

COLLECTIVE KNOWLEDGE MAKING AND INFRASTRUCTURING AS AN ACT OF RESISTANCE IN KENYA



**RESEARCH
DATA
SHARE**

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“Akili ni nywele
kila mtu ana zake.

Wisdom is like hair, everyone has his/her own.

(Celebrate your diversity/uniqueness/
singularity/individualism.)

Source: Kiswahili

People as Infrastructure

Contributors

This book would not have been possible without the labor and steady presence of many people.

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Renato Gomes brought the technical backbone of this project into being. He shepherded the transition to PECE Version 2 with patience and precision, and set up the accompanying WordPress site that allowed the work to travel across multiple formats and platforms. His development work made our experimental ambitions materially possible.

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possible to imagine and begin to build a different relationship between databases and books.

Finally, we extend heartfelt thanks to all of the individual contributors who participated in the events that shaped this volume. Your questions, annotations, discussions, and willingness to experiment with format and genre are what animate this book. This project emerged from those encounters; it belongs to that collective effort. We wish to acknowledge the following people and other contributors: Marwaad Kayse Adam, Mark Amuko, Marion Anyango, Miriam Ayieko, Nelly Saiti Barasa, Josiline Chigwada, Joost Fontein, Andrew Joseph, Wambui Karanja, Wambui Kimari, Dennis Kioko, Chao Tayiana Maina, Aisha Mugo, Maina Korir, Dr. Nguye Flora Mutere, Mwende Mutuku, Prof. Wanja Mwaura-Tenambergen, Dr. Lawrence Nderu, Wairimū Nduba, Augustine Gitonga Nyagah, Trevas Matathia Nyambura, Dr. Oby Obyerodhyambo, Dr. Melissa Omino, Rosebell Otieno, Marion Ouma, Marie Rarieya, John Rokorio, Anne Salim, Patrick Munyao Samuel, Moina Spooner, Dr. Radha Upadhyaya, Dr. Njoki Wamai, and Florence Namarome Weng’ua.

Author Collective

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Aurelia Munene was born in eastern Kenya. She has shaped her life and career around the principles of collaboration and reciprocity. Her work is grounded in health, social policy, gender, and inclusion. In her research, she examines postgraduate education knowledge infrastructures, explores more equitable learning relationships in higher education, and advances contextually grounded knowledge practices in sexual and reproductive health and rights.

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Syokau Mutonga was born in Kenya. She spent her formative years in Tanzania and is passionate about building equitable futures. With a background in anthropology and archaeology, she has spent the past decade specializing in decolonial approaches to cultural heritage. Her practice focuses on repair, restoration, and centring community voices in institutional settings.

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Leonida Mutuku was born and raised in Kenya. She is a multi-potentialite and wears multiple hats as an entrepreneur, researcher, strategist, and avid traveller. Her work sits at the intersection of technology and society, focusing on how to build inclusive and responsible artificial intelligence for climate resilience across Africa. She uses her platforms and expertise to champion leveraging data technologies and AI as sources of justice where Africans are active creators and equal contributors to science.

Angela Okune

Angela Okune was born and raised in Hawai'i, shaped by family histories that connect Taiwan, Japan, and Lithuania. She has lived and worked in Kenya since 2010, where enduring friendships and kinship ties shape her life and work. With a PhD in the anthropology of science, she examines the politics of knowledge infrastructures and the conditions under which more equitable forms of knowledge production might take hold.

Wambui Wamunyu

By birth and residence, Wambui Wamunyu is a Kenyan. By nature, she is a curious wanderer in the worlds of academia, education, journalism, and media studies where she has enjoyed being teacher, journalist, qualitative researcher, and Research Data Share (RDS) member in equal measure. Her doctoral work on the use of digital technologies in Kenyan journalistic practice have been foundational in her reflections on social media as a key site for resistance in knowledge production.

part one

INTRODUCTION

“Haba na haba,
hujaza kibaba.

Little by little, the container gets filled.

(While we may overlook small changes, they
are the ones which, put together over time,
eventually make a difference.)

Source: Kiswahili

01

Collective Knowledge Making and Infrastructuring
as an Act of Resistance in Kenya



This book project sits at the intersection of several long-standing concerns: the politics of knowledge production in Kenya, the infrastructures that govern scholarly communication, and the uneven geographies through which theory, data, and legitimacy circulate.

While these concerns are treated differently across the disciplines represented in this book—anthropology, gender studies, media studies, science and technology studies (STS), art history—and in debates about open access and scholarly publishing, we bring them together to ask how knowledge infrastructures shape who can be recognized as a knower, under what conditions, and to what ends.

In STS, “knowledge infrastructures” refer to the technical, social, and cultural systems that shape how knowledge is created, circulated, and valued (Edwards et al., 2013). Far from neutral, they privilege certain forms of expertise, reward particular outputs, and render some actors legible while obscuring others. In Kenya, these dynamics are sharpened by the colonial and postcolonial research histories that orient legitimacy outward toward foreign institutions, funding bodies, and publishing venues instead of grounding it locally (Hountondji, 1997). They are further intensified by the projectized funding structures (Okune et al., 2025), uneven institutional support, and the growing dominance of metrics, platforms, and identifiers governed elsewhere.

This book responds to that context by examining knowledge-making as an act of resistance in Kenya. We understand resistance not only as protest or refusal against the status quo, but as ongoing, situated work of designing, maintaining, contesting, and rebuilding infrastructures, the tangible and intangible frameworks that enable and limit epistemic life.

Across a set of diverse fields and contexts, the contributors in this project examine and push back against dominant knowledge systems using various analytical lenses that broadly fit under decolonial frameworks. The contributors

are members of a research collective termed Research Data Share (RDS).

Aurelia Munene discusses challenges in Kenyan postgraduate education by critiquing the hierarchical, excluding infrastructures that silence student voices, erase certain types of knowledge, and create pipelines that do not support research growth and innovation. Against this background, she presents Eider Africa, a peer-led collective that aims to provide postgraduate students with space for horizontal dialogue along their research journeys. In doing so, Eider resists the status quo, building knowledge infrastructure that supports the dignity of students and learning collectives.

Syokau Mutonga looks at the case of graffiti to show how urban inscription operates as an alternative knowledge infrastructure, one that contests dominant regimes of visibility, authorship, and authority. By tracing graffiti’s material presence in Nairobi, she highlights how youth produce counter-public narratives that refuse state-sanctioned histories and imaginaries of the city.

Leonida Mutuku interrogates contemporary AI development in Africa as a terrain of epistemic struggle. Instead of accepting global standards, benchmarks, and datasets as neutral starting points, she examines efforts to re-situate AI within African linguistic, legal, and communal traditions. Resistance here takes the form of delinking from extractive global data regimes and experimenting with alternative modes of technological design and governance.

Angela Okune pulls back the curtain on a piece of scholarly publishing infrastructure that has received little critical attention, the digital object identifier (DOI). In her essay, she flags that contrary to a neutral technical object, the DOI serves to consolidate governance over scholarly circulation within a small set of actors. Far from a passive technical object, the DOI supports the consolidation of surveillance publishing and metric-driven academic evaluation, subtly disciplining researchers into compliance

with infrastructures largely defined outside the African continent.

Wambui Wamunyu focuses on the contradictions between the rhetoric and lived experience of Kenya's formal education system, addressing it from the perspective of a series of anti-government protests against a controversial proposed financial law. The protests evolved into the citizenry's critique of various aspects of Kenyan society, including the country's formal education system.

In each of these distinct spaces and fields, we see individuals and groups reworking the material and organizational conditions under which knowledge is produced and shared, resisting either explicitly or implicitly.

Knowledge-Making as Infrastructural Resistance

At first glance, the objects gathered in this book might appear unrelated: *maandamano* (protests in Kiswahili), public graffiti, artificial intelligence tools, higher education policy, and the digital object identifier. We believe what ties them together is not a single domain or scale, but a shared concern with how infrastructures shape knowledge and how people intervene in those infrastructures from within, particularly in resisting power imbalances.

In addition to our scholarly interest in knowledge-making, we are approaching infrastructuring itself as a site of struggle. Decisions about standards, platforms, identifiers, archives, and modes of publication are not only technical choices; they are political acts that shape participation, ownership, and authority. In Kenya, where research systems have long been shaped by colonial legacies and contemporary global hierarchies, these decisions carry particular weight.

This orientation places the book in conversation with STS scholarship on infrastructure and power (Bowker & Star, 1999; Anand, Gupta & Appel, 2018), as well as African and Southern scholarship on epistemic injustice and

decolonial theory (Ndlovu-Gatsheni, 2018; Santos, 2014). At the same time, it departs from both in important ways. Decolonial scholarship has powerfully critiqued Eurocentric epistemologies and imperial knowledge formations, foregrounding the geopolitical conditions under which knowledge is authorized. Yet much of this work has centered epistemic critique over the material infrastructures through which knowledge is stabilized and circulated. Conversely, debates on scholarly communication and open science have often foregrounded technical solutions while bracketing questions of place and power (Hillyer et al., 2020). We begin from the premise that these concerns are inseparable.

Decolonial frameworks have themselves been subject to critique, including arguments that certain institutionalized forms of "decoloniality" risk reproducing the epistemic logics they seek to unsettle (Eze, 2024). For the contributors to this volume, however, decoloniality remains a generative analytical lens, especially when brought into sustained engagement with the material, political, and social infrastructures that shape knowledge production within specific geopolitical and disciplinary contexts.

What this Book Contains

This is not a conventional edited volume organized around thematic chapters or disciplinary boundaries. Instead, the book is built around a collection of artifacts including documents, images, links to platforms, policies, and other data sources that serve as entry points into the broader questions of knowledge and power that concern us. Each contributor assembled and curated particular artifacts related to their particular chapter's argument. Each contributor also responded to a shared set of analytic questions. These reflections, developed individually and collectively, are presented alongside the artifacts, enabling comparison across our diverse domains.

We call this project a "Database as Book" as an intentional appropriation. The book remains one of the most powerful

genres in academic knowledge production, conferring legitimacy, coherence, and durability. Rather than position this work as a website or blog (formats often implicitly coded as informal), we claim the symbolic authority of the book while reshaping its internal architecture. From early in the project, we experimented with three metaphors to think through what we were building. At times, we imagined a curated exhibit within an art collection: discrete artifacts placed in relation, some speaking directly to one another, others standing alone, inviting readers to move spatially rather than linearly. At other moments, we turned to the logic of database tables, where each artifact operates as a row connected through shared attributes, enabling arguments to branch, recombine, and surface patterns not predetermined by a single narrative arc. Finally, we retained the metaphor of chapters within a book, not as a capitulation to convention, but as an acknowledgment that many readers seek narrative orientation and thematic coherence. Holding these metaphors together allowed us to inhabit the authority of the “book” while foregrounding relationality, multiplicity, and versioning.

Although other projects have experimented with database-books (e.g. Wernmont et al., 2018), few have treated form itself as a decolonial methodology. Our intervention is to approach infrastructural design (how materials are assembled, linked, stabilized, and revised) as part of the epistemic argument. In doing so, we insist that experimental, collective, and contextually grounded knowledge from Kenya warrants the status reserved for canonical scholarly books.

Our readers may encounter the book in various formats (explained in the ‘Research Data Share: Collaboration as Methodology and Act of Resistance’ chapter) and multiple ways: you can follow a particular empirical thread, trace how a single analytic question travels across domains, or move laterally between contributors. The structure is deliberately non-linear, allowing differences in perspective and emphasis to remain visible rather than resolved into

a single narrative. This is a form of *re-membering* (wa Thiong’o, 2009), a conceptual approach that stands in opposition to the ethos of coloniality which is seen to dismember structures and identities. Re-membering by contrast, recognizes the power of collective (re) construction. This approach reflects our commitment to treating evidence, interpretation, and argument as layered rather than hierarchical, and to foregrounding the relational work that undergirds collective knowledge-making.

How to Read this Book

Although this project shares some features with a traditional edited volume in that it brings together multiple authors, relies on peer review, and is published by a scholarly press, it also departs from that form in several significant ways. Public events were integral to the research process itself, not simply as venues for dissemination. Data artifacts are presented as scholarly contributions in their own right, rather than as background material that disappears behind the writing. Difference and disagreement are allowed to persist rather than being smoothed over for the sake of coherence. Readers might find it helpful to think of this book project less as a sequence of chapters and more as a set of pathways. There is no single starting point or prescribed order. Instead, the book invites exploration, comparison, and return, enabling readers to follow threads across authors, artifacts, and analytic questions.

A Situated Intervention

This book offers specific, situated insight into resistance of many kinds in knowledge production from Kenya. We do not claim to represent all African contexts nor are we trying to offer a universal model for decolonizing scholarship. Rather than analyzing existing systems from a distance, as contributors, we are directly involved in building and experimenting with the infrastructures we study. Thus, we believe our contribution lies instead in demonstrating what it could look like to engage decolonial critique at the level

of infrastructure: to build, adapt, and inhabit alternative systems for producing and circulating knowledge.

Why this Matters Beyond this Book

We do not claim to solve the problems we describe. Instead, we offer a way of working that foregrounds reuse, relationships, and iterative experimentation. We see our work as contributing towards what Rodriguez Medina and Harding (2025) have described as “epistemic decentralizing,” a process of creating, expanding, and consolidating broader infrastructures. They note that this infrastructure is neither easy to produce nor to maintain. Our firsthand experience confirms this multiple times over. But we think the stakes are high and that the concentration in scholarly publishing and knowledge production ecosystems in general has reached a point where critique alone is insufficient and scholars, especially those in marginalized positions, must take matters into their own hands to build otherwise. The bonus, as our experience has shown us, is that this is worthwhile and joyful labor.

In 2022, the five largest academic publishers controlled roughly 61 percent of the journal article market, and the top ten about 75 percent (Crotty, 2023). These figures matter because publishing and indexing infrastructures shape what knowledge endures, circulates, and is taken seriously. Critical perspectives on imperial formations are constrained when the infrastructures that carry them remain entangled with the same hegemonic power.

For us, decolonizing knowledge is not only theoretical but material and processual. It entails partial and imperfect decoupling from infrastructures owned by private Euro-American corporations (Pooley, 2022), and asking what alternative structures might be built in their place. This is not an argument for withdrawal from global scholarly conversation, nor a rejection of peer review or publishing; instead, it is a call to take seriously how ownership, governance, and design shape the possibilities for critique itself.

As community library founders Shiraz Durrani and Kimani Waweru have argued, “[t]he need is for working people to own and control magazines and book publishing so as to reflect the world from their point of view” (Durrani, 2014; Durrani, Waweru & Kitchen, 2017). This book is one small attempt to imagine what such alternatives might look like in practice, not as a finished solution, but as an experiment in building and inhabiting different scholarly infrastructures from within African research contexts.

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MINAR ROOM



“ Chiri mo tsumoreba
yama to naru.

Even dust, when piled up,
becomes a mountain.

Source: Japan

02

Research Data Share:
Collaboration as Methodology and Act of Resistance



This project did not begin as a book or even as writing. It began as a set of dissatisfactions with familiar scholarly genres, hierarchies, and the kinds of epistemic compromises they quietly demand. For that reason, the authors—five members of a research collective termed Research Data Share (RDS)—separate this methodological essay from the book’s introduction. The introduction orients readers to the book’s arguments and contents; this essay attends instead to the conditions under which those arguments became possible at all.

Method sections in edited volumes usually appear as brief descriptions of data sources or analytic techniques, subordinate to the “real” work of interpretation. In our case, however, the design of the collaboration, how we met, how continuous dialogue helped us reach consensus, how we worked with artifacts, how we staged review, and how we worked with other actors essential to the making of this project was not ancillary to the knowledge produced but rather, constitutive of it. Treating these practices as only procedural obscures the ways that form, infrastructure, and method were entangled throughout the project. This essay therefore treats collaboration, infrastructuring, and collective deliberation not as background context, but as things we needed to examine directly.

From Single-Author Genres to Collective Experiment

In 2020, RDS member Angela Okune was writing her dissertation in the midst of the COVID pandemic. The rest of us had agreed to help write a chapter on the future of research in Kenya, but the genre of the dissertation expected a single voice. Angela relied on block quotes from recorded conversations, hoping to preserve different perspectives while still producing something legible to an academic committee. It worked well enough, but it left a lingering sense that there must be better ways to write collaboratively without flattening voices. Five years later, with support from COPIM’s Experimental Book Project, we were able to try.

What is worth underscoring here is not simply dissatisfaction with authorship conventions, but the epistemic effects of those conventions. Single-author genres do not merely assign credit; they discipline what counts as coherence, resolve disagreement prematurely, and treat difference as something to be synthesized rather than sustained. Block quotes, in this sense, were not a solution so much as a workaround, an attempt to wedge multiplicity into a form that was never designed to hold it. This project emerged from a desire to stop treating those constraints as inevitable.

Working as a Research Collective

At the start of this book project, we decided to form a research collective. We are researchers based in Kenya from the disciplines of Anthropology, Art History, Data Science, Gender Studies, Media Studies and Science and Technology Studies.

Similar to other scholars before us (wa Thiong’o, 1986), we have observed and experienced the presumed marginality and inferiority of our knowledge infrastructures compared to those from the West, carryovers from our nation’s colonial history. Our geopolitical location—the so-called ‘Global South’ which tends to be under-represented in global scholarship rankings—is also a fundamental contributor to the concepts of resistance and decoloniality that permeate this work.

What our book project seeks to interrogate is not only the decoloniality of knowledge, but that of the process of producing that knowledge.

Instead of relying on institutional hierarchies, we wanted to create a space where scholars could think together on their own terms. We drafted a shared project agreement and spent time learning to disagree productively through multiple conversations on virtual platforms. Many of our conversations were slow and meandering, lacking a clear agenda or conclusive outcome. But they repeatedly gave voice to struggles with the power dynamics, bureaucracies

and rigidities observed in our individual areas of knowledge production. Slowness gave us room to listen, to build trust, to unpack our own assumptions, and consider new ways of working. This relational, collaborative labor is an essential part of this work's methodology.

What the introduction does not fully articulate, but what matters methodologically, is that this collective did not pre-exist the project. It was made, maintained, and at times strained through ongoing deliberation. Decisions about pace, authorship, and scope were not delegated to a single author but worked through collectively.

This was not always efficient, but the greater gain was eventual consensus acquired through dialogue, compromise and mutual trust. This was not accidental. We understood slowness not as a failure to optimize, but as a condition for staying with disagreement rather than resolving it too quickly.

The funding support from COPIM for this experimental book project engendered new collaborations where African Minds joined in the experiment as our publisher, and the Platform for Experimental Collaborative Ethnography (PECE) gave RDS a digital portal to upload and reflect on our artifacts. Designer Karugu Maina used the *kanga* (a rectangular cloth commonly found among East African coastal cultures and discussed in the 'Methali (Khangas Wisdoms)' section) as a symbol that provided visual coherence and depth to the work.

We held two events in Nairobi, Kenya, in 2024 and 2025 (described later in the chapter), inviting a select group of scholarly and publishing colleagues to shape the work through their responses to the concept of the project. The result is a book that may be accessed through multiple formats: this linear arrangement of chapters, which is the more conventional approach; a discussion built around each particular author's assembled artifacts available on the Research Data Share repository (hosted by PECE) and including annotations from the Nairobi event participants; and a website.

Why Artifacts, Before Writing

Rather than beginning with writing, we started by collecting artifacts particular to the issues we individually wanted to address. These included images, metadata schemas, social media threads, documents, audio-visual texts, and existing scholarly literature. Often, such evidentiary traces become flattened or hidden inside traditional academic writing. Approaching this project as a database freed us from having to rush to the writing stage and instead gave us time to focus on building an evidentiary base.

For each artifact, we wrote short analytical reflections that addressed various questions such as: What does this object help us see? What is hidden? How does it relate to broader questions of knowledge and power?

The artifacts and their related reflections were uploaded on the RDS site, often in fragmentary and incomplete form.

Starting with artifacts functioned both as a methodological constraint and liberator. It slowed interpretation, anchored analysis in material traces, and prevented any one of us from setting the conceptual terms too early. At the same time, it introduced risks. Artifacts do not speak for themselves, and decisions about what counted as an artifact were already shaped by our positions within Kenyan research ecosystems. But there was also a freedom in the assembly of diverse artifacts that enabled individual authors' to make connections beyond their particular topics to the more fundamental dynamics in our knowledge infrastructures. This may not have occurred had we followed a more conventional path.

Shared Analytic Questions as Infrastructure

After assembling our individual artifacts, we identified analytic questions that cut across our domains:

- How is resistance enacted in this case? Through what practices, infrastructures, aesthetics, or refusals does it take form?

- How are “local” and “global” constructed and negotiated in this case and with what consequences?
- What assumptions are made about the relationship between knowledge, ownership, and commercialization?
- How do the knowledge infrastructures in this case enable or foreclose those typically outside power structures to *re-member* their agency?

On the platform, these questions function as analytics that guide navigation rather than as hypotheses to be tested. Methodologically, they focused our attention without dictating conclusions. They allowed us to trace patterns across protests, algorithmic tools, scholarly identifiers, public art, and higher education policy without collapsing into a single analytic frame.

Publics, Peer Review, and Live Critique

In November 2024, we hosted an intimate gathering of 20 people drawn from our professional networks to share early work and receive feedback. At the half-day gathering at the British Institute in Eastern Africa (BIEA) in Nairobi, we asked participants what knowledge means to them, where it is stored, how it is kept alive, and what they want from Kenyan knowledge infrastructures. Highlights from the event may be found [here](#).

The timing and location of the public gathering were providential, given that the BIEA was hosting a photographic exhibition of the Mau Mau movement in the same room in which we were holding our event. The photographs generated informal discussions among the participants, and provided a provocative visual frame to the structured conversations held during the course of the gathering.

We aimed for an informal, informative and ethical event, where participants would feel comfortable to voluntarily participate in all aspects of the event. There was provision for participants to provide consent as to the use of their names, images, and contributions. Contributions came

in the form of comments written on post-it notes placed on a glass window, reactions and questions. Participants questioned why *maandamano* protests appeared beside graffiti, artificial intelligence, higher education policy, and the digital object identifier. At first glance, the topics did appear scattered. We came to understand these reactions as part of the method rather than as a problem to be resolved.

In December 2025, we gathered a public audience again to experiment with what live peer review might look like. Highlights from the event can be found [here](#). Reviewers offered critique not only on the writing, but also on the data artifacts and platform design. Our software developer and brand kit designer joined to explain design logics and respond to questions.

What distinguished these events methodologically was not their openness alone, but the redistribution of critique across content, data, and infrastructure. Peer review was no longer a private judgment rendered after completion, but an ongoing, collective practice that shaped the work as it unfolded.

Platform Constraints, Workarounds, and Compromise

The open source Platform for Experimental Collaborative Ethnography (PECE) was central to our vision of a database book. Its branching structure supports non-linear reading and allows dissent, difference, and unfinished ideas to remain visible. However, a major platform update was not ready at the outset of our project timeline. As a result, we drafted much of the writing in word processors, which pulled us back toward familiar conventions like introductions, linear arguments, and conclusions.

This was not merely a logistical inconvenience. It revealed the gravitational pull of book-shaped expectations when alternative interfaces are unavailable. At the end of the project timeline, the platform was updated, and part

of our final work involved migrating text onto the new version. This migration made explicit that infrastructures do not merely host scholarship; they actively shape what forms of scholarship are possible.

This experience also highlights a core aspect of producing and infrastructuring collective, experimental knowledge: such work rarely aligns neatly with grant timelines. In much of the Kenyan research ecosystem, projects are tightly managed, with predefined outputs and carefully allocated labor structured by what we have elsewhere called “contract time” (Okune et al. 2025). Under these conditions, researchers must account for their hours and deliverables from the outset, leaving little room for iterative learning or infrastructural experimentation.

In this sense, we were unusually fortunate. The project afforded us a degree of temporal flexibility that is not typical in Kenyan research settings, where outputs are often specified in advance and deviation can jeopardize funding relationships. That flexibility enabled our small collective to adapt to delays, rework drafts, and migrate across platform versions, processes that would have been difficult if not impossible under more tightly managed conditions.

Limits, Risks, and Non-Innocence

This method is not neutral or universally replicable. It relies on time, trust, and labor that are unevenly distributed across academic and professional contexts. Collective deliberation slows decision-making, obscures responsibility, and can exhaust participants. It can privilege those with the stamina, job security, and confidence to remain present through extended discussion. Public review can reproduce hierarchies of voice, expertise, language fluency, and institutional authority even as it claims openness. Platforms, too, introduce new exclusions (technical literacy, bandwidth, and access to stable connectivity) alongside new possibilities. Rather than resolving these tensions, we sought to document them.

We also resist romanticizing marginality or experimentation. At each stage, we think it’s important to ask: what would the world look like if the systems we position as marginal became the dominant center? Would they necessarily produce more just outcomes? We learned quickly that alternative infrastructures are not inherently more equitable; even in our own small collective, new forms of inclusion and exclusion emerged.

A key reflection from our collective was that this project was materially subsidized by our other forms of employment. We hold roles across different institutional homes: a U.S. art gallery, a global nonprofit, and various forms of self-employment. Without these other sources of income covering our day-to-day expenses, we would not have been able to participate in this slow, experimental work. We would have been too occupied securing paid contracts to sustain ourselves. The temporal flexibility that made this project possible is not widely available. Many researchers—especially those in short-term, grant-funded, or precarious roles—cannot afford to invest unpaid labor in speculative collaboration.

In this sense, the method risks reproducing the very inequities it critiques. It may be most accessible to those who already possess institutional buffers, flexible employment, or external financial support. We therefore caution against romanticizing collective experimentation as inherently liberatory. Without structural changes to funding models, incentives, and evaluation criteria, such work can remain the province of a relatively privileged subset of researchers. Our hope is not that everyone should simply adopt this model, but that infrastructures of support (financial, temporal, and institutional) might expand so that experimental forms of scholarship are not contingent on personal subsidy.

What This Method Makes Possible

This project suggests that scholarly method cannot be reduced to data collection and analysis alone. Collaboration,

annotation, infrastructuring, platform design, and public deliberation are not ancillary to knowledge production; they are constitutive of it. By making these practices visible, we seek to trouble the boundary between “content” and the conditions that enable it.

The database-as-book is unfinished by design. New artifacts can be added. Annotations can accumulate. Disagreements can remain legible. Rather than treating publication as a terminal moment that stabilizes meaning, we treat it as one iteration within an ongoing collective process. This does not dissolve responsibility or authorship, but it redistributes them.

If this method is an act of resistance, it is a modest one. It resists the pressure to resolve disagreement too

quickly, to optimize for speed, to separate method from argument, and to treat infrastructure as neutral backdrop. It insists that *how* we produce knowledge (process) in Kenya matters as much as *what* we produce (content). At the same time, we remain aware that experimentation alone cannot undo structural inequities. Without broader changes in funding structures and evaluation criteria, and in how institutions reward work like this, such work will remain fragile.

We offer this chapter not as a blueprint but as a situated account of what became possible under specific conditions. If it prompts others to look more closely at the genres, timelines, and infrastructures shaping their own work, that would be enough.

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khanga

as visual metaphor
for collaborative infrastructure



The *khanga* (also known as *leso*) is a rectangular cloth wrapper associated with Swahili women on the East African coast from the 19th century, but has become widely used across mainland East Africa. A typical *khanga* is 45 x 54 inches (Odundo, 2024).

Decorative and functional, *khangas* are textiles characterized by colorful patterns centred within a border, and a short line of text carrying a wise saying or proverb (*methali*¹). The texts are “imbued with levels of social and cultural meaning ... used to pass on messages, chastise or share an idea” (Odundo, 2024).

In traditional Swahili culture, the *khanga* is often worn by women in two pieces, one as a skirt and the other wrapped around the top half of the body. But it has multiple other uses, including baby wrap, seat cover, and wall hanging. Here is how Luhumyo (2019) captures it:

It is the gift you give to a new mother to wrap around her belly after giving birth; the cloth in which you swaddle a new-born baby; when you need to clean the house; when you need a towel; when you need a curtain, a bed-spread, a scarf, a shawl, a handkerchief, something to lighten up a dull room or outfit.

As members of the RDS collective, we found the *khanga* to be a useful

starting point for our lived experiences as women. It was a decorative feature at our first public event, draped across a podium and tables as we invited our guests to help us think through our proposed project. It became a deeper symbol of infrastructure as we reflected on the questions of knowledge sources, systems, and processes, to which our chapters seek alternatives.

We were further galvanized by the work of Karugu Maina, who we enrolled as our design thinker halfway through the process. Inspired by our initial *khanga*-inspired logo, he leaned into it, playing with the core elements of color, pattern and text to re-create the logo and invite each RDS member to choose a color combination that would represent their work.

The *khanga* also intimately ties into a rich history of Kenyan publishing prior to achieving independence in 1963. Kenyan-British library professional and political activist Shiraz Durrani has detailed a history of publishing in Kenya that is diverse, and goes back to the end of the 1800s, noting that although colonial laws prevented Kenya's African population from owning printing presses or newspapers, that did not mean they lacked effective means of communication. Durrani spotlights the importance of oral communication

systems and more fugitive methods for bypassing the embargo placed by the colonial administration such as writing “Kiswahili cha ndani” (“Kiswahili of the inside”) resistance messages on women's *khanga* cloth which were worn as skirts or wraps so the message reached a wide audience right in their homes (Durrani, 2006).

The *khanga* to us is a non-typical knowledge infrastructure that has been used to resist the status quo. The deeper we have gone into the project, the more apt the *khanga* has become as a visual metaphor for what we are trying to achieve.

In honour of the *khanga* as knowledge infrastructure, we share throughout this book some *methali* from our cultural and social contexts.

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¹ Alternative spelling: *mithali* (which means 'wise sayings').



part two

INDIVIDUAL CONTRIBUTIONS

“ Deru kugi wa utareru.

The nail that sticks out gets
hammered down.

Source: Japan

03

Rhetoric, Reality, and Re-membering: Reflections on Kenya's Knowledge Ecosystem Following the June 2024 Maandamano



by Wambui Wamunyu

The construct of 'knowledge' exists within particular contexts, where political, economic and social interests converge to enable, stifle, or contain discourse about what people know, as well as how and why they know it. For many African countries, these interests are further complicated by colonial histories where the deliberate dismantling and diminishing of indigenous cultures and knowledge(s) (Bol & van Niekerk, 2024) have in contemporary times been countered by decolonial studies scholarship (such as Alapo & Doghudje, 2023; Carstens & Preiser, 2024); Gumbo, Knaus & Gasa, 2024; wa Thiong'o, 1986), which itself has been critiqued as an extension of colonial epistemology (Eze, 2024).

While acknowledging those various perspectives, this chapter focuses its argument on contradictions between the rhetorical and lived expressions of aspects of the Kenyan knowledge ecosystem, as set against the backdrop of a historic 2024 citizen protest (termed *maandamano* in Kiswahili).

Policy statements that provide for access to equitable, quality education are negated by scholarly and media accounts of a range of issues including an unclear philosophical framework, underfunding, unequal resource allocation, poor implementation of education reforms, marginalization of learners from vulnerable socio-economic circumstances, and student and teacher unrest (Kihaki, 2025; Maisha Kazini, 2020; Malemba, 2024; Muricho, 2023; Ogawa, 2022; Osabwa, Malenya & Ndichu, 2021; Spice FM, 2024).

The chapter further recognizes the work the citizenry embarked on to assemble, share and provoke new knowledge and ways of thinking thus enacting a form of resistance to the *status quo*.

This work of assembly is termed 're-membering' in this chapter, drawing from the work of Kenyan literary scholar Ngũgĩ wa Thiong'o (2009). Often defined as a decolonial intellectual, wa Thiong'o framed colonialism as a weapon that dismembered African individual and collective identities, and so called for a reconstruction of the self and of community through language and collective memory i.e. 're-membering'. In my study of the June 2024 protests, I found the term 're-membering' to be a useful conceptual framework through which to analyze the citizen-generated critiques of aspects of Kenyan life without necessarily making reference to 'colonialism' which 'decolonial' studies remain hinged upon (Eze, 2024).

The term 'knowledge ecosystem' may refer to the individuals, institutions, laws, and policies that relate to knowledge production, expression, and dissemination. In that regard, this chapter limits itself to one entity associated with knowledge, namely, the formal Kenyan education system.

On June 25, 2024, thousands of Kenyans took to the streets across the country protesting against proposed legislation that sought to raise taxes. The *maandamano* enabled citizens to forcefully give voice to their questions about wasteful or questionable use of public monies, while exposing weak and corrupt leadership, and dysfunction in multiple sectors (education, mining, agriculture, food security, etc.).

Social media platforms were taken over not just to share personal opinions but to rally people together to consider a new-look Kenya. Many of these citizens have paid for these questions with their lives and their personal freedom (Onyando, 2024; Wamunyu, 2024).

In Nairobi, some of the protestors gained entrance into parliament by breaching its gates where, subsequently, the mace was reportedly stolen. The mace is a symbol of the parliament's legislative authority, and a key element in the conducting of the business of the house. One observation in this chapter is that the taking of the mace was a decisive moment in the country's history, symbolically illustrating a pivotal dismantling of institutional power and authority by and for the Kenyan people. The June 25, 2024 protest was a seminal event that served as the beginning of further protests later that year.

By focusing on purposively selected institutional and regulatory entities related to knowledge production, expression and dissemination, the chapter argues that even in matters related to the country's knowledge ecosystem, the protest exposed extensive dissonance between the rhetoric and reality of aspects of Kenya's knowledge ecosystem and the epistemic violence—a term associated with postcolonial theorist Spivak (1988) to mean the silencing or erasure of marginalized groups' knowledge systems, perspectives, and agency—the citizens have experienced at the hands of contemporary institutions in power.

Through a textual analysis of purposively selected legislative, policy, and media texts, the chapter posits that there has been a re-positioning of the citizen away from peripheral to central actor in Kenya's knowledge ecosystem. The chapter concerns itself with the following questions:

- What is the rhetorical expression of Kenya's knowledge ecosystem in the legislative and policy frameworks that

pertain to the formal education system?

- What is the lived reality of Kenya's knowledge ecosystem as exposed in the dissonance and dysfunction in the expression, production, and dissemination of knowledge within the formal education system?

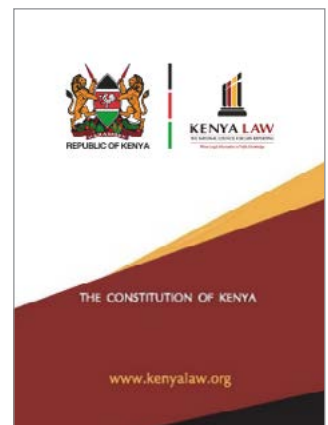
The chapter presents the discussion under three key sections which address the legislative and policy framing of knowledge in Kenya's formal education system (rhetoric), Kenyans' lived reality of the formal education system (reality), and posits that the 2024 protests enabled Kenyans to engage in a review and reconsideration of the education system (re-membering).

Rhetoric: Legislative and policy framing of knowledge in Kenya

Kenya's legal, regulatory or policy frameworks broadly recognise 'knowledge' as a construct created and/or shared through multiple avenues including culture, the formal education system, science and research, and a broad range of information repositories such as indigenous communities, mass media, government agencies, and libraries.

The Kenya Constitution (2010), Kenya Information and Communications Act (1998, Revised 2012), Kenya National Libraries Board Act (1965, revised in 1986, 2012), Knowledge Management Policy for Kenya (2022), the National Skills Development Policy (2023), Media Council Act (2013), National Museums and Heritage Act (2006, Revised 2012), Basic Education Act (2013), Education Act (1980, revised in 2012), , Public Archives and Documentation Services Act (2012, revised

Figure 1
Kenya Constitution
Source: The National Council for Law Reporting, <https://www.kenyalaw.org/kl/index.php?id=398>



2015), Protection of Traditional Knowledge and Cultural Protections Act (2016) and the Science Technology and Innovation Act (2013, revised 2014) are among a range of laws and policies that provide constitutional recognition, protection, promotion of and access to various forms of knowledge and intellectual property.

Formal education

Through budget allocation, policy discussion and societal expectation, Kenya's formal education system is ranked higher than other types of knowledge sources. In each of the last three financial years for instance, the formal education sector has been allocated nearly 30% of the national budget, the largest share allocated to a particular sector. The funds have mostly been allocated towards funding of public education from primary to tertiary levels, salaries, and development of infrastructure (Wanjala, 2025).

Table 1: Monies allocated to Kenya's formal education sector 2023–2026

Financial year	Amount allocated (Billions in Kenya Shillings)	% age of national budget
2025–2026	702.7	28.0
2024–2025	656.6	27.6
2023–2024	628.6	27.5

Source: Wanjala (2025)

Despite the funding, challenges continue to abound within the education sector. Kenya has among the highest primary school dropout rates in East Africa. It has experienced hastily introduced curriculum changes without piloting or sufficient preparation, frequent teacher strikes over pay and working terms, and is presently grappling with an unpopular new university funding model (Andati, 2024; Elimu Bora Working Group, 2025; Mumbi, 2025; Opanda, 2025, Otieno, 2025).

I found it interesting that in the range of documents analyzed, the definition of the term 'knowledge' is often presumed rather than explicitly defined. In addition, the

conceptualization of matters related to knowledge often draw from external sources, be it in the theorizing or underlying philosophy.

The rhetoric in the legal and policy documents reviewed present a knowledge ecosystem that is equitable for all, protective of intellectual property, and recognises different types of knowledge (such as indigenous, contemporary science, formal and informal). Separately, the lived reality of the knowledge ecosystem is that it is hierarchical, emphasises market-driven approaches in the formal education system, has extensive inequalities in the access, quality and range of types of knowledge that citizens have, borrows heavily from external theorizing and reflection, has experienced multiple arbitrary changes, and has been marked by unrest such as by student strikes in high schools and universities, and protests by teachers against poor pay and working conditions.

Additionally, Kenya's knowledge ecosystem treats institutions as the leading implementers of knowledge-related policy, takes a techno-deterministic approach to innovation and new technologies, has an exam-focused system that encourages memorization and conventional thinking over creativity and independent thought, and privileges English and Kiswahili in policy-making, teaching, learning, and other forms of knowledge management and exchange above other languages spoken by Kenyan communities.

Kenya's Constitution is the legal reference that holds supremacy over all the other nation's laws and policies. It recognises, protects, promotes and requires equitable access to various forms of knowledge including: all forms of national and cultural expression through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries and other cultural heritage. The Constitution also acknowledges the role of science and indigenous technologies in the development of the nation, and protects the citizens' individual or collective intellectual property rights. All

rights as defined in the entire Constitution including those pertaining to the creation, sharing and use of knowledge belong to the citizen and are not granted by the State.

The legal and technical language of the Constitution can render it an abstraction, out of reach of the very citizen it seeks to protect. The promulgation of the Constitution in 2010 was preceded by years of drafting, horse-trading and intense political campaigning, largely among the powerful political leaders and civil society. The majority of citizens were passive observers of the process. When the new Constitution was finally passed via referendum, there were citizens who admitted to having voted not based on their own convictions but on the direction of a particular political leader.

But in the period leading up to and since the June 25, 2024 protests, there has been a shift where individual citizens have taken an interest in having knowledge about their societal rights and obligations, and the State's rights, obligations and restrictions. Seeking knowledge in this context then becomes a choice for the citizen to appropriate their own agency about what they know and what they should know and so resist the ways in which they have been diminished or excluded by powerful individuals and institutions. The outcome is resistance to the epistemic violence that they – the citizens – have experienced at the hands of contemporary institutions in power.

During and after the June 25, 2024 protests, the language from the protests indicated that the citizenry were well aware of their constitutional rights. There were a series of posters that repeatedly referenced this line from the Constitution “The People Shall...”, an indicator of the sovereignty and centrality of the Kenyan citizen within the state.

A poster calling for peaceful protests (shown in Figure 2) provides an illustration of the agency the citizens' appropriated for themselves. The constitutional guarantee of the people's sovereignty was placed at the centre of

the poster. The protest's proposed date (July 16, 2024), motivating force (rage and courage), and intention (the hashtags #RutoMustGo and #OccupyCBD referred to a call for the president's departure and the central business district as the protest venue) framed this centralised message. *Beba maji, simu na flag* (which means 'carry water, your phone and a Kenyan flag' in the nation's *lingua franca* Kiswahili) was a creative use of symbols (water, phone and flag) to communicate their plan to peacefully state their demands as they had as much of a stake in the state as the governing authorities.

Seeking knowledge in this context of awakened agency then becomes a choice for the citizen to appropriate their own agency about what they know and what they should know and so resist the ways in which they have been diminished or excluded by powerful individuals and institutions. The outcome is resistance to the epistemic violence that they – the citizens – have experienced at the hands of contemporary institutions in power.

Reality: Kenyan's lived experience of the knowledge ecosystem

The June 25, 2024 protests (*maandamano*) were in themselves a form of knowledge production, expression and dissemination, giving voice to a simmering rage against the exposure of dysfunction across sectors, the State capture of the citizen's mind (what we study, how we study, what policies we create, the (non) implementation of those policies, etc.), confidence among citizens to question authorities (defined by age, institution, office, socio-economic status, political status, etc.), and to speak to one another (horizontal discourse de-linked from institutional authority). The protests expressed a refusal to comply with official/State discourses around different aspects of Kenyan life.

In beginning to speak to one another and to question institutional authority, I found the citizens to be developing an increasing understanding of the nature

of our knowledge ecosystem to be institution-focused, techno-deterministic, utilitarian (market-driven), arbitrary, inequitable, fragmented, bloated, and elitist.

Rhetoric versus lived experience

In a 2012 taskforce report (Ministry of Education (2012)), the national philosophy of education is explained as follows: “Education philosophy emphasises the provision of holistic quality education and training which involve the cognitive, psychomotor and affective domains. It further espouses the values of patriotism, equality, peace, security, honesty, humility, love, respect, tolerance and democracy” (Ministry of Education, 2012, p. 22). The emphasis is on achieving technical and social objectives through acquisition of knowledge and technical skills for the nation’s manpower needs, and the inculcation of perceived desirable social values (Shiundu & Omulando, 1992).

An analysis of the text and discussions on social media and elsewhere however, exposed a stark dissonance between the glowing rhetoric of policy and legislation, and citizens’ lived reality. An illustration of this awareness was seen on a poster circulating on social media (Figure 3) calling for protest in late June 29, 2024, following the initial June 25, 2024 protest. The June 29, 2024 poster had 14 listed demands, two of which directly pertained to education.

The education related demands were 8th and 12th respectively on the poster as follows:

8. Employ all [Junior Secondary Schools] teachers to permanent and pensionable terms including those sacked during the recent strike immediately.
12. Restore the School Feeding Program Fund & increase funding to education & health and cut budgets to the Executive and Legislature.

In my review of the social media texts and policy documents, aspects of the national knowledge infrastructure (including legislation, policies, and data on public and private institutions) were not always easy

to find or access, particularly for low-income, rural and marginalised communities. Corruption and inequalities in the access and quality of education learners across the nation experienced are among the challenges that have been exposed (Mwere, 2025).

Citizens began noting their observations that there was a privileging/ranking of:

- types of knowledge (with formal education elevated through budgetary and policy attention over indigenous/traditional, and cultural forms);
- languages in which knowledge is expressed and shared (with English often privileged English as the primary language of communication, Kiswahili to a lesser extent, and minimal use of local languages);
- geopolitical locations in which knowledge is articulated and shared (urban areas having more resources compared to rural areas); and
- institutions over citizens in who made decisions related to the knowledge ecosystem, its funding, and access.

Policies tend to emphasise the economic value of knowledge e.g. how knowledge will promote the economic agenda of the country, or how knowledge will add value to the labour market needs with little emphasis on the holism and social values that various scholars and commentators over the decades (such as Njoya, 2024; Shiundu & Omulando, 1992) have/had envisioned.

The knowledge ecosystem was also clearly tied to particular agendas such as foreign interests. For instance, when the United States of America’s government decided to cut funding for the US Agency for International Development (USAID), it exposed the extent to which Kenya’s social services, including education, are funded by foreign sources. In Kenya, the 2024/2025 national budget experienced a KSh. 52 billion shortfall that would affect the provision of teacher training, primary school literacy programmes, and learning scholarships among other areas (Kimani, 2025). A county governor (leader of

Figure 2

A poster that was circulated to call for protests after the initial June 25, 2024 protests. The poster drew from language in the Kenya Constitution that recognises the citizen, not the State, as supreme. Source: Anonymous

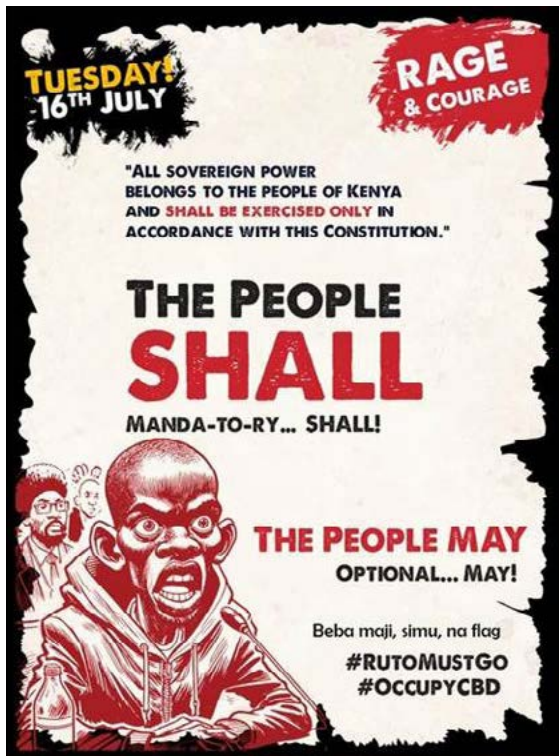
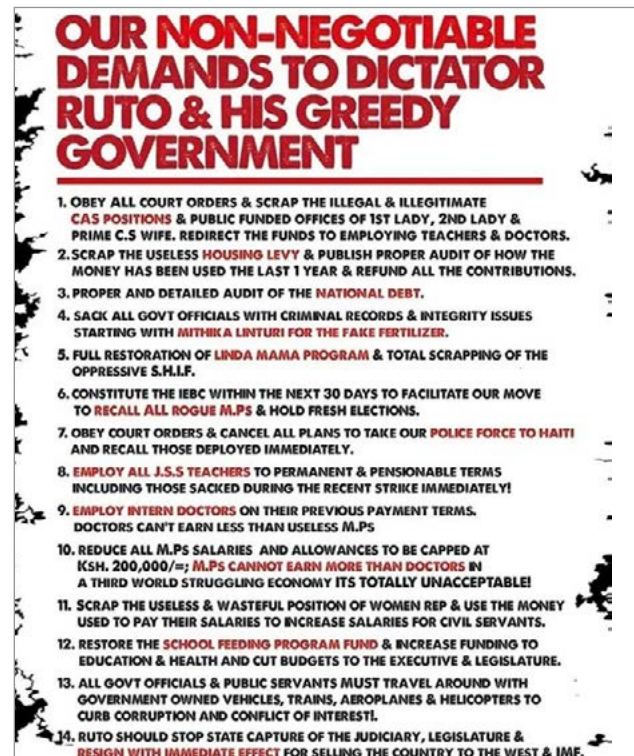


Figure 3

A June 29, 2024 poster listing 14 demands citizens wanted the government of President William Ruto to meet. This poster circulated on social media applications including X and Whatsapp. Source: Anonymous



one among 47 administrative units in the country) presided over the Oct. 8, 2024 launch of a community library which was funded by USAID (Figure 4).

The *maandamano* provided a temporal space for citizens to collectively see and discuss the stark dissonance between the government's glowing



Figure 4
The Oct. 8, 2024 launch of a donor-funded community library in Tharaka Nithi County (one of 47 administrative units in Kenya). The county's governor (left) and the donor shaking hands at the event.
Source: *The Standard*.

rhetoric and their (citizens') lived reality. Social media was a particularly effective forum in enabling citizens to share and learn about what was going on in the country in multiple sectors. I recall my frequent surprise at the revelations that would emerge about conservation, agriculture, and corruption among other sectors, information that was found and shared by and among citizens through platforms such as TikTok, Whatsapp, and Youtube, generating further conversations and introspection offline.

However it is worth noting that these digital infrastructures which are owned by multinational for-profit companies, can be controlled through shutdowns, throttling or other means with the intent to censor

or limit discussion. To illustrate, a June 26, 2024 statement from a coalition of Kenyan civic technology organizations condemned the Kenyan government's disruption of the Internet during the June 25, 2024 nationwide protest noting that the evidence pointed to "a government sanctioned disruption rather than a technical outage". Further the statement read as follows:

Kenya's constitution and international human rights instruments safeguard the fundamental rights to freedom of expression, assembly, access to information, and picketing, which are violated by internet disruptions, censorship, and other information controls. By preventing citizens from engaging in public conversation and holding the government accountable, internet disruptions subvert democratic processes and the rule of law.

Re-membering: What the *maandamano* did

Ngugi wa Thiong'o actively called for a systemic decolonizing within former colonial states on the African continent (1986) but also moved on to the concept of 're-membering' (wa Thiong'o, 2009). In 'Re-membering Africa,' wa Thiong'o (2009) recognises the destruction the colonial experiment caused across all aspects of African life and calls for a restoration of collective memory. This article hinges itself on 're-membering' rather than 'de-colonising,' choosing as its foundation not a turning away from elements of the colonial construct, but a turning to what the *maandamano* exposed to us: we had and have a knowledge ecosystem of value independent of, prior to and post the colonial experiment.

There are decisions the citizens made beyond going to the street to protest oppressive legislation and poor governance. By exposing the fragmented nature of our knowledge ecosystem, the dissonance between policy rhetoric and their lived reality, and the excessive power and control a small powerful elite had attained, the people began to re-member their constitutionally protected centrality.

The breaching of parliament and the reported capture of the mace served as a symbol of this agency, and was reflected in the stark differences between Kenyan policy and citizen discourses about the quality of our formal education system. Citizens called each other to meetings on social media—including one convened on November 7, 2024 (Figure 5) on the Kenyan education system—enabling critiques and reflective discourses what citizens experienced and what they considered as ideal.

In talking together about the nation's problems, and moving the conversations using multiple languages used across the nation and beyond urban locations to rural and marginalised communities, the people begun a resistance to the hierarchical, rigid, top-down knowledge ecosystem that excludes them (Maisha Kazini, 2025) by collectively beginning to assemble and re-member what they knew and sought to know.

The philosophical foundations of a re-membered knowledge ecosystem call for more holistic knowledge-related structures, a recognition and equalizing of different knowledge(s), knowledge-sharing in communal spaces apart from schools (such as community



libraries, social halls, and social media), acknowledgement and equalizing of different knowledge sources (formal, informal, cultural, etc.) and languages, and a more egalitarian approach in the funding of and access to places where knowledge is built and shared.

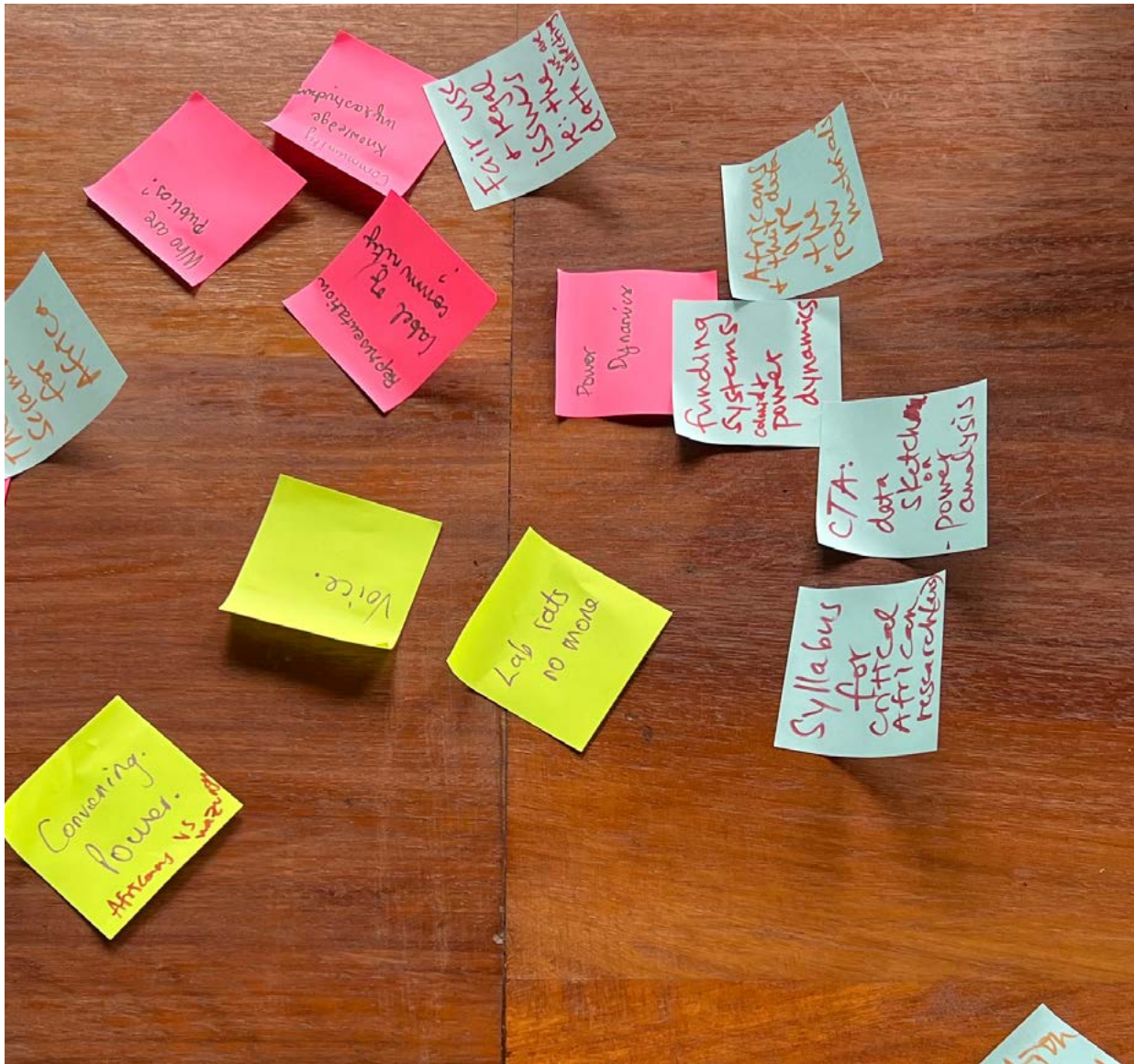
It is the people whose value of knowledge encompasses not only the economic or transactional, but also relationship and social communion. It is an acknowledgement that knowledge is for all and should serve the collective societal agenda.

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Screenshot of a conversation about Kenya's education system on X Space hosted by a leading journalist on Nov. 7, 2024.
Source: X.com

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“Nana korobi ya oki.

Fall down seven times, get up eight.

Source: Japan

04

Building Resistance through Peer-Led,
Community Learning Infrastructures



Aurelia Munene

Introduction

The experiences of students pursuing their postgraduate education in Kenya mirror the broader struggles of post-colonial Africa concerning identity, epistemic justice, liberation, ideological tensions, anti-intellectualism (both generally and in universities), and feelings of displacement or resistance. Some examples of these include Mamdani (2007) on neoliberalism, commercialisation and higher education; Waninga (2025) on knowledge production, power and epistemic hegemony; Daley (2023) on defiant scholarship; Omedi et. al. (2025) on delayed completion in graduate studies; and Muthiani et. al. (2023) on research skills and completion rates in postgraduate education. These struggles manifest at the intersection of historical, ideological, political knowledge concerns (Munene, 2024).

Through selected artifacts, rather than focus on the widely discussed challenges in postgraduate education in Kenya—like delays, supervision gaps, financial and workload barriers—I focus on discussing how, by carefully assembling a postgraduate peer-led collective learning community outside the university, we are opening space for knowledge production in ways that are more dignifying, affirming, and supportive. Infrastructuring this community of practice is an act of resistance to the existing hierarchical knowledge structures present in postgraduate education in Kenya. The motivation for this work has been interactions with postgraduate students in Kenya whose voices have been systematically silenced by existing knowledge infrastructures within universities. Knowledge infrastructure in the context of this essay represents the institutional, social, political, and cultural systems and structures that shape how knowledge is understood, produced, used, and whose voice counts.

Resistance in this chapter begins by illustrating both intentional and unintentional processes through which postgraduate student voices are marginalized within formal university structures. These processes can be understood through a Foucauldian analysis of power, discourse, and disciplinary systems that determine who speaks and who is heard. The chapter then moves on to highlight Eider Africa as an emergent alternate re(imaginative) knowledge infrastructure that resists this marginalization by nurturing peer-to-peer mentorship spaces and research journal clubs for African scholars. This initiative is inspired by the works of De Sousa Santos (2014) on epistemic injustice and the work of Mbembe (2016) on hegemony in knowledge. The chapter then highlights the tensions and challenges of sustaining these alternative knowledge infrastructures. Although they still operate and depend on the same contexts that are deeply rooted and rewarded by neoliberal and colonial knowledge systems of funding and legitimacy, they remain important spaces to maintain because they hold space to practice alternative, non-hierarchical ways of relating to each other and to knowledge itself.

Analytical Questions

- How do current power dynamics in postgraduate education, both subtle and overt, contribute to the silencing of student voices?
- In what ways has Eider Africa, through its extensive experimentation of a research collective, attempted to resist postgraduate power dynamics, moving away from dominant approaches?
- What specific challenges has Eider Africa faced over the past seven years, and what do these challenges reveal about the implications for developing alternative models of postgraduate education in Africa?

ANALYTICAL QUESTION 1

How do current power dynamics in postgraduate education, both subtle and overt, contribute to the silencing of student voices?

Voice and postgraduate education

ARTIFACT 1

Eider Africa Research
Conversation Open Day 2017

CRITICAL COMMENTARY

The artifact is a reflection on a gathering of postgraduate students from different universities who came together to meet other researchers and peers, and seek solutions for the challenges they face in their studies. I organized this event after being inspired by two university students I had met previously and who mentioned that they are stuck with their master's studies. I decided to hold an event to understand these challenges deeper and to invite seasoned researchers to motivate them. Drawing together these students and meeting them outside the university was the beginning of the acts of resistance.

The first organized research collective at Eider Africa was called "Research Conversation Open Day". The invitation read as follows: "Join a team of seasoned researchers on 26th August 2017 on a Saturday morning 9.30-12.30 p.m. for an Open Day Session with Public Health, Health Science and Social Researchers. The venue is at the British Institute in Eastern Africa (BIEA), Lavington Nairobi."

Eider Africa reached out to students through Eventbrite and emails. The overwhelming

response, with over 80 postgraduate students from various universities attending, was surprising. From the discussions, including the shared difficulties in completing their research, a striking commonality emerged: a pervasive sense of not being heard.

Students felt unable to articulate their preferences regarding research topics, the feedback they desired from supervisors, or the methodologies they wished to employ. This inability to voice their needs left many feeling profoundly "stuck" in their academic journeys. Feedback from one of the students who attended the event was that "at least we have a space we can speak". This began my thinking more deeply about voice and spaces to help people speak, reflect, connect, and learn together. From this event several smaller research discussions events were hosted by Eider Africa at different venues.

Why do postgraduate voices matter in their own learning?

Continuing from the reflection of the Research Conversations Open Day, having "voice" implies that one has a language in which to

ARTIFACT 1
Research Collective
Open Day 2017.
Source: Eider Africa



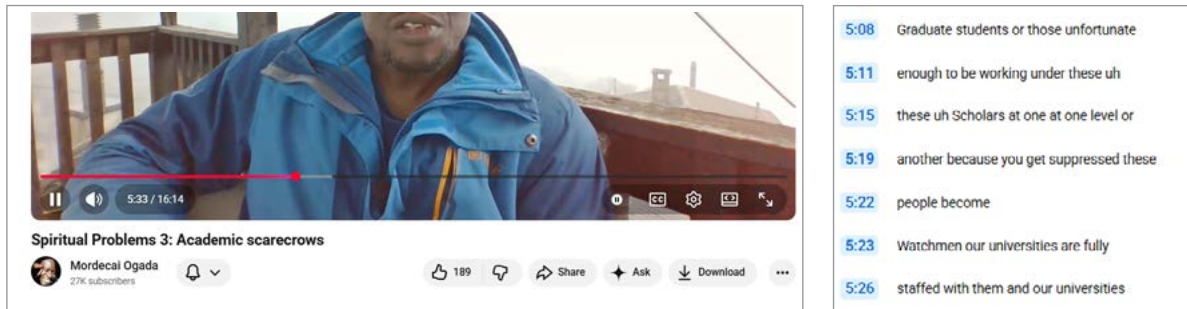


Figure 1
Mordecai Ogada Youtube
page screenshot: “Spiritual
Problem 3: Academic
Scare Crows”.
Source: Aurelia Munene

give expression to one’s authentic concerns, that one can recognize those concerns, and that there is an audience of significant others who will listen to those concerns ... voice is already there, already critical, regardless of whether the outside world allows it expression (Sound, Presence, and Power: “Student Voice” in Educational Research and Reform. Curriculum Inquiry). Universities often unintentionally silence certain voices, a process that mirrors and reinforces existing power imbalances. This contributes to the broader subjugation of specific voices within the wider knowledge infrastructures. This issue is deeply intertwined with pedagogical approaches, echoing Paulo Freire’s seminal work, “Pedagogy of the Oppressed”. I suggest that this suppression can lead students to a profound loss of self, resulting in confusion, grief, and dissatisfaction. However, students do not passively accept this silencing. They resist in various ways, from actively pushing back against power inequalities to silently enduring them. This silent endurance, often undertaken just to complete their studies, is, in essence, a form of “existing in silence” which is a powerful coping mechanism in the face of difficult

circumstances. And this is how most students I meet are existing.

But what does that mean for knowledge production, infrastructure, sharing, and interrogation in Africa? Often, academic spaces, instead of fostering new African scholarly voices, contribute to a loss of power that continues to silence Africans in global thought leadership and ideological influence. Some of these silencing manifests in what Mordecai Ogada calls “academic scarecrows”—Kenyan doctorate students or lecturers without a philosophical foundation and deep reflexivity (see Figure 1). Of course, these issues are beyond individual failure but a reflection of the complex influences of neoliberal, colonial capitalist processes that have shaped universities over the last several decades (Ochwa-Echel, 2013).

This silencing is also seen in how students treat research participants as mere objects for extractive knowledge, prioritizing graduation over genuine engagement. Such relationships further displace and make invisible community voices and contributions to research. Reflecting on this first session many years

later, I am also experiencing my “stuckness” in the system. Below is my reflection about my voice in postgraduate education and my research practice in Kenya.¹

Losing my voice through and in postgraduate education and research practice

It is in academia that I learnt I had a voice and my voice mattered.

It is also in academia that I have lost my voice.

It is through my practice that I have doubted my voice.

But hold on, I feel I have not lost my voice, instead, my voice is silenced.

I grieve my voice.

It is in my research practice within and without academia that I experience deep alienation from the community I hoped to serve.

I have silenced the voices of the people I hoped to make visible and hear differently. I have silenced their voices through other voices that seem to matter, more accessible, sometimes louder, sometimes they are not louder but they seem to matter more than others.

Where is my voice now? My inner voice is louder, but my outer voice is quieter. I have been silenced by my doubts, contracts and the silence of those around me that should be using their voice.

In this way, the systematic silencing continues, and I draw on the reflections of sahibzada mayed on LinkedIn² (sahibzada mayed): “When dominant research practices erase indigenous ways of knowing that is not ‘bias’, it is epistemicide.” In my reflection of the quote above I wonder, what if the death/loss of knowledge(s) begins with the loss of voice?

ANALYTICAL QUESTION 2

In what ways has Eider Africa, through its extensive experimentation of a research collective, attempted to shift these postgraduate power dynamics, moving away from dominant approaches?

ARTIFACT 2

Eider Africa Initiative: Africana Journal Club

CRITICAL COMMENTARY

The artifact is a description of Eider Africa and what and how the peer space works. At Eider Africa our approach has been about intentionally and unintentionally bending and dismantling hierarchical barriers and rebuilding connections and collective learning through WhatsApp for African Scholars. We are highly experimental and have a lean and flat approach to organization and leadership. I am in leadership and together with the program manager we make decisions quickly if something does not work and implement members ideas. We have broken barriers across and within universities, disciplines, lecturers, students (having students and lecturers share a collective space), including country and gender barriers. Our members are drawn from different African countries and regions, male and female, lecturers, and students. WhatsApp: A Valuable Space for Enabling Research Mentorship Among Early Career Researchers in Africa. We curate research activities that are participatory and stimulate learning research differently and are actively part of other collectives that are making a difference in the research ecosystems like the Research Data Share and AFELT.

- 1 I studied for my first master's degree at the International Institute of Social Studies, a postgraduate school that is renowned for critical studies and pushing back on dominant norms and ideologies on development. It is through this school that I first heard the terms “decolonial” and “knowledge injustice”. The school is based in the Netherlands but has students from over 120 countries, mostly from the “Global South.” Lecturers come from all over the globe. Ironically, I had to go to the Netherlands to relearn a critical history of our continent and what forces shape it. This may be a problem shared by many African educated students, whose universities make no mention of these types of issues including exposure to African authors.
- 2 I am a creative alchemist who cultivates tools of liberation. I am often asked to describe who I am and what I do. How do we begin to capture the messy entanglements of who and how we are as complex, fluid beings? After all, becoming is an emergent state of being, and being is a constant state of becoming.” sahibzada mayed

**ARTIFACT 2**

Eider Africa Peer Activities.

Source: Eider Africa

When I founded Eider Africa I chose to work outside the traditional university system, both physically and philosophically, while still maintaining connections with like-minded individuals within the academic infrastructures; individuals like Wambui Wamunyu who were also rethinking these issues. My perspective is that inclusive knowledge infrastructure should not look like a strongly established hierarchy where certain voices dominate postgraduate education and certain voices are systematically silenced. I aim to move beyond merely identifying the problem to highlight our work at Eider Africa where we are actively forging different pathways for collective knowledge creation, hearing postgraduate voices and research movements. But I want to make clear that what we are working to establish is not necessarily perfect but a first step to hold open possibilities for alternatives. I want to surface the inherent challenges within even these different spaces, particularly concerning mobilization, emotional, intellectual, and physical labor, and confronting the dominant educational paradigm.

I will first explore what led me to found Eider Africa then how the journey has been.

"To enter into the transformation, other people must come in, other people who have different ideas of living". Prof. Odora Hoppers refers to higher education as a "banquet table"—"we must introduce new concepts to banquet table so that we are not just assimilated into it" (Reinforcing Higher Education in Africa). Eider Africa has set up a banquet table outside

the university, inviting postgraduate students and other non-higher education actors to bring diverse voices together. Setting this table has been work of deep emotional labor, resilience and experimentation. Looking back my intention for this creative space is inspired by the words of Sylvia Tamale: "For the colonized, decolonization of the mind is really about returning to the annals of history to find ourselves, to become fluent in our cultural knowledge systems, to cultivate critical consciousness and we reclaim humanity" (Decolonization and Afri-Feminism).

However, this is challenging because postgraduate students in the collective are part of an education system that encourages minimal interrogation and quick assimilation rather than deep reflection. The demands of modernity, capitalism, and career progression make it difficult for students to pause and critically examine history's connection to their experiences. Despite these obstacles, the group actively promotes and emphasizes collaboration and mutual support over competition. Members are encouraged to take ownership of each other's concerns and work together, whether through informal discussions or structured mentorship. We have named our collective the *Africana Journal Club* (a name that has evolved over time). The club has a membership of over 1,000 members from 15 African countries. The group is supported by four people, three of whom receive an appreciation incentive.³ We leverage the collective knowledge of the group for mentorship, webinar presentation among other activities.

3 I pay these incentives from my personal monies.

ANALYTICAL QUESTION 3

What specific challenges has Eider Africa faced over the past seven years, and what do these challenges reveal about the implications for developing alternative models of postgraduate education in Africa?

ARTIFACT 3

Broken Pipeline: Higher Education and the Production of African Development Researchers

Challenges of Creating Circular Peer-Led Spaces in Higher Education within a Dominant Pipeline Model

CRITICAL COMMENTARY

The artifact was chosen because it sheds light on important concerns facing postgraduate education and provides a helpful perspective for comprehending the interrelated levels of issues Broken Pipeline: Higher Education and the Production of African Development Researchers. To frame these issues, it also makes use of the prevalent pipeline metaphor that is frequently employed in higher education. This linear framing limits how academic pathways and knowledge production are envisaged. Recent discussions are proposing other ways of reimagining this pipeline framing (From pipelines to pathways: Researchers call for a new approach to studying academic progress).

The pipeline framing contrasts with Eider Africa's desire to co-create more circular open learning infrastructures that nurture transformation, exploration, imagination, and voice articulation. However, because

Broken Pipeline: Higher Education and the Production of African Development Researchers*

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Abstract

Any meaningful effort to address the underrepresentation of African voices in development research must begin with the teaching, mentorship, and inspiration of young scholars that happens in African universities. This is where the pipeline of African researchers is created and where scholars are equipped with the training required to produce research that can shape policy debates and guide decision making. In this paper, we draw on original survey and interview data to characterize the challenges faced by African universities in producing development researchers. We discuss the factors that cause so many promising scholars at the undergraduate level to choose not to continue their training at the graduate level. We assess the quality of the training that is available for the students who do elect to continue their studies in Africa. And we discuss the attractiveness of, obstacles to, and implications of acquiring graduate training outside of the region.

Keywords: higher education; Africa; development research

pipeline framing is often presented as the most legitimized approach to understand postgraduate education, it creates tensions and dilemmas for us at Eider Africa. At times, doubts emerge, making us question if we have veered off our decolonial and consciousness-raising agenda. On April 19th, 2024, feeling conflicted about the vision and reality of our work, I discussed these dilemmas with Angela Okune. My key takeaway was the immense value of such connections, including those with the Research Data Share collective team. These allies serve as crucial reminders that the struggle is worthwhile and that the continued decolonial agenda begins with us. I summarized the meeting with this statement that Angela captured.

ARTIFACT 3

Broken Pipeline:
Higher Education and
the Production of African
Development Researchers.

The missing link is that the true desire of why Eider was formed—to transform knowledge producers on the continent—has not been reflected in what we are doing. We have responded to what students need but we have not pushed their boundaries in ways that can bring this holistic change. We have not been working on changing them (raising consciousness). Just the status quo up to now. Now moving to the actual transformation agenda.

In hindsight, leading through a transformative agenda we have to be careful and deeply reflexive to avoid alienating or silencing the very voices we aim to elevate and to avoid creating new hierarchies.

Universities should not be the only spaces for these changes. We need to promote reflective habits not just at the university but in spaces such as Eider Africa collectives where we are seeking to build alternatives to ensure we stay active so as not to be co-opted by the same forces we are trying to resist.

Working outside the dominant narrative and structures requires significant intellectual, physical, and emotional labor, which can be daunting. However, it also brings profound internal rewards and a sense of fulfilment.

At Eider Africa we carry an emotional load because we are committed to hearing the voices of postgraduate students who are often unheard or intentionally silenced within existing systems. Furthermore, our consistent experimentation and conscious reflection on

our methods and motivations necessitate considerable intellectual seeking and shifts, leading to substantial intellectual labor.

Being a self-funded organization means the physical labor required to meet our needs is incredibly intense. I have consciously avoided seeking external funding, primarily because it is difficult to find and sustain support for initiatives as fluid and adaptable as ours. I also recognize that most funding often comes with not just money but also control and a tendency to shift focus from original ideas, sometimes reducing students to mere numbers. This has made me cautious. However, I acknowledge that there are funders who could support our unique approach, one that values fluidity and experimentation. The challenge is, with such a lean team, the immense effort involved in searching for funding and writing proposals significantly hinders these crucial searches.

I have learnt a number of lessons from setting up a peer-learning space as an act of resistance. Building peer relationships as knowledge making and resistance is a continuous endeavour of caring, giving, nurturing and reflexivity. Resistance in this space is not visible pressure, it is more subtle, often unseen, unclear and prioritises the invisible changes within students on self-reassurance, trusting their voices and trusting others. This approach shifts focus away from the university as the sole space for knowledge production, learning, nurturing. It highlights the importance of creating and valuing spaces where researchers can convene and grow.

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“ Kîsûngû kyookie
na meli na makûyû
maikîneena.

The English language came to us through
English ships, and our fish still don't speak it.

(Translated loosely to mean that there is no
expectation to change our indigenous ways
of life and adopt Eurocentric ones.)

Source: Kikamba

05

Walls that Re-Member:
Nairobi's Graffiti as Knowledge Infrastructure



Syokau Mutonga

Introduction

Drawing on Henri Lefebvre's right to the city (Purcell, 2016) and Walter Mignolo's local histories/global designs (Mignolo, 2012), this chapter argues that Nairobi's graffiti scene, produced collectively by artists and communities on public walls, constitutes a knowledge infrastructure within art history itself, rather than an alternative to it. Against the backdrop of a Western gaze that has historically determined what counts as legitimate and authentic African art, Nairobi's graffiti, through its political and commercial register, exercises its right to the city. Using articulations of the everyday, satirical depictions of corrupt politicians or campaigns for social advocacy, Nairobi's graffiti demonstrates that the capacity to establish aesthetic logics has never been exclusively Western (Halliday, 2024). In Nairobi, as in other cities, the city wall is a legitimate site of art-historical production, equal to any art gallery.

My interest in this work is rooted in prior research on Nairobi's public spaces—libraries, archives, museums, and gardens—and the ways their colonial legacies continue to sustain infrastructures of exclusion for the city's citizens. Of equal concern is how Nairobians persistently reclaim these spaces and transform them in ways that delink from established colonial epistemologies, producing knowledge from the periphery rather than the centre (Mutonga and Okune, 2021). This chapter is organised into three sections. The first offers a brief history of Western perceptions of African art, graffiti in Africa, and Nairobi's street art scene. The second turns to four analytical questions, addressed through artifacts and critical commentary. The paper concludes with a provocation: When the wall becomes a knowledge infrastructure, what does the gallery become?

Context

To make this argument, a brief commentary on how art history's perceptions of African art developed is required. As colonization was spreading across Africa in the 19th and early 20th centuries, European explorers, colonizers, and traders collected African stools, masks, door panels, textiles, and many other quotidian objects as fascinating curiosities, often overlooking their aesthetic, cultural, and spiritual significance. This was a time when Europeans were fascinated by non-Western cultures (then referred to as "primitive") as an antidote to modernity (Kasfir, 2020). African cultures and their expression through art were collected as a form of nostalgia for an imagined "state of nature" when humanity was assumed to have lived in closer harmony with the natural and spiritual worlds. Subsequently, African artworks were collected for their authenticity—made in a recognized, unique style by African artists for African patrons. Anything made for commercial gain was considered inauthentic art in Western terms. In this way, the colonial project determined what counted as African art or craft and what was authentic or inauthentic. The consequences of this persist to the present, determining which African art forms and artists thrive in the global contemporary art market and which do not. Any argument about African art as knowledge infrastructure must begin here.

Furthermore, African contemporary arts did not emerge suddenly toward the end of the 20th century. Instead, they were built through bricolage, with new articulations merging with older colonial and precolonial African art genres. In many cases, new articulations of African art emerged and continue to materialize in cities and regions where they did not have to compete with an

already existing tradition. Some of these cities where new articulations have emerged are Nairobi, Harare, Johannesburg, Addis Ababa, Dakar, and Entebbe. Art from these cities is creating new forms of contemporary African art (Kasfir, 2020). Graffiti is one such articulation—and among the most politically charged.

Graffiti emerged as a contemporary art form in Africa at the beginning of the 21st century. Described as a form of activism that blends art and activism, graffiti has been shaped by the interplay of local tastes, traditions, socio-political contexts, and global influences. It has grown in popularity as a medium for political activism, with city walls reclaimed through art as a global social intervention (Aladro-Vico et al., 2018). Graffiti artists across Africa have used their art to dissent against the status quo, particularly during significant political events. Some of these included the 2010/11 Arab Uprisings in North Africa and the 2018/19 revolution in Khartoum, Sudan. In South Africa, graffiti was utilized to oppose apartheid regimes and by more recent movements like #RhodesMustFall (Halliday, 2024). Graffiti artists also use it to foster community engagement and education, especially among the youth. For example, in Senegal, it has connected the youth to a movement to cleanse and beautify urban spaces. It is a broad canvas that artists use to challenge societal norms and engage in broader dialogues about who owns the city.

In Nairobi, graffiti has evolved since its inception. Its roots lie in the emergence of privately owned minibuses in the late 1950s and 1960s. These minibuses, popularly known as *matatus*, fostered a culture of artistic expression. By the 1980s and 1990s, *matatu* culture had absorbed hip-hop aesthetics, louder sound systems, and bolder graphics, laying the cultural groundwork for a distinctly Nairobi visual language. In doing so, it cultivated the audience and the artists that a publication like *WaPI* (Words and Pictures) would later bring into focus. *WaPI* was launched in 2006

with support from the British Council. It was published monthly and celebrated Nairobi's hip-hop culture and emerging graffiti artists. The talents of some of Nairobi's famous graffiti artists, such as Uhuru Brown, Smokillah, Swift, and Spray Uzi, were showcased at *WaPI* (Halliday, 2024). What began on the sides of minibuses has grown into a chorus of producers, artists, community members, and street walls—a scene whose full significance becomes visible only when examined on its own terms.

Artifacts and Critical Commentary

ANALYTICAL QUESTION 1

How does Nganya culture establish its own aesthetic logic—and what does the *matatu*, as a site of artistic production, reveal about the relationship between everyday urban life and art-historical legitimacy?

The Nairobi art scene operates according to its own internal logic—canvases begin on walls and buses before, sometimes, finding their way into galleries. Nganya art is emblematic of this: emerging through *matatus* as a way of processing local and global pop culture, it was a deliberate departure from Western art forms in favour of surfaces that could better articulate the textures of everyday urban life. This is evidence of a mature aesthetic field that has built its own registers without seeking external validation. In Mignolo's terms, Nairobi's public art—on *matatus* and on walls—functions as a subaltern knowledge infrastructure: not merely a local alternative to Western aesthetic traditions, but a genuine epistemological other that is fully itself (Mignolo, 2012).

Nganya Culture¹

Matatus date back to the late 1950s and early 1960s, when private minibuses began filling the gaps in public transportation. The name derives from the original fare—three shillings, or *mang'otore matatu* in Kikuyu. Though basic at inception, by the 80s and 90s, pop culture had left

1 Source: <https://suremediamagazine.com/2025/12/21/discover-the-art-and-culture-behind-kenyas-iconic-nganyas/>



ARTIFACT 1 RIGHT
Nganya Culture
Photo by Matwana Culture.

ARTIFACT 2 BELOW
Woodcut Prints of Street
Scenes in Kenya.
Photo by WePresent.



its mark: hip-hop stickers, louder speakers, brighter colours. The 2000s brought full custom jobs, with owners spending millions on paint, sound and lighting—and a new word *nganya* (from *manyanga*, meaning flashy), reserved for the most decked-out rides.

Today, *nganyas* are known for speed, comfort and fierce loyalty among riders on specific Nairobi routes—Embakassi, Rongai, and Umoja. For many creatives, they double as affordable transport and a platform for art, street recognition and political expression.

ARTIFACT 2²

Woodcut Prints of Street Scenes in Kenya

Dennis Muraguri, originally from Naivasha and now based in Nairobi, makes art inspired by *matatus*. His most celebrated work, exhibited internationally, is his woodcut prints. It is a technique he developed in direct response to the stencils and stickers used by *nganya* decorators, translating their flat graphics into a printmaking language. “My thinking is that without the people, it’s just a bus. But with the people, it becomes a *matatu*.” Despite his notoriety, Muraguri is quick to defer to the *nganya* artists who inspire him: “It’s an insult to think I could paint one. They do it better than I ever could. It’s communication. It’s a reflection of what’s happening in the world and locally.” From American movie stars to European football teams, he argues, *nganya* artists are firmly on the pulse of global pop culture—a point the artists themselves make plainly: “If you’re not on a *matatu*, you’re not famous enough.”

ANALYTICAL QUESTION 2

How did the MaVulture campaign exercise the right to the city—and in what ways does politically interventionist graffiti constitute a form of civic participation that operates outside, and in deliberate refusal of, institutional authorization?

The MaVulture Campaign was a graffiti campaign between 2012 and 2013 led by the activist Boniface Mwangi, alongside graffiti artists Uhuru Brown, Banks slave, Smokillah, Swift, and Kerosh. They painted graffiti murals in Nairobi’s central business district that depicted Kenya’s corrupt members of parliament (MPs) as vultures who preyed on the weak. Acting under the cover of darkness, they famously depicted the greed of Kenyan MPs, who, despite earning high salaries, continued to demand more money, while a majority of Kenyans struggled economically—a behaviour the artists termed as “eating” the public. Painted across 41 locations in Nairobi’s central business district, the works broke a conspiracy of silence by

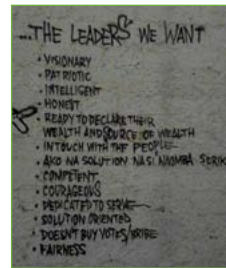
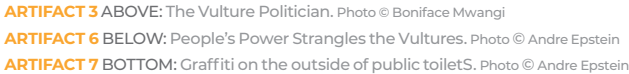
saying what mainstream media would not. As Mwangi put it, “Some laws have to be broken for people to be heard” (Halliday, 2024). Henri Lefebvre’s “right to the city” offers a productive lens for reading the MaVulture murals. His framework was centred on citizen empowerment through active participation in the use and creation of urban space, encompassing creative activity, the imaginary and play (Lefebvre, 1974). This was what the MaVulture artists did. They entered Nairobi’s central business district without institutional authorisation and reclaimed walls as a civic creative act. Their murals were not vandalism—they were participatory civic engagement that did not wait for permission (Halliday, 2024).

When asked why graffiti was the right medium, Mwangi said: “Art is very complex ... but graffiti is very simple at the same time. The power of art makes you stop and think, makes you stop and feel. Art goes beyond gender, age, class, race, and sexual orientation. Because art drives life. Without art, there is no life.”

The campaign was warmly received by the public but provoked outrage among parliamentarians, leading to its swift removal by local authorities. Simultaneously, images spread widely across blogs and social media, sparking debate about corrupt governance in Kenya and beyond. Hashtags followed: #LetMwangiDraw and #KenyaNiKwetu. The vulture image took on a life of its own, later appearing in music videos advocating for peace and the power of ordinary Kenyans to change the status quo.

Reflecting on the campaign, Mwangi said: “What we are doing is planting a lot of seeds—some will germinate, and some will die, but eventually we are going to get a harvest.” MaVulture is widely regarded as heralding a new era of political activism in Kenya—direct, public, and deliberately far removed from the subtlety of the studio. Fellow artist Smokillah captured it plainly: “We are a vessel that gives a voice from the people” (Halliday, 2016).

² Source: <https://wepresent.wetransfer.com/stories/dennis-muraguri-woodcut-matatu-prints>



When graffiti enters the commercial register—through hotel commissions and corporate partnerships—does it extend or exhaust its claim to the city, and what does this tension reveal about the sustainability of activist practice?

In October 2017, WiseTwo and Kerosh, both Nairobi-based graffiti artists, gained international reputation for painting two murals that adorn the Ibis Styles Hotel in Westlands, Nairobi, Kenya.³ The two murals, at the time,

3 Source: <https://www.kenyanvibe.com/kenyan-graffiti-artist-wisetwo-paints-largest-murals-in-east-africa/>



ARTIFACT 9 TOP LEFT, ABOVE & LEFT
ibis Styles Hotel,
Westlands, Nairobi.
Photo © Asif Khan

ARTIFACT 8 LEFT
The public engaged by
the graffiti.
Photo © Boniface Mwangi

became the largest of their kind in Eastern and Central Africa.

Wise Two, whose real name is Bhupi Jetwa, and Kerosh, one of the artists in the MaVulture campaign, spent two weeks working 10-hour days to complete the murals. Reflecting on the challenge, Wise Two said, "It's a humbling feeling. Something keeps telling me to keep pushing the boundaries ..."

The aesthetics have become familiar with Wise Two's aesthetic style—intricate facemasks painted in bright and explosive colours, evoking tribal elements and contemporary complexity. The mural designs were inspired by two canvases that WiseTwo exhibited at a solo show in Paris in 2015. Each mural on the

walls of Ibis Styles Hotel is 15 metres wide and 15 metres tall, both of which are more than 35 metres above ground.

In 2020, building on the success of the Ibis Styles murals, WiseTwo was commissioned by Apple Music to paint Sauti Sol's Midnight Train album cover onto a Westlands wall, this time alongside Kerosh and Esen.⁴ The piece—rendered in graffiti and mural techniques—was designed to capture the group's fusion of traditional Kenyan influences, energetic rhythms, and deeper cultural legacies.

Its warm public reception confirmed what the Ibis Styles commission had already suggested: that graffiti in the commercial register need not abandon its civic function. Here, the wall became a site of cultural celebration, affirming the legitimacy of Kenyan artistic production on its own terms.

ANALYTICAL QUESTION 4

How does the Talking Walls project in Korogocho refuse individualism as an organising principle—and what model of collective authorship does community graffiti offer for theorizing social space in informal settlements?

Hope Raisers Initiative (HRI), based in Korogocho—Nairobi's third-largest informal settlement—has since 2014 painted more than 1.5km of walls across public spaces, working alongside community members in an area historically marked by gender-based violence, crime, and drug abuse.

Their project, Talking Walls,⁵ facilitates dialogue between graffiti artists and Korogocho residents about art as a tool for social transformation. What distinguishes the project is its deliberate rejection of individualism. As Kerosh puts it, "It is a community project; you can't just come and tag your name. You have to consider something that the community will understand, appreciate, and something that they will be proud of, something that they want to own and defend." This orientation has cultivated genuine collective

ownership. In Hartman's terms (Hartman, 2019) the artists and community members are dancing within the enclosure of dispossession—improvising, collaborating and leaning towards the futures they want for themselves.

Through Talking Walls, participation becomes the right to influence decisions shaping Korogocho's public life, while appropriation becomes the right to access, occupy, and transform spaces according to the community's own needs (Stickells, 2011).

Conclusion

The late Professor Ali Mazrui believed that politics was no place for the artist: "No great artist has a right to carry patriotism to the extent of destroying his creative potential" (James, 2025). Nairobi's artists have answered that provocation differently. Whether through *nganya* art that laid the groundwork for future articulations of public expression, murals that protest corruption, commercial commissions that celebrate Kenya's rich artistic culture, or community projects that seek to reinvigorate amidst dispossession, they have never waited for permission—from the state, from institutions, or from art history itself.

That refusal is the argument. When the wall becomes a knowledge infrastructure, new ways of being in the world become possible—beyond the colonial, Western determination of what counts as art and who gets to make it. In Nairobi, it always has.

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⁴ <https://www.wisetwo.org/murals/applemusicautisol>

⁵ <https://korogochostreetscapes.wordpress.com/portfolio/talking-walls/>



ARTIFACT 10 ABOVE, TOP RIGHT & RIGHT
Sound Plaza, Woodvale Groove, Westlands, Nairobi, Kenya.
Photo © Rich Alela and James Wamathai

ARTIFACT 11 BELOW
Graffiti Artist Kerosh, Painting for the Talking Walls Project, Korogocho, Nairobi, Kenya.
Photo © Korogocho Streetscapes



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“Mûûgî nî mûtaare.

A wise person listens to counsel.

Source: Gîkûyû people, Kenya

06

Knowledge Structures for Decolonial AI



Leonida Mutuku

Introduction

As a researcher and practitioner building artificial intelligence (AI) on the African continent and contributing to its governance and policy, I have observed several concerning practices over the last few years that if not addressed, threaten the self-determination of African communities in the AI age and inadvertently extend neo-colonial values. These practices are observed through three themes that I analyze later through the artifacts presented:

1. participation in AI infrastructure and value chains;
2. representation, cultural context and indigenous knowledge in AI; and
3. funding of AI infrastructure.

These observations have sparked important conversations about which actors truly constitute the African AI ecosystem and who is meaningfully participating in its development. The ecosystem in its current set up is perpetuating colonial power dynamics, extractive from marginalized communities and without equitable outcomes.

This chapter is an exposition of approaches that collectively are resisting the status quo. Researchers, AI developers, legal scholars, activists, and communities working on and from the African continent are decolonizing and crafting new narratives for African AI and the underlying knowledge structures. African AI here means AI that is developed, governed, and deployed in ways that reflect the unique geographical, cultural, and political contexts of African communities, not simply AI that happens to be used in Africa (Wairegi, Omino and Rutenberg, 2021). Further, my use of the term “decolonizing” in this chapter refers to the use of knowledge, systems, and actions to actively overturn

what Aníbal Quijano described as “the colonial matrix of power that still endures after formal colonialism through global capitalism”. This colonial matrix of power is racist and operates through “control of economy (in the form of labor exploitation and resource extraction), control of authority (through institutions and governance mechanisms), control of gender and sexuality (social reproduction and representation in systems), and control of subjectivity and knowledge (through epistemology or education)” (Mignolo and Walsh, 2018). It is racist because it centers modernism and acceptable practices on European cultures, thereby legitimizing current economic systems, science, and knowledge through Eurocentric norms and mechanisms while delegitimizing other ways of knowing and organizing.

By decolonial AI, I mean AI that decenters Western knowledge structures through practical action rather than critique alone, that is, what Mignolo calls “delinking” from the colonial matrix of power, and what Walsh grounds in praxis as the fundamental mode of decolonial work (Mignolo, 2007; Walsh, in Mignolo and Walsh, 2018). My argument in this chapter is that the colonial matrix of power is playing out in real-time in how big tech and funding mechanisms operate on the continent under the guise of ensuring that the AI systems they are selling are inclusive. If this feels like a harsh judgement of their practices, it is because big tech’s labor exploitation and knowledge extraction is obscured through discourses of the beneficence of the systems being developed and deployed; that AI is a magic pill for development and prosperity (Hao, 2022; Hao, 2025; Mohamed, Png and Isaac, 2020).

My artifacts demonstrate this by presenting concrete examples of tokenistic participation of Africans in AI value

chains, extractive data collection practices funded by big tech and philanthropy, and the perpetuation of Western knowledge hierarchies through large language models (LLMs) trained predominantly on Western languages and contexts, with African representation slapped on at the end. Rather than dwelling extensively on the problems therein—many of which are deeply investigated by scholars including Ruha Benjamin (2019), Safiya Umoja Noble (2018), Joy Buolamwini (2023), Timnit Gebru and colleagues (Bender et al., 2021), Abebe Birhane (2021), and Shoshana Zuboff (2019)—or diving deeper into theoretical frameworks of decolonization, the chapter and artifacts I present offer insight into a decolonial moment.

This is an optimistic collection of artifacts that showcase infrastructures and approaches that are being developed and an imaginary of what AI could look like when it prioritizes equitable distribution of resources and opportunities, technology transfer that builds local capacity, funding for local AI research and development in underrepresented regions, and non-extractive access to AI data and tools.

How do we begin to build otherwise from the colonial structures that enable the current extractive model and imagining AI that is accountable to the communities it draws from?

I propose non-standard and, in some cases, radical approaches to AI by showcasing alternative knowledge structures and highlighting how African communities are proactively organizing themselves to self-determine their futures in the AI age. The alternatives I present are not perfect blueprints nor do they completely address the problem of extractive AI. They are given as incomplete and in some cases already fragile examples that help us think through what it might mean to build otherwise, and otherwise where AI is accountable to the communities it draws from and is developed through practices that reimagine its underlying infrastructure.

Context

Communities lie at the heart of 'African decolonial AI'. It is through their participation in the AI value chain—their knowledge systems, their cultural identities and their resources—that infrastructures of AI can be “delinked” from the extractive colonial matrix of power and reoriented towards the communities that generate its most fundamental ingredient: knowledge!

I use the term knowledge structures to describe the ecosystems of decisions, data, models, and governance that determine whose knowledge becomes the foundation AI.

This structure is layered with the first being the data layer. AI systems are built and learn from data and the datasets that currently dominate AI training are drawn from Eurocentric contexts, sources, and demographics. Most African knowledge in the form of language, culture, history, and civic identity is either absent in AI training datasets or, where it exists, has not been meaningfully captured on its own terms, that is, what gets recorded, preserved, and made legible to AI systems.

The second is the models layer of AI systems—what gets built from that data. This is where choices about architecture of AI, how it scales, and how it is trained determine whose knowledge defines the AI system, which is operationalized, distorted, or excluded. Most pervasive AI systems in use have been produced in the form of LLMs that are developed on the assumption that large models trained on vast quantities of data are the standard against which all other approaches should be measured. This assumption concentrates model development in institutions with massive computer resources, overwhelmingly located in Western institutions, and treats African language and cultural knowledge as an add-on to an existing system rather than a foundation for a different one.

The third is the governance layer that defines who controls access, ownership, and the flow of value generated by data and models. This is the layer that determines whether

communities that contribute knowledge to AI systems ever benefit from what is built with it. Licensing frameworks, funding conditions, platform ownership, and database architecture are all governance decisions, and they are all currently structured in ways that can route value away from the communities that generate it.

The colonial matrix of power that this chapter traces through the African AI ecosystem operates across all three layers simultaneously and the artifacts I present attempt to show interventions at different layers of this knowledge infrastructure, and in some cases attempt to reimagine what the infrastructure itself could look like if it were designed from African communities outward rather than retrofitted onto systems designed elsewhere. They are not presented here as the perfect solutions or embodiments of decolonial AI as some are not complete, others are fragile, and some have already disappeared. They are presented as signals and make visible an imagination of decolonial AI. That visibility that this essay aims to bring is itself a form of knowledge infrastructure.

This leads to several questions that I use to analyze my artifacts and reflect upon:

- What does meaningful participation in AI development look like, and when does it become extractive or tokenistic?
- How do well-intentioned actors (funders, researchers, open-source advocates) reproduce colonial structures without knowing it?
- What would African AI look like if it were designed without reference to what already exists?

ARTIFACT 1

CRITICAL COMMENTARY

Artifact 1 is a 2022 conference paper defining modes of participation in machine learning and when it becomes exploitative or extractive to the communities involved in contributing data or labor to machine learning. When community engagement is not thoughtful and centred

on maximizing the benefits to the said community, there is a likelihood of colonizing their data resources, their indigenous knowledge, and their time. This paper stood out to me as it speaks of the concept of “participation washing” which I interpret as the notion that because a community was consulted or contributed some data at some point when a machine learning model was developed, they automatically “participated”. This paper identifies three ways to true participation in ML (AI): participation as work, participation as consultation, and participation as justice.

ARTIFACT 2

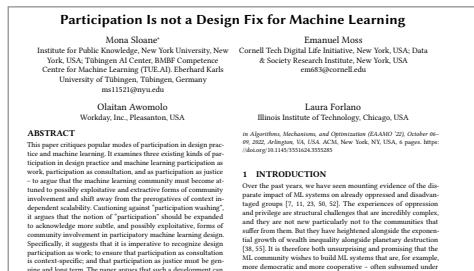
CRITICAL COMMENTARY

This is a presentation I made based on research I have done on strengthening national-level data governance capacities for government digital service provision in Africa through community engagement on AI and data rights.

My research further classifies participation in three other ways:

1. participation in the design of AI-collection of data and annotation,
2. participation as active developers of AI-model development and training, and
3. participation as active consumers of AI-deployment and use-cases.

Decolonial AI and its governance is deeply participatory, grows from grassroots communities and movements, and is a source of economic and social rejuvenation, and fully centres the interests of the communities that will benefit from it. A community that participates only at one of the stages (e.g. data collection), or that is consulted but never governs, has not meaningfully shaped the AI that will affect them. The threshold for what I mean by participatory decolonial AI is therefore not consultation but governance: communities must have meaningful presence and power across the full value chain in the design of data collection, in model development, and in the decisions that determine who owns and benefits from what is built.



ARTIFACT 1

Mona Sloane, Emanuel Moss, Olaitan Awomolo, and Laura Forlano (2022). Participation is Not a Design Fix for Machine Learning. In *Proceedings of the 2nd ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization* (EAAAO '22). Association for Computing Machinery, New York, Article 1, 1–6. <https://doi.org/10.1145/3551624.3555285>

ARTIFACT 3

CRITICAL COMMENTARY

This is a 2024 podcast that begins with a conversation between Nick Petrić Howe and Asmelash Teka Hadgu about the shortcomings of ChatGPT as a useful tool for non-English speakers and languages.

Asmelash demonstrates in the podcast how a version of ChatGPT (paid GPT 4.0) produced gibberish when prompted in his native language Tigrinya spoken across Tigray in Ethiopia and Eritrea. Out of 30 prompts, only one returned a useful response. He gives an example of “leg mind” as a translation of football that captures the problem precisely, not a mistranslation but a fabrication, a model pattern-matching on fragments of a language it was never meaningfully trained on.

I have observed how tokenistic the participation of Africans living and working on the African continent in AI currently is. This

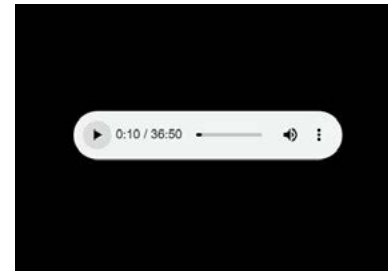


ARTIFACT 2

<https://www.dropbox.com/scl/fi/sohjnapij6zt5k5ehrc5ex/AI-for-All-Perspectives-on-Participatory-AI-governance.pdf?rlkey=efibgx1own6d1njmjb8rh5ver&e=1&dl=0>

shows up in a number of ways. For instance, some “local” languages are now available in the major generative models. However, the models mostly produce inaccurate outputs because context or nuance is missing. This is because the developers of these models most often Big Tech spend just enough money to outsource basic AI skills in the form of data labelling or low-level training of AI to local talent, oftentimes work that is also not fairly compensated work (Perrigo, 2023).

Where independent funding exists, it is in the form of grants for data collection from communities but not for active development of new models. This work is often done by experienced researchers or multi-disciplinary teams with lived experience who often do not have resources to actively develop models on the data they have curated for AI models (Chijioke Okorie and Vukosi Marivate, 2024).



ARTIFACT 3

<https://resource-cms.springernature.com/springer-cms/rest/v1/content/27444214/data/v1>
<https://www.nature.com/articles/d41586-024-02579-z>

ARTIFACT 4 CRITICAL COMMENTARY

This is a link to a web-based archive that was put together to document the Gen-Z protests of 2024 in Kenya. It's an archive of physical and digital artifacts preserving a truly historical moment (or era) in Kenya of youth-led revolt against poor governance and economic oppression, from t-shirts to images, video, and audio recordings. This archive was curated by a collective of Kenyan cultural curators and hosted by the African Digital Heritage Foundation led by Dr. Chao Tayiana. It aims to preserve knowledge from this movement which is unlikely to reflect in future history books and curricula and yet is momentous, at the precipice, if you may, of a new design Kenya.

ARTIFACT 5 CRITICAL COMMENTARY

This is a screenshot I took in September 2024 of a sample prompt that queries the custom GPT—a ChatGPT (Open AI) model fine-tuned

ARTIFACT 4
<https://peoplesarchive.ke/>;
<https://x.com/ChaoTayiana/status/1810989045377314845?s=20>



and trained with content from Kenya's Finance Bill 2024. The custom GPT has since been taken down.

ARTIFACT 6 CRITICAL COMMENTARY

This is a screenshot I took in June 2025 as an example of a GPT named Corrupt Politicians GPT that was trained by Kenyan youth activists but is now no longer available. Some of these GPTs have since been decommissioned and are not available for query meaning this approach is not sustainable (e.g. <https://chatgpt.com/g/g-MVyroWjCS-corrupt-politicians-gpt>).

ARTIFACT 7 CRITICAL COMMENTARY

These are examples of federated databases implemented to protect education data and health data from African communities. Federated databases are systems that integrate multiple, distributed databases while allowing them to remain autonomous and independently managed. Rather than centralizing all data in one location, federation creates a unified interface that lets users query and access data across multiple databases as if they were a single system.

ARTIFACT 8 CRITICAL COMMENTARY

Lacuna Fund is an initiative that ran from 2020 until 2025 with the aim to support data scientists, researchers, and social entrepreneurs with funding to either produce new labeled datasets to address an underserved population or problem, augment existing datasets to be more representative, or update old datasets to be more sustainable.

The fund was founded as a funder collaborative between The Rockefeller Foundation, Google.org, Canada's International Development Research Centre (IDRC), and GIZ on behalf of Germany's Federal Ministry for Economic Cooperation and Development (BMZ), and later expanded to a multi-stakeholder engagement supported by a range of development, philanthropic, and research institutions including Wellcome Trust. In July 2025, leadership of the fund was transferred to partner institutions in Africa and Latin America, including the African Centre for Technology Studies (ACTS), CENIA (Chile's National Centre for Artificial Intelligence), Masakhane, and the University of Pretoria Data Science for Social Impact Research Group, and African Institute for Data Science and AI.

ARTIFACT 9 CRITICAL COMMENTARY

The NOODL license (Nwulite Obodo Open Data License) is a tiered licensing framework developed in 2024 by researchers at the Data Science Law Lab at the University of Pretoria, led by Associate-Professor Chijioke Okorie and co-investigator Melissa Omino, in collaboration with the Data Science for Social Impact group and the Centre for Intellectual Property and Information Technology Law. "Nwulite Obodo" is Igbo for raising, reviving, and/or building the community. The license establishes differentiated access terms based on users' geography and development context, distinguishing between users in Africa and developing countries, and those outside these regions, and incorporates benefit-sharing obligations that ensure value flows back to original contributors and communities before broader research or commercial access is granted.

ARTIFACT 10 CRITICAL COMMENTARY

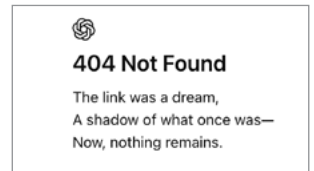
InkubaLM is a foundational small language model launched in August 2024 by Lelapa AI, a Johannesburg-based AI research and product lab. It has been trained from scratch on 1.9 billion tokens of data across five African languages: IsiZulu, Yoruba, Hausa, Swahili, and IsiXhosa. InkubaLM is a robust, compact model built to carry significant load without requiring the extensive computer resources of larger models. It is the first African multilingual small language model trained from scratch on African languages rather than adapted from existing Western models.

ANALYTICAL QUESTION 1

What does meaningful participation in AI development actually look like, and when does it become extractive or tokenistic?

Meaningful participation, as Sloane et al. (2022) argue, is not a single act but a continuum that runs from participation as work (contributing data or labor), through participation as consultation (being asked), to participation as justice (having genuine power over outcomes). My own research adds a spatial dimension to this taxonomy. Meaningful participation requires presence not just at the data collection stage but across the governance of the full AI value chain: in the design and annotation of training data, in the active development and training of models, and in the deployment and use of AI tools within communities. African participation in AI ecosystems is concentrated almost entirely at the first stage of data collection and

ARTIFACT 5



ARTIFACT 6



ARTIFACT 7 <https://www.eduid.africa/index>



ARTIFACT 8 <https://lacunafund.org/>

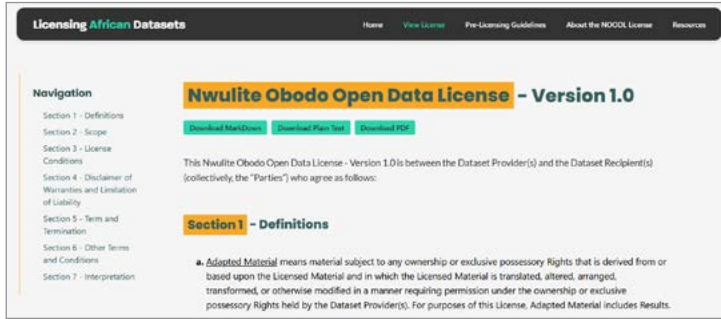


ARTIFACT 9 <https://licensingafricandatasets.com/nwulite-obodo-license>



ARTIFACT 9

<https://licensingafricandatasets.com/nwulite-obodo-license>



annotation while model development and governance remain overwhelmingly in the hands of institutions in Western contexts

The podcast conversation between Nick Petric Howe and Asmelash Teka Hadgu makes this problem tangible. When Tigrinya speakers interact with ChatGPT, the model produces outputs that are not merely inaccurate but linguistically incoherent. This is a participation failure because a language was added to a model without the knowledge, context, and lived experience of its community shaping how that language is represented.

ARTIFACT 10

<https://huggingface.co/lelapa/InkubaLM-0.4B>



The Finance Bill GPT artifact, however, offers a counterpoint. Kenyan developers with direct lived experience built an AI tool in real time, in response to an urgent community need, making Kenya's Finance Bill 2024 legible and queryable during a moment of political crisis. This is participation as justice in practice, that is, people with intimate knowledge of a problem building a tool on their own terms, for their own community, without waiting for institutional permission.

Yet it is also limited as we see with the second GPT, Corrupt Politicians GPT. Both tools were built on OpenAI's closed infrastructure. When they were decommissioned, the community lost not only the tool but the value of all the labor and knowledge that had gone into building it.

Authentic participation, captured by extractive architecture, still becomes tokenistic by default.

ANALYTICAL QUESTION 2

How do well-intentioned actors (funders, researchers, open-source advocates, etc.) reproduce colonial structures without knowing it?

Work on developing The Corrupt Politicians GPT set out as genuine community participation, representing agency, urgency and locally grounded as it was developed by youth with direct stakes in the outcome. But the infrastructure it depended on was not theirs. While we may not characterize OpenAI's platform as malicious, its architecture extracts regardless of intent: training data flows into a commercial system, value accumulates at the platform level, and when the tools are decommissioned the community has nothing to show for what it contributed. The colonial matrix of power does not require bad actors. It requires only that the infrastructure goes unexamined.

Lacuna Fund, on the other hand, represents an institutional example of how good intentions can reproduce extraction at scale. Motivated by genuine commitments to inclusion, the fund supported African researchers and data scientists to produce labeled datasets for underserved populations and problems. But the funding conditions mandated that these datasets be open source, a requirement framed as progressive and aligned with the values of the open-source movement. In practice, it meant that high-quality, community-sourced African data became freely accessible to global North institutions and companies before the researchers who collected it had extracted fair value from their own labor. A researcher who spends years curating an African language dataset, and is then required by a funder to open-source it immediately, has effectively donated the value of that work to whoever has the resources to build on top of it, which may not be another African researcher.

The NOODL license is the community-generated diagnosis of and response to this problem. Its tiered framework, which establishes clear rules for how data can be collected, used, and monetized at different stages, ensures value flows back to original contributors before broader research

access is granted. It names the mechanism of extraction directly as premature openness. Reading it alongside the Lacuna Fund story makes visible that the problem is not funding itself, but the governance conditions attached to it. The mandate to open-source is itself a form of colonial imposition when it ignores the economic realities of the communities whose knowledge it governs.

The Tigrinya podcast is a second illustration of the same dynamic at the model level. OpenAI's inclusion of Tigrinya was well intentioned and a good-faith gesture toward linguistic diversity. But executing inclusion through existing Eurocentric development pipelines, without native speakers shaping the model's development, produced harm dressed as progress. Good intentions when operationalized through existing extractive structures may inherently reproduce those structures. That is precisely what makes the colonial matrix of power so durable as it does not depend on malice but weaved into architecture.

ANALYTICAL QUESTION 3

What would African AI look like if it were designed without reference to what already exists?

InkubaLM is an example AI model that does not attempt to be a reduced version of an existing large language model. It starts from different assumptions about what scale is necessary, about what resources are available, about what a language model is actually for. The dominant paradigm in AI is that larger language models trained on vaster data are always superior, an assumption that stems from AI development in institutions with enormous computer resources, overwhelmingly in Western contexts. InkubaLM's logic opposes this, right from its naming, that like the dung beetle, it carries significant load without requiring massive infrastructure. It is not then developed as a smaller ChatGPT but something else.

The federated databases examples of EduID Africa and VODAN Africa also answer the same question at the infrastructure level. Federation is an architectural choice,

not merely a policy preference. By keeping data distributed and locally managed rather than centralized, these systems embed data sovereignty into their structure. Communities do not have to petition for control of their data because control was never ceded. This reflects a fundamentally different set of assumptions about where data should live and who should govern access to it, reflective of African governance values rather than being retrofitted onto Silicon Valley infrastructure built for different purposes.

The People's Archive offers a speculative approach. Built by volunteers outside any institutional mandate, it preserves a historical moment, the Kenya's Gen-Z protests of 2024, that official records will likely distort or omit: the t-shirts, images, videos, and audio recordings of a youth-led revolt that changed the country. Its latent potential as a community-owned AI training dataset points toward what AI designed from social movements, rather than from research agendas or commercial incentives, might look like. Its limitation is honest too: it is curator-led rather than fully community-led, which means it replicates some of the participation dynamics it seeks to escape. But that limitation is itself an answer. African AI designed without reference to what already exists would require new models of collective stewardship that do not yet fully exist, and that will need to be built alongside the tools themselves.

Together these three artifacts build a single argument: African AI does not have to be legible to Silicon Valley norms to be valid. It does not have to be large to be powerful. It does not have to be open to be generous. And it does not have to wait for external permission to begin.

Conclusion

The artifacts gathered in this chapter do not tell a single story; they sit in tension with one another. The Gen-Z developers who built the Finance Bill GPT participated meaningfully, with urgency and lived expertise, and yet the infrastructure they built on captured the value of their labor. The funders who mandated open-sourcing of African

language datasets believed they were advancing inclusion, and yet they inadvertently routed community knowledge toward global North institutions before local researchers could extract fair value from it. OpenAI included Tigrinya in its model and produced gibberish. Good intentions, operationalized through existing structures, reproduce those structures.

This is what the colonial matrix of power looks like in the AI age embedded in the architecture of systems. It is embedded in platform ownership, in funding conditions, in the assumption that openness is always progressive, in the scaling logic that treats a large model trained on Western data as the default against which all other models are measured. It does not require bad actors but infrastructure that goes unexamined.

The artifacts in this chapter intervene at different layers of data, models, governance, and with different tools. The NOODL license intervenes at the governance layer, insisting that value must flow back to communities before it flows outward. Federated databases intervene at the infrastructure layer, embedding data sovereignty into architecture rather than treating it as a policy afterthought. InkubaLM intervenes at the model layer, rejecting the assumption that African AI should be a smaller, cheaper version of what already exists. The People's Archive intervenes at the layer of memory itself, insisting that a historical moment belongs to the people who lived it.

None of these interventions is complete. The archive is curator-led rather than community-led. The NOODL license is new and untested at scale. Lacuna Fund, which seeded much of the data infrastructure these alternatives depend on, closed in 2025. InkubaLM is ambitious but under-resourced relative to the models it must coexist with. The Gen-Z GPTs are gone. These are not failure stories, but they are honest ones. They show that decolonial AI is not a destination but a practice, constantly contested and constantly at risk of being absorbed back into the structures it is trying to displace.

What they collectively make visible, however, is a different imaginary. African AI does not have to be legible to Silicon Valley to be valid. It does not have to be large to be powerful. It does not have to be open to be generous. And it does not have to wait for external permission from funders, from Big Tech, from global governance frameworks, to begin. The dung beetle does not wait for a larger creature to carry the load. It builds the capacity to carry what matters, with what it has, on its own terms.

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“Kiingiacho mjini
si haramu.

What enters town is not prohibited.

(That which is fashionable in town is never
prohibited. If something is done by everybody,
it becomes accepted.)

Source: Kiswahili

07

Who Owns Our Knowledge Infrastructure:
Demystifying the Politics of the DOI



Angela Okune

The politics of African knowledge production do not reside only in who publishes, but in who owns and governs the infrastructures through which publishing happens. As African scholars adopt the seemingly neutral technical standards of “mainstream” global publishing systems, we enroll our work into systems of data analytics, valuation, and profit extraction that were not designed for our benefit. This data essay examines the Digital Object Identifier (DOI) as one such infrastructural device: a seemingly neutral technical standard that stabilizes scholarly communication while consolidating control over how knowledge circulates and accrues value.

Context

I have long been concerned with how research practices in Kenya are experienced as extractive and with whether more open sharing might refresh the social contract of qualitative research (Okune 2020). Recent calls to make science more “equitable and inclusive” (Raju et al., 2023) often focus on representation: who is visible, indexed and counted. But inclusion within infrastructures governed elsewhere is not autonomy. As Paulin Hountondji (1990) warned in his critique of scientific extroversion, participation in externally defined systems may actually deepen dependence rather than resolve it.

Consider the launch of *Scientific African* in 2018, an open-access journal dedicated to African research and widely celebrated as a milestone. Its editor-in-chief proclaimed: “This is the place for scientists who want to create the Africa we want to stand up and be counted.” Yet, the journal is published by Elsevier and requires an Article Processing Charge (APC) of nearly \$600 per article. The fee is not only

a financial barrier. Publication enrolls these knowledge outputs into a DOI-based ecosystem of citation tracking, metadata aggregation, and ranking infrastructures governed by commercial actors. African scholarship becomes legible within global metrics systems, but on terms set elsewhere. Visibility on the global scientific stage is secured through infrastructural compliance.

A small group of multinational publishers has dominated scholarly publishing since at least the 1970s (Larivière et al., 2015). Even as they open their platforms to authors from the so-called “global South”, they retain control over the infrastructures, standards, and data pipelines that shape scholarly value. This, I argue, is why as critical scholars, we cannot be satisfied only with greater representation in existing systems of publishing.

The Case of the DOI

The dominance of major commercial publishers has drawn increasing critique (van Bellen et al., 2024; Posada & Chen, 2018), but less scholarly attention has been paid to the political economy of the infrastructures that sustain that dominance. The DOI is part of this infrastructure, a type of permanent, unique identifier assigned to a digital work like a journal article, dataset, or report. It provides a stable link so the item can always be found online, even if its web address changes.

At face value, the DOI may sound like a neutral technical object, but it is in fact a strong example of how infrastructural design encodes power. The DOI is not just a technical convenience; it is a central organizing mechanism of global scholarly communication, meant to

streamline rights management and revenue collection for established dominant publishers. Writing as a participant in the process, Bill Rosenblatt (1997) explained that the DOI was invented to ensure that all publishers backed the same technical object: “Adopting electronic-publishing solutions based on common open standards increases the likelihood that publishers’ capital investments will pay off. It helps ensure that publishers will be able to extend their franchises into cyberspace, where much of the world of information is surely going.”

Consequences for African Knowledge Systems

When the “problem” of African Knowledge Systems is framed as under-representation (too few African outputs indexed in global science), then the solution that follows is a technical one: make African works more visible. Outputs that cannot be easily assigned identifiers (oral histories, community reports, indigenous knowledge systems, and policy-relevant grey literature) become ripe to be translated into DOI-compatible objects to be “counted.” This is exactly what we are seeing with the recent rise of the Africa PID Alliance, which emerged out of a supposed need to better identify and track “Indigenous Knowledge” in Africa and ensure intellectual property (IP) rights are properly assigned to the original holders. Such an IP paradigm, centered on visibility and individual ownership, flows directly from commercial publishing logics and is at odds with indigenous knowledge traditions of collective stewardship. When indigenous knowledge, oral histories, or community-generated materials are assigned DOIs, they become translated into objects compatible with global metadata schemas, citation systems, and intellectual property regimes. The DOI therefore does not just enable visibility, it reconstitutes knowledge into forms legible to and valuable for commercial publishing systems.

But is visibility and representation on the global stage the actual problem plaguing African knowledge systems? As my collaborators explain elsewhere in this book (Munene,

2026; Wamunyu, 2026), the deeper challenges facing African knowledge systems are not about volume or visibility. They concern autonomy, confidence, institutional capacity, and the long histories that continue to structure whose standards define legitimate knowledge. Technical fixes cannot resolve these structural and psychological dimensions.

Through the curation and close reading of data artifacts below which include DOI governance documents, early promotional materials, and contemporary critical reflections, I trace how the DOI rose to dominance among a range of persistent identifier (PID) schemes. I hope this analysis reveals how mundane technical decisions carry significant geopolitical and economic consequences, structuring whose knowledge circulates, under what terms, and to whose benefit.

Alternatives Exist

Importantly, the DOI is not the only possible infrastructure. The ARK (Archival Resource Key) system is one example of an alternative model built on principles of decentralization, institutional autonomy, and openness. Unlike DOIs, ARKs do not have usage fees and allow institutions to maintain control over their own identifier namespaces, resisting the commodification of scholarly infrastructure and reasserting knowledge as a public good. This contrast shows that knowledge infrastructures should be the grounds for active struggle and imagination of our knowledge futures.

The ARK system is significant not only in its technical design, but because of the governance model it enables. By allowing institutions to control their own identifier namespaces, ARKs offer a way for African universities, libraries, and archives to assert epistemic autonomy without withdrawing from global knowledge exchange. In other words, it is not a binary choice—to only look inwards and reject interoperability or to be fully assimilated into global publishing infrastructures. ARKs represent a possible alternative to DOI-based infrastructures and a step toward greater institutional control.

In Closing

Greater visibility of diverse scholars should not be the end goal of scholarly publishing. Rather, ownership and decision-making by scholars of their own publishing infrastructure should be the goal. It is not enough to be guests allowed into someone else's house (i.e. African authors accepted onto global scholarly publishing platforms). We must own our own house if we want the power (and responsibility) to decide what is housed in it, who is welcomed in and on what terms. This does not necessarily mean abandoning global infrastructures, rather it requires negotiating from a position of governance rather than compliance.

Those committed to dismantling inequalities in global science need to attend not only to issues of representation (who gets to publish and be cited) but also to deeper questions of ownership and benefit. While calls for more African research are understandable, this requires we go beyond increasing outputs within unjust systems and instead invest in building alternative infrastructures, norms, and practices that enable us to “do and be otherwise.” Without rethinking the scholarly infrastructures through which we publish and connect, we risk further entrenching imperial systems under the guise of progress.

Source Data

Transcript of Opening Remarks of Public Webinar on “Using Persistent Identifiers (PIDs) to Ensure Indigenous Knowledge and Cultural Heritage Preservation.” 2024.March 19.

ARTIFACT 1

CRITICAL COMMENTARY

This transcript captures the opening remarks of a public webinar held on March 19, 2024, hosted by the Training Centre in Communication (TCC Africa), titled “Using Persistent Identifiers (PIDs) to Ensure Indigenous Knowledge and Cultural Heritage Preservation.” The event features Joy Owango, Executive Director of TCC Africa, introducing the Africa PID Alliance and outlining its aims to promote the use of persistent identifiers, specifically DOIs and related PID systems, for cataloging and preserving indigenous knowledge and cultural heritage.

ARTIFACT 2

CRITICAL COMMENTARY

This 1997 article offers a firsthand account of the genesis of the DOI, explicitly described by the author as “told by a participant in the project.” The article details how major commercial book and journal publishers conceptualized the DOI, the motivations driving their decisions, and the strategic interests they aimed to protect. Rosenblatt frames the DOI as a tool for ensuring that publishers “dance to the same rhythm” in the emerging digital landscape. He describes the DOI as a mechanism designed to protect their market dominance and secure profitability as publishing moved online. He closes by affirming that the DOI helps publishers “extend their franchises into cyberspace,” underscoring its role in preserving and amplifying existing commercial models rather than opening new possibilities for knowledge sharing.

ARTIFACT 3
CRITICAL COMMENTARY

This 1998 article “Digital Object Identifiers: Promise and Problems for Scholarly Publishing,” offers a detailed account of the early development and institutionalization of the DOI system. Drawing from events in the mid-1990s, the authors provide historical insights into the founding of the International DOI Foundation (IDF), including its original mission statement: “to ensure that the system meets the needs of publishers.” This explicit prioritization of commercial publisher interests was later quietly removed from the IDF website, signaling both the original orientation of the DOI toward protecting publishing industry profitability and the subsequent effort to obscure these origins.

ARTIFACT 4
CRITICAL COMMENTARY

This 1998 email announcement details a panel session on Digital Object Identifiers (DOIs) organized by Lloyd Davidson for the American Library Association (ALA) annual meeting. Titled “Digital Object Identifiers: Impacts, Costs and Concerns,” the session brought together early stakeholders in the DOI system, including representatives from Sun Microsystems, the International DOI Foundation, R.R. Bowker, and several U.S. academic libraries, to discuss the technical architecture, governance, and commercial potential of the DOI. The announcement also includes a curated bibliography of foundational articles and publisher case studies on DOI development and implementation.

TRANSCRIPT OF OPENING REMARKS 2024_MARCH_19 PID PRESENTATION

TEXT

00:35:040 → 00:35:340
Welcome everybody to today's webinar.
00:35:340 → 00:36:840
My name is Joy Ogunniye.
00:36:840 → 00:37:940
I'm the Executive Director
00:37:940 → 00:40:120
of the Training Center in Communication.
00:40:120 → 00:42:320
And today, which is based
00:42:320 → 00:44:880
at the University of Nairobi in Kenya.
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And today we are introducing
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our open infrastructure program.
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Africa PID Alliance.
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And we are working closely with our partner DataLight
00:55:140 → 00:58:280
in this webinar on ensuring indigenous knowledge

CREATOR(S)
Angela Okumu

CONTRIBUTORS
Angela Okumu

CONTRIBUTED DATE
March 22, 2024 - 6:40am

CRITICAL COMMENTARY
This transcript captures the opening remarks of a public webinar held on March 21, 2024, hosted by the Training Centre in Communication (TCC) Africa, titled "Using Persistent Identifiers (PIIs) to Ensure Indigenous Knowledge and Cultural Heritage Preservation." The event features Joy Ogunniye, Executive Director of TCC Africa, introducing the Africa PID Alliance and outlining its aims to promote the use of persistent identifiers—specifically DOIs and related PID systems—for cataloging and preserving indigenous knowledge and cultural heritage.
This transcript serves as a data object within my data essay ("Who Owns Our Knowledge Infrastructure: Demystifying the Politics of the DOI") which offers a critical analysis of the political economy of the DOI and its role in reinforcing global inequalities in scholarly publishing.

LANGUAGE
English

ARTIFACT 1
Rosenblatt, B. (1997). The Digital Object Identifier: Solving the Dilemma of Copyright Protection Online. *The Journal of Electronic Publishing* 3(2).

The Digital Object Identifier: Solving the Dilemma of Copyright Protection Online

Journal of Electronic Publishing

Volume 3, Issue 2: Lessons Learned in Electronic Publishing, December, 1997
DOI: <https://doi.org/10.3968/1229431.0003.0002.0004> (<https://doi.org/10.3968/1229431.0003.0002.0004>)

The Digital Object Identifier (DOI) (<http://www.doi.org/>) is an important emerging international standard for identification of published material online. It forms the foundation layer of a set of technologies that will enable commerce in published material on the Internet so that copyright is protected, content creators can be compensated for their work, and consumers can benefit from technology that is sophisticated, yet seamless and easy to use.

This is the story of the genesis of the DOI, told by a participant in the project. I will explain, from my perspective, what the book and journal publishers who developed the DOI were trying to do, what decisions they made, and why. They started out wanting to overcome all of the myriad obstacles to successful online commerce in content, but they quickly decided that that was infeasible. Instead, they decided to start with a single core issue – that of content identification – and set up a framework for building upon it. The increasing momentum in the industry surrounding the DOI shows that those decisions were the right ones.

The Dilemma of Publishing for Profit on the Internet

Our story begins in autumn 1994, when the Association of American Publishers (<http://www.publishers.org/>) (AAP), the trade association for U.S.-based book and journal publishers, established its Enabling Technologies Committee. They wanted to solve a range of problems that, taken together, posed a set of roadblocks and constraints about protecting intellectual property and sustaining commerce on the Internet.

The Internet is well known as a threat to copyrighted material because it enables global ubiquity of information through technologies that allow people to make as many perfect copies of content as desired. On the other hand, the Internet enables many new types of "infomediary" second-tier content businesses that can create new revenue streams for publishers. These businesses are analogous to bookstores, book clubs, clipping services, or libraries in the real world: they can retail, aggregate, repack, or redistribute content online.

ARTIFACT 2
Davidson, L.A., & Douglas, K. (1998). Digital Object Identifiers: Promise and Problems for Scholarly Publishing. *The Journal of Electronic Publishing* 4(2).

Digital Object Identifiers: Promise and Problems for Scholarly Publishing

Journal of Electronic Publishing

Volume 4, Issue 2: The Socioeconomic Dimensions of Electronic Publishing, December, 1998
DOI: <https://doi.org/10.3968/1229431.0004.0002.0003> (<https://doi.org/10.3968/1229431.0004.0002.0003>)

It is no secret that the Internet is in a state of impending chaos. Not only are items difficult to find, once found, they often disappear without notice, producing the dreaded "404 The requested URL was not found" or "HTTP/1.0 404 Object Not Found" error messages. In other cases, the URL can still be found, but the object sought is no longer there. And the present crop of search engines has numerous problems discovering and retrieving documents due, in part, to the enormous size of the Web, which has jumped from about 76 million Web pages in 1996 to well over 300 million today. (1) (2) And the size of the Internet is expected to increase by 1000% over the next few years, so the situation is not likely to improve soon.

The transience of Web sites, coupled with the difficulty of discovering and retrieving their contents, causes serious problems for libraries and other institutions that attempt to integrate Web documents into local systems. Even many of the URLs found in databases such as online catalogs are no longer valid. (3) (4) (5)

Furthermore, the majority of users have been conditioned to believe that most things on the Internet (especially text) should be free. This anti-commercialization has not made the Internet a very friendly environment for commercial publishing, as was demonstrated recently when the popular online magazine *Slurp* (<http://data.msn.com>) initiated a very reasonable annual subscription of \$10 a year. Overnight, readership fell from nearly 60,000 to a paid subscription list of about 17,000. Although it has recovered slightly since then, *Slurp* is still suffering from an annual deficit of at least \$4 million. 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ARTIFACT 4
Kunze, J. (2024). Getting
Started with ARK
Persistent Identifiers.



ARTIFACT 5

PID schemes – optimist view

Features and costs	PURL	Handle	URN	DOI	ARK
Decentralized resolution	No	No	No	No	Yes
Inferenceable syntax (variants, containment)	No	No	No	No	Yes
Flexible metadata by design, including none	No	No	No	No	Yes
Inflections (...7nfs) and content negotiation	No	No	No	No	Yes
Nuanced persistence statements by design	No	No	No	No	Yes
Path extensions during resolution (suffix passthrough)	Yes	No	Yes?	No	Yes
Free, non-paywalled, in unlimited numbers	Yes	No	Yes	No	Yes

ARTIFACT 5
CRITICAL COMMENTARY

This video, created by John Kunze, provides an introduction to Archival Resource Keys (ARKs) and the broader landscape of persistent identifier (PID) schemes. Kunze, a key figure in the development of ARKs, outlines their technical design, governance philosophy, and practical advantages over more commercialized systems like the DOI. The presentation emphasizes ARKs' commitment to decentralization, institutional autonomy,

and affordability, positioning them as a non-proprietary alternative for managing digital resources.

ANALYTIC QUESTIONS

How are technical infrastructures described in terms of their purpose, scope, and impact?

- The digital infrastructure is presented as a neutral and technical solution to knowledge management. Owango asserts, “we are literally leveraging on existing technology to produce our digital object container,” framing this as a pragmatic inevitability. However, the proposed system explicitly makes indigenous knowledge legible through its incorporation into existing global classification schemes, “Visualize the digital object container ... and you have your indigenous knowledge ... If there's any publication ... there's an ID assigned to it.” Read more.

How is the research and/or publishing environment characterized?

- Rosenblatt presents the publishing environment as a commercial ecosystem under threat from the unregulated, “open” nature of the Internet. The DOI is introduced explicitly as a solution to “facilitate commerce in published material on the Internet” and secure intellectual property rights. Read more.
- Davidson and Douglas characterize the fear that the dominant commercial publishers felt when the World Wide Web was first launched. The authors portrays the late-1990s digital publishing landscape as chaotic and unstable,

emphasizing issues like the transience of web content, broken links, and the difficulty of discovering and retrieving documents online. Read more.

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part three

COLLECTIVE CONTRIBUTIONS

In this curated analysis, we aim to build a comparative, collaborative understanding of assumptions about “knowledge” in our different domain areas. These are not meant to sound like a cohesive “voice,” but rather punctuated snapshots from each of us. By anchoring our work in a shared analytic question, we create a common frame that allows differences and resonances to surface without forcing consensus.

This approach reflects the value of “explanatory pluralism” embedded not only in the data publishing software we leverage (Poirier, 2017), but also in our collaborative method itself. We each answered the question individually about our own cases and then we came together for a synchronous discussion to tease out the shared learnings and insights across domains. The text includes our collective summary of insights as well as our individual responses.

“ Mûrega akîrwo,
ndaregaga akîhîtwo

Ignore good advice,
face the consequences.

Source: Gîkûyû people*

08

How is resistance enacted in this case?
Through what practices, infrastructures, aesthetics,
or refusals does it take form?





Above: Cea sequide niendel essimin isitem iliciant et fuga. Uci iminum net et labora sus nectasp iciendaes

We did not arrive at the term “resistance” uncritically. In our discussion, we questioned whether what we are doing is resistance, subversion, appropriation, or something else entirely. Rather than abandoning the term, we chose to nuance it, to treat resistance not as heroic rupture but as situated, iterative infrastructuring. Across our examples, we found resistance is neither pure refusal nor total exit. It is co-dependent and situated – *tuko ndani na pia tunatoka nje* (Kiswahili for *we are inside and also stepping outside*).

Rather than positioning resistance as external to power, our examples show how it operates within and alongside dominant systems, leveraging their tools while refusing their inevitability. Resistance for us is iterative and processual and appears in the slow work of building archives, annotating collectively, writing graffiti in prohibited spaces, convening peer-led structures, and experimenting with versioned, open-ended publication formats.

We note resistance can become decolonial when it delinks from colonial logics of power and rebuilds alternative infrastructures, though not all resistance automatically meets this threshold. We believe critique of existing systems is not sufficient, and we are interested in how to construct alternative capacities that delink from colonial logics of power. The interrogation of the process of building something new then in itself serves as a contribution to decoloniality. In alternatives, we see space for fluidity, praxis, and collective consciousness-building. But today’s periphery could become tomorrow’s center so we agreed that attention to power structures and to the building of those structures needs to be embedded in all and any attempts to build a better otherwise.

Wambui: In my case, I see resistance enacted through *re-membering*, not as recollection but as reconstitution. Drawing on Ngũgĩ wa Thiong’o’s framing, re-membering

is the deliberate rebuilding of epistemic agency after dismemberment by institutional and state knowledge systems. In citizen-led spaces on the X platform during the 2024 *maandamano* (protests), ordinary participants refused to accept official narratives in conservation, mining, or education as authoritative simply because the narratives were from institutions. Instead, the citizens gathered to interpret events for themselves, reclaiming the right to define what counts as knowledge. This was not oppositional protest in a classical sense; it was infrastructural resistance. The X space became a temporary public epistemic infrastructure where citizens repossessed their agency. Resistance here was enacted through collective interpretation and rebuilding, dismembering official accounts in order to reassemble alternative knowledge formations.

Aurelia: In my example, resistance operates within the university, a space that both produces knowledge and reproduces hierarchy. Kenyan students are positioned as future knowledge producers while being silenced in the present. Resistance takes the form of speaking back to this but it is not limited to actual speech. I have seen silence itself become a tactic, a strategic conformity that allows survival within rigid structures. For me, resistance is infrastructured through the organisation I'm developing, Eider, a peer-led space that creates conditions where students can first discover their voices so that they can speak back. Eider does not replace the university but it operates alongside it, exposing both the fragility and difficulty of building flatter learning infrastructures within enduring hierarchies.

Leo: I frame resistance through decoloniality. I understand resistance not as anti-colonial opposition but as delinking from the coloniality of power that persists beyond formal colonialism. Resistance begins with recognizing how Eurocentric norms continue to structure AI development. But I think it cannot stop at critique. Decoloniality is enacted through praxis: building AI models that do not just resist dominant paradigms but operate according

to different logics. Rather than positioning African technoscience or knowledge practices as reactive and always in opposition to Western standards, resistance needs to be enacted through experiments and initiatives that are standing on their own terms. In other words, they are not counter-narratives but actually grown from alternative logics. I think this complicates resistance as a temporary phase preceding incorporation into a new status quo. Because if we look at the historical example of the Mau Mau freedom fighters in Kenya, what happens after such a resistance succeeds? How does one build society beyond opposition? Is it still considered "resistance" once it is successful? Resistance to me then is iterative and world-making. It is not only about building towards a rupture but about constructing enduring infrastructures capable of sustaining different futures.

Syokau: Resistance in my argument is enacted aesthetically and spatially through graffiti. Writing in prohibited urban spaces is not merely expressive; it reclaims zones that certain bodies are excluded from. Graffiti's ephemerality and incompleteness are not weaknesses but strengths because they resist stabilisation and co-optation. So, graffiti is not an alternative form of knowledge seeking validation; it is knowledge in itself. It is a chorus of voices and infrastructure rooted in personal experiences, collective histories and collaborative contributions.

Angela: I locate resistance in the politics of scholarly publishing infrastructures. Before resistance can occur, infrastructure must be made visible. We need to raise awareness and expose how standards like the DOI consolidate surveillance publishing and centralized control in the most powerful actors. But resistance to infrastructure does not take the form of simple refusal either. I think we need to appropriate hierarchical markers of legitimacy for example, by calling this project a "book," adopting persistent identifiers but different ones, in order to remain legible within dominant systems while experimenting with alternatives.

“ Pija na
'bana morju

Asking is not abusing.

Source: Kuku, South Sudan*

09

How are “local” and “global” constructed and negotiated in this example and with what consequences?



We have found that the local-global dichotomy is less about geography than about value systems, legitimacy, and self-recognition. One may be locally situated while reproducing global logics of validation and appropriation. Although we recognize that the local-global binary may no longer hold as a stable ethnographic category in a deeply entangled world, thinking with it across our cases helped us surface recurring dynamics of power, recognition, and epistemic dependence. In Syokau's example, graffiti artists produce work that may not translate easily into dominant aesthetic standards circulating in global art worlds. Yet within their immediate contexts, their interventions operate as forms of protest and social critique, speaking to local publics rather than performing for external validation. This is in stark contrast to scholarly publishing, which remains largely oriented outwards for an audience beyond Kenyan or African contexts. Across our examples, we observed how "the global" often functions as a site of legitimacy, while the "local" becomes a site of production, protest, or adaptation.

These patterns remind us of Ngũgĩ wa Thiong'o's call for "decolonizing the mind"—the ongoing work of resisting the internalization of external standards of value and authority. Wambui recounted attending a standing-room-only celebration in the United States honoring two Kenyan exiled intellectuals. She reflected that she had never witnessed such public celebration of their intellectual and advocacy work within Kenya itself. Why, she asked, does recognition sometimes require external affirmation before being fully appreciated and acknowledged at home? Across our cases, the local-global dynamic revealed not only spatial and cultural differences but asymmetries in whose knowledge counts, where and how it is validated and how authority circulates.

Leo: The artifacts and critical commentary identify local actors as critical but sidelined contributors to existing global knowledge infrastructures. They are playing roles such as trainers of models, as 'data subjects' and as

contributors of data to train AI systems. Examples given included the Gen-Z protest archive to preserve knowledge not likely to appear in official history and [localized training](#) of AI such as custom GPTs trained on local content. We have identified that their contribution to global knowledge infrastructure may in different times be viewed as 'tokenistic' and extractive especially if the contribution to AI systems does not result in commensurate benefits.

Aurelia: Organizations, such as Eider Africa, PhD in Africa, Lagos Studies Association are challenging the prevailing global knowledge infrastructure. These Africa-led initiatives, along with other resilient actors, are pushing back against a relentlessly evolving system that perpetuates inequalities and limits the mobilization capacities of African researchers' collectives and movements. Despite these challenges, these local actors have demonstrated remarkable adaptability. They maintain flexible approaches to learning, constantly rethinking knowledge production, embracing diverse methodologies, and utilizing platforms like WhatsApp to connect researchers and amplify their voices. However, postgraduate systems often remain deeply embedded within these global knowledge infrastructures, particularly concerning publishing and its exploitative practices. These systems tend to validate only specific methods of knowledge production and dissemination. Consequently, local actors must continue to organize and raise critical consciousness more rapidly and boldly to counter these entrenched inequalities.

Syokau: Local graffiti murals, such as the MaVulture campaign, among others, position local actors as those with the power or right to the city. Graffiti artists paint in a visual language or repertoire that goes against state knowledge, because they are pushing back against the state's idea that leaders are voted into power to look out for themselves. Wider global infrastructures, especially in governments, position local actors as having as much power as the people they elect. And it has been interesting

to see how, on the global stage, local actors are protesting poor governance and drawing inspiration from Gen Z protests in Kenya. At the same time, the Gen-Z protesters in Kenya are also drawing their inspiration from other similar movements happening across the world, like Palestine and the United States. From an art historical perspective, local articulations of graffiti exclude those who cannot understand the language, offering further insight that some struggles on the local scene are not for a global one. As such, the localised language makes the struggle or discussion relevant only to those it addresses.

Angela: In my case, the stakeholders involved in originally setting up the DOI infrastructure (Sun Microsystems, the International DOI Foundation, R.R. Bowker, and elite U.S. universities) reflect a closed circle of influential Western institutions and members. Early discussion of DOI governance assumed that powerful corporate and academic actors would continue to define and manage the infrastructure; there appears to be no intention by the founders to have a broader global collective shape the DOI infrastructural development. In this way, the DOI was actually a parochial, local initiative in the US, however, due to the power and capital resources of these actors, they have been able to set up a global infrastructure that enrolls scholarly outputs from around the globe. These actors are supporting the recently formed Africa PID Alliance which African actors as late entrants to an already-established global infrastructure. For example, Owango states, "Africa really needs to be part of the conversation," framing African participation as integration rather than transformation. African stakeholders are largely poised as users and implementers of external infrastructures, not as creators of new epistemic or infrastructural paradigms. In comparison to the DOI, the ARK framework and technical design enables local institutions to take an active role in managing their identifiers, reducing dependence on global infrastructures. It is built on a model of decentralization rather than the centralization of the DOI system. There are no Persistent Identifier schemes led by and originating

from the African context, however I think the location of where the technology originates from matters less than the value systems embedded in it and the configurations of power it enables.

Wambui: In 2016, I attended an African Studies Association conference where Micere Mugo and Ngugi wa Thiong'o were celebrated guests marking the 40th year since the first performance of their play, *The Trial of Dedan Kimathi*. The two literary scholars, who died in 2023 and 2025 respectively, had left their home country Kenya as exiles, escaping from a political regime that did not appreciate their use of art to expose the brutalities inherited from the colonial state and retained by post-Independence leadership. The large ballroom where the event was held was standing-room only, and I was struck by the depth of recognition and respect the two scholars received, with their contributions to literary discourse and as public intellectuals widely known among those present.

I contrast that with the policy documents and funding mechanisms that shape Kenya's formal education system. They draw heavily from foreign models and theories, even more than 60 years after the nation attained political independence. For instance, *Vision 2030*, a policy document launched in 2008 to offer a template for the transformation of Kenya into an industrialized nation by 2030, envisioned and entrenched in government rhetoric the notion of a 'knowledge-based economy' and 'knowledge management'. The term 'knowledge management' alludes to the influence in Kenyan knowledge-related policy of Austrian Peter Drucker, a leading thinker of modern management principles who is also quoted in the 2024 Fourth Medium Term Plan for Vision 2030 (National Treasury and Economic Planning, 2024).

A community library opened in 2024 with great fanfare (Vidija, 2024) in Tharaka Nithi County, in Eastern Kenya was built with USAID funding. The legislation that supports libraries (Kenya Law Reports, 2012), makes only two

mentions of community libraries, and that is in connection with subscription fees. USAID funding has since been drastically slashed, affecting programmes such as the community library.

Borrowing and sharing of ideas for the purpose of contributing to a knowledge ecosystem is expected. But our reliance on external sources has also created dependence and vulnerability in a nation whose citizens are among the most highly taxed globally. We also have an extensive in-country reliance on external sources for knowledge-related theories, philosophies and funding that overlook or subordinate its own home-grown intellectuals, thinkers and supporting structures.

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How are "local" and "global" constructed and negotiated in this example and with what consequences? 🌸 87



“ Kila ajaye na
shoka hapo hawi
seremala.

Whoever comes with an axe is not
necessarily a carpenter.

Source: Kiswahili

10

What assumptions are made about the relationship between knowledge, ownership, and commercialization?



Knowledge is frequently treated as an object that can be owned, packaged, protected, and commercialized. Whether in AI data markets, scholarly publishing infrastructures, university innovation systems, activist art, or public education policy, knowledge is often abstracted from the labor, relationships, and lived experience that produced it and reframed as a commodity circulating through regimes of intellectual property and financial exchange. At the same time, our cases reveal competing assumptions: that knowledge belongs to communities; that benefit-sharing must precede commercialization; that ownership cannot be neatly assigned through copyright frameworks; and that knowledge may be better understood as a relationship to be nurtured rather than a product to be sold. There are also uncomfortable ambiguities. When activists become paid artists, when universities scale innovation through external funding, when reformers host events within colonial institutions, or when governments frame education as both public good and revenue stream, the boundaries between resistance and absorption blur. None of these sites are innocent. The dance between working within dominant systems and building alternatives raises difficult questions about funding, legitimacy, complicity, and the inclusion/exclusion of voices. Rather than resolve these tensions, our collective analysis invites a thought experiment: if marginalized knowledge systems were to become dominant, would they necessarily produce more equitable outcomes? Is knowledge both verb and noun, as one of the participants at our public events observed, meaning that it can be abstract content as well as relational

enactment. By foregrounding these frictions, we argue that assumptions about knowledge, ownership, and commercialization need to remain open to contestation, dialogue, and revision. Knowledge is not just an asset; it is labor, memory, process, and relationship and it is through ongoing exchange with fellow travelers that its meaning and value are negotiated.

Angela: In the case of DOIs, knowledge is repeatedly framed as an object to be owned, through a market-oriented lens. For example, Owango asks, “What contribution does indigenous knowledge contribute to research, innovation, and commercialization?” rather than posing questions about community ownership or non-market values. The DOI is seen as a tool to help publishers maintain control over their intellectual property in the digital realm and assumes scholarly knowledge is a commodity that requires protection and monetization. A comparison between the ARK system and the DOI makes their contrasting design logics unmistakably clear. ARK is built on the principle that knowledge should function as a public good—freely accessible, non-proprietary, and unencumbered by financial barriers. By eliminating fees and enabling unrestricted use, ARK directly challenges the DOI system’s entanglement with commercial interests and its role in facilitating the commodification of knowledge.

Leo: My chapter makes the assumption that knowledge—particularly cultural and indigenous knowledge in the form of language datasets and on-going and lived experiences have clear and distinct owners.

This knowledge belongs to the communities that contributed to it or about which it is. This assumption goes against the usual tropes from technology developers where data is treated as a ‘commodity’ to be extracted and used by those with the ability to... as the new ‘oil’.

The Nwulite Obodo Open Data License (NOODL) license framework posits that economic benefits of data used to train AI models should first be reaped by data collectors and contributing communities before datasets become broadly accessible. In the current commercialization architecture of AI systems, what is problematic then is the current distribution of benefits is especially where African communities are contributing data. More broadly, in the case of participation, the assumed position based on the artifacts is that meaningful participation in AI value chains must include a level of economic benefit and power-holding by local communities, not just a mere requirement to be ‘consulted’ (participation-washing!). Indigenous knowledge of these communities does have commercial value and the contribution of their data, culture and language to AI systems should therefore be compensated commensurately, even if it is contributed to the commons for the sake of representation.

Aurelia: Debates about the university’s role often highlight two main perspectives which in my view shapes postgraduate education. One dominant view sees universities in the postcolonial era as instrumental service providers, acting as “repositories of expertise” to serve national development goals. This is a common perspective across Africa. The

alternative, positions universities as proactive engines of development, driving knowledge production and innovation. African Minds Higher Education Dynamics Series Vol. 1. I see the role within a continuum of the two and still leave room for other emerging roles. If knowledge in/with universities leads to new products, approaches, and services within frameworks of external funding models then who owns these knowledge(s) and the intellectual property rights particularly when these innovations have to be brought to scale? Again what if we rethink knowledge beyond a product that is packaged and sold as suggested by a post shared on LinkedIn by sahibzada mayed – “What if we treat knowledge not as a property but as a relationship to be nurtured? This moves us to apply tenets of what constitutes a nurturing relationship – trust and reciprocity?”

Syokau: The “Mavulture” campaign was a 2012–2013 Kenyan political activism initiative. Launched ahead of the March 2013 general elections, the campaign used graffiti, online media, and public protests to expose corruption and hypocrisy among Kenyan politicians, urging voters to reject leaders who had perpetuated scandals and impunity. What are the artists who were part of the MaVulture campaign up to? Do they still identify as activists? Are they still agitating for a better Kenya through their art? Each of them, Smokillah, Uhuru Brown, Bankslave and Kerosh have secured gigs to make graffiti art commercially. We see their artwork in certain gentrified parts of Nairobi. Did the commercialisation of their art make the art less ‘resistant’? Of all the activists involved in the MaVulture campaign, only Boniface Mwangi

Who owns Lake Naivasha Resort? Every governmental round table activities are all [sic] being done at Lake Naivasha Resort. There's someone in government doing business with the state ...

https://x.com/_James041/status/2017854023005503782

still openly identifies as an activist. And the other artists were not necessarily happy with him when he claimed the campaign as his own. The MaVulture campaign was powerful because it had no face. The artists painted at night wearing masks. I think the power of graffiti lies in its ephemerality. Even as it begins to be appreciated as an art form that can be commercialised, because it is constantly transforming to reflect the times, it resists permanence. And this dynamism is what makes it a continuous language of resistance.

Wambui: Between 2023 to 2026, the Kenyan government has allocated nearly 30 percent of the national budget to formal education in each financial year. This is the largest share allocated to a particular sector (Wanjala, 2025), which should portend well for the stated dream in policy documents for every Kenyan child to have equitable access to quality and holistic public education. Yet various accounts show that it is often a relatively small group of people making decisions about what

knowledge is shared, by whom and where within the formal education system, and these decisions often are to the detriment of the citizens.

Consider the following excerpts from various media accounts:

The parents of the pioneer cohort of the competency-based education (CBE) said they do not know the fate of their children after principals began issuing stern ultimatums, demanding that the students report back from the break only after clearing pending fee arrears... Principals are demanding fees, saying schools have bills to pay to run efficiently, including payment of board of management teachers, electricity, water and security guards. (Atieno, 2026)

The Kenya Publishers Association (KPA) has called on the government to settle a Sh3 billion debt for textbooks already supplied, warning that delayed payments could stall preparations for the rollout of Grade 10 learning materials scheduled for January. (Mumbi, 2025)

Public schools were asking parents to pay their utility bills at a time when the cabinet secretary (CS) for education publicly admitted that the government did not have figures showing the cost of educating a child from primary school to university (Muia, 2026). It was interesting that the CS made those remarks while addressing a parliamentary session at a luxury resort. The members of parliament were on a retreat themed 'Securing parliamentary legacy.' The following two data points indicate part of the coverage of the retreat and one individual's 2025 social media observation (on X.com) that the government gave the luxury hotel a significant amount of business.

"As Kenyans tighten their belts under punishing taxes, ballooning debt and a harsh cost-of-living crisis, their elected leaders retreated to Lake Naivasha for a five-day show of comfort and excess. Sirens cleared roads, five-course meals were served and luxury cars filled hotel car parks, sparking public fury. Critics say the optics exposed a parliament cocooned in privilege, spending tens of millions while citizens struggle..." (https://x.com/_James041/status/2017854023005503782)

"Who owns Lake Naivasha Resort? Every governmental round table activities are all [sic] being done at Lake Naivasha Resort. There's someone in government doing business with the state..." (https://x.com/_James041/status/2017854023005503782)

The excerpts suggest that to a great extent, Kenyan public education is a profit-making commodity owned and traded by select gatekeepers. In its present state, there are

no guarantees that every Kenyan child can equitably access the quality holistic education envisioned in sector policy documents.

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“ Mwenda Tezi na Omo marejeo ni ngamani.

East or West, home is best.

(You may go far and wide, but you ultimately find yourself pulled back 'home'! This saying can be interpreted as our heritage and cultural values anchor us regardless of where we find ourselves in the world and is an apt representation of re-membling.)

Source: Kiswahili

11

How do the knowledge infrastructures enable or foreclose
those typically outside power structures
to re-member their agency?



Across our cases, we see a persistent tension between structure and agency. Knowledge infrastructures (including universities, publishing regimes, data systems, urban governance) shape what kinds of action and expression are possible. Individual agency is necessarily constrained; no one possesses total freedom within such systems. But agency is not static. It can be *re-membered*: first at the psychosocial level, as individuals recognize their own voice and standing within relations of power, and then collectively, as shared practices like graffiti, *maandamano* protests, AI tools, journal clubs, alternative archives, generate a wider consciousness of constraint and possibility. We think knowledge production becomes crucial in this process, not as a neutral output but as a site where agency is (re)awakened, rehearsed, affirmed, and redistributed. We've noted in our various examples that new knowledge infrastructures don't just emerge out of nowhere. They are often incubated within dominant ones, stretching their limits through a delicate dance of participation and refusal. Once limits are reached, then collective re-membering can give way to the creation of parallel structures in which different perspectives and knowledge can more fully thrive.

This book itself is an experiment in such infrastructural re-membering. Rather than smoothing our voices into a single authoritative voice, we assemble them in a relationship. We are not asking to be accommodated within existing structures. Where space is limited, we stretch it; where it closes, we build otherwise. *Re-membering* for us is not a technical adjustment but a

conscious, collective practice, an ongoing process of coming together to do what none of us could have done alone.

Leo: The artifacts showcase assumed citizen agency in different ways: As developers, citizens can harness knowledge infrastructures as active creators of AI tools for civic engagement. The GPTs created to educate citizens on the Finance Bill are a clear example of agency that AI can provide for advocacy. The artifacts also reference the role of communities within knowledge infrastructures as contributors of local context data. This assumes that knowledge infrastructures can also provide collective agency especially through representative AI systems that can be used for grassroots beneficence. The artifacts also show potential for citizen agency in how they control the use of their data through the underlying infrastructure in the form of federated databases and the alternative licenses.

Wambui: Our knowledge ecosystem has treated the citizen as a peripheral contributor, one who submits to the policies and legislation that are developed around the formal education system and other places of knowledge production and dissemination. But following the June 25, 2024 protests in Kenya, the citizens have been emboldened by their outrage, speaking against the rampant corruption, poor management of resources, and lack of equity and access to what they as citizens are owed in services by government. In so doing, they have asserted themselves as contributors and distributors of knowledge through the arts (animated reels, music and spoken word), open source data, social media

discussions, and investigative storytelling. They have used those tools and the openness, versatility and reach of social media to speak to one another and re-member what they have known and have come to know about our nation.

Aurelia: Dominant narratives in postgraduate education often treat students as passive recipients of knowledge. This pervasive assumption, deeply embedded within the knowledge infrastructure, actively silences student voices. The unfortunate consequence is a diminished capacity for generating new knowledge and reimagining our world in more interesting ways. This issue is particularly acute for African knowledges and scholars, who are already marginalized in global discussions about knowledge infrastructure. Systematically silencing the voices of emerging scholars further intensifies this marginalization, hindering collective efforts for advocacy and movement building. However, the assumption that students do not push back is being actively challenged. Through my experience with the Africana Journal Club, I have witnessed how students are actively speaking back to these dominant norms. They are taking a more proactive approach to supervision relationships, advocating for their research topics, and generally making their voices heard.

Syokau: Graffiti allows people to express themselves in languages and technologies that resonate deeply with them. The artists become emitters and not just recipients of messages. With the 2021 MaVulture Campaign, the artists painted murals in the Central Business District to mock the infrastructure

that implied certain parts of the city belong to the state and that citizens have no agency there. Painting murals calling out MPs as vultures on the blank walls near City Hall was a statement that the city is ours, all of us, regardless of how much we earn, our last name and our education. The Gen Z protests of 2024 and 2025 share a similar inspiration: citizen agency that fights for a city where we are all fully and equally human.

Angela: This transcript assumes that owning data production and management enhances agency and that currently there is not enough technical capacity to shape the PID landscape (hence the need for training). This discourse assumes that engagement will be primarily institutional or mediated through professional roles (e.g. research roles or libraries). There is a lack of clarity on how those who are not affiliated with institutions or citizen /lay scientists can directly shape this initiative. I think this is true more generally, most researchers gain access, legitimacy and credibility based on their institutional affiliation.

“Dawa ya moto
ni moto

Fight fire with fire.

Source: Kiswahili

12

Conclusion



The wild idea that animates this book is that young black women were radical thinkers who tirelessly imagined other ways to live and never failed to consider how the world might be otherwise.

Wayward Lives, Beautiful Experiments
(Saidiya Hartman, 2019: xv)

This book began as an experiment, and it ends as one too, not with a final answer, but with an invitation. As we reflected during a research collective meeting, what we've built through this project is not just a database, nor just a book. It is an infrastructure of relation: a slow, often messy, and deeply intentional process of thinking, writing, and creating knowledge together across fields, disciplines, languages, and locations. It could not have been built quickly and it could not have been built by strangers.

The foundation for this work was laid over more than five years of sustained relationship-building. In 2019, we gathered in person at the concluding event of Angela's dissertation project. From that gathering emerged a co-authored chapter in the dissertation and an ongoing conversation that continued over the years. This continued relationship led to a successful proposal in 2023 to develop this experimental book. These years were spent learning how to listen to one another, disagree without fracture, and remain accountable. This

history of our research collective matters in understanding the output that we were able to craft.

We have begun to think about our book as a contribution to decoloniality. Where wa Thiong'o (1986; 2009) approached it through language by publishing in his mother tongue, we have done it through method—by documenting multiple aspects of our collaborative experiment, where the concepts of trust, consensus, open access, peer equality and completeness in imperfection have been as essential as the data and the analyses we present.

What this project has done for us is address the sense of exclusion that we have often felt while working within the hierarchical systems of creating, producing and distributing knowledge. Is the method perfect? No. But it has created an alternative network through which we continue to work.

The process was not seamless. There was plenty of uncertainty along the way and the

project required patience from all of us. Early in the process, Wambui remarked, “There were times I wasn’t sure where this was all going, but I kept coming back because the space felt generous, and generative.” We think that generosity, the room to not know, to pause and rethink, is at the heart of this project.

Curating this database-as-book project has been an unexpected journey of knowledge production, where meaning emerges not only from individual data points, but from the exercise of collective reflection and discourse. The database-as-book project allowed us to weave one, or several, narratives from data points. As a collection of artifacts, commentaries, and annotations, they might not always make complete sense because they represent a cacophony of individual viewpoints, expertise, and biases. But when we deliberated on these objects together guided by analytical questions, we found a place of convergence and a shared foundation, woven together by common values, a deep

uneasiness with the status quo of knowledge production in Kenya, and wholehearted desire to explore the otherwise and to re-member together.

We do not offer this as a model to be replicated, but as a proof of concept. We hope it helps begin to imagine knowledge infrastructures not only as technical structures, but also as the sociality and relationships needed to sustain knowledge production.

We offer this project as an invitation to imagine and build otherwise.

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13

Glossary:
Acronyms and Key Concepts Used in this Book



Analytic Question

Refers to a shared open question posed to deepen collaborative inquiry of data on the PECE platform. A user can comment on any data or essay by responding to an analytic question (see annotation). One can respond to as many analytic questions as desired. A user can also offer a new question for others to use. In this way, perspectives can multiply on a single object leveraging multiple frameworks of analysis. For more, about the design thinking behind this infrastructural choice:

Poirier, Lindsay. 2017. "Devious Design: Digital Infrastructure Challenges for Experimental Ethnography." *Design Issues* 33 (2): 70–83. https://doi.org/10.1162/DESI_a_00440. Linked here.

Annotation

Refers to the response to an analytical question (see above). These annotations are the main method for analyzing data within the PECE platform.

Archival Hospitality

Refers to a design principle underlying the PECE approach to data archives that refuses extractive efficiency (a design principle that imbues many other data repositories) and instead imagines it as a site of encounter. Archives should be welcoming, encouraging a researcher to linger and explore, continue in conversation, and further expand it rather than just coming in to take what you need and leave "efficiently". Our book itself performs this design logic of archival hospitality. Rather than presenting a singular, linear argument, we invite readers to linger, roam, and encounter relations among artifacts that exceed any one essay. We resist the extractive efficiency of conventional academic infrastructures and instead encourage exploratory participation, not simply taking what one needs, but staying long enough to be surprised. For more, see:

<https://worldpece.org/content/archival-hospitality>

Artifact

Refers to an object shared on the PECE platform. This may be in the format of a PDF, audio file, photo file, URL, or text file. Artifacts are treated as analyzable objects rather than fixed evidence and are sometimes called "data objects". All artifacts require certain meta-data fields to be completed (such as critical commentary) before they can be uploaded, a mechanism to contextualize the data being uploaded. Artifacts can be analyzed by annotating them using analytic questions.

Artivism

At the dawn of the 20th century, "artivism", a blending of art and activism, arose spontaneously as a global language. It evolved from urban art, graffiti, and situationism, all of which were creative forms of the twentieth century. Cities became full of conquered spaces regained for expression. Artivism is based on a recovery of artistic activity for the purpose of immediate social intervention. It has specific features that make it eminently ephemeral and practical in its permanent balance between visibility, durability and risk.

Artificial Intelligence

Artificial Intelligence (AI) is a term coined by Stanford Professor John McCarthy in 1955, originally defined as "the science and engineering of making intelligent machines. More formally, AI is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision-making, creativity, and autonomy. AI aims to develop machines that can interpret external data, learn from it, and use those learnings to achieve specific goals through flexible adaptation. Traditionally, AI research includes learning, reasoning, knowledge representation, planning, natural language processing, and perception, drawing upon fields such as psychology, linguistics, philosophy, and neuroscience. For more, see:

IBM. What Is Artificial Intelligence (AI)? November 17, 2025. <https://www.ibm.com/think/topics/artificial-intelligence>.

McCarthy, John. Artificial Intelligence Definitions. Stanford University Human-Centered AI, 1955. <https://hai.stanford.edu/sites/default/files/2020-09/AI-Definitions-HAI.pdf>.

Definition of Artificial Intelligence. Consensus Academic Search Engine. <https://consensus.app/questions/definition-artificial-intelligence/>

big tech

Refers to a collective of the most powerful companies in the digital economy that make widely used hardware and software, and have a huge amount of influence on technology, the internet, and the economy as a whole. They typically occupy monopolistic positions. When stylised/capitalized at “Big Tech”, the term typically refers to a specific list of US-based multinational corporations—Meta (formerly Facebook), Apple, Amazon, Google/Alphabet and Microsoft that typically supply or control one part of the internet/tech ecosystem. For more, see:

Birch, K., & Bronson, K. (2022). Big Tech. *Science as Culture*, 31(1), 1–14. <https://doi.org/10.1080/09505431.2022.2036118>

Association for Progressive Communications. “Big Tech.” <https://www.apc.org/en/glossary/big-tech>

Brave. Big Tech Meaning & Definition. <https://brave.com/glossary/big-tech/>

Book

We understand a book as a sociotechnical infrastructure that stabilizes knowledge long enough to circulate, be cited and be recognized. As a historically privileged form, the concept of a “book” legitimates knowledge. In this experiment, we leverage that privilege to redistribute its stabilizing power to create opportunities for others to play and push with how knowledge is organized, who is considered an author and what counts as an intellectual contribution. We view this book project along the lines of Janneke Adema (2021)’s framing of scholarly book

publishing as a relational practice where “the book is no longer perceived as (merely) a commodity or an object of value exchange fueling both publishing and university markets but becomes an ever evolving node in a network of relations of communing, which it both fosters and is fostered by” (2021).

Colonial

Refers to the systems of rule, knowledge production, and economic organization established through territorial occupation and domination. Building on Indigenous and Black Studies, we understand colonialism not as a historical period but as a structured set of interlocking relations to land and people that treat both as extractable resources for settler and imperial projects (Liboiron 2021). Colonialism is not reducible to a past event or singular structure; it operates as an ongoing milieu of relations (King 2019). Colonial logics persist far beyond formal independence through administrative structures, educational systems, legal regimes and epistemic hierarchies. For more, see:

Liboiron, M. (2021). *Pollution Is Colonialism*. Duke University Press.

King, T.L. (2019). *The Black Shoals: Offshore Formations of Black and Native Studies*. Duke University Press.

Tilley, H. (2011). *Africa as a Living Laboratory: Empire, Development, and the Problem of Scientific Knowledge, 1870-1950*. University of Chicago Press.

Mamdani, M. (1996). *Citizen and Subject: Contemporary Africa and the Legacy of Late Colonialism*. New paperback edition. Princeton Studies in Culture/Power/History. Princeton University Press.

Critical Commentary

Refers to a metadata open text field in the PECE software we use to publish our data artifacts. It is a required field, like Title, Date, Creator, and other essential metadata. On the principle that data is never just data, but is always data to someone for some reason, critical commentary opens the first relationality that makes the data/artifact *data*. The

user adding the artifact to the system explains why they decided to upload it, why they consider it to be data, why it was created or selected, and generally describe the artifact, its creation story, and its significance for the contributor.

Data

Representations of social, material, or biological phenomena produced through specific methods, infrastructures and value systems. Influenced by a broad literature by activist, indigenous, and feminist STS scholars on data, technology, and ethics, we understand open research data as a potential object of shared cognition that may provide the basis for ongoing dialogue and recursive analysis. Scholars have challenged the treatment of data as unitary, stable objects that can be “owned” by a given researcher/author. Highlighting data’s relationships with other objects and social practices, Sandeep Mertia, for example, noted that “data is shaped by actual and potential relations with other existing data, classification, paper and digital infrastructure, statistical techniques, data collection and cleaning practices, and possibilities of circulation” (2020, 10). Extending further, Sabina Leonelli (2015) considers data as “tools for communication,” whose main function is to “enable intellectual and material exchanges across individuals, collectives, cultures, governments, and ... whose mobility across these groups is a hard-won scientific achievement” (2015, 810–11).

Database as Book

An experimental scholarly form that claims the symbolic authority of the book while organizing materials through database logics. Rather than presenting a single linear argument, it assembles discrete artifacts in relational structures that foreground the labor of making and curating data as valid scholarly work in its own right, without requiring translation into a unified narrative voice.

Decolonial

A critical stance that seeks to unsettle and transform colonial and imperial logics embedded in institutions, epistemologies and subjectivities. Indigenous studies of “conquistador-settler colonialism” (King, 2019) in the US and Canada strongly denounce the appropriation of “decolonization” within the university where academics often “decolonize” an academic syllabus or panel while colonial land relations remain firmly in place. Those working within this thought community argue that “decolonization is not a metaphor” (Tuck & Yang 2012) and decolonization means “repatriating land to sovereign Native tribes and nations, abolition of slavery in its contemporary forms, and the dismantling of the imperial metropole” (2012, 31).

Recognizing the term’s frequent dilution within academic discourse, we use “decolonial” deliberately to signal alignment with intellectual traditions emerging from Latin America and Africa that center epistemic transformation and the undoing of colonial knowledge hierarchies (Quijano 2000).

We use “decolonial” rather than “anticolonial” to capture a sense of what we are aspiring for: a more hopeful future space where knowledge is rooted outside of the colonial logics and extractive relations that still structure contemporary academic institutions and the global research world. In the words of Foluke Ifejola: “Decolonisation is impossible, but we must make her possible, if we wish to survive this wretched night that this wretched earth has been plunged into by humanity. We must make her possible” (2019). In this book, we approach decolonial work primarily in relation to knowledge infrastructures and research practices. For more, see:

Ndlovu-Gatsheni, Sabelo J. “Decolonizing Knowledge: Reflections from Africa.” *Sociologus* 72, no. 1 (2022): 3–32. <https://www.jstor.org/stable/48791437>

Digital Object Identifier (DOI)

A persistent alphanumeric identifier assigned to digital objects (like journal articles and datasets) for stable referencing. The DOI system is governed by the board of the International DOI Foundation which is composed of some of the biggest global publishers. There is a fee associated with assigning DOIs to digital objects. Although framed as neutral infrastructure, the DOI system centralizes control over scholarly identification and metric circulation.

Imperial

Refers to enduring formations of unequal power, hierarchy and extraction that structure political, economic and epistemic life across space. Imperial formations operate through institutions, infrastructures, and norms that normalize asymmetrical authority long after formal colonial rule has ended. For more, see:

Perdue, P.C., McGranahan, C. & Stoler, A.L. (2007). *Imperial Formations*. James Currey.

Indigenous Knowledge

Knowledge systems rooted in long-standing relationships among communities, land, language, and practice. Indigenous knowledge is relational, place-based and often transmitted through oral, communal and embodied forms. The term “Indigenous knowledge” has also functioned as a political category, mobilized in struggles for sovereignty, land rights, and epistemic recognition, particularly in settler-colonial contexts such as Australia, Aotearoa/New Zealand, North America, and parts of the Pacific.

In many African contexts, while place-based and community-rooted knowledge systems remain vital, the political category “Indigenous” operates differently due to distinct colonial histories and postcolonial state formations. For more, see:

Smith, L.T. (1999). *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed.

Infrastructure

The material, institutional and relational arrangements that enable and constrain social, political, economic, and epistemic life. Infrastructures are often invisible until they break down but actively shape what can circulate, who can participate, and what counts as legitimate. Infrastructures require ongoing experimentation, maintenance, and care; they are never self-sustaining and require continuous labour. For more, see:

Star, S.L. (1999). The Ethnography of Infrastructure. *American Behavioral Scientist*, 43(3): 377–91. <https://doi.org/10.1177/00027649921955326>.

Khanga

Khanga (also known as *leso*) is a rectangular cloth wrapper associated with Swahili women on the East African coast from the 19th century, and has become widely used across mainland East Africa. A typical khanga is 45 x 54 inches. Decorative and functional, khangas are textiles characterised by colourful patterns centred within a border, and methali, short lines of text that are wise sayings or proverbs.

The khanga intimately ties into a rich history of Kenyan publishing prior to achieving independence in 1963. Colonial laws prevented Kenya’s African population from owning printing presses or newspapers, but they used fugitive methods for bypassing the embargo placed by the colonial administration such as writing “*Kiswahili cha ndani*” (‘Kiswahili of the inside’) resistance messages on women’s khanga cloth which were worn as skirts or wraps so the message reached a wide audience right in their homes.

Knowledge Infrastructure(s)

In this project, “knowledge infrastructure” broadly refers

to the people, artifacts, institutions, and relations that generate, share, and maintain specific knowledge about human and natural worlds (Edwards 2010, 17). Approaching knowledge infrastructures as “relational” rather than as a “thing stripped from use” (Star & Ruhleder 1996, 113), we sometimes pluralize the term to highlight, as Borgman (2020) and Edwards et al. (2013) have noted, knowledge infrastructures are not one system, but are numerous multi-layered and adaptive systems, each with distinct origins and purposes that continually interface and interact. Knowledge infrastructures shape and often reinforce authority, power, and control (Acker 2020; Dourish & Bell 2007) and require upkeep, care, and maintenance (Martin, Myers & Viseu 2015; Murphy 2015). Knowledge infrastructures include built material spaces of institutions conducting and caring for academic and non-academic research, as well as technical platforms, and human and social networks that give these institutions vibrancy and life. This may include journal editorial boards, numeric and textual research data, peer review practices, scholarly societies, software systems, metadata standards, and research regulatory bodies. We expand beyond the university system to also include public libraries, archives, data repositories, scholarly publishers, and nonprofit and for-profit research organizations under the category of knowledge infrastructure.

NOODL

Stands for Nwulite Obodo Open Data License (NOODL). “Nwulite Obodo” is an Igbo phrase meaning “raising, reviving, and/or building the community.” NOODL is a licensing framework that enables the sharing of African datasets in a way that is open to all yet equitable for the source communities. Unlike standard open licenses, it introduces a tripartite framework that differentiates between users from Africa and developing nations and those from outside these regions, with outside users

required to provide royalty payments or other benefits to African dataset owners. For more, see:

https://docs.google.com/document/d/15Y1FceNHgvqrsttNbi8v1TiILmx9yiaQS34SpKNI_M/edit?tab=t.0#bookmark=id.b07tko3mu541

Methali

Methali, also written as mithali, are short lines of text carrying a wise saying or proverb. The texts are “imbued with levels of social and cultural meaning... used to pass on messages, chastise or share an idea” (Odundo, 2024).

PECE

Stands for the Platform for Experimental Collaborative Ethnography and is pronounced as “peace”. The Platform for Experimental and Collaborative Ethnography (PECE) is an open-source software that provides digital space for sharing, collaborative analysis, and creative presentation of ethnographic data and writing. In comparison to most qualitative data software, which are built on a coding paradigm, the platform’s architecture reflects poststructuralist commitments to multiplicity, reflexivity, and layered interpretation. For more, see:

Khandekar, A., Costelloe-Kuehn, B., & Poirier, L. et al. (2021). “Moving Ethnography: Infrastructuring Doubletakes and Switchbacks in Experimental Collaborative Methods.” *Science & Technology Studies*, 34 (3): 3. <https://doi.org/10.23987/sts.89782>.

Fortun, M., Poirier, L., Morgan, A., Callahan, B., & Fortun, K. (2021). What’s So Funny ‘Bout PECE, TAF, and Data Sharing? In *Collaborative Anthropology Today: A Collection of Exceptions*, edited by Dominic Boyer and George E. Marcus. Cornell University Press.

Poirier, Lindsay, Kim Fortun, Brandon Costelloe-Kuehn, and Mike Fortun. 2020. “Metadata, Digital Infrastructure, and the Data Ideologies of Cultural Anthropology.” In *Anthropological Data in the Digital Age: New Possibilities – New Challenges*, edited by Jerome W. Crowder, Mike Fortun, Rachel Besara, and Lindsay Poirier. Springer. https://doi.org/10.1007/978-3-030-24925-0_10.

Re-membering

The communal act of reassembling what has been fragmented, erased, or marginalized, whether histories, communities or forms of agency. “Re-membering” surfaces the political work of reconnecting dismembered narratives, (re)constructing collective memory, and highlights the psychosocial aspects of this labor. For more, see:

wa Thiong'o, N. (2009). *Re-membering Africa*. East African Educational Publishers.

Resistance

Practices, refusals, reinterpretations, and reconfigurations through which actors contest dominant structures of power. Resistance can be overt, subtle, oppositional, reformist, and often is co-produced within the very systems it seeks to transform. Resistance might take the form of reinterpretation, adaptation or infrastructural redesign. For more, see:

Hicks, D. (2025). *Every Monument will Fall: A Story of Remembering and Forgetting*. Penguin.

Wayward

The errant path taken by the leaderless swarm in search of a place better than here. The social poesis that sustains the dispossessed. The attempt to elude capture by never settling. It is the practice of the social otherwise, the insurgent ground that enables new possibilities and new vocabularies. It is a beautiful experiment in how-to-live. For more, see:

Hartman, S. (2019). *Wayward Lives, Beautiful Experiments*. W.W. Norton.

