

#Scratch2019NBO
- Scratch Africa -

Global Scratch Conference
Nairobi, Kenya
16-18 October 2019

Operational Report



Contents

Event Summary	3
Conference Organizers	3
Funding Support	3
Venue	3
Number of Attendees	3
Background	3
Overview	5
Conference Objectives	5
Conference Format	6
Special Events	6
Collaboration Day	6
Collaboration Day Sessions:	6
The Conference	7
How it Started	8
Milestones	9
Information Dissemination	10
Registration	10
Student Involvement	11
Annexes	12
Annex I: Organizing Teams	12
Annex II: Attendance Report	14
Annex III: Invited Speakers and Guests	16
Annex IV: Financial Report	18
References	19

In recognition of Africa's technological contributions and the potential of the youth of Africa

Event Summary

Conference Organizers

The Scratch Conference was hosted by Africa Creative Coding and Learning Foundation (ACCL Foundation) who have been supporting and hosting creative computing experiences for young people and educators in Kenya. Their goal is to extend and share these experiences throughout Africa, so they partnered with the Scratch Foundation, the Lego Foundation, EPAM and other partners to make this a reality.

Funding Support

The event was supported by funding from:

- **Scratch Foundation**
- **Lego Foundation**
- **EPAM**
- **UNICEF**

Venue

Brookhouse International School, Nairobi, Kenya

Number of Attendees

- 267 Participants

Background

Scratch is a graphical programming language, developed by the Lifelong Kindergarten group at the Massachusetts Institute of Technology. Children can drag and combine code blocks to make a range of programs, including animations, stories, musical instruments and games. Scratch helps young

people learn to think creatively, reason systematically, and work collaboratively.

Scratch is a project of the Lifelong Kindergarten Group at the MIT Media Lab and Scratch conferences are playful gatherings of educators, researchers, developers, and other members of the worldwide Scratch community.

These events are held in various locations around the world and provide opportunities for people of diverse backgrounds and practices to discuss how they support children using Scratch, to collaborate and share ideas with one another, and to bring new creative-learning strategies and activities back to their own communities. The first Scratch conference was held at Massachusetts Institute of Technology (MIT), USA in 2008, and the Scratch Team has continued to organize a Scratch conference every other year. The Scratch Conference Africa: Scratch2019NBO was one of the several Scratch conferences held in different locations around the world.

After hosting boot camps in 2015 the organizing team hosted the first pan-African Scratch educators meetup in Nairobi. It consisted of five African countries and was held as a pre-event to the Scratch2017BDX conference in Bordeaux, France. It was during the Bordeaux conference that the “Building African Momentum for Scratch” (BAM4Scratch) initiative begun where the African team began to organize and plan for the possibility of hosting the first Scratch conference in Africa. The following year at the Scratch Conference 2018 at the MIT Media Lab in Boston, the Africa team made a successful proposal to the Scratch Team and the Scratch Africa conference was born, setting Nairobi as its first stop with the Scratch2019NBO Conference. Among other proposals accepted were Scratch Al Sur in Santiago de Chile (30-31st May), and Scratch Europe Conference in Cambridge, UK (21-25th August).

The Scratch Africa Conference was a great opportunity for educators from around the continent of Africa and the world to gather in Nairobi, Kenya, to connect and share ideas and experiences in educating young people. This was the first Scratch conference to be held in Africa, and therefore a milestone in the contribution to creative computing in education on the continent. This report covers the organizing, and the attendance of the conference.

Overview

The conference took place over 2 days with the 3rd day being an open collaboration day. The two-day program included keynote sessions, panel discussions, hands-on workshops, ignite talks and poster sessions, from educators from all over Africa and the world. The 3rd day provided the community with time to start and deep dive into collaborative community projects.

The conference hosted 4 global shares which were perspectives and experiences from the global Scratch community. These included Rodrigo Fabrega, Chile Lead in the Scratch Al Sur community, James Aslett, International Programs Manager of Raspberry Pi foundation in the UK, and David Campey, Founder of AfroLabs in South Africa. Panel discussions included

Conference Objectives

1. Engage facilitators, educators, and learners from around Africa and the world to share lessons; and experiences in empowering young people through creative computing and learning.
2. Highlight and discuss key themes such as learning through play, creative computing, educator resources, and the importance of localization in creativity.
3. Celebrate accomplishments in creative computing.

Conference Format

Over the 2 days the conference had a special video welcome from Mitch Resnick, creator of Scratch and president of the Scratch Foundation, and included keynotes included Ollie Bray, Director, Education initiatives from the

Lego Foundation, Jacinta Akatsa, Director, Centre for Mathematics, Science and Technology Education in Africa, and Felix Malombe, Educator and Cofounder - StreamLabs Africa.

Special Events

Creative Coding Youth Bootcamp

Africa Creative Coding and Learning Foundation held a Kids Bootcamp from August 8th to 10th which was designed to provide inquisitive kids a playful environment for accelerated creative computer science learning through collaboration, hands-on activities and projects.

The goal of the boot camp is to engage educators and learners in creative learning experiences with different types of tools and technologies and to start a community of motivated makers and lifelong learners.

Collaboration Day

The third day of the conference (October 18th) was a collaborative day where facilitators shared ideas and projects with the community and together created a project or plan, to carry out/support and build the community project together.

Collaboration Day Sessions:

1. Scaling the Upeo Discovery Project - Hosted by Eddie Kago and Francis Indimuli
2. How to start and grow Code Dojo and Code Club communities in Africa Hosted by James Aslett
3. Creative Learning session hosted by MIT Team
4. Global Climate Action Project Hosted by Felix Malombe
5. Scratch Translation to enhance capacity for educators/learners for sustainability Hosted by Maxwell Kayesi and David Muya
6. Makey Makey for Educators - Hosted by Roderigo Fabrega
7. Computing in coding patterns with Turtlestitch - Hosted by Joek Van Montfort

The Conference

At the 2012 MIT Scratch Conference in Boston, Massachusetts, the need to organize conferences in other continents emerged, with the aim to increase participation in the Scratch community particularly in Europe and Africa. It was then agreed that during odd years the conference would be held outside of its home at the MIT Media Lab and the global community would get the opportunity to host the conference. The European Scratch conferences began to be organized and turned out to be very welcoming to a diverse group of people interested in creative learning and teaching programming in the spirit of Scratch.

The Scratch Africa Conference marked the 1st Global Scratch Conference to be held on the continent of Africa between October 16th-18th, 2019 at Brookhouse School in Nairobi, Kenya. It marked a milestone for creative computing education in Africa and the first of many such conferences.

At the conference, educators, technologists and like-minded individuals from around Africa took advantage of the opportunity to connect and share with each other many experiences creativity and play in the learning process, mainstreaming creative learning in the classroom, and localization of teaching resources to enable greater computer science access for students and teachers.

Milestones

1. Launching Scratch in Kiswahili
2. Contribution to computer science in education in Kenya

The Kiswahili version of Scratch was officially launched for use at the Scratch Africa conference. This was a major milestone for computer science education in the region as 15 million more native Kiswahili speakers who did not have access now have access to computer science through scratch coding.

The translation effort was led by Marian Muthui, a graduate researcher from the MIT Media Lab, Lifelong Kindergarten Group, in collaboration with Max Musau and other local educators and volunteers from around Nairobi. Chris

Garrity, an engineer on the Scratch Team, implemented the translation just in time for the conference; and Scratch programming language is now available in Kiswahili and more than 50 other languages, thanks to other volunteer translators from around the globe.

The conference began discussions within various communities and government bodies on the benefits of inculcating projects, play and experimentation into the learning environment. These discussions encouraged communities to connect more and planted the seeds for greater engagement in creative computing. This also highlighted the need for more localized content to be able to guide educators, and students into more creative and meaningful projects in computer science.

Overall, the event successfully engaged and expanded educators understanding of coding not as a stand-alone activity but experiencing computer science as a creative, multidisciplinary and collaborative activity.

Information Dissemination

The media team covered all the activities including the opening and closing sessions. Photos and videos were shared on social media platforms for engagement, where several attendees engaged in live streaming the event. The #Scratch2019NBO hashtag was used for online engagement, the most used social media platforms were;

1. Twitter (@Scratch2019AFR)
2. Facebook Page (Africa Creative Coding and Learning Foundation),
3. Instagram (@Africacreaticecl).

Registration

Registration for the conference was open to teachers, students and the general public.

1. Invitations were sent directly through email:
2. Registration through the website www.scratchafrica.com

To support greater participation, tickets to the conference were subsidized by sponsorship from Lego, UNICEF, and EPAM who supported women

educators from around the continent with sponsored tickets and travel grants.

Annexes

Annex I: Organizing Teams

Scratch Africa Team

1. Adel Kassah - Computer Science Teacher [Tunisia]
2. Ariam Mogos - Humans who Play [Kenya]
3. Justin Yarrow - Code Makers [South Africa]
4. Samson Goddy - Trainer ITU [Nigeria]
5. Prince Bonney - IcodeGhana [Ghana]
6. Rose Funja - She Codes for Change [Tanzania]
7. Simon Mtabazi - HDIF Tanzania [Tanzania]
8. John Okewole - Researcher and Educator [Lagos]
9. Abella Bateyunga - She Codes for Change [Tanzania]
10. Evelyne Gomis Beguinot - Happy Coders [Morocco]
11. Lenah Wanjiku - Kids Comp Camp [Kenya]
12. Mary Munyoki - Youth for Technology [Kenya]
13. Natacha Nduwimana - Burundi Innovation Hub [Burundi]
14. Ruth Kaveke - Pwani Girls and Africa Code Week [Kenya]
15. Brenda Nyakoa - Global Minimum [Kenya]

The Carrot Co Team

1. Taye Balogun
2. Sahlm Charles
3. Brandon Juma
4. Eli Msinge
5. Asha Jaffar
6. Nyawira Gitaka
7. Agnetta Asitwa
8. Ismail Abdillahi

Africa Creative Coding and Learning Foundation Team

1. Max Musau - ACCL Foundation Director
2. Jane Thomas - ACCL Foundation Director
3. Marion Koki - Administrator at ACCL Foundation

4. Brenda Nyaringita - ACCL Facilitator/Volunteer

Brookhouse International School Team

1. William Gichohi
2. Eric Mulindi
3. Joyce Gacheru

MIT Team

1. Marian Muthui
2. Carmelo Presicce
3. Carolina Rodeghiero
4. Yusef Ahmad

Raspberry Pi Foundation

1. Philip Colligan
2. Nicola Lyons
3. James Aslett

EPAM

1. Shamilka Samarasinha
2. Emily Catuzzi

KLM/SKY Global Team

1. Hildabeta Amiani
2. Sarah Gichuhi

Annex II: Attendance Report

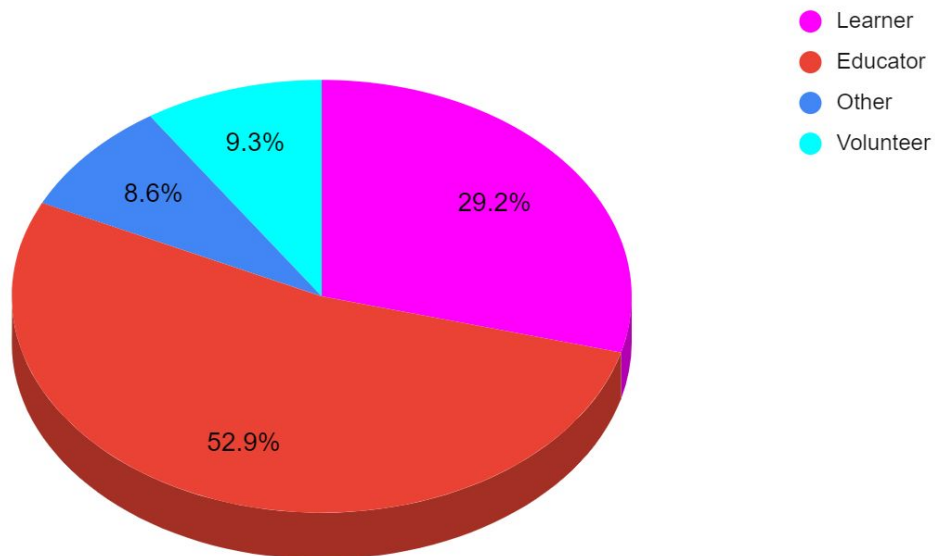
By numbers:

Program

1. Keynotes - 3
2. Workshops -19
3. Ignite Talks - 21
4. Exhibits - 22
5. Global Experience Shares - 4
6. Panels -2
7. Collaboration Day projects - 5

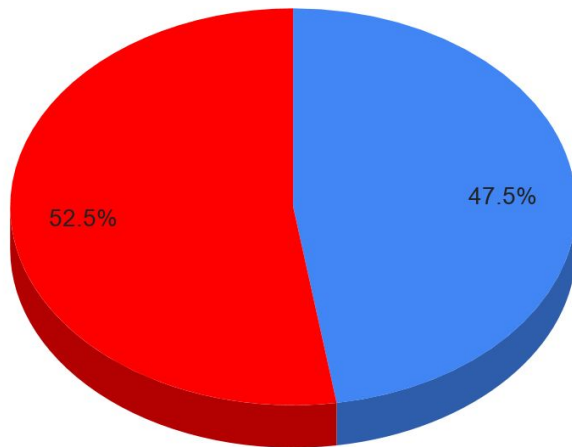
Summary of Attendees

- 60.4% Educators
- 19.3% Learners
- 10% Volunteers
- 10.4% Other



- Male - 128 (47.5%)
- Female - 139 (52.5%)

● Male
● Female



Countries Present

1. Kenya
2. Rwanda
3. Uganda
4. Burundi
5. Tanzania
6. South Africa
7. Ghana
8. Nigeria
9. Cameroon
10. Denmark
11. Netherlands
12. UK
13. Italy
14. Chile
15. Brazil
16. USA
17. Canada

Annex III: Invited Speakers and Guests

The conference attracted speakers, facilitators and delegates from across 17 countries. All the guests played a role in sharing their experiences and participated in the workshops and contributed in the ignite talks.

Jacinta A. Akatsa	[Kenya] - Director, Centre for Mathematics, Science and Technology Education in Africa
Felix Malombe	[Kenya] - Teacher, Crawford International School
Mary Munyoki	[Kenya]-Youth for Technology
Brenda Nyakoa	[Kenya] - Global Minimum
Maxwell Kayesi	[Kenya] - IEARN
David Muya	[Kenya]- IEARN
John Kimotho	[Kenya] - Kenya Institute of Curriculum Development
Mary Wambaria	[Kenya] - Kenya Institute of Curriculum Development
Florian Rabenstein	[Kenya] - UNICEF
Gideon Mwaura	[Kenya] - UNESCO
Poka Anne Emma	[Cameroon] - Coalition Digital
Neene Gichaara	[Kenya] - Tinker Education
Jovia Margaret Nanyonjo	[Uganda] - Africa Code Week
Ramadhani Moza	[Burundi] - BiHUB-BURUNDI
Umuhire Divine	[Rwanda] - BiHUB-BURUNDI
Pierrete Temoin	[Rwanda] - BiHUB-BURUNDI
Zainabu Omary	[Tanzania] - Apps and Girls
Doreen Michael	[Tanzania] - Apps and Girls
Queen Mtega	[Tanzania] - Apps and Girls
Oliver Maxwell Bray	[Denmark] - Lego Foundation
Carmelo Presicce	[Italy] - MIT Scratch Team
Carolina Rodeghiero	[Brazil] - MIT Scratch Team
Rodrigo Fabrega	[Chile] - Scratch AI-SUR
Juliet Waters	[Canada] - Kids Code Jeunesse
Joek van Montfort	[Netherlands] - Scratch Web and
Simeon Adebola	[Tennessee, USA] - Student Researcher
Jean Kayitere	[Rwanda] - Software Engineer Africa's Talking
Louise Kimwe	[Kenya] - Developer Africa's Talking
Silvia Muturi	[Kenya] - Deafine Consulting

Abdul Rahim
Alex Magu
Lucy Kimaru
Ida Nganga

[Kenya] - Playpoint Education
[Kenya] - Playpoint Education
[Kenya] - Good Kenyan Mentorship Program
[Kenya] - Africa Code Week Ambassador



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Mitch Resnick, Joek Van Montfort, Ollie Bray, Shamilka Samarasinha and
Rodrigo Fabrega**

**Max Musau
Africa Creative Coding and Learning Foundation**