URBAN DOMAIN

Digital hub for Mathare proposal

A proposal submitted to
The Information and Communication Technology Authority (ICTA), Kenya

September 2024

By Samuel Kiriro, Bosibori Barake, Alice Menya, Stephen Nyagaya & Dr. Jan Fransen.

Erasmus Initiative
Vital Cities and Citizens

GHETTO FOUNDATION

NUVONI RESEARCH

ACKNOWLEDGEMENT

This proposal forms part of the output of research activities, including surveys, co-creations, and community engagement activities conducted in Mathare. The research, dubbed 'Co-creation of digital hubs in Mathare', was funded by Erasmus Trust Funds and undertaken by Nuvoni Centre for Innovation Research in collaboration with Ghetto Foundation.

We acknowledge the support from Vital Cities and Citizens (VCC) of Erasmus University Rotterdam (EUR). Special gratitude goes to ICT Authority staff members, including Director Thomas Odhiambo, Ms Elizabeth Njeri, and Mr Reuben Muthusi, for ensuring that the proposal aligns with ICTA regulations.

AUTHORS

Samuel Kiriro, Bosibori Barake, Alice Menya, Stephen Nyagaya, Dr. Jan Fransen**.**

CITATION

The suggested citation for this policy paper is:

Samuel Kiriro, Bosibori Barake, Alice Menya, Stephen Nyagaya, Jan Fransen, (2024). Digital hubs proposal for Mathare, Nairobi.

Contents

1 Introduction 3
1.1. Background 3
1.2. Rationale 3
1.3. Objectives of the proposal 4
2 Mathare Community Digital Hub 5
2.1. Digital challenges and needs 5
2.2. Principles of establishing digital community hubs 6
2.3. Proposed Location 6
2.4. Target Groups 9
2.5. Proposed Digital Hub Services 12
2.5.1. Digital Services 12
2.5.2. Non-digital services 13
2.5.3. Attracting informal settlers 14
2.6. Proposed Hub Facilities 14
2.7. Governance and Management 17
2.7.1. Organizational structure 17
2.7.2. Capacity building and training 18
2.8. Monitoring and evaluation 18
2.9. Finances 19
2.9.1. Funding sources 19
2.9.2. Revenue generation models 19
3 Conclusion 21
3.1. Summary of the proposal 21
3.2. Digital community of practice 22
3.3. Call to action 22
Appendices 23
Questionnaires 23
Analysis table 25

1 Introduction

1.1. Background

Information Communication Technology (ICT) has been hailed for its ability to transform cities. Global institutions, governments and scholars discuss the potential of using ICT in creating employment, increasing social capital, and providing reliable infrastructure and basic services. However, this potential is counteracted by digital, spatial and social exclusion in cities. These exclusions are expressed by the concept of digital divide where a gap exists between the haves and haves not in terms of access to and use of different forms of information and communication technology. In Kenyan cities, these forms of exclusion are evident in informal settlements where residents have poor access to information, infrastructure and services. In Mathare Informal Settlement in Nairobi, the exclusion is evidenced by the limited access to digital devices, limited access to affordable and reliable internet options, low digital literacy levels, and inadequate digital spaces for working and other livelihood opportunities. Our studies show that some digital platforms are nevertheless widely used and misused in Mathare, impacting on the quality of life. Other platforms are hardly used at all.

Cities use various efforts to address unequal digital access and availability. 'Digital hubs' also known as 'telecentres' or 'community learning centres' (CLC) are places where the community can access internet and get other digital services. These spaces are mostly used to offer innovation support and access to technical expertise in enterprise development. In addition to internet-related services, they are also used to foster community and personal development.

This proposal provides a comprehensive description of the form and design that digital hubs should adopt in Mathare informal settlement. The case is built following a critical analysis of the findings of the study on "Digital employment and training centres in informal in settlements' piloted in Mathare. A study interviewing 46 residents in Mathare in 2021 mapped digital needs, while the above study interviewed 32 residents and local leaders, engaged in two co-creation workshops and interviewed officials from the Information Communication Technology Authority (ICTA). The proposal represents a doable compromise between the needs and demands of residents and the possible support ICTA can offer. Processes of co-creation aimed for community and political buy-in.

1.2. Rationale

The Kenya Vision 2030 recognizes the role of ICT as critical in boosting wealth creation and enhancing social welfare to the citizens. In line with this, the Kenya Digital Masterplan 2022-2032 by the Information Communication Technology Authority (ICTA) rolls out a nation-wide strategy for ICT development. In its four pillars, the plan targets to provide digital infrastructure across the country, connect every citizen to the e-government platform, develop and enhance digital skills

among its citizens, and enhance digital innovation and enterprise development. One of the key flagship programmes of the plan is the establishment of 1450 village digital hubs across all wards in the country.

The Masterplan sets out a pervasive and ubiquitous concept in implementing these digital infrastructures. This document goes deeper by proposing context-specific plans and designs that address the socio-economic and digital challenges of marginalized urban communities, especially those living in informal settlements. Informal settlements in Kenya present multidimensional developmental challenges due to their unplanned nature and insecure land tenure. They face socio-economic issues conditioned by poverty, limited access to quality education, poor access to health services, and basic infrastructure services. In addition, governance in informal settlements is characterized by complexities due to the overlapping and often conflicting stakeholders' interests, the lack of formal recognition and regulation, and the socio-economic challenges faced by residents, worsening off the provision and access to infrastructure. Recognizing these challenges, this proposal presents a community digital hub model that has been co-created through a collaborative and bottom-up approach with the community in Mathare informal settlement and other key stakeholders including local administration, CBOs, subcounty administration among others in consultation with ICTA. The delivery of this model could potentially be replicated in other informal settlements to foster inclusion of the urban poor on the government agenda.

1.3. Objectives of the proposal

2. The aim of this proposal is to present a context-specific proposal for the design and governance of digital community hubs in Mathare. The specific objectives include the following:
3. To describe the digital challenges and needs of communities living in Mathare informal settlement.
4. To propose a model (process and output) that community digital hubs should imitate.
5. To propose a governance structure for community digital hubs in informal settlements.

2 Mathare Community Digital Hub

2.1. Digital challenges and needs

Development actors have designed more than 100 digital platforms for marginalized communities in Kenya. These specialized platforms aim to address health and safety concerns; to access livelihood strategies such as online work, accessing credits, and savings; to access utilities and basic services such as water and electricity; and to access learning and education platforms (Van Tuijl et al., 2024). However, our studies show that these specialized platforms are hardly used at all. Instead, residents in Mathare widely use free and easily accessible social media such as WhatsApp, Facebook and YouTube and fintech platforms such as MPESA. These platforms are creatively used on (old) mobile phones. The most impoverished people use dumb phones to borrow money and receive gifts. Residents living around the poverty line use digital platforms to obtain micro credit, do gig-work, warn people about fires and crimes, market products, look for work or new clients, buy products at a low cost, compare prices, and learn new skills. Advanced digital tools are used by higher educated, somewhat larger firms, community health workers, community-based organizations, and NGOs. We did not find any special use of digital platforms for people with disabilities. Digital platforms also have negative effects, leading to credit traps, Labor exploitation, and digital crime (Fransen et al., 2024).

The uptake and use of more advanced digital platforms (fintech, health, utility) are constrained by the socio-economic and digital factors present. We note that designing digital platforms alone will not alleviate the digital challenges faced by the urban poor, as their access are continually constrained by high taxes, sporadic electricity supply, limited access to finance and high levels of crime. In Mathare, access to these digital platforms is constrained by the following factors.

- Digital illiteracy by the target users
- Limited access to digital devices and technologies
- High internet costs and limited access to fast and reliable internet
- Limited access to government services such as *e-citizen* platform
- Lack of knowledge on online gig platforms
- Limited knowledge on digital marketing, entrepreneurship, work and content creation.
- Limited practical education on digitalization in schools and early learning centres.
- Limited access to (digital) workspaces.
- Low awareness and capacity on digitalization.

These factors not only exclude the informal dwellers from digital information, but also exacerbates socio-spatial exclusion, further deepening their vulnerability. We, therefore, recognize the challenges and complexities of informal settlements and thus propose a collaborative pathway to

delivering digital hubs in informal settlements through a social design process with the community and other stakeholders.

2.2. Principles of establishing digital community hubs

By triangulating data from literature, cocreation workshops and interviews we identify the following principles. These principles are key for community buy-in.

Guiding Principle	Application
Participatory democracy	The digital hubs should be designed through public participation and citizen engagement to fit into the community's needs.
Stakeholder engagement	Engaging the key stakeholders in the cocreation and governance of digital hubs.
Inclusivity and equality	Including the marginalized groups in co-creation activities to ensure that their needs are integrated into the design.
Localized governance	Governance and management by the community to enhance accountability and participation.
Social cohesion	Bringing the community together to create a sense of unity and shared purpose.
Transparency and accountability	Maintain openness about the processes, roles and responsibilities of the stakeholders to build on trust.
Community of learning	Enhancing continuous learning and knowledge exchange within the community.

Table 1: principles of establishing digital hubs

Source: Author

2.3. Proposed Location

The proposed locations for the establishment of community digital hubs in Mathare were identified through a series of co-creation activities as shown below.

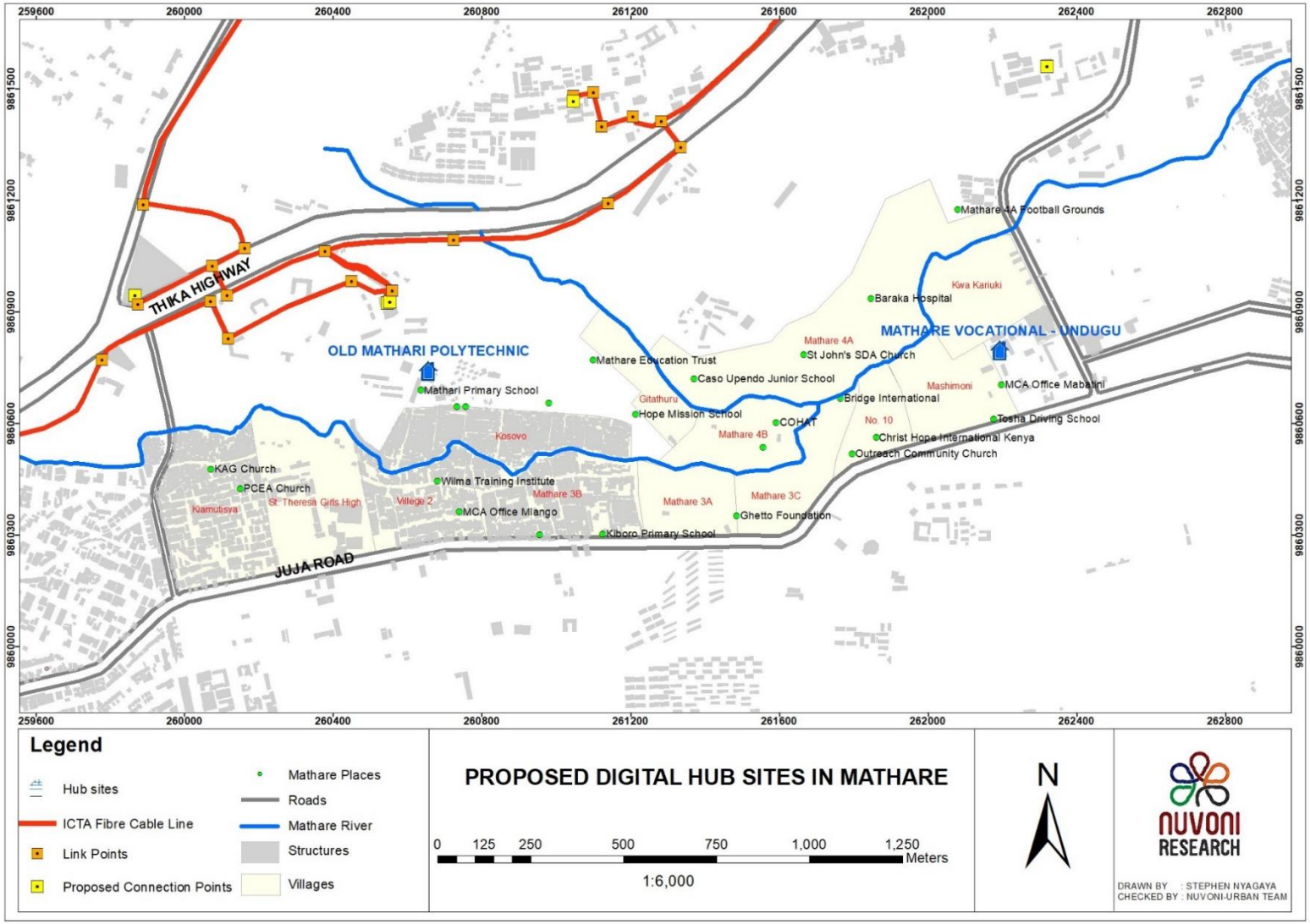
Co-creation workshops: We held two co-creation workshops with the Mathare community. In the first co-creation workshop which was conducted in 2023, the community identified four potential sites for the establishment of the hubs. In the second co-creation workshop conducted in 2024, the community prioritized two sites that could host the hubs.

Collaboration with ICTA: Throughout the process, we collaborated with officials from ICTA to identify the minimum requirements for establishing digital hubs.

Site survey: We conducted a site survey of the four selected sites to determine their suitability for hosting the hubs. This survey was done with community leaders, officials from ICTA, and people in charge of the selected sites.

At this moment of time, two digital hubs are viable. In the longer term, more digital hubs are recommended in a settlement as large as Mathare,

The community settled on two sites being (1) **Old Mathari Vocational and Training Centre** (2) **Mathare Vocational and Training Centre** formerly known as **Undugu Society**. The sites were selected after a rigorous discussion between the community and ICTA officials. The map below indicates the proposed locations for the establishment of the hubs in Mathare.



Map 1: Selected sites *Source: Author*

The minimum ICTA requirements considered when establishing the digital hubs include the following.

- Proximity to the ICTA internet cable
- Availability of stable electricity supply
- Secure land tenure
- Accessibility
- Existing facilities such as buildings
- Security

The justification for selecting the two sites include the following.

Mathare Vocational and Training Centre	Old Mathari Polytechnic
• Managed by the county government. • Teach ICT up to craft level. • They provide short courses in ICT. • Two private entities offering ICT on the premises. • The center has 3 unoccupied halls that could be easily converted to ICT hubs.	• Managed by the county government. • It occupies one building containing 7 sizeable rooms (some unoccupied) • They offer training in plumbing, electrical, decoration, etc. • Adequate infrastructure i.e., stable electricity, enough furniture, spacious rooms, PWD-enabled facilities, and water supply. • Training is free, apart from the Ksh. 500 registration fees. • Self-sustenance-pay their own water and electricity bills.

Table 2: Justification for the two sites

Source: Author

The two proposed sites host existing facilities and activities that are compatible with community digital hubs, are acceptable by all stakeholders and doable on a reasonably short period of time.

2.4. Target Groups

Seven target groups were identified from the co-creation workshops. These are population groups who are hit hard by the digital exclusion in Mathare. These groups were four people representing the youth and artist, five people representing small and medium business owners, three people representing the elderly, four people representing household heads, four people living with disabilities, three people representing households, and seven people representing local administrators, community health promoters (CHPs) and community-based organizations (CBOs).

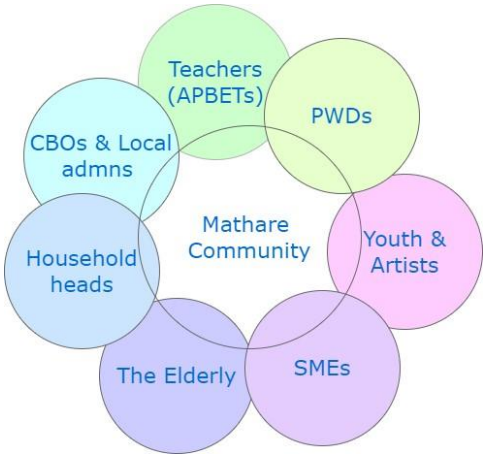


Figure 1: Target groups

Source: Author

Some of these groups are very diverse. The youth is such a wide target group, whereby digitalization can especially offer youth digital livelihood means and keep them away from crime and drugs. School children also require better digital access. Household heads range from the poorest of the poor, which are often female headed households, to households above the poverty line. They therefore have varied needs. For people with disabilities, digital platforms can be life changing; an opportunity which is hardly explored within Mathare. Also, SME's, which are often informal and operating from a house or on the street, can benefit from better use of digital platforms.

The following are the digital needs identified for each target group.

Target groups	Internet + access to computers	Electricity	Literacy training	e-citizen/ govt info	online jobs	e-marketing	employment services	Awareness (self-learning)	e-news/ info	library	Video(photo)graphy	Social media training
School teachers	x	x	for youth	x	for youth		for youth	x	x	x		
Youth and artists	x		X		x	x	x	x				
Household heads	x		X		x	x	x					
SMEs	x		x+ advanced	x	x	x (ICT consultancy)		x			x	
Elderly	x		X	x	x		x		x			
CBOs/ local admin	x		x+ advanced		for youth	x	for youth	x	x			x
PWDs	x			x								

Table 3: Digital needs *Source: Author*

The summary of the digital needs includes the following.

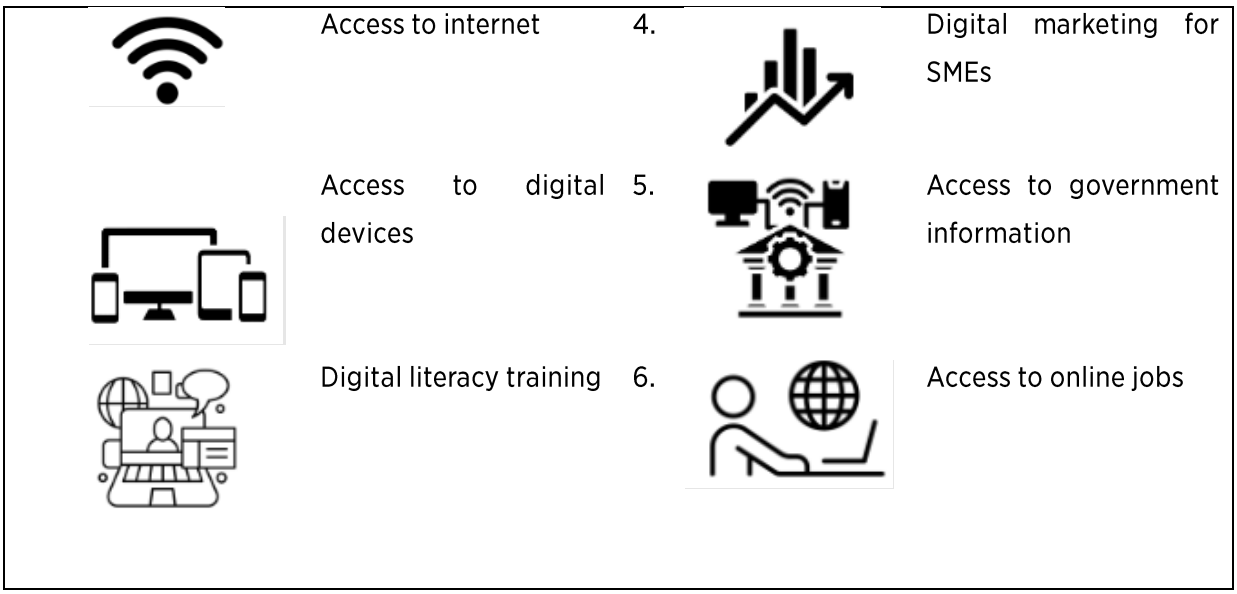


Figure 2: Digital hub facilities and equipment

Source: Author

2.5. Proposed Digital Hub Services

Livelihood challenges in informal settlements cannot be addressed by digital hubs alone. For instance, keeping the youth away from crime and drugs requires an integrated approach, whereby for instance gig work can offer an interesting digital employment opportunity. It however requires integrating digital and non-digital services offered by the hub and other actors.

2.5.1. Digital Services

Proposed digital services to address the needs of the multiple target groups are as follows:

Basic and advanced digital literacy training

We recommend the hub to provide basic literacy training that includes handling digital devices, accessing the internet, and using basic operation software such as the Microsoft package. Some training courses can specifically target the use of smart phones, as these are most widely used. Advanced training should be tailored to cyber security, data management, repairs and troubleshooting. Key risks, such as credit traps, can be addressed in all courses.

Training and online employment services

These services target people who have started and/or want to start an (informal) business or job. This may range from looking for work online, to doing gid (online, repetitive) jobs to better e-marketing for a micro firm.

- How to find work online
- Gig work
- Digital marketing for micro and small enterprises
- Digital platforms for business and employment services
- Start and improve your own business digitally.

Community services and information

- Sharing information on Mathare for awareness creation.
- Sharing information on government and employment programs
- Sharing news and general information
- Digital support services for chiefs, CBOs and NGOs

E-governance: Providing access to the government platforms such as e-citizen.

Specialized services such as filming, photography, or music production.

Cyber café and free internet to offer wider access to computers and attract a wider target group,

2.5.2. Non-digital services

Besides digital services, it is proposed that the hub be designed as a public space that plays an essential role in the social and cultural life of communities. They should incorporate - non-digital services relating to employment, health, sports, and wellbeing and community engagement to foster community development, social interaction and cohesion.

The services are grouped into three categories.

Awareness creation and community development

- Civic education
- Training on health and wellbeing
- Advocacy and activism
- Mentorship and counselling programs
- Youth empowerment

Sports and social events

- Hosting cultural events
- Indoor and outdoor games
- Community meetings

Coaching on employment and business development

- Entrepreneurship and financial management
- Training on music production

2.5.3. Attracting informal settlers

A core challenge in informal settlements is to attract the right target groups. As many informal settlers' mistrust government, they may be unwilling to enter a formal digital hub. We offer the following recommendations:

I. Conducting a democratic and transparent public participation with the residents and interest groups.
II. Recruit hub managers and trainers from within the community.
III. Hub managers and trainers to work closely with local organisations, such as CBOs and the church. Their services can be integrated, whereby say the youth supported by CBOs are digitally trained and entrepreneurs are digitally trained and non-digitally coached in setting up a business.
IV. We recommend offering special events for target groups.
V. We recommend constant monitoring and evaluations, enabling a constant readjustment of services to ever changing needs.
VI. Other recommendations are given in the next sections.

2.6. Proposed Hub Facilities

We propose a hybrid model, combining services within and outside a physical hub to attract varied target groups. Having a physical space is important to become visible, but such a level of formalization may set it apart in an informal settlement. Additional activities outside this formal boundary opens up the space.

The hub facilities discussions included the physical type and design of buildings in considering the services proposed in the section above. The building type is proposed as follows:

- A permanent story- building with a maximum of 4 floors.
- A well partitioned building to serve different functions including the training area, offices, working area, server rooms, study area, administration rooms and sanitation facilities. The figure below shows a simple floor layout plan.
- The building and the rooms should be easily accessible to all groups of people including people living with disabilities (PWDs).
- The challenge is to design buildings which offer security to prevent theft and crime, yet function as friendly, open and easily accessible community facilities.

Figure 3: A community digital hub typology

Source: Author

Some of the facilities and equipment suggested for use included:

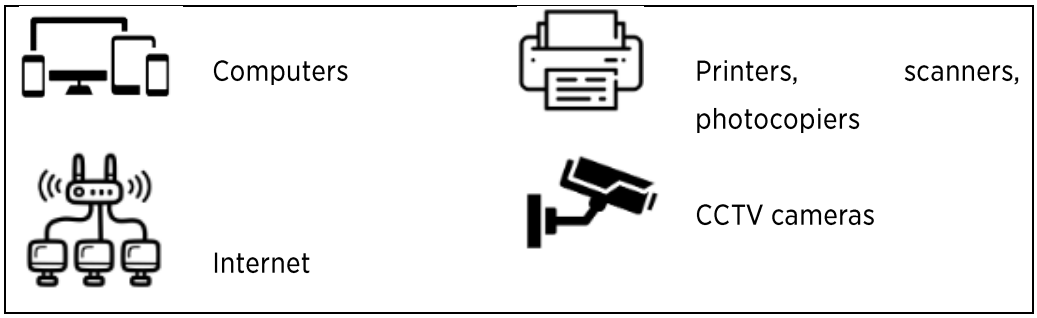


Figure 4: Digital hub facilities and equipment

Source: Author

The digital hub should also have facilities that encourage social, recreation and income-generating activities as shown below.

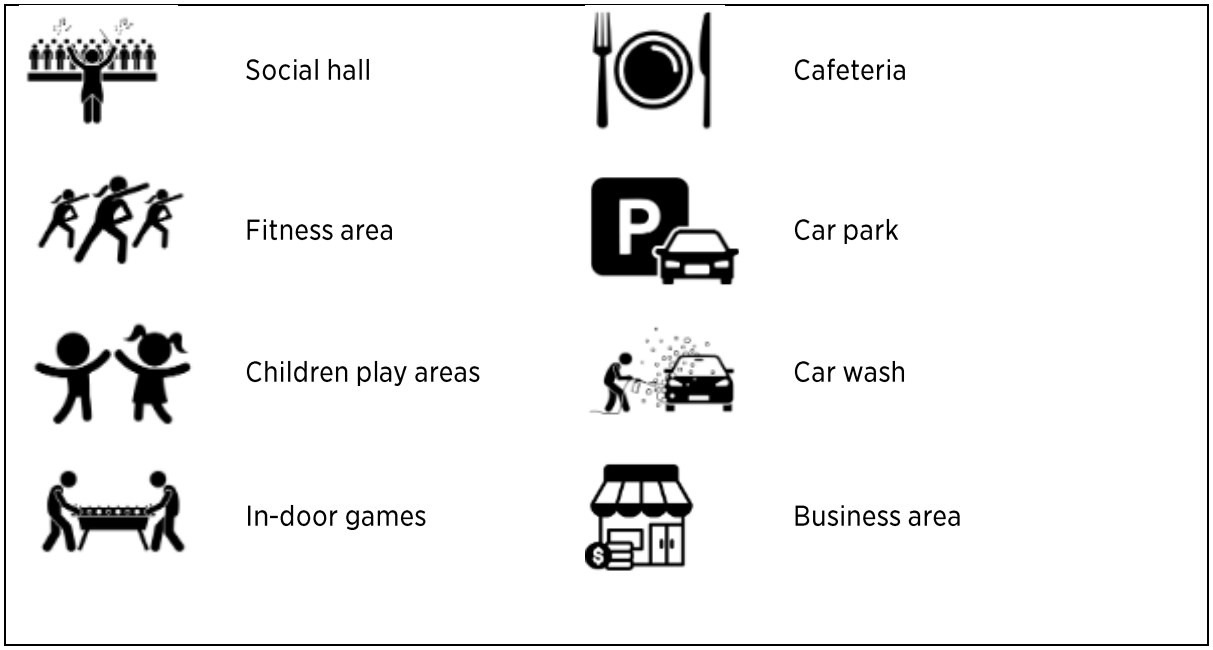


Figure 5: Digital hub facilities

Source: Author

2.7. Governance and Management

2.7.1. Organizational structure

We propose a partnership model, which crosses the boundary between government regulations ands procedures and the daily realities in informal settlements.

The role of the government would be to oversee the management and operations of the hub, while the community would offer management functions. As the community is heterogeneous, we propose a cross section of the various interest groups. This also enables the integration of digital and non-digital services within the hub, as well as collaboration between the hub and other initiatives in Mathare.

A board of management comprising of two committees, i.e., an administration committee and an ICT committee.

2.7.1.1. **Administration committee**

The administration committee should be composed of representatives from community-based organizations (CBOs), non-governmental organizations (NGOs), local chiefs, Nyumba Kumi, the MPs office, the youth, women and the elderly.

They would oversee the day-to-day management and operations of the hub as well as cooperation with other actors. Each member of the committee would be tasked with distinct roles and responsibilities.

2.7.1.2. **Technical Committee**

This committee would consist of individuals who manage the technical operations of the hub which include course development, coordination of training, managing content, partnerships and hiring qualified personnel. Figure 3 below shows the proposed governance structure.

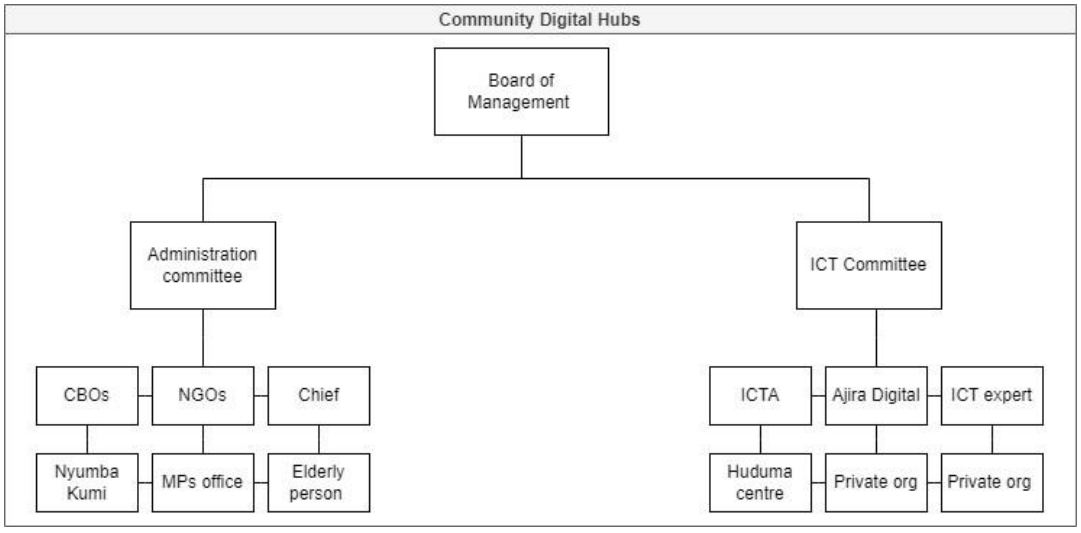


Figure 6: Proposed governance structure *Source: Author*

2.7.1.3. Leadership and staffing plan

A chairperson and a secretary should be selected to head the administration committee. The chair would serve as the community manager for the hub. Besides, the activities of the hub should be operated by IT experts with priority given to IT experts within the community. Unskilled workers should be community members.

1.7.1.4. Management policies

II. Resource utilization should be closely monitored through audits to ensure accountability.
III. Creating a term in office for the officials such as the trainers of the hub.
IV. Ensuring that the platforms being used are secure from cyberthreats including regular security audits and updates.
V. Ensure diversity and inclusivity of the trainers and people enrolled as trainees.
VI. Maintain privacy in decision making processes and have clear communication strategies to the community.
VII. Develop clear conflict resolution policies such as mediation practices.
VIII. Employ people trusted by the community, with preference for people from within Mathare.

2.7.2. Capacity building and training

The following strategies should be used to continuously ensure adequate capacity for activities at the hub.

I. Conduct regular needs assessment to assess the knowledge and skills of the trainers.
II. Continuously engage with the community through feedback mechanisms to understand their expectations and needs.
III. Develop a well-structured curriculum that covers the needs of the community.
IV. Develop interactive pedagogy by mixing different learning methods.
V. Offer continuous professional development (CPD) as refresher courses and updates on new technologies.
VI. Create a feedback mechanism for the trainers.
VII. Develop a reward scheme for trainers.

2.8. Monitoring and evaluation

- Developing a strategic plan that sets the aim, mission and vision of the hub.
- Developing a yearly plan that sets the KPIs.
- Develop and implement feedback mechanisms from the trainers and the trainees.
- Analyse data to identify the trends and develop reports that highlight the progress towards the objectives.

2.9. Finances

2.9.1. Funding sources

The main funding sources for the facility's establishment would be from ICT Authority, Constituency Development Fund (CDF), and fundraising by the community members and other local organizations.

ICTA would facilitate the establishment of the hub by providing internet connectivity, digital devices such as computers, and taking care of repairs.

2.9.2. Revenue generation models

Many hubs fail because they are unable to attract finances for sustainability. Mathare digital community centre should not only rely on the government but also attract funding from other sources, such as the community, donors, NGOs, the private sector, etc.

The main sources of funding for the Mathare hubs include the government agency in charge of ICT (ICT Authority), the Constituency Development Fund (CDF), donations from other local and international actors, and fundraising from the community. In addition, the hub users would pay subsidized fees to cover the bills and services.

The following matrix summarizes the proposed funding model for the Mathare hubs

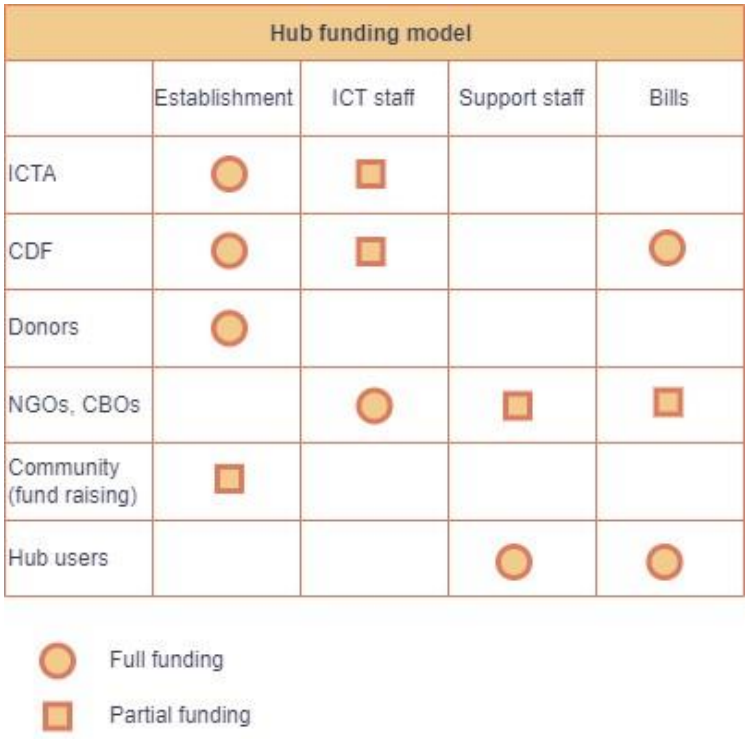


Figure 7: the proposed funding model for the Mathare hubs

Source: Author

We propose to introduce two revenue generation models to enable a larger number of activities and create ownership among users of services.

Pay-per-use model.

The consumers would pay for the services and activities at the hub. The main activities that would be paid for include digital and non-digital training, watching indoor games, browsing with the computers, and attending the library through a business-to-consumers model (B2C). The charges would be subsidized by the government.

The social spaces such as the halls would be hired out to organizations that wish to hold their meetings within the premises through a business-to-business model (B2B).

Subscription model

Users who wish to visit the facilities on frequent occasions would be allowed to subscribe for the services. Such services include visiting libraries, online employment, and attending routine training.

3 Conclusion

3.1. Summary of the proposal

This proposal discusses the digital and non-digital needs of the Mathare community and presents a model highlighting the services, facilities, and governance of the Mathare digital community hubs. It also presents two locations that have been selected as the potential sites for the establishment of the hubs. The process of developing the proposal was preceded by a series of activities including a technical survey to identify the suitability of the potential locations, and a social survey comprising of interviews with target groups and co-creation workshops in coming up with social design of the digital hub.

The proposal comes at a time when the country is experiencing a fast rate of digitalization, especially in its cities. It also aligns with the government initiative to implement 1450 digital village hubs in all wards in Kenya. The key benefits outlined in coming up with this proposal include the following.

- It fosters the inclusion of the urban poor into the government's digital agenda.
- It offers public participation of the urban marginalized communities into the government programs.
- It tailor-makes facilities and services that could address the digital needs of people living in informal settlements.
- It fast-tracks the implementation of digital community hubs as part of the 1450 digital village hubs proposed by the government.
- It fosters synergies between the community, government, private sector and CSOs.

Appraisal of the Model: Potential Risks and Opportunities

The digital hub model in Mathare is associated with community buy-in, inclusion and willingness to embrace the facility. Stakeholders who appraised the model suggested that capitalizing on these strengths could involve activities such as scaling out the model to other areas. Sharing impact stories from this example to demonstrate its benefits to the communities and leveraging additional opportunities that may align with government priorities.

Despite the opportunities this model presents, the potential risks must be spotlighted and ways to minimize them suggested. One of the risks identified in relation to this model is its dependence on community goodwill, whereby questions around consistency and sustainability arose. Similarly, ICTA has been clear on its provisions towards a digital hub facility, leaving the physical infrastructure, equipment, and maintenance to be a role of the community or local leadership. This leaves room for political interference and competing interests which may threaten the hub's set up. Finally, it is important for the hub to create awareness and incentivize community members to make use of the hub and its services.

3.2. Digital community of practice

The hub potentially enhances the quality of life of the Mathare residents. However, digital training, capacity building and social cohesion activities should not only be limited to the hubs but spread across all the wards in the settlement. We therefore encourage activities outside the hub, aiming for a hybrid model with on and offsite activities. If successful, we encourage locating more digital hubs in Mathare.

AS discussed, improving livelihoods in Mathare requires the integration of digital and non-digital activities. We therefore strongly encourage the government, CBO's, NGOs and other developmental actors to collaborate with the hub, aiming for joint programs and initiatives to improve livelihood outcomes. These programs should include but not limited to the following.

- Youth employment and empowerment
- Business incubation programs
- Community dialogues and open discussions on most pressing issues
- Digital mapping and baseline surveys
- Digital literacy training workshop and free computer training for schools without digital devices.
- Cultural exhibitions and concerts
- Connection of internet to the public places

3.3. Call to action

This proposal is shared with ICT Authority (ICTA) of Kenya to discuss and implement the digital community hubs in Mathare. We also bring this to the attention of other government agencies, donors, multilateral organizations, non-governmental organizations, and ICT practitioners who play significant roles in digitalization of communities, to explore how the models presented here could be implemented and/or adapted in other informal settlements in Kenya.

Appendices

Questionnaires

DIGITAL EMPLOYMENT AND TRAINING CENTRES IN MATHARE

INTERVIEW GUIDE –Identified Target Groups respondents

Guidelines:

- Interviewer(s) introduces him/herself and thanks the interviewee for their cooperation.
- Introduce the study and explain the duration of interview (1.5-2 hours)
- Request for consent to record the interview using a voice recorder and/or take photographs.
- A consent form to be provided, duly filled and signed by the respondent before commencing the interview. The consent form authorizes the researcher to record the responses.
- Explain that the interview is an open discussion and assure interviewee of confidentiality and data protection

---

Note: Some sections can be filled in before the interview (e.g. village/ward, target group) and by observation (e.g., gender)

Part 1: General Information

Name of the interviewee *(Optional)* ..... Gender .....

Target Group ..... Age .....

Village ..... Ward .....

Mobile No. *(Optional)*..... Date .....

Name of Interviewer(s) ..... Time .....

- Profession/Job/Sources of income
- Average monthly income?
- Education level: *Primary/secondary/tertiary/certificate/diploma/degree/none*
- Any disability?

Part 2: Digital needs

- Do you use digital technologies (computers, printers, internet resources, social media etc.) in your work or daily life activities? How do you use digital technologies in your work and/or daily activities?
- For household heads- How many people in the household use digital technologies and the age group of users)
- How would you describe your digital skills and competencies? *(capacity to use digital technologies)*
- How can your digital skills be enhanced to boost performance of your work and/or daily activities, and improve your wellbeing?
- What are the challenges you experience while using digital technologies?

Part 3: Access to digital technologies and services

- What are your points of access to digital technologies and services? /where do you access digital technologies and services?
- How is the quality of internet connectivity/services at your points of access?
- How much do you spend per month on internet services?
- Would you consider the cost of internet access to be affordable or expensive? Why?
- What challenges do you encounter in accessing digital technologies and services?

Part 4: Proposals for digital hub model

NB: Explain the government's intention to set up digital hubs in all wards across the country

- What is your understanding of a digital hub? Have you ever been to a digital hub? Describe your experience, and the costs involved
- How would a digital hub in Mathare be useful in meeting your digital and non-digital needs?

Services:

- What types of services would you want offered in a digital hub in Mathare?
- What other activities would you want incorporated in the digital hub to enhance your socio-economic wellbeing?

Digital hub facilities

- What equipment and facilities would you want installed in the digital hub?
    - Building type
    - Equipment
    - Ancillary facilities
    - Any other?

Operations and Management

- Any recommendations on how the digital hub should be managed?
    - Who should manage the digital hub?
    - Staffing requirements
    - Sources of funding for the digital hub

Sustainability

- Any suggestions on how the digital hub can be made sustainable?
    - Any suggestions on self-sustaining strategies/activities?
    - Any suggestions on how the digital hub can continuously enhance quality of life of community members?

Part 5: Closing

- Do you have any questions or additional remarks?
- Can we contact you again if we have more questions? *(Request for contact information if not provided above)*

-Thank You-

Analysis table

	Access to			Services									Offline						
	Internet	Computer	Electricity	Literacy training	e-citizen/ gov.	online jobs	e-martketing	empl services	awareness	enews/ info	library	Videography/fo	Social medi traiing	Sport	Youth empow	civic educ	Entrepreneu	Fin mgt	Music proc	cultu
School teachers	x	x	x	for youth	x	for youth		for youth	x	x	x				x	x	x	x		
Youth and artists	x	x		x		x	x	x	x					x	x	x			x	x
Household heads	x	x		x		x	x	x							x	x				
SMEs	x	x		x+advanced	x	x	x (ICT consultancy)		x			x				x				x
Elderly	x	x		x	x	x		x		x										
CBOs/ local admin	x	x		x+ advanc		for youth	x	for youth	x	x			x	x		x				

	Facilities						Governance					
	Printers	Copying	Carwash	Playfield	Sport	Social hall	Comgt	Comm mgt	Pay for servic	Experts	Spaces for businesses	
School teachers	x	x	x	x			x		x	x		
Youth and artists					x		x					
Household heads								x	x			
SMEs						x		x	x	x		
Elderly			x			x		x				
CBOs/ local admin				x				x	x	x	x	

Services needed	1. Basic and advanced literacy training (incl cyber security)
	2. Online employment services: online jobs and ICT; emarketing; finding work online; onlie SMEs
	3. Community services and information: awareness,, info Mathare, news, comm meeting places
	4. e-Governance
	5. Offline services: employment coaching and financial management; community services
	6. Specialised support: mucis, film, ..
Mgt	Government oversees
	Community manages
	Income generating activities
	Govt subsidies
	Partial fees