

# Technology Learning and Building Solution

### **Mission**

Empowering underserved communities worldwide with digital skills to thrive in the global economy.

### **Vision**

A world where every individual, regardless of location or background, actively shapes and benefits from the digital future.

# Final Project Report 2021-2024

### 1. Introduction

TakenoLAB, a Technology Learning and Building Solutions organization, has been at the forefront of digital education and entrepreneurship in Malawi from 2021 to 2024. This report provides a comprehensive overview of TakenoLAB's activities, achievements, and impact over this period, highlighting the organization's commitment to bridging the digital divide and fostering innovation in both the refugee and local Malawian communities.

We would like to express our heartfelt gratitude to our esteemed partners whose ongoing support has been instrumental in our success. Special thanks go to the Public Private Partnership Commission (PPPC) Malawi under the World Bank's Digital Malawi project. Your unwavering commitment to our cause has enabled us to make significant strides in digital education and entrepreneurship in Malawi.

# 2. Overview of Programs

TakenoLAB has consistently offered a diverse range of programs aimed at enhancing digital skills, empowering women, and engaging students through various initiatives. The core programs include:

- 1. Digital Literacy
- 2. Web Development
- 3. E-lancing
- 4. Entrepreneurship
- 5. School Outreach
- 6. Women in Practical Entrepreneurship (introduced in 2022)
- 7. Sport Activities (introduced in 2022)
- 8. Bootcamps (introduced in 2022)
- 9. Scratch Programming (introduced in 2022)

# 3. Year-by-Year Analysis

#### 3.1 2021 Activities and Achievements

### 3.1.1 Trainings and Graduations

- Total graduates: 113 (73 males, 40 females)
- Nationality mix: 69 Malawians, 44 refugees
- Graduation ceremony attendance: 86 students (58 males, 28 females)

### 3.1.2 School Outreach Program

- Primary school: Changalu LEA Primary School
  - 45 students trained (20 girls, 25 boys)

- Secondary school: Mnduje Day Secondary School
  - 40 students trained (25 girls, 15 boys)

### 3.1.3 On-site Program Intakes

- First intake (April-July 2021):
  - Total applicants: 128 (65 males, 67 females)
  - Initial selection: 102 (52 males, 50 females)
  - Program start: 85 students (42 males, 43 females)
  - Completion: 53 students (34 males, 19 females)
- Second intake (June-October 2021):
  - Total applicants: 202 (104 males, 59 females)
  - Initial selection: 100 (50 males, 50 females)
  - Program start: 70 students (37 males, 33 females)
  - Exam participants: 55 students (30 males, 25 females)

### 3.1.4 Entrepreneurship Program

- 7 entrepreneurs trained (5 males, 2 females)
- 5 graduates (3 males, 2 females)

### 3.1.5 Job Placements and Internships

- 4 students from the first intake secured internships with JRS as assistant trainers
- 18 graduates from the first intake got online jobs (12 males, 6 females)
- 1 student from the second intake secured an online job
- 4 community members working online through TakenoLAB

#### 3.2 2022 Activities and Achievements

#### 3.2.1 Graduation

- Total graduates: 143
  - Digital Skills: 128 (57.2% boys, 42.8% girls)
  - Entrepreneurship: 15 (5 boys, 10 girls)

### 3.2.2 Program Impact

- 1. Digital Literacy:
  - Provided foundational computer skills including Microsoft Office and internet use
  - Emphasized hands-on training
- 2. Web Development:
  - Taught website creation using WordPress, HTML, CSS, Bootstrap, and PHP
  - 96% of students reported confidence in their web development skills
- 3. E-lancing:
  - Equipped students with freelancing skills, including platform navigation, project management, and client communication

- 95% reported readiness for freelancing
- Over 20 students secured online jobs
- 4. Entrepreneurship:
  - Focused on practical business skills and real-world projects
  - Supported by mentors and network opportunities
  - Several graduates successfully launched businesses
- 5. School Outreach:
  - Targeted primary and Secondary schools in remote areas
  - Reached over 250 students, improving their computer skills
- 6. Women in Practical Entrepreneurship:
  - Empowered women with skills for starting and managing businesses
  - 13 women successfully launched businesses
- 7. Sport Activities:
  - Promoted physical health and teamwork through sports like netball and football
- 8. Bootcamps:
  - Provided digital skills training for students waiting for test results
  - Covered file management, animations, and visual design
- 9. Scratch Programming:
  - Engaged 96 children (49 boys, 47 girls) in basic computer skills and programming

### 3.2.3 Overall Impact Numbers

Total students impacted across all programs: 559

#### 3.3 2023 Activities and Achievements

### 3.3.1 August-September Cohort

- Recruitment: 99 students (both Malawians and refugees)
- Completion: 93 students
- Challenge addressed: High dropout rate due to transportation issues for Malawian students

#### 3.3.2 October-November Cohort

- Applications: 224
- Selected: 94 students (45 Malawians, 49 refugees)
- Dropouts: Only 1 student, indicating significant improvement in retention

### 3.3.3 School Outreach Program

- Total schools trained: 16
  - September: 4 schools (Kapatamoyo, Thedze, Chigudu, Ntenthera)

- October-November: 12 schools (including Golong'ozi CDSS, Mcheza CDSS, Mkanga, Mwangala, Kanyanyata, Windu, Nalunga, Mdabwi, Kabadwa, Kambulu, Kambulu CDSS)
- Total pupils trained: 907

### 3.3.4 Graduation

- Total graduates: 186 (83 females, 103 males)
- Demographics: 69 Malawians (38 males, 31 females) and 117 refugees (65 males, 52 females)

#### 3.3.5 Success Stories

Several graduates secured notable positions: - IT Officer at Billy Car Hire - Administration Officer at Cha-Cha Investment - Teaching positions at CRS and Dzaleka Secondary School - Development of an award-winning application at Kamuzu Academy - Four students working at Zawadie Organisation as Web developers

### 3.4 2024 Activities (Sub-granting Event)

#### 3.4.1 Event Overview

- Two-day workshop series focused on teaching entrepreneurship students proposal writing, planning, and budgeting
- Total participants: 11 students

#### 3.4.2 Evaluation Process

- 11 proposals submitted
- 10 proposals met all requirements and were selected
- Evaluation conducted by a Steering Committee based on workshop criteria

#### 3.4.3 Outcome

• 10 students received sub-grants to support their entrepreneurial ventures

# 4. Program Evolution and Impact

#### 4.1 Digital Literacy and Skills

TakenoLAB's digital literacy and skills programs have shown consistent growth and improvement from 2021 to 2024:

- Enrollment numbers increased year-over-year, with total graduates rising from 113 in 2021 to 186 in 2023
- Course offerings expanded to include more advanced topics like Web Development and E-lancing
- Student confidence and readiness for the job market improved significantly, with 96% of web development students reporting confidence in their skills by 2022

 The introduction of bootcamps and Scratch programming in 2022 helped bridge the gap for students with limited prior exposure to technology

### 4.2 Entrepreneurship

The entrepreneurship program has evolved to become more comprehensive and impactful:

- In 2021, 7 entrepreneurs were trained, with 5 graduating
- By 2022, the program had expanded to include 15 graduates, with a focus on practical business skills and real-world projects
- The introduction of the Women in Practical Entrepreneurship program in 2022 led to 13 women successfully launching businesses
- The 2024 sub-granting event demonstrates the program's commitment to providing tangible support for budding entrepreneurs

#### 4.3 School Outreach

TakenoLAB's school outreach program has seen significant expansion:

- In 2021, the program reached 2 schools, training 85 students
- By 2022, over 294 students in remote areas were benefiting from the program
- In 2023, the program expanded to 16 schools, reaching 907 pupils
- This growth demonstrates TakenoLAB's commitment to bridging the digital divide in remote areas

### **4.4 Online Job Placements**

TakenoLAB has been successful in helping its graduates secure online employment:

- In 2021, 19 graduates secured online jobs
- By 2022, over 20 students had found online employment through e-lancing skills
- Success stories in 2023 include graduates securing positions as IT officers, administrative roles, teachers and Web-developers.

# 5. Challenges and Solutions

Throughout the 2021-2024 period, TakenoLAB faced several challenges and implemented effective solutions:

#### **5.1 Resource Constraints**

Challenge: Limited computers and facilities hindered the number of students who could be trained simultaneously.

Solution: - Implemented a hybrid learning model (online and onsite) to maximize resource utilization - Continued to seek partnerships and funding to expand resources

### **5.2** Transportation Issues

Challenge: High dropout rates, particularly among Malawian students, due to difficulties in traveling to the training center.

Solution: - Adjusted cohort scheduling to better accommodate students' travel needs - Refined the selection process to prioritize students with reliable transportation options - Explored possibilities for satellite training centers or transportation support

### **5.3 Limited Experience of Remote Students**

Challenge: Students from remote areas often struggled with initial computer use, creating a steep learning curve.

Solution: - Introduced foundational programs like Scratch Programming to ease students into computer use - Expanded the school outreach program to provide earlier exposure to technology - Developed a more comprehensive onboarding process for students with limited prior experience

## **5.4 High Demand Exceeding Capacity**

Challenge: The overwhelming demand for programs, particularly in school outreach, exceeded initial capacity.

Solution: - Gradually expanded programs year-over-year to meet increasing demand - Prioritized schools and areas with the greatest need - Explored partnerships with other organizations to increase reach

### 6. Impact on the Community

TakenoLAB's programs have had a significant impact on both the refugee and local Malawian communities:

#### **6.1** Economic Empowerment

- Over 40 graduates secured online jobs or internships between 2021 and 2023
- 13 women launched businesses through the Women in Practical Entrepreneurship program
- 10 entrepreneurs received sub-grants in 2024 to support their ventures

### **6.2 Digital Inclusion**

- Over 900 students in remote areas gained access to computer skills training through the school outreach program
- The digital divide between refugee and local communities narrowed, with both populations benefiting from TakenoLAB's programs

### **6.3 Gender Equality**

• Consistent efforts to maintain gender balance in program participation

• Special initiatives like the Women in Practical Entrepreneurship program addressed specific needs of women entrepreneurs

### **6.4 Youth Empowerment**

- Focus on school-age children and young adults provided early exposure to technology and career opportunities
- Success stories of graduates securing jobs and launching businesses serve as inspiration for the community

#### 7. Future Plans

Looking ahead, TakenoLAB has outlined several plans to continue its growth and impact:

- 10. Introduction of new courses:
  - JavaScript Programming
  - Python Programming
  - Artificial Intelligence (AI) fundamentals and applications
- 11. Expansion of successful programs:
  - Scaling up the school outreach program to reach more remote areas
  - Enhancing the entrepreneurship program with more networking and mentorship opportunities
- 12. Addressing ongoing challenges:
  - Exploring partnerships for transportation solutions
  - Seeking additional funding and resources to increase program capacity
- 13. Technology integration:
  - Leveraging more online tools and platforms to enhance the hybrid learning model
  - Deepening the focus on AI and machine learning to keep curriculum current and prepare students for emerging tech jobs
- 14. Community engagement:
  - Developing alumni programs to keep graduates connected and provide ongoing support
  - Creating more opportunities for community showcases of student projects and businesses
- 15. AI-driven initiatives:
  - Exploring the development of AI-powered educational tools to enhance learning experiences
  - Introducing AI ethics and responsible AI development into the curriculum

### 8. Conclusion

From 2021 to 2024, TakenoLAB has demonstrated remarkable growth and impact in its mission to bridge the digital divide and foster entrepreneurship in Malawi. The organization has successfully trained over 1,000 students in digital skills and entrepreneurship, with a particular focus on empowering women and reaching remote areas.

Key achievements include: - Consistent increase in program participants and graduates year-over-year - Expansion of course offerings to meet evolving technological needs - Significant impact on both refugee and local Malawian communities - Successful job placements and business launches by graduates - Innovative solutions to overcome challenges like resource constraints and transportation issues

The high satisfaction rates among students, successful job placements, and the tangible economic impact on the community underscore the effectiveness of TakenoLAB's programs. As the organization moves forward, it is well-positioned to continue its mission, adapting to new challenges and opportunities in the rapidly evolving digital landscape.

TakenoLAB's commitment to digital inclusion, gender equality, and youth empowerment has created a lasting positive impact on individuals and the broader community. By continuing to innovate and expand its programs, TakenoLAB is poised to play a crucial role in shaping the digital future of Malawi and empowering the next generation of tech-savvy entrepreneurs.

We would like to reiterate our profound appreciation to the PPPC Malawi under the World Bank's Digital Malawi project for your invaluable support. Your belief in our mission and your continued backing have been fundamental to our success. We earnestly encourage you to maintain your support as we strive to expand our impact and reach even more communities in need.

As we look to the future, we are excited about the possibilities that lie ahead. With the continued support of our partners and the dedication of our team and students, we are confident that TakenoLAB will continue to be a driving force in digital education and entrepreneurship in Malawi. Together, we can build a more inclusive, technologically advanced, and prosperous future for all.