

Language & Coloniality: Non-Dominant Languages in the Digital Landscape





If you know your mother tongue, and add it with all other languages, that is empowerment.

Ngũgĩ wa Thiong'o

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introduction

There are only approximately 29 languages with digital vitality (Simons et al., 2017). For languages, digital vitality represents the extent to which a language is used and usable on the Internet and through digital devices and platforms. Ten languages represent eighty-two percent of Internet content: English, Chinese, Spanish, Arabic, Portuguese, Japanese, Russian, German, French and Malaysian (Internet World Stats). The dearth of platforms, applications, and software for so-called “minority” or non-dominant languages is representative of the experience of low-resourced language speakers on the Internet.

Low language diversity in digital spaces reflects the decline in minority languages. When languages are not digitally supported, users have less ability to take advantage of social media, e-commerce and other Internet platforms that are increasingly a part of global daily life. Script and language vitality on the Internet requires going a step beyond script/language presence and whether a language has input or output capability on the Internet, where input means the language a user is exposed to, and output is the language a user produces in digital space (Kornai, 2013). How can we better understand “average” users’ lived realities and how can we best integrate more languages in a supposedly shared global good?

problem statement

The prolific Kenyan writer Ngũgĩ wa Thiong'o, known for writing his works in Kikuyu rather than English, interrogates the abandonment of Indigenous language in favour of writing in European languages, such as English. In *Decolonising the Mind* (1986), Thiong'o questions why African culture should be preserved and construed in European languages. The deliberate choice of Thiong'o to then commit to publishing all his writings in Kikuyu reflects a departure from imposed norms and a desire to express oneself more authentically.

This is echoed in today's digital landscape. As more of Sub-Saharan Africa and the broader global South shift their lives online, the norm imposed on individuals is the choice to engage in digital spaces in majority languages. Internet accessibility is more than the ability to obtain a device and a wireless connection, a linguistic dimension also plays a key role. Minority languages are excluded from digital contexts and spaces in favour of majority ones, and software and applications are developed for the so-called majority. This varies across contexts. Languages such as Hindi (India) and Mandarin (China) are gaining dominance in societal and digital contexts, whereas languages such as Swahili (East Africa) and Yoruba (Nigeria) are dominant in physical spaces but not online.

Technological development is not widespread for languages equally. Siri, available on iPhones and other Apple products, is only available in 25 languages,¹ most of which are European or Latin languages, aside from Chinese, Japanese, Korean and Arabic. On social media, Twitter's website supports 34 languages of similar origin, though languages such as Hindi, Malay, Filipino and Vietnamese are supported.² Most social network platforms have English as their dominant language, serving approximately eighty percent of users who do not speak English as their first language (Christison & Murray, 2014). However, anyone speaking an Indigenous or low-resourced language as their primary tongue has limited access. Access to websites that support Indigenous languages is limited due to irrelevant and insufficient content on these websites. Companies do not see a business case for Indigenous language websites. Most social media websites for low-resourced languages are user-made, such as Indigenous groups from Manitoba, Canada.³

The language gaps online reflect a growing digital divide, recognised early in the twenty-first century as the gap that exists between those with ready access to ICT and the Internet, and those without such access (Cullen, 2001). Those who do not speak dominant languages fall even further behind on the lagging side of the digital divide. Appropriately, the digital language divide demonstrates that out of 6,000 contemporary languages, only ten make up 82% of the Internet (Young, 2014).

Overall, language representation on the Internet and its associated digital platforms is lacking. This ultimately spills over into how the shift into a mono-language society is reducing linguistic diversity and erecting even more barriers for those seeking to communicate in low-resourced languages in our digitised landscape.

¹ <https://www.apple.com/ios/feature-availability/#siri>

² <https://developer.twitter.com/en/docs/twitter-for-websites/supported-languages>

³ <https://guides.wpl.winnipeg.ca/indigenoulanguages/home>

aim of the paper

This white paper seeks to unpack the use of Indigenous or non-majority language in the existing digital landscape. This ties into ideas about digital colonialism (Kwett, 2022), wherein hegemonic, or dominant, languages are threatening and jeopardising the ability for local language speakers to express themselves and communicate in digital spaces. We hope to analyse a sample of existing scholarship on digital inclusion to examine how it plays out specifically through the use of local language on social media.

We map key issues at work when local languages are used on social media platforms. These may concern issues that build on the theme of the digital divide to raise questions about digital equality, participation, citizenship, belonging and identity. Through this white paper, we aim to understand how the digital onboarding of language may empower, limit, extend and enrich user engagement. We also seek to unpack themes of access, safety and usability that the average user in these contexts may experience when using digital platforms for communication and daily life.

definitions

Digital colonialism: the use of digital technology for political, economic and social domination of another nation or territory (see: Kwet, 2016).

Digital divide: the gap that exists in most countries between those with ready access to the tools of information and communication technologies, and the knowledge that they provide access to, and those without such access or skills (See: Cullen, 2001).

Digital vitality: represents the extent to which a language is used and usable on the Internet and through digital devices and platforms.

Digital language death: when the following occurs to a language used in digital spaces;

Loss of function: when a language is not used in digital, daily communication (texting, email) to commerce, official business, and so on;

Loss of prestige: a language has little to no presence online; and

Loss of competence: digital natives are not fluent in a language (See: Kornai, 2013).

Indigenous language: a language or group of languages that is native to a region and spoken by Indigenous people of the same cultural values and beliefs.

Majority language: the language that the majority of a population in a given country uses. This may be an imposed (Imperial) language (such as English in Uganda), or an Indigenous language (such as Hindi in India).

case studies

We present case studies of three East African countries (Ethiopia, Tanzania and Uganda) to better understand the existing intersection of the digital landscape and language as it is used in daily life.

We have three major themes that intersect in this assessment. First, we are tackling issues of access. Do speakers of non-majority languages rely on transliteration or majority languages such as English to make life “easier”? Are certain languages prioritised over others in digital spaces? Is there social capital associated with using particular language(s) in digital spaces?

Secondly, we look at usability. Usability is based on confluent factors of language use described in Kornai (2013):

- (i) the size and demographic composition of the language community;
- (ii) the prestige of the language;
- (iii) the identity function of the language;
- (iv) the level of software support; and
- (v) Wikipedia.

We question whether speakers of particular languages can easily use different softwares, applications and services. This particularly applies to those who do not use Latin script, such as in Ethiopia. Are speakers of non-dominant languages able to publish, interact and promote the use of these languages in digital spaces? Are there word-level tools (auto-correct, dictionaries) or OS- or input-level support for a local language?

Lastly, safety is a key recurring theme. We question whether speakers of non-dominant languages may face ostracisation or harm online for the use or promotion of their language(s). In the same vein, are certain language(s) policed or censored more or less than other dominant language(s)? Are certain stereotypes or assumptions of language reproduced in digital spaces?

ethiopia

Woldermariam and Lanza (2014) aptly describe Ethiopia as a “multilingual, multiethnic and culturally pluralistic” country. The government of the country’s 114 million population - comprising over 80 ethnic groups - recognises five official working languages: Afan, Amharic, Oromo, Somali and Tigrinya. But beyond this, a total of 28 languages exist in literary form across various public domains, including primary education, government and mass communication. Amharic however is the country’s lingua franca, with most Ethiopians understanding and speaking the language. This can be attributed to the authoritarian and nationalists regimes that dominated the country’s history throughout most of the twentieth century (Yusuf, 2019). Ethiopia was never formally colonised, and as such, its sociolinguistic landscape has been shaped by competing ethnic quests for self-determination, an ongoing evolution.

Ethiopia’s language policy is considerably progressive (UNICEF, 2016). While the country has been a federalist society for much of its known history, the origin of the current language landscape can be attributed to the ethnic federalist approach officially undertaken by the government in 1995 (Taye, 2017). Within this new dispensation ushered in by a coalition government of the country’s major ethnic groups, languages were regionally concentrated to reflect and promote the ethnic diversity of the population (Woldermariam and Lanza, 2014). This was an open rejection of the autocratic, repressive language policies undertaken during the reign of Emperor Haile Selassie (1930 - 1974) and the subsequent Marxist-Leninist Derg state (1974 - 1991) (Yusuf, 2019). Under the Emperor Selassie, Amharic was standardised as the country’s primary language through a political project intended to unify the country bounded by a shared identity. The emerging policies restricted the development of other languages as they were perceived as a gateway to ethnic mobilisation. Upon overthrowing the monarchy, the Derg, a military junta characterised by sociliast ideologies, engaged in actions to promote the use of regional languages. Within the fold of their national literacy campaign, attempts were made to teach people how to read and write in their home languages, with 15 languages designated to this end (Getachew & Derib, 2006). In spite of this expanded approach, Amharic’s predominance continued owing to a number of reasons: 1. the centralist, top-down governance approach through which the government maintained power was exclusionary by nature, 2. the alternative language resources that were developed were of a poor quality, and 3. economic opportunities favoured Amharic speakers (Smith, 2008). When ethnic federalism was instituted in 1991, efforts to maintain the social fabric of the state shifted from a centralist approach - wherein all people were required to ascribe to a common understanding and

expression of their identity - to one where ethnic autonomy was prioritised as a means to a similar end (Habtu, 2003). Nationality languages were introduced by the education department through its forerunner national language policy statement (Smith, 2008). This was later supplanted by the official National Education & Training Policy of Ethiopia (NETP) in 1994 and the constitution of 1995. Wherein the rights of nations - or ethnicities - to be educated in their own language and the equal status before the state of all local languages were recognised respectively (Smith, 2008; Ethiopian Constitution, 1995; Ethiopia Ministry of Education, 1994). This has undoubtedly led to increased visibility of regional and local languages in public spheres, with a number of local languages attaining marked development and increased presence (Woldermariam and Lanza, 2014). Up until recently Amharic remained the official working language of the country, which reinforced its ubiquity. However, in light of mounting political instability in the country, underpinned by heavy ethnic conflict, the Ethiopian government has introduced a series of reforms including the induction of four more official working languages reflecting the country's politically dominant ethnic groups.

English, Ethiopia's most dominant foreign language, was formally introduced to the country through the education system (Sharma, 2013). Under Selassie it emerged out of the recognition of the trove of knowledge, especially around science and technology, that existed in the language. The period under which this was undertaken is often cited as the "golden age of education", partly due to the rapid development of schools across the nation (Gerencheal & Mishra, 2019). The education system during this time was strongly influenced by both Britain and America, and as such English enjoyed extensive adoption owing to the common perception of its value as a language of upward mobility. With knowledge of English - alongside Amharic - being compulsory for state examinations and entry into the only university in the country at the time (Smith, 2008). Once the NEPT took effect, while nationality languages were instituted as the medium of instruction for primary schooling, the presence of English was maintained as a taught language subject. More importantly, it remained the compulsory language of instruction beyond primary education. In contemporary Ethiopia, English continues its rank as the most widely spoken foreign language. It remains held in high esteem, evidenced by the high demand for its mastery exhibited by locals (Gerencheal & Mishra, 2019). Despite this widespread interest, English remains practically limited to a narrow set of functional domains. It is only spoken and understood by an elite segment of the population, with its use being confined to a very particular set of environments

(Gerencheal, 2016; Sharma, 2013). English fluency is low amongst learners and students with many expressing anxiety over the need to use the language.

It is estimated that modern communication technologies first arrived in Ethiopia around the beginning of the twentieth century (Kenaw, 2017). While the foundation had been laid in previous regimes, such as during the reign of Emperor Menelik wherein the telephone and piped water supply were developed, it was Haile Selassie that achieved considerable progress in modernising the country. Imported technologies enabled the emperor to consolidate power and to expand on his ambition to develop a modern education system. However, it is not clear that Haile Selassie's endeavours for technological modernization were rooted in the quest for self-determination in the same way as his predecessor(s) may have. Instead, the technology that became prevalent during the time was imported and domesticated such as through translation of terminology into local languages (Kenaw, 2017). In fact, as previously mentioned, the emperor introduced English into the education system as it was perceived as the language of science and technology. Interestingly, when regional self-governance was endowed upon ethnic groups in 1991, vanguards of the Oromo language - the country's largest ethnic group - decided to switch from Ethiopic script to Latin script in part due to the support offered by digital technologies (Yimam (1992) in Zaugg, 2020). These dynamics can be viewed as underlying the ongoing relationship between Ethiopians, their languages and technology. To assess this further, the digital inclusion of Amharic as the dominant local language (as well as other Ethiopian languages), can be evaluated across the criteria of inclusion or access, usability, attitudes and also safety.

When it comes to inclusion, despite its pervasiveness, Amharic is categorised as a low-resource language (Gereme et al., 2021). Low resource languages refer to languages for which limited digital resources exist (Megerdooonian & Parvaz, 2008; Hogan, 1999). Otherwise known as Ge'ez, Ethiopic script, is Africa's oldest script. Both Amharic and Tigrinya speakers make use of the script - which also accommodates other minority languages with slight modifications. Compared to other non-Latin African languages Ge'ez has achieved marked strides online over the last 40 years specifically (Zaugg, 2020). Various trends and innovations are observed, some of which are discussed in greater detail subsequently. Since the 1980s Ethiopic-based languages making use of the script have benefited from digital support via word-processors, fonts and keyboards, as well as its inclusion into the Unicode Standard in 1999.

The bulk of this work has been carried out by Ethiopian linguists themselves, while global efforts have also progressed, albeit not consistently. In 2010 Microsoft launched Windows Vista, its operating system, in Amharic (SOMALILAND, 2010). By 2015 Amharic was available across a range of Google Suite products, including the internet search engine's speech-to-text service - Cloud Speech API - in the years thereafter (Perez, 2017; Galperin, 2014). Sasikumar & Hegde (2004) categorised (mobile) localisation activity under four categories: 1. display (availability of local script), 2. language (availability of system text in local language), 3. culture (utilisation of iconography that is culturally relevant), and 4. device (contextual relevance of device usage). The bulk of localisation efforts in Ethiopia has covered the first two categories, namely display and language. It was only in 2021 with the release of iOS 15 that Apple introduced its first in-built Amharic (Ge'ez) keyboard. While a good start, the keyboard remains riddled with challenges that hamper the user experience and discourage its use (see for instance the tweet/s below by @ethiopic (2021)). Accessibility issues such as infrastructure limitations, high prices and government-imposed regulations continue to disincentivize Ethiopians from getting online (Shahbaz and Funk, 2020). Additionally, non-Amharic speakers on the internet exist in a challenged techno-linguistic environment compared to their Amharic speaking counterparts. English continues to make up between 80 to 90 percent of web content in Ethiopia, with Amharic constituting the vast majority of the remainder with between 11 to 18 percent (Zuagg, 2020; Tsegaye & Atnafu, 2016). It may be worth mentioning that Wikipedia pages are available in the country's five official government working languages, with Amharic enjoying the greatest visibility on the platform. Finally when it comes to social media, Facebook - the most popular social media platform in the country - offers transliteration support services to navigate the user interface, however its community guidelines are not transliterated nor available in any Ethiopian script or language (Ayalew, 2021).



Daniel Yacob

@ethiopic

Nice to see an [#Amharic](#) keyboard arrive with iOS 15. It's fairly normal, with a few clever choices. Offering non-Amharic letters may cause some confusion, slow typing, and lead to more spelling errors. Better to support these letters under additional keyboards. But it's a start!



4:12 AM · Sep 22, 2021 · Twitter Web App



Daniel Yacob

@ethiopic

To clarify the hazard of the approach, it is analogous to adding French, German, Czech, etc. letters to an English language keyboard.

4:39 AM · Sep 22, 2021 · Twitter Web App

Much like elsewhere on the continent, mobile telephony has taken off in Ethiopia. Despite this, mobile subscriptions and much more internet penetration remain relatively low, with most Ethiopians not owning a mobile phone nor accessing the internet (Kemp, 2021; World Bank, 2020). Nonetheless, mobile phones are the primary means through which Ethiopians access and make use of the internet.

In Zuagg's (2020) analysis of the presence of Ethiopian languages online using an adapted version of a vitality assessment scale developed in Kornai et al. (2017), while not thriving, Amharic was considered as digitally vital across domains of digital support, use and vitality. Importantly, the analysis showed a high level of digital use of Amharic online proxied via online Wikipedia content and the number of tweets in the language. Interestingly, Somali, a local language that is also the national language of Somalia, which makes use of Latin script, equally enjoys a similar level of online use as Amharic. While the rest of the local languages appear to serve less functional purposes on the internet with the exception of Tigrinya which enjoys a decent amount of digital support through digital infrastructure such as translation, language availability in operating systems, search engine services etc. In terms of attitudes, while Ethiopians are increasingly producing content in Ethiopian languages, content consumption still skews towards English. According to Koll(2014), Ethiopian English users visited English Wikipedia 57 times for every time they visited the Amharic Wikipedia. Through an analysis of Facebook comments, Zaugg (2017) also found that despite the platform having digital support for Amharic in Ethiopic script, more than 50% of comments written in the language were transliterated in Latin script.

tanzania

Tanzania is one of Africa's most diverse linguistic environments. There are between 99 to 150 languages that are actively spoken in the country. Kiswahili and English are the country's officially recognized languages, with the former recognised as the lingua franca. While varied in dialects and accents, Kiswahili is Africa's most widely-spoken language with an estimated 200 million speakers across the East Africa region (Siminyu et al., 2022). Furthermore it is spoken and understood by the vast majority of Tanzanians. Much like the rest of the continent, the ongoing dynamics of language hegemony in Tanzania are intertwined in its colonial history and the aspirations that materialised post-independence.

English is a relatively recent convention in Tanzania's linguistic history. It arrived at the onset of the twentieth century during British colonial administration. According to Bwenge (2012), in this period, the use of the language was standardised through its classification as the language of high-level administration and academia. Furthermore, its acquisition was reserved for skilled workers, the outcome of which led to its perception as a language of upward mobility. This inevitably shaped people's beliefs around the use and value of English, not only as a social asset, but also in relation to their own indigenous languages. Kiswahili however has existed in the country for much longer. According to Whitley (1969) evidence of a rudimentary version of its existence can be traced back to before the 10th century, while its proliferation became pronounced during the 19th century through trade and education (Rubagumya, 1990). Towards the end of this period, under its occupation, Tanzania was declared a German protectorate. During this initial period of occupancy, Kiswahili was maintained as the local language and furthermore identified as the official gateway language into entry positions within systems of governance (Whitley, 1969). However German maintained official language status and its mastery the primary means through which to access further meaningful opportunities. In a relatively short period after this, the British imposed English as the official language of the country. The British undertook a different inclination and were proactive in ensuring that Kiswahili was prominent. Through the East African Inter-Territorial Language Committee, British colonial administration facilitated the proliferation of Kiswahili in Tanzania and East Africa (Siminyu et al., 2022; Mwansoko, 1991). It was maintained as the language of "low level" administration and basic schooling. Kiswahili has played a crucial role within nationalist movements within the country, given that it has been historically viewed as a language tool for "inter-tribal unity and integration" (Kassim, 1991). More notably, the Tanganyika African National Union and the Tanganyika African Association, two instrumental parties in the realisation of independence, engaged in their politicking in Kiswahili.

The imposition of English as the language of higher education, high-level administration and other domains reserved for the elite resulted in Kiswahili being viewed as a “second-class” language (Bwenge, 2012). It was under this premise that Julius Nyerere, the first prime minister and president of Tanzania post-independence, declared Kiswahili as the national language. Under this language policy, Kiswahili was initially introduced as the language of primary and adult education, with the intention of expanding its function into higher levels (Mazrui et al., 1998). In essence the politicisation of Swahili or ‘Swahilization’ project was underpinned by three main ideals: (1) to promote national unity, (2) to dissuade ethnic mobilisation, and (3) to ensure equality in opportunity through the use of a single, shared language attributed to no specific ethnic tribe. This process was facilitated through a number of language policies under the then Ministry of Education and Ministry of Community Development & Culture, as well as key initiatives. For instance the National Kiswahili Council (BAKITA) - tasked with coordinating the standardisation, development and dissemination of Kiswahili terms - and the the Institute of Kiswahili Studies (TATAKI) at the University of Dar es Salaam were at the forefront of this activity (Bwenge, 2012). Efforts to standardise the use of Kiswahili into further domains over time encountered marked push back. In response to fierce public scrutiny over the usefulness of Kiswahili as a language of secondary and higher education, the government maintained English as the language of instruction. According to Batibo (1995) during this period the role and prestige of English declined notably: dwindling interest in English was met by the rapid and enthusiastic development of Kiswahili. Despite this, presently English dominates the private education system, with schools using it as a marketing tool to attract well-off families. It continues to be perceived as a language of upwards mobility, access and opportunity, particularly internationally. Nonetheless, English remains a minority language reserved typically for the social and economic elite. The new education and training policy launched in 2015 solidified Kiswahili as the country’s medium of instruction across all levels of education (UNICEF, 2017).

Kiswahili’s hegemony is unique, it is the only African or indigenous language on the continent that threatens the vitality of other local languages (Rosendal, 2016). In Tanzania specifically, its use and development has taken place at the expense of community languages. For example (Mapunda & Gibson, 2022) found evidence of its promotion and acquisition discriminating against other indigenous languages - especially amongst the youth. This was not strictly limited to use preferences, instead Mapunda (2013) and Rosendal & Mapunda (2014) found far-reaching implications on the cultural identity and

values of people, such as through a preference for Kiswahili over one's own Indigenous tongues or considering community languages as inferior. But there is also evidence of implications on skills attainment, such as learners in communities where Kiswahili is not spoken as a main language or where other community languages are prevalent being negatively impacted. Mapunda and Gibson (2022) found the frequency of repeat (failure) rates in primary education to coincide with the prevalence of non-Kiswahili languages in their study region in Tanzania. Similarly, in their assessment of the state of education in Tanzania, Uwezo Tanzania (2017) found that the exclusive use of Kiswahili and in later years English in education had implications on the success rates of students across the country. Finally, evidence of effective parity achievements remains questionable. The ability for Kiswahili to ensure equality of opportunity for individuals of varying cultures in the country is not well documented.

Kiswahili, much like other African languages, has historically engaged in a peripheral relationship with modern technology (Legère, 2006). During colonisation, little was done to diffuse local language content into the imported technologies - mainly machinery and equipment - locals were required to work with. Instead, Kiswahili speakers adapted through the practice of language borrowing, a practice that remains embedded within ICTs language in the region even where concerted efforts have been made to coin and adopt new terms in the local language (Mziray, 2019; Legère, 2006; Mazrui & Mazrui, 1995). Despite its widespread use, in addition to the presence of a large repository of text and speech data, Kiswahili remains a low resource language (Shikali & Mokhosi, 2020). The inclusion of Kiswahili into digital technologies has improved markedly. Not only has there been an increase in the availability of web and internet content, but access to affordable technologies (equipment) that operate in Kiswahili have equally made traction (Halvorsen, 2012). Digital support for the language has only increased with time. Microsoft and Linux were forerunners in the efforts to localise technology in the region (Wandera, 2014). Beginning in the early 2000s both companies launched Kiswahili versions of their computer software. Other notable efforts to incorporate Kiswahili into ICTs includes the availability of Google Suite products, the development of Text to Speech (TTS) systems, the introduction of different machine translators such as SALAMA, and the ongoing efforts by Mozilla Foundation to build a dataset for Common Voice in the language (Kamau, 2007; Siminyu et al., 2022). In addition to numerous applications being translated into Kiswahili, M-PESA - Africa's most successful mobile money service platform with over 50 million

users in 2021 (Oluwole, 2021) - has a language menu in Kiswahili which is believed to be used by a sizable portion of the population across the region (Wandera, 2014). Nonetheless digital support has not been widespread, with key issues hampering the ability of Kiswahili speakers from reaping the full benefits of a localised internet. The vast majority of Kiswahili localisation activity has been focused on language, while other aspects of localisation have received less attention. This has led to challenges around issues such as inaccurate translations, over-autocorrection and difficult-to-use voice services (Buliva, 2017). Contrary to widespread news at the time and according to the social media platform itself, Kiswahili is still not one of Twitter's thirty four supported languages for which a translated widget text is available. Another example of this issue was shown by Wandera (2014) who found that M-Pesa users within their sample preferred to make use of the English language menu as opposed to Kiswahili. In spite of Kiswahili being a language in which they're more comfortable, the use of unfamiliar terminology and the menu not being as seamless as the English version were cited as excuses. This represents a common challenge surrounding efforts to localise technology and the internet uniquely through translation and with the English context as the point of departure.

Mobile telephony in Tanzania has been widespread, with uptake reaching even the country's remote regions. Given the accessibility of mobile devices, they've become enmeshed within the fabric of everyday life for millions of Tanzanians who use this technology as their primary means to access the internet. Furthermore, mobile devices have enabled access to an unprecedented amount of localised features and content. Tanzanians have embraced the use of mobile devices for a multitude of reasons beyond just social media, encompassing broad aspects of life. The use of mobile devices as a tool to conduct financial interactions is widespread (Anthony & Mutalemwa, 2014). Students and learners across the country have leveraged mobile devices as a tool to enhance their learning experience (Mwapwele & Roodt, 2016; Kibona & Rugina, 2015; Kafyulilo, 2014). The country's one million street traders rely heavily on these devices to conduct their trade (Rumanyika et al., 2019). While a growing number of youth were found to engage with mobile devices to facilitate income generation (Manyerere, 2021). Reuster-Jahn (2021) also noted how Tanzanians have increasingly made use of the internet as a medium to grow the availability of Swahili fiction. Despite the fact that the technologies underlying these interactions are available largely in English, the lingua franca remains Kiswahili. Mapunda and Rosendal (2021) note

however that this kinship with technologies has increased the ubiquity and allure of English, particularly amongst youth. This was observed even where the option to interact with these technologies is available in local languages. In a study of students and staff at the University of Dar es Salaam, Halvrosen (2012) found that despite a high degree of interaction with ICTs in Kiswahili, some students deemed the language to be inappropriate as a language of technology due to its perception as “backwards”, “narrow” and “non-academic”. Malangwa (2019) deduced that mixed-language use on social media was sometimes deliberately employed by users to increase the accessibility of information, particularly that published in English. The use of English remains perceived as a language of upward mobility. Given the pace of globalisation, Tanzanians, much like many across the world, are reluctant to abandon its use in fear of being locked out of opportunities and social progress. Additionally, a vast amount of information remains only accessible in English.

Limited information is available about the online safety of Tanzanians. Those engaging on social media are likely to be educated and as such are able to engage in the bilingual capacity that is observed as prevalent on Tanzanian social media. Despite its relatively low use, social media is a place where locals engage in politicking amongst other activities (Thobias, 2019). According to Parks & Thompson (2020) online political activity typically takes place and is considered most effective when conducted in Kiswahili. Jamii Forums is one of the country’s most popular social network platforms. It is often referred to as the “Swahili Wikileaks” and has in the past served as a whistleblowing medium.

uganda

Despite there being at least 41 living languages in Uganda, the current national languages of Uganda are English and Swahili. In the 1970s, Swahili was spoken by nearly a third of Ugandan citizens. It was the official language of administration, trade and education. Idi Amin Dada's dictatorship promoted the increased use of Swahili, despite the Central Region viewing its use as a form of intimidation. Despite this negative connotation, in September 2019, the Ugandan government approved the establishment of the National Swahili Council. Article 6 (2) of the Constitution of Uganda also spells out that "Swahili shall be the second official language in Uganda to be used in such circumstances as Parliament may by law prescribe."

In the 1990s, English became the primary language of instruction in Primary 5 onwards. KiSwahili, "as a language possessing greater capacity for uniting Ugandans and for assisting rapid social development," was mandated as compulsory in rural and urban areas from Primary 4 - 7. This later evolved into the Mother Tongue Policy, instituted in 2007. The primary languages instituted in this policy were Luganda, Luo, Runyakitara/Runyoro-Rutoro and Runyankore-Rukiga, Ateso/Akaramojong and Lugbara, based on their relationality to other language families in Uganda. Under this new law, learners were taught in the language of their area during their first three years. English was introduced, but as an individual subject. In the fourth year, the curriculum elevated English to one of the primary languages of instruction. In the fifth year of school, English became the only language of instruction. This is in direct contrast to private and international schools in Uganda, which may only use English as their language of instruction.

Luganda is the most-spoken Indigenous tongue in the country, but still does not have a spoken majority. This language is spoken by the Baganda, who make up 16.7% of Uganda's population. Luganda speakers reside both in the South Eastern (along the Lake Victoria shores) and Northern (along the shores of Lake Kyoga) regions of Central Uganda. While Luganda does not assume any official status, Kampala being the seat of government and commerce for the country has resulted in Luganda dominating business and interpersonal operations throughout the country. There are four additional designated regional languages: Runyakitara for Western Uganda, Luo for Northern Uganda and Ateso and Ngakarimojong for North-Eastern Uganda.

As with any other country, Ugandans have carried their native-speaking patterns over to English. For instance, the languages under the Bantu family don't have consonants that are sounded alone. Where there is a consonant, there has to be an accompanying vowel. English remains a dominant language for the educated class in Uganda, and often acts as a unifying language between distinct regions with different languages, especially online. Additionally, English is also seen as a "verifying" language that, due to colonial legacies, often is perceived as more legitimate or "smart." One references that as "English-ing," with the use of the proper noun as a verb to denote its significance. Wealthy, upper- and middle-class Ugandans that have the money to do so use English as a professional and personal tool, wielding it to gain recognition and reputation. In place of Luganda or other local languages, English is associated with opportunity, education and wealth. Rather, Luganda is associated with music, trading and religious life (Ssentanda and Nakayiza, 2015).

While there is a dearth of literature on English's dominance in Uganda, we can use the example of Nigeria to understand how English, as a colonial language, has acted as a social, political, and economic tool. Adedimeji (2004) analysed the use of English as an element of national development, wherein it acts as a lingua franca in a country where over 500 Indigenous languages are spoken. Even though the continuous use of English perpetuates colonialism, the author admits and understands that there is no alternative Indigenous language to have the grip that English does. In Uganda and Nigeria, the dominance of English or other Western languages online challenges the possibility of linguistic diversity in African digital landscapes. African countries are linguistically dependent on Europe and the West (Obondo, 2007). Indigenous languages in Sub-Saharan Africa are not provided the same infrastructure. Those who do not speak English fluently or at all struggle to claim the right to speak (Norton, 2015).

In Uganda, most national media houses produce content in English and Luganda, with the occasional publication in Swahili. While regional domestic publications in other languages exist (such as Runyankole, Karamojong and Acholi), they do not have the national leverage nor profile as Kampala-based publications. The New Vision newspaper publishes local language newspapers including Bukedde, a daily Luganda newspaper, and weeklies including Orumuri, Etop and Rupiny. Most television programming is in English, while the majority of radio programming is shared between Luganda and English. However, due to smaller Indigenous languages being denoted as "commercially non-viable programming," the larger

language blocs (such as Luganda) produce uniformity in programming and content (Chibita, 2016). As a result, most local content is not produced nor tackles local issues in an accessible language to those audiences. Even Luganda, a relatively common language in Ugandan media spaces, is not well-resourced in software, coding and project development (Nabende et al., 2021).

Additionally, digital safety is often compromised, particularly as activists or everyday users use their local tongues to express themselves online. With the ongoing COVID-19 pandemic, misinformation is spread in WhatsApp groups, Facebook and Twitter, with untrue facts about vaccines and treatment rampant. There is very little ongoing work involving East African languages in detecting this misinformation on social media platforms. There are no detection machine-learning tools for any of Uganda's Indigenous languages. As a result, Nabende and colleagues (2021) analysed the first misinformation dataset involving Luganda to capture COVID-19 misinformation across social media platforms in Luganda, English and mixed Luganda-English. The team applied machine-learning methods on these datasets to classify whether a code-mixed Luganda-English message contained misinformation or not (Nabende et al., 2021). As they concluded, software is not yet developed to safely catch often dangerous misinformation spreading rapidly on social media.

Similarly, Ugandan activists face repercussions in whichever language they Tweet, WhatsApp or post a status in. For example, Dr. Stella Nyanzi, a professor at Makerere University, posted the following poem in 2017, on Facebook, criticising the actions of President Yoweri Museveni.

‘Museveni matako nyo. Ebyo byeyayogedde e Masindi yabadde ayogera lutako.’

This translates as

‘Museveni is very much a pair of buttocks. When he spoke in Masindi. he was speaking as buttocks do’ (Nyanzi, 2017).



Stella Nyanzi ✓

January 27, 2017 · 🌐

Museveni matako nyo! Ebyo byeyayogedde e Masindi yabadde ayogera lutako.

I mean, seriously, when buttocks shake and jiggle, while the legs are walking, do you hear other body parts complaining? When buttocks produce shit, while the brain is thinking, is anyone shocked? When buttocks fart, are we surprised?

That is what buttocks do. They shake, jiggle, shit and fart. Museveni is just another pair of buttocks. Rather than being shocked by what the matako said in Masindi, Ugandans should be shocked that we allowed these buttocks to continue leading our country. Matako butako.

👍 🤔 3.9K

2.2K Comments 1.2K Shares

➦ Share

Nyanzi was then arrested and charged with cyber harassment and offensive communication under the Computer Misuse Act of 2011 (Rukondo, 2018). Nyanzi uses Luganda as both a poetic play on words but also to pick her own network of communication and self-select content in a way that attempts to avoid any disagreeable ideas or interpretations. However, with the current digital autocracy in Uganda, any language faces policing from the government, despite the Constitution of Uganda protecting citizen's freedom of expression.

Digital platforms connect readers more often than ever before on the continent and within Uganda, where knowledge production, creative expression and communication are amplified (Nesbitt-Ahmed, 2017). However, a glaring gap remains: there is not a wealth of resources on how Ugandans are using their native tongues online or in social media spaces. The plurality of languages in Uganda means that only languages such as Luganda are being given international recognition, through a new Google Translate feature, for example (Bambino, 2022). Languages, particularly those of the North that are not Bantu, fall to the wayside. They are not thriving in digital spaces nor are they being studied.

legacies of colonialism & language online

The language(s) one speaks have a tangible impact on how one accesses and engages with digital spaces. This translates directly into the unequal distribution of digital rights: access to information, access to services and access to technological development. Economically disadvantaged people will have an additionally difficult time expressing themselves online. Indigenous knowledge is erased in favour of dominant or majority language and expression.

Much of this conversation, as expressed above, may be linked back towards the legacy of colonialism, and how it has grown directly into the nascent issue of digital colonialism. Kwett (2016) defines digital colonialism as when American and other Western multinationals exert control over the global South by concentrating digital power into corporations: a form of tech hegemony. ICT companies exert control by fact of the majority of software and platforms are U.S. based: web browsers, search engines, streaming sites, etc. When technology is produced by and for global North populations, Indigenous, rural or global South communities are forced to change practice for the sake of access (Young, 2019). Critics believe that this is a new form of imperialism, waged entirely online. Power is expanded by the distribution of these key assets (platforms) which ultimately become “essential” in daily life. As Renata Avila explains, “The world’s offline populations are the disputed territory of tech empires, because whoever gets them locked into their digital feudalism, holds the key to the future” (Mozilla Foundation, 2018).

This directly translates into the language that is dominant on these platforms by way of who or what controls them. Many people in Sub-Saharan Africa do not access the Internet using their Indigenous languages, but a language imposed on them by colonialism (Munyadziwa and Mncwango, 2021). Companies such as Meta (formerly known as Facebook) popularise the use of “lite” apps such as Free Basics, which ultimately do not cater towards the linguistic needs of diverse population groups (Solon, 2017). Kenyans can only access Free Basics in English, despite Swahili being more widely spoken. An Internet controlled solely by Western-based technology companies concentrates demand, supply and power without considering the interests of the majority of the global population. As a result, research on language use in sub-Saharan Africa and the majority of the global South usually focuses on colonial language use (French, Portuguese, and English) which ignores the trajectory of Indigenous language research (Tshabangu & Salawu, 2021)

call-to-action

Individuals and organisations in all sectors touching the digital space should listen and adapt for a more inclusive and diverse language landscape. This includes:

Policymakers and governments:

- Mandate open source code
- Promote digital education in local languages
- Incentivize tech businesses to operate in-country

Technology firms:

- Tech companies consult Indigenous/local groups for feedback
- Hire people who speak underrepresented languages in their countries of origin
- Localise software and code so developers in the global South can translate
- Spend more resources on software and code in non-Latin scripts
- Focus on content moderation in all countries of operation

Civil society:

- Support social media and other digital platforms spearheaded by Indigenous groups
- Continue to conduct research
- Provide advocacy platforms

International actors:

- Sponsor and fund grants to preserve endangered languages online
- Support local organisations and conduct regional and global advocacy

conclusion

Information and language inequality online and in the digital landscape has the potential to reinforce colonial-era patterns of information production and representation (Graham & Zook, 2014). However, there is also room and opportunity for linguistic empowerment online. The very nature of the Internet as an open source playbook has allowed thoughts and ideas to proliferate in millions of ways. Digital spaces can be used to document and preserve languages, share, teach and disseminate material to new or existing speakers, and translate information for marginalised groups. Virtual communities of language can thrive in the proper, curated digital space, given that the digital landscape is cultivated for non-majority languages to also have a share. As Internet access continues to exponentially grow and reach communities that were previously out of reach, more users from the majority global South will challenge the “linguistic elite” (ITU, 2021). Digital platforms give importance and value to minority groups when the use, production and consumption of digital products and design occur.

The distinct lack of research in language and technology research in the global South paves the way for an ongoing research project led by Pollicy, in partnership with the Digital Futures Lab and with support from the Internet Society Foundation. The “Are We Together” project is surveying and documenting language use online in Ethiopia, Tanzania, Uganda and India in order to probe: What are the experiences and challenges of non-english speakers using digital platforms? Based on these insights, what might be the recommendations for designers of platforms in terms of improving access, usability and safety of these platforms? This body of work will attempt to steer the research agenda towards understanding how the general population interacts, accesses and gathers and produces information from engaging in digital landscapes.

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