

Digital Governance in The Generative AI Era: A Qualitative Analysis of Privacy and Trust in South African Organizations

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Abstract. South African organizations are experiencing rapid digital transformation as digital technologies increasingly shape service delivery, data management, and interactions between the state and citizens. In this time where machines such as Generative Artificial Intelligence (GenAI) can generate answers from the user prompt, there's a need to control their use in order not to harm others. This study examines digital governance in the generative AI era, focusing on how privacy and trust are managed within organizations in South Africa. The study adapts a qualitative research approach utilizing the traditional literature review and secondary data analysis. There's a disconnect between the initiated policies and the implementation or regulation of these policies, therefore, there is a need to develop a comprehensive digital governance framework for South African organizations to help minimize any harm that can be caused by use of Generative Artificial Intelligence. The research shows that in the generative AI era, is necessary for digital governance to move from only technology-centric strategies to a comprehensive framework that will combine institutional, ethical and operational aspects. The study contributes theoretically and practically to a deeper understanding of governance challenges and opportunities in South Africa. The study is limited to South African organizations and on secondary data from existing literature. Future work can extend the scope of the study beyond South Africa and conduct empirical and longitudinal studies to gain more insights on digital governance in the generative AI era.

Keywords: Digital Governance, Generative AI, POPIA, Institutional Trust, South African Organizations.

1. Introduction

The fast growth of generative AI is transforming corporate operations, communication, and decision-making across the African continent. About 51% of marketing teams worldwide use Generative artificial intelligence (AI) known as GenAI for content creation, customer support and process automation [1]. From literature [2] defines GenAI as a new technology with the ability to produce text, sounds, and images with the use of user input. It is trained on documents and artifacts that already exist online, learning from these data sets so it can predict outcomes in the same ways humans might create on their own. These applications are now used in different industries including healthcare, education, cooperation, public administration, and other creative industries for different purposes. [3] claim that these applications come with lots of advantages, but they also challenge governance, trust and privacy as the information often contains human values, bias and personal data which are difficult to control at scale. The swift development of generative AI is prompting regulators globally to strive to comprehend, manage, and ensure the safety of this technology, all while preserving its

potential advantages. In various sectors, the uptake of generative AI has created a new challenge for risk and compliance capabilities and finding a way to utilize this innovative technology while navigating a changing and inconsistent regulatory landscape. Governance of AI must encompass not just the regulation of AI developers and organizations but also the oversight of the AI systems themselves and the networks that link them to the data and devices they operate on [4].

South African organizations are experiencing rapid digital transformation as digital technologies increasingly shape service delivery, data management, and interactions between the state and citizens. DPSA [5] report states that, everyday millions of South Africans rely on government institutions for essential public services, including social grants, identity documents, education registration, and financial transactions. In response to growing service delivery demands, the South African government has increasingly adopted digital technologies to improve accessibility, efficiency, and reliability in public administration [6].

Recent national policy initiatives, including the Public Service Data Governance Framework and the Draft Digital Government Policy Framework, further demonstrate a commitment to data-driven governance across public organizations [7, 8] . However, these frameworks remain largely oriented toward traditional data governance and digital service management, providing limited guidance on the governance implications of Generative AI, particularly in relation to automated decision-making, algorithmic opacity, and the institutional conditions required to sustain privacy and trust. In South African digital governance context, Trust is when users can use digital systems without any doubt and privacy refers to the protection of individuals' personal data and the assurance that information collected, processed, and shared through digital systems is handled lawfully, securely, transparently, and with user consent as stipulated on the POPIA policy [9]. Therefore, the increasing adoption of data-driven technologies, including artificial intelligence and machine learning informs the need for a governance framework that will address the privacy and trust issues as GenAI continues to place pressure on existing governance mechanisms, particularly in relation to accountability, privacy protection, and public trust [10].

1.1 Theoretical Framework

This study is underpinned by a socio-technical perspective, recognizing that Generative AI (GenAI) governance inherently spans technological, human, organizational, and institutional dimensions [11-13]. As the core lens, Socio-Technical Systems Theory (STST) conceptualizes organizations as interacting networks of technology, actors, processes, and contextual environments [14-16]. A critical insight from STST is that pivotal elements like data privacy and user trust emerge dynamically from these systemic interactions, rather than from isolated technological capabilities [14, 17]. To capture broader environmental dynamics, this study integrates Institutional Theory, which posits that organizational practices are deeply shaped by external regulations, societal norms, and institutional pressures [18, 19]. Within the South African public sector, governance adoption is driven by coercive forces most notably compliance with the Protection of Personal Information Act (POPIA) and the mandatory mandates of the DPSA Public Service Data Governance Framework alongside normative and mimetic pressures [20, 21]. Within this dual framework, digital governance mechanisms ensure accountability, transparency, coordination, and oversight [12, 22], while operationalizing Responsible AI principles, including fairness, transparency, accountability, explainability,

and human oversight [11, 23]. Synthesizing these perspectives reveals that GenAI governance is fundamentally an institutional and socio-technical challenge rather than a purely technical one. Consequently, this study proposes an integrated framework explicitly designed to analyse privacy and trust within South African GenAI governance.

1.2 The Aim of the Study

The aim of the study is to investigate how South African organizations navigate digital governance, data privacy, and institutional trust in the GenAI era.

Research Objectives:

- To review recent digital governance literature and clarify what governance means in today's digital world.
- To find gaps in the current digital governance literature, focusing on privacy, trust, and Generative Artificial Intelligence (GenAI).

2. Research Methodology

This study adopts a traditional qualitative literature review methodology to ensure structural clarity, academic rigor, and thematic consistency. Given that Generative Artificial Intelligence (GenAI) is a rapidly shifting and evolving technology, a traditional narrative and thematic review format is uniquely suited to synthesizing diverse institutional policies, legal statutes, and emerging academic research across South Africa's digital governance landscape. [24] asserts that secondary research is a method of study that uses data gathered before. The existing data have been recapitulated and compiled to enhance the inclusive efficacy of the research.

The study followed a qualitative research approach utilizing the traditional literature review. The chosen databases used for the study includes: ResearchGate, AMC, Elsevier, IEEE and Scopus and they were chosen to give full comprehensive cover from literature using the well-known authors from the digital governance research area. The search keywords including "digital governance", "digital transformation", and "e-governance" were employed to find relevant articles and to find evidence in the recent study of digital governance.

The study has reviewed publications published between the years 2024 and 2026 on digital governance as a mechanism to enhance privacy and trust in the South African organizations for more recent findings. This review study includes the peer-reviewed which are published between 2024 to 2026 that focused on digital governance, digital transformation, and e-governance. Studies were required to be available in full text and published in English. Excluded were the non-basic articles, articles published before 2024 and studies that did not explicitly contain digital transformation in organizations.

A Microsoft Excel spreadsheet was used to organize the final set of full-text articles. Studies found in the initial search with the chosen keywords were entered into the spreadsheet. Duplicate articles were removed, and the remaining studies were checked for relevance based on their scope and publication year. The full texts were then reviewed to make sure they met the inclusion and exclusion criteria. The content of each

article was analysed to confirm that it matched the study's objectives. Information such as authors' names, publication year, study discipline, method, evaluation metrics, limitations, and findings were recorded

3. Current Challenges for Digital Governance in South Africa

Generative AI is being adopted in South Africa faster than institutions can keep up with ethical oversight and regulatory compliance. Many organizations lack clear frameworks for digital governance to protect privacy and maintain public trust in the GenAI era. Although recent national guidelines indicate a move toward data-driven governance, they have not yet been fully implemented in executive and institutional decision-making. This has led to unclear accountability and weak oversight of advanced digital systems [8].

[6] notes that digital projects are often seen only as technical ICT tasks rather than as governance processes, which widens gaps in privacy protection and accountability. [25] rather than that these problems affect organizations at both national and local levels and directly impact citizens whose personal data and interactions with government are now often managed through digital and AI-enabled platforms. GenAI poses new governance challenges because it is not transparent, produces probabilistic results, and can make inferences. These features make it harder to comply with the Protection of Personal Information Act (POPIA) and can erode public trust [26]. This study addresses this need by exploring how South African organizations can improve digital governance to better protect privacy and maintain trust in the GenAI era.

4. Literature Review

Research on digital governance covers various institutions such as Health, Education, and many public organizations. Nevertheless, discussions on digital governance frequently focus narrowly on compliance instead of viewing it as a dynamic tool for rebuilding trust. This research is going to cover the transformation of data governance to digital governance from different perspectives and its adoption in public sectors while ensuring compliance to data privacy in digital platforms.

[27] conducted a case study on Gambia to examine the integration of metaverse technologies into the country's digital governance. The study employed a qualitative methodology, using semi-structured interviews with 15 IT professionals in The Gambia. Purposive and snowball sampling techniques were applied, and the research also included a review of 2 key government documents to establish a foundational understanding of Gambia's digital governance context and its aspirations for digital transformation. Thematic analysis was conducted on the interview data using NVivo software. The findings underscore the necessity for substantial improvements in digital infrastructure, literacy, ethical guidelines, and policy frameworks. Due to the distance between the researchers and Gambia, online interviews were conducted, limiting participant diversity and the depth of insights. The study recommends future research with a broader sample, employing a multi-stakeholder framework and hybrid data collection methods.

[28] conducted a study to investigate the integration and implementation of digital technologies in public service delivery, focusing on the challenges, strategies, and impacts of digital transformation. The study adopted a similar qualitative methodology, with a smaller sample of 10 participants, and conducted semi-structured interviews with key informants from various government departments. Thematic analysis was

performed following Braun and Clarke's six-phase framework, which involves identifying, analysing, and reporting patterns within the data. The findings indicate that digital initiatives, such as digitizing payment systems and human resource processes, have significantly improved efficiency, transparency, and service delivery.

[6] in parallel with the studies by [27] and [28], investigated the transformation of government services in South Africa's public sector. The study employed a qualitative research approach, collecting data through 12 virtual semi-structured interviews. The sample size was not predetermined, as data collection continued until data saturation was achieved. Participants were purposively selected based on their roles in making IT decisions and using IT to interact with both internal and external clients.

[29] evaluated the implementation and effectiveness of digital governance within the Smart Governance Program in Makassar City, Indonesia. The study utilized a qualitative approach, incorporating semi-structured interviews with 20 local government officials from the Department of Communication and Informatics, as well as document analysis and observations. Data analysis followed a thematic and interpretative framework, guided by the interactive model of [30]. The findings indicate that, although the Smart Governance Program has enhanced accessibility and introduced innovative digital services, it is constrained by fragmented infrastructure, uneven bureaucratic adaptation, and limited citizen responsiveness. The coexistence of manual and digital systems signifies a transitional bureaucracy, and participation mechanisms often operate symbolically rather than substantively. Trust and inclusivity are identified as critical factors influencing the success of digital governance.

[31] examined students' perceptions and experiences regarding digital governance in higher education. The study employed a qualitative research method, collecting data from 30 master's and PhD students through semi-structured interviews conducted virtually via email. Content analysis was performed using a three-stage inductive process as described by [32]. The findings reveal varying levels of familiarity with digital governance, often associated with e-government and efficient decision-making, but indicate a general lack of deep understanding despite its increasing significance. The authors recommend that future research should include faculty and administrative staff to broaden the scope.

[33] investigated the adoption and use of e-government tools by South African metropolitan municipalities. The study found that factors such as continuous website access, political support, public internet availability, shared applications, skilled professionals, robust communication infrastructure, modern technology, and public-private partnerships are essential for promoting e-government adoption. A qualitative research approach was used, involving semi-structured interviews with 12 metropolitan executives from three regions in Gauteng, South Africa. Thematic data analysis was conducted using the ATLAS.ti software tool.

[34] explored the impact of digital transformation on governance and financial accountability in micro, small, and medium enterprises (MSMEs) in Banten, Indonesia. The study employed a qualitative interpretive case study approach, conducting semi-structured interviews with 18 MSME owners and managers. Thematic analysis was used to analyse the data. The findings indicate that digital transformation is primarily adopted as a pragmatic response to operational needs, resulting in improved financial visibility, transaction traceability, and internal accountability. The study suggests that future research should employ comparative

or longitudinal designs to examine the evolution of digital transformation and governance across different regions and sectors.

[35] examined citizens' perceptions and experiences of digital public services in Nigeria, focusing on the socio-technical dynamics influencing trust, access, and institutional transformation. The study utilized a qualitative research approach, conducting semi-structured interviews with 27 participants from urban and semi-urban areas. Data were coded thematically following Braun and Clarke's (2006) six-phase framework. The findings reveal that citizen trust in digital governance is shaped not only by usability and efficiency but also by perceptions of accountability, data surveillance, equity, and institutional intent.

[36] examined the role of the ASEAN Digital Masterplan 2025 (ADM 2025) in shaping Indonesia's digital economic growth from 2021 to 2024, emphasizing its function as a regional digital governance framework. Unlike previous studies, this research employed a qualitative method, conducting a semi-structured interview with a former Ministry of Communication and Information Technology staff member with direct experience in digital literacy and community-based digital transformation programs. Additional data were collected from official documents and reports. Data analysis followed the framework of [37]. The findings demonstrate that ADM 2025 supports Indonesia's digital economic growth by fostering regulatory coordination and institutional coherence between ASEAN-level commitments and national digital policies.

[38] introduced and theorized the concept of "complex digital bureaucracy" to explain the paradox of Qatar's digital transformation, characterized by advanced digital infrastructure alongside persistent bureaucratic inefficiencies and limited participatory governance. The study utilized a qualitative research approach, conducting 38 interviews, which represents a larger sample compared to other studies. Thematic data analysis was performed using NVivo software. The findings indicate that digital systems often reinforce hierarchical structures by centralizing control, entrenching siloed practices, and excluding third sector actors from co-production. The study concludes that effective digital governance requires not only technological adoption but also structural, legal, and cultural reforms.

5. Emerging Solutions for Trust and Privacy

The existing literature highlights a shift from passive compliance toward active, adaptive governance frameworks. Researchers recommend a multi-layered governance approach to mitigate privacy risks and restore trust which must be validated by conducting workshops and using expert validations methods such as engaging with experts like Chief information officers (CIO's), data protection officers, AI specialist and policy makers to review the framework [13]. Human-in-the-loop integration is proposed to address the black box liabilities associated with Section 71 of the POPI Act. Recent scholarship suggests that mandatory human validation for high-risk artificial intelligence decisions is necessary to ensure integrity and operational transparency [26]. Localized corporate frameworks that incorporate the forthcoming King IV principles require board members to establish specialized AI ethics committees, thereby bridging the gap between technical operations and executive governance. Additionally, enterprise-level deployment systems are recommended to circumvent cross-border data transfer restrictions. The literature further advises South

African enterprises to transition from public large language model (LLM) platforms to localized cloud environments, utilizing enhanced data protection measures and local infrastructure hosting.

6. Key findings

Synthesizing the literature exposes a critical disconnect in the current discourse in technical implementation overtakes regulatory evolutions. Meanwhile scholars are deeply documenting the risks of Generative AI to the POPIA compliance. At hand there remains a big shortage of empirical studies showcasing successful digital governance models that operates within low-capacity institutional environments, such as South African local municipalities. Furthermore, existing research focuses extremely on public sectors, leaving the unique privacy vulnerabilities of private service delivery largely unaddressed. This review confirms that until digital initiatives are elevated from isolated IT implementations to central governance pillars, accountability remains fractured, directly jeopardizing public trust.

7. Research gaps

Research gaps were identified from the current studies across Africa and Asia, and it shows there's little evidence about how key decision-makers in government understand and apply privacy and trust when working with GenAI [33]. The existing scholars demonstrate significant progress in digital governance and adoption but do not address privacy and trust issues when working with GenAI [6]. Current studies rarely center the perspective of the CIO's and policy makers whose decisions determine how GenAI is monitored and governed in practice [31]. Studies largely examine digital transformation and program effectiveness without detailing GenAI-specific privacy and trust mechanism required at the level of enterprise controls and live operation [6, 25]. By addressing these gaps, the study will generate a rich qualitative insight from the CIO, Policy makers and system owners on their current challenges and experience working with GenAI and produce a framework and policy that will ensure that GenAI systems are safe, ethical, trustworthy and transparent.

8. Conclusion

The findings indicate that in the era of Generative Artificial Intelligence, digital governance must shift from technology-centric approaches to comprehensive models that address institutional, ethical, and operational dimensions. While digital transformation advances, it is essential to develop governance frameworks in parallel to ensure accountability, trust, and organizational resilience. The evidence suggests that trust arises not solely from technological effectiveness but from coordinated governance practices that prioritize transparency, accountability, and ethical decision-making. Furthermore, existing methodologies are insufficient to address the complexities introduced by Generative Artificial Intelligence, particularly regarding algorithmic opacity, autonomous operations, and data privacy. These challenges underscore the need for adaptable strategies that incorporate institutional reforms, operational procedures, and technology-specific controls. Addressing governance challenges in the GenAI era, therefore, requires ongoing adaptation, cross-functional coordination, and the integration of governance mechanisms at all organizational levels to promote sustainable, ethical, and trustworthy digital transformation.

9. Recommendations, Limitation and Future work

The study recommends the development of digital governance framework to address specific GenAI privacy and trust challenges and the framework must be a combination of 2 to 3 current frameworks such as COBIT and Atlan frameworks together with the current policies and laws that currently regulates the use of personal information. The study is limited to South African organizations and on secondary data from existing literature and future work can extend the scope of the study beyond South Africa and conduct empirical and longitudinal studies to gain more insights on digital governance in the generative AI era.

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