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THEMATIC SECTION

Algorithms and Administrative Justice in Africa: A Case Study from Nigeria

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Abstract
Algorithmic decision-making (ADM) does not always extend beyond constituting Artificial Intelligence (AI). Still, the decision-making component of each is of particular interest when considering intersections of new technologies against public sector responsibilities. Many thematic areas in the public sector may incorporate AI, such as security (facial recognition), identity (authentication), or communication (natural language processing). Yet this research would pose that, given the focus on issues of exclusion and bias in the public sector context, exploring potential instances of ADM and AI, particularly as they relate to administrative decisions (such as those which relate to social protection) would be a worthwhile exercise with a corresponding emphasis on privacy, transparency, participation, accountability data justice and effective institutional oversight. Focusing on a case study from Nigeria, highlighting the use of AI and ADM by the governments, particularly in the context of social protection, and viewed against the backdrop of the pursuit of administrative justice (and data justice more broadly), this article will seek to evaluate the legal and legislative frameworks within which ADM deployments are regulated (or not), and the gaps in oversight that exist.

Keywords Algorithmic Decision Making · Nigeria · AI Governance · AI and Human Rights

Introduction

Administrative Decision Making (ADM) does not necessarily always extend as far as constituting Artificial Intelligence (AI),[1] but the decision-making component of each is of particular interest when considering intersections of new technologies with public sector responsibilities (Razzano 2020). While many of the risks and harms associated with AI can be seen as extensions of data risks and harms (such as the results of exclusion and bias that occur because of underlying datasets) (Buolamwini and Gebru 2018), and the outcomes that may arise from AI (but also ADM) in the public sector context raise important questions about justice and fairness that should inform policy design. Yet the intersections of public sector incorporation of ADM, AI, and administrative justice have been dramatically underexamined (Cobbe 2018), especially in the context of African countries.

Notions of privacy, transparency, justice, and accountability for ADM (and, ultimately, AI) cannot simply be understood as nationally defined prerogatives. Many challenges in the data and AI spaces are born of the globalized nature of structures, infrastructures, and impacts (Razzano et al. 2020). For Africa, this variant of globalization can also have political challenges for the activity of knowledge and technology production. When talking in the context of epistemologies, it can be noted:

'[The West views Africa] primarily as a place of parochial wisdom, of antiquarian traditions, of exotic ways and means. Above all, of unprocessed data. These other worlds, in short, are treated less as sources of refined knowledge than as reservoirs of raw fact: of the minutiae from which Euro-modernity might fashion its testable theories and transcendent truths. Just as it has long capitalized on non-Western

[1] We will be considering a definition of AI thus: AI are computer programmes that mimic human intelligence and cognition (human intelligence being understood as reasoning, learning and problem-solving).

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'raw materials' by ostensibly adding value and refinement to them. In some measures, this continues to be the case. But what if, and here is the idea in interrogative form, we invert that Order of Things? What if we posit that, in the present moment, it is the so-called 'Global South' that affords privileged insight into the workings of the world at large?' (Comaroff and Comaroff 2012).

Placing African case studies and knowledge production at the centre provides a vital lens for understanding ADM and future of AI. The case study considered in this article demonstrates the limits of current governance models in adopting AI technologies in the public sector for decision-making. The emergent stage of AI technologies means that policy recommendations and principles dominate the landscape in Africa rather than creating positive legal obligations.[2] This is partly due to ideological responses which, at least in the private sector, seek to limit positive regulation in favour of self-regulation. But it is also inherently an issue of the laws 'pacing problem' (Petit 2017), with AI ethics seen as a precursor or companion to regulation and governance (Floridi et al. 2018).

Emerging scholarship strongly reflects on the challenges in public sector technology systems. First is the opacity of the data and algorithms underpinning ADM and AI. The explainability of the algorithms can be a challenge, either intentionally, intrinsically, or technically (Cobbe 2018). This means the ability for recourse is limited, but so too is the ability to assess such systems for potential risks properly.

Suppose decisions are made by algorithms within a public sector context. In that case, this may constitute an improper delegation of authority in contexts where administrative justice frameworks exist (some data protection frameworks prohibit or limit automated decision-making based on personal data) (Cobbe 2018). When institutions devolve their decision-making powers, the onus of proving (or disproving) why a citizen *should* be included within a system that is unfairly shifted to the citizen (Hong and Kuen 2019). This is associated further with the challenges in accountability for machines rendering decisions. ADM systems may rely on centralized data collection in the hands of agencies with little oversight, such as security agencies and public sector utilization.[3] The accountability challenges extend not just to the data collection and retention itself but also to the algorithms concerned.

An extension of notions on challenges and risks in the ADM and digital realm is contextualizing these (and the technologies themselves) in the context of inequalities. There are many regional contexts where:

> …digital readiness will constrain [a country's] ability to leverage these new technologies and processes and to mitigate the risks related to employment, data governance and access to finance…Paradoxically, as more people are connected, digital inequality is increasing. This is not only the case between those online and those offline (as is the case in a voice and basic text environment), but also between those who have the technical and financial resources to use the Internet optimally, and those who are 'barely' online. The latter includes those who only have partial access to poor-quality or expensive data services that do not permit them to be 'always on' or to use data-intensive services. The gap between those who passively consume a limited number of basic services and those able to put technology to full and productive use, with some even enhancing their prosperity, is widening (Razzano et al. 2020).

It is also important to consider infrastructural inequalities' impact at the individual and the state levels (Breckenridge 2021). For example, in countries where the electricity supply may be unstable, essential systems may go offline: the Kenya elections were threatened by the introduction of new electoral systems that struggled with electricity supply and Internet coverage, meaning a manual backup was relied on.[4] Inequalities are thus both developmental and implicate rights concerns.

This article presents itself within an important area of research that considers not just algorithmic bias and technological risks but rather the politicization of AI and the attendant opportunities and challenges in this field (Kuziemski and Misuraca 2020). This focus then highlights the importance of the political economy for considering the deployment of AI and ADM technologies. As other scholarship has importantly noted:

> …the public sector plays a vital role in the development and uptake of AI. However, most of the debate tends to place government either in the role of "regulatory actor" or at best "facilitator", setting out the framework conditions for private actors and citizens to use AI in an ethical manner. This leaves the alternative role of the public sector as "first buyer" and direct

[2] The Institute for Ethical AI and Machine Learning, 'The Responsible Machine Learning Principles'; Ad Hoc Committee on Artificial Intelligence Policy Development Group, 'Artificial Intelligence in the Public Sector'.https://www.lecese.fr/en/publications/towards-european-digital-sovereignty-policy.

[3] Privacy International. 'Biometrics: Friend or Foe of Privacy?' Briefing, 2013. https://privacyinternational.org/news-analysis/1409/biometrics-friend-or-foe-privacy.

[4] Privacy International. 'Biometrics: Friend or Foe of Privacy?' Briefing, 2013. https://privacyinternational.org/news-analysis/1409/biometrics-friend-or-foe-privacy.

beneficiary of AI take-up and implementation rather obscure, if not neglected. In other words, the current policy discourse focuses on the governance "by" AI, far less on the governance "with" AI (Kuziemski and Misuraca 2020).

This is an important dimension, i.e., the analysis of power distributions and relations in analyzing ADM initiatives, for the regional realities of technological deployment - the state's use of technologies in the region is dominated by forms of public-private partnership (as opposed to the state's public innovation), which impacts stakeholders, and the assignment of accountability and responsibility. These relations also impact the citizens' relations to these initiatives (Razzano 2020).

Algorithmic Decision-Making in Nigeria's Social Protection Expansion

In January 2021, the Nigerian government launched the Rapid Response Register (RRR) for COVID-19 cash transfers under the platform of the National Social Safety Nets Project (NASSP), funded by the World Bank (2021). According to the Vice President of Nigeria, during the launch of this programme, 'the RRR is designed to focus mainly on the urban poor wards selected using scientifically validated methods of satellite remote sensing technology, machine learning algorithm, and big data analysis' (Osinbayo 2021). The intention behind the RRR was to build a responsive framework for capturing the urban poor and vulnerable populations across Nigeria. This category of Nigerians is also described as the working poor with an average of less than 5000 naira (less than $5) in their bank account and living in underdeveloped and overpopulated Nigerian cities. This vulnerable group experienced high levels of informal employment disrupted by the lockdowns and stay-at-home orders issued during the pandemic.

Consequently, Nigeria implemented a rapid cash transfer programme to mitigate the devastating impact of the pandemic. Identifying the urban poor at any given moment will present a significant challenge for any country given the high levels of daily mobility and homelessness and, in the case of Nigeria, a lack of a reliable and centralized personal identity management system. Consequently, the government contracted an AI developer and telecommunications companies to use big data analysis to identify and target eligible beneficiaries. The government transferred its existing social protection register to the developer and telecommunications companies to supplement the list of eligible beneficiaries.

Over 20 million people were identified by the National Social Safety Nets Coordinating Office (NASSCO), the programme administrator, through 43 variables based on geographical satellite remote sensing technology deployed to locate poor urban wards and high-density settlements (Apera 2021). Given that the last census conducted in Nigeria was in 2006, in order to generate more recent data on granular poverty estimates per location, 'recent advances in deep learning were used to construct a high-resolution poverty map from satellite imagery and other sources of geospatial Big Data' (Apera 2021). According to the World Bank, 'these techniques work by learning how to predict poverty by being exposed to a large dataset that matches ground-truth labels of poverty (from geo-located household surveys) to imagery and other geospatial data. Intuitively, the algorithms learn the visible features that are predictive of poverty, such as road quality, building density, and land topology' (Blumenstock et al. 2021).

The Nigerian government, through NASSP, shared its data for the RRR project in two ways. First, it appointed a private company to develop the AI around this project. Second, it shared data with telecommunications companies and banks responsible for profiling and reaching out to eligible beneficiaries. The telecommunications industry was seen as 'an enabler – able to reach the last mile in a particular location – and can help with identification and location' (Apera 2021). As part of their operations, the telecommunications industry assisted in the geo-mapping of high-density areas and determined how to reach out to potential beneficiaries (through robocalls, text messaging, or auto playbacks).

In the initial design of the RRR, the collected data was to be verified against Nigeria's National Living Standards Survey data and to complement the process with available data on vulnerable residents from existing databases of NGOs and other local support groups (given that the most recent census data were from 2006). Beneficiaries were also meant to be verified through visits from survey officials, and those without bank accounts were to be supported in opening one. Mobile money payments were offered as an alternative payment option.

Enrolment of the urban poor in the RRR is done via mobile phone short messaging service technology that allows residents of identified communities to register following steps via a few options, including USSD codes. Nigeria's RRR required high penetration of mobile phone usage among the urban poor. According to NASSCO, mobile phone usage is high among the urban poor because it is a primary means of conducting business. While this may be true, this also assumes that mobile phone users have a level of technological literacy to understand the invitations to be verified for eligibility for the RRR. In addition, NASSCO noted significant reactions from the eligible beneficiaries who were contacted to the enrolment text messages that included

suspicions of fraud and disbelief, which meant many eligible Nigerians did not enroll (Apera 2021).

Implications for Administrative Justice

We consider ADM to mean 'decision-making by systems which involve algorithmic processes, including machine learning, to automate human decision-making' (Cobbe 2018). There are two forms of ADM. The first involves ADM, where there is human intervention, and the second involves subsequent human intervention, where the automated system serves as a tool to assist a human decision-maker in exercising their judgment and discretion (Cobbe 2018). In the former situation, a legal dilemma arises because no regulatory framework can hold machines accountable for their decisions, and public bodies remain responsible for their decision-making. This accountability gap is heightened within the administrative justice framework, where government decisions significantly impact the lives and livelihoods of its citizens. Three rights are implicated in ADM. These are the right to administrative justice, the right to privacy, and the right to access to information.

While ADM is often presented as an objective determination of facts as explained by a government official in our research interview process, this process does not take into account the fact that 'ADM systems are engineered by humans, overseen by humans and, and used for purposes determined by humans' (Cobbe 2018: 9). The rationality of the decision-making that went into these choices in the engineering of the RRR is also a subject that falls within the scope of administrative justice.

The Nigerian Constitution does not recognize the right to administrative justice, and there is no overarching legislation on administrative law. Consequently, challenges to administrative decisions are addressed through enabling legislation that applies to a public body or statutory agency that makes the administrative decision. Common law also applies. Where a challenge is successful, it means the public body has acted outside its lawful powers. However, the question of the lawfulness of the ADM extends beyond whether a public body has acted without legal authority in terms of its enabling law. Where personal data is involved, as is the case with this RRR, it also involves determining whether the personal data has been processed in a way consistent with the applicable data protection regulation.

Furthermore, ADM's legality goes beyond the scope of applicable laws to include delegation of authority. Whether ADM constitutes an unlawful delegation of powers is a conceptual problem that has yet to be subjected to any legal test. In reviewing unlawful delegation of powers in ADM, it is necessary to understand the nature of the ADM. The RRR is unlike other social registers in Nigeria targeting the rural poor, where state and local governments actively ensure humans, referred to as cash transfer facilitators, verify the identities of potential social protection beneficiaries.[5] The entire RRR process is automated and makes several assumptions that have exclusionary implications for urban poor Nigerians. First, Nigerians on the RRR are pre-selected through 43 variables, including their presence in the geo-located areas and average bank account balance. Second, they must own mobile phones and have a level of literacy to understand the requests for verification to become eligible for cash transfers. The absence of human verification and the complete delegation of this process to automation raises the issue of delegated authority, especially given the potential exclusion of millions of beneficiaries not pre-qualified by this automated system. This increases the risk of excluding the urban poor who do not fit the pre-determined criteria and are invisible due to the technologies used and the big data analysis.

Implications for Privacy

Nigeria's Data Protection Act was passed in June 2023, but before the adoption of the Act, the 2019 National Data Protection Regulation (NDPR) was issued by the National Information Technology Development Agency (NITDA) to regulate and control the use of data in Nigeria. This Regulation was applicable during the rollout of the RRR. The Regulation mandates all public and private organizations in Nigeria that control the data of natural persons to make their respective data protection policies available to the public within three months after the date of the Regulation issuance.

Following the adoption of the NDPR, two frameworks were applied to support its implementation. These are the 2019 NDPR Implementation Framework and the Guidelines for Managing Personal Data by Public Institutions in Nigeria, 2020. According to the Guidelines for the Management of Personal Data by Public Institutions of Nigeria, a higher standard of consent-seeking will apply to processing sensitive personal data, including ethnic and biometric data. This higher standard of consent-seeking is not defined, and the Guidelines also carve out an exception to the requirement of consent, which includes cases of health emergencies. This was the exception that the government relied on to process personal data for the RRR without the permission of the affected citizens.

There was limited transparency about the full scope of collecting, using, and processing personal data by government officials and private sector partners in the RRR project. For example, the telecommunications industry

[5] This is detailed in the NASSCO process for data collection for social registers.

acknowledged that in identifying and locating eligible beneficiaries, they used 'derived data,' which is based on, for example, the location data of a subscriber without their consent.[6] Taking this together with a check on the average account balance of potential beneficiaries, this suggests the profiling of Nigerians is taking place without their consent and inconsistently with globally established data protection norms.

Implications for Accountability

An essential consideration in ADM is who is accountable for outcomes (intended and not intended), and how is this accountability facilitated? In the context of public sector ADM, administrative justice mechanisms can help create an avenue for accountability. Accountability is also fundamentally important in much of the emerging AI governance literature.[7] Yet accountability, particularly in those systems that act as a major access point to profoundly essential government services, as highlighted in the case study above, must be realized in a considered way. This interface with the government is rife with power inequities. The very structure of the bureaucracies that administer services is embedded with inherent accountability challenges, as Arendt has famously noted:

'The greater the bureaucratization of public life, the greater will be the attraction of violence. In a fully developed bureaucracy, there is nobody left with whom one could argue, to whom one could present grievances, on whom the pressures of power could be exerted. Bureaucracy is the form of government in which everybody is deprived of political freedom, of the power to act; for the rule by nobody is not no-rule, and where all are equally powerless, we have a tyranny without a tyrant' (Arendt 1970).[8]

Automated decisions—particularly those fully automated, as above—only exacerbate this lived experience of unaccountability. Recourse mechanisms and accountability channels will need to centre the reality of the system subjects, many of whom are significantly impacted by the automation's results.

Another dimension in the ADM sphere with particular accountability nuances is developing and implementing public-sector technologies through private-sector service providers (Razzano 2021). Constitutional and social obligations in developmental states like Nigeria are considered the domain of the state - but when facilitated by the private sector, even at the behest of the state, forms of accountability should be extended in providing those services as appropriate (Razzano 2020). Yet the contracts between the public and private sector can be a mechanism for forwarding specific forms of accountability commensurate to the fulfillment of social obligations and should not be overlooked as a mechanism.

Implications for Transparency

Data and information remain a foundational mechanism for equalizing power imbalances (Stiglitz 2011). Yet, the need for more proactive disclosure of data and information was notable, given the lack of information about the RRR online.[9] There is an important imperative for transparency in relation to the subject in the case study above - the engendering of trust in a system requires access to information and data about that system, about the political and economic dynamics involved (for example, procurement), about the outcomes and processes it uses, and even about the data (and quality) which underpin it. This is why data subject rights, like those in data protection frameworks, are essential to creating a trusted environment for implementing ADM technologies. However, it is important to note that different communities have different needs and demand different mechanisms for transparency and accountability. This requires government agencies to be more aware of what kinds of information are being made available and how particular audiences may use, rely upon, or gain access to it in the first place.

Implications for Participation

Public participation is considered generally a fundamental component in democratic political systems. In the intersections with technology, it is often understood as technology for facilitating participation, i.e., through civic technologies. Yet, a particular dimension exists for participation in deploying ADM systems: encouraging participation in designing, developing, and implementing technologies with a public social function. It is important to highlight the political dynamics present in the technological process. Still, there needs to be more acknowledgment of these political dimensions in regional realities. In the case study above, civil society has yet to demonstrate a particular interest in monitoring the system under consideration. This may, of course, be associated with the lack of sufficient information

[6] Interview with telecommunications operator, 9 August 2021.

[7] Ada Lovelace Institute, AI Now Institute, and Open Government Partnership, 'Algorithmic Accountability for the Public Sector: Learning from the First Wave of Policy Implementation', August 2021, https://www.opengovpartnership.org/documents/algorithmic-accountability-public-sector/.

[8] These dimensions also have important historical and cultural overtones in different African countries given the colonial forms of power that were previously present.

[9] Information about this project was obtained through interviews with Nigerian government officials and industry participants willing to speak to the researchers.

(including education about such systems) that would promote participation and monitoring but is also a reflection of the fact that the involvement in the technology sphere - significantly influenced by data protection narratives - is generally understood as an individual responsibility (such a data subject participation), rather than in a public and political sense. This requires shifting narratives around ADM technologies, particularly those fundamentally targeted to support public functions. And this will naturally extend to the policies to regulate or promote ADM.

Implications for Data Justice and Digital Inclusion

Typically, notions of risks and harms as 'challenge' areas dominate ADM and AI literature. Yet, some ideas demand moving beyond just mitigation strategies - to centering notions of justice. Developmental notions on inequalities and enhancing well-being help emphasize these holistic ambitions (Sen 2005; Stahl 2021). These notions are also crucial for associating strategies in ADM with legal and governance solutions. Taylor's research on data justice has noted:

> '…just as an idea of justice is needed in order to establish the rule of law, an idea of data justice – fairness in the way people are made visible, represented and treated as a result of their production of digital data – is necessary to determine ethical paths through a datafying world. [There are] three pillars [to] a notion of international data justice: (in)visibility, (dis) engagement with technology and antidiscrimination. These pillars integrate positive with negative rights and freedoms, and by doing so challenge both the basis of current data protection regulations and the growing assumption that being visible through the data we emit is part of the contemporary social contract' (Taylor 2017).

ADM and AI justice must build on these notions of interdisciplinary nuance, which call for economic, social, and political goals in designing governance structures and interdisciplinary examinations of outcomes for identifying priority frameworks.

To enable inclusion and to ensure marginalized groups are not rendered invisible in the big data analysis, the government needs to work towards first ensuring that 'global digital public goods (such as the internet, cybersecurity, and data) are more equitably available' before using AI as a solution for social protection (GPAI 2022).

Implications for Institutional Oversight

The development of the RRR in Nigeria demonstrates how governments can utilize government data and work with the private sector to provide tangible benefits for citizens. This case study underscores the need for strong institutional accountability where personal data is collected, used, and disclosed. Mechanisms must be in place to hold both government and private sector data controllers and processors accountable, and Nigeria's data protection commission must be backed by institutional resourcing to enable adequate oversight and enforcement of Nigeria's new data protection law.

Towards Responsible ADM in the Public Sector

The political intersection of public sector interests with private sector interests should be the underscoring political economy used to consider incentives and risks within ADM systems, given the dominance of public-private partnerships (albeit of different types) that dominate the African regional landscape. The participation dynamics described earlier should not just be pursued domestically on the vertical (i.e., between citizen or data subject and state) and horizontal (i.e., between citizen or data subject and private sector), but internationally, i.e., requiring national participation in global and regional structures. This requires political buy-in for international cooperation and multi-stakeholder forms of governance.

Despite the involvement of multiple stakeholders in AI governance and the dominant role of the private sector in developing and deploying ADM systems, responsibility for the governance of ADM systems remain with governments and any governance model that is adopted cannot be outsourced to third parties and the private sector. The most important outcome for governing ADM systems is the availability of access to redress and remedies for data subjects. This is especially important where private developers of ADM systems in use in African countries may be foreign firms who fall outside the legal jurisdiction of a particular country. As AI systems generate automated decisions that affect people, it is essential that there are mechanisms to access remedy and seek redress for harm caused by these systems. The insights below offer options for a more enabling environment for safe and trustworthy ADM deployment in the public sector.

Impact Assessments

Those in the public and private sectors seeking to implement ADM should ensure in the project's design that there are sufficient mechanisms for auditing outcomes of ADM

and also perform AI assessments that include political, economic, and social impacts. They need to consider the level of risks when prescribing priorities and the level of automation intended - ensuring safety mechanisms are installed across the entire process stream - from data collection to outcome.

Given the established relationships between ADM and data, the emergence of data governance frameworks of positive obligations in privacy impact assessments presents an opportunity for alignment. Still, it must also be highlighted as an important mechanism. Even where such positive obligations for these forms of assessments may not be available in existing governance frameworks, contracts between parties can be an avenue for implementing these necessary preventative measures.

Technology Design

For rights-respecting outcomes to be assured, they must be facilitated by the design of the ADM itself (which includes the design of the associated algorithm). Supported by sound data collection and quality practices, these algorithms must be subject to review (which essentially precludes black box systems in the public sector). While calls for privacy in design are rallying cries, they are also supported by lobbies for transparency in design.

While currently primarily an ethics issue, there is scope for these kinds of positive obligations to be extended through law—and probably more appropriately, through flexible regulations extended by properly empowered and consultative institutional oversight mechanisms like privacy impact assessments. Facilitating the full spectrum of rights within design is a need that significantly increases.

Local Innovation and Creation

To spur public sector innovation, promote local innovation that can facilitate fully collaborative approaches, and drive design efforts responsive to the different contexts, it seems clear that what is additionally required is an enabling environment for local innovation communities - which includes facilitating their participation in regulation and policy design so that the rights-preserving measures are promoted and can balance the needs of all the stakeholders.

Transparency, Accountability, and Participation

Rights are interdependent and mutually reinforcing. Emerging literature in ADM and AI highlights that socio-economic rights and redistributive justice *cannot* be divergent from other concerns. This research certainly supports that. However, the civil political components of rights have been emphasized for the ADM context given the public sector context and —notably—the political tensions between political and economic hegemonies spearheading many such projects. Thus, transparency, accountability, and participation imperatives—and mechanisms—are highlighted as avenues for forwarding system subjects' interests.

Law and Regulations

The ADM contexts highlight the importance of establishing political prioritization of data protection for the public sector. Data protection must be a foundational priority for these projects, not least of all because they all emphasize using personal data for significant and impactful decision-making. The emergence of a new data protection law in 2023 in Nigeria after the RRR was implemented and the leadership of African countries in adopting data proection laws must be lauded, and countries must prioritize the implementation of these frameworks as a fundamental step for ensuring public sector ADM systems that can fully, effectively and justly enable development outcomes.

More broadly, laws and regulations must consider obligations on both public and private sector actors when extending obligations in this sphere. How this can be facilitated will frequently depend on the constitutional structures of the country concerned and common law.

It is clear, though, that there are avenues for developing existing administrative justice frameworks that could meet some of the priority needs of ADM use in the public sector. This highlights a vital governance priority: traditional good governance frameworks (which centralize many civil and political rights concerns) must be prioritized alongside emerging data and (ultimately) AI governance frameworks. These must intersect within an ecosystem that includes regional and global governance frameworks.

Conclusion

Deployment of ADM in the African public sector compels a centering of the political economy. The case study in this article reflects a desire to use ADM within development agendas, yet also demonstrates how limitations in achieving those gains are, in part, a problem of technology design itself, compounded with deficiencies in broader governance and capacities. Lessons learned from the ongoing implementation of ADM and similar innovations are an opportunity for improvements to be made across the board – not just for improved decision-making but also to rethink good governance and how to mitigate the problems inherent in rolling out such systems (exclusion, transparency, accountability, and participation). Given the political histories of

many African countries, citizen engagement, even through new technologies, should reinforce trust – even when that trust is not demanded.

However, ADM is an essential site for research, given the nascent (or at least very opaque) implementation of AI systems in the public sector. With ADM systems at both local and national levels, this article allows for a reflection on many of the building blocks that can later serve responsible AI. This article also considered how, though some governance gaps may remain, there are opportunities for public sector technologies to contribute to developmental objectives while mitigating risks and narrowing gaps in existing governance and human rights frameworks.

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