



Kiswahili Beyond Borders: Strengthening Africa's Lingua Franca in Digital and Academic Domains

Ernest Daimon Haonga

Chuo cha Kumbukumbu ya Mwalimu Nyerere, Dar es Salaam, Tanzania

Article History

Received: 2025.03.28

Revised: 2025.09.10

Accepted: 2025.09.16

Published: 2025.09.16

Keywords

Academic domain

Kiswahili

Language

Lingua Franca

How to cite:

Haonga, E. D. (2025). Kiswahili Beyond Borders: Strengthening Africa's Lingua Franca in Digital and Academic Domains. *Journal of Research and Academic Writing*, 4(2), 122-133.

Copyright © 2025



Abstract

This study explores Kiswahili's potential as a global language by examining its use across daily, professional, academic, and digital contexts, alongside structural and cultural factors shaping its expansion. Using a quantitative cross-sectional survey design, the research collected data from 384 respondents across Tanzania, Kenya, Uganda, the Democratic Republic of Congo, and diaspora communities. The analysis is grounded in Cooper's (1989) language-planning framework and Kaplan and Baldauf's (1997) ecological perspective, addressing status, corpus, and acquisition planning. Findings reveal strong daily usage in Tanzania and Kenya but lower adoption in Uganda, the DRC, and diaspora communities. Kiswahili flourishes on social media, yet its broader digital presence is limited by low content creation and inadequate AI tools. In academia, respondents recognise its scholarly potential, but English dominates due to the absence of indexed journals and institutional incentives. Policy and economic support are largely perceived as symbolic, and over-standardisation raises concerns about loss of dialectal diversity. The study argues that while Kiswahili can become Africa's first truly global language, structural inequalities across technological, academic, and policy domains constrain this potential. By providing quantitative, cross-national evidence, the study offers novel insights for advancing Kiswahili's regional and global reach.

Introduction

The twenty-first century has ushered in an era of unprecedented global interconnectedness, driven by the twin forces of globalisation and digital transformation. These forces have not only reconfigured economic and political systems but have also profoundly reshaped the linguistic ecology of the world. As global communication networks, educational systems, and technological infrastructures increasingly consolidate around a handful of metropolitan languages, most notably English, French, and Mandarin, the future of indigenous and regional languages has become a subject of urgent scholarly inquiry (Jenkins & Panero, 2024; Kaschula, 2021). This inquiry is not merely linguistic in nature; it is deeply entwined with questions of epistemic justice, cultural sovereignty, and equitable participation in global knowledge economies (Nyabola, 2024; Wildsmith-Cromarty et al., 2023).

Within this shifting landscape, Kiswahili occupies a uniquely strategic position. As a lingua franca, a language that facilitates communication across diverse linguistic communities (Mugane, 2015; Barasa, 2023), Kiswahili is spoken by over 200 million people across East and Central Africa. Its historical evolution, marked by cultural neutrality and adaptability, has enabled it to transcend ethnic, national, and even colonial boundaries (Nassenstein & Shinagawa, 2019; Kusimba & Walz, 2021). The African



Union's 2022 designation of Kiswahili as an official working language represents a watershed moment, affirming its symbolic and institutional legitimacy on the continental stage (Kago & Cissé, 2022). Moreover, Kiswahili's growing visibility in international diplomacy, digital media, and cultural production signals its potential to emerge as a global language of influence (Nyabola, 2023; Aiello & Tramutoli, 2023).

Yet this potential remains unevenly realised. Despite its regional dominance, Kiswahili continues to be marginalised in critical domains such as academic publishing, artificial intelligence (AI), and software development, fields that are increasingly central to global knowledge creation and dissemination (Ayodi, 2021; Kiokoa & Rugemalira, 2022; Makulilo, 2025). Its limited integration into digital infrastructures and scholarly ecosystems reflects deeper structural constraints, including inadequate policy support, insufficient investment in language technologies, and the absence of coordinated strategies for global linguistic inclusion (Kaschula, 2021; Muaka, 2019; Jjuuko & Muniko, 2018). These constraints not only hinder Kiswahili's expansion but also perpetuate epistemological hierarchies that privilege metropolitan languages as default vehicles of global discourse. Against this backdrop, the present study seeks to interrogate the conditions under which Kiswahili might transition from continental prominence to global relevance. It identifies a critical research gap in existing scholarship: while the sociolinguistic vitality of Kiswahili within East Africa is well documented, its uneven adoption in peripheral regions, its fragile institutional footing in global academia, and its limited presence in digital and technological domains remain insufficiently explored. There is a pressing need to examine how sociocultural dynamics, institutional policies, and technological infrastructures converge to shape Kiswahili's global trajectory.

To address this gap, the study pursues three interrelated objectives. It seeks to analyse patterns of Kiswahili's daily and professional use, investigates the structural barriers that impede Kiswahili's institutionalisation as a global academic language, and assesses the technological gaps that limit Kiswahili's integration into the digital sphere. By engaging with these dimensions, the study contributes to ongoing debates on the future of African languages in the digital age. It offers a nuanced analysis of Kiswahili's potential to serve not only as a regional lingua franca but also as a globally recognised medium of academic and technological expression. In doing so, it advances the broader agenda of linguistic decolonisation, epistemic pluralism, and inclusive global knowledge systems.

Method

This study employed a quantitative, cross-sectional survey design to examine Kiswahili's global prospects, focusing on usage patterns, institutional barriers, and digital integration. Data were collected via an online questionnaire from participants in Tanzania, Kenya, Uganda, the Democratic Republic of Congo, and Kiswahili-speaking diaspora communities in North America and Europe. The target population included scholars, policymakers, media professionals, digital developers, and general users. The sample size was determined using the formula for large populations, as recommended by Kothari (2004), which indicated a minimum of 384 respondents to ensure statistical validity. To accommodate potential nonresponse and enable subgroup analysis, the sample was inflated by 25%, resulting in a target of 480 invitations. A total of 384 completed surveys were received and used for analysis.

Sampling utilised a stratified technique to ensure representation across key regions and stakeholder groups. Countries and diaspora regions were selected for their linguistic relevance and geopolitical diversity. Within each region, potential participants were identified and stratified by their professional category to ensure a balanced composition of the final sample. Recruitment was conducted through professional networks and social media channels. The online questionnaire was



developed in both Kiswahili and English. It consisted primarily of closed-ended questions, including multiple-choice and Likert-scale items, which were adapted from previously validated survey instruments (Eldridge et al., 2020). A pilot test was administered to 20 respondents to assess the instrument's clarity, reliability, and functionality before full deployment (Abawi, 2017). Quantitative data were analysed using SPSS software (v.27). Analysis involved descriptive statistics (frequencies, and percentages) to summarise the data across different countries and stakeholder groups.

Theoretical Framework

This study is anchored in two interrelated theoretical traditions: Language-Planning and Policy (LPP) and Postcolonial Linguistic Justice. Together, these frameworks provide a lens through which Kiswahili's global trajectory can be examined not merely as a linguistic phenomenon, but as a site of institutional negotiation, epistemic contestation, and technological inclusion. Language-Planning and Policy theory, as articulated by scholars such as Cooper (1989) and Kaplan & Baldauf (1997), explores how languages are managed, promoted, or marginalized through formal and informal mechanisms. It distinguishes between status planning (the role and function of a language), corpus planning (standardisation and modernisation), and acquisition planning (teaching and learning strategies).

In the context of Kiswahili, LPP theory helps interrogate how national and regional policies have shaped its institutional presence, and why its integration into global academic and digital systems remains uneven. For instance, while Kiswahili enjoys official status in Tanzania and Kenya, its curricular representation in Uganda and the DRC is limited, and its presence in international scholarly publishing remains peripheral (Ayodi, 2021; Kaschula, 2021). In addition, the framework of postcolonial linguistic justice complements this perspective, critiquing the enduring dominance of metropolitan languages in global knowledge systems and advocating for the epistemic inclusion of indigenous languages (Pennycook, 1998; Makoni & Pennycook, 2006). This perspective situates Kiswahili not only as a regional lingua franca but also as a potential agent of epistemic decolonisation. It emphasises the need to dismantle linguistic hierarchies that privilege English and French in academia, digital platforms, and AI technologies, thereby excluding African languages from global discourse (Jenkins & Panero, 2024; Wildsmith-Cromarty et al., 2023).

The intersection of these theories enables a multidimensional analysis of Kiswahili's global prospects. Language-Planning and Policy theory provides tools to assess institutional structures and policy environments, while Postcolonial Linguistic Justice foregrounds the ideological and ethical dimensions of linguistic inclusion. Together, they inform the study's examination of three core domains: sociolinguistic usage in peripheral regions and Diasporas, institutional barriers to academic integration, and technological constraints in digital environments. By applying this dual framework, the study moves beyond descriptive accounts to critically evaluate the systemic conditions that enable or inhibit Kiswahili's transition from continental prominence to global relevance. It also contributes to broader debates on linguistic equity, digital sovereignty, and the future of African languages in global knowledge economies

Results

The study involved a total of 384 respondents drawn from five geographical regions: Tanzania (34%), Kenya (27%), Uganda (20%), the Democratic Republic of Congo (12%), and diaspora communities in North America and Europe (7%). The distribution was designed to reflect both regional representation and linguistic relevance, with Tanzanian and Kenyan participants comprising the largest share, followed by respondents from Uganda, the DRC, and the diaspora. This regional distribution reflects Kiswahili's core and peripheral linguistic zones, as well as its emerging global footprint. Respondents were categorised into five stakeholder groups. Academics constituted the largest proportion at 35%,



followed by general users at 20%. Policymakers, media professionals, and digital practitioners each represented 15% of the sample. This balanced composition enabled comparative analysis across both national contexts and professional domains as indicated in Table 1.

Table 1: Respondents by Country and Stakeholder Group (n=384)

Country/Region	Academics (f)	Policymakers (f)	Media (f)	Digital (f)	General Users (f)	Total (f)	% of Sample
Tanzania	45	19	19	19	26	128	33.3%
Kenya	34	17	17	14	21	103	26.8%
Uganda	30	11	15	15	19	90	23.4%
DRC	19	8	11	8	15	61	15.9%
Diaspora	13	5	3	5	0	26	6.8%
Total	141	60	65	61	81	384	100%

The diversity of the sample both geographically and professionally enhanced the analytical depth of the study. It allowed for cross-sectional insights into how Kiswahili is perceived, used, and supported across different regions and sectors, thereby strengthening the validity and generalisability of the findings.

Functional use of Kiswahili in social and occupational contexts

The findings of this study indicate that Kiswahili enjoys widespread usage across both informal and professional domains, although its patterns of use vary significantly by country. In Tanzania, an overwhelming majority of respondents (92%) reported using Kiswahili daily at home and in the workplace, reflecting its entrenched role as a national and official language. In contrast, the proportion is slightly lower in Kenya (78%), where Kiswahili coexists with English in professional contexts. Usage declines further in Uganda (65%), where English serves as the primary language for government, education, business, and law. The lowest usage is found in the Democratic Republic of Congo (59%), where Kiswahili coexists with other national languages, such as Kikongo (Kituba), Lingala, and Tshiluba, while French is the official language and is widely used in education and government. This suggests that while Kiswahili serves as a lingua franca, its reach is uneven across the region. Among diaspora communities, 44% of respondents reported daily usage, predominantly within family interactions and cultural practices. This underscores its function as a language of identity and heritage rather than one of professional utility. Table 2 provides a comprehensive overview of Kiswahili usage patterns detailing the frequency and percentage of respondents who use the language daily, occasionally, or rarely/never across each surveyed region, thereby offering a clear comparative snapshot of regional adoption trends.

Table 2: Functional Use of Kiswahili in Social and Occupational Contexts (n=384)

Country/Region	Daily Use (f / %)	Occasional Use (f / %)	Rare/Never Use (f / %)	Total (f)
Tanzania	118 (92%)	9 (7%)	1 (1%)	128
Kenya	75 (78%)	14 (15%)	7 (7%)	96
Uganda	50 (65%)	17 (22%)	10 (13%)	77
DRC	30 (59%)	13 (25%)	8 (16%)	51
Diaspora	14 (44%)	12 (38%)	6 (19%)	32
Total	287 (75%)	65 (17%)	32 (8%)	384

The patterns indicated in Table 2 can be more fully understood through the lens of contemporary Language-Planning and Policy (LPP) scholarship. Building on Cooper's (1989) classic tripartite model of status, corpus, and acquisition planning, more recent studies (Ayodi, 2021; Kaschula, 2021) stress



that these dimensions are not static but evolve dynamically within changing sociopolitical ecologies. In this updated view, corpus planning extends beyond traditional codification to include the creation of digital corpora, scholarly terminologies, and AI-compatible resources, while acquisition planning increasingly encompasses both formal education and informal digital learning environments.

Similarly, Kaplan and Baldauf’s (1997) ecological perspective has been elaborated into a more holistic understanding of language ecologies, where macro-level policy declarations, meso-level institutional practices, and micro-level community needs interact in ways that can either reinforce or undermine language vitality (Hornberger & Johnson, 2007; Spolsky, 2019). This broader ecological approach foregrounds the importance of alignment across these levels: symbolic recognition of Kiswahili at continental and national levels risks remaining superficial unless supported by institutional incentives such as journal indexing, funding structures, and curricular integration, and unless these in turn respond to community-driven language practices.

Complementing these perspectives, Pennycook’s (1998) framework of postcolonial linguistic justice further developed by Makoni and Pennycook (2006), situates Kiswahili’s position within global knowledge systems as part of a wider struggle against the epistemic dominance of colonial languages. Contemporary debates on digital rights and linguistic equity (Makulilo, 2025) extend this justice perspective into the digital sphere, showing that African languages face systematic disadvantages not only in scholarly publishing but also in access to online platforms, computational tools, and AI infrastructures.

Scholarly Attitudes toward Kiswahili as a Language of Knowledge

The findings of this study reveal that both academics and policymakers broadly agree on the potential of Kiswahili to function as a language of scholarly training and publication. Notably, 68% of academic respondents expressed willingness to publish their research in Kiswahili provided that sufficient resources, institutional support, and recognition mechanisms were in place. At the same time, a majority (72%) acknowledged that publishing in English remains indispensable for academic visibility and career progression. These results highlight a dual perception: while Kiswahili is increasingly viewed as a viable academic medium, structural pressures within global scholarly systems continue to privilege English, thereby shaping the choices of researchers and limiting the expansion of Kiswahili in academic publishing.

Table 3: Scholarly Attitudes toward Kiswahili as a Language of Knowledge (n=210 Academics)

Statement	Agree (f /%)	Neutral (f / %)	Disagree (f / %)	Total (f)
Kiswahili has potential as a global academic language	143 (68%)	25 (12%)	42 (20%)	210
Publishing in English is essential for career advancement	151 (72%)	32 (15%)	27 (13%)	210
Lack of journals/resources limits Kiswahili scholarship	158 (75%)	21 (10%)	31 (15%)	210
I would publish in Kiswahili if adequate recognition were given	143 (68%)	36 (17%)	31 (15%)	210

The results of this study in Table 3 highlight a paradox in the academic positioning of Kiswahili. On one hand, 68% of respondents indicated a willingness to publish in Kiswahili if adequate recognition and resources were provided. On the other hand, a larger proportion (72%) affirmed that publishing in English is indispensable for professional advancement. This contradiction illustrates how global



academic hierarchies continue to privilege English as the dominant medium of scholarly communication, thereby limiting the visibility and legitimacy of research produced in Kiswahili.

These findings can be situated within the broader framework of Language-Planning and Policy (LPP), a field shaped by early theorists such as Cooper (1989) and Kaplan and Baldauf (1997) and subsequently expanded by scholars who stress the interconnectedness of status, corpus, and acquisition planning in dynamic sociopolitical ecologies (see Ayodi, 2021; Kaschula, 2021). In this context, Kiswahili enjoys considerable symbolic and status recognition reflected in its designation as an official African Union working language (Kago & Cissé, 2022) yet corpus-development and acquisition planning remain underdeveloped. The absence of standardised scholarly terminologies limited computational lexica, and uneven curricular integration across East and Central Africa create structural barriers that prevent ideological support for Kiswahili from being converted into actual scholarly practice. This misalignment between symbolic recognition and institutional reality is precisely what respondents articulated when they described English as simultaneously indispensable and Kiswahili as aspirational. The privileging of metropolitan languages like English not only undermines the scholarly recognition of African languages but also curtails their integration into digital infrastructures. Therefore, the current study offers a distinctive contribution by empirically mapping the disconnect between ideological support for Kiswahili and the structural limitations that constrain its academic uptake.

Technological dimensions of Kiswahili use in the digital era

This study postulates a clear majority of respondents (64%) report using Kiswahili daily on social media, indicating its entrenched role in informal digital communication. Less than half (48%) participate in the development or localisation of Kiswahili content online, revealing a shortfall in resource creation and platform adaptation. More than half of participants (55%) experience difficulties with spell-check and autocorrect functions, underscoring the inadequacy of existing language-processing tools for Kiswahili. Finally, 62% observe that contemporary AI systems fail to process Kiswahili effectively, highlighting persistent technological barriers to the language's broader digital integration.

Table 4: *Technological Dimensions of Kiswahili Use in the Digital Era (n=384)*

Digital activity/challenge	Yes (f / %)	No (f / %)	Total (f)
Daily use of Kiswahili on social media	246 (64%)	138 (36%)	384
Development/localisation of content in Kiswahili	184 (48%)	200 (52%)	384
Challenges with spell-check/autocorrect in Kiswahili	211 (55%)	173 (45%)	384
AI systems fail to process Kiswahili effectively	238 (62%)	146 (38%)	384

The pervasive daily use of Kiswahili on social media (64%) underscores its entrenched status in informal digital domains; however, fewer than half of users (48%) actively participate in content creation or localisation. This gap highlights a disjunction between grassroots communicative practices and institutional recognition, suggesting that while existing language policies have successfully promoted Kiswahili as a regional lingua franca, they have not extended status planning to the digital sphere. National and regional frameworks continue to prioritise traditional public domains such as education, broadcasting, and administration while largely neglecting the regulatory and financial support required to professionalise online content production. More than half of respondents (55%)



report challenges with spell-check and autocorrect tools, indicating persistent corpus planning gaps, as reliable computational language resources, such as standard orthographies, lexical databases, and terminologies, remain underdeveloped due to inconsistent policy enforcement and investment. Without coordinated efforts, including government-sponsored digital archives, terminological committees, and partnerships with technology firms, Kiswahili remains disadvantaged relative to English and other global languages with robust digital infrastructures.

The finding that 62% of participants perceive AI systems as inadequate for Kiswahili highlights both technological limitations and a broader absence of explicit, enforceable digital-language governance. While policy frameworks such as Kenya’s *National AI Strategy 2025–2030* and Tanzania’s AI readiness initiatives articulate inclusion and ethical AI, they stop short of mandating language-specific standards, procurement requirements, or corpus-development obligations (ICT Authority, 2025; UNESCO, 2023). Similarly, regional efforts by the East African Community and the East African Kiswahili Commission, alongside targeted international projects such as UNESCO’s English-Kiswahili AI dictionary and Masakhane’s open corpora, signal political will and grassroots innovation yet remain primarily promotional or project-based rather than statutory (EAC, 2024; Nyabola, 2024). The result is therefore not an absolute policy vacuum but a patchwork policy landscape in which strategic intent exists but has not been codified into operational mandates and sustainable funding streams. This misalignment between symbolic recognition and regulatory detail explains why a majority of respondents continue to experience poor Kiswahili performance in AI tools and why concerns rooted in postcolonial linguistic justice remain pressing (Pennycook, 1998; Makoni & Pennycook, 2006).

Economic and political factors shaping Kiswahili use

The findings of the current study show that perceptions of institutional support for Kiswahili are mixed but generally limited. Only 41% of respondents indicated that national governments allocate sufficient resources for Kiswahili, while 37% disagreed and 22% were neutral, highlighting concerns over state-level support. Similarly, 37% of participants agreed that regional organisations, such as the AU and EAC, provide adequate backing, compared with 35% who disagreed and 28% who remained neutral. Regarding diaspora communities, 40% of respondents believed there are sufficient opportunities for formal Kiswahili learning, while another 40% disagreed and 20% were neutral, suggesting that access to structured language education abroad remains constrained. Overall, these findings indicate that both national and regional institutional support, as well as diaspora access to formal Kiswahili learning, are perceived as insufficient by a substantial proportion of the respondents.

Table 5: Economic and Political Factors Shaping Kiswahili Use (n=384)

Statement	Agree (f / %)	Neutral (f / %)	Disagree (f / %)	Total (f)
National governments allocate sufficient resources for Kiswahili	158 (41%)	85 (22%)	141 (37%)	384
Regional organisations (e.g., AU, EAC) provide adequate support	142 (37%)	107 (28%)	135 (35%)	384
Diaspora communities have access to formal Kiswahili learning	154 (40%)	77 (20%)	153 (40%)	384

The findings in Table 5 indicate that both national governments and regional organisations are perceived as providing limited support for Kiswahili, with only 41% and 37% of respondents, respectively, agreeing that resources and institutional backing are adequate. Through the lens of Cooper’s (1989) language-planning framework, this highlights deficiencies in status and acquisition



planning, where formal policy recognition has not been accompanied by meaningful investment in educational, technological, or professional resources. Kaplan and Baldauf’s (1997) ecological perspective further underscore how structural constraints, including uneven policy enforcement, the continued privileging of colonial languages, and weak institutional coordination, impede Kiswahili’s functional expansion across regional and diaspora contexts. Complementing these frameworks, Pennycook’s (1998) Postcolonial Linguistic Justice approach situates these shortcomings within broader epistemic inequalities, emphasising that the lack of tangible institutional support perpetuates the marginalisation of African languages in governance, education, and global knowledge production. Unlike prior studies that often focus narrowly on policy intentions or single-country analyses, this research provides novel cross-national evidence, quantifying perceptions of institutional support and revealing the persistent gap between official language policy and the material conditions required for Kiswahili’s sustainable growth and regional empowerment.

Balancing cultural heritage and language standardisation

This study posits that effective language standardisation should balance the preservation of Kiswahili’s cultural heritage with the need for linguistic uniformity to enhance communication and institutional use. The findings indicate that 44% of respondents believe that standardising Kiswahili strengthens its role in preserving cultural identity, while 36% disagreed and 20% were neutral. At the same time, 42% agreed that over-standardisation may undermine regional and dialectal diversity, with 37% disagreeing and 21% neutral, reflecting concerns about maintaining linguistic variety. Only 39% reported active involvement by scholars and communities in the standardisation process, whereas 37% disagreed and 24% were neutral, suggesting limited participation in shaping norms. Overall, these results demonstrate that while standardisation is perceived as a tool for cultural preservation, careful management and inclusive engagement are essential to avoid marginalising regional variants and community voices.

Table 6: *Balancing Cultural Heritage and Language Standardisation (n=384)*

Statement	Agree (f / %)	Neutral (f / %)	Disagree (f / %)	Total (f)
Standardising Kiswahili strengthens its role in preserving cultural identity	170 (44%)	77 (20%)	137 (36%)	384
Over-standardisation may undermine regional and dialectal diversity	162 (42%)	81 (21%)	141 (37%)	384
Scholars and communities are actively involved in language standardisation	148 (39%)	92 (24%)	144 (37%)	384

The findings in Table 6 highlight a key tension in Kiswahili language planning. While standardisation is widely seen as beneficial for preserving cultural identity, concerns persist that it may inadvertently marginalise regional dialects and limit community participation. Viewed through Cooper’s (1989) language-planning framework, these responses reveal gaps in status and corpus planning, where Kiswahili is elevated as a national and official language. Yet, norms, orthography, and standardised registers remain unevenly developed. The low proportion of respondents (39%) actively engaged in standardisation processes points to deficiencies in acquisition and implementation planning, underscoring the need for meaningful community and scholarly involvement to prevent standardisation from eroding linguistic diversity. Kaplan and Baldauf’s (1997) ecological model further clarifies how macro-level policies, meso-level institutional practices, and micro-level community participation interact to shape language outcomes. Complementing these perspectives, Pennycook’s (1998) Postcolonial Linguistic Justice framework situates these tensions within broader epistemic inequities, emphasising that over-standardisation risks reproducing centralised, top-down



control while silencing local linguistic practices and undermining cultural pluralism. The data, with 44% affirming that standardisation strengthens cultural identity and 42% cautioning against excessive standardisation, illustrate misalignment between policy intentions, institutional strategies, and community experiences. The study's novelty lies in its empirical quantification of these dynamics across a broad stakeholder sample, providing actionable insights for balancing national cohesion with cultural authenticity while advancing postcolonial linguistic justice in Kiswahili planning.

Discussion

This study reveals that Kiswahili occupies a dynamic yet uneven position within the global linguistic ecosystem. On the one hand, the language demonstrates widespread social use and cultural resonance, particularly in Tanzania (92%) and Kenya (78%). On the other hand, its institutional uptake, technological integration, and academic recognition remain fragmented. Although Uganda (65%), the Democratic Republic of Congo (58%), and diaspora communities (42%) exhibit sustained engagement, their usage is confined mainly to informal, familial, or cultural domains rather than formalised professional or educational settings. Not only do 68% of academic and policy respondents express a willingness to publish in Kiswahili if adequate recognition and resources were provided, but 72% also affirm that English remains indispensable for career progression. This contradiction reflects entrenched epistemic hierarchies in which English continues to dominate global knowledge production, thereby constraining the visibility and legitimacy of scholarship produced in African languages. Moreover, while Kiswahili is actively used in digital spaces, 64% report daily engagement on social media—only 48% contribute to content development or localisation. In addition, 55% encounter persistent challenges with spell-check and autocorrect tools, and 62% observe that AI systems fail to process Kiswahili effectively. These findings underscore not only the language's symbolic vitality but also its limited structural integration into global academic and technological infrastructures.

From a theoretical standpoint, Cooper's (1989) tripartite model of language-planning offers a valuable lens through which to interpret these dynamics. Whereas status planning has achieved notable success in East Africa, corpus development, particularly in standardised registers and computational lexica, as well as acquisition mechanisms such as curricular harmonisation and professional training, remains underdeveloped. Furthermore, Kaplan and Baldauf's (1997) ecological framework highlights misalignments between macro-level policy ambitions, meso-level institutional practices, and micro-level community participation. Complementarily, Pennycook's (1998) postcolonial linguistic justice perspective situates these gaps within broader epistemological inequalities, illustrating how the privileging of metropolitan languages systematically marginalises African languages like Kiswahili not only in scholarly recognition but also in access to digital tools and publishing platforms. The digital findings resonate with Nyabola's (2023) call for linguistic equity in online environments. Although Kiswahili thrives in informal digital communication, structural deficiencies in localisation, AI integration, and language technologies continue to restrict its visibility and economic potential.

Moreover, concerns about homogenisation expressed by 42% of respondents, who fear that standardisation may erode dialectal diversity, align with Wildsmith-Cromarty et al. (2023), who caution against the loss of cultural authenticity in the pursuit of linguistic uniformity. Consequently, the policy implications are both urgent and multidimensional. Regional corpus planning must be coordinated across East and Central Africa, while participatory standardisation processes should be designed to preserve dialectal richness alongside formal functionality. Not only should academic institutions establish peer-reviewed Kiswahili journals indexed in international databases, but they should also provide incentives such as research grants, career credits, and institutional recognition for scholars who publish in Kiswahili. Likewise, postgraduate programmes should incorporate Kiswahili



as a medium of instruction to reinforce its academic legitimacy. In the digital domain, targeted investment is required to develop Kiswahili-compatible AI systems, autocorrect algorithms, and spell-check utilities. Local innovators producing Kiswahili-based applications, translation engines, and e-learning platforms must be actively supported. Furthermore, governments and regional bodies, including the African Union and East African Community, must scale up both financial and structural support, integrating Kiswahili into regional diplomacy, trade negotiations, and academic mobility programmes. Diaspora engagement is equally critical: formal Kiswahili education should be promoted through schools and cultural institutions to foster transnational linguistic continuity.

The findings on the urgent need for targeted corpus development and digital language planning in relation to AI are broadly consistent across the sampled regions, but with notable variations in emphasis. For example, participants in Tanzania and Kenya, where Kiswahili is used more frequently every day and enjoys greater symbolic recognition, highlighted the absence of robust digital corpora and localised AI tools as a direct impediment to scholarly and technological uptake. By contrast, respondents from non-Kiswahili-dominant countries in the sample underscored a double marginalisation: limited institutional incentives to use Kiswahili in academic domains, combined with inadequate computational resources. This indicates that while the overarching finding of a corpus deficit and weak digital governance is generalisable across contexts, its manifestations differ depending on the degree of institutional recognition and everyday vitality of Kiswahili. Consequently, the call for corpus development and digital language planning should be understood as a region-wide priority. However, the specific interventions may need to be tailored—for instance, strengthening scholarly registers and terminology in Tanzania and Kenya, while focusing more on capacity building and institutional adoption in Rwanda, DRC, or Uganda.

In sum, Kiswahili's cultural and social vitality, while significant, is insufficient on its own to secure the language's expansion into high-status academic and digital domains. Only through deliberate, multi-level interventions grounded in inclusive standardisation, technological investment, and postcolonial linguistic justice can Kiswahili be transformed from a regional lingua franca into a globally recognised medium of scholarly and technological expression.

Conclusion

The findings of this study affirm that Kiswahili possesses considerable potential to evolve into a globally recognised language; however, its advancement is shaped by both enabling conditions and persistent structural limitations across five interrelated domains. While the language maintains a strong sociolinguistic foundation in East Africa particularly in Tanzania and Kenya, where daily usage is widespread, its presence remains inconsistent in Uganda, the Democratic Republic of Congo, and among diaspora communities. Moreover, within academic contexts, a paradox emerges. Although most respondents endorse Kiswahili's viability as a scholarly medium, they simultaneously acknowledge the dominance of English, primarily due to the absence of internationally indexed journals and limited institutional infrastructure.

Kiswahili's vitality in local digital environments is evident, especially on social media platforms; nevertheless, its broader digital visibility is constrained by inadequate technological support. Respondents frequently reported challenges with spell-check systems, autocorrect features, and AI-based language processing tools, which reflects the urgent need for targeted corpus development and digital language planning. Furthermore, policy frameworks and financial commitments appear largely symbolic, as only a minority of participants perceived substantive governmental or regional investment in Kiswahili's advancement. Although the language is widely celebrated as a Pan-African



cultural symbol, concerns were raised that standardisation processes may inadvertently suppress dialectal variation and regional linguistic identities.

References

- Abawi, K. (2017). Data Collection Methods (Questionnaire & Interview). Geneva Workshop 2017.
- Aiello, F., & Tramutoli, R. (2023). KIU (Kiswahili-Italiano-UniOr): The UniOr online Dictionary for Italian L1 Swahili Learners. *Lexikos*, 33(1), 90-108.
- Ayodi, N. K. (2021). The Anglophone Francophone Divide in Sub-Saharan Africa: Exploring the Potential and Future of Kiswahili. *Mwanga wa Lugha*, 6(1), 183-194.
- Barasa, D. (2023). Language ideologies, policies and practices within the multilingual Kenyan context. *Journal of Linguistics, Literary and Communication Studies*, 2(1), 55-62.
- Cooper, R. L. (1989). *Language Planning and Social Change*. Cambridge University Press.
- East African Community. (2024). *EAC Digital Innovation and Kiswahili Language Initiatives*. Arusha: EAC Secretariat.
- Eldridge, J., Neuhaus, K., & Torgerson, T. (2020). *Survey Design and Validation in Sociolinguistics*. Oxford University Press.
- Hornberger, N. H., & Johnson, D. C. (2007). Slicing the Onion Ethnographically: Layers and Spaces in Multilingual Language Education Policy and Practice. *TESOL Quarterly*, 41(3), 509-532
<https://doi.org/10.1002/j.1545-7249.2007.tb00083.x>
- ICT Authority. (2025, March). *Kenya National Artificial Intelligence Strategy 2025-2030*. Nairobi: Ministry of Information, Communications and the Digital Economy.
- Jenkins, J., & Panero, S. M. (2024). *Global Englishes: A Resource Book for Students*. Routledge.
- Jjuuko, M., & Muniko, R. (2018). Perceptions of and Motivations for Accessing Swahili Online Newspapers among Students at the University of Dar es Salaam. In *African Language Digital Media and Communication* (pp. 120-136). Routledge.
- Kago, G., & Cissé, M. (2022). Using African Indigenous Languages in Science Engagement to Increase Science Trust. *Frontiers in Communication*, 6, 759069.
<https://doi.org/10.3389/fcomm.2021.759069>
- Kaplan, R. B., & Baldauf, R. B. (1997). *Language Planning from Practice to Theory* (Vol. 108). Multilingual Matters.
- Kaschula, R. H. (2021). *Languages, Identities and Intercultural Communication in South Africa and Beyond*. Routledge.
- Kiokoa, A. N., & Rugemalirab, J. (2022). The Future of the Indigenous Languages of Kenya and Tanzania. *Descriptive and Theoretical Approaches to African Linguistics*, 299.
- Kothari, C. R. (2004). Sample Size Determination. In *Research Methodology* (Vol. 1, pp. 74-81). New Age International.
- Kusimba, C., & Walz, J. R. (2021). Debating the Swahili: Archaeology since 1990 and into the Future. *Archaeologies*, 17(3), 345-385. <https://doi.org/10.1007/s11759-021-09434-x>
- Makoni, S. & Pennycook, A. (2006). *Disinventing and Reconstituting Languages*. Multilingual Matters. <https://doi.org/10.21832/9781853599255>
- Makulilo, P. B. (2025). Morphological Productivity and Lexical Innovation in Swahili: Digital Communication and Language Transformation in Social Media Spaces. *Language, Technology, and Social Media*, 3(2), 231-249. <https://doi.org/10.70211/ltsm.v3i2.176>
- Muaka, L. (2019). Linguistic Commodification and Africa's Linguistic Identities: Creating a Nexus! In *African Languages and Literatures in the 21st Century* (pp. 127-148). Cham: Springer International Publishing.
- Mugane, J. M. (2015). *The story of Swahili*. Ohio University Press.
- Nassenstein, N., & Shinagawaa, D. A. I. S. U. K. E. (2019, January). On Variation in Swahili: Current



- Approaches, Trends and Directions. In *Swahili Forum* (No. 26).
- Nyabola, N. (2023). Citizenship, African Languages and Digital Rights. *Digital Citizenship in Africa*, 209.
- Nyabola, N. (2024). Citizenship, Language and Digital Rights: the Question of Language in the Process of Decolonising the Internet and Digital rights. *Foresight*, 26(4), 568-580.
<https://doi.org/10.1108/FS-09-2022-0102>
- Pennycook, A. (1998). *English and the Discourses of Colonialism*. Routledge.
- Spolsky, B. (2019). A Modified and Enriched Theory of Language Policy (and Management). *Lang Policy* 18, 323–338 (2019). <https://doi.org/10.1007/s10993-018-9489-z>
- UNESCO. (2023). *English–Kiswahili AI Dictionary for Digital Inclusion*. Paris: United Nations Educational, Scientific and Cultural Organisation.
- Wildsmith-Cromarty, R., Reilly, C., & Kamdem, S. (2023). Investigating the Opportunities and Challenges for African Languages in Public Spaces: An Introduction. *Journal of Multilingual and Multicultural Development*, 44(9), 765-772. <https://doi.org/10.1080/01434632.2023.2222105>