

Artificial Intelligence and Academic Integrity Challenges in African Higher Institutions: A Thematic Review of Emerging Misconduct and Institutional Responses

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ABSTRACT Artificial intelligence (AI), particularly generative AI, is reshaping higher education while creating new academic integrity challenges in Africa. This study examines emerging AI-related academic misconduct and the interaction between assessment practices, institutional governance, and digital inequality. A PRISMA 2020-informed thematic literature review was conducted on literature published from January 2021 to September 2026. Searches of Scopus, Google Scholar, ScienceDirect, and SpringerLink identified 209 records; after removing duplicates and screening, the review retained 49 publications for thematic synthesis. Guided by the Digital Ethics Framework, four interrelated themes emerged: AI-driven academic misconduct, assessment vulnerability, institutional governance challenges, and digital inequality. The synthesis indicates that AI-assisted plagiarism, fabricated references, ghost-writing, unauthorised collaboration, and undisclosed AI use expose limitations in conventional integrity and assessment mechanisms. Policy ambiguity, uneven institutional capacity, and unequal digital conditions further constrain effective responses. The study conceptualises AI-related academic misconduct as an interconnected institutional challenge rather than solely a student-behaviour problem. It highlights the need for context-sensitive AI governance integrating ethical AI literacy, assessment redesign, staff development, and equitable digital capacity-building.

Keywords: *Artificial Intelligence, Academic Integrity, African Higher Education, Digital Ethics, AI Governance*

ABSTRAK Kecerdasan buatan (AI), khususnya AI generatif, sedang membentuk ulang pendidikan tinggi sekaligus menghadirkan tantangan baru bagi integritas akademik di Afrika. Studi ini mengkaji pelanggaran akademik terkait AI yang muncul serta interaksi antara praktik penilaian, tata kelola institusi, dan ketimpangan digital. Tinjauan literatur tematik yang mengacu pada PRISMA 2020 dilakukan terhadap literatur yang diterbitkan dari Januari 2021 hingga September 2026. Pencarian di Scopus, Google Scholar, ScienceDirect, dan SpringerLink mengidentifikasi 209 catatan; setelah menghapus duplikat dan melakukan penyaringan, 49 publikasi dipertahankan untuk sintesis tematik. Dipandu oleh Kerangka Etika Digital, empat tema yang saling terkait muncul: pelanggaran akademik yang didorong oleh AI, kerentanan dalam penilaian, tantangan tata kelola institusi, dan ketimpangan digital. Sintesis tersebut menunjukkan bahwa plagiarisme berbantuan AI, referensi yang difabrikasi, penulisan oleh pihak lain (*ghostwriting*), kolaborasi tanpa izin, dan penggunaan AI yang tidak diungkapkan mengungkap keterbatasan mekanisme integritas dan penilaian konvensional. Ambiguitas kebijakan, kapasitas institusi yang tidak merata, dan kondisi digital yang tidak setara semakin membatasi respons yang efektif. Studi ini mengonseptualisasikan pelanggaran akademik terkait AI sebagai tantangan institusional yang saling terhubung, bukan semata-mata sebagai masalah

perilaku mahasiswa. Studi ini menyoroti kebutuhan akan tata kelola AI yang sensitif terhadap konteks yang mengintegrasikan literasi AI yang etis, desain ulang penilaian, pengembangan staf, dan pembangunan kapasitas digital yang setara.

Kata Kunci: *Kecerdasan Buatan, Integritas Akademik, Pendidikan Tinggi di Afrika, Etika Digital, Tata Kelola Kecerdasan Buatan*



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INTRODUCTION

Artificial Intelligence (AI) is rapidly transforming higher education worldwide by becoming increasingly embedded in teaching, learning, research, assessment, and administrative processes. The expansion of digital education following the COVID-19 pandemic has accelerated this transition, creating opportunities for personalised learning, knowledge production, research support, and institutional management. Within African higher education, AI applications have been reported in areas including student admission and enrolment, communication, academic supervision, research, innovation, staff development, and institutional administration (Adelakun et al., 2023; Balogun et al., 2025; Pang & Szliter, 2026). Generative AI platforms such as ChatGPT and other large language models have further expanded these possibilities by enabling users to generate text, summarise information, organise ideas, and undertake diverse academic tasks (Kasneci et al., 2023; Lo, 2023; Bozkurt, 2023). However, these capabilities also complicate established assumptions about academic integrity and institutional responsibility.

Academic integrity is grounded in honesty, accountability, originality, and responsible scholarly practice. Generative AI has nevertheless introduced forms of academic misconduct that conventional understandings of plagiarism capture less readily. The literature associates AI-enabled academic work with AI-assisted plagiarism, ghostwriting, fabricated references, unauthorised collaboration, and undisclosed AI use (Dwivedi et al., 2023; Feussi, 2026; Kasneci et al., 2023). Students may employ AI in assignments, essay writing, coding, paraphrasing, literature reviews, and project development without appropriate disclosure or authorisation (Chan & Hu, 2023; Dwivedi et al., 2023). Detection is further complicated because AI-generated text may be original in wording and therefore evade conventional plagiarism-detection systems designed primarily to identify textual similarity (Perkins, 2023; Tlili et al., 2023). Generative AI can also produce inaccurate or non-existent references, raising concerns about the credibility and verifiability of academic work (Day, 2023; Eke, 2023). These developments have consequently challenged institutions to reconsider not only misconduct detection but also the validity of existing assessment arrangements.

Assessment is central to this challenge because conventional higher education still relies heavily on essays, take-home examinations, and other unsupervised written tasks. The issue is therefore not simply whether students use AI, but whether existing assessment practices provide sufficient evidence of independent reasoning, knowledge, originality, and learning. Emerging scholarship consequently advocates assessment approaches that make students' reasoning and engagement more visible, including reflective tasks, oral examinations, supervised activities, and project-based assessment (Ncube et al., 2025). At the same time, institutional responses depend on policy clarity, staff capacity, ethical guidance, and the technological resources available to implement them.

This study uses the Digital Ethics Framework as an analytical lens, rather than treating it as a single uniform or universally prescribed framework. Digital ethics encompasses complementary principles concerning transparency, accountability, fairness, human

responsibility, human oversight, integrity, and responsible technology adoption in academic settings (Floridi & Cowls, 2019; Guenduez et al., 2025; Ashok et al., 2021; WHO, 2021; Latorre et al., 2025). UNESCO similarly emphasises transparency, accountability, fairness, and human-centred values in AI governance (UNESCO, 2021a, 2021b). Applied to academic integrity, these principles enable examination of who is responsible for AI use, whether its use is disclosed, how academic decisions are justified, and whether institutional responses account for unequal technological conditions. The framework therefore connects individual conduct with the wider governance, assessment, and capacity conditions within which AI is adopted. These conditions matter especially in African higher education, where institutions operate across diverse technological, socioeconomic, and organisational environments. Unequal access to connectivity, devices, technical expertise, AI tools, and digital literacy can affect not only students' engagement with AI but also institutions' capacity to develop policies, redesign assessment, train staff, and implement effective governance. Existing research identifies challenges relating to infrastructure, policy development, institutional readiness, and digital literacy across African higher education (Mhlanga, 2023; UNESCO). AI governance must therefore be understood in relation to institutional capacity and digital inequality rather than as a uniform regulatory task.

Recent African scholarship has begun to address AI readiness, academic integrity, assessment, ethics, and institutional governance (Guadu et al., 2025; Muringa, 2025; Naphiyo et al., 2026; Ncube et al., 2025; Sangwa et al., 2026). Rugeiyamu et al. (2026), for example, systematically examined higher education responses to AI and academic integrity in Africa. However, the literature remains fragmented across these domains. Less attention has been given to how AI-related misconduct, assessment vulnerability, institutional governance, and digital inequality operate as interconnected dimensions of a single institutional challenge. Existing global scholarship also tends to reflect better-resourced educational systems, limiting its capacity to explain how uneven institutional preparedness shapes AI governance in African contexts (Olohunfunmi et al., 2026; Guadu et al., 2025; Naphiyo et al., 2026; UNESCO, 2026).

This thematic literature review addresses this gap by synthesising literature published between 2021 and 2026 through four interconnected dimensions: emerging forms of AI-related academic misconduct, assessment vulnerabilities, institutional governance responses, and digital inequality. Its novel contribution lies not merely in documenting these issues, but in conceptually connecting them through a digital-ethics perspective to explain how technological change, assessment structures, governance capacity, and unequal digital conditions interact within African higher education. Rather than treating AI-related misconduct solely as an individual behavioural problem, the review conceptualises it as an institutional and ecosystem-level challenge requiring context-sensitive approaches to governance, assessment, AI literacy, staff development, and equitable digital capacity-building.

METHOD

This study adopted a thematic literature review informed by the PRISMA 2020 reporting framework (Page et al., 2021). PRISMA made the search, screening, and selection process transparent; however, this study is not a formal systematic review. We searched Scopus, Google Scholar, ScienceDirect, and SpringerLink for literature published between 2021 and 2026. The search combined terms related to artificial intelligence and generative AI with terms related to academic integrity, misconduct, plagiarism, assessment, governance, and African higher education. The search syntax was adapted to each database's requirements and repeated between March and September 2026.

The core search string combined the following conceptual groups: ("artificial intelligence" OR "generative AI" OR ChatGPT OR "large language model" OR "AI-assisted") AND ("academic integrity" OR "academic misconduct" OR plagiarism OR "academic dishonesty" OR assessment OR "research integrity") AND (Africa OR African OR Nigeria OR

“South Africa” OR Ghana OR Kenya OR “sub-Saharan Africa”). The search strategy aimed to capture literature that explicitly linked AI to integrity or assessment issues in African higher education, while the screening process removed studies that did not substantively address the review questions.

The initial search yielded 209 records. After removing 93 duplicates, 116 records remained for title and abstract screening. We excluded 67 records because they did not meet the relevance criteria, leaving 49 publications for full thematic synthesis. Figure 1 summarises the selection process. Because the available literature is unevenly distributed across African countries and institutional contexts, the synthesis focuses on patterns in the reviewed literature rather than claiming continent-wide empirical representativeness.

Screening involved title and abstract assessment followed by full-text examination. Publications were considered relevant when they addressed at least one of the following: AI or generative AI in higher education; academic integrity or misconduct; assessment practices; institutional governance or regulation; or digital inequality affecting AI adoption. We included studies published between 2021 and 2026 that addressed AI-related technologies, focused on higher education or tertiary learning, and provided substantive discussion or evidence relevant to the review questions. We excluded publications that focused exclusively on non-tertiary education, were unrelated to AI and academic integrity, or lacked sufficient relevance to the African higher education context. Given the literature’s heterogeneity, the review did not attempt to combine findings statistically. The PRISMA-informed flow diagram (Figure 1) presents the selection process.

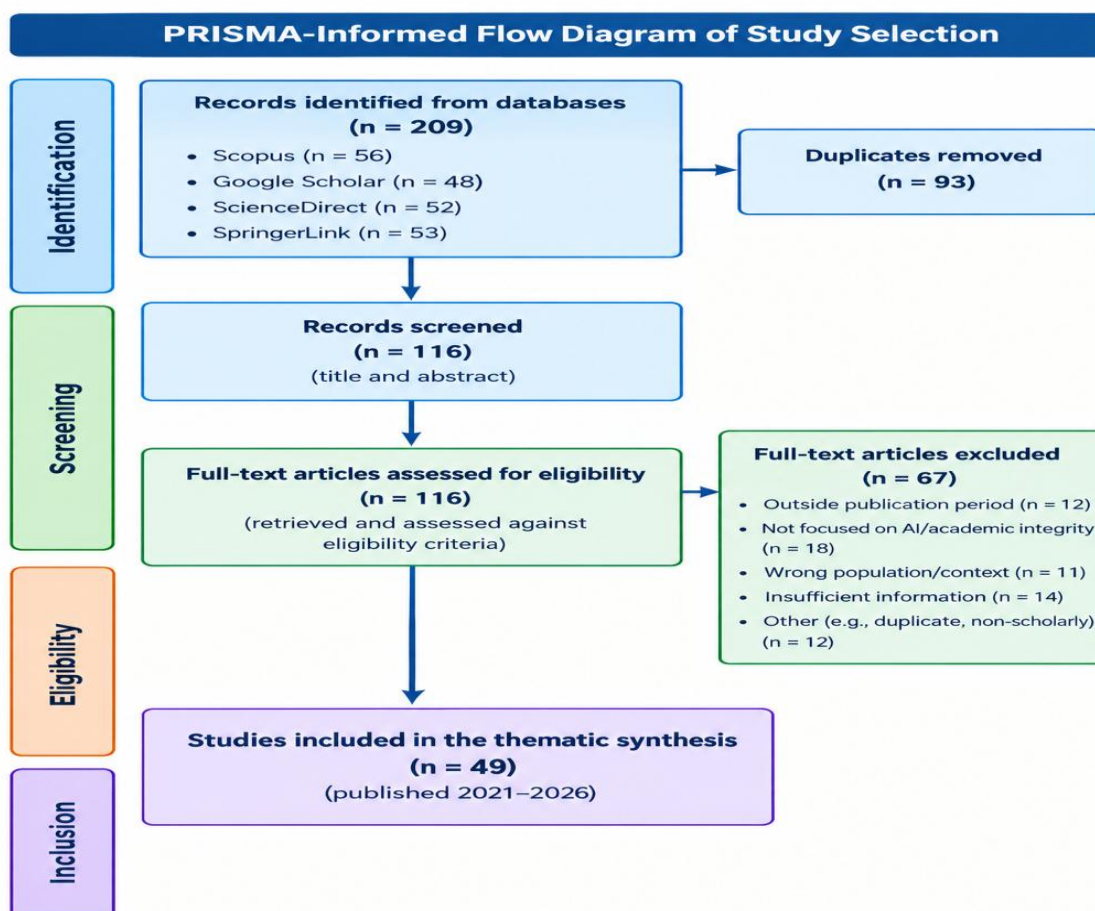


Figure 1. PRISMA-Informed Flow Diagram of Study Selection

Source: Authors’ construction based on the publications’ search and screening processes (2026)

Data were extracted using a structured matrix covering author, year, country or region, study purpose, research design, educational context, AI application, integrity concern, institutional response, and principal findings. The literature was then analysed thematically using the general procedures associated with Braun and Clarke (2006): familiarisation with the corpus, initial coding, identification of candidate themes, review and refinement of themes, and synthesis of the final thematic structure. Coding combined inductive attention to recurring findings with deductive attention to the ethical principles of transparency, accountability, fairness, responsibility, and human oversight. This hybrid approach kept the review grounded in the literature while examining how the findings relate to broader questions of digital ethics and AI governance. Four principal themes emerged: (1) emerging forms of AI-driven academic misconduct; (2) assessment vulnerabilities; (3) institutional governance and regulatory challenges; and (4) digital inequalities. Given the literature's heterogeneity, the authors synthesised findings narratively and thematically rather than statistically, focusing on convergent patterns, differences, and evidence gaps across African higher education contexts.

RESULT AND DISCUSSION

Result

The review analysed a final sample of key publications from the target literature pool (2021–2026) focusing on artificial intelligence and academic integrity in higher education. Temporally, the literature shows a sharp acceleration after the launch of ChatGPT, with most studies published between 2023 and 2026. Geographically, the literature centres heavily on key regional academic hubs: South Africa (e.g., Feussi, 2026; Mogoale et al., 2025a; Ayandibu, 2024), East Africa / Tanzania / Ethiopia (e.g., Guadu et al., 2025; Rugeiyamu et al., 2026), and West Africa / Nigeria (e.g., Olohunfunmi et al., 2026; Balogun et al., 2025; Adalakun & Adesua, 2026). The sample primarily focuses on generative AI governance, while the educational context is limited to African higher education institutions (HEIs), including public universities, specialised colleges, and regional distance-learning ecosystems.

Theme 1: Emerging Forms of AI-Related Misconduct

The rapid proliferation of generative artificial intelligence has fundamentally disrupted traditional academic integrity frameworks in higher education. By enabling the seamless generation of contextually relevant, grammatically coherent text, these technologies have shifted scholastic dishonesty from simple verbatim copying to sophisticated, automated synthesis. This technological evolution introduces unprecedented challenges for institutional evaluation, as conventional plagiarism detection mechanisms are largely unequipped to identify newly generated, non-replicated content (Perkins, 2023; Crompton & Burke, 2023; Adalakun et al., 2026). Consequently, the intersection of advanced machine learning and student assessment demands a critical re-examination of originality, intellectual ownership, and ethical scholarship (Perkins, 2023; Crompton & Burke, 2023).

Qualitative coding of the literature shows that generative AI has systematically reshaped academic dishonesty, introducing complex practices that challenge institutional evaluation. The literature identifies four interconnected forms of AI-related academic misconduct: AI-assisted plagiarism, in which generated text may evade conventional similarity detection (Perkins, 2023; Crompton & Burke, 2023); fabricated citations or “hallucinations,” involving non-existent references that undermine scholarly credibility (Day, 2023; Eke, 2023); AI-driven ghost-writing of essays, coding tasks, and projects (Cotton et al., 2023); and undisclosed or unauthorised AI

collaboration in assessments intended to measure independent work, raising concerns about transparency, accountability, and fairness (An et al., 2024; Zhai et al., 2024).

Theme 2: Assessment Vulnerabilities

The continuous expansion of generative artificial intelligence has exposed critical vulnerabilities within existing African higher education assessment systems. Traditional, unsupervised continuous assessments, such as take-home essays and open-book assignments, are highly susceptible to AI intervention because these tools produce contextualised, fluent, and grammatically accurate responses (Ncube et al., 2026; Giannakos et al., 2025; Kasneci et al., 2023; Zhai et al., 2024). Consequently, educators struggle to distinguish genuine student work from machine-generated content manually. This technological shift has intensified institutional debates surrounding the fundamental credibility of academic assessment and the value of independent scholarship. Furthermore, standard institutional plagiarism detection software faces major limitations in identifying this material. Because conventional systems were designed to flag duplicated text rather than entirely new content synthesised in real time, many AI-generated submissions pass through without being flagged (Perkins, 2023; Modiba et al., 2026; Mbandlwa et al., 2026; Tlili et al., 2023). By bypassing these historical database checks, the growing presence of artificial intelligence directly challenges long-standing academic assumptions regarding authorship, originality, and intellectual contribution (Mogoale et al., 2025b; Perkins, 2023; Tlili et al., 2023).

Theme 3: Institutional Governance and Regulatory Challenges

The widespread adoption of generative artificial intelligence has exposed significant governance and regulatory gaps across higher education institutions (Britchenko, 2025). Because many existing academic integrity frameworks were drafted before the deployment of consumer-facing large language models, they offer limited guidance on the ethical boundaries of automated tools. This policy obsolescence directly conflicts with global standards; for instance, UNESCO (2021) emphasises that responsible AI governance in education must actively promote accountability, fairness, transparency, and human-centred values. Despite these directives, universities globally still struggle to establish centralised frameworks that can adapt to rapidly changing technological realities.

These governance concerns are acutely pronounced within African higher education institutions (HEIs), where systemic challenges complicate institutional responses (Sangwa et al., 2025; Mhlanga, 2023). Literature reveals widespread policy ambiguity and limited institutional preparedness across the continent (Mhlanga, 2023). Because many African HEIs lack clear, centralised guidelines on acceptable AI use in teaching, learning, and research, enforcement has become fragmented and localised (Ohemeng-Boamah, 2026; Mhlanga, 2023). Consequently, individual lecturers must apply ad hoc, inconsistent standards independently. This absence of uniform directives creates profound operational uncertainty for students, faculty, and researchers alike, even as institutions increasingly recognise the educational potential of these tools (Mhlanga, 2023).

Theme 4: Digital Inequalities

A cross-cutting finding across the reviewed literature is that the deployment and regulation of artificial intelligence within African higher education institutions (HEIs) are heavily mediated by structural digital inequalities and severe infrastructural limitations (Adelakun et al., 2026; Lakhno, 2026; Woldegiorgis, 2026; Maluleke, 2025; Maimela & Mbonde, 2025). While generative AI provides valuable opportunities to expand educational resource access and support research productivity, systemic deficits, including unstable internet connectivity, electricity shortages,

restricted funding, and inadequate technological infrastructure, constrain its effective integration. Consequently, African HEIs' capacity to establish robust AI monitoring systems and governance frameworks remains highly uneven across the continent.

Crucially, these structural gaps manifest as an unequal distribution of digital literacy and governance capacity. Evidence from the literature shows that academic staff and students in African higher education institutions often have limited understanding of the ethical boundaries and implications of generative AI use, increasing the risk of unintentional misuse (Cabrera & Neville, 2025; Ayandibu, 2024; Muringa, 2025). Furthermore, well-resourced institutions are better equipped to acquire advanced AI detection software and implement comprehensive staff training. This creates a widening disparity between affluent and resource-constrained environments, ultimately undermining centralised efforts to promote uniform, ethical AI practices.

Discussion

The findings of this review suggest that the implications of generative artificial intelligence (AI) for academic integrity in African higher education extend beyond individual acts of misconduct to expose weaknesses within the wider institutional ecosystem. This interpretation matters because academic integrity depends not only on students' ethical conduct but also on institutions' capacity to establish credible assessment, governance, and accountability mechanisms. When assessment arrangements offer limited opportunities to assess independent student reasoning, institutional policies remain ambiguous, and staff capacity to respond to AI-assisted practices is uneven, sustaining the reliability of academic validation becomes increasingly difficult. This has broader implications for African higher education because universities play an important role in human-capital development, professional accreditation, research production, and socioeconomic transformation. Consequently, weaknesses in academic integrity affect institutional credibility and confidence in the qualifications produced by higher education systems.

The discussion also extends existing scholarship by shifting attention from the predominantly pedagogical debate about generative AI's opportunities to the structural conditions shaping its use in African higher education. Previous scholarship has documented generative AI's capacity to support academic writing, problem-solving, learning, and other educational activities, while also creating opportunities for new forms of academic misconduct (Dwivedi et al., 2023; Eke, 2023; Kasneci et al., 2023; Bozkurt, 2023; Perkins, 2023). Concerns surrounding authorship, originality, fabricated references, unreliable information, and inappropriate assistance are therefore well established. This synthesis argues that these concerns cannot be understood as isolated questions of student behaviour. Interactions among assessment design, institutional governance, staff capability, and unequal digital conditions shape their significance.

This interpretation challenges the assumption that digital transformation follows a uniform or linear trajectory. Introducing increasingly sophisticated AI systems into higher education does not automatically produce equivalent institutional responses. Instead, existing institutional arrangements and resource conditions mediate the consequences of AI adoption. In contexts where advanced AI tools coexist with conventional assessment structures, limited digital expertise, uneven connectivity, and developing governance frameworks, technological change can intensify existing institutional vulnerabilities. Digital inequality is therefore not simply an access problem affecting individual students; it also concerns the unequal capacity of higher education institutions to govern emerging technologies, redesign assessment, develop staff competencies, and implement responsible AI practices. This interpretation is consistent with scholarship on AI readiness in Sub-Saharan African higher education, where substantial

differences in institutional preparedness and digital capacity have been identified (Naphiyo et al., 2026).

The assessment dimension is particularly significant in understanding this institutional vulnerability. Existing scholarship has increasingly questioned the capacity of conventional assessment arrangements to establish students' independent learning in environments where generative AI can produce sophisticated written responses (Ncube et al., 2025). This does not mean written assignments are obsolete or inherently inappropriate. Rather, their evidentiary value may be reduced when they become the primary means of inferring independent reasoning, authorship, and learning without sufficient visibility into the learning process. Assessment therefore needs to place greater emphasis on opportunities for students to demonstrate reasoning, reflection, application, and disciplinary understanding. Reflective tasks, oral explanation, supervised activities, staged submissions, and project-based approaches can complement conventional written work by providing additional evidence of students' intellectual engagement. Such approaches align with a broader movement toward assessment practices that make learning processes more visible rather than relying exclusively on the authenticity of a final textual product.

The governance implications reinforce the need to locate responsibility at the institutional level rather than treating AI-related academic integrity exclusively as an individual ethical problem. UNESCO's principles of transparency, accountability, fairness, and human responsibility provide an important basis for considering how educational institutions should govern AI (UNESCO, 2021b; UNESCO, 2023). Institutional policies need to distinguish legitimate educational applications of AI from uses that compromise academic authorship, assessment validity, or research integrity. However, having a policy does not necessarily guarantee consistent implementation. Evidence on AI governance and institutional preparedness in African higher education points to ongoing challenges related to policy uncertainty, institutional capacity, and uneven preparedness (Muringa, 2025; Sangwa et al., 2026). Effective governance consequently requires more than formal policy statements. It requires operational guidance, staff development, student awareness, implementation procedures, and periodic policy revision as AI capabilities and educational practices evolve.

The relationship between governance and digital inequality adds another dimension to this interpretation. Institutional capacity to implement AI governance depends on access to reliable infrastructure, connectivity, technical expertise, professional development, and appropriate technological resources. Consequently, a governance model developed within a highly resourced institution cannot necessarily be transferred unchanged to universities operating under substantially different technological and financial conditions. This reinforces the need for context-sensitive governance rather than the uncritical adoption of externally developed regulatory models. It also suggests that technological detection mechanisms should not become the sole institutional response to AI-assisted misconduct. Institutions with limited technological capacity may be unable to sustain expensive or technically demanding detection systems, while the reliability and interpretation of AI-detection technologies themselves require careful consideration. A broader governance approach that combines assessment design, academic guidance, human oversight, and AI literacy is therefore better suited to the differentiated conditions of African higher education.

The synthesis further contributes to emerging African scholarship by connecting dimensions that have frequently been examined separately. Existing studies have considered academic integrity challenges, institutional AI readiness, governance, ethical adoption, and assessment responses, but the literature does not always conceptualise these dimensions as mutually interacting components of the same institutional problem. Guadu et al. (2025), for example, contribute to understanding academic integrity challenges and responses in African

higher education, while Rugeiyamu et al. (2026) examine higher education responses to AI and academic integrity in Africa. The present synthesis complements this emerging scholarship by bringing misconduct, assessment vulnerability, institutional governance, and digital inequality into a common analytical framework. Its central contribution is therefore relational: each dimension's significance becomes clearer when considered in relation to the others.

The Digital Ethics Framework provides a useful interpretive lens for understanding these relationships. Digital ethics emphasises principles such as transparency, accountability, fairness, and meaningful human responsibility in the design and use of AI systems (Floridi & Cowls, 2019; Floridi & Cowls, 2022; UNESCO, 2021b). Applied to academic integrity, transparency requires clarity concerning when and how AI has been used; accountability concerns the respective responsibilities of students, academic staff, and institutions; fairness requires attention to unequal access and unequal institutional capacity; and human oversight requires institutions to retain responsibility for consequential academic decisions. These principles show why AI governance cannot be reduced to detecting prohibited behaviour. Responsible governance also involves creating conditions in which legitimate AI use can be understood, disclosed, evaluated, and integrated without undermining academic standards.

This perspective also complicates the assumption that greater access to AI necessarily represents the principal challenge. The more fundamental issue is whether institutions and academic communities can develop shared understandings of responsible use. AI literacy is therefore an important component of academic integrity because students and academic staff require more than technical familiarity with AI tools. They need to understand questions of authorship, verification, citation, bias, fabricated information, data integrity, privacy, and responsible academic use. Holmes et al. (2022) similarly conceptualise AI literacy as extending beyond technical competence to encompass critical and ethical engagement with AI. Within African higher education, this broader conception is particularly relevant because uneven levels of digital capability may otherwise reproduce disparities in students' and staff members' ability to navigate AI responsibly.

Institutional professional development is consequently central to the sustainability of AI governance. Academic staff require continuing opportunities to understand emerging AI capabilities, interpret institutional policies, redesign assessment, and engage students in responsible AI use. UNESCO (2023) similarly emphasises capacity development as an important component of responsible AI adoption. Staff development should therefore not be treated as a one-off response to the emergence of ChatGPT or similar systems. The pace of technological development means institutional capacity must remain adaptive. This is particularly important where lecturers are expected simultaneously to enforce academic integrity rules, redesign assessments, interpret uncertain cases, and support constructive uses of AI.

Nevertheless, interpret institutional responses with caution. The reviewed literature does not justify treating African higher education as a homogeneous environment. Institutions differ considerably in infrastructure, funding, policy maturity, staff capacity, student populations, technological adoption, and national regulatory environments. The literature is also unevenly distributed geographically. Accordingly, the synthesis should not be interpreted as demonstrating that all African higher education institutions experience AI-related academic integrity challenges in identical ways. Rather, it identifies interconnected structural issues that may manifest differently across institutional and national contexts. This supports a differentiated approach to AI governance that combines common principles with locally appropriate implementation mechanisms.

The same caution applies to interpreting relationships among the four dimensions identified in this review. The synthesis does not establish a causal relationship in which digital inequality necessarily produces academic misconduct, or assessment vulnerability inevitably

results in institutional failure. Instead, the literature indicates that these dimensions can interact and reinforce one another under particular institutional conditions. This distinction matters for avoiding technological determinism and recognising the role of institutional decision-making. Universities retain agency in how they develop policies, design assessments, support staff, and guide students. Digital constraints may limit available options, but they do not eliminate the possibility of context-sensitive institutional responses.

Collectively, the discussion indicates that responsible AI adoption in African higher education requires alignment between governance, pedagogy, institutional capacity, and digital ethics. Clear policies are necessary to establish acceptable and unacceptable uses of AI, but policy statements alone are insufficient. Their effectiveness depends on implementation mechanisms, staff and student AI literacy, assessment practices that generate credible evidence of learning, and institutional capacity to adapt as AI technologies develop. Likewise, assessment reform should not be pursued independently of governance and professional development. Assessment changes require lecturers to have the knowledge and institutional support needed to implement them effectively. Similarly, AI literacy initiatives are unlikely to achieve their intended purpose where students and staff lack the infrastructure needed to engage meaningfully with digital technologies.

The broader contribution of this review therefore lies in reframing AI-related academic integrity as an interconnected institutional challenge rather than solely a problem of student misconduct. This framing extends the literature by connecting technological change with the institutional mechanisms through which academic standards are established, monitored, and maintained. It also situates digital inequality within the academic-integrity debate, highlighting that responsible AI governance depends partly on whether institutions have the resources and capabilities to implement it. In this respect, the review moves beyond a binary framing of AI as either an educational opportunity or a threat to academic integrity. Instead, it situates AI's consequences in the interaction among technology, institutional governance, assessment practices, ethical principles, and unequal digital conditions.

Finally, the synthesis points towards a context-responsive approach to AI governance in African higher education. Such an approach would combine institutional policies on acceptable AI use with assessment redesign, sustained AI literacy, staff development, human oversight, infrastructure investment, and collaboration among higher education institutions, policymakers, and relevant regional bodies. The objective should not simply be to restrict AI use, but to establish conditions under which its educational applications can be distinguished from practices that compromise academic integrity. This interpretation aligns with broader ethical principles of transparency, accountability, fairness, and human responsibility (Floridi & Cows, 2019; UNESCO, 2021b). The review's significance lies in establishing an integrated conceptual understanding of how academic misconduct, assessment vulnerability, governance capacity, and digital inequality intersect within African higher education. Based on the 49 publications reviewed, this perspective provides a stronger basis for understanding AI-related academic integrity challenges while recognising the contextual diversity of the continent's higher education systems. Figure 2 presents the resulting synthesis conceptually. The model is a conceptual synthesis of patterns identified in the reviewed literature, not a tested causal model.

Conceptual Model for Ethical AI Governance in Resource-Constrained Ecosystems

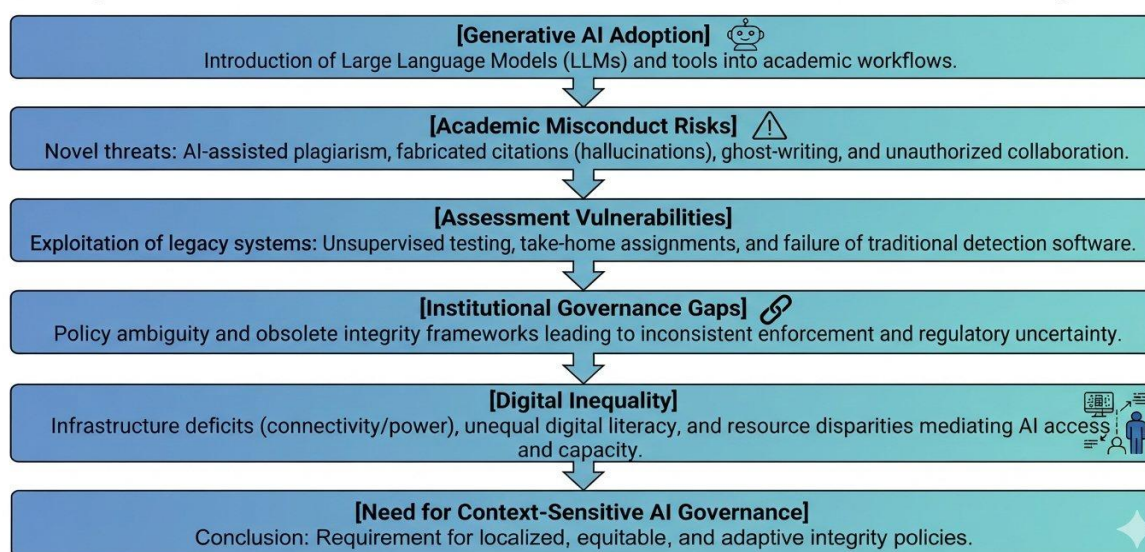


Figure 2. Conceptual Model for Ethical AI Governance in Resource-Constrained Ecosystems
Source: Authors' conceptualisation based on reviewed literature (2026)

This model argues that Generative AI Adoption directly introduces novel Academic Misconduct Risks. These risks immediately exploit existing Assessment Vulnerabilities, which lingering Institutional Governance Gaps further exacerbate. Within the African context, these gaps are severely intensified by structural Digital Inequality, which prevents uniform policy application. Therefore, the model's final trajectory points to an absolute, non-negotiable Need for Context-Sensitive AI Governance. Rather than importing copy-paste policies from the Global North, African HEIs must design integrity frameworks that actively account for local infrastructural limitations, equity in digital access, and targeted literacy development.

CONCLUSION

This study demonstrates that the rapid integration of generative Artificial Intelligence (AI) across African higher education institutions has triggered a systemic breakdown in traditional academic integrity structures. The core findings reveal that legacy assessment frameworks, particularly unsupervised continuous assessments and take-home examinations, are highly vulnerable to sophisticated, technology-driven academic misconduct, including AI-assisted plagiarism, ghostwriting, and fabricated references. Furthermore, institutional responses across the continent remain severely fragmented because of widespread policy ambiguity and deep-seated structural digital inequalities, which limit the technological infrastructure and digital literacy needed to manage these challenges effectively.

This study's primary contribution is a Conceptual Model for Ethical AI Governance in Resource-Constrained Ecosystems. Rather than treating AI-driven misconduct as an isolated student behavioural issue, this model offers a new systemic lens that maps how macro-level technological shocks exploit micro-level assessment vulnerabilities and governance gaps within the Global South. By integrating these dimensions with the Digital Ethics Framework, this study advances academic integrity theory by proving that institutional vulnerability is directly mediated by regional digital inequality, challenging the linear, Western-centric narratives of digital learning transformation. For university administrators and policymakers, these findings highlight an urgent need to transition from obsolete, text-heavy plagiarism policies to highly dynamic, context-sensitive governance frameworks. Practically, institutions must immediately redesign assessment methods to incorporate authentic, process-oriented, and supervised evaluation structures such as oral defence mechanisms and reflective portfolios that mitigate the utility of

synthetic text generation. Furthermore, regional bodies must prioritise equity-driven investments in institutional digital infrastructure and continuous AI literacy training for faculty and students alike to ensure balanced enforcement mechanisms.

A key limitation of this study is its reliance on a qualitative thematic review of secondary literature published between 2021 and 2026, which may not capture the immediate operational shifts happening within individual institutions. To extend this work, future empirical research should employ mixed-method designs to capture primary data directly from students, academics, and administrators regarding the localised enforcement of AI policies. Additionally, comparative studies across diverse regions are needed to test the operational validity of the proposed conceptual model under varying institutional and infrastructural conditions.

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