IMPACT REPORT 2022

Empowering children with computer technology and skills such as coding and programming is crucial to prepare them to thrive in their careers and change the digital landscape in the country.

GHANA CODE CLUB

LETTER FROM FOUNDER

There is a sense of urgency in getting the next generation ready with the set of tools and problem solving skills to embrace the challenges of the 21st century.

In Ghana, knowledge of and access to the internet is very limited. According to the government, 51.6% of individuals in urban areas and 27.4% in rural communities have knowledge about the internet, 20.0% of households in urban areas and 12.8% in rural localities have access to the internet. Furthermore, solely 7.9% of individuals in Ghana possess a computer. The lack of access to the internet and equipment poses serious challenges to incorporating ICT into educational curriculums in Ghana. 85% of schools in the country lack sufficient facilities and computers, while 99% have no access to the Internet at all.

Ghana Code Club is an after-school initiative that teaches students computer programming skills. Children between ages 5-17 can join its free computer science programs from schools, community centers, and libraries to learn to program using visual and text languages such as Scratch, Revolution Robotics kits, HTML/CSS and Python to build computer games, robots, animations, websites, and mobile applications. The Club offers training for school teachers to understand the fundamentals of computer programming to become confident in delivering the new computing curriculum and continue the coding in-house with educational activities in the school. The Club also trains teachers and volunteers to become trainers.

We believe that Empowering children with technology skills such as coding and robotics is crucial to prepare them to thrive in their careers and change the digital landscape in the country.

We are grateful so far that what started as a test experience in a school in 2015, has scaled to offer free code training curriculums to thousands of students, and has trained more than 800 teachers across Ghana from more than 137 schools and clubs through different educational programmes and initiatives. Students who have completed our training workshops experience better learning and achievement outcomes – they get better grades on average, develop confidence and some have won a technology challenge award. Moreover, more than 200 volunteers are on our data base to become mentors and trainers for coding centers. In total, Ghana Code Club is scaling up its educational activities through 10 ICT learning centers across 7 regions in Ghana by partnerships established with American Tower Corporation-Ghana and SAMSUNG Ghana. We seek to establish more partnerships to reach every child in underserved areas in the country.

WHY COMPUTER SCIENCE?

Computer Science is a problem-solving skill, a skill that is indispensable in today's advanced world. It provides an insight to the students about their own learning process. As Seymour Papert stated in "Mindstorms", when a child learns to program, the process of learning is transformed. It becomes more active and self-directed".

Computer Science is interlinked with other fields and makes the learning process of other subjects more accessible: For example, Turtle Geometry constitutes a subject for learning Mathematics, students explore art creativity using Scratch, Makey-Makey provides a way to code music and Arduino links programming and electrical engineering

This is why our core mission at the Ghana Code Club is to make computer science and its related subjects accessible to every student. We dive deep in our lesson plans and spread wide in our approach through strategic partnerships. Every year we engage with more schools to train teachers so they can expose their students to computer science activities. 2022 has been an amazing year and I am proud of our team and supporters especially the Dean-Hopper family in the USA who made us believed in our abilities and vision because of their generous donation in 2021 that supported all our 2022 activities that saw a massive growth in our impact. I am also grateful to Ray Michael for keeping one of our Digital Village centers active through his monthly donations. We cannot leave out Dr. Christina Outlay for her donation that made it possible for us to acquire some of our micro: bits invention kits. To all our Board of advisors, we appreciate you all for your various support.

Ernestina Appiah

FOUNDER

2022 ACCOMPLISHMENTS

1. DIGITAL VILLAGE PROJECT

The Digital Village Project is in partnership with American Tower Corporation, (ATC-Ghana) and Samsung Ghana. With ATC-Ghana building ten (10) digital centers in 7 regions of Ghana and Samsung in one region, we manage and facilitate free computer science activities from these centers.

In 2022, we trained 60 community teachers who facilitate technology lessons during school and after school from all these centers. The Digital Center handles on the average eight hundred (800) elementary and middle school students yearly giving a total of 8,800 students with 47% of the students being girls.

2. TEACHER TRAINING

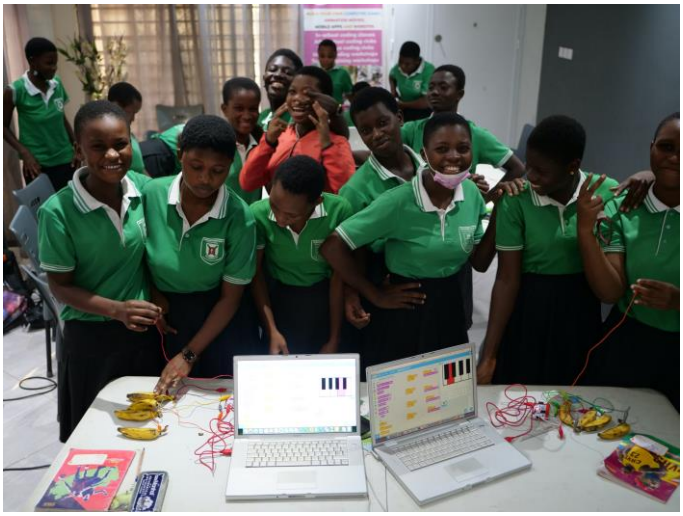
In 2022, we trained 60 educators who are using our lesson plans to teach approximately 18,000 elementary and middle school children to code during regular school hours. All these teachers also have access to our introduction to computer programming workbook for free. This is a great impact because the government of Ghana introduced coding into the curriculum in 2019 but teachers are left without text-books to teach with confidence. Ghana Code Club prides ourselves for providing solution for teachers.

3. 100 GIRLS IN STEAM PROGRAM

Ghana Code Club envisions a prosperous Africa where every youth particularly girls have the skills and confidence to harness the power of technology to create a better and more inclusive future.

100 GIRLS IN STEM is a yearly free program organized for girls from rural communities. We began the program in Ghana in the year 2021 with support from the Ella Funds. 400 adolescent girls between ages 12 and 19 have participated so far and have been equipped with skills in Web Development, crafts and mobile apps development. During a survey conducted for our participants, our learners indicated that the skills acquired through this program will help them to either develop a career, or develop their skills further in a higher-level STEM education or use as a hobby.

By combining craft, computer science, and electronics we found that we can consistently get girls (and boys) excited about these topics. Girls learn to build robots, crafts, write programs, build websites, create mobile apps and design circuits along the way!

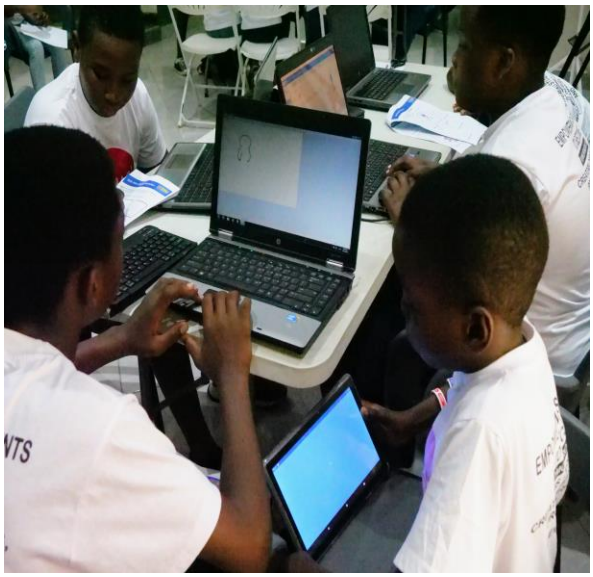



STEAM
GIRLS

4. PROJECT AI

Carving out access to Artificial Intelligence (AI) and its applications for the youth regardless of computer science experience. In partnership with Sinuosity AI company in Ghana, we piloted Project AI, a 42-hour programme to introduce students to the basics of artificial intelligence.

The programme's holistic approach combined self-directed, technical learning with conversations with entrepreneurs and discussions on ethics and governance, with the ultimate aim to arm Ghanaian youth with the ability to creatively apply AI to any 21st century industry.



5. SUMMER PROGRAMS FROM VARIOUS CENTERS

The world is changing, and too many kids are being left behind due to structural inequalities. Through fun filled programs, we aim to create opportunities for every kid on the wrong side of these divides.

Our students in Accra took a field trip to one of the leading game development companies in Ghana to learn real life game development from seasoned entrepreneurs. Students also participated in indoor/outdoor activities that teaches principles in computer science and robotics and quiz competitions.


GHANA CODE CLUB


IDSDP-GH

OUR SUCCESS STORY

Redefining digital literacy

Our team is committed to putting together cutting edge coding curricula that inspire and enable kids to become confident in using technology to solve local problems and shape a better future for themselves and others.

In 2022, a group of our 100GirlsinSTEAM participants from Ashonman 1 basic School in Accra came out with a bold innovative idea to represent their School by entering a national competition put together by the education service of Ghana and other private companies

Their idea is about a wearable health tracker that will be using GPS to track location of a sick person and GSM to send messages to parents and care givers during emergencies. The girls are currently working on the prototype and are about 95% complete.

We think these girls are already winners because they fulfilled our vision of giving every child the skills, confidence, and opportunity to change their world.

There has been a great theory of change because before they enrolled in the program about a year ago, the experience level was 0 but with time and their digital skills knowledge acquired they are set out to becoming entrepreneurs.

OUR THEORY OF CHANGE

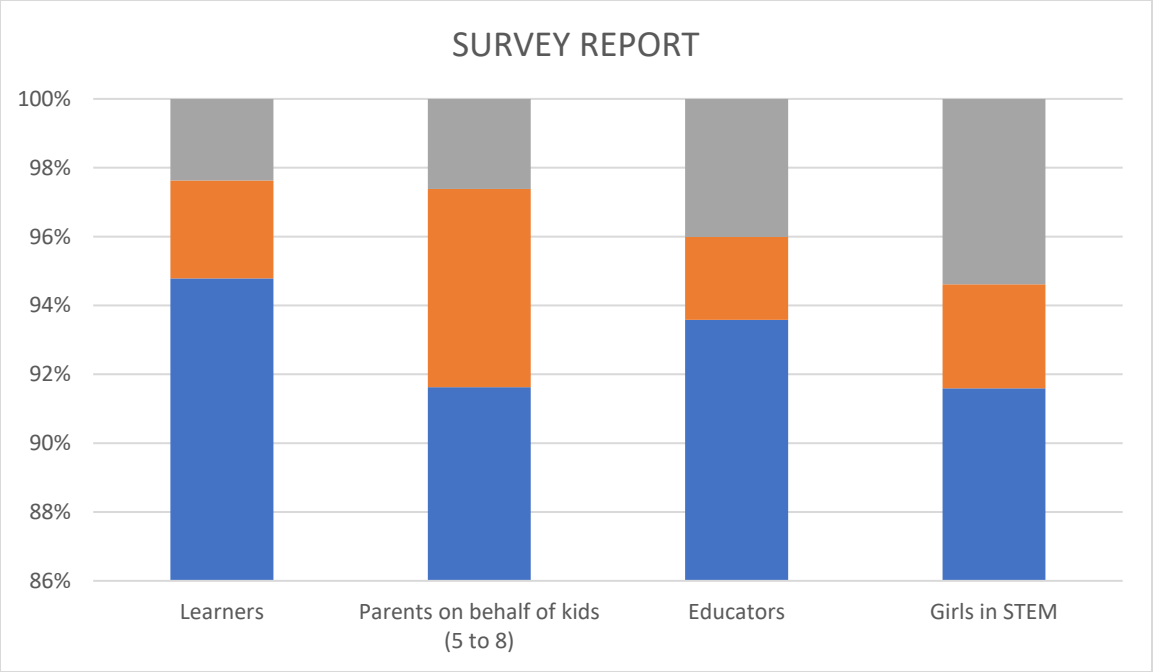
Our theory of change saw that providing learners with the skills and confidence to harness the power of technology will allow them to create a better and more inclusive future. Our learners walk away from every experience with a better understanding of computer science concepts and their applications in the personal or professional space

Leaving no child behind

By working with partners and sponsors, we provide foundational coding education that aims to leave no child behind.

BUILDING CONFIDENCE

95% of respondents during a survey indicated that they are more confident that they can build things or solve problems using tech tools and code because of their experience with us. 85% of parents confirmed on behalf of their children ranging between ages 5 to 8 that they give precise instructions to make things happen [for example, programming a floor turtle, placing instructions in the right order].



OUR REACH IN 2022

- 40 Educators trained on 1. Introduction to computer programming using Scratch 2. Robotics 3. HTML+CSS in 2022
- 60 educators trained 300 students each using our contents to reach18,000 school children across 30 Basic Schools
- 20 trainers trained for our partners 10 Digital Village centers in 2022 reaching 8800 students
- 400 Girls in STEM trained across 4 communities in Ghana (#100GirlsinSTEAM programme)
- 80 Private tuition

Total **27,280** students reached in 2022

MEET THE TEAM

OUR BOARD

1. Ernestina Edem Appiah
   Founder & CEO, Ghana Code Club

2. Sewu-Steve Tawia
   Board Director, Ghana Code Club

3. Dr. Christina Outlay
   Executive Director, Maydm

4. LaToya Samuels Wharton, MBA
   Founder, Siblings Keeper

5. Ethel D. Cofie
   Technology & Innovation Consultant

6. Martin Lindsey
   Multi-hyphaneate STEAM Professional

7. Rachel Man
   Founder of WemanConnect

VISION FOR 2023

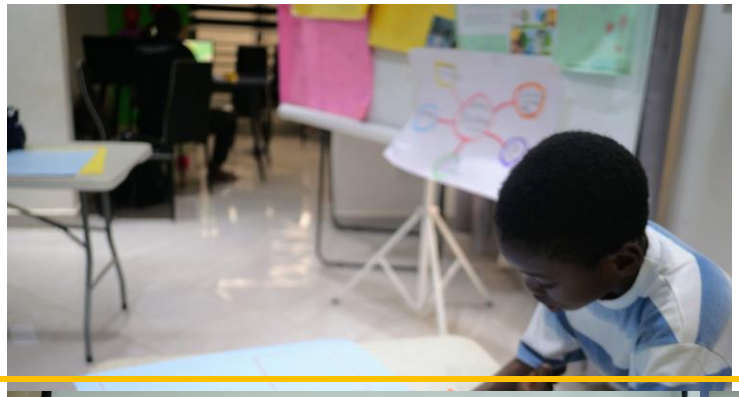
By 2023, Ghana Code Club will double its impact on exposing basic and middle school children to Computer Science through enrichment programs, continuous learning during school hours and various partnerships.

We will deliver Professional Development workshops to more teachers in elementary and middle schools, allowing us to amplify our impact beyond one child, one class, one school.

SUPPORT OUR MISSION BY DONATING

Your donations make it possible to support:
1. Management of 10 Digital Village centers
2. Curriculum Development
3. General Office Expenses
4. Salaries & Allowances
5. Production and Supplies
6. Promotions
7. Professional Fees

Contact +233244670660 or email tinaappiah@ghanacodeclub.org to ask how you can donate. We have a fiscal sponsor in the USA that makes it easy for funds transfer and non-tax deductible




CLIMATE CHANGE


CLIMATE CHANGE


Start