



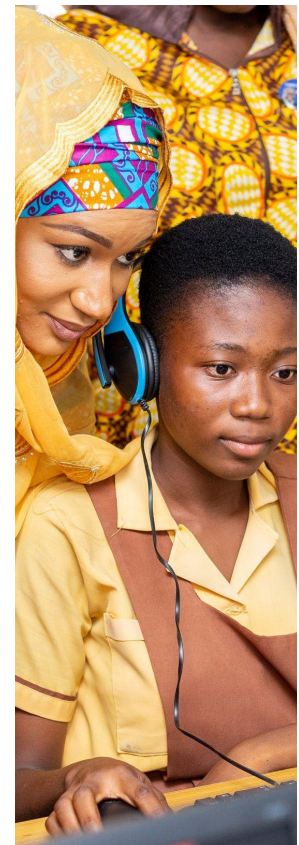
THE YAMORANSA MODEL LABS PROGRAM

SECOND QUARTER REPORT
April - June 2022

This report was prepared by IMPLEMENTERS

Table of Contents

02	Acknowledgement
03	Key Takeaways from the Quarter
04	Highlights from the Labs in the quarter
10	Gallery
12	From Blackboard to Projector: The story of a determined village ICT Teacher
17	Improving Access to Offline Educational Software in Gambia Through Asanka
19	Creating A Self-Sustaining Model
21	The YM Lab as a Tool for Empowerment in the Society
23	Empowering Women in Technology Education



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The Yamoransa Model Labs Program

www.yamoransamodel.org

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This project is managed by Implementers with TECHAiDE as technology Partner.





Key Takeaways from the Quarter

- 1** The Yamoransa Model (YM) Labs continues to support deprived schools to access quality ICT education.
- 2** The YM Labs has empowered a senior high school in the Ashanti Region to offer ICT as an elective subject. As at now, 12 students reading Science have the opportunity to include ICT to other subjects such as physics, chemistry and biology. We believe this will boost interest in other STEM areas such as engineering, digital skills and data science.
- 3** The YM Labs also supports the continuous education of teachers in computing and robotics. In the second quarter, the YM Labs trained 21 teachers in basic computing and robotics.
- 4** The YM Labs commemorated Girls in ICT day. The annual Girls in ICT Day was commemorated on April 12 2022. On that day, most of the YM labs were used as hosting labs by their various municipalities/districts. Some students were also awarded.

Highlights of the quarter

YM Lab 1, Yamoransa Central Region

Number of Lab Visits in Q2: 1528 Students (Males: 727, Females: 801)

- In Lab 1 at Yamoransa, 8 schools benefited from the use of the lab for their ICT lessons and 4 teachers also had the opportunity to use the lab resources to facilitate teaching.
- Students' ability to type using the softwares on the computer such as Mavis Beacon was enhanced.
- The Lab held new training for 11 teachers to enhance their knowledge in the use of the Makerspace/Robotics and EDULab.

YM Lab 2, Mallam-Gbawe, Greater Accra

Number of Lab Visits in Q2: 950 Students (Male: 498, Female: 512)

- The ICT center is selling the school on positive grounds. The kids keep broadcasting the quality equipment available and how it makes tutoring easy for them.
- Due to increased students' interest since the AIRTAD competition, Robotics and Edulab competitions have been made annual and compulsory for all students. The competition for 2022 will be held in the next quarter.
- The students in primary school are proficient in using basic applications like Microsoft Powerpoint and Word.
- The lab benefited two schools. Also, about 38 students used the lab for their personal studies after school hours in the second quarter.

YM Lab 3, Ejura-Sekyeredumase, Ashanti Region

Number of Lab Visits in Q2: 2306 Students (Male: 1120, Female: 1186)

- The lab in this quarter has received great patronage compared to previous quarters.
- In all, 14 schools benefit from the lab. 5 teachers also benefit from using the lab as a resource to facilitate teaching.
- About 52 students regularly use the educational softwares on the computers in the lab for their personal studies after school hours, mostly in the evenings.
- Other community members, such as students of the senior high school in the community, patronize the lab during their vacation period for their personal studies.

YM Lab 4, Choggu, Northern Region

Number of Lab Visits in Q2: 2203 Students (Male: 904 Female: 1299)

- In this quarter, 6 schools regularly used the lab for teaching and learning.
- Students are now able to create and use the Google suite especially by creating Gmail accounts for themselves.
- Students are now able to identify, use, activate and deactivate thumbnails in File and Folder Management.
- Also, students are able to use the various softwares of the Microsoft Office suite such as Excel and Word. They are able to launch the application, identify the features and navigate the applications as beginners.
- Students are able to hold the mouse, click and drag an object, type with all fingers on keyboard and are gradually perfecting their keyboarding skills using the EPP ICT Software installed on the computers.

YM Lab 5, Kyebi, Eastern Region

Number of Lab Visits in Q2: 1059 Students (Male: 625, Female: 434)

- In this quarter, 11 schools benefited from the use of the YM Lab at Kyebi. 7 teachers also benefited from the use of the lab to facilitate teaching.
- About 130 students used the lab out of school hours for their personal studies.
- The YM Lab has sent a wave of influence in the Kyebi municipality. Now, about 6 schools (3 primary and 3 Junior High Schools) have received computer labs in their various schools, hence reducing the pressure on the YM Lab.
- Students are able to use the Microsoft word application to do simple graphic designs such as certificates.
- Students are able to program robots to perform simple tasks such as picking items from one end to the other.

YM Lab 6, Peki-Avetile, Volta Region

Number of Lab visits in Q2: 501 Students (Male: 498, Female: 191)

- During this quarter, 9 schools benefited from the use of the YM lab at Peki-Avetile and 5 teachers also benefited from the use the YM lab to facilitate the teaching of ICT.
- Also, about 80 students used the lab for their personal studies after school hours.
- In the second quarter, the lab trained more students in using the EV3 Lego to create responsive robots that can detect obstacles and carry objects.

YM Lab 7, Nkonya-Ahenkro, Oti Region

Number of Lab Visits in Q2: 722 Students (Male: 361, Female: 361)

- For this Lab, 17 schools and 8 teachers benefited from the use of the lab for teaching and learning.
- Students became familiar with the hardware component, file management and understood computer viruses. They were also taken through the Microsoft Office suite, that is Excel and Word.
- The lab organized a vacation class for the students. 24 students took part in the classes and were taken through Scratch Program training for Beginners. At the end of the vacation training session, students were given projects to embark on. Some of the projects included creating social stories, Apple Catch Game and Guessing Game.

YM Lab 8, Prestea-Bogoso, Western Region

Number of Lab Visits in Q2: 2203 Students (Male: 904 Female: 1299)

- The lab supports teaching and learning in 18 schools, where apart from students, 8 teachers benefited from the lab.
- During the quarter, the lab hosted the Reading Festival for the municipality.
- About 250 students used the lab for their personal studies after school hours and 25 community members also passed through the lab to use it for their personal research.



YM Lab 9, Bomaa, Ahafo Region

Number of Lab Visits in Q2: 2094 Students (Male:960, Female: 1134)

- The lab in this quarter supported the teaching and learning of 9 schools where apart from students, 4 teachers benefited from the resources in the lab for teaching purposes.
- The lab organized vacation classes for students where they were taken through the scratch program and Microsoft Word.
- The lab also hosted the annual Girls In ICT (GIICT) program organized by the Government through the Ghana Investment Fund for Electronic for Electronic Communication (GIFEC). Three girls from the beneficiary schools were part of the 1000 girls awarded in the whole of Ahafo Region. They placed 19th, 43rd and 63rd each. They were awarded a laptop each. This event went a long way to boost interest of students in using the lab.

YM Lab 10, Tuobodom, Bono East Region

Number of Lab Visits in Q2: 647 Students (Male: 309, Female: 318)

- The lab supported 11 schools in the municipality and apart from students, 6 teachers also benefited from the lab as the lab supports both teaching and learning.
- Students are able to design and print 3D objects such as keys, using the Makerbot provided in the makerspace Lab.
- About 30 students used the lab for personal studies after school hours in the second quarter. The lab aims to encourage more students to use the lab for their personal studies in the next quarter.

YM Lab in Gambia

Number of Lab of Visits in Q2: 1241 Students (Male: 286, Female: 955)

- Training was held at the beginning of the term, where teachers from different fields were trained to use the EDULab and the Makerspace.
- TECHAiDE, the technology partner of the YM Labs, together with IOT Network Hub from Ghana, went to Gambia to train teachers and students from 4 schools in Makerspace and EDULab ahead of the official handing over of the ASANKA device to Gambia.
- Also, staff from the Gambia Ministry of Education visited the lab during the training to have an in-depth understanding of the whole Yamoransa Model Project in Gambia.



Photos from the handing over of the ASANKA GAMBIA at St Joseph Secondary School, Banjul, Gambia



Photos of the dedication of YM Lab 3, Sekyeredumase, Ashanti Region in 2018



FROM BLACKBOARD TO PROJECTOR

The story of a determined Village ICT Teacher

The Yamoransa Model Lab has changed the world for numerous children, teachers, parents and community. We take a look at the transformation that happened in Sekyedumase in the Ashanti Region. In 2018, a photo emerged on social media which showed a teacher who had drawn the Microsoft Word interface on a blackboard with chalk in an attempt to teach his students what the Microsoft Word features and functionalities were. This teaching method was to give his students a pictorial image of what it felt like to interact with a Microsoft Word interface. The said photo went viral, which then raised lots of questions, as well as amplified the challenges ICT teachers were facing in their teaching delivery.

Little did this teacher know his situation was about to change. The viral photo caught the attention of the President of the Helping Africa Foundation (HAF) and her team. Thankfully the President and her team intervened and provided an ultramodern ICT Lab which became the Yamoransa Model Lab 3, Sekyedumase, Ashanti Region.



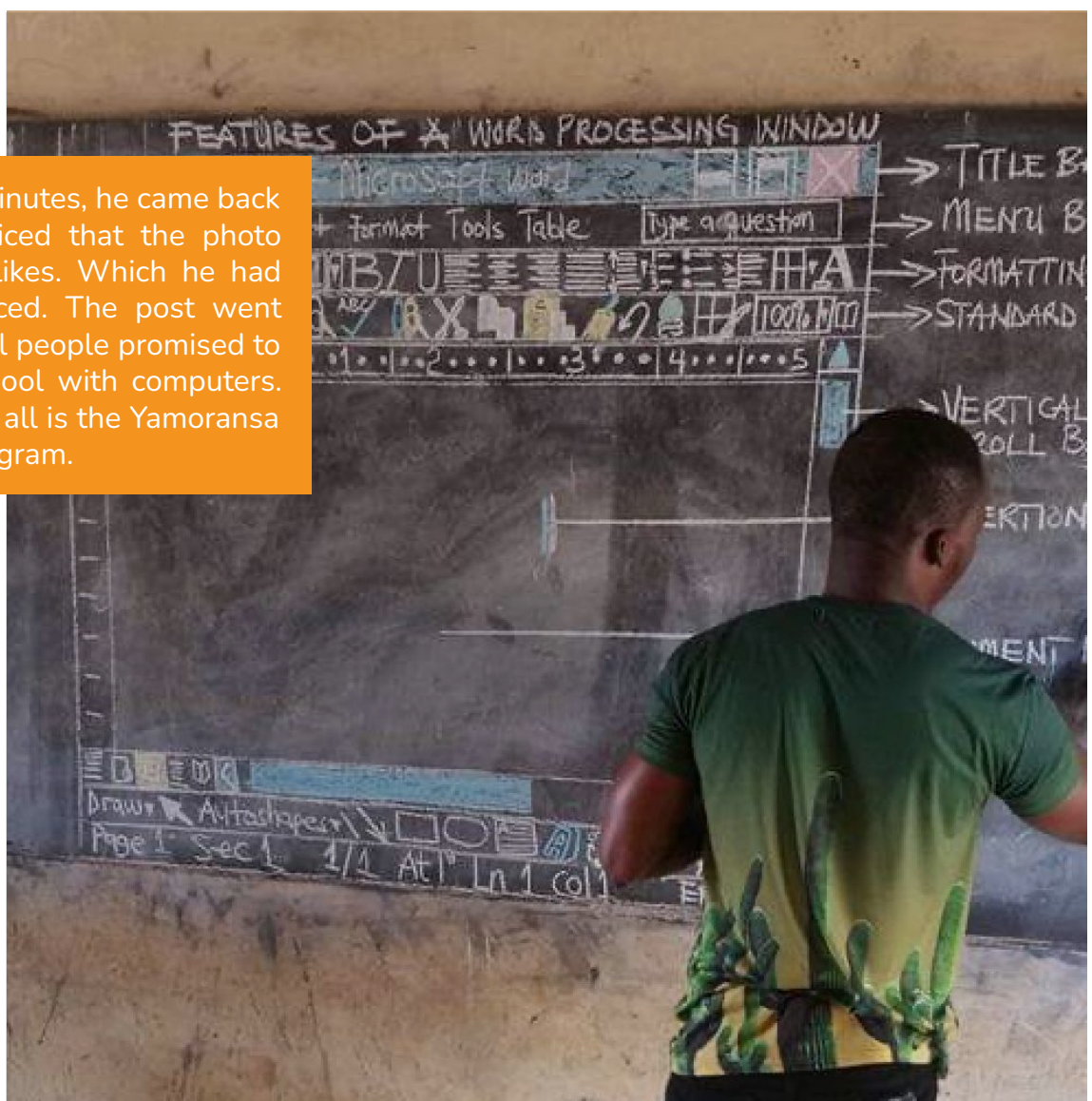
The teacher who was captured in the viral photo, Mr Kwadwo Akoto also known as Teacher Kwadwo, his school and community at Sekyedumase in the Ashanti Region benefited from numerous ICT infrastructural support from across the globe, including a Yamoransa Model Lab funded by the Helping Africa Foundation.

We had a conversation with him about the YM Lab in his community. He shared that in 2012, he was posted to Sekyeredumase and was tasked to teach two Junior High School (JHS) class both Religious and Moral Education (RME) and Information Communication Technology (ICT). During his ICT period with the JHS one (1) class, he drew the features of the Microsoft Word Application. He mentioned that his school had two computers, which unfortunately were not functioning. He also had a laptop but it broke down so he resorted to drawing, as was the norm. He drew the MS Word interface, also drew the monitor, system unit, keyboard, mouse and took the students through the process of launching the MS Word application verbally and on a blackboard. Now, with the YM Lab, he is able to teach students from more than 9 schools ICT using his desktop and a projector.

The Viral Photo

According to Teacher Kwadwo, his love for photos prompted him to ask his colleague to take a photo of him drawing on the board. He later decided to post it on facebook. Unbeknown to him, the photo went viral. "I like taking pictures so after drawing I asked a colleague teacher to take a photo of me. Then I later posted the photo on Facebook with the caption "Teaching ICT in Ghana school is very interesting. ICT on the chalkboard. I love my students", he said.

After about 5 minutes, he came back online and noticed that the photo had over 350 likes. Which he had never experienced. The post went viral and several people promised to support his school with computers. Unique to them all is the Yamoransa Model Labs Program.



Teaching of ICT before the YM Lab

Teacher Kwadwo mentioned that teaching ICT at the time was very difficult because ICT is mainly practical with just a little theory. However, that was not the case. He had to teach ICT theoretically with little or no practical session. He said “I even know my colleagues in other schools were not doing what I was doing so sometimes when they come and see me draw, they usually exclaimed “Eii you dier you have time oo” (to wit, you really have time to draw all that on the board) But that didn’t break me. I knew what I was doing and I did it for my students. My goal was to make whatever I teach more realistic for them. At least, when they get a chance to see a picture or an image similar to the actual computer, they would not fumble.”

During his lessons, Teacher Akoto would draw the physical part, that’s the mouse, the monitor, and the keyboard, and would write down the steps to use them and use that to guide the students. Everything had to be drawn and written on the board. Students, on the other hand, would just stare at me as I teach. They sometimes forget the lessons and always resort to their notes.



The difference of the YM Lab

According to Teacher Akoto, the YM Lab is the best computer lab he could dream of for his students. “This setup, EDULab, is the best setup I have seen because it has everything that makes the teaching easy. It has all the educational softwares. For the primary schools, when you go to ICT, they've made the lessons in such a way that, class 1 would have theirs, and class two would also have theirs. Regarding the topic being taught, ASANKA software provides an image with video. The students can self-learn. Teaching is enjoyable now. You teach with all the resources you need. The students see what you are talking about. Most importantly, as a teacher, I teach with a projector so that students can easily follow everything I do. It makes teaching very interesting and very loving because I have everything on the computers, so it makes teaching and learning very simple. It motivates me to always come to the lab to teach. I feel so happy because I know some places don't have these things. So when they come in, I feel so proud of myself to have this facility and to be enjoying it as well. This is indeed the 21st Century computer lab. I really do love it.”

Message to Colleague Teachers

“To my colleagues, do not break down when you are handling students or when you do not have the teaching and learning materials. Let us continue to devote ourselves. Let us look at the impact we can give to the kids and do our best.





**IMPROVING
ACCESS TO OFFLINE
EDUCATIONAL
SOFTWARES IN THE
GAMBIA THROUGH THE
ASANKA DEVICE**

Four key hindrances to access to educational software in most developing countries are lack of access to electricity, lack of good internet connectivity, cost of data and access to data. In a developing country such as the Gambia, access to well-maintained computers, internet connectivity and lack of adequate trained ICT Teachers are major problems in ICT education. The Yamoransa Model Labs Program in 2021 opened the first lab in the Gambia with well-resourced EDULab and Makerspace for robotics training. To ensure the lab is sustainable, teachers were trained, the lab was supported with solar power and given trained personnel to manage the center. To ensure that students have access to educational software which are offline and tailored to their educational needs according to the standards of the Gambia Ministry of Basic and Secondary Education, the ASANKA device was launched in the Gambia on June 27, 2022, at St Joseph Senior High School in Banjul, Gambia.

ASANKA is a system that compiles and delivers rich content in a user-friendly and easy-to-access format, hosted on low-cost, low-powered durable devices. This device is produced by a leading Technology company in Ghana called TECHAiDE. ASANKA is the Ghanaian word for “community bowl;” it is a free information delivery architecture for relevant content for all.

The ASANKA device will serve students in the Gambia and support their educational needs by providing them with offline software. It will save the students the cost of buying data and also the problem of poor internet connectivity. Students can also upload their content or buy preloaded local content and curriculum. More so, the ASANKA analytics provides evidence-based educational tools to decision-makers to improve teaching and learning.

What is more interesting is the fact that this device can be tailored for use by other sectors for training, and internal office use and parents can support their wards' home tuition with this device.

The Yamoransa Model Labs is committed to ensuring inclusive and equitable quality education and promoting lifelong learning in line with the Sustainable Development Goal Four (SDG 4).





CREATING A SELF-SUSTAINING MODEL:

THE YAMORANSA MODEL LABS TRAINS 21 MORE TEACHERS

Since the first Yamoransa Model lab was built and commissioned in 2016 by the Helping Africa Foundation (HAF), eleven (11) other labs have been successfully commissioned in the last five (5) years. This shows the tremendous amount of progress the HAF has made in its bid to promote ICT education across Ghana.

The Yamoransa Model Labs Program has become more than just a computer center and evolved into a 21st-century hub for Science, Technology, Engineering, Arts, and Mathematics (STEAM) training.



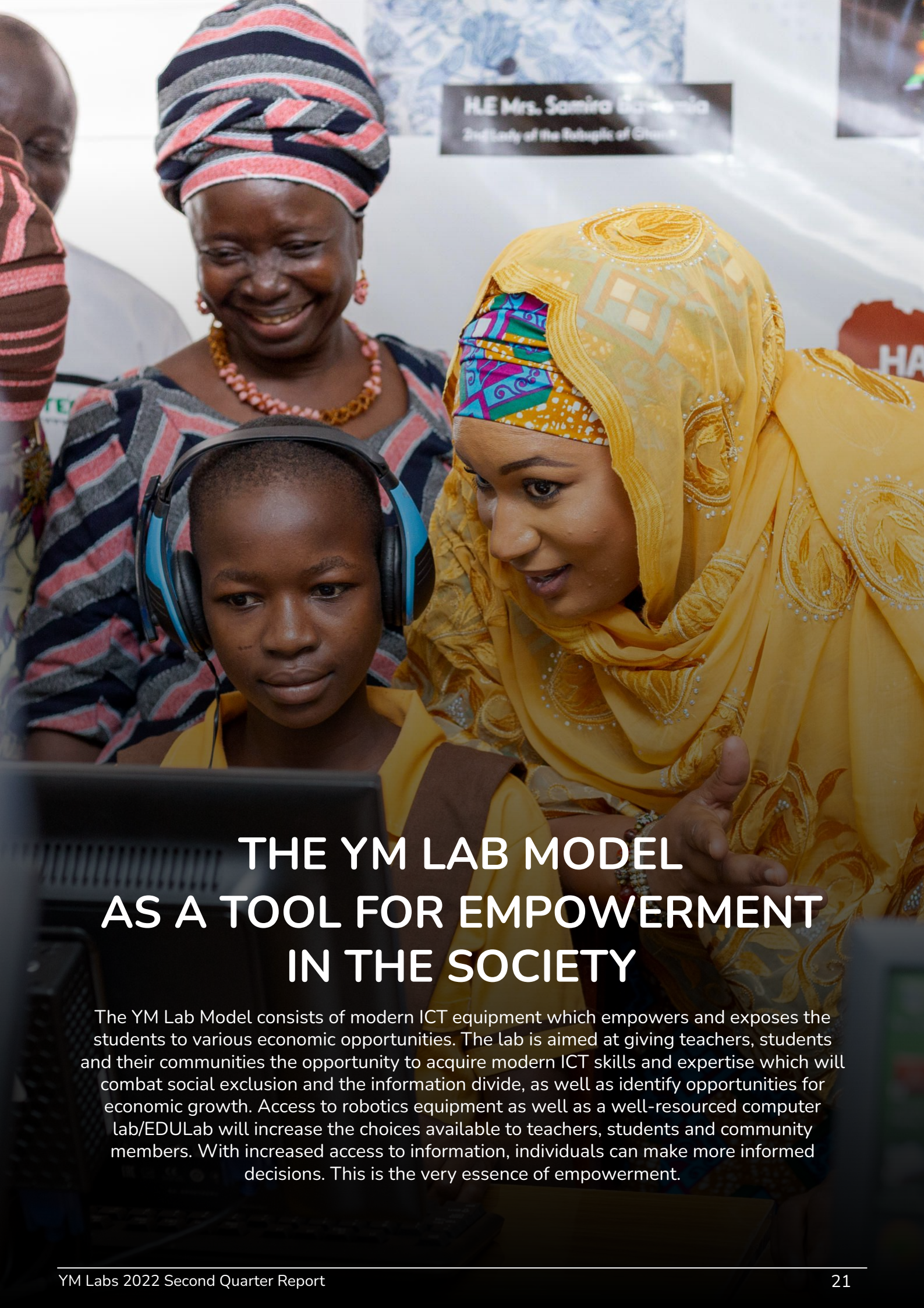
To ensure teachers in the various communities are trained in the use of this 21st-century technology equipment, center managers who have already been trained are encouraged to pay it forward to other teachers by passing on the training to them. This is also to ensure that students can get support from their class teachers and not only rely on the Center Managers. Owing to this fact, the Yamoransa Model Labs are extending training to teachers in their communities to provide them with the right skills so they can use the lab with little or no guidance from the center managers.

The YM Labs are providing training in robotics, programming, EV-3 lego movement, Arduino, and Ozobots programming for teachers in their communities. Aside the training in the Makerspace, some teachers have further had lessons on the EDULab which include Microsoft Word, Excel, Powerpoint Presentation, and Computing in general. In June 2022, twenty-one (21) teachers in Yamoransa in the Central Region and Ejura in the Ashanti Region have been trained to use the EDULab and Makerspace (robotics).

This training by the YM Labs is a forward-looking activity, adding up to the ultimate goal of the Helping Africa Foundation to create a self-sustaining educational model.

With this training and the others to follow, the labs wouldn't lack capable tutors at any point, thus preventing any underutilization of the lab due to the absence of the center managers or the overwhelming nature of the jobs.

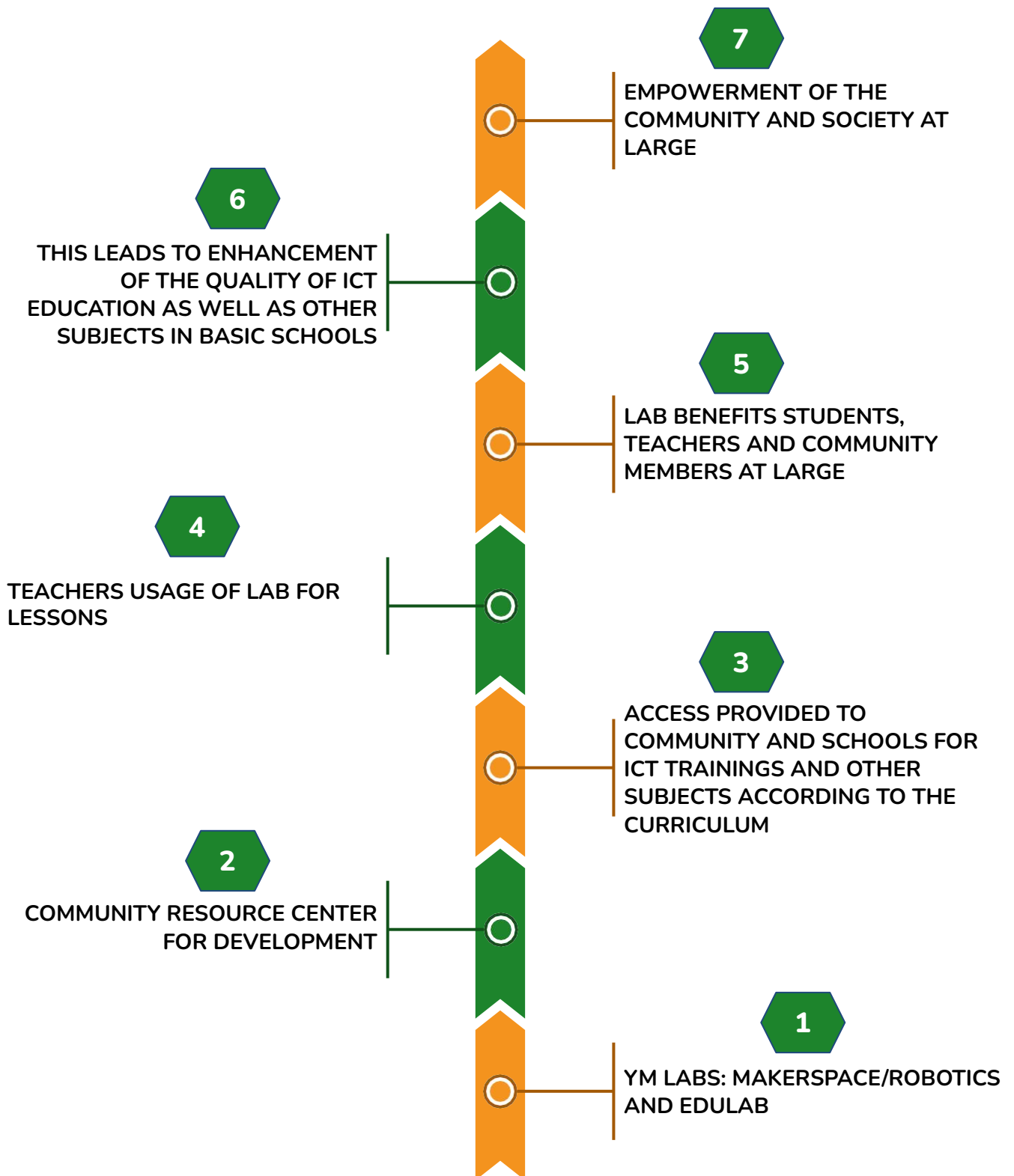
With a plan to continue this initiative, the YM Labs wouldn't have tutoring problems because more teachers in the catchment area would be up to the task of handling their classes on their own.



THE YM LAB MODEL AS A TOOL FOR EMPOWERMENT IN THE SOCIETY

The YM Lab Model consists of modern ICT equipment which empowers and exposes the students to various economic opportunities. The lab is aimed at giving teachers, students and their communities the opportunity to acquire modern ICT skills and expertise which will combat social exclusion and the information divide, as well as identify opportunities for economic growth. Access to robotics equipment as well as a well-resourced computer lab/EDULab will increase the choices available to teachers, students and community members. With increased access to information, individuals can make more informed decisions. This is the very essence of empowerment.

The Impact Flow of the Yamoransa Model Labs Program as a Tool for Empowerment





Ms Mavis Osei
Center Manager, YM Lab 4

EMPOWERING WOMEN IN TECHNOLOGY EDUCATION: A SPOTLIGHT ON CENTER MANAGER FOR YM LAB 4

Mavis Osei is a teacher at Choggu Demonstration JHS in Choggu, Northern Region. She studied Publishing Studies and majored in Publishing Administration at the Kwame Nkrumah University of Science and Technology (KNUST). After working in a Printing Press as the designer, editor and proofreader as a National Service Personnel [Year] she moved to teach in a private school as an ICT teacher for three months and was then absorbed into the Ghana Education Service in May 2012 as an ICT teacher in both Primary and JHS level and at the same time helping with the Administrative work of the school. Due to her hard work and dedication, she was recommended by the Ghana Education Service Directorate in the Sagnarigu Municipality to manage the Yamoransa Model Lab 4 located at Choggu Junior High School in 2019 and has since been there changing the narrative in ICT teaching.

When she was asked about her experience in teaching ICT before the YM Lab she had this to say

“

Teaching and learning of ICT before the establishment of the computer lab was difficult and boring. I had to spend so much time getting students to understand certain topics and concepts in ICT. We did not have any software, no offline resources and no router for internet service. As a teacher, there was no motivation to teach ICT, though I had the skills. I had to only rely on the woefully inadequate textbooks to teach. It was discouraging. For the students, they did not have access to the physical computer during lessons to appreciate and enjoy the practical aspects of certain topics and concepts in ICT. ICT was boring and to some, a concept they could never appreciate.

How has the YM Lab impacted the teaching and learning of ICT at Choggu?

The Lab has since its establishment increased the motivation of the students and teachers of the Sagnarigu cluster of schools in the learning of ICT. The innovative educational resources/software on the computers on the ASANKA Device has renewed teaching and learning methods for students. It has also established a more active collaboration of students and the simultaneous acquisition of technical knowledge.

As a teacher, I have become more comfortable using computers and confident in my ability to learn any new program quickly and also be able to solve some technical/computer hardware problems/issues on the computers. More so, I do not need to force myself to learn how to draw icons or try to orally describe technical terms. I now have to just direct the students to the specific areas, explain it to them and allow them to also explore. This has helped the teaching of ICT.



Advice to students and other teachers

The world is moving very fast in technological advancement owing to the use of ICT. Students must therefore know that their knowledge in ICT will go a long way to help them catch up with the current world development. Students should also be more serious with the learning of ICT to prevent them from being left behind, if not left out of such a global movement. To my colleague ICT teachers, especially females, do not give up yet. Continue to add value to yourself as a teacher. Sometimes you may have to look for other ways to teach. Continue to give off your best, who knows, your community may be the next to benefit from the YM Labs project or any other ICT development project. Tell yourself you can also do it and shine in the field of ICT.





The Yamoransa Model Labs Program (www.yamoransamodel.org) is managed by IMPLEMENTERS (www.TheImplementers.org). IMPLEMENTERS is a project management nonprofit that partners with charitable organizations, philanthropists to impact society. Visit our website and social media handles for more information.

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TECHAiDE (www.techaide.global), the technology partner of the YM Labs Program, is a technology social enterprise working in Africa for over a decade using ICTs to improve education, support Youth Development and facilitate health delivery.