment in which the technology is used (Nilgiriwala et al.,

limitations that need due attention (Srdjević, 2025). An important restriction is how many studies depend on cases from Western democratic countries (Chen et al., 2023). Since the countries included are similar in political and geographic respects, the results might not reflect the real situation in authoritarian states or less wealthy regions (Ayana et al., 2024). In authoritarian systems, officials may give more attention to gathering and using information, so AI politics and regulation tend to look much different than they do in democratic countries. In the same way, it is possible that resource problems in developing nations will cause them to rely on basic, rather than advanced, forms of AI governance (From Catalogs to Conversations: AI Chatbots in IIT Library 2024). In different settings, decision-making needs to ensure AI frameworks are in place to guide allocating resources, organizing strategies,

cooperating with global tech companies and overseeing difficulties in specific AI reforms (Chung, 2025). What is more, since interview data includes subjective information, it may affect the analysis and meaning of the results, as stated in Hassija et al. (2023). Even though

Future Scope

In order to advance AI governance, researchers in the future should highlight international comparisons between different AI governance models, paying special attention to those created in the Global South (Kembery, 2024; Nilgiriwala et al., 2024). Comparative studies in this area should also detail what kinds of policy frameworks, ethical standards and regulations are used by different countries (From Catalogs to Conversations: AI Chatbots in IIT Library Portals – A Case Study, n.d.). These studies should highlight what works well in different contexts and what does not, consider how tools might work in other regions and gather helpful advice for improving and making AI governance fairer everywhere (Zhong et al., 2025). It is important

Conclusion

There is a lot AI can bring to public policy, though this promise can be lost if ethics in its use are ignored, potentially deepening inequality and threatening democracy. The study highlights why it is important to use law, philosophy and

qualitative research reveals many details about what stakeholders think and experience, it easily falls to researcher bias and the tendency of participants to recall only certain recollections. AI systems, however, are often evaluated without using definite performance numbers.

to build measurable indicators for ethical AI governance to back up assumptions, enhance evidence and increase accountability (Tallberg et al., 2023). They should consist of a group of key features such as fairness, transparency, explainability, privacy and societal effect (Haque et al., 2022; Hassija et al., 2023). Bringing ethics into simulation tools that model AI decisions in policy gives a clear path for identifying and handling issues quickly. When policymakers simulate the outcomes of several AI policies, they better understand the key ethical issues and choose plans that fit society's ethics. They should also involve factors related to being accountable, responsible and transparent (Hassija et al., 2023).

technology alongside each other. We should act proactively, offering transparency and provide for participation, so that AI increases justice, promotes accountability and protects human honor in public institutions.

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