

# Digital Skills Task Force

Providing Girls Access to Necessary Skills to Partake in the Digital Economy



# Executive Summary

**01**

## The Problem

Women are at a serious disadvantage compared to their male counterparts when it comes to technological opportunities. The gender digital divide in access to the internet remains largest in the world's least developed countries at 32.9%. Women make up about half the global population, yet they are lacking severely in terms of the digital economy. With 90% of future jobs will require digital skills because of modern society demand, we need to boost women before this divide grows to big.

**02**

## Recommendation

The UN will form a digital skill task-force that will evaluate different parts of the world and figure out how to deploy digital skills training specific to those regions. For example, by assessing the situation in Kibera with a specialized task force, we can partner with digital skill programs across the globe and non-profit schools in Kibera to deliver a digital skills training program to girls in those schools. These programs will provide laptops and lessons to learn digital skills such as navigating the web, coding, and networking to prepare them for a career in ICT (Information and Communications Technology).

**03**

## The Results

After completing the digital skills programs, girls will be prepared for paid internships at ICT companies, which the programs will help them get. Through the work of the task force in Kibera, If we're able to expand the program to 10 schools, we can expect 325 girls to graduate from the digital skills program. Girls across the globe will not only be more prepared for college and have an increased interest in the digital economy, but will also gain more financial independence through both paid internships and potential for higher-paying careers in the future.

## THE PROBLEM

**Girls in developing countries face many different barriers in accessing education and learning digital skills that are crucial to participating in the digital economy**

## BARRIERS TO GIRLS' EDUCATION

# MANY GIRLS DON'T HAVE ACCESS TO EDUCATION

## FINANCES

Many families can't afford to send their daughters to school for many reasons such as prioritizing their sons over their daughters and additional school supply fees.<sup>1</sup>

## TIME

Girls can end up spending up to 21 hours a week doing household chores.<sup>2</sup>

## CHILD MARRIAGE

12 million girls under the age of 18 are married every year.<sup>3</sup> Poverty and cultural traditions are the main causes.<sup>4</sup>

## CONFLICT

Girls in areas affected by conflict are 90% more likely to be out of school than girls in areas not affected by conflict.<sup>5</sup>

## GENDER-BASED VIOLENCE

Traveling to school can be dangerous for girls, with 1 in 4 girls in Tanzania who reported experiencing sexual violence while on their way to or home from school.<sup>7</sup> It's estimated that there are 200 million women and girls worldwide who have undergone female genital mutilation.<sup>8</sup>

## LACK OF ACCESS

Girls in rural areas are twice as likely to not attend school as girls in urban areas, one reason being long distance.<sup>9</sup>

## MENSTRUATION

When girls get their periods, they often stop attending schools. In Sub-Saharan Africa, 1 in 10 girls miss school on their period, and this results in them missing up to 20% of the entire school year.<sup>10</sup>

## TEENAGE PREGNANCIES

10 million unwanted pregnancies occur in developing regions among girls 15-19 every year.<sup>5</sup>

<sup>1</sup> Source: [CAREducation Trust](#) <sup>2</sup> Source: [Save the Children](#) <sup>3</sup> Source: [UNICEF](#) <sup>4</sup> Source: [Borgen Magazine](#)

<sup>5</sup> Source: [WHO](#) <sup>6</sup> Source: [Save the Children](#) <sup>7</sup> Source: [Global Partnership for Education](#)

<sup>8</sup> Source: [UN Women](#) <sup>9</sup> Source: [UN Women Watch](#) <sup>10</sup> Source: [World Bank Blogs](#)

# THERE IS A DIGITAL GENDER GAP



50%

**OF WOMEN IN RURAL AREAS AND 45% OF WOMEN IN URBAN AREAS REPORT LACK OF KNOWLEDGE AS A BARRIER TO GETTING ONLINE.<sup>1</sup>**



45%

**GLOBAL INTERNET PENETRATION RATE FOR WOMEN COMPARED TO 51% FOR MEN.<sup>2</sup>**



29%

**GENDER GAP BETWEEN WOMEN AND MEN IN SELLING PRODUCTS OR ADVERTISING SERVICES ONLINE.<sup>3</sup>**



33%

**IN LOW-TO-MIDDLE INCOME COUNTRIES, WOMEN ARE 33% LESS LIKELY TO USE MOBILE MONEY.<sup>4</sup>**

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<sup>1</sup> Source: [World Wide Web Foundation](#)

<sup>2</sup> Source: [Bridging the Digital Gender Divide](#)

<sup>3</sup> Source: [World Wide Web Foundation](#)

<sup>4</sup> Source: [GSMA](#)

## Future Jobs

90% of future jobs will require digital skills because of modern society demand.<sup>1</sup>

## Increasing Employment

In 2019, there were 53.2 million full-time jobs in ICT, and before the pandemic it was projected to grow to 62 million by 2023.<sup>4</sup>



## The Digital Economy is Already Large

The digital economy comprises up to 15.5% of the global GDP.<sup>2</sup>

## The Digital Economy is still Growing

A report by Huawei and Oxford Economics predicted that the digital economy will be worth 23 trillion dollars and comprise 23.4% of the global economy by 2025.<sup>3</sup>

<sup>1</sup> Source: [GSMA](#) <sup>2</sup> Source: [Digital Economy Report 2019](#)

<sup>3</sup> Source: [Huawei](#) <sup>4</sup> Source: [Statista](#)

THE SOLUTION

# Creating a Task Force

## THE SOLUTION

# CREATING A TASK FORCE

A task force will be created with the mission of helping girls attend and stay in school and helping them access digital skills education. To do this, they will have two main objectives.

Secondly, they will identify and partner with charities helping solve for barriers girls face to education, and the task force will assist the charities in expanding their operations. They will also broker partnerships with local technology companies to recruit employees as part time instructors and to provide paid internships for the girls after they complete the program.

Third, the task force will help the charity implement the digital skills program in the girls' school, allowing the girls to learn the necessary digital skills to participate in the digital economy in the future.





# HOW THE TASK FORCE WOULD OPERATE



## STEP 01

Assemble general task force. The roles of the task force members would be researching locations, partnering with NGOs and local tech companies, and developing curriculums.



## STEP 02

Select location to work in, where girls face barriers to education and don't have access to digital skills.



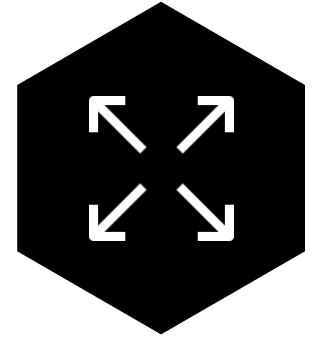
## STEP 03

Talk to and recruit locals to help further understanding of the barriers girls face.



## STEP 04

Contact and set up partnerships with local education charities to help them expand and implement the digital skills program for girls. Also partner with local tech companies to provide instructors and internships for the girls.



## STEP 05

Expand digital skills program further in selected location. Start researching for next location.

# Digital Skills Program

The Digital Skill Program will teach girls both basic digital skills, such as navigating the internet, and technical coding skills. These skills will help them potentially obtain internships and enable them to participate in the digital economy in the future.



## After School Program

There will be a one hour class once a week with the teacher where initially they will learn digital skills, such as navigating the internet, and then after the few first weeks they will learn coding skills . The other days of the week will be open working hours where girls can practice and work on projects.



## Providing Laptops

The program will provide students with their own laptops to allow them to independently work on their projects. Additionally, when they obtain an internship or go to college, they will then have their own laptops.



## Digital and Coding Skills

Students will first learn the essential digital skills needed to understand how to use their device. The program will also teach them more technical skills to prepare them for internships and/or technical-focused jobs.



## Local Professionals as Instructors

Through partnerships with local technology companies, the program will recruit employees to teach part time for 1-2 hours each week. These professionals will be required to have a bachelor's degree or at least 5 years experience in a STEM field and will first teach a sample lesson to ensure they have teaching capabilities.

**EXAMPLE LOCATION AND  
PARTNERSHIP**

## **Example of Outcome in Kibera**

Kibera is a slum outside of Nairobi, Kenya, that can be used to demonstrate the set up for a geographic location for the task force.

# ABOUT KIBERA



## SLUM

It is the largest slum in Urban Africa and is the second largest slum in the world. It's a suburb in the city of Nairobi with an area of 2.5 square kilometers. Population estimates range from 170,000 to 1.2 million.<sup>1</sup>



## EDUCATION

People in Kibera can communicate in English and only a quarter of students attend formal schools with 43% of girls out of school compared to 29% of boys.<sup>2</sup>



## EMPLOYMENT

About 50% of the population is employed, mostly in unskilled jobs, leaving an unemployment rate of 50%.<sup>1</sup>

<sup>1</sup> Source: [Chaffinch](#)

<sup>2</sup> Source: [Kijabe Children's Education Fund](#)

# Barriers to Girls' Education in Kibera



## Menstruation

Girls often don't have access to sanitary products and miss school when they're on their period; in some cases, they are forced out of school as well.



## Household Chores

Girls are expected to care for their siblings and complete chores in addition to their schooling- girls spend 17 hours a week on unpaid work

Reasons girls are held back from continuing their education



## Finances

Secondary school can be expensive and families often chose to send their sons to school over their daughters



## Child Marriage

Almost a quarter of girls in Kenya are married before they're 18. About 50% of 16 to 25 yr old girls are pregnant and most of these pregnancies are unwanted.

<sup>1</sup>Source: [Adolescence in Kibera](#)

<sup>2</sup>Source: [Disadvantaged Girls](#)

## Solution for Kibera

### **PARTNERING WITH KIBERA GIRLS' SOCCER ACADEMY**

Kibera Girls' Soccer Academy (KGSA) has already solved for many of the barriers to education girls face. They provide girls with not only a free secondary education but also provide menstrual products, lunch, and access to a health clinic.<sup>1</sup> Through these provisions, they have been able to achieve a 100% graduation rate before the pandemic. By partnering with them, we help girls access digital skills without the risk of other barriers such as finances or access to menstrual products blocking them.

### **IMPLEMENTING THE DIGITAL SKILLS PROGRAM**

We will implement the digital skills program at KGSA. This program will teach the girls digital skills and coding skills. These skills include basic skills such as sending emails and navigating the internet, as well as specific coding skills to prepare the girls for a career in ICT (Information and Communication Technology). Each session will be an hour long and the program will last for approximately eight months. Instructors will be from ICT companies in Nairobi.

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<sup>1</sup> Source: [KGSA Foundation](#)

## KIBERA PARTNERSHIP

# KIBERA GIRLS' SOCCER ACADEMY

The Kibera Girls' Soccer Academy (KGSA) is a secondary school for girls in Kibera that is free to attend.<sup>1</sup>



## KGSA Provides More than just Education

The school also provides students with meals, menstrual products, and primary healthcare.<sup>1</sup> This helps support girls as they complete secondary school.

**130 Students**



**Founder Won  
Forward Under 40  
Award**

**100% Graduation  
Rate**



<sup>1</sup> Source: [KGSA Foundation](#)  
<sup>2</sup> Source: [KGSA 2016 Annual Report](#)  
<sup>3</sup> Source: [KGSA Foundation](#)

## CASE STUDY 1

# Good Things Foundation

Good Things Foundation is a social change charity, and their primary mission is to teach people digital skills. The Good Things Foundation does this by setting up centres in places such as libraries or churches. They also use their online resource, Learn My Way, to teach adults the skills they need.



**3,000,000**

Number of people Good Things Foundation has helped.



**5000**

Number of centres the Good Things Foundation has set up.



**82%**

of the people that were helped were socially excluded before.

They ran a pilot program in Kenya called Doing Development in the Digital World. The program's main focus was to teach adults in developing countries the necessary skills to take part in the digital economy. They chose Kenya since it is a primarily English speaking country and had some infrastructure in place.



## CASE STUDY 2

# Laboratoria

## < Laboratoria >

### Bootcamp for Women

Laboratoria provides a 6 month boot camp for women in multiple Latin American countries. Majority of the participants haven't gone to college, a lot started but then had to drop out.

#### 6 Months

The boot camp lasts 6 months.<sup>1</sup>

#### 78% Hired

78% of graduates have been hired.<sup>1</sup>

#### 1800 Graduates

1800 women have graduated from the program.<sup>1</sup>

#### 3X Wage Increase

Women experienced a 3x wage increase.<sup>1</sup>

#### Learning to Code

In the program, women learn how to code.

#### Help finding jobs

Laboratoria helps graduates find jobs using their new coding skills. Companies pay Laboratoria to hire their students.

<sup>1</sup>Source: [Laboratoria](#)

## CASE STUDY 3

# The Kibera Slums Project: Fr. Jim Karaffa Business Academy



The Fr. Jim Karaffa Business Academy was created in 2004 in order to empower women in Kibera economically. Their mission is to promote education and successful business in Africa's largest slum. The academy provides three months of rigorous education program and four months of internship where these poor women work with the middle class business women to be empowered to run successful businesses.

## Outcomes of the Program



### ABLE TO MOVE UP

Women from Kibera moved to a middle class neighborhood because of this opportunity.



### WORK EXPERIENCE

Many had amazing work experiences such as interning with fashion designers.



### SUCCESSFUL BUSINESSES

Women have flourishing businesses where they also try to help the Kibera residents.

## 5 Phase Plan

# Timeline

How the Digital Skills Program would be Implemented in Kibera



## Phase 1

### **PLAN AND STRATEGIZE** **Estimated time: 6 months**

Hire curriculum developers and set up relationships with ICT companies in Nairobi for internships and teachers. Develop curriculum and hire teachers. Advertise the program to the girls at KGSA for next year.



## Phase 2

### **INTRODUCE PILOT PROGRAM** **Estimated time: 8 months**

Run the initial program with around 30 girls from KGSA who will be provided with laptops.



## Phase 3

### EVALUATION AND PREPARATION

**Estimated time: 4 months**

Prepare for the second year of the program at KGSA. At the same time, evaluate the results of the first year of the program and determine changes, if any, that should be made before expansion.



## Phase 4

### EXPANSION

**Estimated time: 8 months**

While the second year of the program is running at KGSA, work on expanding the program to other schools. This would include selecting schools to expand to, hiring teachers, and updating the curriculum if necessary



## Phase 5

### RUN PROGRAM IN ADDITIONAL SCHOOLS

**Estimated time: 8 months**

Run the program in the additional schools

# Costs of Digital Skills Program

For an 8-month program with 30 students, or about a quarter of the students at KGSA, the cost would be \$41,334. This would include the costs of laptops for all the girls, electricity and internet, and salaries for two professionals to come in for an hour to teach each week. These costs will be covered by the UN.

CATEGORY	ONE-TIME COST	MONTHLY COST
30 Laptops	\$15,000	N/A
Internet <sup>1</sup>	\$68.40	\$13.68
Teacher Salaries (2 teachers, each for 1 hour a week) <sup>2</sup>	N/A	\$80
<b>Total Cost for 30 Students</b>	<b>\$15,068.40</b>	<b>\$653.68</b>

**Total Cost for 8-Month  
Program: \$20,297.84**

<sup>1</sup> Source: [Poa! Internet](#)

<sup>2</sup> [Methodology](#)

# Costs of Expansion Per School

When expanding the program to other schools, there will likely be schools where there are not existing programs to support girls, such as providing a full lunch and menstrual products. Therefore, to help support the girls at those schools and help them stay in school, it is important to implement these programs in addition to the digital skills program. These costs will be provided for by the UN. Note: These estimates are for a school of 135 girls.

CATEGORY	INDIVIDUAL COST	TOTAL YEARLY COST
AFRipads Menstrual Kit <sup>1</sup>	\$15	\$2,025
School lunches <sup>2</sup>	\$0.23	\$5,899.50
Health Clinic <sup>2</sup>	\$29.84	\$4,028.4

**Total Cost for Supportive Programs  
(Not Including the Digital Skills  
Program) Each Year: \$11,952.9**

<sup>1</sup> Source: [Engineering for Change](#)

<sup>2</sup> [Methodology](#)

# 5 Year Outcome in Kibera



## Paid Internships

When the girls graduate, they will be able to receive paid internships from companies we have partnered with in Nairobi.



## Increased Interest

By exposing girls to digital and coding skills, we can help spark an interest in some students to further pursue skills and jobs relating to technology and the digital economy.



## 325 Girls Graduated

If we can branch out to 10 schools (130 girls per school), and 25% of the students take part in the program, the program would educate 325 girls.



## Ability to Move out of Slums

Girls will have the ability to gain financial independence through internships and pursuing a career, allowing them to move out of the slums.

## Who To Contact



# Katy Troyer

Katy works at the KGSA foundation which supports the Kibera Girls Soccer Academy. She is the Executive Director at the KGSA Foundation.





## 5 Year Global Outcome

If the task force is able to impact 20 locations in the next 5 years, and expand to 3 different schools on average per location, that's **60** schools impacted. If for each school, supporting charities allows for 20% more girls to attend (with an average school size of 150), that's an additional **1800** girls in school. If for each school 45 girls (25%) participate in the digital skills program, that's **2700** girls educated in digital skills.



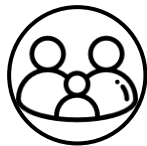
### INCREASED EARNINGS

For every year of secondary school, girls can earn up to 25% more.<sup>1</sup>



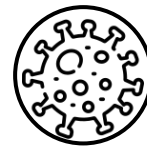
### MORE JOB OPTIONS

Having digital skills will give girls the option to pursue a career in the digital economy.



### BETTER FAMILY OUTCOMES

Women invest 90% of their earnings back into their families, and will have fewer, healthier children.<sup>1</sup>



### DECREASED RISK OF HIV

Girls are 3 times less likely to contract HIV when they complete basic education.<sup>2</sup>

<sup>1</sup>Source: GPE

<sup>2</sup>Source: USAID

# A Quick Note

We want to take a moment to thank you for providing us with this opportunity. Throughout this challenge, we've learned so much and had such an amazing experience.

Throughout this challenge, we've realized how fortunate we are to live in a place where we have access to education. The work the UN is doing to change that is incredibly inspiring.

Thanks for this opportunity,

Jeffrey, Samantha, Swatee, and Syona



Jeffrey Huynh



Samantha Hatcher



Swatee Barman



Syona Gupta

