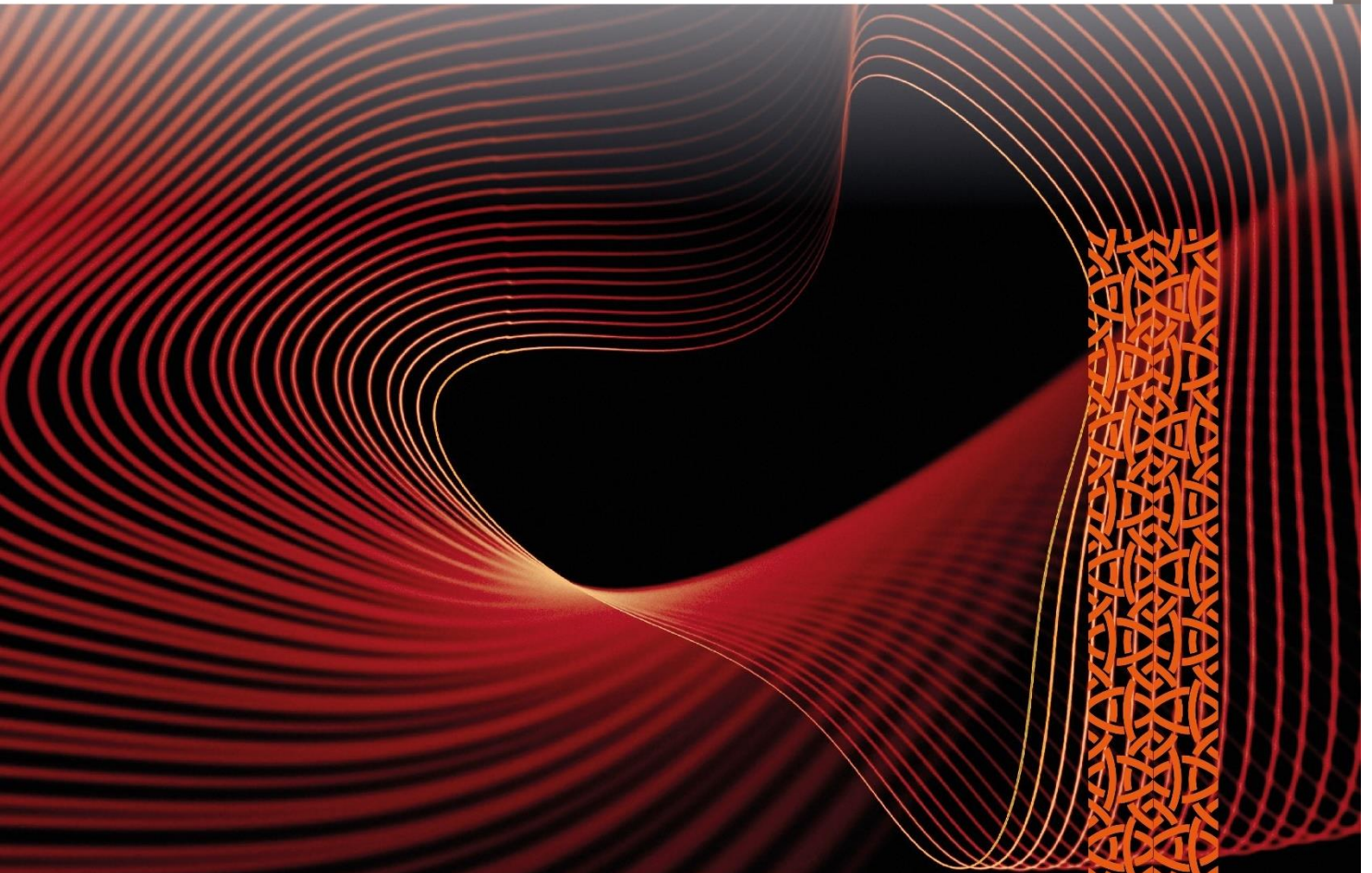


URBAN DOMAIN

Scaling Digital Hubs Across Informal Settlements in Kenya: Social Surveys and Cocreation

September 2024

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ACKNOWLEDGEMENT

This policy paper highlights and discusses the step-by-step guidelines that could be used to co-design digital hubs in informal settlements in Kenya. The guidelines are motivated by a study conducted in Mathare titled 'Co-creation of digital hubs in Mathare'.

Special appreciation goes to the following people for their enormous contribution to this policy brief: Alice Menya, Samuel Kiriro & Jan Fransen.

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CITATION

The suggested citation for this policy paper is:

Bosibori Barake, Stephen Nyagaya, Diana Mwau (2024). Scaling digital hubs across informal settlements in Kenya: Social surveys and Co-creation.

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Introduction

Inclusive digital hubs offer various opportunities to marginalized urban communities, especially those living in informal settlements. In Kenya, these advantages could include promoting entrepreneurship for small-scale traders, promoting digital literacy, providing access to government information and services, and enhancing free access to the internet and digital information. However, many digital hubs have failed to recognize the heterogeneity and diversity of informal settlement communities. Most hubs are often implemented to benefit the minority who have the capacity to access them. For example, developing digital hubs for formally employed citizens. The main challenge would be, therefore, to co-create inclusive digital hubs that address the needs of the various target groups in informal settlements.

This policy paper offers a step-by-step approach to co-create digital hubs in informal settlements, gain trust in the process and adjust their governance and activities to the local context. By standardizing this process, digital hubs can both be adjusted to local contexts and scaled across Nairobi.

Problem statement

The government recognizes that digital hubs in informal settlements should respond to specific local challenges and opportunities, which require diverse ways of working. This is because of the unique nature of challenges that face informal vis a vis formal areas. In addition to this, each informal settlement is different and the communities within are very heterogeneous and hard to reach. This therefore presents an additional layer of consideration in that each digital hub should adjust to their local context to be successful.

Current evaluations in supplying digital hubs often focus on output metrics such as the level of connectivity of the infrastructure itself or the number of government facilities connected, but they overlook the broader social effects and community perceptions. This is understandable from a service delivery perspective in the sense that the Information Communication Technology Authority (ICTA) wants to scale connectivity in a cost-efficient manner. However, this gap in social data hampers the ability of policymakers, government, communities, and other stakeholders to make informed decisions about how to enhance the relevance and effectiveness of these hubs.

Objectives of the brief

This policy brief aims to meet the following objectives:

- Demonstrate the need for incorporating social surveys and cocreation methodologies in establishing digital hubs for informal settlements in Kenya.
- Explore a step-by-step process that could be followed in establishing the digital hubs

The social survey processes

This section will detail a step-by-step participatory methodology in conducting social surveys for developing digital hubs in informal settlements.

Step 1: Pre-survey

a. Evaluating the context-relevant documentation

This should be conducted by reviewing the relevant documentation to describe the policy or legal dynamics for implementing digital hubs in specific local contexts. The review serves two main purposes i.e., understanding digital hubs and contextualizing the digital environment.

b. Stakeholder meetings

It is vital for the proponents to meet with the leaders and stakeholders from the community, government and other civil society organizations to; (a) introduce the survey objectives and secure a buy-in from local influencers and organizations (b) understand the local context by discussing community perceptions and expectations regarding the digital hubs to tailor the survey instruments accordingly (c) identify the potential barriers to successful survey implementation and explore opportunities for collaboration and to (d) incorporate the initial feedback to ensure that the survey tools and methods are culturally and contextually appropriate.

c. Assessing the internet infrastructure

A comprehensive mapping of the digital infrastructure is essential to assess the current state and capacity of both soft and hard digital resources in the area. This includes:

- Digital Skills and Education Providers
- Institutions
- Digital Devices and Tools
- Internet Connectivity

d. Identifying the target groups and their needs

An assessment should be done in informal settlements to identify how different demographics access internet, digital information and services. We refer to these groupings as target groups. These groups may vary depending on the area and should be reviewed periodically during surveys to reflect evolving community dynamics. Some of the factors used to identify the target groups include age, gender, level of education, income levels, the type or nature of occupation. The figure below shows an example of some of the target groups that are likely to consist of an area:



Figure 1: Sample target groups

Source: Author

It is important to note that each of these target groups could have differing needs and services from the digital hub. The services will additionally range from digital to non-digital and other hub services as well.

Step 2: Community co-creation methods

a. In-depth interviews

This method explores respondents' viewpoints, experiences, feelings, and perspectives regarding digital issues in the area. Interview respondents should be selected from the target groups, with the goal of capturing diverse insights. The Interview guide includes questions on socio-economic indicators, digital exclusion, associations with social and spatial exclusion, digital needs and wishes, employment opportunities, and digital training needs.

Researchers identify and select interview participants using purposive sampling, guided by the target groups identified. The interview participants should be conducted to schedule interviews based on their availability within the timeline outlined in the study work plan. Before commencing the actual fieldwork, a pilot of the interview tools should be done to assess the suitability of the questions and the overall research applicability. This pilot phase allows researchers to refine the interview guide by addressing any emerging issues.

b. Co-creation workshops

The workshops are designed to facilitate discussions among the stakeholders and community members to share insight on the development of digital hubs. Interactive activities should be used

to facilitate equal contribution from all members. Three key workshops will take place under this step: community Cocreation workshop, community validation workshop and cross city cocreation workshop.

i. Community Co-creation workshop

The co-creation workshop is designed to bring together a diverse group of participants, including community members, in-depth interview respondents, researchers, community leaders and representatives from ICTA. The workshop’s main aim is to co-create a model of a digital hub beyond the physical aspects and explore the social aspects of operationalizing a digital hub in the settlement. The main outcomes of the cocreation workshop process should be to agree on the services and functions of the hub and to discuss the governance and sustainability of the hub as detailed below:

Services and activities of the hub

The community members and stakeholders should co-design hub activities and services addressing the needs of the target groups. The community can choose from a wide range of services. However, a decision has to be made on the primary role of the digital hub. As observed from other digital hubs in Kenya, they can perform up to three types of services. They include the following;

- ✓ Government services are exemplified by Huduma Centres. Such services include registration of births, deaths, migrations, examinations etc.
- ✓ Employment services such as looking for work online, job applications, online work etc.
- ✓ Business training services including social enterprise training, online business, street business etc.

Digital Services	Non-Digital Functions	Other services
Training on employment & business development Access to digital information Community services and info sharing Digital literacy training E-governance	Awareness creation & community development Sport and social events Coaching on employment and business development	Digital Repositories Library

Governance and management of the digital hub

Informal settlements in Kenya often present complex governance systems due to multifaceted challenges they experience. Occasionally, imposed governance systems become unsustainable when they fail to recognize the needs of the community. Therefore, we propose a co-creation of a

governance model which comprises of the community, the state and private sector actors to ensure effectiveness and sustainability of the hubs. A partnership model which integrates the needs of the community with the government regulations should be proposed. To do this, the model could integrate leadership from local administration, local organizations, institutions and various community interest groups to enhance collaborative and productive governance.

Communities should also recognize and appreciate the government's role in the management and sustainability of the hub. Taking an example from other governance models such as the Kamukunji Community Resource Centre in Eastleigh, Nairobi, ICTA could appropriate government programs like *Ajira Digital*¹ to provide training on digital services in the hubs.

Facilitative leadership ensures that services designed for the hub continually adjust to society's changing needs and dynamics. The systems used (such as the IT software and curriculum) should also be continually updated to meet the community's changing demands.

The leadership model developed should allow hubs for participation by leaders from the different interest groups in the community. While the government might be heavily involved in the hub's initial stages, especially during establishment, key decisions for its management and operation will be leveraged by leaders from the community.

Financial sustainability

Many hubs fail because they are unable to attract finances for sustainability. The National Government Constituency Development Fund (Amendment) Act, 2023, states that constituencies are permitted to allocate 3% of their annual allocation to cover for the payment of recurrent utilities costs and maintenance of digital hubs.

However, digital community centers should not only rely on the government but also attract funding from other sources, such as donations from the community, NGOs, the private sector, or big tech companies including Meta, Safaricom etc. These entities may play different roles based on their interests including funding the establishment of the hubs, paying ICT and support staff, waiving fees for the trainees or paying monthly recurrent bills.

ii. Community Validation workshop

The aim of the Community Validation Workshop is to discuss the study findings with community members, ensuring that their views and opinions gathered during interviews and co-creation workshops are accurately represented. This workshop involves only community members and the research team. The validation process confirms the community's digital needs, priorities, and their preferred multi-purpose digital hub model.

¹ Ajira Digital Program aims to boost youth employment through online job opportunities. <https://ajiradigital.go.ke/#/about-ajira-program>

iii. Cross-City Co-creation Workshop

This workshop is a culmination of all activities conducted throughout the process, functioning as both a co-creation and validation event for the proposed digital hub designs. The main aim of this workshop with a broad range of stakeholders is to appraise the co-created digital hub model and explore its replicability to another informal settlement. Participants should include representatives from ICTA, Nairobi City County government, community leaders, community digital hubs, internet service providers, platform providers, CBOs, government digital programs (e.g., Ajira), local administration, and private digital infrastructure providers.

Key activities in this workshop are offering an appraisal of the model through a SWOT analysis and giving recommendations on the adaptability of the model in other informal settlements and assessment the stakeholder power dynamics to aid in implementation, management, and sustainability planning.

Recognizing that it is not enough to merely develop and implement a study with potential benefits to the community, this workshop marks the first step in disseminating the findings within the community. The goal is to foster necessary changes and share knowledge that can drive further investigation and the establishment of additional hubs.

Step 3: Dissemination and Lobbying

This is a very crucial step in realizing the establishment of the digital hub and needs to be taking place concurrently with steps 1 and 2 above. Co-creation and participatory methodologies need to be inclusive and collaborative in every aspect of the process, meaning that stakeholders are constantly updated and consulted through the development stages. This is important as it also creates room for lobbying or fundraising for setting up the hub. The key player in establishing hubs, ICTA, has the capacity to lay the internet cables and do the connectivity, but communities need to lobby with their local area representatives to be able to meet the other physical and social needs of the members.

Call to action

A key challenge to developing digital community hubs in informal settlements is acceptance, which is highly associated with trust issues. In informal settlements with complex land rights, where utility gangs control access to services, various actors have profit-driven gains, and government entities discriminate against community groups, the key concern would be building trust across all the social groups and entities to increase the acceptance of the hubs.

To increase trust and acceptance for digital hubs in informal settlements, we propose that proponents follow the guidelines below;

- Conduct democratic and transparent public participation with the community and different interest groups.
- Recruiting the hub managers and trainers from the community.
- Leverage ownership and decision-making to the local (community) leadership.
- The hubs work closely with the CBOs and other community-driven groups to offer digital or non-digital training services.
- Offering exceptional services to special target groups such as people living with disabilities.
- Establishing hubs in public places such as those owned by the community or the government.