Article Type: Theme - Transformational Artificial Intelligence in the Middle East and Africa

From Resistance to Readiness: Driving AI Adoption of Blue-Collar Workers

S. Kruger, *University of Pretoria, Pretoria, GT, 0002, SA*

Abstract— *While AI-driven technologies offer opportunities to improve efficiency and streamline government services, skepticism and job displacement concerns remain prevalent among frontline workers. Drawing on a survey of 205 respondents in quarter 4 of 2024, this study examines the factors driving AI resistance, the role of policy interventions, and the strategies available to bridge the digital gap for inclusive AI adoption in government in Africa. Findings show that blue-collar government employees have moderate awareness of AI's potential but strong resistance, driven by fears of redundancy, low AI literacy, and limited upskilling opportunities. Older workers appear more resistant, while younger employees seem more open to adoption. Although employees recognized AI's ability to improve service delivery, they opposed automation of routine tasks and criticized theoretical, non-practical training. The study recommends structured AI literacy and hands-on training programs, alongside a centralized governance framework to ensure ethical, context-sensitive adoption.*

Artificial Intelligence (AI) is driving economic growth and digital transformation across the globe [1]. The recent upsurge has been attributed to Generative AI (GAI), where users now have much easier access to adopt this technology in their everyday lives [2], [3]. Consequently, we are seeing use cases all around us, from managers to employees who are simplifying complex processes, facilitating decision-making, and enhancing service delivery [4]. We acknowledge that there are several keystone information and communication technologies (ICT) that must first be in place for this to occur such as Enterprise Architecture Frameworks (Zachman, FEAF, TOGAF, TEAF) [5]. Building on this base, emerging technologies associated with the Fourth Industrial Revolution (4IR) extend such system capabilities. For instance, Internet of Things (IoT) devices facilitate real-time data collection and feedback into the real world, enabling increased automation across business functions [6].

Despite the advances, Africa represents only 2.5% of the global AI market, but emerging applications could boost the continent's economic growth by US$2.9 trillion by 2030 [7]. This may be due to African nations lack of targeted strategies or regulatory frameworks that support AI uptake. However, there could be a bigger issue. For example, South Africa and Nigeria have ambitious ICT and e-Government strategies in place yet struggle to translate them into effective service delivery. This mirrors a broader pattern across African contexts, where even if formal frameworks do exist, progress is constrained by weak governance structures, limited resources, inadequate funding, and skills shortages, particularly at municipal and local levels [6], [8]. The central challenge to deliver on innovations such as AI, therefore, is not the absence of vision but the lack of constructive alignment between policy design context-sensitive implementation [5], [9].

To address this the African Union (AU) has drafted the *African Union Artificial Intelligence (AU-AI) Continental Strategy*, released in 2024. The South African government meanwhile has the *Artificial Intelligence Institute of South Africa (AIISA)* and the *Centre for Artificial Intelligence Research (CAIR)*. This has resulted in increased partnerships such as Microsoft, who in January 2025 committed to skilling one million people through AI in South Africa in 2025 towards digital

literacy enhancement, a future of work skill [10]. Such efforts align with research that shows regular internet users have higher digital literacy and resultant economic development, not to mention job opportunities, where 85% of employers globally are prioritizing technological literacy gaps [5], [11]. Yet, AI adoption due to infrastructure and funding constraints remains a concern on the continent [8]. What can we learn from other regions?

The Middle East has emerged as a global leader in AI, with Gulf Cooperation Council (GCC) nations, particularly Saudi Arabia and the United Arab Emirates (UAE), implementing aspiring AI-driven national strategies. The oil-rich Gulf states leverage their fiscal capacity to accelerate delivery, combining targeted reforms with large-scale energy investments that create dependable power for compute-intensive AI and smart-city systems [12]. In 2025, the UAE recorded the region's largest Energy Transition Index gain, where Saudi Arabia simultaneously achieved the fastest growth in renewable capacity in the Middle East, signaling sustained infrastructure to support AI adoption at scale [13]. This investment is due to AI's projected fiscal contribution of approximately US$320 billion to the Middle East's economy by 2030 [14]. The UAE has also institutionalized AI in governance by creating the world's first Ministry of AI and investing heavily in research and smart city initiatives. The government-backed Falcon AI model, developed in Abu Dhabi, demonstrates the region's innovation capacity, outperforming models from Meta and Google in selected benchmarks [2]. These investments are facilitating the UAE's transition to a knowledge-intensive economy, aligning it with global leaders such as Singapore and the United States [7].

By contrast, resource-constrained countries face a markedly different trajectory. Most African states have yet to publish AI strategies, with institutional and regulatory gaps limiting effective coordination and resource mobilization [13]. Energy fragility compounds the challenge where utilities struggle to recover costs, power blackouts remain common, and households frequently pay higher electricity prices [8]. Meeting continental energy goals requires around US$40 billion annually to 2030, with over two-thirds directed towards clean energy, financing levels far beyond the current reach of many low-income states [15].

Africa's economic powerhouses meanwhile occupy a middle ground demonstrating strong ambition yet constrained delivery capacity. Egypt and Nigeria are early adopters with published AI strategies, while South Africa operates as an "*AI integrator*" embedding AI within broader 4IR policies and its draft strategy [13], [16]. However, financial and energy constraints weigh heavily. The three powerhouses together account for roughly one-third of Africa's climate-energy financing gap, while their electricity systems remain dominated by fossil fuels [15]. Even so, momentum is visible as Nigeria recorded one of the fastest improvements globally in transition readiness reflecting advances in investment capacity, infrastructure, and regulatory frameworks that could underpin AI ecosystems if sustained [15].

These pathways underscore that "*ambition to finance to delivery*" alignment is decisive. Where sovereign wealth and policy certainty coincide, as in the GCC, AI can be mainstreamed quickly. Where resources are scarce, progress depends on phased governance, national AI strategies, grid and data-infrastructure upgrades, and de-risked capital inflows [7]. Figure 1 shows the comparative pathways of AI adoption across different economic contexts where GCC states show consistently high capacity and strategy maturity. Resource-constrained countries remain limited across all indicators, while South Africa, Egypt, and Nigeria convene in the middle with policies but uneven delivery capacity.

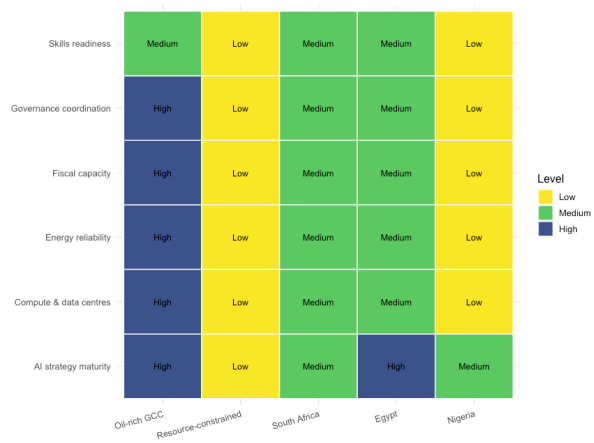

FIGURE 1. Comparative pathways of AI Adoption by Context rendered by author from [2], [7] & [12].

A major adoption barrier we as leaders, practitioners and officials need to be aware of is the perceived (but often real) threat that AI-driven automation has on traditional employment structures. Particularly for blue-collar workers (front-line personnel), who are engaged in repetitive, manual tasks. Roles such as clerical assistants, ticket clerks, and customer service representatives are among the most vulnerable to automation [4], [6], [17]. AI-related automation is projected to transform 58% of businesses, with significant declines expected in labor-

intensive roles. This further indicates that 41% of businesses anticipate workforce reductions due to AI, raising concerns about job displacement. At the same time, 69% of employers are actively recruiting AI-skilled talent, reflecting a shifting labor market that requires urgent workforce reskilling [18]. Over and above this we need to also think about AI's share of global power consumption in data centers, as this is expected to rise from 2% in 2024 to 10% by 2025 [3] not to mention its water usage.

Predictably, 85% of employers are looking to reskill. Universities play a crucial role in addressing this transformation [18]. As Kruger and Steyn [5] note, academic innovation mechanisms, such as AI labs and digital incubators, provide structured pathways for AI workforce development, ensuring that both existing employees and new graduates are prepared for AI-driven economies. However, without government-led workforce initiatives, many workers risk being left behind in the AI economy [19]. Furthermore, in African economic powerhouses such as South Africa, that despite having strong ICT hubs and research partnerships, continues to rely on fragmented, sector-specific AI initiatives and faces persistent funding gaps that hinder scaling [13]. Egypt's National AI Strategy projects a potential US$42.7 billion contribution to GDP by 2030 (7.7% of GDP), yet implementation has been slowed by infrastructure bottlenecks and workforce readiness constraints [13]. Nigeria, despite creating the National Centre for AI and Robotics, still struggles with significant weaknesses in ICT accessibility, R&D, and higher education, limiting its ability to translate strategy into effective adoption [13], [18]. Compared to the GCC constituents, which can leverage sovereign wealth to build energy infrastructure and AI ecosystems rapidly [14], [15], Africa's economic powerhouses must rely more heavily on partnerships, targeted policies, and incremental approaches to close delivery gaps [8].

At a government level then, AI-driven solutions and infrastructure development in parallel with workforce initiatives is needed [5]. Fortunately, there are tangible benefits that could stem from AI adoption. For instance, the South African government's AI Policy Framework of 2023 projects savings of up to US$9 billion annually through integrating AI into public administration. Though it acknowledges that bureaucratic resistance and funding constraints continue to slow digital transformation [16]. From this study's participants, we found that 50% of executives cite AI skills shortages as the primary barrier to adoption aligning with the World Economic Forum's (WEF) 2025 findings on global workforce readiness [11]. This reinforces the need for structured AI training [18]. Other studies have also been conducted with key findings reviewed in Table 1.

A government that fails to integrate AI into its own operations will struggle to support private sector AI initiatives, hindering overall economic progress [6], [20]. This is because governments continue to play a pivotal role in fostering AI adoption, not only through regulatory oversight but also by setting the standard for AI implementation.

In South Africa, AI is expected to significantly impact the labour market, with the International Monetary Fund (IMF) estimating that around 40% of South Africa's workforce (approximately 9.7 million jobs) are at risk due to AI automation. Women, especially those in retail and service industries, are likely to face higher exposure to AI-driven job displacement [16].

This study focuses on supporting the adoption of AI in government within an African context, particularly those who are often left behind. It is guided by three research questions. (1) What factors drive resistance to AI adoption among blue-collar government employees, and how do these shape their readiness for change? (2) How effective are existing training and HR-led upskilling initiatives in fostering AI readiness among government workers? (3) What policy and governance measures can enable inclusive AI adoption in government, ensuring technology augments service delivery rather than displacing workers?

The point is to help IT agents and digital transformation leads bridge the digital divide to take advantage of the opportunities and align with leaders in the field. We do so by looking at the perceptions of the underserved workforce in one of Africa's economic hubs, Johannesburg South Africa, as it is in one of the countries strongest ICT hubs with several fortune 500 companies in the city.

TABLE 1. Assessing AI in the workforce.

Study Focus Area and Date	Key Findings	Reference
Marketing and sales agents: 2023	51% were using GAI. 22% had plans to use it soon. GAI saves marketers more than 5 hours of work per week.	[21]
Workforce AI use in the US: 2024	22% of blue-collar workers have used generative AI in their jobs. AI adoption is above 20% across all major occupation categories except one.	[2]
Automation from a worker's perspective: 2024	9,000 workers across 9 countries found that workers perceive automation as having a positive net impact on safety and comfort (ranging from 29% to 48% net	[22]

	positive across different countries). Attitudes toward automation's impact on pay and job security were neutral to negative in countries like the U.S. (-1% impact on pay and -5% on job security), whereas workers in Poland reported the most positive impact (49% net positive on job security).	
Global skills taxonomy & AI in workforce: 2025	The lack of AI-related skills is a major barrier to adoption in governance and industry. AI literacy programs must be implemented for blue-collar and public sector workers to bridge the AI readiness gap.	[18]

METHODOLOGY

To address the questions the study used a cross-sectional, mono-method quantitative survey to examine attitudes toward AI among blue-collar government employees in a South African metropolitan. Guided by a pragmatist stance, the research was primarily deductive, drawing on the Technology Acceptance Model (TAM) to structure hypotheses and test relationships, while also incorporating limited abductive reflection to interpret unexpected findings. Data were collected during September to October 2024, following organizational permission and a pilot test to refine the instrument. To maximize inclusivity and avoid limiting participation due to digital access constraints, the survey was administered both electronically via Qualtrics and in paper format, yielding 245 responses, of which 205 were retained after cleaning. Reliability was assessed through Cronbach's alpha. Ethical approval was granted by the university of the researcher, with informed consent being attained from all participants and anonymity assured.

BLUE-COLLAR WORKER'S PERCEPTIONS OF AI

We found that acceptance of AI technology remains low, with respondents demonstrating a moderate awareness of AI's potential but strong resistance to its deployment in their workplace. The mean willingness to adopt AI was recorded at 2.37 (SD = 0.96), indicating widespread reluctance. While service delivery professionals and government managers exhibited moderate acceptance of AI-driven solutions, frontline workers were significantly more resistant to automation. Three key drivers of this skepticism are:

Job security fears: 41% of businesses anticipate workforce downsizing due to AI-driven automation, reinforcing fears that jobs will be eliminated rather than augmented. Low-skilled employees express the highest level of concern, as many perceive AI as a direct threat to their job stability rather than an opportunity for career growth. Conversely, workers with more complex job tasks are more positive about automation as shown by Armstrong et al (2025). For example, workers in jobs requiring complex problem-solving reported a net positive impact of automation on job security of up to 25%, compared to negative 8% for white workers with no college education in the U.S.

AI training deficiencies: While 69% of employers actively seek AI-skilled talent [18], our study found low levels of AI education among public sector workers, with AI literacy remaining a major barrier to adoption. Only 50% of government executives cited AI training as a priority, resulting in limited AI upskilling opportunities for blue-collar workers and a misalignment towards having needed talent.

Age-Related AI hesitancy: Older employees (aged 46 and above) exhibited the highest resistance to AI integration, citing concerns over technological complexity and lack of digital skills. The study found that younger employees (aged 18 to 35) were significantly more willing to embrace AI, suggesting that AI adoption may accelerate with generational workforce shifts. The distribution is shown in Figure 2.

Despite these concerns, we found that government some employees were not entirely opposed to AI. Workers acknowledged AI's ability to improve municipal services, streamline workflows, and enhance public engagement. However, they rejected AI-driven automation in routine jobs, preferring AI applications that complement rather than replace human labor.

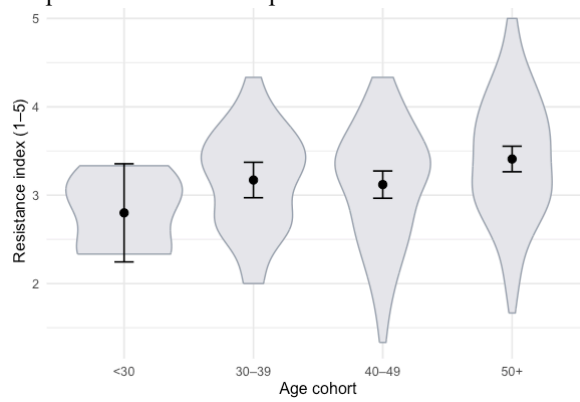

FIGURE 2. AI resistance by age from results.

HR SUPPORT FOR AI TRAINING AND WORKER WILLINGESS

A significant finding was the weak correlation between Human Resource (HR) support for AI training and

workforce readiness. While AI education and digital upskilling programs have been introduced in limited government agencies, they have not always resulted in greater worker confidence or increased AI adoption (correlation was recorded at $r = 0.447$ ($p < 0.05$), indicating a weak relationship). We investigated this further and found that employees who did attend reported that AI courses were too theoretical, lacked hands-on applications, and did not align with their job functions. Without practical AI skill-building programs tailored for public sector workers, AI adoption will remain slow and uneven. This aligns with other studies such as who noted despite heavy investments in ICT infrastructure for education, standardized test scores have not increased in direct proportion to classroom technology adoption.

AI RESISTANCE

Although many workers resisted AI-driven automation, we found that employees supported AI when it was used to enhance service delivery (mean score of 6.5272 (SD = 1.04302). However, customer satisfaction with AI-driven services received a lower mean score of 6.0955 (SD = 1.00565), suggesting skepticism about AI's ability to replace human customer service roles. Employees in government then are more accepting of AI when it improves service efficiency rather than replacing human-driven tasks. AI-driven innovations such as automated traffic management, predictive analytics for urban planning, and AI-powered administrative tools were viewed positively, whereas AI-driven job automation was widely rejected.

DEVELOPING READINESS

Government workforce resistance in this economic hub mirrors broader AI adoption challenges across African governments. Unlike Saudi Arabia and the UAE, where AI is embedded in national economic visions and governance strategies, African AI governance remains fragmented and uncoordinated resulting in AI skepticism [13]. Despite this, in a business context, Africa is rapidly expanding AI applications where over 2,400 AI-driven businesses now operate, and the GAI market is projected to grow from $0.89 billion in 2024 to $8.75 billion by 2028 [7].

A framework for addressing this challenge is to consider a "Global Skills Taxonomy", that provides a structured method for identifying essential skills, implementing targeted upskilling and re-skilling programs and incubators, and integrating AI into digital governance. These would include other 4IR aligned skills per several researchers such as analytical thinking, digital literacy, big data skills, cybersecurity, and adaptability, which are projected to be among the most in-demand future of work skills by 2030 [5], [11], [18], [20]. To this end, an AI literacy program could be tailored to different levels of technological proficiency, ensuring that employees, particularly older workers and those in routine administrative roles, can transition into AI-assisted functions rather than being displaced. The WEF Future of Jobs Report (2025) estimates that 39% of existing skills in the workforce will be outdated by 2030, reinforcing the urgency for workforce reskilling efforts.

This is not to say nothing has been done. Several African nations have already begun implementing national AI strategies to address workforce challenges and digital transformation. Nigeria's National AI Centre, for instance, focuses on fostering AI innovation while ensuring that AI adoption does not exacerbate existing employment inequalities. Similarly, Rwanda's AI Hub promotes AI research and workforce development, aiming to integrate AI literacy into public administration.

A key element though is aligning skills development with governance objectives. Governments must ensure that AI adoption is inclusive and equitable, preventing a scenario where only highly educated professionals' benefit from AI advancements while blue-collar and administrative workers are left behind. Workforce transition strategies should incorporate on-the-job AI training, apprenticeship programs, and AI mentorship initiatives, equipping employees with the skills required to operate in an AI-augmented environment. Sadly though, providing workers with more input on how automation is implemented does not always improve their perceptions [2].

DRIVING AI IN GOVERNMENT

Unlike the UAE, where AI is a national priority, South Africa's AI initiatives remain sector-specific and underfunded, limiting scalability and effectiveness. To address these challenges, an E-Government strategy needs to be implemented. First, AI adoption in municipal services should be incremental, with AI-driven solutions piloted in traffic management, automated citizen inquiries, and urban planning while limiting large-scale automation to prevent job losses. Secondly, government employees must receive AI training and reskilling to build AI literacy, enabling them to work alongside AI rather than fear displacement. This can be ideally done through hubs or centers that take the lead, and the responsibility. Finally, strengthening public-private collaboration through partnerships with academic institutions and AI

firms can support AI-driven service improvements and innovation.

Governments actively supporting research and development initiatives through funding and policy frameworks have seen positive innovation spillovers. For instance, Hong Kong allocated $250 million in 2011 to its Composite IT Grant for schools, and Singapore invests up to 2% of its GDP in industry-linked research, supporting the growth of its digital economy. Public-private partnerships are then essential in this endeavor, with universities, AI research centers, and corporate stakeholders playing a pivotal role in offering AI training, certification programs, and hands-on workshops [5]. Such collaboration though requires differing execution models. In the UAE, AI integration is government-led but closely aligned with private sector innovation. Institutions such as the *Abu Dhabi Advanced Technology Research Council (ATRC)* and the *Dubai Future Foundation* collaborate with tech firms and AI startups to develop AI-driven public services. Meanwhile, South Africa relies more on academic partnerships through institutions like the *AIISA* and the *CAIR*. These entities collaborate with universities to drive AI research and policy development.

Amid all these efforts, it is worthwhile noting the countries water concerns, where if AI is taken up, it should note such implications. For instance, the global AI industry could require 4.2 to 6.6 billion cubic meters of water annually by 2027, exceeding the entire annual water withdrawal of Denmark as shown by Kshetri [3]. Furthermore, in 2022, Microsoft's water consumption rose by 34%, mainly due to increased AI workloads in its data centers running models like ChatGPT [3].

CONCLUSION

The future of AI in public service delivery depends on a balanced approach that integrates structured policies, workforce education, and ethical AI governance. While AI presents immense opportunities, its success hinges on ensuring digital inclusion and mitigating worker resistance.

Findings indicate that AI resistance in the public sector is primarily driven by concerns over job displacement, lack of clear policy direction, and inadequate targeted and effective training. Despite AI's potential to streamline governance, lower-level employees, particularly older workers, remain skeptical due to fears of redundancy and lack of human oversight. AI training programs, while available, often fail to address these concerns effectively, highlighting the need for targeted education initiatives that focus on human-AI collaboration rather than full automation.

The UAE's AI-driven governance model offers a roadmap for South Africa and its counterparts on the continent towards an effective AI adoption strategy. A well-defined AI governance framework, structured workforce upskilling, and strong public-private collaboration have allowed the UAE to integrate AI into public services. South Africa can accelerate its AI transformation by implementing a centralised AI policy, embedding AI literacy in government training programs, and expanding partnerships with AI firms and research institutions.

Future AI trends in governance will emphasize human-AI collaboration, often referred to as Industry 5.0, where automation supports rather than replaces human workers. African governments can transition from resistance to readiness by aligning AI adoption with workforce development strategies. Part of this will be ensuring cohesive ecosystems on an organizational level.

If we take the right actions now, we can ensure a digitally empowered public sector, supported by clear governance policies and inclusive AI strategies, that can drive service delivery improvements while supporting businesses.

This study is subject to certain limitations that should be acknowledged. First, the data were collected within a single metropolitan context, using non-probability sampling, which restricts the extent to which the findings can be generalized to other regions or public-sector environments. Second, while the use of both electronic and paper-based surveys enhanced inclusivity and mitigated access barriers, the reliance on self-reported data introduces the possibility of response bias, and the quantitative survey design limited the ability to capture contextual nuances underlying employees' perceptions and resistance to AI adoption.

ACKNOWLEDGMENTS

TBA

REFERENCES

[1] C. S. Saba and N. Monkam, "Leveraging the potential of artificial intelligence (AI) in exploring the interplay among tax revenue, institutional quality, and economic growth in the G-7 countries," *AI Soc*, 2024, doi: 10.1007/s00146-024-01885-4.

[2] National Bureau of Economic Research, "Workplace Adoption of Generative AI," 2024. Accessed: Jan. 30, 2025. [Online]. Available: https://www.nber.org/digest/202412/workplace-adoption-generative-ai

[3] N. Kshetri, “The Environmental Impact of Artificial Intelligence,” *IT Prof*, vol. 26, no. 3, pp. 9–13, May 2024, doi: 10.1109/MITP.2024.3399471.
[4] S. Wang, Y. Xiao, and Z. Liang, “Exploring cross-national divide in government adoption of artificial intelligence: Insights from explainable artificial intelligence techniques,” *Telematics and Informatics*, vol. 90, 2024, doi: 10.1016/j.tele.2024.102134.
[5] S. Kruger and A. A. Steyn, “Developing breakthrough innovation capabilities in university ecosystems: A case study from South Africa,” *Technol Forecast Soc Change*, vol. 198, Jan. 2024, doi: 10.1016/j.techfore.2023.123002.
[6] G. Papageorgiou, V. Sarlis, M. Maragoudakis, and C. Tjortjis, “Enhancing E-Government Services through State-of-the-Art, Modular, and Reproducible Architecture over Large Language Models,” *Applied Sciences (Switzerland)*, vol. 14, no. 18, 2024, doi: 10.3390/app14188259.
[7] S. Malik, “GSMA report highlights AI’s potential for Africa’s growth,” capacity. Accessed: Jan. 30, 2025. [Online]. Available: https://www.capacitymedia.com/article/2di4plxkimu28xxf8bawx/news/gsma-report-highlights-ais-potential-for-africas-growth?utm_source=chatgpt.com
[8] A. Enaifoghe and N. Ndebele, “Examining the barriers to the adoption and integration of information communication technologies as e-Government in Africa,” *International Journal of Research in Business and Social Science (2147- 4478)*, vol. 12, no. 7, pp. 383–393, Oct. 2023, doi: 10.20525/ijrbs.v12i7.2723.
[9] M. Gerlich, “Brace for Impact: Facing the AI Revolution and Geopolitical Shifts in a Future Societal Scenario for 2025–2040,” *Societies*, vol. 14, no. 9, 2024, doi: 10.3390/soc14090180.
[10] J. Boltt, “Microsoft commits to skilling one million people for digital skills through Artificial Intelligence skilling initiative in South Africa.” Accessed: Jan. 30, 2025. [Online]. Available: https://news.microsoft.com/source/emea/features/microsoft-south-africa-launches-ai-skilling-initiative-to-train-1-million-people-by-2026/
[11] World Economic Forum, “Future of Jobs Report,” 2025. [Online]. Available: www.weforum.org
[12] A. I. Alzarooni, S. M. Alhashmi, M. Lataifeh, and J. Rice, “Navigating Digital Transformation in the UAE: Benefits, Challenges, and Future Directions in the Public Sector,” *Computers*, vol. 13, no. 11, 2024, doi: 10.3390/computers13110281.
[13] Deloitte, “AI for Inclusive Development in Africa,” 2024.
[14] PwC, “The Potential Impact of AI in the Middle East,” 2018. Accessed: Aug. 28, 2025. [Online]. Available: https://www.pwc.com/m1/en/publications/documents/economic-potential-ai-middle-east.pdf
[15] World Bank Group, *Africa’s Pulse, No. 27, April 2023 : Leveraging Resource Wealth During the Low Carbon Transition*. The World Bank, 2023. Accessed: Aug. 28, 2025. [Online]. Available: https://documents1.worldbank.org/curated/en/099042004042350917/pdf/IDU-fc9beef6-70b0-4c7b-be50-c03868252a3f.pdf
[16] Department of Communications & Digital Technologies (DCDT), “AI National Government Summit: South Africa’s Artificial Intelligence (AI) Planning,” 2023.
[17] M. S. Khan, A. Shoaib, and E. Arledge, “How to promote AI in the US federal government: Insights from policy process frameworks,” *Gov Inf Q*, vol. 41, no. 1, 2024, doi: 10.1016/j.giq.2023.101908.
[18] World Economic Forum, “Global Skills Taxonomy Adoption Toolkit: Defining a Common Skills Language for a Future-Ready Workforce A data-driven approach,” 2025.
[19] V. Gumenyuk, A. Nikitin, O. Bondar, I. Zhydovtsev, and H. Yermakova, “The role and significance of state-building as ensuring national security in the context of artificial intelligence development,” *AI Mag*, vol. 46, no. 1, 2025, doi: 10.1002/aaai.12207.
[20] I. Mainardi, “Change management: artificial intelligence (AI) at the service of public administrations,” *AI Soc*, 2025, doi: 10.1007/s00146-024-02136-2.
[21] salesforce, “New Research: 60% of Marketers Say Generative AI will Transform Their Role, But Worry About Accuracy,” 2023. Accessed: Jan. 30, 2025. [Online]. Available: https://www.salesforce.com/news/stories/generative-ai-for-marketing-research/
[22] B. Armstrong, V. K. Chen, A. Cuellar, A. Forsey-Smerek, and J. Shah, “Automation from the worker’s perspective: How can new technologies make jobs better?” 2024.

ANON