# Database as Book and Lively Community Archive

#### **Contact details**

**Author team:** Aurelia Munene, Syokau Mutonga, Leonida Mutuku, Dr. Angela Okune, Dr. Wambui Wamunyu | Quotidian Data (Nairobi, Kenya) & Eider Africa (Nairobi, Kenya)

Publisher: Dr. François van Schalkwyk | African Minds (Cape Town, South Africa)

**Open Source Platform Team:** Professors Kim Fortun, Mike Fortun, and Lindsay Poirier | University of California Irvine (Irvine, CA, USA) & Smith College (Northampton, MA, USA)

Primary Contact details: Dr. Angela Okune, angela.okune[at]gmail[dot]com

## **Project summary**

The proposed project will build a "database as book" to support an emergent collective of critical STS scholars in Kenya. The database book will provide a workspace and public knowledge resource for considering the kinds of public knowledge infrastructure that needs to be developed in Kenya and, possibly, in other developing-country contexts. In addition to a public output, this work will invest in the open-source Platform for Experimental Collaborative Ethnography (PECE) to increase its capacity to publish long-form scholarship. Leveraging PECE for the database book will bring modes of analysis to the surface in ways that enable the lateral work and relations necessary for effective "community-led" scholarly work. The new workflows created through this project will enable African Minds to potentially produce other experimental database books in the future. The workflow documentation on developing integrations between a book press and the PECE platform will also allow other presses to support the creation of future experimental versioned books through PECE.

# **Confirmed Project Partners**

### Author Team

- <u>Research Data Share</u> (RDS) is a digital workspace and archive established to support a community of practitioners concerned about the kinds of data (especially qualitative data) and data practices needed to (re)animate critical civic engagement in Nairobi. By drawing people into the practical work of building an archive (and deciding what should be preserved and shared), RDS seeks to recollect the vibrancy of Nairobi's public sphere in the 1960s and 1970s, when there was active and creative visioning of an Africa for and by Africans (Fortun et al. 2021).
- Five members of the Research Data Share collective form the author team who will work on this experimental database book: Aurelia Munene, Syokau Mutonga, Leonida Mutuku, Dr. Angela Okune, and Dr. Wambui Wamunyu. The author team has previously authored papers together (see Okune and Mutuku 2023; Mutonga and Okune 2021) and also a collaborative dissertation book chapter (Chapter 6 in Okune 2021).

### **Platform Provider**

- The Platform for Experimental Collaborative Ethnography (PECE: pronounced "peace") is an open source (Drupal-based) digital platform that supports multi-sited, cross-scale ethnographic and historical research. The platform links researchers in new ways, enables new kinds of analyses and data visualization, and activates researchers' engagement with public problems and diverse audiences.
- The PECE Design Group directs PECE design, development, evaluation and governance and includes diversely focused ethnographers and technologists. The Design Team is represented on this project by Professors Kim Fortun, Mike Fortun, Lindsay Poirier and Dr. Angela Okune. PECE works with two software development companies, Revax and Agaric, both specialists in Drupal development. We plan to continue to engage them to build out the functionality for long-form publication on PECE.

### **Book Press**

• <u>African Minds</u> has confirmed its commitment to this project as the book press. In addition to being an exemplar of open access monograph publishing on the African continent, the Managing Editor, Dr. François van Schalkwyk also brings a rich perspective informed by his training in Science Technology Studies with special interests in higher education studies, critical data studies and scholarly communication.

### What skills and resources will partners (confirmed or desired) bring to the project?

- The RDS collective composed of Kenyan researchers will collect, curate, discuss and design the layout of the proposed book, *Database as Book* (placeholder title).
- PECE software developers will provide platform maintenance, requested extensions, and interface development.

- The PECE Design Team and African Minds will provide ideas and suggestions regarding structures for review, versioning, and re-use at the intersection between a live database vs publication. They will ensure that the author team builds on the work of others working in a kindred vein.
- Our press partner will enable experimentation with ways digitally infrastructured, datarich and lively "books" can be reviewed, processed, distributed, indexed and referenced as "books."

# **Project Description**

### **Project Outline**

The proposed project has two major strands of work. First, the project will investigate and build out the technical functionality of PECE to support lively versioning of a book project on the platform. We will work with the PECE Design team, broader PECE community, technical developers and a book publisher to discuss and determine how to best "publish" a stable version of work while continuing to keep it lively. This necessary technical functionality, not unlike that currently used by Github and Zenodo, will enable PECE to move towards enabling a "record of versions" rather than a "version of record" (Okune and Chan 2023). The technical development needed to enable PECE to host a record of published versions will unlock new exciting possibilities for developing the capacity of PECE to host "database books" and other versioned forms of publication. We imagine the new workflows created through this project will enable African Minds to potentially produce other experimental database books in the future. The workflow documentation on developing integrations between a book press and the PECE platform will also allow other presses to be able to create experimental database/versioned books through PECE.

The second thread of this book project focuses on extending and deepening the relations of an emergent community of critical STS researchers in Nairobi (Okune 2021). In late 2018, <u>Research Data Share (RDS)</u> was established (as its own PECE instance) by anthropologist Angela Okune as an elicitation device for understanding the diverse "thought-styles" of Nairobi-based researchers producing and working with qualitative data. From the start, RDS was also used to share the project's own data, modeling what open data in qualitative research can look like, and inviting commentary. Okune learned about local sentiments related to open data sharing through traditional ethnographic interviews and also by working with people side-by-side in RDS. In 2019, Okune and close collaborator Leonida Mutuku organized a public event–<u>"Archiving Kenya's Past and Futures</u>"–at McMillan Library, one of the oldest libraries in Kenya. This event was designed to create interest in both RDS and a gamut of questions about the kind of knowledge infrastructure needed in Kenya at this stage. It resulted in the formation of the Research Data KE Working Group, which has sustained the dialogue using RDS as a virtual workspace.

Work on RDS has rotated around PECE's support for open-ended annotation. Work on and in RDS has happened in bursts and spurts but the relationships built through the platform continue. Five core members of the RDS collective have expressed interest in using this "database as book" project to deepen and expand the analytic capacity and relationships of the group of researchers to hold space for collaborative thinking and working. Here we are building on work by Okune (2020, 2021; Mutonga & Okune 2021) to reimagine the relationalities that constitute academic writing, research, and publishing and how to represent these relationships in non-hierarchical, less linear ways, beyond the printed codex-format.

All building blocks of the project – technical, conceptual and practical – will be freely available for use and adaptation by others. We expect this experimental pilot to advance the options available for next-generation book authors to build and represent their relationships of mutuality, care, and collaborative thinking with interlocutors. We hope this project will offer new openings for others to follow, adapt, critique and redirect.

#### Approach to Experimentation

The proposed book project is experimental because of its format, leveraging the openness for analytic collaboration offered by looking at data together to pursue the genre of "database as book." Rather than forcing diverse perspectives and writing styles to fit into a legible text, we are interested in exploring what epistemological expansions might be possible by sidestepping the requirement for a linear narrative and instead investing time in the data relations and analytic infrastructure for sense-making a collaborative dataset.

To further emphasize this point, this project is experimental because it reimagines the relationalities that constitute academic writing and leans into "data as relations" where the production of research data establishes, builds and sustains relationships of individuals and the collective.

The database book produced by this project will be a space for ongoing analysis of current and needed public knowledge infrastructure in Kenya, highlighting the need for new knowledge capacities to address especially complex contemporary challenges like improved response to localized climate change effects, carving out a local position on AI and tech in a landscape dominated by Western corporate interests (Okune and Mutuku 2023), and pushing for renewed investments in public infrastructure, especially education. The database book will be developed by a Kenya-based author team and a South Africa-based book publisher to actively draw in new users as book content develops. We envision hosting several open community gatherings in person in Kenya throughout the two-year process to discuss the adaptations to workflows made in the

process of developing this experimental book. We hope the database book will also be a resource and work space for university and postgraduate students.

This pilot makes a significant contribution to experimental publishing by 1) better infrastructuring - improvements to the open source software that will allow for greater legibility of "database as book" as a possible genre for scholarly output; 2) documenting the process of developing an emergent critical community around data to contribute to the development of more lateral research practices; 3) opening up the "black box" of academic book publishing for African university students and early career researchers to spark a new wave of imaginative brainstorming for how to research, write, and publish in ways that are less "<u>scientifically extroverted</u>" (Hountondji 1990).

## **Project Timeline**

### March 2024

• Online meeting to co-design expectations and finalize work plan with partners including technical work plan needed for development of versioning functionality.

#### April - June 2024

- Develop work plan for PECE versioning development.
- Online meeting between African Minds and RDS author team to sketch out the workflows needed.
- Detail the process and outline pending questions to work on/draw in collaborators with whom to discuss.
- Co-develop the narrative arc for the database book including research design and work plan for data collection.

### July - September 2024

- Progress on PECE development.
- Data collection, database design, and population.
- Host online project team meeting with developers, PECE Design team, RDS author team, African Minds, and OBF Experimental Publishing Group to present learnings thus far and seek input.

#### October - December 2024

- Progress on PECE development.
- Book press and author team develop workflows for peer review, technical infrastructure, curation of data as book.
- Host a community event in Kenya to present the developed project and editorial workflow adaptations and garner wider feedback.
- Continue data collection, database iterative design, population.

#### January 2025 – March 2025

- Test PECE versioning functionality. Determine remaining steps required to completion.
- Online meeting between African Minds and RDS author team to discuss and document workflows.
- Complete data collection, final curation, and user interface of the database book. Begin review process.

### April - June 2025

• Evaluate the database as book architecture with all project partners and revise the remaining work plan if needed. Book review process ongoing.

### July - September 2025

- Receive feedback from book reviewers and implement feedback.
- Host online project team meeting including developers, PECE Design team, RDS author team, press partner, and OBF Experimental Publishing Group to present learnings from the review process and seek input.
- Ensure all documentation on process and learnings is updated.

#### October - December 2025

- Host a community event in Kenya to discuss project learnings and lessons learned from editorial and review process.
- Online meeting between African Minds and RDS author team to review and improve documentation about the workflows developed.
- Project review.

### January – March 2026

• Project revision and final submission to press. Press and author team launch marketing and advertising.

### References

Fortun, Kim, Mike Fortun, Angela Hitomi Skye Crandall Okune, Tim Schütz, and Shan-Ya Su. 2021. "Civic Community Archiving with the Platform for Experimental Collaborative Ethnography: Double Binds and Design Challenges." In *Culture and Computing. Design Thinking and Cultural Computing*, edited by Matthias Rauterberg, 12795:36–55. Lecture Notes in Computer Science. Cham: Springer International Publishing. <u>https://doi.org/10.1007/978-3-030-77431-8\_3</u>.

Hountondji, Paulin. 1990. "Scientific Dependence in Africa Today." Research in African Literatures 21 (3): 5–15.

Mutonga, Syokau, and Angela Okune. 2021. "Re-Membering Kenya: Building Library Infrastructures as Decolonial Practice." In *Narrative Expansions: Interpreting Decolonisation in Academic Libraries*, 189–211. Facet Publishing. <u>https://doi.org/10.29085/9781783304998.015</u>.

Okune, Angela. 2020. "Open Ethnographic Archiving as Feminist, Decolonizing Practice." Catalyst: Feminism, Theory, Technoscience 6 (2). <u>https://doi.org/10.28968/cftt.v6i2.33041</u>.

Okune, Angela. 2021. "Postcolonial Objectivity: Reaching for Decolonial Knowledge Making in Nairobi." Irvine, CA, USA: University of California, Irvine. <u>https://escholarship.org/uc/item/7x695678</u>.

Okune, Angela, and Leslie Chan. 2023. "Digital Object Identifier: Privatising Knowledge Governance through Infrastructuring." In *Routledge Handbook of Academic Knowledge Circulation*, edited by Wiebke Keim and Leandro Rodriguez Medina. Abingdon, Oxon ; New York, NY: Routledge. <u>https://zenodo.org/record/8339087</u>.

Okune, Angela, and Leonida Mutuku. 2023. "Becoming an African Techpreneur: Geopolitics of Investments in 'Local' Kenyan Entrepreneurship." Engaging Science, Technology, and Society 9 (1). <u>https://doi.org/10.17351/ests2023.1095</u>.