From Deficit to Agency: Conceptualising AI-Supported Academic Literacies Development in African Higher Education

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Abstract

Students in African higher education are often labelled "at-risk" or "underprepared," framings that obscure structural inequalities and diminish the value of their existing literacies. This conceptual paper reimagines these deficit narratives by examining how artificial intelligence (AI) can foster inclusive and empowering approaches to academic literacies development. Drawing on the academic literacies approach, critical AI literacies, and postcolonial perspectives, it proposes an augmentation model in which AI operates as a co-creative partner rather than a corrective mechanism. The model emphasises the amplification of students' literacies, the promotion of agency, and the validation of multilingual practices. In contrast to remediation frameworks, it advances principles of inclusivity, contextual responsiveness, and epistemic justice. The paper contributes theoretically by reframing AI as a catalyst for equitable and agentive learning within African higher education. It concludes with a research agenda that encourages qualitative and participatory inquiry into how AI can be designed and implemented to transform academic support practices in universities across Africa and similar contexts.

Keywords: artificial intelligence (AI); academic literacies; deficit labelling; augmentation model; epistemic justice; African higher education

UNISA
Progressio
Volume 46 | 2025 | #20519 | 19 pages

https://doi.org/10.25159/2663-5895/20519
ISSN 2663-5895 (Online)

Introduction

Students entering higher education are often labelled “at-risk” or “underprepared” due to perceived deficiencies in academic skills, highlighting their vulnerability and need for support (Mulvey 2009). In African universities, this deficit-oriented discourse masks structural inequalities and undervalues the diverse literacies students already possess (Nendauni 2025). As AI becomes increasingly embedded in e-learning environments, it is vital to examine whether these technologies reinforce such deficit framings or create opportunities for more inclusive and equitable literacy development.

Given that AI is a contested and evolving concept, with its meaning varying across contexts and disciplines, a clear working definition is essential for this discussion. In this paper, AI refers specifically to generative, machine learning based systems, particularly large language models (LLMs), that produce text, feedback, or adaptive responses through probabilistic learning. This framing positions AI as a co-creative partner in literacy development, rather than merely a predictive or corrective tool.

Despite growing interest in AI in higher education, there is a scarcity of conceptual models addressing AI-supported academic literacy development in African contexts. Existing studies largely explore technical or functional integration (Sokhulu, Zulu, and Lott-Naidoo 2025; Segooa, Modiba and Motjolopane 2025) with limited attention to pedagogical, linguistic, and ethical dimensions. While Maluleke (2025) highlights AI’s potential to widen participation, and Maimela and Mbonde (2025), as well as Opesemowo, Adekomaya and Opesemowo (2025), note emerging uses in universities, few frameworks engage critically with equity, multilingualism, or epistemic justice. Situated within debates on digital transformation, decolonisation, and social justice, this study advances a novel conceptual model responding to such gaps and aligning with global calls for inclusive higher education (Atenas, Havemann, and Nerantzi 2025).

This paper interrogates deficit-oriented framings and explores how AI can augment rather than remediate students’ academic literacies. It is guided by the question: How can AI be conceptualised and deployed as a co-creative partner in academic literacy development that amplifies agency, supports multilingualism, and attends to socio-economic disparities in African higher education? Drawing on academic literacies approach (Lea and Street 1998), critical AI literacies (Pangrazio and Sefton-Green 2021), and postcolonial perspectives (Mbembe 2016), the paper addresses a key gap in current AI-in-education research, which tends to emphasise predictive analytics and remediation (Yeralan and Lee 2023).

Central to this argument is the distinction between remediation and augmentation models, as understanding this difference will shape the way I explore the topic. The

remediation model positions students' academic challenges as deficits needing correction through standardised interventions, often reinforcing narrow definitions of academic success (Setlhodi 2021). In this model, AI typically functions as a diagnostic or corrective mechanism, for example, identifying "at-risk" students through predictive analytics or highlighting linguistic "errors" for rectification. While potentially useful, this approach risks reinforcing narrow academic norms and limiting student agency. Augmentation modelling, by contrast, positions AI as a co-creative partner that builds on students' existing literacies (Romero 2025). This means that rather than prescribing fixes, AI tools provide adaptive, multilingual, and context-sensitive feedback that centres strengths, fosters reflection, and validates diverse epistemic resources. This reframing shifts AI's role from surveillance and correction to collaboration and empowerment, laying the foundation for the proposed augmentation model.

Accordingly, the augmentation model this study proposes envisions AI as a dynamic, adaptive partner that scaffolds diverse and situated literacy practices, enabling students to navigate complex academic genres with confidence and agency. For example, rather than an AI system automatically labelling a student's writing as "at-risk," an augmentation-oriented tool might provide personalised, multilingual feedback that highlights strengths and fosters iterative improvement. Drawing from the work of Alm (2025), this conceptual reframing offers a pathway for reimagining academic literacies support that is inclusive, equitable, and contextually grounded.

This introduction thus sets the stage for the presentation of the AI-Assisted Academic Literacy Augmentation Model, which I argue holds promise for transforming student support in African higher education from stigmatising remediation to empowering augmentation.

Theoretical Framing

This paper's conceptualisation of an AI-supported augmentation model for academic literacy development is grounded in the synthesis of three interconnected theoretical frameworks: the academic literacies approach, critical AI literacies, and postcolonial perspectives on knowledge and power. These frameworks collectively move beyond viewing AI merely as a remediation tool and instead position it as a catalyst for more equitable, agentic learning.

First, the academic literacies approach (Lea and Street 1998; Street 2014) provides the foundational lens. This approach challenges the traditional study skills model, which treats academic writing as a set of decontextualised technical skills. Instead, it frames literacy as a socially situated practice embedded within disciplinary, institutional, and cultural contexts (Nendauni 2025). From this perspective, AI should not impose uniform standards of correctness but assist students in navigating diverse and tacit literacy practices. Crucially, this approach also raises ethical concerns about power, voice, and representation in AI-mediated learning. Without critical design, AI may reproduce

linguistic hierarchies and marginalise certain forms of expression. Aligning AI with the academic literacies framework, therefore, requires ethical sensitivity to inclusivity and agency and ensuring that technology enhances rather than regulates meaning-making. This framework underpins the critique of deficit paradigms and supports the advocacy for an augmentation model that builds on students' existing linguistic and semiotic repertoires (Troyna 1988).

Second, critical AI literacies centre the socio-political dimensions of AI integration in education (Pangrazio and Sefton-Green 2021). This framework looks beyond AI's technical capabilities to expose embedded biases, ethical challenges, and risks of social harm. It critiques algorithmic profiling and institutional surveillance, stressing that AI deployment must uphold student privacy, data rights, and epistemic justice (Atenas et al. 2025; Pechenkina 2023). Axiologically, the theory positions academics and students as active, reflective participants who engage critically with AI rather than submitting to it. In this vein, Academics act as mediators who contextualise AI outputs within disciplinary norms, while students function as discerning users who negotiate meaning and agency in technologically mediated learning. Thus, a truly beneficial AI-supported environment should be pedagogically sound, ethically grounded, and anchored in human values of autonomy, inclusivity, and responsibility.

Finally, a postcolonial perspective, particularly as articulated by Mbembe (2016), situates this paper within the specific realities of African higher education. The deficit discourse around African students is a legacy of colonial education systems that marginalised indigenous knowledge and multilingualism (Meighan 2023). According to Nendauni (2025), this perspective calls for decolonising educational practices by valuing diverse epistemologies (ways of knowing grounded in African cultural and communal traditions, such as oral reasoning, contextual problem-solving, and collective meaning-making) and recognising the multilingual repertoires students bring into the academy through translanguaging and code-switching. I argue that ethically designed and contextually responsive AI can advance this transformation by supporting these plural epistemic and linguistic forms through multilingual feedback and adaptive learning tools, rather than reinforcing narrow, Western-centric norms.

It is important that I highlight that while the academic literacies approach, critical AI literacies, and postcolonial perspectives provide the foundations for this paper, the proposed augmentation model also extends and challenges these frameworks in important ways. First, whereas the academic literacies tradition conceptualises literacy as a socially situated practice (Lea and Street 1998), the augmentation model goes further by introducing AI as a co-creative partner in these practices. In African higher education contexts, this collaboration between human and non-human agents can take the form of AI tools working alongside academics and students to scaffold multilingual and context-sensitive learning. For instance, lecturers might use AI-driven writing assistants to generate formative feedback that highlights rhetorical strengths in both English and African languages, while students critically evaluate and adapt these

suggestions to align with disciplinary expectations. Through this dialogic exchange, AI facilitates access to academic discourses without erasing local linguistic and epistemic practices, which in a way positions technology as a supportive collaborator rather than a corrective authority.

Secondly, while Pretorius and de Caux (2024) propose an AI literacy framework that equips educators and students with foundational, ethical, and socio-emotional competencies, the model I propose adds a critical dimension by positioning AI as a catalyst for learner agency and epistemic justice. Rather than focusing solely on developing skills to engage with AI, the augmentation model critiques deficit framings and foregrounds the emancipatory potential of AI to reshape how literacies are conceptualised and enacted. In this way, the model not only complements existing AI literacy frameworks but also challenges them to incorporate issues of power, agency, and inclusivity more explicitly.

In brief, this theoretical frame provides a critical, conceptual, and contextual foundation for the proposed augmentation model. It is envisaged that the proposed model will challenge remediation paradigms by positioning AI as a dynamic, adaptive partner that scaffolds academic literacies development in ways that are inclusive, equitable, and responsive to African higher education's socio-cultural and infrastructural contexts.

Existing Scholarship on Artificial Intelligence

Research on AI in higher education has expanded significantly in recent years, highlighting both transformative possibilities and critical challenges. Within African universities, studies emphasise AI's potential to enhance access, personalise learning, and improve administrative efficiency, while simultaneously raising pressing concerns about ethics, equity, and infrastructural disparity. Maluleke's (2025) systematic review of 113 studies (2020─2024) demonstrates that AI can widen participation and support learning, but also notes risks related to data privacy, academic integrity, and uneven access. Similarly, Maimela and Mbonde (2025) identify persistent digital inequities between historically advantaged and disadvantaged South African universities, warning that uncritical adoption may inadvertently reinforce Western-centric knowledge systems. I submit that these findings affirm the urgent need for governance frameworks and context-sensitive AI design in African higher education.

Empirical studies have begun to document AI's direct impact on learning processes. Sokhulu (2025) shows that generative AI tools such as ChatGPT3.5 can foster student engagement and conceptual understanding in writing tasks. Segooa et al. (2025) report similar benefits for student writing development, though accompanied by cautions regarding ethical use and over-dependence. In a similar vein, Tatineni (2020) argues that learning analytics could revolutionise pedagogy by enabling adaptive, data-driven teaching, but also cautions against the dangers of algorithmic profiling. Collectively,

these studies highlight both the pedagogical promise and the ethical complexities of AI adoption in African higher education.

Existing frameworks of AI literacy provide valuable scaffolding for navigating this complexity. For instance, Pretorius et al. (2024) propose an AI literacy model encompassing technical, ethical, and socio-emotional dimensions. This equips both educators and students to engage with AI responsibly. However, such frameworks often remain primarily skills-oriented, emphasising competencies required to use AI effectively. The augmentation model that I propose in this study builds on this foundation while advancing the debate in two ways. First, it repositions AI not as a neutral tool but as a co-creative partner in academic literacy practices (Alm 2025). This collaboration emerges when AI provides adaptive, multilingual feedback that students and educators engage with critically. Students use such feedback to refine their writing and assert ownership of their academic voice, while educators mediate AI suggestions within disciplinary and linguistic contexts. Through this dialogic interaction, AI enhances teaching and learning by fostering agency, validating multilingual expression, and advancing epistemic justice through the recognition of diverse ways of knowing and communicating (Compagnoni, Oguilve, and Wen 2025).

In this way, the augmentation model both complements and extends existing scholarship. It enriches AI literacy research by integrating perspectives from academic literacies and postcolonial theory, situating AI within broader debates about power, inequality, and inclusivity. This reframing provides a novel and critical contribution to international discussions on AI in education, particularly in contexts marked by diversity, inequality, and linguistic plurality, such as South Africa.

Deficit Discourses in Academic Literacies

The labelling of students as “at-risk” or “underprepared” has long been criticised for its deficit orientation. Such labels are not neutral descriptors; they are discursive constructs that position students against an assumed standard of academic readiness (Mulvey 2009). In practice, these framings reduce diversity to deficiency, often marginalising first-generation students, speakers of African languages, and learners from rural schools, groups frequently identified in the literature as disproportionately targeted by deficit-oriented discourses in higher education (Lea and Street 1998; Mittelmeier, Rienties, Gunter, and Raghuram 2021; Setlhodi 2021). This obscures the systemic inequalities shaping educational access and outcomes and shifts institutional responsibility onto individuals.

Institutional support practices often mirror these deficit assumptions. Many academic development programmes are designed as remedial interventions aimed at “fixing” students. Yet, as the academic literacies perspective demonstrates, students’ struggles frequently stem not from a lack of skills, but from mismatches between their literacy practices and the dominant norms of academia (Lea and Street 1998). Framing students

as deficient risks legitimising hierarchical categories of “prepared” and “unprepared” and narrows the scope of institutional change.

The integration of AI into higher education adds a new layer to these concerns. Predictive analytics and automated feedback systems are often deployed as early-warning mechanisms, generating profiles of students deemed “at risk” (Akinwalere and Ivanov 2022). While these tools are presented as objective and data-driven, they may entrench deficit discourses by embedding them within algorithmic processes. Evidence from African higher education supports this view: Maimela and Mbonde (2025) show that AI adoption can reproduce historical inequities by privileging Western epistemologies, while Maluleke (2025) and Sokhulu et al. (2025) highlight persistent challenges of digital exclusion and cultural misalignment in South African universities. For students already marginalised by structural inequalities, particularly those in rural or historically disadvantaged institutions, being continuously categorised as “high risk” through automated systems risks compounding existing inequities (Lembani, Gunter, Breines, and Dalu 2020).

This automation of deficit discourses is particularly problematic because it conceals value-laden assumptions under a veneer of technological neutrality (Pangrazio and Sefton-Green 2021). When AI systems are trained on data reflecting historical inequities, such as linguistic bias or uneven academic performance, they reproduce these patterns in their classifications and feedback. In this way, deficit perspectives become embedded and institutionalised, guiding how universities identify and “support” students. Over time, such practices normalise continuous profiling and data-driven monitoring, making AI use less transparent and harder to challenge. Consequently, “support” risks becoming synonymous with surveillance and labelling, leaving little conceptual space for AI to act as a genuine partner in expanding students’ literacies.

It is against this backdrop that the proposed augmentation model intervenes. Instead of viewing AI as a mechanism for detecting weaknesses, the model conceptualises it as a co-creative partner that amplifies students’ resources, supports multilingual expression, and scaffolds learning without stigmatising labels. Through shifting from remediation to augmentation, the model resists deficit narratives and reframes academic literacy development as an inclusive, agentive, and contextually grounded process.

AI in Student Support: Risks and Possibilities

As AI technologies increasingly shape e-learning environments, I see them presenting both significant risks and compelling opportunities for student support. On one hand, AI promises to personalise learning, offer instant feedback, and adapt content to diverse needs (Nendauni 2025). On the other hand, these same technologies risk reinforcing deficit framings when implemented without critical attention to their social, ethical, and cultural implications.

One of the most immediate risks lies in the rise of AI-driven analytics. Predictive models often classify students according to their likelihood of success or failure, reducing complex academic journeys to algorithmic probabilities (Yeralan and Lee 2023). Such processes risk perpetuating the deficit discourses discussed earlier, converting nuanced struggles into supposedly objective data points. In African higher education, these predictive systems often rely on Western-centric notions of academic performance and individualism, which can conflict with indigenous values that emphasise collective learning, relational knowledge, and community upliftment. By privileging standardised indicators of success, AI models may inadvertently marginalise local epistemologies and linguistic practices, and this undermines epistemic justice and reproduces colonial hierarchies of knowledge. In contexts where students already face structural barriers, such systems deepen inequities by normalising stigmatising categories of "at-risk" students. These concerns raise critical questions about agency, consent, and the ethics of institutional surveillance.

At the same time, AI has the potential to expand rather than constrain literacy practices if conceptualised differently. When positioned as a partner in augmentation rather than remediation, AI can amplify students' existing literacies and support multilingual expression. Adaptive writing assistants, for instance, can provide feedback that highlights rhetorical strengths as well as areas for improvement, enabling students to refine their work while retaining ownership of their voice (Setlhodi 2021). In this way, AI becomes not a corrective mechanism but a co-creative collaborator.

This augmentation orientation also opens space for agency-centred pedagogies. Rather than simply correcting errors or flagging weaknesses, AI tools can prompt students to reflect on their rhetorical choices, experiment with alternative structures, and engage critically with disciplinary conventions. This aligns with the academic literacies approach, which understands learning as a socially situated and meaning-making process (Lea and Street 1998) but extends it by introducing AI as an active participant in scaffolding these practices.

The central challenge, therefore, is not whether African universities should integrate AI, but rather how its role should be conceptualised. If framed through a deficit lens, AI risks entrenching existing inequities and institutionalising surveillance. If reframed through augmentation, it holds the promise of empowering students, validating multilingualism, and fostering epistemic justice. This duality stresses the need for careful design and ethical deployment, setting the stage for the augmentation model advanced in the subsequent sections of this paper.

Conceptual Approach

This paper adopts a conceptual research methodology aimed at developing a theoretically grounded framework for understanding AI-supported academic literacy development within African higher education. Unlike empirical studies that generate

new data, this approach systematically synthesises and reinterprets existing theoretical and empirical knowledge to advance understanding and propose a novel model (Torraco 2005; Jaakkola 2020). In an emerging area like AI in education, where critical theoretical debates are unfolding faster than empirical evidence can be collected, a conceptual paper is a necessary and foundational first step. It provides a shared vocabulary and a coherent set of principles that can guide and unify future empirical work, preventing a fragmented research landscape.

The methodology involved a systematic synthesis and thematic analysis of literature across three interconnected domains: academic literacies theory, critical AI literacies, and postcolonial perspectives on education. I began the review process with an iterative search for key texts within each domain. Through repeated engagement with this body of work, a process of thematic analysis was employed to identify recurring tensions and convergences. For instance, I found that the deficit discourse identified in academic literacies literature resonated with the critiques of algorithmic profiling from critical AI literacies and the legacy of colonial education systems from postcolonial perspectives. These emerging themes were then used as a framework to construct and articulate the AI-Assisted Academic Literacy Augmentation Model.

This process enabled the integration of diverse theoretical perspectives into a coherent framework that addresses both technological innovation and educational equity. While the framework remains provisional and requires empirical validation, this conceptual work establishes a heuristic foundation for reframing academic literacy support in African higher education, offering a distinct paradigm that challenges prevailing deficit discourses.

Though this methodological approach is suitable for this study, it is important to highlight that it has inherent limitations. Without empirical validation, the framework remains provisional and requires testing in lived educational contexts. It cannot capture the full experiential diversity of students and educators, nor does it account for institutional complexities involved in AI adoption. To address these limitations, I propose future research that employs qualitative, participatory, and mixed-methods designs. Such studies should examine how students and academics negotiate AI-supported literacy practices, with particular attention to multilingualism, agency, and epistemic justice in African universities.

For example, participatory research on AI-driven writing assistants could explore how students exercise agency in engaging with multilingual feedback, or how educators mediate AI outputs within literacy workshops. Ethnographic studies could provide insights into how AI is integrated into institutional practices, revealing both opportunities and tensions. These empirical directions are crucial for validating the augmentation model and ensuring that AI is implemented in inclusive, ethical, and pedagogically sound ways.

As a conceptual study that does not involve human participants or empirical data collection, this paper did not require formal ethical clearance.

The Proposed Augmentation Model

To move beyond deficit-based approaches to academic literacy development, this paper proposes an AI-Assisted Academic Literacy Augmentation Model. This model reconceptualises AI's role in student support from a corrective, surveillance-oriented tool to that of an adaptive, co-creative partner. Rather than labelling students as deficient, the model emphasises amplifying their existing literacies, fostering agency, and validating multilingual practices. See Figure 1 below, illustrating the model.

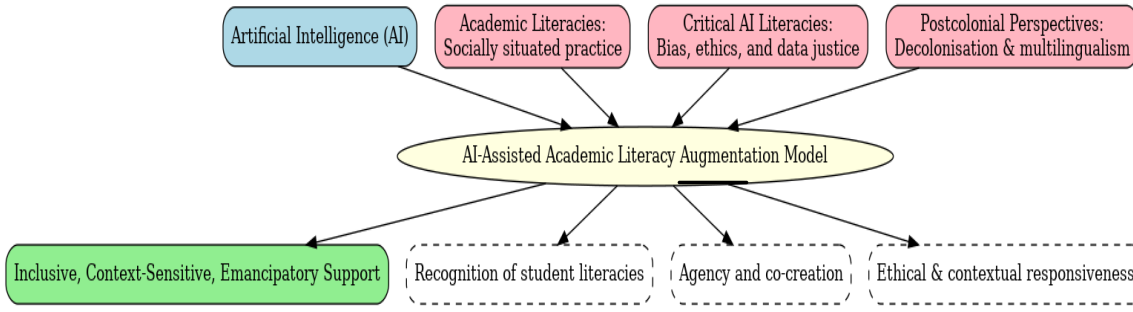

Figure 1: AI-Assisted Academic Literacy Augmentation Model

At the heart of this model is the principle that support should be inclusive, context-sensitive, and emancipatory. The emancipatory dimension lies in positioning AI not as a substitute for human cognition but as a catalyst that enhances learner autonomy and critical engagement (Nopas 2025). Rather than fostering dependence, the augmentation model encourages students to interact with AI reflectively: questioning, adapting, and personalising its feedback to strengthen their own decision-making and scholarly voice. In this way, AI becomes a means of cultivating independence and agency, empowering students to navigate academic literacies with confidence and ownership.

Accordingly, rather than framing students in terms of what they lack, AI systems can be designed to recognise and build on the diverse knowledge, linguistic repertoires, and cognitive strategies that students bring to their studies (Lea and Street 1998; Pangrazio and Sefton-Green 2021). For instance, AI-driven writing assistants can provide multilingual feedback, suggest alternative ways of structuring arguments, and highlight strengths as well as areas for refinement, which promote confidence and ownership over the learning process. The augmentation model rests on three interconnected principles:

- *Recognition of student literacies:* Students enter higher education with diverse linguistic repertoires, knowledge bases, and meaning-making strategies. The model requires that AI systems be designed to recognise and build on these resources, rather than positioning students in terms of what they lack.

- *Agency and co-creation:* AI should be conceptualised as a collaborator that students can interact with critically, shaping and adapting outputs to their needs. The proposed model emphasises co-agency: a relational form of agency in which meaning-making emerges through the interaction between human and non-human actors, while students retain reflective control over the process (Katsenou, Kotsidis, Papadopoulou, Anastasiadis, and Deliyannis 2025). This conception draws on sociocultural understandings of distributed agency within academic literacies theory, rather than fully posthumanist or New Materialist framings, which tend to decentre the human subject. Here, co-agency is preferred over synergy because it foregrounds the negotiated and dialogic nature of human-AI collaboration, highlighting students' autonomy and ethical responsibility within technologically mediated learning environments (Bozkurt 2024).

- *Ethical and contextual responsiveness:* The model insists that AI design and deployment must be sensitive to issues of equity, multilingualism, and epistemic justice. Predictive labels such as "at risk" are rejected in favour of feedback and guidance that are adaptive, non-stigmatising, and responsive to the socio-economic and infrastructural realities of African universities. At the same time, the framework positions students as responsible co-agents who must engage with AI critically and ethically. This involves evaluating AI-generated feedback, questioning biases, and making informed choices about how to integrate such input into their work. In this reciprocal relationship, AI provides context-sensitive support while students exercise reflective control, ensuring that technology serves as a tool for empowerment rather than dependence or surveillance.

Mechanisms of Augmentation

The augmentation model operates through three main mechanisms:

- *Scaffolding literacy practices*: AI tools provide tailored support (e.g., multilingual feedback, alternative structures for arguments, rhetorical highlighting) that guide students through academic tasks without erasing their voices.

- *Amplifying strengths*: Feedback highlights what students are doing well, reinforcing confidence and enabling iterative improvement. This contrasts with deficit models, which focus primarily on errors.

- *Mediated integration*: Educators play a central role in mediating AI outputs, contextualising them within disciplinary expectations, and designing activities that promote reflection and dialogue. AI complements but does not replace human pedagogy.

Beyond a mere corrective function, the augmentation model reframes the role of AI in academic literacy as a co-creative partnership, providing a complex and empowering alternative to deficit-oriented approaches. This is not simply about using AI to proofread or correct errors. Instead, the model positions AI as a collaborative agent that scaffolds learning while preserving student agency. For example, rather than an AI tool simply highlighting a grammatical error and suggesting a single replacement, an augmentation-oriented system could offer multiple rhetorical alternatives that prompt students to consider how different phrasing affects tone and audience.

Similarly, the AI could be designed to amplify strengths, offering feedback that first highlights a student's effective use of metaphor or a well-structured argument before suggesting areas for refinement. This approach builds confidence and validates a student's existing linguistic repertoire. Crucially, this co-creative process is mediated by the facilitator, who can facilitate dialogue around the AI's suggestions and contextualise them within disciplinary norms, ensuring that the technology complements, but never replaces, human pedagogy.

For instance, consider a writing assistant designed for South African students. Rather than flagging a student's text as "below standard," it provides multilingual feedback that points out rhetorical strengths, suggests alternative organisational structures, and invites reflection on argumentation. The student engages critically with these suggestions, deciding which to adopt, while the academic facilitates discussion about disciplinary conventions. In this process, the student's agency is preserved; AI provides adaptive scaffolding, and the educator mediates meaning-making.

Through articulating these principles and mechanisms, the augmentation model offers a framework that challenges remediation paradigms and provides institutions with a pathway to redesign academic literacy support.

AI-Assisted Academic Literacies in African Contexts

While the augmentation model offers a conceptual framework for rethinking AI in literacy development, its effectiveness depends on sensitivity to the specific realities of African higher education. Universities across the continent are marked by linguistic diversity, uneven digital infrastructure, and enduring socio-economic inequalities. Any model of AI-assisted literacy must therefore be designed with these contextual factors at the forefront.

Multilingualism As a Resource

A defining feature of African higher education is the multilingual repertoires students bring into the academy. For many, English functions as the medium of instruction but not as the first language. The dominance of English as the instructional language has spillover effects, including the marginalisation of indigenous languages and knowledge systems, potentially undermining students' cultural identities and sense of belonging (Meighan 2025; Mulvey 2009). Traditional academic support often frames this as a deficit. By contrast, the augmentation model treats multilingualism as an asset. AI tools can scaffold comprehension and production by providing feedback across languages, supporting translanguaging practices, and helping students negotiate disciplinary discourses without diminishing their agency (Creese and Blackledge 2010; Opesemowo 2025). However, the status quo dominance of English and Western epistemologies in AI tool design risks perpetuating inequities if these tools are uncritically adopted in indigenous educational settings, potentially reinforcing linguistic hierarchies and epistemic injustice (Mbembe 2016; Maimela and Mbonde 2025). Ethically designed AI should challenge these norms by affirming diverse linguistic resources and supporting socially just academic practices. In this way, AI can help normalise the use of diverse linguistic resources as part of academic meaning-making.

Addressing the Digital Divide

Digital inequality remains a structural challenge. Students in rural areas or historically disadvantaged institutions often face limited access to stable internet, updated devices, and advanced digital platforms (Lembani et al. 2020). If not carefully designed, AI interventions may widen rather than bridge these gaps. The augmentation model, therefore, requires AI systems that are adaptable to low-bandwidth contexts, accessible on basic devices, and available offline where possible. Ensuring accessibility also extends to students with disabilities, who may benefit from AI-mediated adaptive technologies such as speech-to-text or personalised reading supports (Setlhodi 2021).

Equity and Epistemic Justice

The colonial legacy of higher education continues to marginalise African epistemologies and linguistic practices. Deficit discourses, when automated through AI, risk entrenching these exclusions. The augmentation model, however, positions AI as a tool for epistemic justice: validating diverse knowledge systems, foregrounding local linguistic resources, and enabling students to participate fully in academic discourses on their own terms (Mbembe 2016; Nendauni 2025). Through resisting homogenising standards and deficit labels, AI can be harnessed to democratise participation in higher education.

Practical Implications

Situating AI-assisted academic literacies within African contexts highlights the need for institutional strategies that combine technological innovation with ethical, pedagogical,

and contextual responsiveness. This includes investment in equitable infrastructure, the co-design of AI tools with students and educators, and the alignment of AI initiatives with decolonisation and transformation agendas. When implemented thoughtfully, the augmentation model enables AI to move higher education away from surveillance and remediation, and towards inclusive, empowering, and contextually grounded literacy support.

Pedagogical and Methodological Implications

The proposed augmentation model moves beyond a deficit framework and suggests new pedagogical and methodological approaches for academic literacy development. This is not about simply using AI as a spell checker or a grammar tool. It involves a shift in how we design learning environments and how students interact with technology as a co-creative partner. I see this unfolding in three key areas:

AI As a Pedagogical Partner

Instead of AI merely "correcting" student writing, it can be used to promote critical reflection and agency. For instance, an AI tool could be designed to ask students clarifying questions about their arguments, suggest alternative organisational structures, or highlight rhetorical choices they have made. This moves the pedagogical interaction from a binary of "right or wrong" to a process of critical inquiry, prompting students to justify their writing choices. This is particularly valuable in multilingual contexts, where AI can help scaffold the development of complex academic expression without invalidating a student's linguistic background (Creese and Blackledge 2010).

Reimagining Classroom Activities

In a classroom setting, the augmentation model would manifest in collaborative, project-based learning. Research indicates that AI-assisted writing tools can improve students' writing coherence and support iterative revision processes, enhancing critical engagement with their texts (Tran and Tran 2023). For example, students might use AI to generate a first draft of a literature review, with the core learning activity focused on critically evaluating and revising the AI-generated text, shifting emphasis from content creation to analytical refinement (Chanpradit 2025). Similarly, AI has been shown to facilitate argument development through generating counterarguments that students can systematically engage with and refute, thereby deepening critical thinking (Nguyen, Kremantzis, Essien, Petrounias, and Hosseini 2024). Project-based learning studies also highlight AI's role in scaffolding idea generation and structuring complex tasks, supporting richer collaborative engagement (Avsec and Rupnik 2025). While this model builds on extant AI education research, it uniquely adapts these strategies to amplify multilingual academic literacies in African higher education.

A Research Agenda for Future Studies

While this paper is conceptual, it lays the groundwork for a clear research agenda. I believe future studies should move beyond simple efficacy tests of AI tools and instead adopt qualitative and ethnographic approaches. We need research that examines how students' identities and agency are shaped by their interactions with AI in African contexts. This could include studies on:

- The impact of multilingual AI tools on academic voice and identity.
- Ethnographic observations of student-AI collaboration in writing workshops.
- The role of ethical AI design in promoting epistemic justice and counteracting deficit discourses.

This research would provide the empirical evidence needed to validate and refine the augmentation model, ensuring that the integration of AI in African higher education is truly transformative.

Conclusion

This paper has interrogated the persistent deficit framing of students as "at-risk" or "underprepared" in African higher education and proposed an alternative approach through the integration of Artificial Intelligence (AI) in academic literacies development. Drawing on the academic literacies approach, critical AI literacies, and postcolonial perspectives, it argued for a conceptual shift from remediation to augmentation, positioning AI as a co-creative partner that amplifies students' literacies, promotes agency, and validates multilingual practices.

The proposed AI-Assisted Academic Literacy Augmentation Model reframes AI from a corrective mechanism into a catalyst for equity, inclusivity, and epistemic justice. By focusing on collaboration rather than surveillance, it challenges stigmatising support practices and encourages pedagogies that recognise students' existing capacities. The model underscores the need for AI tools and literacy interventions that are ethically designed, contextually responsive, and aligned with the diverse socio-linguistic realities of African universities.

While conceptual, the paper establishes a foundation for empirical inquiry. Future research should employ qualitative and participatory methods to explore how AI-mediated literacies unfold in practice, particularly in relation to multilingualism, agency, and equity. Such studies will be vital in validating and refining the augmentation model, ensuring that AI contributes meaningfully to inclusive, transformative higher education in Africa.

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