GHANA CODE CLUB
2019 REPORT

Our Mission

- Ghana Code Club’s mission is ensuring that Code Clubs are established in every community
- Our aim is to give every child the skills, confidence and opportunity to shape their world.

WHAT WE DO

Ghana Code Club believes that all children should have the opportunity to unleash their hidden talents through creative coding no matter who they are or where they come from.

We run volunteer-led coding clubs across Ghana, using fun and creative learning materials to inspire the next generation of digital makers.

Currently, there are over 130 active Code Clubs running across the country.

We also offer training for primary teachers to understand fundamentals of computer programming to become confident and excited in delivering the new computing curriculum in Ghana.
From Founder, Ernestina Appiah

Thanks to amazing volunteers, educators, parents, sponsors, partners, and our hard-working team, we’ve introduced computational thinking, coding, and physical computing to over 50,000 youth and 507 teachers/volunteers across Ghana as at December 2019.

With our passion and dedication, we are building sustainable digital skills communities in schools, libraries and community centers. These communities are engaging youth to innovate, create, and explore with technology.

in 2019, we received micro funding in a total of $30,000 from our various donors and partners including Google, Progress in Education (PIE) Eutelsat and Web Foundation. This financial support has enabled us to expand our services to reach more students and also to launch our Code-On-Wheels educational program.

Our team grew from 5 employees to 17 in 2019 and 60+ volunteers supporting educators across the regions in Ghana to bring coding to the classrooms.

We thank Partners like the Raspberry Pi, Code.org, Africa Code Week for the continuous support in providing us with resources and trainings to keep up with international Edtech trends.

We’re working hard to ensure children from all regions and backgrounds have access to the Code Club’s curriculum either directly or indirectly through trained educators. Fortunately, the Ghana Education Service introduced computer programming into its new computing curriculum making it possible for more children in Ghana to have access to our teaching materials during school or after school sessions.

Thanks to the Ministry of Communications and GIFEC who made it possible for us to train 357 teachers in the year 2018 from the Ashanti Region, Greater Accra and Western Regions respectively. Adding a total of 200 trained teachers from the other regions in 2019 gives a total of 557 trained teachers so far. In total, our trained teachers are using our curriculum each day during computing sessions to reach an average of 40 students giving a total of a total of 22,280 students with 30% being girls. We hope these girls will continue their Computing journey in
secondary and tertiary schools and that this will help close the digital gender gap. At the moment the regions we are strongest in are Ashanti Region, Greater Accra and Western Regions.

We also thank ATC Ghana for providing us with Container ICT centers in rural Ghana to introduce as many children as possible to digital skills.

We have big plans in store for 2020. Plans that will empower youth to use technology to tackle challenges within their own communities. As an organization, it’s important for us to strive towards making a long-term impact sustained by and for the community. Thank you to all of you who have helped us get this far. We can’t wait to see what the next 5 years will bring.

**Donation of Laptops:**

In 2019, we were awarded an amount of $5000 from the Progress in Education, PIE grant program. This grant enabled us to purchase 10 Laptops to aide in our training workshops for educators, women and children across Ghana for many years.

**Code–on-wheels**

The Code-on-wheels initiative was launched in the second quarter of 2019 with sponsorship from the Web Foundation.

This initiative was launched to bring hands-on interactive tech education to the less privileged in Ghana. The team travelled to the Upper East Region, Eastern, Central and Accra respectively bringing hands-on, practical lessons to educators, volunteers youth and women across Ghana, training them to become trainers by teaching computer programming fundamentals in basic schools. It is our mission to ensure that all children particularly women and youth — have access to these learning opportunities.
We successfully introduced 150 women volunteers and 900 student learners through the Code-On-Wheels initiative in 2019. Twenty-four (24) of the trained volunteers are now actively involved in our Code Club activities from the above regions helping teachers to teach computer programming fundamentals and helping with after School Coding programs.
TEACHER TRAINING:

Our teacher training sessions in 2019 tackled

- **Computational Thinking**: an introduction to computer science concepts, maze based practical application for primary computing elements, and lesson ideas for cross curricular computing

- **Programming**: Using scratch to create a Chatbots, interactive learning for the primary programming aspects and unplugged ideas for classroom activities.

- **Networks and the Internet**: learning to use HTML&CSS (the ‘language’ of websites), how the internet actually works and the principles of searching the web.
We trained 100 teachers from the central region at Swedru, 50 teachers in Accra, Ga East municipal as well as 50 teachers from the eastern Region.
As a not-for-profit, we rely on financial support to run our teacher training program. We appreciate donations from Eutelsat, a leading satellite provider in Europe for enabling 200 teachers to be trained. We look forward to more support in the future to reach more teachers and children across Ghana

**DIGITAL VILLAGE PROJECT**

In early 2019, Ghana Code Club entered into an agreement with the American Tower Company, Ghana (ATC) to manage 3 of their Digital Village Centers located in three different regions of Ghana from the Ashanti, Western and Eastern. These fully equipped Container ICT centers serves the communities of Jamasi, Bawdua and Tarkwa in equipping them with Technology skills.
Part of the $5000 funding grant we received from Progress in Education, USA supported in the management of 2 of the ICT centers in Jamasi and Tarkwa respectively. A total of 1000 students from 12 Schools patronize these facilities in Tarkwa and Jamasi alone learning practical ICT subjects.
AFRICA CODE WEEK 2019

With the aim to empower thousands of African’s next generation with digital skills, Africa Code Week celebrates coding from 36 African countries every October. Ghana Code Club has been an ambassador for Africa Code Week since year 2015. With financial support from Google, we are able to organize workshops from schools, ICT centers and libraries reaching not less than 400 girls each year to learn mobile apps development. In 2019, 700 youth benefited from these workshops. Thanks to Google and GIZ for supporting us.
I READ AND CODE

In our quest to promote both traditional and digital literacy, we host weekend school for kids between 5-12 to increase their reading skills, fluency with computational thinking and programming concepts.
I Read and Code is a Creative Computing program designed for kids to explore and create! The kids read and document their stories in a design workbook, then use SCRATCH to create their characters to come out live with code. Children learn how to provide feedback on other students’ projects. We hosted Saturday coding class for 90 Students in 2019.

OUR IMPACT

- 557 trained teachers used our curriculum to reach 40 students each in 2019 giving a total of 22,280 from Ghanaian classrooms only
- Digital Village centers trained 1000 children from 12 Different Schools
- During code on Wheels 2019, 150 women volunteers were trained
- During Code on Wheels 2019, a total of 900 students attended our workshops
- Saturday Classes for I READ & CODE Program attracted 90 children
- 700 Girls attended our Africa Code Week Workshops

Total Number of School Children reached indirectly through teachers – 22,280
Number of children reached directly = 2,690
Teachers trained in 2019 – 200
Volunteers – 150
SUBJECTS TAUGHT

- Unplugged activities – We use available resources from code.org and CSUnplugged to teach computer science concepts through offline activities.

- Computational thinking with Scratch - As young people design interactive media with Scratch, they engage with a set of computational concepts. We have identified seven concepts that are highly useful in a wide range of our Scratch projects, and which transfer to other programming (and non-programming) contexts: **sequences, loops, parallelism, events, conditionals, operators, and data.** For each concept, we provide a definition of the concept and a concrete example from a Scratch project.

- Micro:bit: We provide complete resources with cross-curricular links for art, science, geography and more from code.org CS fundamentals for students to explore and become creative using the micro:bit.

- HTML & CSS - These lessons help students design complete websites

- Mobile Apps Development – We use App Inventor to teach students to come out with Mobile applications.