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Ethics, Prospects and Challenges of Artificial Intelligence in Public Sector Administration in Nigeria

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Abstract **Original Research Article**

The deployment of artificial intelligence (AI) technologies in public sector administration has emerged as one of the most consequential governance debates of the early twenty-first century. In Nigeria, federal agencies such as the Federal Inland Revenue Service (FIRS), the National Identity Management Commission (NIMC) and the Nigeria Police Force have adopted AI-enabled systems without a binding national regulatory framework to govern their use. This paper examined the ethical implications, prospects and institutional challenges of AI adoption in Nigerian public administration, with particular attention to questions of data privacy, algorithmic bias, accountability and citizen inclusion. Drawing on Institutional Theory as developed by DiMaggio and Powell (1983) and the Responsible AI Governance principles advanced by Florida et al. (2018), the study adopted a qualitative research design employing multiple case study analysis and systematic document review. Three cases were selected: the FIRS Tax Pro-Max tax administration system, the NIMC digital identity programme and the Nigeria Police Force's acquisition of surveillance technologies. Findings revealed that AI adoption in Nigeria's public sector is predominantly driven by external pressures from international donors and multilateral institutions rather than by domestically formulated policy priorities. Ethical governance frameworks remain absent or non-binding, data privacy violations have been documented in government-linked data programmes, algorithmic bias risks are structurally embedded in government datasets and accountability mechanisms are fragmented across institutions with overlapping mandates. At the same time, evidence from Tax Pro-Max and the federal payroll system demonstrated that AI can produce measurable improvements in revenue collection and administrative efficiency when deployed under appropriate governance conditions. The paper concluded that Nigeria's central challenge is not whether to adopt AI but how to govern its adoption in a manner that is lawful, equitable and democratically accountable. Six policy recommendations were advanced, targeting the National Assembly, the National Information Technology Development Agency (NITDA) and relevant federal ministries and agencies.

Keywords: Artificial intelligence, Public sector administration, AI ethics, Data privacy, AI governance.

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Introduction

Artificial intelligence has moved from the domain of speculative computing into the operational heart of government. Across the world, public agencies are deploying machine learning algorithms, automated decision systems and predictive analytics to manage tax collection, administer social welfare, police cities and deliver identity services. The scale and

speed of this shift have generated serious questions about how governments can capture the efficiency benefits of AI whilst ensuring that its deployment remains ethical, lawful and accountable to the citizens it is meant to serve.

Nigeria occupies a particularly important position in this discussion. As Africa's most populous country, with a population of approximately 224 million people (World Bank, 2023a) and one of the continent's largest economies by nominal gross domestic product (Bloomberg News, 2024), the governance choices Nigeria makes about AI will have consequences that extend well beyond its borders. The federal government has taken deliberate steps to position the country as a digital economy leader. The National Digital Economy Policy and Strategy (NDEPS) 2020-2030, launched by the Federal Ministry of Communications and Digital Economy, committed the government to deploying digital technologies including AI across public services (Federal Ministry of Communications and Digital Economy, 2020). NITDA published a draft National Artificial Intelligence Policy in 2023, signalling an intent to regulate and guide AI adoption in both the public and private sectors. Several federal agencies have already moved ahead of policy, implementing AI-enabled platforms in tax administration, national identity management and law enforcement.

Yet, the pace of technology adoption has outrun the development of governance structures capable of managing it responsibly. As of the time of writing, Nigeria has no enacted AI governance legislation. The Nigeria Data Protection Act of 2023 provides a foundation for data rights but its enforcement in the public sector has been inconsistent (El Usman, 2024). There is no independent body with a mandate to audit government AI systems, no requirement for agencies to conduct algorithmic impact assessments before deployment and no established legal mechanism through which citizens can seek redress when automated government decisions affect their rights or welfare. This governance gap creates the central problem this paper addresses.

The ethical dimensions of this gap are not abstract. They are visible in the coercive conditions under which millions of Nigerians were required to link their National Identification Numbers to their SIM cards, in the documented underrepresentation of rural and northern populations in digital government datasets and in the absence of transparency around how AI-driven systems within FIRS and NIMC make decisions that affect citizens' access to services and legal identity. These are not failures of technology. They are failures of governance.

This paper is guided by the following primary research question: how can AI be ethically integrated into Nigerian public administration whilst addressing the challenges of data privacy, algorithmic bias and institutional accountability? Three secondary questions follow from this. First, what specific ethical challenges does AI adoption pose for Nigeria's public sector? Second, what genuine prospects does AI offer for improving the quality and reach of public service delivery in Nigeria? Third, what institutional and structural barriers currently prevent responsible AI adoption in the Nigerian context?

The study aims to examine the ethical implications of AI use in Nigerian public administration, to assess the documented and potential prospects of AI for improving governance outcomes, to identify the institutional and structural challenges to responsible deployment and to propose targeted policy recommendations for Nigerian government agencies and legislators.

The significance of this study is threefold. For scholarship, it contributes to a relatively sparse literature on AI ethics in African political science, where most existing work is located in computer science, information systems, or development economics rather than governance and political institutions. For policy, it offers an evidence-based analysis at a moment when Nigeria is actively debating AI regulation, making its findings timely and actionable. For the academic community at Igbinedion University and similar institutions, it demonstrates that rigorous postgraduate political science research can engage directly with the most urgent governance questions of the present era.

This paper focuses on Nigeria as its primary geographical context, with comparative references drawn from Kenya, Ghana and Rwanda where relevant. Sectorally, it concentrates on three areas: tax administration under FIRS, digital identity management under NIMC and law enforcement technology within the Nigeria Police Force. These three areas were selected because they represent the most developed and publicly documented instances of AI deployment in Nigerian public administration and because they each raise distinct ethical concerns.

The seminar paper adopted a qualitative research design within an interpretive paradigm. Given the absence of large-scale quantitative datasets on AI deployment outcomes in Nigeria's public sector and the need to understand institutional behaviour, policy context and governance dynamics, a qualitative approach was the most appropriate choice. The paper employed a multiple case study design (Yin, 2018), selecting three cases based on sectoral diversity and the salience of ethical questions each raised, the FIRS TaxPro-Max system, the NIMC Digital Identity Programme and the Nigeria Police Force's adoption of surveillance technologies. Data were collected from three source categories, official government publications including policy documents, press releases and agency reports, secondary academic and policy literature including peer-reviewed journal articles and reports from organisations such as the World Bank, UNESCO and Paradigm Initiative and credible investigative journalism from Premium Times and The Punch. Thematic analysis following the protocol of Braun and Clarke (2006) was applied, combining deductive coding from the theoretical framework with inductive themes emerging from the documents.

Literature Review

The scholarly and policy literature on AI in public administration spans disciplines and continents but it converges on a set of recurring tensions, between efficiency and equity, between automation and accountability and between the global diffusion of AI technologies and the locally specific governance contexts into which they are inserted. This review surveys that literature across five thematic areas, moving from the broadest conceptual foundations to the specific Nigerian context, before identifying the gaps that this study addresses.

Artificial intelligence, in the context of public administration, refers broadly to the use of computational systems capable of performing tasks that would ordinarily require human judgement. These include machine learning, natural language processing, computer vision and algorithmic decision-making (Russell and Norvig, 2021). Governments deploy these technologies across a spectrum of functions, from back-office automation of routine tasks, to front-office service delivery, to high-stakes decisions about welfare eligibility, tax liability, immigration status and criminal risk. The Organisation for Economic Co-operation and Development [OECD] (2019) define AI in government as systems that can, for a given set of objectives, make predictions, recommendations, or decisions influencing real or virtual environments. This definition usefully foregrounds the decision-making dimension, which is where the most significant governance and ethical questions arise.

Dunleavy et al. (2006) documented an earlier wave of public sector digital transformation under what they called the New Public Management paradigm, noting that digitisation without institutional reform tended to reproduce rather than resolve existing administrative problems. This insight remains relevant for AI. Margetts and Dorobantu (2019), writing in Nature, argued that governments needed to move beyond viewing AI as a technical procurement question and treat it instead as a governance design challenge. The distinction matters because it shifts the analytical focus from whether AI works to who governs it and in whose interest.

The past decade has produced a significant body of international normative work on AI ethics. The UNESCO Recommendation on the Ethics of AI, adopted unanimously by 193 member states in November 2021, established a set of core values including respect for human rights,

fairness, transparency, accountability, privacy and human oversight (UNESCO, 2021). It is the first global standard-setting instrument on AI ethics adopted by an intergovernmental organisation and is legally significant precisely because Nigeria is a signatory. The OECD AI Principles, first adopted in 2019 and updated in May 2024, set out five complementary values-based principles for trustworthy AI and identified five recommendations for governments on enabling the responsible stewardship of trustworthy AI (OECD, 2023).

The European Union's AI Act, which entered into force in August 2024, represents the most detailed legislative attempt to translate AI ethics principles into binding law (European Parliament, 2024). It classifies AI systems by risk level and prohibits or heavily regulates high-risk applications including those used in law enforcement, employment and access to essential services. Whilst the EU AI Act does not directly bind Nigeria, it creates a de facto regulatory standard for AI developers and vendors operating globally. Given that Nigeria's public sector relies heavily on AI tools sourced from European and American technology firms, the Act's risk classifications have practical implications for Nigerian procurement.

Floridi et al. (2018) synthesised the emerging AI ethics landscape into five principles discussed in the theoretical framework below." This removes the duplication while preserving the reference. These principles have become foundational in both academic and policy discourse. Jobin et al. (2019) conducted a systematic review of 84 AI ethics guidelines from around the world and found that transparency, justice and fairness and non-maleficence were the most frequently cited principles, though they noted significant variation in how these principles were operationalised across different national and institutional contexts.

The literature on AI in African governance is growing but remains concentrated in a small number of countries. Rwanda has attracted the most academic attention, largely because of the Irembo platform, a government service portal that has integrated automated processing for over 100 public services (Ndung'u and Signé, 2020). They documented how Irembo reduced service delivery times and cut opportunities for petty corruption in government offices, though it also noted that rural and low-income Rwandans faced access barriers. Kenya's eCitizen platform and its use of AI in revenue collection through the Kenya Revenue Authority have been examined by Olonde (2019) and Masinde, Mugambi and Muthee (2025), who found that digital tax systems improved compliance but raised concerns about data concentration in state hands without adequate legal protection for taxpayers.

South Africa's digital identity programme and its integration with public service delivery have been discussed by Breckenridge (2014) in a broader analysis of biometric governance in Africa, which traced how African states have historically used identity infrastructure for surveillance and control as much as for service provision. This historical dimension is important because it cautions against an uncritical reading of AI-enabled identity systems as straightforwardly progressive. The broader literature on digital governance in Africa, including work by Ndemo and Weiss (2016) on East African technology ecosystems, suggests that the success stories are highly context-dependent and often rest on governance conditions, including political will, institutional capacity and civil society oversight that are not uniformly present across the continent.

Theoretical Framework

This paper adopts Institutional Theory as developed by DiMaggio and Powell (1983) alongside the Responsible AI Governance framework drawn from Floridi et al. (2018). Together, they provide both a descriptive and a normative lens for this paper. Institutional Theory argues that organisations within the same field converge toward similar practices not through technical efficiency but through three environmental pressures. Coercive isomorphism occurs when powerful actors such as donors or regulators compel adoption. Mimetic isomorphism occurs when organisations copy others perceived as successful. Normative isomorphism occurs through shared professional

standards. All three are observable in Nigeria's AI adoption. World Bank financing conditionalities drove FIRS and NIMC deployments. Nigerian policy documents explicitly model Rwanda, Kenya and Estonia. NITDA technocrats carry internationally trained professional norms. The critical implication, drawing on Meyer and Rowan (1977), is decoupling, a gap between formal governance commitments and operational practice.

The Responsible AI Governance framework supplies the normative evaluation. These five principles are applied not as abstract ideals but as evaluative criteria against which documented Nigerian deployments are assessed. Together, the two frameworks explain why Nigeria adopts AI the way it does and evaluate how ethically it does so.

The analytical categories generated by these two frameworks, isomorphic pressure, decoupling and the five Responsible AI Governance principles, structured both the data collection instrument and the thematic coding applied in the methodology described below

Artificial Intelligence in Nigeria's Public Sector: Current Deployments

Nigeria's most documented public sector AI deployment is the TaxPro-Max system introduced by the Federal Inland Revenue Service. FIRS described TaxPro-Max as an end-to-end automated tax administration solution designed to improve compliance, reduce revenue leakage and eliminate manual processing (FIRS, 2021).

It is necessary to clarify, at this point, what is meant by artificial intelligence in the context of these Nigerian deployments, because the term is applied loosely in both official documents and commentary. TaxPro-Max, as described by FIRS (2021), is principally a tax administration platform incorporating electronic filing, electronic payment processing and automated compliance notifications. As of the time of writing, no publicly available FIRS technical documentation confirms that TaxPro-Max deploys machine learning algorithms or predictive analytics. Legal and policy analysts writing on Nigerian tax technology have treated TaxPro-Max as a digital automation system to which AI capabilities may be added in future, rather than as a fully AI-driven system in the technically precise sense (Okoh, 2023).

The NIMC digital identity programme similarly relies on biometric data capture and database matching rather than on machine learning models that learn from data over time. Where this paper refers to AI in relation to these systems, it does so in the broader sense used by the OECD (2019), covering automated systems that process data to make or inform decisions, whilst acknowledging that the depth of AI integration varies across cases and has not been independently audited in the Nigerian context.

The World Bank's 2022 Nigeria Public Finance Review identified persistent weaknesses in non-oil tax revenue collection, including low filing and payment compliance rates and recommended the expansion of automated tax administration systems as part of a broader programme of fiscal reform (Hernandez et al., 2022). Separately, the International Monetary Fund noted that the phased rollout of the TaxPro Max system, which introduced electronic filing and payment modules, represented a meaningful step towards reducing taxpayer compliance costs and improving revenue mobilisation at the federal level (International Monetary Fund. African Dept, 2023).

The NIMC digital identity programme, which underpins the National Identification Number (NIN) system, represents Nigeria's most far-reaching AI-adjacent public sector deployment in terms of population coverage. By 2023, NIMC reported over 100 million NIN enrolments, making it one of the largest digital identity databases in Africa (NIMC, 2023). The government's 2020 directive mandating the linkage of NIN to SIM cards, bank accounts and other services generated significant controversy. The directive was enforced through service suspension threats rather than through legislative authorisation, raising serious questions about the legal basis for mass data collection and the adequacy of consent mechanisms (Adegoke and Takon, 2021).

In law enforcement, the Nigeria Police Force has acquired surveillance technologies including closed-circuit television systems with facial recognition capabilities in Lagos and Abuja. Investigative journalism has reported that surveillance camera systems with facial recognition capabilities have been installed in Lagos and Abuja, though no official government technical documentation, procurement record, or independent technical audit confirming the specific AI capabilities of these systems has been made publicly available (Eleanya, 2025; Akinmoyeje, 2026). The National Assembly has not enacted surveillance legislation governing the use of such systems and no data retention policies for law enforcement surveillance cameras have been published by the Nigeria Police Force. The claims made in this paper about law enforcement surveillance technology are therefore based on reported rather than officially confirmed deployments and this limitation is explicitly acknowledged.

The literature on AI ethics in low- and middle-income countries identifies a set of challenges that are distinct from, though related to, those debated in high-income contexts. Buolamwini and Gebru (2018) demonstrated through technical auditing that commercial facial recognition systems performed significantly worse on darker-skinned faces, particularly darker-skinned women, a finding subsequently confirmed and extended by Raji and Buolamwini (2019), who showed that significant disparities persisted in major commercial systems even after public disclosure. Both findings carry direct implications for Nigeria's deployment of facial recognition in identity verification and law enforcement. Celi et al. (2022) argued that AI systems trained predominantly on data from high-income countries embedded assumptions that were often inappropriate or actively harmful when applied in lower-income settings.

Data privacy is particularly acute as a concern in contexts where regulatory enforcement is weak. Whilst Nigeria enacted the Nigeria Data Protection Act in 2023, replacing the 2019 Regulation, the institutional capacity to enforce it remains limited. The Nigeria Data Protection Commission, which was established under the Act, is still in the process of building its operational infrastructure (Nigeria Data Protection Commission, 2024). In this environment, citizens' formal legal rights to data protection coexist with practical vulnerability to data misuse by both state and private actors.

Digital exclusion compounds these risks. The Nigerian Communications Commission (NCC) reported a broadband penetration rate of approximately 43 per cent in 2023, which means that a majority of Nigerians, concentrated disproportionately in rural areas, northern states and among women and older populations, remain outside the digital economy (NCC, 2023). AI systems that rely on digital access as a precondition for service delivery will, in the absence of active inclusion strategies, replicate and deepen existing inequalities.

The thematic analysis of policy documents, agency reports, civil society publications and investigative journalism across the three case studies generated six core findings. The findings are presented thematically rather than case by case, reflecting the cross-cutting nature of the governance patterns identified. Each finding is stated as a direct claim and supported with documentary evidence drawn from at least two sources.

It should be noted that five of the six findings address governance deficits, reflecting the weight of documentary evidence in that direction, whilst Finding 6 examines the genuine prospects AI offers, ensuring that the paper's treatment of its subject is balanced against its title's three-part mandate of ethics, prospects and challenges.

1. AI Adoption is Externally Driven Rather than Domestically Anchored

Across all three cases, the primary drivers of AI adoption were found to be external pressures rather than domestically formulated policy priorities. The TaxPro-Max system at FIRS was developed and implemented with significant support from international technical assistance programmes aligned with World Bank public financial management reform conditions

(Hernandez et al., 2022). Nigeria's NDEPS 2020-2030 explicitly referenced benchmarking against international digital economy indices, including the UN E-Government Development Index, as a motivation for digital public service reform (Federal Ministry of Communications and Digital Economy, 2020).

NIMC's digital identity infrastructure has been substantially financed through the World Bank's Digital Identification for Development (ID4D) initiative, under a $430 million project approved in 2020 and co-financed by the International Development Association, the Agence Française de Développement and the European Investment Bank (World Bank, 2020). This financing is structured as concessional credit rather than grant funding and carries conditions requiring that the national identity system be developed in accordance with international technical standards for biometric data, interoperability and data protection (World Bank, 2020; World Bank, 2023b).

This pattern is consistent with what DiMaggio and Powell (1983) described as coercive and mimetic isomorphism. Nigerian agencies are adopting AI-enabled systems because they are encouraged or required to do so by powerful external actors and because they are copying models from countries perceived as successful, not primarily because they have conducted domestic needs assessments that have identified AI as the optimal solution to specific governance problems. This argument requires one important qualification. External funding does not automatically mean that domestic political motivation was absent. The Nigerian government established the NIMC through the NIMC Act No. 23 as far back as 2007 and the Federal Executive Council approved a Strategic Roadmap for Digital Identification in 2018, both before the $430 million World Bank ID4D financing was secured in 2020 (Paul, 2020; Creative Minds Global Technologies, 2025).

This legislative and planning history suggests that Nigerian political actors had prior and independent reasons for pursuing a digital identity system, including payroll management, electoral administration and national security objectives. The argument advanced in this paper is therefore more precisely stated as follows, whilst domestic motivation for digital governance reform existed, the scale, pace and technical design of AI-adjacent deployments have been shaped predominantly by the conditionalities and benchmarks of external financiers, producing a situation in which international institutional pressures determine how systems are built rather than whether they are built at all.

2. Ethical Governance Frameworks Are Absent or Non-Binding

Nigeria's AI governance landscape shifted considerably between 2023 and 2026. NITDA's draft AI Policy of 2023 was superseded by the National AI Strategy published in late 2024, which established a structured policy framework but remained non-binding (IAPP, 2026). The National Digital Economy and E-Governance Bill, which would grant NITDA formal regulatory authority over algorithms, AI systems and digital platforms and introduce mandatory algorithmic impact assessments for high-risk applications, was passed by the National Assembly and awaited presidential assent as of early 2026 (Tech Economy, 2026; Bloomberg, 2026). Binding AI governance legislation therefore remained pending at the time of writing, and no law had yet been formally enacted and signed into force.

The Nigeria Data Protection Act of 2023 provides the primary existing legal instrument for data rights, establishing rights to data privacy and creating the Nigeria Data Protection Commission as the enforcement body. However, the Act's provisions have not been systematically applied to public sector AI deployments. Paradigm Initiative's 2024 review of Nigeria's digital rights landscape found that public agencies continued to collect and process citizens' personal data under arrangements that would not satisfy the Act's requirements for lawful processing and meaningful consent (El Usman, 2024). This is a further instance of decoupling.

3. Data Privacy Violations and Inadequate Consent Mechanisms

The NIMC case provided the most direct evidence of data privacy violations and structurally inadequate consent mechanisms. The government's December 2020 directive requiring all SIM card holders to link their numbers to their National Identification Numbers was implemented through a threatened suspension of SIM cards that did not comply (ThisDay, 2020). The directive was enforced before any legislation specifically authorising mandatory NIN-SIM linkage was enacted, raising fundamental questions about the legal basis for what was, in effect, a mass data collection exercise affecting approximately 200 million SIM subscriptions (Aro, 2023).

The consent framework under which NIN enrolment data is collected and shared across agencies is equally problematic. NIMC's data sharing arrangements with FIRS, the Independent National Electoral Commission (INEC) and the Central Bank of Nigeria were not publicly documented at the time of the most significant expansion of NIN coverage. Adegoke and Takon (2021) reported that citizens were not informed about cross-agency data sharing when they enrolled for their NINs and that there was no accessible mechanism through which citizens could withdraw consent or access the data held about them. Under Floridi et al.'s (2018) autonomy principle, these conditions constitute a material failure of ethical AI governance, citizens were not able to exercise meaningful agency over the collection and use of their biometric and identity data by the state.

4. Algorithmic Bias Risks Are Structurally Embedded

The training datasets underlying AI systems deployed in Nigerian public administration reflect the structural inequalities of the administrative systems from which they are derived. FIRS's tax records, which form the data foundation for TaxPro-Max's compliance analytics, are disproportionately drawn from formal sector employers and large corporate taxpayers, given that Nigeria's informal economy accounts for an estimated 57 per cent of GDP (Mohammed & Adamu, 2025; World Economics, n.d.). This means that the system's predictive models of compliance behaviour are trained primarily on data that does not represent the majority of Nigerian economic activity, creating a risk that the system will perform differently for formal and informal sector taxpayers.

The NIN enrolment database presents similar structural bias concerns. A 2022 NIMC report acknowledged that enrolment coverage remained significantly lower in rural local government areas, particularly in the North-West and North-East geopolitical zones and among women, who face greater barriers to accessing enrolment centres (NIMC, 2022). When identity verification systems rely on NIN data as a proxy for eligibility or identity, populations underrepresented in the database risk systematic misidentification or exclusion. This concern resonates with the foundational work of Buolamwini and Gebru (2018), documented in Section 2.5.

It also finds broader theoretical grounding in Benjamin's (2019) concept of the New Jim Code was developed specifically from the history of anti-Black racism and racial capitalism in the United States and its direct application to the Nigerian context requires theoretical justification rather than simple assertion. Benjamin's framework was grounded in American African Studies and critical race studies, examining how technologies rooted in anti-Black societies perpetuate white supremacy. Nigeria's social inequalities are structured differently, organised primarily along lines of ethnicity, religion, geography and class rather than along a binary racial hierarchy.

The analytical utility of Benjamin's framework for this paper lies not in the racial specificity of her argument but in the broader structural claim she advances that algorithmic systems do not operate on neutral ground but instead encode and amplify the inequalities embedded in the social and administrative systems that generate their training data, appearing neutral whilst perpetuating discrimination (Benjamin, 2019). It is in this structural and transferable sense, rather

than in its racially specific American application, that the concept is applied here. The inequalities encoded in Nigerian government datasets, specifically the underrepresentation of rural populations, northern communities and women, are products of historically unequal administrative practices and the algorithmic systems built on those datasets risk reproducing those inequalities at scale.

Gender and disability dimensions of algorithmic bias receive almost no attention in Nigerian AI policy discourse. Neither NITDA's draft AI Policy (2023) nor any NIMC or FIRS policy document reviewed for this study contained a systematic gender impact assessment of AI system design or deployment outcomes.

5. Accountability Mechanisms Are Fragmented and Institutionally Weak

Nigeria lacks a dedicated institutional structure for AI oversight in the public sector. Responsibility for AI-related matters is distributed across NITDA, the Nigeria Data Protection Commission, the Nigerian Communications Commission and sector-specific regulators such as the Central Bank of Nigeria, without clear delineation of mandates or formal coordination mechanisms. This institutional fragmentation means that no single body has both the mandate and the capacity to audit AI systems deployed across government, investigate complaints arising from automated government decisions, or impose sanctions on agencies that deploy AI irresponsibly.

The judicial system is equally underprepared. There is no documented case in Nigerian jurisprudence in which a court has examined the legality or fairness of an automated government decision. Legal practitioners and civil society organisations interviewed in El Usman's (2024) digital rights review reported that courts lacked the technical expertise to evaluate AI-related claims and that no procedural frameworks existed for introducing algorithmic evidence in administrative or constitutional proceedings. The contrast with Kenya is instructive. Kenya's Data Protection Act of 2019 established the Office of the Data Protection Commissioner with investigative powers and a clear mandate covering public sector data processing and Kenyan courts have begun to develop a body of data rights jurisprudence (Government of Kenya, 2019). Nigeria's institutional development in this area lags significantly behind.

6. Genuine Prospects for Service Delivery Transformation

Against the weight of the preceding findings, the documentary evidence also established that AI-enabled systems have produced measurable improvements in specific areas of Nigerian public administration. FIRS reported total tax revenue of 10.1 trillion naira in 2022, of which non-oil taxes contributed 5.96 trillion naira or 59 per cent of total collections, representing the highest tax collection ever recorded in the history of the service at that time (FIRS, 2022 Performance Update, as reported in Premium Times, 2023), a period that coincided with the phased rollout of TaxPro-Max. Whilst it is not possible to attribute all of this growth to the AI-enabled system alone, the World Bank review of the reform programme credited automation and reduced manual intervention as contributing factors in improved compliance and reduced leakage (Hernandez et al., 2022).

The federal government's Integrated Payroll and Personnel Information System (IPPIS), which incorporates payroll verification mechanisms including biometric and BVN checks, contributed to the elimination of approximately **70,000 ghost workers** from the federal payroll, generating estimated savings of over **₦220 billion** (Bureau of Public Service Reforms, as reported in *Punch*, June 2022). This outcome demonstrates that AI-enabled identity verification can produce substantial efficiency and anti-corruption gains when applied to specific, well-defined administrative problems with clear data infrastructure.

The significance of these six findings and their implications for AI governance theory and Nigerian public administration practice, are examined in the Discussion section below.

Conclusion

This paper set out to examine the ethical implications, prospects and institutional challenges of AI adoption in Nigerian public administration, guided by the primary question of how AI can be ethically integrated into Nigerian governance whilst addressing data privacy, algorithmic bias and accountability. The evidence drawn from three case studies and a systematic review of policy and academic literature produced six findings that, taken together, point to a consistent pattern. Nigeria is adopting AI-enabled systems at a pace that its governance institutions are not equipped to manage responsibly.

The application of Institutional Theory revealed that this adoption is driven predominantly by coercive and mimetic isomorphism rather than by domestically anchored policy priorities. The consequence is decoupling. The Responsible AI Governance framework applied alongside Institutional Theory demonstrated that current deployments fail on multiple ethical dimensions. Data privacy violations in the NIN-SIM linkage exercise, structurally embedded algorithmic bias in both the FIRS and NIMC datasets and the complete absence of an independent AI oversight institution collectively indicate that Nigeria's governance architecture is not yet fit for the scale of AI deployment already underway.

The prospects, however, are not illusory. The revenue gains documented at FIRS, the elimination of ghost workers through IPPIS and the comparative evidence from Rwanda and Kenya all confirm that AI can produce meaningful governance improvements when deployed under appropriate institutional conditions. That conditionality is the central finding. Technology is not the constraint. Governance is.

The study makes a contribution to political science scholarship in Nigeria by demonstrating that AI governance is not a technical question but a political one, implicating the distribution of state power, the interests served by public data infrastructure and the accountability relationships between government and citizens. It also contributes to the broader African digital governance literature by bringing Institutional Theory to bear on a context where that framework has been underused.

On the basis of these findings, the following recommendations are directed at Nigerian government institutions.

1. The National Assembly should enact binding AI governance legislation that converts NITDA's 2023 draft policy into law and mandates algorithmic impact assessments before any public sector AI deployment.
2. An independent AI Ethics and Oversight Commission should be established with powers to audit government AI systems and investigate citizen complaints. The Nigeria Data Protection Commission should be adequately funded and directed to enforce the 2023 Act against public sector data processing that does not meet lawful processing and consent requirements. A national audit of government AI datasets should be commissioned, with a specific mandate to address the documented underrepresentation of rural communities, women and northern populations.
3. AI literacy programmes should be developed for judges, legislators and senior civil servants. All federal MDAs should be required to complete a published Responsible AI Adoption Checklist, covering legal basis, impact assessment, redress mechanism and public communication, before any AI deployment proceeds. Nigeria cannot afford to govern AI as an afterthought. The systems are already running. The governance must catch up.

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