

The Need for AI Policies in African Universities: Evidence from Built Environment Students' Perspectives

Oluibukun Gbenga AJAYI, Namibia and Abidemi Gideon ALEJI, Nigeria

Keywords: AI policy, African universities, Built Environment education, educational governance, AI chatbots, policy development, higher education

SUMMARY

The rapid proliferation of Artificial Intelligence (AI) chatbots in higher education has created an urgent policy vacuum in African universities. This study examines the perceptions of Built Environment students regarding the use of AI chatbots and reveals a critical disconnect between widespread student adoption and institutional governance frameworks. Through descriptive statistical analysis of survey data, we document that 74% of students already use AI chatbots for academic purposes, with predominantly positive perceptions ($M = 3.74$, $SD = 0.75$) and strong beliefs in their learning support capabilities ($M = 4.06$, $SD = 0.69$). However, students report minimal institutional guidance ($M = 2.59$, $SD = 1.37$), exposing a governance gap that threatens academic integrity, educational equity, and effective pedagogy. A continental scan reveals that while South African universities, such as the University of the Witwatersrand, the University of Cape Town, the University of Pretoria, and the University of Johannesburg, have developed AI guidelines since 2024, most African institutions lack formal AI policies, despite high usage rates among students. This policy vacuum contrasts sharply with developments in the United States, where nearly 70% of universities have adopted written AI policies or guidelines. This paper argues that African higher institutions must urgently develop comprehensive and contextually appropriate AI governance frameworks to harness the educational benefits while mitigating ethical risks. We present evidence of the current state, analyse the consequences of policy inaction, and propose a roadmap for institutional AI policy development tailored to African higher education contexts.

The Need for AI Policies in African Universities: Evidence from Built Environment Students' Perspectives

Oluibukun Gbenga AJAYI, Namibia and Abidemi Gideon ALEJI, Nigeria

1. INTRODUCTION

1.1 The AI Revolution in Education

Generative Artificial Intelligence (GenAI), particularly conversational AI chatbots such as ChatGPT, Claude, Google Gemini, and others, has fundamentally disrupted global higher education since late 2022 (Kasneci et al., 2023; Dwivedi et al., 2023; Ajayi, 2024). The African Union reports a 270% increase in AI-related searches in Africa over the past year, with research indicating that 27% of Kenyans use ChatGPT on a daily basis. These technologies offer unprecedented opportunities for personalized learning, instant feedback, and democratized access to knowledge. However, their rapid adoption has outpaced institutional readiness, creating what scholars describe as a "governance crisis" in higher education (Chan & Hu, 2023; Sullivan et al., 2023).

Within Built Environment disciplines encompassing architecture, building science and construction management, surveying and geoinformatics, quantity surveying, rural and urban planning, and estate management and property studies, AI chatbots present both transformative potential and significant risks. Students can access instant explanations of complex technical concepts, receive feedback on design proposals, and enhance their academic writing. Yet, without clear governance frameworks, institutions face challenges in maintaining academic integrity, ensuring equitable access, and preparing students for responsible AI use in professional practice (Regona et al., 2022).

1.2 The African Context

African higher education operates in a unique context characterized by resource constraints, large student populations, digital infrastructure challenges, and the imperative of addressing historical inequities (Czerniewicz & Brown, 2013). Recent reports indicate that while AI use is growing among African students and faculty, most institutions lack clear frameworks, unlike in the United States, where nearly 70% of universities have written AI policies, according to a 2023 survey. A May 2025 webinar organized by the South African Higher Education Learning and Teaching Association revealed that only a few South African universities, including the University of the North-West, the University of Johannesburg, and the University of the Western Cape, had begun developing institutional AI policies and guidelines for learning and teaching. In Kenya, none of the public universities have official AI policies, though some offer AI-related programs. This policy vacuum exists despite evidence of widespread student adoption across the continent.

The Continental AI Strategy endorsed by the African Union Executive Council in July 2024 underscores the need for harmonized national AI strategies and calls for supporting member

states in developing governance frameworks (African Union, 2024). However, a 2025 policy review found that over half of African countries have national AI strategies; yet, only a handful, such as Egypt and Ethiopia, have transitioned from planning to tangible results, with most countries exhibiting "ambition without backbone." Given that Africa will represent over one-third of the global workforce by 2050, ensuring that African graduates can use AI ethically and effectively is not merely an institutional concern but a continental imperative.

1.3 Problem Statement

The disconnect between student AI adoption and institutional policy development creates multiple risks: academic integrity violations without clear standards, inequitable access to AI tools, missed opportunities for pedagogical innovation, inadequate preparation for AI-augmented professional practice, and potential exploitation by commercial AI providers. This study addresses three critical questions:

1. What is the current state of AI chatbot adoption and perception among African Built Environment students?
2. How significant is the institutional policy gap in supporting responsible AI use?
3. What are the implications for African universities, and what actions are urgently needed?

2. LITERATURE REVIEW

2.1 The Global AI Policy Landscape in Higher Education

The emergence of sophisticated generative AI in late 2022 prompted rapid policy responses from universities worldwide. By 2023, approximately 70% of U.S. universities had developed written AI policies, addressing issues such as acceptable use, citation requirements, and academic integrity (Trust et al., 2023). European institutions similarly moved to establish frameworks aligned with broader EU AI regulations (Kasneci et al., 2023).

These policies typically encompass several key elements: definitions of acceptable and unacceptable AI use across different assessment types, citation and disclosure requirements for AI-generated content, academic integrity provisions addressing AI-facilitated misconduct, guidelines for faculty integrating AI into pedagogy, and support structures including training and technical resources (Chan & Hu, 2023; Sullivan et al., 2023; Ajayi, 2024).

2.2 AI Adoption in African Higher Education

A systematic review of GenAI in African higher education found that studies are predominantly distributed across South Africa, Egypt, and Nigeria, with transformational teaching and learning, research enhancement, and the promotion of equity identified as major opportunities. Research documents the growing use of AI among African students for research, writing support, and study assistance (Baidoo-Anu & Ansah, 2023).

However, studies reveal that implementing this in South African higher institutions is not without challenges, including digital inequality, data privacy concerns, and ethical considerations. The disparities in technological infrastructure between well-resourced and historically disadvantaged institutions exacerbate existing inequalities.

2.3 The State of AI Policy in Africa

A 2025 review found that over half of African countries have national AI strategies, but only a handful, like Egypt and Ethiopia, have moved from planning to tangible results, with weak funding and lack of monitoring identified as key challenges. At the university level, the situation is even more concerning. Only a few South African institutions have published comprehensive AI guidelines, with the University of Johannesburg publishing practice notes and guidelines in January 2024, while North-West University drafted framework policies urging ethical and responsible AI use. The University of Cape Town adopted a university-wide framework in 2025, shifting its approach from AI detection software to process-oriented assessment.

Experts warn that African universities risk falling behind if they fail to adopt formal policies, with funding challenges cited as a significant barrier. However, the emphasis is placed on the reality that future job readiness will depend on how quickly institutions adopt new technologies.

2.4 Consequences of Policy Vacuum

The absence of institutional AI policies creates several documented problems which includes inconsistent standards applied by individual faculty members leading to confusion and perceived unfairness, students unable to distinguish legitimate AI use from academic misconduct, missed opportunities to leverage AI for pedagogical innovation, lack of support for faculty navigating AI integration, and potential widening of digital divides as wealthier students access premium AI tools (Rudolph et al., 2023; Perkins, 2023).

Critics note that without clear policies, institutions cannot discipline students for AI-related misconduct, stating, "You can't discipline a student unless there's a policy that pre-exists the practice".

2.5 Built Environment Education Specificity

Built Environment disciplines present unique AI policy considerations. These fields require the integration of technical knowledge, design thinking, and practical application; competencies that AI can support but not replace (Santos et al., 2017, Ajayi, 2024). Professional accreditation bodies increasingly expect graduates to demonstrate AI literacy alongside traditional competencies (Regona et al., 2022), thereby creating an additional imperative for universities to establish clear frameworks for integrating AI.

3. METHODOLOGY

3.1 Research Design and Approach

This study employed a quantitative descriptive survey design to examine Built Environment students' experiences with AI chatbots, while also documenting the institutional policy landscape through desk research. The dual approach enables us to demonstrate the gap between student adoption and institutional preparedness.

3.2 Student Survey Component

The study recruited students enrolled in Built Environment programs (architecture, construction management, surveying and geoinformatics, quantity surveying, urban planning, estate

management) at African higher institutions through convenience sampling. A structured questionnaire assessed participants' familiarity with AI chatbots using a 5-point scale, prior educational use through binary responses, and perceptions and attitudes through 5-point Likert scales. The instrument also measured perceived benefits and concerns, as well as awareness of institutional guidance. The survey was administered online between 2024 and 2025, with voluntary participation and informed consent. The student survey received institutional ethics approval, all data were anonymized, and informed consent was obtained from all participants. Descriptive statistics (mean, standard deviation, median, mode, range) were computed for all variables to establish patterns of adoption, perception, and institutional support.

It should be noted that convenience sampling limits the generalizability of survey findings for students. The rapidly evolving nature of AI policy means that findings reflect conditions at the time of data collection. Also, self-reported data may not fully capture actual usage patterns or institutional conditions.

3.3 Policy Landscape Review

A systematic review of publicly available institutional AI policies across African universities was conducted in October 2025. Search strategies and scope included:

- University website searches for AI policy documents
- Academic database searches for policy analyses
- Grey literature from higher education associations
- News reports on institutional AI policy developments

Countries reviewed included South Africa, Nigeria, Kenya, Ghana, Namibia, Egypt, Tanzania, Uganda, Ethiopia, Rwanda, and other African nations with established higher education systems.

4. RESULTS

4.1 Student Adoption and Familiarity

Table 1 presents descriptive statistics for all measured variables. Students reported moderate familiarity with AI chatbots (M = 3.06, SD = 1.03), with responses distributed across the full scale (Min = 1, Max = 5). This suggests varying levels of awareness and understanding within the student population.

Table 1: Descriptive Statistics for Student Perceptions and Experiences (N = 250)

Variable	Mean	SD	Median	Mode	Min	Max
Chatbot familiarity	3.06	1.03	3	3	1	5
Used AI in education	0.74	0.44	1	1	0	1
Perception of AI chatbots	3.74	0.75	4	4	1	5

Comfort using chatbots	3.67	0.94	4	4	1	5
AI supports learning	4.06	0.69	4	4	1	5
Positive attitude toward AI	3.74	1.07	4	4	1	5
Effective learning with chatbots	3.67	0.94	4	4	1	5
Writing improvement	3.49	1.07	4	4	1	5
Common use among students	3.66	1.09	4	4	1	5
Improved grades	3.40	1.01	4	4	1	5
AI is cheating	2.49	1.41	2	1	1	5
AI future concern	3.77	1.14	2	1	1	5
University guidelines on AI	2.59	1.37	2	1	1	5
AI against education	2.24	1.19	2	1	1	5
AI should be prohibited	1.90	1.20	1	1	1	5
Enhance learning extent	3.57	0.81	4	4	1	5

Binary variable: 0 = No, 1 = Yes; Scale: 1 = Strongly Disagree/Very Low, 5 = Strongly Agree/Very High

The most notable result is that 74% of students ($M = 0.74$, $SD = 0.44$) have already used AI chatbots in educational contexts, indicating that AI integration is not a future consideration but a current reality in African Built Environment education. This high adoption rate occurred organically, driven by student initiative rather than institutional implementation. Figure 1 visualizes the distribution of key variables, highlighting the contrast between high adoption/positive perceptions and low institutional guidance.

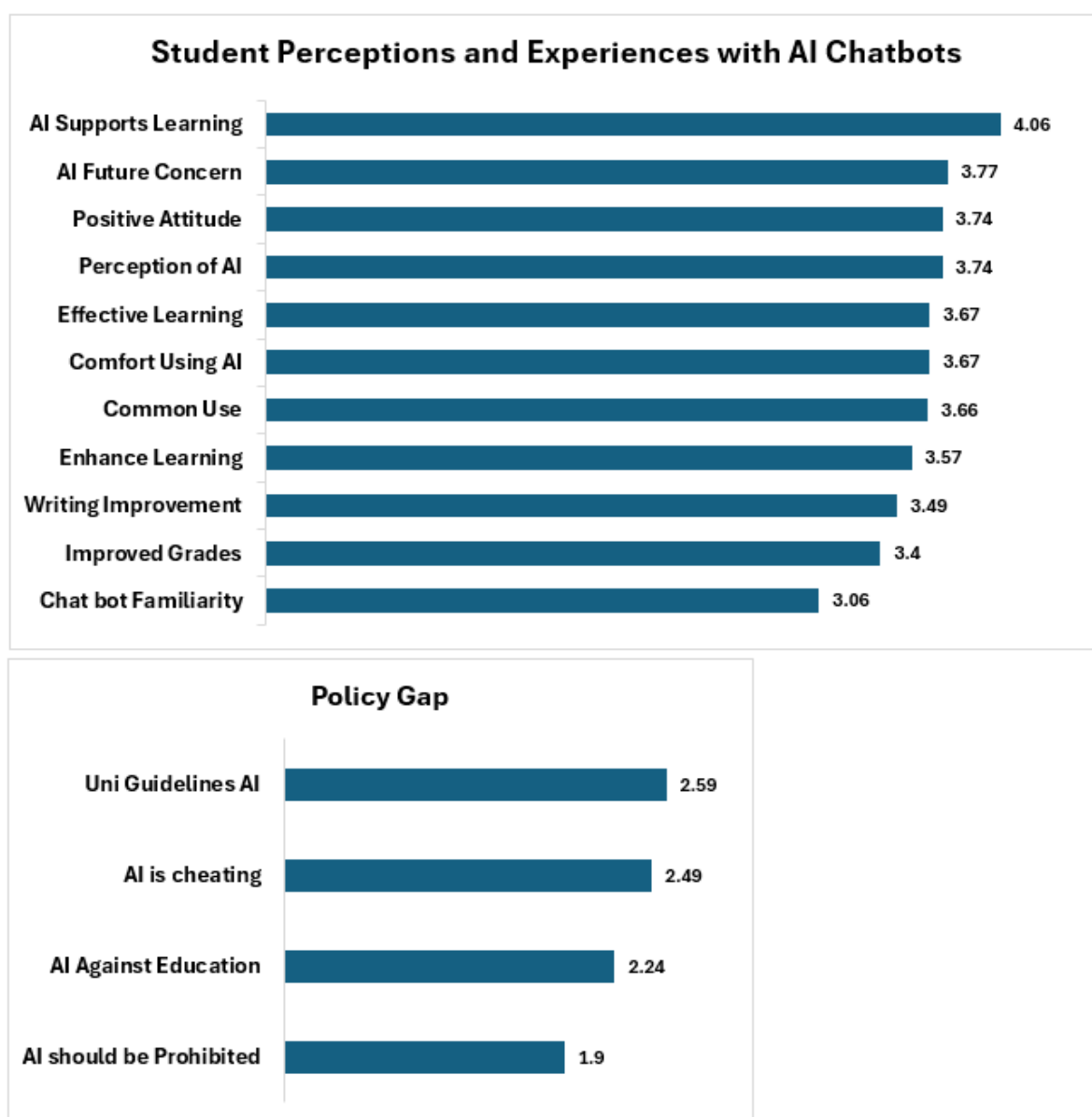


Figure 1: Student Perceptions and Experiences with AI Chatbots

4.2 Positive Perceptions and Perceived Benefits

Students demonstrated predominantly positive views of AI chatbots across multiple dimensions. Overall perception scored $M = 3.74$ ($SD = 0.75$), with mode = 4, indicating that most students hold favourable views. The strongest endorsement came for learning support ($M = 4.06$, $SD = 0.69$), the highest score across all measures, showing strong belief in AI's educational value. Students also reported genuine comfort with the technology ($M = 3.67$, $SD = 0.94$) and maintained consistently positive attitudes ($M = 3.74$, $SD = 1.07$).

Regarding specific perceived benefits, students reported that AI chatbots enhanced their learning effectiveness ($M = 3.67$), improved their academic writing ($M = 3.49$), and contributed to grade improvement ($M = 3.40$). The widespread perception of peer usage ($M = 3.66$) suggests

that AI integration has become normalized within the student community. When asked about AI's potential to enhance learning, students responded favourably ($M = 3.57$, $SD = 0.81$), reflecting optimism about future educational applications.

4.3 Ethical Concerns

Students showed moderate disagreement that AI use constitutes cheating ($M = 2.49$, $SD = 1.41$). The high standard deviation reveals diverse opinions; some students remain concerned about academic integrity, while others view AI as legitimate support. Similarly, students disagreed that AI undermines education ($M = 2.24$, $SD = 1.19$) or should be prohibited ($M = 1.90$, $SD = 1.20$), with mode = 1 for prohibition indicating strong opposition to restrictive policies.

However, students expressed moderate concern about AI's long-term educational impact ($M = 3.77$, $SD = 1.14$), demonstrating awareness of potential risks despite embracing current benefits. This suggests students seek guidance rather than prohibition.

4.4 The Critical Institutional Gap

The most significant finding is the contrast between high AI adoption and minimal institutional guidance. Students reported low awareness of university AI guidelines ($M = 2.59$, $SD = 1.37$), with mode = 1 indicating most students perceive no institutional guidance. This represents a 1.47-point gap between students' belief that AI supports learning ($M = 4.06$) and their awareness of institutional frameworks ($M = 2.59$).

As shown in Table 2, our review of AI policies across African universities reveals highly uneven progress:

Table 2: AI Policy Development in Selected African Countries (as of October 2025)

Country	Universities with Public AI Policies	Policy Development Status	Key Observations
South Africa	5-6 Institutions (WITS, UCT, UP, NWU, UWC)	Most advanced in Africa	Guidelines published 2024-2025; focus on teaching/learning/research
Kenya	No formal policies identified	National AI strategy exists (2024)	No institutional policies despite 27% daily ChatGPT usage
Nigeria	No formal policies identified	National strategy in development	High usage among students, no institutional frameworks
Ghana	No formal policies identified	National AI considerations	Google AI Research Centre present, but no institutional policies.

Egypt	Limited Information	National AI strategy (2021-2025)	Focus on national capacity, limited university-level policy
Tanzania	No formal policies identified	Limited policy activity	Growing student usage without institutional guidance
Uganda	No formal policies identified	Limited policy activity	AI legislation is under discussion nationally
Namibia	No formal policies identified	National AI strategy still in the pipeline.	AI Readiness Assessment Report launched.
Ethiopia	No formal policies identified	Strong national AI commitment	High national policy ranking, unclear university implementation
Rwanda	No formal policies identified	National AI strategy includes education	Guidelines exist nationally, but the university implementation is unclear
Other 45+ Countries	Minimal to no public policies	Varied stages of development	Most lack both national and institutional AI policies

5. DISCUSSION

5.1 The Scale and Urgency of the Policy Crisis

The policy landscape analysis reveals four critical patterns that underscore the urgency of the current situation. First, policy development is concentrated in South Africa, where several universities have published comprehensive guidelines on generative AI covering teaching, learning, and research. Second, a continental vacuum exists beyond South Africa, with formal university-level AI policies essentially absent across the rest of Africa. Third, a disconnect persists between national and institutional levels, as several countries have developed national AI strategies without corresponding university-level implementation. Fourth, the rapid timeline of policy emergence, with most existing policies appearing only in 2024-2025, indicates very recent institutional awareness of these challenges.

Our findings document a profound governance crisis in African higher education within the context of AI usage. With 74% of Built Environment students already using AI chatbots but perceiving minimal institutional guidance ($M = 2.59$), African universities face an urgent imperative to develop comprehensive AI policies. This is not a hypothetical future challenge, but a present reality that requires immediate action. The 1.47-point gap between students' belief that AI supports learning and their awareness of institutional frameworks represents a failure of educational governance that threatens both academic integrity and pedagogical innovation.

This contrasts sharply with the United States, where nearly 70% of universities have adopted written AI policies, and European institutions that have aligned with EU AI regulations (Trust et al., 2023; Kasneci et al., 2023). African universities risk falling further behind not only in global rankings but in educational relevance and graduate preparedness. The consequences extend beyond individual institutions to affect Africa's broader human capital development and economic competitiveness in an increasingly AI-driven global economy.

5.2 Understanding the Drivers and Consequences of Policy Inaction

The policy gap documented in this study arises from a confluence of structural, contextual, and institutional factors that collectively explain why African universities have been slow to respond to the AI revolution. Funding challenges represent a significant barrier, with many African universities operating under tight budgets that limit their ability to invest in digital infrastructure, staff training, or AI policy development (Czerniewicz & Brown, 2013). Policy development requires dedicated personnel, technical expertise, and stakeholder consultation, resources often unavailable in resource-constrained environments. This financial constraint is compounded by the rapid pace of technological change, as AI capabilities evolve faster than traditional policy-making processes. Universities accustomed to deliberative governance struggle to respond to technologies that transform on a monthly basis, creating policy paralysis as institutions wait for "stable" conditions that never arrive.

Beyond resource constraints, many African universities lack in-house AI expertise needed to develop informed policies. Unlike well-resourced institutions that can draw on computer science departments and educational technology centers, resource-constrained universities often lack the technical capacity to evaluate AI's implications. This expertise gap is exacerbated by competing institutional priorities, as African universities face multiple urgent challenges, including infrastructure deficits, enrollment pressures, funding shortfalls, and transformation imperatives. AI policy competes with these established priorities for leadership attention and institutional resources.

At the national level, while over half of African countries have developed national AI strategies, only a handful, like Egypt and Ethiopia, have moved from planning to tangible results, with most showing "ambition without backbone" due to weak funding and lack of monitoring. The absence of robust national frameworks leaves universities without guidance or resources for developing institutional policies, creating a vacuum at both national and institutional levels.

The consequences of this policy inaction cascade across multiple dimensions of academic life. Without clear policies defining acceptable AI use, universities are facing an increasing number of academic misconduct cases, often without established adjudication frameworks. As one South African academic noted, "You can't discipline a student unless there's a policy that pre-exists the practice. We're only waking up now, and I'm afraid the horse has already bolted." This presents legal and ethical challenges for institutions seeking to uphold academic integrity standards.

Educational equity represents another critical concern. The disparity in technological infrastructure between well-resourced and historically disadvantaged institutions exacerbates existing inequalities, potentially limiting the benefits of AI to a portion of the student population (Czerniewicz & Brown, 2013). Without institutional policies ensuring equitable access, AI may widen rather than narrow educational divides, contradicting the transformation imperatives that guide African higher education. Students from wealthier backgrounds can access premium AI tools and develop AI literacy, while their peers at under-resourced institutions fall further behind.

The policy vacuum also prevents systematic exploration of AI's educational potential. Faculty lack guidance on integrating AI into curricula, leading to inconsistent approaches that range from outright prohibition to uncritical acceptance (Chan & Hu, 2023). This inconsistency creates confusion for students who receive contradictory messages about AI use across different courses and departments. Students miss opportunities for structured AI literacy development, graduating without the critical competencies needed to use AI responsibly in professional contexts. For Built Environment disciplines, where professional accreditation bodies increasingly expect graduates to demonstrate AI literacy alongside traditional competencies (Regona et al., 2022), this preparation gap poses a threat to career readiness and professional competence.

Furthermore, in the absence of institutional AI provision and policy, students rely on commercial platforms with unknown data practices, privacy implications, and potential biases. Universities abdicate responsibility for ensuring safe, ethical AI access, leaving students vulnerable to exploitation by commercial providers whose interests may not align with educational values or student welfare.

5.3 Learning from Early Adopters and Charting a Path Forward

Despite the sobering landscape documented above, emerging practices from South African universities provide valuable lessons for continental policy development. These early adopters have experimented with different approaches, revealing both promising practices and cautionary tales that can inform policy development across Africa.

The University of Johannesburg has pioneered an integrated approach, embedding AI considerations into existing governance structures rather than creating parallel frameworks. This institution incorporated AI rules into its teaching and learning policies, academic misconduct codes, and research integrity guidelines, leveraging existing structures rather than creating new ones. This approach offers efficiency advantages for resource-constrained institutions, as it builds upon familiar frameworks and existing compliance mechanisms, rather than requiring entirely new policy infrastructure.

Successful policy development also requires genuine multi-stakeholder engagement, as demonstrated by the University of the Western Cape. This institution established a cross-campus task team comprising academics, professional support staff, IT specialists, and student representatives to draft practical AI guidelines. Pre-engagement workshops were held for each faculty member, ensuring that diverse perspectives informed policy development and

stakeholders gained buy-in for implementation. This inclusive process acknowledges that AI policy affects multiple constituencies and requires input from those who will implement and be governed by the frameworks.

Perhaps most significantly, the University of Cape Town has shifted away from AI detection software toward process-oriented assessment, acknowledging that "AI detectors are simply not reliable" and focusing instead on "assessing the process of learning, not just the product." This represents pedagogical innovation rather than technological enforcement, recognizing that effective AI integration requires rethinking assessment practices rather than simply policing student behaviour. This shift aligns with broader educational literature emphasizing authentic assessment and learning processes (Henderson et al., 2017).

Implementation support has emerged as equally important as policy development itself. The University of Johannesburg offers a peer-to-peer showcase series where lecturers demonstrate concrete examples of AI-enhanced pedagogy, helping faculty translate policy principles into classroom practice. Student and staff guides accompany formal policies, providing practical guidance for navigating AI use in different contexts. These examples demonstrate that policy success requires ongoing support structures, not merely document publication.

Student perspectives documented in this study reinforce the need for guidance-oriented rather than prohibitive approaches. Our findings reveal that students do not seek an outright prohibition of AI, but rather clear guidance on responsible use. The minimal support for prohibition ($M = 1.90$) combined with moderate concerns about long-term impacts ($M = 3.77$) suggests that students recognize AI as a reality that requires navigation rather than rejection. This sophisticated perspective, which embraces AI's benefits while recognizing concerns, should inform policy development across African institutions.

Students appear ready for frameworks that acknowledge AI's presence, establish appropriate boundaries, and provide support for effective use. Prohibitive approaches will likely prove ineffective and counterproductive, driving AI use underground rather than enabling responsible, transparent integration (Rudolph et al., 2023). Policies should, therefore, focus on developing AI literacy, establishing ethical principles, and supporting responsible integration rather than attempting to prevent AI use entirely.

The predominantly positive perceptions ($M = 3.74$) and strong belief in AI's learning support capabilities ($M = 4.06$) documented in this study suggest that thoughtfully developed policies will receive student support rather than resistance. This student readiness represents an opportunity for African universities to develop policies collaboratively with students, leveraging their enthusiasm while addressing legitimate concerns about equity, integrity, and professional preparation.

6. CONCLUSION

This study documents a critical governance crisis in African higher education: the widespread adoption of AI chatbots by students occurring in a near-total institutional policy vacuum. With 74% of Built Environment students already using AI for academic purposes yet perceiving

minimal institutional guidance, African universities face an urgent imperative to develop comprehensive, context-appropriate AI policies. The continental policy scan reveals that, beyond a handful of South African institutions that have developed guidelines since 2024, African universities across Nigeria, Kenya, Ghana, Egypt, and most other countries lack formal AI policies despite high usage rates among students. This contrasts sharply with the United States, where nearly 70% of universities have adopted written AI policies, placing African institutions at risk of falling further behind in educational relevance, graduate preparedness, and global competitiveness.

The consequences of continued policy inaction are severe. Universities face academic integrity challenges without adjudication frameworks, widening educational inequities as AI access remains uneven, missed pedagogical opportunities for systematic AI integration, inadequate preparation of graduates for AI-augmented professional practice, and vulnerability to commercial exploitation of students by AI platforms. These risks compound existing challenges in African higher education, threatening to exacerbate rather than address historical inequities.

However, our findings also reveal reasons for optimism. Students demonstrate sophisticated perspectives on AI, embracing its benefits while recognizing concerns, seeking guidance rather than prohibition, and showing readiness for frameworks that enable responsible use. The predominantly positive perceptions and strong belief in AI's learning support capabilities suggest that thoughtfully developed policies will receive student support rather than resistance.

Early adopters in South Africa provide valuable lessons for continental policy development. Integrated approaches that embed AI considerations in existing governance structures, multi-stakeholder engagement processes that ensure diverse input and stakeholder buy-in, pedagogical innovation focusing on process-oriented assessment rather than detection, and implementation support structures that translate policy into practice all represent promising pathways forward.

For Built Environment education specifically, AI policies must balance technological integration with the preservation of fundamental professional competencies, the formation of ethical principles for public safety responsibilities, and the cultivation of design thinking and collaborative practice skills that remain distinctly human. Professional accreditation requirements increasingly expect AI literacy alongside traditional competencies, making policy development not merely advisable but necessary for maintaining program relevance and graduate employability.

The African Union's Continental AI Strategy provides a framework, but implementation requires action at the institutional level, where teaching, learning, and research take place. With Africa projected to represent over one-third of the global workforce by 2050, ensuring that African graduates can use AI ethically and effectively is not merely an institutional concern but a continental imperative. Future job readiness depends on how quickly African universities adopt frameworks for the responsible integration of AI.

Universities can begin immediately by establishing AI policy task forces representing diverse stakeholders and adopting interim guidelines that acknowledge AI's presence while establishing preliminary boundaries. Within six to twelve months, institutions should develop comprehensive policies addressing acceptable use, citation requirements, academic integrity, pedagogical integration, and support structures. Over the course of two to five years, systemic transformation should embed AI literacy across curricula, develop faculty capacity, ensure equitable access, and continuously review policies in light of technological advancements.

Success requires multi-stakeholder engagement involving students, faculty, professional staff, and industry partners. Continuous policy review, acknowledging rapid technological change, must replace static frameworks. Regional collaboration to pool resources, share expertise, and develop contextually appropriate approaches can address capacity constraints facing individual institutions.

REFERENCES

African Union. (2024). Continental Artificial Intelligence Strategy. African Union Commission. Retrieved from <https://au.int/>

Ajayi, O. G. (2024). Harnessing AI Chatbots in Higher Education for Innovative and Ethical Advancements in the Built Environment. FIG Working Week 2024 Your World, Our World: Resilient Environment and Sustainable Resource Management for all. Accra, Ghana, 19–24 May.

https://www.fig.net/resources/proceedings/fig_proceedings/fig2024/papers/ts03a/TS03A_ajayi_12391.pdf

Baidoo-Anu, D., & Ansah, L. O. (2023). Education in the era of generative artificial intelligence (AI): Understanding the potential benefits of ChatGPT in promoting teaching and learning. *Journal of AI*, 7(1), 52-62. <https://doi.org/10.61969/jai.1337500>

Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20(1), 43. <https://doi.org/10.1186/s41239-023-00411-8>

Czerniewicz, L., & Brown, C. (2013). The habitus of digital "strangers" in higher education. *British Journal of Educational Technology*, 44(1), 44-53. <https://doi.org/10.1111/j.1467-8535.2012.01281.x>

Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., ... & Wright, R. (2023). "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 102642. <https://doi.org/10.1016/j.ijinfomgt.2023.102642>

Henderson, M., Selwyn, N., & Aston, R. (2017). What works and why? Student perceptions of 'useful' digital technology in university teaching and learning. *Studies in Higher Education*, 42(8), 1567-1579. <https://doi.org/10.1080/03075079.2015.1007946>

Kasneci, E., Seßler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., ... & Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103, 102274. <https://doi.org/10.1016/j.lindif.2023.102274>

Perkins, M. (2023). Academic integrity considerations of AI large language models in the post-pandemic era: ChatGPT and beyond. *Journal of University Teaching & Learning Practice*, 20(2), 07. <https://doi.org/10.53761/1.20.02.07>

Regona, M., Yigitcanlar, T., Xia, B., & Li, R. Y. M. (2022). Opportunities and adoption challenges of AI in the construction industry: A PRISMA review. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), 45. <https://doi.org/10.3390/joitmc8010045>

Rudolph, J., Tan, S., & Tan, S. (2023). ChatGPT: Bullshit spewer or the end of traditional assessments in higher education? *Journal of Applied Learning and Teaching*, 6(1), 342-363. <https://doi.org/10.37074/jalt.2023.6.1.9>

Santos, R., Costa, A. A., & Grilo, A. (2017). Bibliometric analysis and review of Building Information Modelling literature published between 2005 and 2015. *Automation in Construction*, 80, 118-136. <https://doi.org/10.1016/j.autcon.2017.03.005>

Sullivan, M., Kelly, A., & McLaughlan, P. (2023). ChatGPT in higher education: Considerations for academic integrity and student learning. *Journal of Applied Learning and Teaching*, 6(1), 31-40. <https://doi.org/10.37074/jalt.2023.6.1.17>

Trust, T., Whalen, J., & Mouza, C. (2023). Editorial: ChatGPT: Challenges, opportunities, and implications for teacher education. *Contemporary Issues in Technology and Teacher Education*, 23(1), 1-23.

<https://usaf.ac.za/institutional-ai-policies-and-guidelines-in-south-africa-for-learning-and-teaching/>

BIOGRAPHICAL NOTES

Oluibukun Gbenga Ajayi is an Associate Professor of Geoinformation Technology in the Department of Land and Spatial Sciences at the Namibia University of Science and Technology. He leads the Geospatial Intelligence Research Lab (GIRL) and serves as Research Coordinator for the School of the Built Environment, as well as Coordinator of the Master of Spatial Science programme. He also holds an extraordinary appointment in the Department of Geography, Geoinformatics and Meteorology at the University of Pretoria, South Africa. His academic work focuses on geospatial artificial intelligence and remote sensing applications, with a strong interest in applied research that supports planning, infrastructure, and environmental decision making. He has extensive university teaching experience, supervises postgraduate research, and

contributes actively to capacity development through interdisciplinary collaboration and academic leadership.

CONTACTS

Address: Department of Land and Spatial Sciences, Namibia University of Science and Technology, Windhoek, Namibia

City: Windhoek

COUNTRY: Namibia/ South Africa

Tel. +264813124631

Email: oajayi@nust.na /oluibukun.ajayi@up.ac.za

Web site: <https://febe.nust.na/oluibukun-gbenga-ajayi>

Gideon Aleji is the Head of the Survey Department at Gravitas Investments Limited, where he has worked for over five years, leading geospatial and surveying operations for large-scale real estate and infrastructure developments. He is also a practicing real estate consultant with experience in land acquisition, site analysis, and development planning. Gideon holds a First Class degree in Surveying and Geoinformatics and has strong expertise in GIS, remote sensing, and spatial data analysis for urban and property development projects. His professional interests include smart city planning, sustainable land management, and the integration of geospatial technologies in real estate investment and development.

CONTACTS

Address: No 10, Yusuf Close, Agidingbi, Ikeja, Lagos

City: Lagos

Country: Nigeria

Telephone: +2348068618000

Email: alejigideonabidemi@gmail.com

Web site: Nil