GIRLS & WOMEN IN TECH ACCELERATOR (GWTA)

Empowering the Next Generation of Digital Ambassadors

Organization: Future Up Nations (FUN)

Location: Ilemela, Mwanza - Tanzania

Mentor: Erasto Mussa

TEAM MEMBERS

Elizabeth S. (Leader)
Sarah H.
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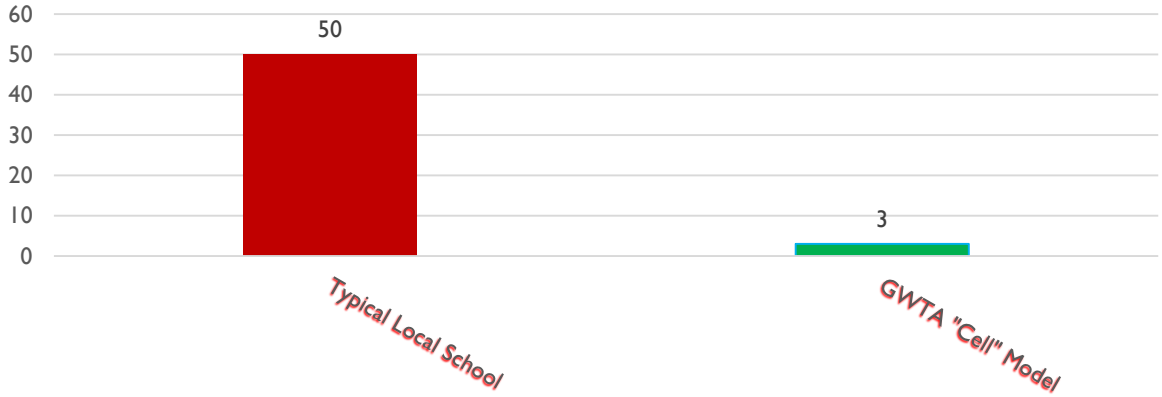
Magreth B.
Mwajabu S.

Big Idea: Digital Inclusion

Essential Question: How can we transform youth into "Digital Ambassadors" using a high-efficiency, low-resource model to bridge the digital divide in Mwanza?

Purpose: To prove that massive computer labs are not required for massive impact.

Students Per Device



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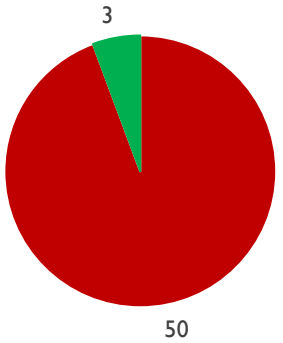


Investigation: Our research identified that high student-to-device ratios in Mwanza prevent hands-on digital literacy.

The Problem: Most local learners share one device among 50 students, leading to theoretical rather than practical learning

Our Solution: The GWTA "Cell" model uses a rotational system across three stations (Desktop, Laptop, iPad) to ensure a **3:1 ratio.**

Impact: This ensures every "Digital Ambassador" receives intensive, personalized mentorship to master future technologies.

INVESTIGATION & FINDINGS

Key Discovery: Equipment scarcity and high operational costs are the primary barriers to digital inclusion in Mwanza.

Methodology: Our team analyzed current resources at the FUN World Centre to create a model that scales without needing expensive infrastructure.

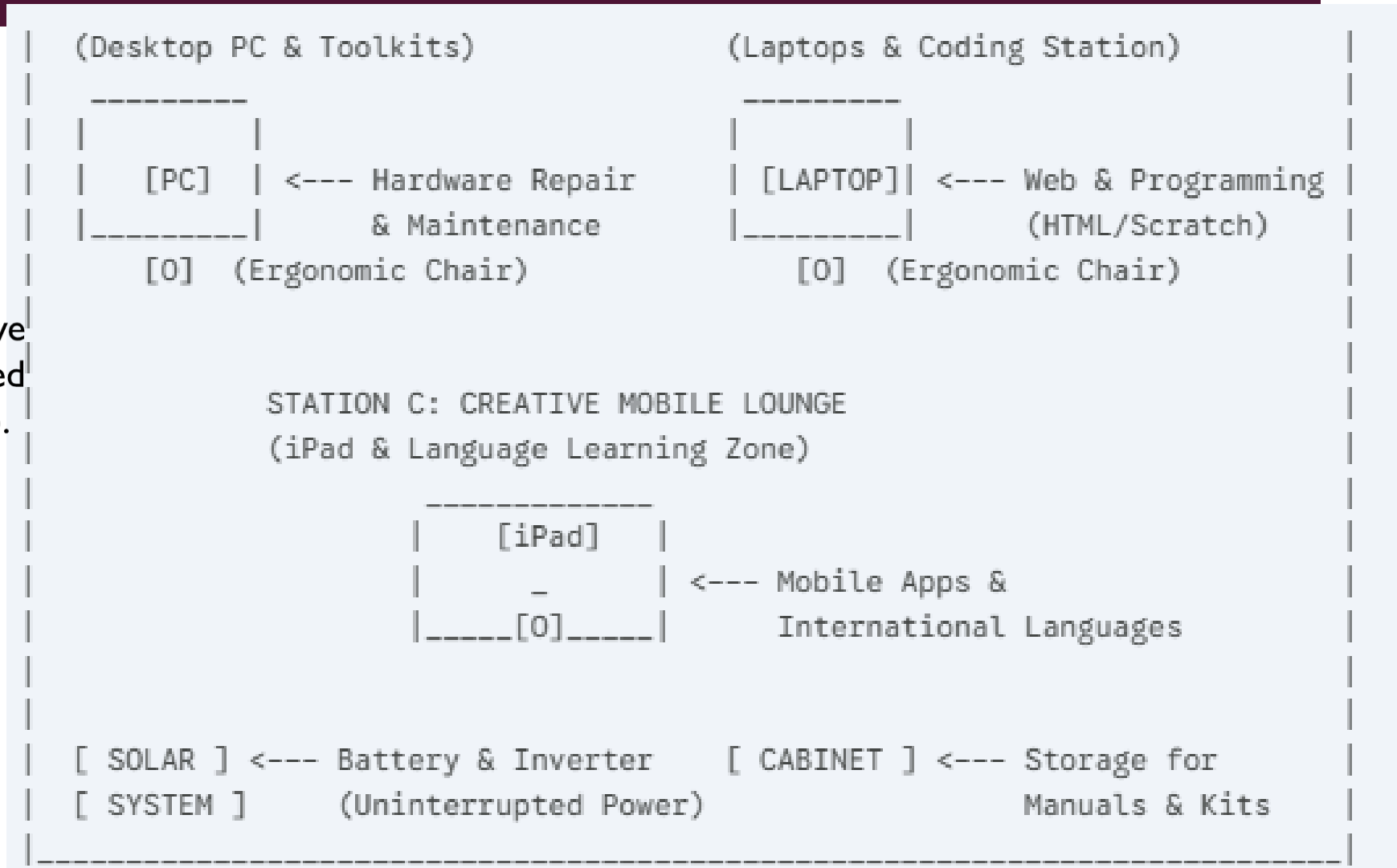
Solution Strategy: Shift from 1:1 computer access to a "Rotational Learning Model".

The "Cell" Model – A Scalable Innovation

We prove that a massive computer lab is not required for massive impact.
Our "Cell" model uses strategic rotation to turn 3 devices into a full classroom experience.

Space Efficiency: Instead of a large hall, our model fits into a small, secure premise, reducing rent and electricity costs.

The 3-Station Rotation: Students move in groups of 3through different specialized "zones" (Technical, Logic, and Creative).



STATION "A" – THE DESKTOP PC

Focus: Core Technical Skills.

Activities:

Students learn hardware maintenance to ensure tool longevity,
local database management, basic computer applications and programming.

Outcome:

Students become self-sufficient in maintaining their own technology.

STATION B – THE LAPTOP

Focus: Research & Logic.

Activities:

Using laptops for deep-dive research and Scratch coding to develop computational thinking.

Portability: This station is also used for outreach training in the community.

STATION C – THE IPAD

Focus: Creative Innovation.

Activities:

Leveraging digital arts and mobile-first innovation tools.

Language Integration:

Using international language apps to open doors for remote work and global collaboration.

Team Members

CURRICULUM OVERVIEW – FUTURE TECHNOLOGIES & PROGRAMMING

Core Objective: To transform students into creators by mastering the logic and languages of the future.

Module 1: Foundational Logic & Visual Programming (Station B)

The Goal: To build a problem-solving mindset before moving to text-based code.

Module 2: Web Technologies & Digital Presence (Station B/C)

HTML & CSS: Learning the skeleton and styling of the web. Students learn to build simple landing pages for local Mwanza businesses.

Web Maintenance: Understanding how to host and update digital content.

Module 3: Hardware-Software Integration (Station A)

System Maintenance: Understanding how software interacts with hardware.

Automation Basics: Introduction to how AI and simple scripts can automate repetitive tasks, improving local business efficiency.

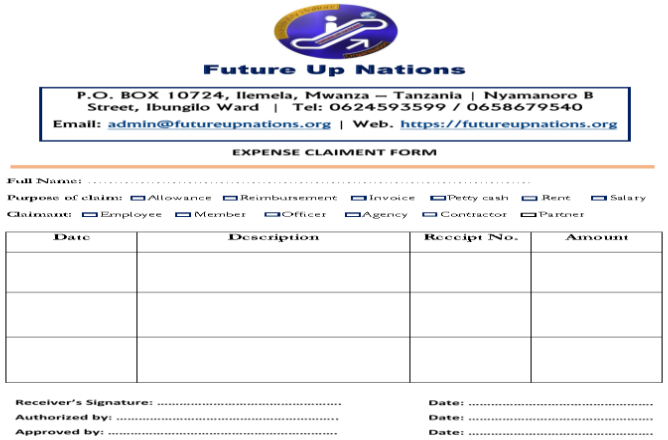
Module 4: Mobile Innovation (Station C)

App Logic: Using iPads to understand user interface (UI) and user experience (UX) design.

Global Collaboration: Using coding platforms (like GitHub or Replit) to share projects with the "Digital Ambassador“ network.

HOW DOES THE PROJECT CREATIVELY USE TECHNOLOGY?

"We do not just teach students how to use a computer; we teach them how to command it through programming. By learning HTML and Scratch, our 300 beneficiaries will have the skills to build digital solutions for the Mwanza community, creating jobs rather than just seeking them."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EXPENSE CLAIMENT FORM

Full Name: .....

Purpose of claim: ☐ Allowance ☐ Reimbursement ☐ Invoice ☐ Petty cash ☐ Rent ☐ Salary

Claimant: ☐ Employee ☐ Member ☐ Officer ☐ Agency ☐ Contractor ☐ Partner

Date	Description	Receipt No.	Amount

Receiver's Signature: ..... Date: .....

Authorized by: ..... Date: .....

Approved by: ..... Date: .....

Real-World Outputs:

Student Products: Design of professional resumes, business posters, and identity cards.

Practical Application: Using technology to address local business needs and personal career advancement.

Innovation: Demonstrating creative use of available media rather than the most expensive tools.

The Pilot Cohort (Digital Ambassadors)

The First Six: Our initial team of 6 girls are currently receiving intensive mentorship

Peer-to-Peer Model: These girls are being trained specifically to serve as peer-trainers for the next 300 beneficiaries.

Leadership: Demonstrating a student-led initiative with meaningful community involvement.

Sarah said, "I want to be a digital ambassador because mana girls in Mwanza, think computer science is for boys only I want to show them they are for we, girls as well."

Sustainability & Scalability

Low-Cost Innovation: We use recycled technology and shared devices to keep the model affordable.

Replication: The 3-device "Cell" model is designed to be replicated across other wards in Mwanza.

Post-Funding Plan: Utilizing existing community support and organizational structures to maintain impact without constant new funding.

Measuring Impact & Results

Pilot Success: Initial 6 girls successfully trained in the "Three-Station" curriculum.

Scaling Goal: Moving from 6 "Ambassadors" to 300 women and youth beneficiaries.

Community Growth: Transforming technological knowledge into a sustainable regional beacon of innovation.

SDG Alignment

Goal 4 (Quality Education): Bridging local needs with international digital opportunities.

Goal 5 (Gender Equality): Overcoming cultural barriers to tech access for girls.

Goal 10 (Reduced Inequalities): Bringing the global digital economy to the Mwanza community.

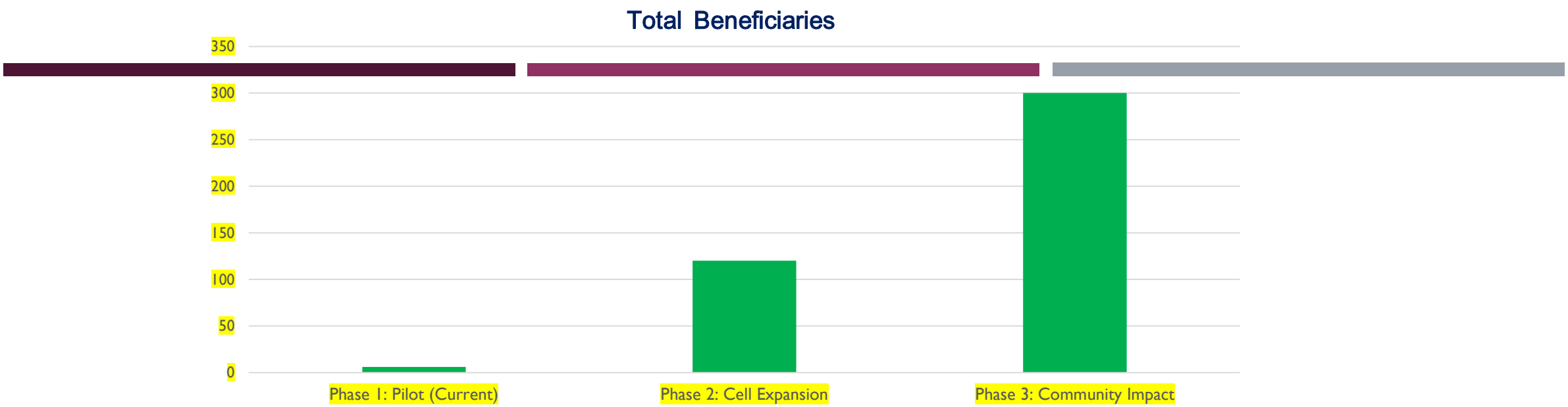
Call to Action & Conclusion

Our Vision: Technology as a bridge to the future.

The Request: Support from the Ciena Solutions Challenge will allow us to scale our impact to 300 people.

Closing: "We prove that with limited resources and creative thinking, digital independence is possible for everyone."

To sustain the hub after 6 months, our Digital Ambassadors will provide low-cost printing and graphic design services,(ID cards, resumes), computer maintenance, web designing, and local databases for small business owners in the community community. Reasonable amount for internet access will be charged daily and/or monthly to community members .This income will cover the monthly rent and internet costs.“0



Training Efficiency: 1 "Cell" (3 devices) supports 30 learners per month through rotational shifts.

Cost-Benefit Ratio: With the $3,000 Sustainability Award, the cost to train each girl is only **$10 USD**.

Peer-Trainer Multiplier: Each of our 6 initial "Digital Ambassadors" will lead 5 "Cells," creating a ripple effect across Ilemela.

BUDGET

Item Category	Description	Cost (USD)
Premise / Rent	6-month lease for a dedicated "Innovation Cell" hub in Ilemela	$600
Furniture	3 specialized workstations (ergonomic desks & chairs) for the 3-Station Lab	$350
New "Cell" Hardware	2 Desktops, 2 Laptops, 2 iPads (Optimized for the new hub)	$1,200
Solar Power Backup	Compact Battery & Inverter system for "Zero-Down-Time" learning	$400
Connectivity & Tools	12 months Data + Printed Coding & Repair Manuals	$350
Outreach & Transport	Travel for 6 Ambassadors to train the 300 beneficiaries	$100
TOTAL		**$3,000**