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Article

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Abstract

Educational inclusion for refugees is increasingly being framed through digital technologies. This is problematically characterised at the macro level by global and national narratives that portray the digital as an external and universal force capable of radical transformation and inclusion, and at the micro level with more nuanced accounts that acknowledge an already-present political economy of technology of everyday practices of (non)adoption and use. Particularly for refugees, inclusion is further characterised by a persistent liminality with its attendant experiences of transition and tentativeness. Digital inclusion becomes an ongoing act of managing these liminal experiences, noting where barriers exist that stall efforts at further assimilation, and developing practices or workarounds that attempt to move refugees away from the margins of social inclusion. Such management is inherently precarious, and one made even more precarious in digital spaces, where inclusion is increasingly intertwined with systems of control and surveillance. To illustrate this, this article presents findings from a project exploring educational participation by refugee students in Ugandan universities. It notes the subtle tensions that emerge from the expectations of participation in university life, and Ugandan life more broadly, amidst digital structures and narratives that complicate inclusion. In this article, we argue that more nuanced conceptualisations of digital inclusion, ones rooted in liminal experiences, are needed to anchor digital technologies in refugee communities.

Keywords

digital inclusion; higher education; liminality; mobile technology; refugees; Uganda

1. Introduction

The discussion on digital inclusion as presented in this article is situated amidst the landscape of forced displacement, an ever-increasing and increasingly visible fixture of modern society. In 2022, the number of forcibly displaced people crossed the 100 million mark (UNHCR, 2022). This creates social, economic, political, and environmental burdens that affect not only the displaced themselves but also the host countries in which they are situated (Barman, 2020). Many host countries have managed extended, even seemingly intractable, displacements.

One such country, and indeed the focus of our article, is Uganda. Uganda hosts the most refugees in sub-Saharan Africa, over 1.5 million refugees and asylum-seekers mainly from South Sudan, the Democratic Republic of Congo, and Burundi as of 2021. Over 80% of refugees are hosted in settlements in 13 districts in the North and South-Western regions and the capital Kampala. Education is increasingly seen as a necessary driver for national assimilation, repatriation, or

relocation. Increasingly, educational inclusion is being expressed in digital terms, or in ways that make technology an interdependent variable in refugee inclusion into higher education. As such, there is a need for further research that looks at how digital inclusion is being framed and performed in education, and how that sits with the challenges inherent to the refugee experience.

2. The Ugandan Digital Landscape

The emphasis on digital technologies in global and national efforts at educational inclusion with refugees is characterised at the macro level by narratives that portray technology as an external and universal force capable of radical transformation, and at the micro level with more nuanced accounts that acknowledge the multitude of practices employed within existing political economies (Gallagher & Knox, 2019). These macro- and micro-narratives are increasingly pronounced for refugees as more of what constitutes civic participation—political participation, access to economic, educational, and medical services, and broader communication on social media—is enacted in digital technologies. The political economy of digital use for these populations is informed, to a large degree, by their status and overall visibility in Ugandan society. Formal efforts at digital inclusion employed within Uganda itself are expressed often through means of technological access and removing barriers to the use of that technology. These include efforts at cutting prohibitive mobile data costs (Njoya, 2022), providing learning centres equipped with internet connectivity and, in some cases, the development of community-run internet networks (Bidwell, 2021), the creation of internet infrastructures in refugee settlements (Le Blond, 2018), and training for digital skills and digital literacy provided to communities (Lipeikaite et al., 2022).

Mobile phones are often the most accessible digital devices that refugees can use. However, prior to 2019, they could only obtain SIM cards with a Ugandan government-issued refugee ID card, the acquisition of which is often time-consuming. Workarounds to obtain SIMs involve registering multiple SIM cards with a single person, registering with a Ugandan national, or through the auspices of an NGO (Clarke & Tukundane, 2021). As such, even when digital inclusion was achieved, it involved a misdirection that rendered the accounts of this inclusion invisible. Uganda recognised this and eased access to mobile-enabled services for refugees in 2019 (Casswell, 2019). Since 2019, and particularly for refugees, digital inclusion and civic participation are increasingly intertwined. This might manifest in biometric IDs and their use by refugees to access basic services such as medical care and education (Holloway et al., 2021), a process that also exposes them to a comprehensive surveillance regime (Al-Khateeb, 2021).

In Uganda, there have been government interventions in digital spaces to restrict civic participation and expressions of opposition to government rule (Nanfuka, 2021). This has included a now discontinued 200-shilling daily tax on users of social media, an attempt to suppress political dissent (Kakungulu-Mayambala & Rukundo, 2018), as well as deliberate internet outages (Anguyo, 2021) working towards the same effect. This has significant ramifications for civic participation as "perceived risks of retribution and intimidation" (Grönlund & Wakabi, 2015, p. 1) stunt civic engagement. Refugees, in their use and non-use of digital technologies for civic participation, must navigate these regimes and do so with the little social capital their liminal state affords. On one hand, digital inclusion provides the potential for exiting a state of perpetual liminality and becoming more fully assimilated into Ugandan life; on the other, it exposes these populations to a surveillance regime that potentially discourages that same assimilation.

This article explores how refugees engage with the narratives and practices of digital inclusion in Uganda. Persistent liminality is a hallmark of refugees, and this persistence is often managed through digital technologies. Ultimately, this presents a conceptualisation of digital inclusion that is rather respective of offline/online continuums than those presented in the grand global narratives that portray the digital as an external and universal force capable of radical inclusion.

3. Conceptualising Digital Inclusion and the Refugee Context

This brief review explores how digital inclusion is conceptualised, particularly in Uganda, and notes how that conceptualisation is being applied to refugee populations. Digital inclusion is often framed, particularly at the macro national and international levels, in techno-deterministic means, as "technologies themselves are offered as participation outcomes" (Dutta, 2020, p. 193). In this framing, the presence of technologies alone suggests a means for—and expression of—inclusion. Digital inclusion, therefore, rests on the acquisition of digital technologies and the development of a robust digital infrastructure.

A recent (2021) $200 million financing operation in Uganda acts on this framing by setting out to expand access to affordable internet, to improve digitally enabled public service delivery, and to strengthen digital inclusion (World Bank, 2021). This same project notes how greater connectivity will also strengthen the digital inclusion of host communities and refugees by improving digital infrastructure, digital skills, affordability, and accessibility of digital technologies. Digital inclusion is conceptualised for Uganda in terms of skills and the accessibility of a digital infrastructure. This framing is notable for an explicit emphasis on a more robust digital public service delivery, and implicit in its assertion that more of the acts of inclusion will be, or already are, digital.

Digital inclusion is often framed around building resilience. Leurs (2022, p. 28) notes how resilience "has

become the buzzword of choice…pertaining to vulnerabilized and marginalized groups." This is a turn towards what Ilcan and Rygiel (2015, p. 333) refer to as "responsibilizing" refugee groups for asserting their own inclusion. Discourses on resilience often predicate a digital expression: open educational resources in place of dedicated face-to-face instruction, more digital public service delivery in terms of health, education, and financial inclusion, and biometric identification programmes linking individuals to their activity. As Sseviiri et al. (2022) note, this was accelerated during the pandemic as emergency response, awareness building, and enforcement of quarantine restrictions from the government often found a technological expression through digital media platforms. Bukuluki et al. (2020) and Ssali (2020) critique these efforts in relation to their engagement with refugee groups as the digital communication provided during the pandemic was not culturally nor linguistically accessible. This is problematic insofar as it erodes the context specificity that these refugee groups exhibit and in which their efforts at digital inclusion are often directed.

The literature on the use of digital technologies by refugees, a use that supersedes more systemic efforts at digital inclusion and the digital framing presented thus far, is concerned with how mobile technology is used to navigate the migratory passage, and then how it is used to manage protracted displacement within a host country. The latter would include literature noting how refugees use technologies to assimilate into the host country, however incrementally. This literature, with its emphasis on individual and networked digital practices, often sits in tension with how digital inclusion is being conceptualised in broader national and international structures. The purpose of digital technologies in the migratory passage itself is multidimensional, serving to provide a means of maintaining links to family and support networks, financing their journeys, providing emotional support, documenting their experiences, and relieving boredom in the liminal stages of their journeys (Alencar, 2020). Tsatsou and Boursinou (2017) argue that understanding the use of digital technologies during the time of the "immigration travel" itself is critical to more fully understand these digital uses in transit, and to more fully appreciate the "implications of digital inclusion,'' or lack thereof, "for immigrants experiencing, combating or alleviating all sorts of adversities, volatile emotions, unanticipated problems and moments of uncertainty crisis they so often encounter while on the move from homeland to another land, from one life setting to another" (p. 4).

Digital inclusion in this context notes the relevance of the functionality of mobile technologies often to maintain digital intimacy. Greene (2019) notes how voice and video chat are often the preferred digital means for maintaining family relations for refugee women. Twigt (2018) notes how different digital technologies help refugees document and share their experiences with distant family members and within refugee communities. Many

other examples exist suggesting a sort of digital inclusion, but all are predicated on a particular precarity of access (or lack thereof) to stable, affordable, and legally permissible (due to their uncertain legal status) mobile networks. Digital inclusion in this context becomes an act of navigating this precarity, or an act of navigating a "fractured information landscape" that enables or constrains efforts at inclusion (Kaurin, 2020, p. 8). Schoemaker et al. (2021) note how refugees make active efforts with and without technologies to negotiate the various identities available to them and to maximise their access to services, eligibility for employment, and spatial mobility. Kandasamy et al. (2022) emphasises digitally mobilising refugee networks to activate support; Irani et al. (2018) surface the role of digital technologies in helping refugees to integrate and attain independence, or what might be seen as a moving out of protracted displacement.

What is underrepresented in the literature on digital inclusion for forcibly displaced populations is a synthesis of how digital practices from the migratory journey and the period of protracted displacement might inform how digital inclusion is performed in the educational context. Many initiatives might inform this synthesis in Uganda including Kolibri, an open-source learning management system that allows for authoring and peer-to-peer sharing without the need for internet. Kolibri, under the auspices of the Government of Uganda through the Ministry of Education and Sports and National Information Technology Authority of Uganda (NITA-U) and UNICEF, has been used to educational effect throughout Uganda in refugee education contexts (Nanyunja et al., 2022) and in select government schools (Kabugo, 2020). Beyond providing an openly available technological option, Kolibri highlights the role that connectivity plays in the narrative framing of digital inclusion as an act of mitigating the exclusionary barriers posed by intermittent, expensive, and often unavailable internet access.

Drawing on this past research, our article explores how digital inclusion is being conceptualised in the Ugandan context for refugees, how micro accounts of technological practice sit with broader narratives of digital inclusion, and what implications that has for digital and educational inclusion of marginalised groups. It also notes how universities themselves act on these digital conceptualisations by manifesting opaque administrative practices through digital means, which can lead to the reinforcement of social stratification and work against the idea of inclusion predicated on social justice.

4. Theoretical Framework: Liminality

This article is concerned with exploring how efforts at digital inclusion for refugees must involve a critical appreciation of their complex arrangements of liminality. Derived from anthropological but used widely in sociology, cultural studies, and educational studies, liminality denotes

the spaces of transition between known social contexts and unknown ones, or the "symbolic and/or spatial act of transitioning between one socially sanctioned position or state to another" (Downey et al., 2016, p. 6). This liminality is often characterised as the spaces occupied by rites of passage as the individual transitions across and between "culturally recognized degree of maturation," such as legal status, profession, office or calling, rank, or degree (Turner, 1987, p. 4). As Chakraborty (2016, p. 145) notes, the Latin *limin* roughly translates as threshold, which carries with it theoretical implications:

> Such a spatial structure has an essential influence on social interactions: Relationships and social status are negotiated at the threshold; one is either rejected from or welcomed to the other side. The term "threshold" evokes images of entering and leaving, passages, crossings and change. It marks the point at which choices and decisions must be made in order to move on, and it would be unusual to think of it as a place to stay, a place of permanent existence.

Yet this state of liminal permanence is often the reality for refugees, often trapped between repatriation and assimilation. This threshold, that passing through to a generative state equivalent to the completion of a journey, is elusive. Thresholds represent "a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress" (Meyer & Land, 2006, p. 1). The liminality of refugees often portends that the threshold is visible, but not always attainable.

While in a liminal state, the individual is "unstructured" in that they are between "all the recognised fixed points…of structural classifications" (Turner, 1987, p. 7). They are transitioning between states of classification as they move through three highly interlinked and overlapping phases: initiation and separation, transition, and reincorporation (Elbanna & Idowu, 2022, p. 131). For refugees, these phases are acutely felt as they are often rendered invisible: legally, socially, educationally, and linguistically. In the initiation and separation phase, these refugees both literally and metaphorically occupy a "seclusion site" both in terms of being housed in settlements often far away from urban centres, and their seclusion from recognised legal, policy, and educational infrastructures. As Elbanna and Idowu (2022, p. 131) note, the indigenous term for this liminal phase among the Ndembu of Zambia is *Kundunka, kung' ula*, meaning "seclusion site."

Liminality is often characterised by periods of transition, experimentation, tentativeness (Lim et al., 2016, p. 2149) and the sort of ambivalence experienced on a transitional journey. "Leaving behind known ground to travel to a new reality, the voyager, also referred to as the liminar, will only reach this new reality once the transitional journey has been completed" (Darveau & Cheikh-Ammar, 2021, p. 867). Yet, this journey, particularly for refugees, is rarely ever complete. They are,

often but not exclusively, trapped in a phase of perpetual transition. As Downey et al. (2016, p. 6) note, there is tension in this as "one cannot occupy an in-between space or exist (in-)between two binary states without a resultant tension and/or mobility between both elements of the binary, which resist but also merge with the middle in-between." Individuals, and cultures as liminality is most assuredly an intercultural space, experiencing this "in-between state" will move between either end of the binary routinely, oscillating between "home" and "host." Yet this tension, marked as it is by indeterminacy, ambiguity, and hybridity carries with it the potential for subversion and change (Bhabha, 1994, p. 4). When experiencing a liminal transition, the individual acquires knowledge and skills and (often) commits to society and their future role (Elbanna & Idowu, 2022, p. 131); liminality can be generative for the individual and the cultures engaging with it. Liminality has been used to interrogate aspects of the experiences of displacement. Hartonen et al. (2022) identified patterns in the liminality presented by refugees, particularly noting how ontological insecurity and spatial-temporal inconsistencies inform these liminal periods. Boer's (2015) study of Congolese refugees in Kampala notes how narratives of an often irretrievably past home and a desire for a future, often inaccessible, home fuel this liminality.

The role that the digital plays in constructing and navigating this liminality is complex as well. The digital can help refugees navigate the stages of their displacement experience—departure, arrival, and, in some cases, assimilation in host countries-while allowing them to maintain connections to their countries of origin, and the often-faint hope of repatriation. While the digital is found to function as an "anchor" (Williams et al., 2008) for some refugees in liminal spaces, tethering them to their transitional journey as well as their larger diasporic communities, for others it exacerbates the state of transition (Lim et al., 2016). Digital inclusion is in some ways a state of managing the liminality associated with forced displacement.

5. Methodology

This article is a synthesis of past project work (2019–2022) alongside a broader discussion of the liminality of digital inclusion for refugees in Uganda drawn from desk-based research. Much of the empirical nature of this project can be found in discussions on the lifeworlds of Ugandan higher education for refugee students and the role of non-educational actors in structuring them (Najjuma et al., 2022) and the communicative action and the language of othering these same students experience (Nambi et al., in press). Data was collected from three public and four private universities beginning in 2020 and ending in 2021. The first activity of data collection included desk research whereby the researchers carried out an extended literature review to establish patterns in the literature and policy regarding refugee

education in Uganda and globally. The second activity involved holding semi-structured interviews with two categories of participants. Five interviews were held with administrative staff at the selected universities who were at the level of deputy vice chancellor; 20 interviews were conducted with refugee students in universities. For the third activity, we conducted seven 10 focus group discussions with refugee students who were available at the university at the time of data collection. We collected data during the time of Covid-19 restrictions and hence we had to visit some universities several times because some students were not available on campus depending on the adjusted university calendars.

Interview and focus group discussion transcripts were read holistically and open and then axial coded using annotations and text highlighters as finer themes emerged from the data. Since we worked with various categories of participants—university administrators, lecturers, refugee students, and personnel from refugee support organisations, several themes surfaced from the data and they could not all be justifiably presented here, including universities as spaces of access, administrative omission, and the construction of workarounds to engage with university study, how non-educational actors perform a role in inclusion for refugee students, and the role of (both digital and analogue) social networks on participation in higher education. This article and its explicit focus on how digital approaches are positioned in the accounts of refugee students and those who work with them should be regarded as complementary to a further publication by the same authors on the institutional dynamics of participation of refugees in higher education (Najjuma et al., 2022).

The authors acknowledge the fact that refugees are a vulnerable group of people and hence there are various ethical complexities associated with researching them. The work by other researchers (Awidi & Quan-Baffour, 2020; Dryden-Peterson, 2006a, 2006b) and our interaction with stakeholders such as Windle Trust International and the Refugee Law Project was instrumental in providing some ethical considerations regarding this group of people as we prepared the research activities. We obtained written and informed consent from the participants after explaining the purpose of the project clearly to them. The authors sought and received ethical clearance at both their universities through the formal ethical review bodies to which they submitted the relevant documentation such as the objectives of the project, the timeline for data collection, and the research instruments. All names presented in the following analysis are pseudonyms to protect the identities of those participating.

6. Scaled Online Education and Interpersonal Acts of Digital Inclusion

This analysis revealed several findings of importance for how we might problematise and conceptualise dig-

ital inclusion, for both refugees and, more broadly, marginalised populations. These findings are digitally mediated yet reveal a more sociocultural nuanced perspective than is traditionally found in more techno-deterministic accounts of policy and practice. All validate to some degree Dutta's (2020, p. 284) assertion that "communicative inequality is relational, reflected in power imbalances in relationships that shape the differential access to actors to communicative infrastructures." This relationality was found in our data as well, suggesting that digital inclusion is first predicated on broader sociocultural patterns of power that limit access to that communicative infrastructure. The following passage from Akiki, a refugee and second-year undergraduate student at a private Ugandan university, is suggestive of this. Note that Luganda refers to a Bantu language spoken in the African Great Lakes region:

> We have a course WhatsApp [group], then we have the administration WhatsApp group. Then you will find that sometimes the communication people who are Luganda tend to communicate in Luganda. You understand? They text things in Luganda. Therefore, you who [are] there, you can't understand what they [mean]. You will be seeing them reacting. They're like chatting and commenting, but [as] for you, you'll not understand. Yeah.

In this instance, the communicative infrastructure that proves inaccessible isn't necessarily bound in the digital; it is a linguistic and ultimately sociocultural one that excludes and renders opaque university administrative practices even more opaque:

> The lack of institutional policy coordinating refugee students, classifying refugees as international students, financial restrictions and processes associated with universities and at times opaque administrative practices have a structuring effect on the lifeworlds of these students and their capacity for communicative action. (Najjuma et al., 2022, p. 10)

The accessibility of communicative infrastructures, in this instance, begins with a shared language and extends far beyond mere possession of a digital device.

However, the digital practices of students within the academic, not administrative, context were aimed at communicative accountability. This is suggested in the following exchange between the interviewer and Sanyu, a refugee and fourth-year student at a public university who also held a leadership position within a refugee student network at his university:

> Sanyu: As students, we have our WhatsApp group, and also the lecturers, they give us their WhatsApp group, and they give us their emails. In case you don't access them via phone calls, you access them via email or WhatsApp.

Interviewer: And how have you found that to be useful?

Sanyu: It has been easy, because when you are sent…when you send someone an email, the person cannot deny it, the reference is always there.

Interviewer: The reference is there, they cannot say they didn't receive it.

Sanyu: They cannot say [they didn't receive it], even if you send a person a WhatsApp message. The reference is always there, not like the phone call, where the person [can] say: "You didn't call me." But if you send a WhatsApp message, email…

Interviewer: It's always there.

We note the communicative, largely interpersonal, digital practices being displayed here and how these sit problematically with the narratives of scaled online education that were advanced during the Covid-19 pandemic and the subsequent eight-month national lockdown in 2021. For many, education in the formal sense stopped abruptly as the devices needed to engage in formal online education were inaccessible. Sanyu reiterated this same liminality in the following passage, structured partly because of this move to online teaching which required access to a communicative and technological infrastructure that proved impossible to maintain:

Sanyu: It was hard because, during locked [sic] down, universities were told to start [this] program of online teaching. So, for us, we were locked down there.

Interviewer: In the settlement?

Sanyu: In the settlement, yeah. There the network is bad and it is also hard to access…to get data. It consumes a lot of data. That's why it was hard for us.

Interviewer: So how did you overcome that?

Sanyu: I cannot say I overcame it but we tried. When the president recalled that finalists should come [due to the partial opening of institutions during the Covid-19 lockdown], we came [back to university] directly. So, we did not overcome it from there, we just came [back to the university campus].

Sanyu's act of physical mobility as an expression of educational and digital inclusion was found throughout the data, as many students left their settlements to stay in hostels near their universities so they could access its digital infrastructure. However, this physical mobility was not available to all, with another respondent, Miremba, recalling: "We're just at home waiting."

More broadly, we note how this move to online education and its emphasis on computers and connectivity sits with the more interpersonal accounts of education taking place largely through mobile technology. This was a form of education available to many during the lockdown in contrast to online education which was available to a select few. Yet it was not often recognised as education by even the students participating in it, suggesting the power of the dominant narrative of online education as the proper form. The following exchange with Mukisa, a third-year undergraduate student at a public university, suggests this:

Interviewer: So, [this] means [that] for the whole of the eight months, the whole time of the lockdown, you were not able to do anything?

Mukisa: No.

Interviewer: Not even participate in any WhatsApp group with your peers, or university platform?

Mukisa: For the issues that were top [important], I was participating in some Bidi Bidi kind of creativity. We were having some Zoom chats with some students also from Canada [and] some from America. So, we could have like a conversation. We discussed how things are, we also share our challenges.

Bidi Bidi is a refugee settlement in North-Western Uganda; Mukisa is referring here to a type of creativity that makes use of limited resources in creative ways.

What Mukisa presents is a sense of agency in his digital practices, as he is accessing networks and educational opportunities potentially unavailable to him at his own university where those opportunities have been largely equated to formal online education. What Mukisa might have seen as an informal workaround, or a "Bidi Bidi kind of creativity," is an act of digital inclusion, one that begins to act on the liminality that he may be experiencing due to his position as a refugee situated on a settlement. Yet the communicative access he has achieved through this act of digital inclusion is not specifically tied to a Ugandan context, but a broader multinational one ("some students also from Canada, some from America"), suggesting that liminality in terms of transitioning into Ugandan society remains problematic. Mukisa goes on to note the workarounds to formal online education that were being discussed specifically for students in rural contexts, which could also apply to those living in settlements:

Some of us stay in a remote area where internet is a problem. Network is always a problem. You understand? So, another way around [it] might also hinder other people who are in the remote area. So, it is a bit complicated. But I remember having a meeting….It was on Zoom, during the lockdown. They were discussing…how we can help the people in the remote

areas. I raised [the] issue of some students being in the remote areas, how are they going to help them? So, they said they had CDs [and] they put all the things in the CD. Then, for you, if you have a laptop, [you] go and fix it, then you hear the recordings.

Again, we see how the narratives of formal online education sit even within the workarounds designed to alleviate their demands: CDs with recordings and course materials for laptops to play in a national context where less than 3% of Ugandan households have access to such devices (NITA, 2022), which is where most settlements are located. In parallel to these workarounds at the institutional level, many universities in Uganda negotiated zero-rated access to designated educational internet domains which meant that students could access these materials without accruing data costs on their mobile devices (Olweny et al., 2022). While zero-rating has received considerable critique for its violation of net neutrality and its increasing commercialisation of the internet (Belli, 2017; Willems, 2021), it allowed for some continuity of education to proceed, if mobile technology was available. This was not an option available to all universities, however, as Mukisa's context seems to suggest, or it was made opaque by a narrative framing of online education and its attendant emphasis on laptops and desktop technologies.

This emphasis on connectivity in the digital inclusion framing was echoed by many of the students themselves, noting the role that the university performs as a broker to free and relatively stable connectivity and hardware, a point that Mukisa reiterates: "For me, I was thinking the university providing a free internet kind of services." Balinda, a third-year undergraduate student, refers to the role of the university in mitigating barriers to access, and notes the role that physical mobility plays in performing inclusion in this context:

Balinda: Previously, before we could come back physically [to] the university, we were learning at our various places. But because of [the network in] the refugee settlement, I decided to come to Kampala and settled in my hostel to [have] access…to university premises. We could not be able to do it at the camp because [the] network is a problem. We had to come to the university and then access…university premises, yeah, on permission.

Interviewer: So, the university offers you access.

Balinda: There's free internet.

Balinda again emphasises the physical mobility needed to perform both the act of a student and digital inclusion more broadly, countenancing Dutta's (2020, p. 284) assertion that "communicative inequality is relational, reflected in power imbalances in relationships that shape the differential access to actors to communicative infras-

tructures." Access in this digital education framing is not exclusively an act of mitigating barriers to connectivity, hardware, stable electricity, and so forth; it is an act of physical relocation to move nearer to the university campus and its brokerage of access to wifi and hardware. For those who cannot relocate, this produces a communicative inequality and exacerbates the liminality these students already experience ("we're just at home waiting for the school to resume"). The digital, particularly in its narrative emphasis on online education and hardware, compounds this liminality by making physical relocation a necessity for inclusion.

7. Conclusion and Implications for Digital Inclusion

The authors assert that the way digital inclusion is framed in these contexts, particularly in how it interacts with higher education, is problematic. We note that the narrative of digital inclusion in higher education is one that sits in tension with the more granular accounts of practice in an already present political economy of technological use amongst refugees and more broadly in Ugandan society. The narrative of digital inclusion is one predicated on adherence to neoliberal discourses around the scaling of education that is predicated on greater and greater technology use. The attendant materiality of this scaling is an increasing reliance on laptop and desktop-based technologies, and the implicit assumption of reliable connectivity and electricity. This emphasis structures how digital inclusion is performed by these students, an inclusion that is reliant, somewhat paradoxically, on physical mobility. Through these acts of digital inclusion, these students, indeed all marginalised populations, are increasingly reimagined as responsibilized and rational neoliberal subjects with great degrees of autonomy and flexibility at their disposal (McCarrick & Kleine, 2019).

The workarounds that these students surfaced in their acts of digital inclusion speak to a synthesis of the digital practices from the forced migratory journey, and from the period of protracted displacement where the function of digital technologies is in alleviating adversities, emotions, unanticipated problems, and uncertainty (Tsatsou & Boursinou, 2017). Workarounds, whether they be physical relocation, obtaining SIM cards, or supplementing interrupted formal education with online groups and communities, all speak to an existing political economy that suggests a more nuanced presentation of digital inclusion is possible, one that emphasises practical ingenuity, or a Bidi Bidi kind of creativity.

Yet what is problematic in this framing is how it renders those unable to access this communicative infrastructure, bound as it is on the university campus, largely invisible and immobile. Many, if not most, cannot relocate and the technological infrastructure of the settlements is inadequate for participating in the types of online education being proffered by higher education and its emphasis on wifi, hardware, and

power. Workarounds often emphasise mobile technology. When mobile technologies are available, there is evidence of digital inclusion taking place: "maintaining connections with contacts at home while forging new ones with hosting communities, and the 'collective sense-making' of processing and triangulating information" (Dolan et al., 2022, p. 6). Many Ugandan universities understood and acted on this digital inclusion by providing zero-rated access to educational infrastructures, or in some cases by emphasising connectivity-sensitive applications like Kolibri. Further university adaptations such as this, ones that contest the dominant narratives of digital inclusion as the purview of hardware, Wi-Fi, and unfettered access to electricity, are welcome.

The authors argue that digital inclusion for refugees involves managing the liminality of protracted displacement more broadly, and the attendant ambiguities of engaging with higher education more specifically. This management is inherently a political one of navigating power asymmetries that routinely submerge "voices that are erased by the rules, norms, and guidelines of dominant discursive spaces" (Dutta, 2020, p. 284). Digital technologies do not counteract this erasure in any sort of essentialist way. Indeed, they tend to accelerate them by providing additional barriers to moving on from liminal positions. Beyond the material barriers of access, use, connectivity, power, and so forth, sit the narrative frames that further render inclusion inaccessible. The liminality experienced by these refugee students, entwined as it is in the digital, in higher education, and in the possible assimilation into Ugandan society is marked by "extended time periods of self-guided process, self-made communitas and incomplete or culturally problematic narrative where new scripts emerge" (Elbanna & Idowu, 2022, p. 132). A feature of these processes, communities, and scripts are creative workarounds where greater access to education and broader society is possible.

When access is achieved, the potential to allow the refugee student to move beyond liminality, to reach "this new reality once the transitional journey has been completed'' (Darveau & Cheikh-Ammar, 2021, p. 867) is complicated by the hierarchies of digital spaces. We countenance that "mediated communication must be understood as both producer and a product of hierarchy and as such fundamentally implicated in the exercise of, and resistance to, power in modern societies" (Silverstone, 2005, p. 190). Without this understanding, we will see "ongoing erasures at the margins of the margins" (Dutta, 2020, p. 284) in the broader narratives of digital inclusion.

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Conflict of Interests

The author declares no conflict of interests.

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