RESPONSIBLE APPLICATION OF ARTIFICIAL INTELLIGENCE IN THE BRASILIAN PUBLIC SECTOR: GOVERNANCE AND MITIGATION OF INEQUALITIES

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Abstract. The proposed panel discusses the responsible application of artificial intelligence (AI) in the public sector, focusing on governance and the mitigation of inequalities inherent in risk, implementation, and structuring. AI presents unparalleled opportunities for enhancing efficiency and quality in public services. However, it is imperative to adopt a responsible approach to prevent exacerbating technical and social inequalities. This work examines best practices for governance in AI systems, transparency mechanisms, and inclusivity frameworks, ensuring that AI contributes to equitable and inclusive societal development.

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1. Introduction

The advent of artificial intelligence has profoundly transformed both public and private sectors, necessitating the establishment of robust governance structures to ensure ethical and responsible technology deployment. As public sector activities inherently aim to promote the common good, transparency, and quality in service delivery, AI systems can play a pivotal role in delivering efficient and timely services. However, disparities in access to technology across regions, coupled with the absence of well-defined governance mechanisms for developing and implementing AI, make it essential to deliberate on this subject.

The application of AI in public services introduces opportunities for modernization and efficiency, yet without adequate measures, it risks amplifying existing inequalities. Therefore, the establishment of governance structures not only aims at implementing transparent and ethical AI but also ensures equitable access to technology, thereby fostering a development model that aligns with societal objectives. This text explores the dimensions of AI governance in the public sector, emphasizing governance frameworks, mitigation of inequalities, transparency, and ethical accountability.

2. Governance in AI for the Public Sector

Governance of AI systems in the public domain has emerged as a key focus in recent debates. The ambivalence of AI—its ability to drive efficiency while exposing structural vulnerabilities—requires building frameworks of laws, norms, and policies that ensure responsible technology deployment.

Floridi (2013) aptly noted that the "infosphere" shaped by technological innovations influences societal realities and

policymaking. For the public sector, responsible AI governance involves addressing ethical, transparent, inclusive, and just dimensions. Key pillars include:

2.1 AI Governance: a) Regulation and Public Policies: Developing legal frameworks and policies that prioritize the rights of citizens, guaranteeing the safe and accountable use of AI systems; b) Ethics Committees and Oversight Bodies: Establishing committees to monitor and ensure compliance with ethical standards in AI use within the public sector.

2.2 Mitigation of Inequalities: a) AI for Public Services: Enhancing access and efficiency in health, education, and social welfare using AI-driven solutions in underserved a´reas; b) Impact Assessment Tools: Implementing AI systems to identify inequities and propose tailored interventions for effective policy outcomes.

2.3 ***Transparency and Accountability***: a) Algorithmic Explainability: Enabling citizens to understand how algorithmic decisions impact them, ensuring confidence in the system; b) Responsibility Frameworks: Clearly defining accountabilities and implementing mechanisms for addressing misuse of AI systems in public service delivery.

3. Challenges of Ethical AI in Governance

Artificial Intelligence, when implemented without adequate governance measures, risks amplifying societal inequalities. Historical biases present in training datasets can reinforce discriminatory practices. Additionally, disproportionate access to resources and AI technologies can further isolate marginalized groups. To address these challenges, the following measures are proposed:

3.1 ***Correction of Algorithmic Biases***: Identifying and mitigating biases in datasets ensures fair and equitable decision-making processes.

3.2 ***Equal Accessibility*****:** Policies promoting equitable access to AI-driven services must ensure inclusivity across racial, gender, socio-economic, and geographic diversities.

3.3 ***Social Inclusion***: AI solutions must proactively address marginalization, leveraging innovative techniques to promote empowerment and community development.

4. The Role of Governance Frameworks

Governance frameworks are integral to embedding ethical practices in AI deployment. Public sector governance includes two key dimensions:

4.1 Governance of People: Training public officials on AI use, ethical protocols, and decision- making processes to ensure effective implementation of AI systems.

4.2 Governance of Processes: Establishing standards for AI system development, operational guidelines, data integrity protocols, and societal impact evaluations. FLORIDI (2018) emphasized that socially responsible AI outcomes depend on balancing benefits against potential harm. While adherence to the law provides minimum compliance, ethical and impactful governance frameworks drive maximum societal benefits.

5. Socio-Technological Implications and Inequality Mitigation

Governance frameworks must integrate mechanisms to manage socio-technological implications. Unchecked AI deployment risks reinforcing inequalities. Algorithmic systems relying on historic datasets often replicate societal biases and exclusions. Effective mitigation strategies include: a) Scrutinizing and correcting biases in algorithmic training; b)Ensuring equal access to optimized and AI-enhanced public services; c)Promoting inclusive social advancements by designing solutions tailored to marginalized communities.

Moreover, enforcing stringent oversight mechanisms guarantees transparency in algorithmic processes and achieves accountability in service delivery. The OECD highlights technology governance as crucial to safeguarding shared values, protecting human rights, and building resilient societies. Governance structures must adapt to the socio-technological landscape to maintain their relevance and efficiency.

6. International Perspectives on AI Regulation

Globally, approaches to AI regulation vary significantly. The European Union's comprehensive AI Act

emphasizes risk mitigation but has faced criticism for restricting innovation. In contrast, the United Kingdom shifted towards prioritizing technological advancement in 2025. Similarly, the United States revised its stance by adopting innovation-centric policies under the Trump administration, eliminating pre-market AI safety protocols and emphasizing economic growth.

The divergence in international regulatory models presents both challenges and opportunities for Brazil. As a developing nation reliant on imported hardware and limited technological resources, Brazil must adopt a balanced regulatory framework that fosters innovation while safeguarding against risks. Collaborative efforts, leveraging global frameworks and addressing localized priorities, can propel Brazil toward effective and inclusive AI governance.

7. Methodology

This study employs bibliographic research under a hypothetical-deductive method, analyzing international frameworks and adapting them to public sector needs in Brazil. This methodology ensures alignment with global standards while addressing unique national challenges, building a customized governance model.

Concluding Remarks

The application of AI in the public sector demands responsible governance and practices that prioritize equity and mitigate inequalities. Governance structures must emphasize inclusivity, transparency, and accountability, ensuring AI benefits are fairly distributed while safeguarding citizens' rights. By fostering multistakeholder participation—uniting public authorities, private sectors, and civil society—Brazil can create a governance model that balances efficiency, justice, and ethical responsibility. This commitment to sustainable AI development is vital for advancing toward a more equitable and resilient society.

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