YOUNG ACTIVISTS SUMMIT 18 NOVEMBER 2021
PALAIS DES NATIONS
GENEVA & ONLINE



YOUNG ACTIVISTS SUMMIT

TEACHING KIT

YOUNG 18 NOVEMBER 2021
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FOREWORD

In recent years, a new generation of young activists has emerged globally. Thanks to social media and global youth platforms, they use their voices and skills to speak up about inequalities or environmental crises and demand change.

As we go through unprecedented times – with the global pandemic turning our world upside down - youth have not stopped fighting tirelessly for the future they want.

While young people are often portrayed as the leaders of tomorrow, the truth is that you – young citizens of the world – have the power to make a difference today.

The activists you will discover in this kit are some great examples. They have stood up for their causes, and come up with solutions to address issues affecting their communities or the environment. They are actively leading change for the benefit of current and future generations.

The five young figures invited to the 2021 Young Activists Summit - "New generation, new solutions" will be awarded a prize for their dedication and outstanding achievements towards shaping a peaceful, sustainable, and equal world.

This document is intended for students who want to learn more about the 2021 laureates, their causes, and local contexts. Many diverse resources have been used to develop this document: contributions by the activists themselves, press articles, videos, and also reports prepared by international organizations, NGOs, etc. You can use the sources we have referenced to delve more deeply into the topics that are of particular interest to you.

We wish you a good read and look forward to welcoming you to the Young Activists Summit, online or in person, and hearing your questions on 18 November 2021. We hope you use this platform to connect with other young people from all around the world and be inspired to take action!

Follow #YAS21 on social media and visit our website for news & updates!









File compiled and produced by: Isabelle Bouillard, Tiphaine Di Ruscio, and Marina Wutholen.

LUAL MAYEN26 YEARS OLD, SOUTH SUDAN



Picture credit: Catie Dull/NPR

"Peace is something that is built over time, it's not about people coming together and signing ceasefires and so on. It's a generation of change. It's a change of mindset. It's a change of attitude toward each other." - Lual

About me

Text by Lual

My name is Lual and I am 26 years old. I am from South Sudan.

When the civil war started in my country, my family had to flee to find a place of refuge. They walked 225 miles (362 km) to find shelter and I was born on the way. I lost two of my sisters during this journey. We settled in a camp for displaced persons in northern Uganda. For 22 years, I lived in a refugee camp, with no access to proper education or health care.

I remember that the first computer I saw was the one used to register refugees in the camp. It took 3 years of work for my mom to save enough to buy my first computer. I said to myself: "If my mother can work for three years to buy this computer for me, I can learn to use it." The first difficulty was to charge it as I had to walk 3 hours every day to get to a generator. I learned how to use it by watching tutorials.

In 2017, I moved to the USA where I created my own video games company and the Lual Mayen Foundation.

For my activism, I received several prizes: winner of the <u>2020 CNN Champions for Change</u>, I was also recognized at the '2018 Game Awards' (27.5 million live streams) as the '<u>Global Gaming Citizen</u>' by '<u>Facebook Gaming</u>' and '<u>The Game Awards</u>' for using games to promote positivity and community.

My solution: Using video games to create empathy towards refugees Text by Lual



One day, a friend of mine showed me a famous video game that resonated with my experience. This is when I started to realize that video games are not just fun. **Games can be a powerful tool**. When you play a video game, you make decisions. I developed my first simple game while living in a refugee camp, at first to entertain people living there. Then, I realized it could also be a tool to **create empathy for refugees and bring social change**.

I created a mobile phone game called "Salaam", which means "Peace". This game puts the player in the shoes of a refugee fleeing a war-torn country. The character in the game is inspired by my mother. I want people to understand the journey of the refugee. You must feel it as a player and as you take care of the character.

I created a system whereby when you buy food or water in the game via in-app purchases, you actually buy it for someone in a refugee camp as the money you spend goes directly to NGOs working on the ground. I am now building a Virtual Reality experience that shows that even small behaviors and choices can have devastating and far-reaching consequences. The goal is to help the player practice and experience how to avoid war and violence in resolving a conflict.

Video games are a very powerful medium that we can use to change the world, educate, and help create empathy. I hope that my game will enlighten today's teens when they become the next generation of policymakers.

My news

Text by Lual

I am currently the CEO of the start-up Junub Games. I recently signed a partnership with game engine maker Unity Technologies to fund a **tech center for refugees** at the refugee camp where I grew up in Uganda.

I created a foundation to provide access to technology, education, and career opportunities to under-resourced communities, such as refugees in Uganda and Kenya.

From my experience as a refugee, we need to recognize that even if food and clothes are important, with technology, you give people something that they can use to make their lives better. For displaced persons or less privileged people who live in refugee camps, **learning skills and using new technologies are not only a lifeline but a key to success in life.**



My cause: Advancing refugee rights & peace through new technologies

Text extracts from:

- The Washington Post: Refugees reclaim a human right with technology
- UNHCR: <u>Figures at a glance</u>, <u>Empowering refugees through technology</u>, <u>Refugee education</u> in crisis
- UNESCO: L'éducation pour les migrants: Un droit de l'homme inaliénable
- UNICEF: <u>Unicef et Microsoft lancent une plateforme d'apprentissage mondiale contre la crise de l'éducation provoquée par la COVID-19</u>

What is a refugee?

A **refugee** is a person who is "**fleeing armed conflict or persecution**" (<u>UNHCR</u>). They leave their home country because it is too dangerous to stay. A **migrant** on the other end, is considered as "someone

who chooses to move. They might be fleeing from unrest, famine, drought, or economic collapse. But unless they are in danger of conflict or persecution, they are not considered refugees" (Britannica).

There are nearly **26.4 million refugees** worldwide, around **half of whom are under the age of 18**. Once a person becomes a refugee, they are **likely to remain displaced for many years**. It is a life in limbo.

Many refugees end up spending part of their lives in refugee camps, which are originally meant to be **temporary facilities** built to provide immediate protection and assistance to people forced to flee. Some of the world's largest refugee camps are located in Bangladesh, Uganda, Kenya, Jordan, Tanzania and Ethiopia.

Many camp residents have faced traumatic events and lack access to basic necessities and education. More than half of the 7.1 million refugee children of school age, 3.7 million, do not go to school (UN Refugee Agency, 2019). Yet education is an important tool to understand the value of peace and learn the skills that will lead to a better life.

How can technology support refugees?

Technology is a powerful tool to help refugees get an education, navigate their refugee life and rebuild their life. According to a survey conducted with Syrian and Iraqi refugees, the three most important items refugees take with them when they are unexpectedly forced to leave the homes are water, food and their phone (UNHCR). A mobile phone with an internet connection can mean a faster access to safety, keeping in touch with relatives, accessing important documents stored online, and finding out about services offered to asylum seekers.

Yet, refugees are still 50% less likely than the general population to have a connected phone and **29% do not own a phone at all**. Cost is the main barrier: Staying connected can represent up to a third of their disposable income.

Technology can help bridge the gap in education especially in the context of the COVID-19 pandemic. Better **digital inclusion** could mean access to **remote learning**, but also, **remote working**. Refugees could benefit from the increasing demand for freelancing on online work platforms, which is even higher in the context of the pandemic. Digital literacy can help refugees access the labour market and make a living to rebuild their lives.

Additional resources:

- Eduki: Refugiés
- Newlines Institute: <u>Giving refugees employment opportunities through remote work</u>
- Magazine de l'Afrique: Un travail dans le numérique : oui mais un travail décent
- Britannica: What's the difference between a migrant and a refugee?
- Peace Ed Campaign: <u>Teaching for Peace in Refugee Camps</u>
- UNHCR: Planning a Mobile Phone Distribution? 10 things to consider
- GSMA: La vie numerique des réfugiés
- UNESCO: <u>Une nouvelle vie grâce au mobile</u>, <u>A Lifeline to learning: leveraging mobile technology to support education for refugees</u>
- Techfugees: <u>La technologie au service des personnes déplacées</u>

Information about South Sudan



Republic of South Soudan

Capital: Juba

Population: 7.5-10 million Area: 619'745 sq km

Languages: English, Arabic (both official), Juba

Arabic, Dinka

Religions: traditional religions, Christianity

Life expectancy: 56 (M), 58 (W) Currency: Sudanese Pound

Sources: BBC and UN, World bank

Key facts

- Made up of the 10 southern-most states of Sudan, South Sudan is one of the most diverse countries in Africa. It is home to over 60 different major ethnic groups, and most of its people follow traditional religions.
- South Sudan became an independent country in 2011, after over 20 years of guerrilla
 warfare, which claimed the lives of at least 1.5 million people and displaced more than four
 million. Many people who had previously fled violence returned, but independence did not
 bring conflict in South Sudan to an end.
- Civil war broke out again in 2013 leading to a conflict that killed over 300'000 and displaced millions of people.
- A power-sharing agreement was signed between the warring parties in August 2018 in a bid to bring the five-year civil war to an end.
- In South Sudan, 75% of the population is less than 30 years old and has always lived in war conditions.

Government

President: Salva Kiir Mayardit (since 2005)

Sources:

- BBC
- Britannica

LOUISE MABULO 22 YEARS OLD, PHILIPPINES



Picture credit: UNEF

"We are at a critical point in time, we are uniquely positioned to rethink food systems and lay the groundwork for nature-based solutions within our communities." – Louise

About me

Text by Louise

Mabuhay!

My name is Louise Mabulo, I am 22 years old, and I am a **Chef, Farmer and Entrepreneur** from the Philippines. I am a National Geographic Young Explorer, UN Environment Programme's Young Champion of the Earth, a Forbes Under 30 Honouree, and the proud the founder of 'The Cacao Project', a social venture that positions farmers for sustainable success.

I began my journey at the age of 12, after I had become a **finalist at the TV Reality Show Junior MasterChef**, which catapulted me into a very early culinary career. In these formative years of my life, I came to train with some of the leading chefs and best restaurants in the industry, hosting pop-up dinners and excelling at professional culinary competitions— earning the title of the Philippine Culinary Prodigy, a title from Tatler Philippines. In my years of training in the culinary industry, working among some of the most well-respected chefs, I quickly caught on that food systems extended far beyond the chefs in the kitchen and the meals on our tables.

As a young girl from a primarily agricultural town, I was well-immersed in the reality that **behind these all-star dinners was the hard work of farmers and the vast ecosystem of the Agricultural Industry**. I took it as a responsibility to shed light on these realities as I evolved in my career — transitioning into farm-to-table, seasonal menus, and promoting local cuisine through my pop-up dinners.

In December of 2016 my town was hit by Super Typhoon Nock-Ten, which displaced about a thousand homes, and destroyed 80% of Agricultural land in my hometown alone, leaving countless families without a stable livelihood for months or even years. The truth is, **the Philippines experiences these typhoons year after year in increasing intensity**. On top of this, we are **one of the most vulnerable countries to hazards brought about by Climate Change** and my region is at the frontlines of these disasters and storms, and the farmers of my community are some of the people who suffered the most as their livelihoods were entirely dependent on the environment and on the weather conditions.

My solution: The Cacao Project

Text by Louise

The super typhoon event made me experience a complete turnaround: I began the **Cacao Project**, a venture where we provide farmers with the skills, knowledge, and resources they need to cultivate Climate-Smart, resilient, and diversified livelihoods. We want to shorten the gap between production and consumption, and ensure that **our work benefits both people and planet**.



We chose Cacao as a primary crop, as it is a high in demand, high-value crop that already grew in our ecosystems. It is best suited to our landscapes and is a climate-resilient crop. The Cacao Project provides farmers with cacao seedlings, and training to responsibly and sustainably produce Cacao beans at a quality standard. Ever since we began, the venture has worked with over 200 farmers, planted over 85,000 trees and reforested 85 hectares of land.

The goal is to build **sustainable**, **disaster-resilient livelihoods for farmers**. We plan to plant a million cacao trees by 2030. Every Cacao Tree absorbs up to 55kg of CO2 Emissions from the Atmosphere in a span of 10 years. Planting Cacao helps reforest barren lands, and create forest canopies that preserve water sources.

Our vision is to de-construct negative stigmas surrounding food systems and green jobs, and to harness the power of our forests to **rethink the way we produce our food**.

My news

Text by Louise

We are at a critical point in time— between a pandemic disrupting supply chains, and the triple planetary crisis, adversely impacting our food systems and further marginalizing communities of farmers, we are uniquely positioned to rethink these food systems and lay the groundwork for nature-based solutions.

I am working hard to develop new training programs, and secure the market for our harvests, finding buyers who are committed to sourcing sustainable and ethically sourced cocoa, among others.



I recently participated in the Youth4Climate Pre-COP26 event in Italy in September 2021.

My cause: Sustainable farming and climate action

Text extracts from:

- NASA: What is climate change
- FAO: Objectifs de développment durables et changement climatique
- UNEP: A beginner's guide to sustainable farming
- The Guardian: Tree planting 'has mind-blowing potential' to tackle climate crisis
- 20 minutes: <u>Déforestation</u>: 2021 sera décisive pour la protection (et la restauration) du couvert forestier mondial
- Wolf Center: What are the benefits of reforestation?

The average surface temperature of the Earth has increased by about **2 degrees Fahrenheit in the past 100 years**. The issue of climate change is more and more pressing and is affecting every country in the world.

What is Climate Change?

Climate change describes a change in the average conditions — such as temperature and rainfall — in a region over a long period of time.

A lot of factors contribute to climate, but scientists agree that the Earth has been getting warmer in the past 50 to 100 years due to human activities. This matters because climate functions like one big, connected system. Changes in temperature have a big impact on the intensity and amounts of rainfalls during storms, as well as droughts and heat waves. These directly impact biodiversity and jeopardizes crops and harvest, thus threatening agriculture/food systems. It poses a fundamental threat to global food security, sustainable development, and it causes poverty.

Agriculture must adapt, improve the resilience of production systems and the communities relying on them. In other words, we must find solutions to make farmers and consumers less vulnerable to the consequences of climate change, and empower them to act against it. Unsustainable agriculture such as industrialized farming has allowed to produce a lot of food for a relatively low cost but it pollutes, contributes to greenhouse gases and even in some cases the emergence of diseases.

What is sustainable farming?

It is farming that meets the needs of existing and future generations, while also ensuring profitability, environmental health and social and economic equity. Sustainable agriculture uses up to 56% less energy per unit of crops produced, creates 64% fewer greenhouse gas emissions per hectare and supports greater levels of biodiversity than conventional farming.

Because sustainably produced food typically requires more work than conventionally made food, it has the potential to **create jobs**. And because it can command higher prices, it can also **generate more money for farmers**.

There are many ways consumers can promote sustainable farming, such as consuming local and seasonal products or reducing their meat consumption to name a few.

Additional resources:

- UNESCO: Addressing climate change
- Fondation La main à la pâte: Office for climate education (en français)
- The New York Times: <u>Your Questions About Food and Climate Change, Answered</u> (available here)
- Geo Magazine: Agriculture durable: définition, principes et enjeux
- Libération: L'agriculture durable, un enjeu majeur pour la croissance de l'Afrique
- TV5MONDE: <u>Bénin</u>: <u>L'agro-écologie</u>, <u>une solution durable pour lutter contre l'insécurité</u> alimentaire
- UN Environment programme: Young Champion of the Earth 2019: Louise Mabulo
- TV5MONDE: L'urgence climatique

Information about the Republic of the Philippines



Republic of the Philippines

Capital: Manila Population: 104 million Area: 300'000 sq km

Languages: Filipino, English

(both official)

Religions: Christianity

Life expectancy: 66 (M), 73 (W) Currency: Philippine peso

Sources: BBC and UN, World bank

Key facts

- More than 7,000 islands make up the Philippines, but the bulk of its fast-growing population lives on just 11 of them.
- The Philippines a Spanish colony for more than three centuries and named after a 16th century Spanish king was taken over by the US in the early 20th century.
- Self-rule in 1935 was followed by full independence in 1946 under a US-style constitution.
 Spanish and US influences remain strong, especially in terms of language, religion and government.
- The constitution guarantees press freedom, but the Philippines is one of the most dangerous countries in the world for journalists.
- President Rodrigo Duterte announced a hard-line crackdown on drugs in 2016.

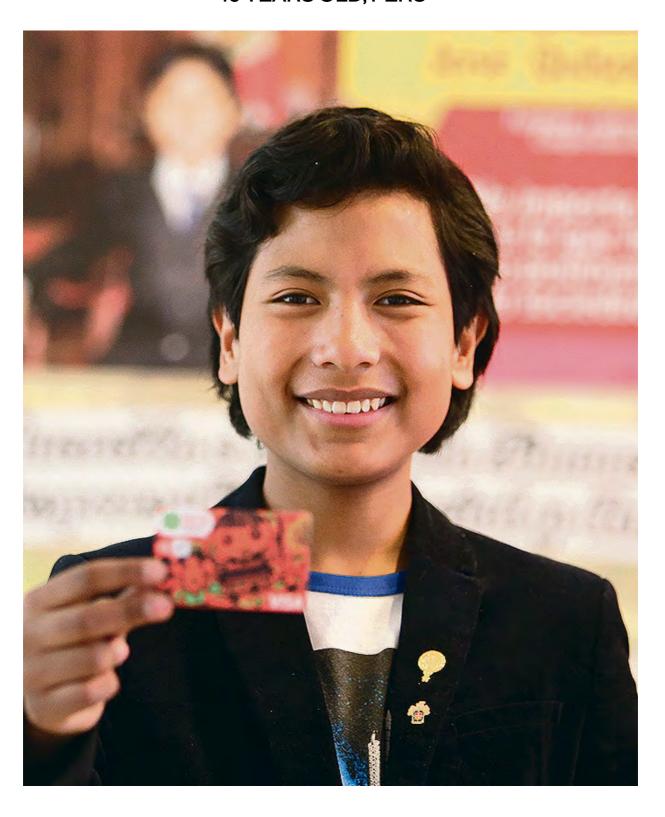
Government

President: Rodrigo Duterte since 2016

Additional sources:

BBC

JOSE QUISOCALA 16 YEARS OLD, PERU



"Children and young people are not the future of the world, we are the present that will change the world." - Jose

About me

Text by Jose

My name is Jose Adolfo Quisocala Condori, I live in the city of Arequipa, a large city with one million inhabitants in the south of Peru. I am 16 years old and I am about to start college.

For my activism, I have received many awards, at the national and international levels. I have visited many countries and recorded a documentary entitled 'Forward' about my life and my project, and other children who are taking action to change the world.

The Ministry of Education of Peru and other countries included my story in their educational materials, to encourage children in the world to solve their problems and those of their fellow citizens.

My solution: A children's bank fighting against poverty & pollution Text by Jose

When I was 7 years old, I founded the first Cooperative Bank for the girls and boys of my primary school, a bank where customers were underage, and waste (our "Eco Moneda") a currency which made them learn about the world of finances.

The bank's principle is simple: kids - whose parents are not able to afford food and/or send their children to school - are invited to visit households, shops and businesses to collect waste. When they bring the waste to the Bartselana Student Bank, they get money in return on their debit card, which allows them to feed themselves and attend school, instead of having to work. The Bank sells waste to recycling companies and works with VISA.

We collect **5 tons of paper per month**, saving trees from being felled for paper or the derivatives industry each month. I started this adventure with only 20 members, and today the Bartselana Student Bank has more than **2'500 members**, most of them aged between 7 and 18. 4,000 more are in the process of being enrolled.

9 years have passed and the idea of a 7-year-old boy has become a **triple-impact project (social, economic, and environmental)**, which has sparked great demand throughout Peru and other countries around the world.

I am convinced that, helping people understand they should not generate garbage, we greatly contribute to protecting our environment. If we turn waste into "Eco Monedas", we tackle economic problems and improve the quality of life of future generations.



My news Text by Jose



Our challenge is now to expand, in order to meet the demand of thousands of children in Peru and abroad. To achieve this, we are training children and adolescents to lead the launch of new "Banco del Estudiante" agencies in other cities in Peru.

We are also working on expanding our project to Ecuador, Colombia, Argentina, Uruguay and Mexico, through our social franchise.

My cause: Empowering young people & protecting our planet

Text extracts from:

- International Institute for Sustainable Development: <u>Fusion des Programmes de lutte</u> contre la pauvreté et des Programmes environnementaux
- The New York Times: Futures in peril, the rise of child labour in the pandemic (available here)
- mtaterre.fr: <u>C'est quoi le développement durable</u>?
- Le Petit Journal: Appauvrissement inexorable des Péruviens
- The Guardian: The Green Bank for kids set up by a child
- The World Bank: The Global Findex Database 2017
- Eine Welt: La microfinance : un remède contre la pauvreté

What is poverty?

We live in a world of inequalities. 1% of the richest own 44% of the world's wealth, while half of the world population must live with less than 5.50 US dollars per day (IISD). World Bank estimates show that the global economic crisis due to the COVID-19 pandemic will push 71 million people into extreme poverty, which means living with less than \$1.90 per day.

In 2019, only 40% of Peruvians had a bank account, while access to savings and bank loans can help people come out of poverty.

Poverty and Education

Poverty and education are intertwined. Global poverty rates could be more than halved if all adults completed secondary school (Unesco policy paper, 2017). In **Peru, poverty hit 28.5 % of the population and extreme poverty 7.6% of the population**, in 2020 (Economic Commission for Latin America, ECLA).

As under-privileged families rely on their children to work and survive financially, many children drop out of school. At the national level, 12% of children leave school before age 13, and 17% do not finish secondary school. The pandemic amplified this issue. In Peru, like in many other countries, school

closures have led to even more children working to earn a living in order to survive, sometimes in dangerous conditions.

Environment

On the waste front, Peru has to tackle an estimated 18'000 tons of solid waste every day, half of which is not disposed of in landfills and ends up on streets, beaches and in rivers.

Sustainable development

Jose's model functions like a virtuous cycle promoting **sustainable development**, that means a type of development that meets the needs of the present without compromising the ability of future generations to meet their own needs. There are four dimensions to sustainable development – society, environment, culture and economy – which are intertwined, not separate. In this case, Jose's bank helps protect the environment, while empowering young people financially, therefore tackling poverty and promoting access to education.

Additional resources:

- United Nations: <u>Sustainable development: Student resources</u>
- UNESCO: <u>L'éducation en vue des objectifs de développement durable</u>, <u>Sustainable</u> development
- UNICEF: Keeping children in Peru learning in the time of COVID-19
- Global Citizen: Ecoles en plastique
- The New York Times: As Covid-19 closes schools, world children go to work (available here)
- Entrepreneurs du monde: <u>L'inclusion financière pour développer l'emploi et faire reculer la pauvreté</u>
- France Inter: À 13 ans, il crée la banque des enfants pour protéger l'environnement

Information about the Republic of Peru



Republic of Peru

Capital: Lima
Population: 32.6 million in 2020
Area: 1'285'216 sq km
Languages: Spanish, Quechua,
Aymara
Religions: Christianity

Life expectancy: 72 (M), 76 (W)

Currency: nuevo sol

Sources: BBC and Britannica

Key facts

- Peru is the third largest country in South America.
- Peru has been experiencing an economic boom. Foreign investors, attracted by the government and encouraged by favorable conditions, have been keen to get involved in exploiting the country's mineral wealth, sometimes in the face of local resistance.
- Peru has also become the world's leading producer of cocaine.
- The country is still trying to come to terms with the trauma of a two-decade conflict roughly from 1980 to 2000 - between the State and leftist guerrilla groups, the Tupac Amaru Revolutionary Movement and the Shining Path, which still has a following.

Government

President: Pedro Castillo since 2021

Additional resources:

- BBC
- Britannica

GITANJALI RAO 15 YEARS OLD, USA



Picture credit: Hamza for TIME

"Our generation is growing up in a world where problems that have not existed before are coming up including old problems such as the pandemic. Innovation and a problem-solving mindset are a necessity and not a luxury in our education system." - Gitanjali

About me

Text by Gitanjali

My name is Gitanjali Rao, and I am 15 years old. I come from Lone Tree, Colorado, USA.

I am an **aspiring scientist, innovator, author, and active promoter of science**. For the last 4 years, I have focused on my own innovations tackling water quality, opioid addiction and cyberbullying while sharing my process of innovation with students and educators across the globe.

I invented two devices, one called "**Tethys**", an early lead detection tool, and the other one called "**Epione**", a device for early diagnosis of prescription opioid addiction using genetic engineering. I also created "**Kindly**", an anti-cyberbullying service using Artificial Intelligence and Natural Language processing.

I was honoured to be recognized as America's Top Young Scientist, and I received a Presidential Environmental Youth award. I was also honoured as Forbes "30 Under 30 in Science" in 2019 and TIME's "Top Young Innovator" and "TIME Kid of the Year" for these innovations.

Helping the community that inspires students with a can-do attitude is very self-satisfying. I am fortunate to get support from my mentors at an early age for some of my innovations. I feel a sense of moral responsibility to share that. It gives me a perspective that there is an **inequality in the opportunity for students worldwide in terms of resources**. Things that I have taken for granted, such as clean drinking water, basic school necessities such as books, the internet, and qualified teachers, are not easily available everywhere. It helped me learn about different cultures, tolerance levels, and the value of hard work. It warms my heart to see these students' responses that they were unaware of certain options, resources, and tools available.

I believe it is my responsibility to share some of what I was fortunate to receive. I learned the importance of communicating effectively to diverse groups of individuals with varied backgrounds and being humble enough to accept the fact that I have a lot to learn. I believe we stop growing when we stop learning. The feedback I get make me want to do better, empathize to the needs of many who are just looking for an opportunity and help cultivate the next generation of innovation leaders.

My solution: Using science & innovation to solve world problems Text by Gitanjali



I am on a mission to introduce simple tools and an innovation process to millions of students worldwide who are eager learn but have limited resources.

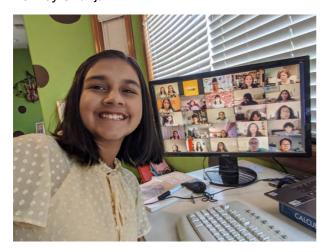
I believe in the use of empathy to advocate for a people-centred approach to invention and problem-solving. I host and conduct innovation sessions and workshops to students around the globe to inspire them to create their own creative solutions to world problems. My long-term vision is to introduce

innovation tools and techniques earlier in our education and in the curriculum, across the world, so that everybody can develop ideas and use science as a catalyst for social impact and change.

I believe it is important to harness the ingenuity of youth and youth need to be part of tomorrow's solutions since we are facing problems that are new, unknown, in addition to problems such as pandemic which still exists. While there are problems, we are fortunate to live in a world where we have access to technology and information within seconds, so it's our duty and responsibility to not only bring awareness to issues, but also build solutions. We're looking for a sustainable world, one that everyone WANTS to live in and we youth play a role in it as well.

In the coming decade and beyond, we need to alleviate problems of availability of educational resources around the world, especially in economically disadvantaged countries. To tackle this problem, I do my small part in bringing awareness of these groups and request organizations to support them and I conduct remote sessions so their zeal to learn in spite of the resource constraints is recognized by the world.

My news Text by Gitanjali



I am working to partner with global organizations to reach out to 1,000 schools and 100,000 students by the end of 2021. I am halfway in my goal and have reached up to 50,000 students across 26 countries. I have partnered with UNICEF to enhance Kindly, my anti-online-bullying service, which will be rolled out worldwide end of 2021. It will be open sourced and can be used by anybody and youth can contribute to it.

My cause: Innovation & Science for Social Progress

Text extracts from:

- Vie-publique.fr: Progrès technique et mutations du travail : hier et aujourd'hui
- Business Insider: A key player in China and the EU's 'third industrial revolution' describes the economy of tomorrow
- UNESCO-BIE: A Resource Pack for Gender-Responsive STEM Education
- Unicef: Safer Internet Day: UNICEF calls for concerted action to prevent bullying and harassment for the over 70 per cent of young people online worldwide
- The Washington Post: The changing face of science
- Cell: Next generation scientists: past, present and future

What is social progress and how can science serve this purpose?

Social progress is characterized by an **improvement of the living conditions of human beings** brought by a **change in their society's organization**. In the history of science and social progress, there are **three industrial revolutions**:

- End of 18th century to early 19th century: invention of steam engines and railways
- End of the 19th century: invention of electricity, thermal combustion engines, running water, chemistry, petrochemistry, telephone. This industrial revolution brought the most economic gains, but also major social progress with gains in life expectancy, transport networks, and the lightening of the burden of domestic work.
- The third industrial revolution started in the 1960s and is still being deployed. It entails computers, the Internet, cell phones, and more generally ICTs (information and communication technologies)

Scientific innovations have therefore improved our living conditions in most parts of the world over the course of the past centuries.

But there are also **concerns** that they could fall into the wrong hands and impede social progress rather than promote it, if we don't control them. Examples include:

- Science innovations being used for acts of terror or criminality (drones for instance)
- Deepfakes: this new technology uses deep learning artificial intelligence to replace the likeness of one person with another in video and other digital media (<u>Business Insider</u>), which allows its creator to make a person say whatever they want in a video. There are concerns that deepfakes could manipulate public opinion and foster misinformation.

Unlike these examples, Gitanjali's three inventions have had helped improve the lives of their users, and thus had a very positive impact. Gitanjali believes that science and innovations have the power to solve the challenges the world is facing today and will be facing in the coming years (for instance, renewable energies can help reduce carbon emissions which lead to climate change).

The 2030 Agenda for Sustainable Development, adopted by the United Nations in 2015, underscores the crucial role that science and technology play in finding innovative solutions for making progress towards a more sustainable, prosperous, and equitable world.

The case of cyberbullying

Gitanjali's latest invention is an application called Kindly, helping prevent cyberbullying, which means using the Internet to harm or frighten another person, especially by sending them unpleasant messages (<u>Cambridge Dictionary</u>). It can happen on social media, messaging platforms, gaming platforms and/or mobile phones. 70% of young people worldwide have experienced online violence, digital harassment and cyberbullying (Unicef, 2019).

Sometimes bullies do not fully realize they are acting as such. This scientific tool is therefore focusing on changing social behaviors for the better. Using artificial intelligence, her solution against cyberbullying is centered around the idea of making people think about their behavior <u>before</u> actually sending an offensive message. This is a good example of how a critical issue can be tackled by scientific tools and innovations.

Ensuring equal access to scientific education

But to foster innovation and progress, we need to ensure that people have access to education and are encouraged to undertake STEM (Science, Technology, Engineering and Mathematics) studies.

STEM education remains a daunting challenge worldwide. A lack of professionals in STEM-related fields severely impacts development opportunities in many countries. Gitanjali 's example is particularly inspiring as around the world, women are still largely under-represented in STEM fields. Only an average of 30% of researchers are women worldwide (UIS, 2017).

"Around the world, people understand that improved representation is important at every level. Increased diversity in science brings in people with different backgrounds who ask different questions and bring new perspectives to the scientific process — pushing the field forward" (Washington post, 06/17/2021, WP Creative Group).

Additional resources:

- Agence Ecofin: <u>Cameroun: Danielle Akini forme les enfants à la programmation informatique, dès 4 ans</u>
- Medium: L'innovation au service du progrès social
- The National News: Why the UAE is tailoring its tech strategy around the young
- Le Monde: «Si je peux le faire, vous aussi en êtes capables »: la lycéenne américaine Gitanjali Rao désignée « enfant de l'année » par « Time »
- BBC: Four teenage inventors changing our world

Information about the USA



United States of America

Capital: Washington D.C.
Population: 316 million
Area: 9.8 million sq km
Languages: English
Main religion: Christianity
Life expectancy: 76 (M), 81 (W)

Currency: US dollar

Sources: BBC and Britannica

Key facts

- The United States is the world's greatest economic power. The nation's wealth is partly a reflection of its rich natural resources and its enormous agricultural output, but it owes more to the country's highly developed industry.
- The United States is less than 250 years old. It originated in a revolution which separated it from the British Crown. The constitution, drafted in 1787, established a federal system with a division of powers which has remained unchanged in form since its inception.

Government

President: President: Joe Biden since 2021

Sources:

- BBC
- Britannica
- Nations online

TITOUAN BERNICOT

22 YEARS OLD, FRENCH POLYNESIA



Picture credit: Coral Gardeners

[&]quot;This is a rallying cry. Small actions go a long way when repeated by the many. We're creating a global movement to take on the issues facing our oceans." - Titouan

About me

Text by Titouan

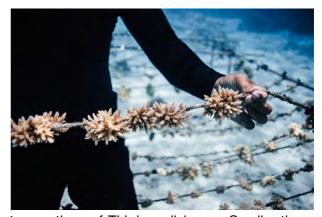
My name is Titouan, but everyone calls me Tit. I am 22 years old. I was born on a small atoll island, lost in the middle of the Pacific Ocean, in the Tuamotu archipelago where my parents owned a pearl farm.

Basking in saltwater before I could even walk, I was always well versed by the qualities of the ocean and the coral reefs. They have given me everything in my life: the waves I surf, the food I eat and even the oxygen I breathe. They hold a very important place in my perception of things.

My solution: Planting corals & protecting the ocean

Text by Titouan

After noticing the terrible degradation of my home reef, I started Coral Gardeners in 2017, when I was 18 years old. I built up the organization to a team of more than 20 members and gathered around me a movement of half a million people to save the coral reefs. Together, with my team, we have planted over 15,700 corals around the island Mo'orea in French Polynesia.



Coral Gardeners exists to revolutionize ocean

conservation and **generate collaborative action** to save the reef. This is a rallying cry. Small actions go a long way when repeated by the many. We are creating a global movement to take on the issues facing our oceans. We **raise awareness** that sparks a passion in our community, so they want to dedicate themselves to this cause.

We have become the largest and most advanced reef restoration program in the world. The project aims to scale up coral reef restoration around the world and plant one million corals by 2025.

My news Text by Titouan



In 2021, I received a Grant from the National Geographic Society, officially becoming a National Geographic Explorer. The grant supported Coral Gardeners' first field expedition in the Tuamotu Islands to assess the state and health of the coral reefs and improve the team's scientific knowledge. This mission was the first step towards expansion.

In December 2020, we offered the world a new way to join our movement by adopting **super**

corals. Thanks to their adoption, our restoration team will be able to grow and plant more super corals to create a resilient reef ready to take on the future.

My cause: Ocean conservation

Text extracts from:

- National Geographic: Coral reefs 101
- NPR: Fearing their kids will inherit dead coral reefs, scientists are urging bold action
- Encyclopedie-environnment.org: Coraux: les ingénieurs des océans sont menacés

The ocean is the heart of the planet. It is often thought that rainforests are the primary source of oxygen on the planet, but the truth is that rainforests are only responsible for 28% of the oxygen on earth while oceans are responsible for 70% of the oxygen we breathe.

What is a Coral?

A coral looks like a vegetal, but it is an animal. They are alive. **Corals are in fact made up of tiny animals called coral polyps**. Hundreds, even thousands of polyps can make up a coral. Corals live in a sort of domestic partnership with microscopic algae. This phenomenon is called symbiosis: the algae provide food to corals which allows them to grow and form coral reefs. They are also responsible for the vibrant colors that the corals exihibit.

Coral reefs are biodiversity hotspots. While they cover less than 1% of the ocean floor, they are the home of 25% of all fish species.

Why are corals dying?

Corals are suffering from **climate change**. Under periods of intense heat stress, the corals expel the algae, leaving only white skeletons. That's what we call "**coral bleaching**". Some reefs can recover over time, but many die as a result.

The acidification of the oceans is another critical factor. Carbon dioxide produced from burning fossil fuels gets absorbed by the oceans and reacts with the water to make it more acidic. This increased acidification can erode reefs and makes it harder for corals to build their skeletons. The world's coral reefs could all disappear by 2050 if nothing is done.

How can we fight this?

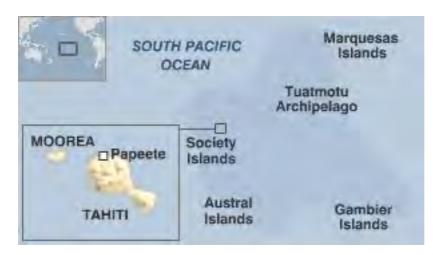
Research has shown that **some corals can resist to hotter temperatures.** These "super corals" are being studied by scientists, and in the case of Titouan, actively grown and replanted to rebuild the reefs. But the world needs to bring down greenhouse gas emissions.

"For coral reefs to survive, **emissions would have to fall to zero before 2100,** and restoration and adaptation tools would have to be rolled out in a widespread way in the next 20 to 30 years" stated Joanie Kleypas, a scientist at the U.S. National Center for Atmospheric Research (NPR, 27/05/21). Preventing **further pollution and overfishing are also key** for coral survival. **500 million people around the world rely on corals for** food, jobs and flood protection, since reefs also help prevent storm surges from inundating coastlines.

Additional resources:

- UNESCO: <u>Ocean Literacy Portal (multilingue)</u>, <u>« Le meilleur des océans » : une reconstruction durable grâce à la connaissance de l'océan</u>
- Living Oceans Foundation: Coral: What is it?
- Disney Nature: Qu'est-ce que le corail?

Information about French Polynesia



French Polynesia

Capital: Papeete

Population: 279'287 in 2019

Area: 4'167 sq km

Languages: French, Tahitian and

Polynesian languages Religions: Christianity

Life expectancy: 76 (M), 80 (W) Currency: Franc Pacifique

Sources: BBC and Britannica

Key facts

- French Polynesia is a sprawling possession of France in the Pacific Ocean, made up of 118 volcanic and coral islands and atolls, including Tahiti.
- The islands became an overseas territory of France in 1946.
- There are five island groups the Society Islands, the Tuamotu archipelago, the Gambier Islands, the Marquesas Islands and the Tubuai Islands.
- Tahiti is the most densely-populated island. Overall, about three-fifths of the population is urban.
- French Polynesia enjoys a high standard of living, but wealth is unevenly distributed and unemployment is high.
- Tourism is the main activity; travellers favour Tahiti and Bora Bora.

Government

Head of state: President of France Emmanuel Macron

President: Edouard Fritch since 2014

Sources:

- BBC
- Britannica

STACY DINA ADHIAMBO OWINO

21 YEARS OLD, KENYA



Picture credit: Stacy Dina Ahiambo

[&]quot;I grew empathetic over the years and came to the realization that solutions can be created even for society issues that don't directly affect us." - Stacy

About me

Text by Stacy

My name is Owino Stacy, a 21-year-old tech enthusiast from Kenya.

I began my journey at the age of 17, after I had become a finalist for the global Technovation challenge in 2017. This experience sparked my interest in technology, specifically programming and influenced my decision to pursue Mathematics and Computer Science degree at the University.

I first learned about female mutilation watching a night news TV documentary which highlighted the practice and had a few survivors tell their stories.

See, I come from a community that never mutilates its women and girls and I remember hearing their stories and thinking, "Thank goodness it's not me or any of my immediate friends". I was only twelve.

But that documentary was in my subconscious and when I had the opportunity to participate in the Technovation challenge, I saw a chance to be part of the solution. I had grown empathetic over the years and came to the realization that solutions can be created even for society issues that don't directly affect us. In addition, I was privileged enough to have access to information and was in a position to assist even with the little resources I had.

My solution: An app to prevent female genital mutilation (FGM)

Text by Stacy

I am the founder of the **Uncut Gems Anti-FGM foundation**, known popularly as team Restorers, which aims to **protect girls from female genital mutilation by the use of a mobile application**, **iCut**, while seeking to eradicate the practice.

When my teammates and I started working on how to do it, we realized that there was a **gap between** girls at risk and their access to the relevant authorities which we wanted to bridge.

Brainstorming all the possible features that would be in iCut was an intensive process given our then limited knowledge on the cut. We however were able to identify three features that would be key:

- Call Enable girls talk to an operator
- Help send out text messages
- Rescue see and contact rescue centers and police posts nearest to them.

We also thought it would be good to also include a donate feature to help fight the cause.

During our pilot in West Pokot county, we were able to introduce the application to the locals in homes and learning institutions. We however realized that most of them did not own smartphones and the application would therefore have less impact. We then decided to create a USSD code (a quick code/number) enabling users to call and report these cases, mimicking the app's features.

The foundation is led by five young women whose passions lie in using technology for social good. Annually, we train high-school girls in mobile application development and business plan creation, hoping to not only spark their own STEM (Science, Technology, Engineering, and Mathematics) interest but also bring up a community of self-starting problem solvers.

My news

Text by Stacy

The team's efforts was recognised by the European Parliament as finalist nominees for the **Sakharov prize for freedom of thought** and the approach used by Netexplo (a digital innovation observatory).

I am a member of the Youth Sounding board for International partnerships in the European Commission, advising the commission on policies that increase youth participation in partner countries.

I am currently an intern at iLab Africa Research center looking to expand my knowledge on Internet of Things technology and how to implement the technology in long term implementation of iCut even to a larger user base.

My cause: Female genital mutilation

Text extracts:

- World Health Organization: Female Genital Mutilation
- End FGM European Network: What is FGM?
- Fonds des Nations Unies pour la Population: <u>Les mutilations génitales féminines</u> questions fréquemment posées

What does female genital mutilation mean and to what extent is it practiced?

Female genital mutilation (FGM) involves the partial or total removal of external female genitalia or other injury to the female genital organs for non-medical reasons. **The practice has no health benefits for girls and women.**

The practice is mostly carried out by traditional circumcisers - who often play other central roles in communities - on young girls between infancy and age 15.

More than 200 million girls and women alive today have been subjected to the practice, according to data from 30 countries where population data exist. The practice is mainly concentrated in the Western, Eastern, and North-Eastern regions of Africa, in some countries the Middle East and Asia, as well as among migrants from these areas. **Female genital mutilation is therefore a global concern**.

More than 3 million girls are estimated to be at risk for female genital mutilation annually.

In 2014, it was estimated that **4 million Kenyan women**, around a fifth of the female population, had undergone some type of female genital mutilation. But attitudes in many communities have changed and Kenya is seen as being among the more progressive countries in Africa on the issue. Just over **10% adolescent girls aged between 15 and 19** are now estimated to have undergone female genital mutilation, **down from almost 50% in 1974.**

Why is it practiced?

Female genital mutilation is often considered a necessary part of raising a girl, and a way to prepare her for adulthood and marriage. It is regarded as a **rite of passage**.

Female genital mutilation is associated with **cultural ideals of femininity and modesty**, which include the notion that girls are clean and beautiful after removal of body parts that are considered unclean, unfeminine or male.

Some think that the practice is supported by **religion**, while there are no religious scripts prescribing female genital mutilation.

Where female genital mutilation is traditionally practiced, there are strong motivations to perpetuate it. There is a strong social pressure to conform to what others do and have been doing, along with the fear of being rejected by the community. In some communities, female genital mutilation is almost performed on every girl and remains unquestioned by everyone.

"In FGM-practicing communities in Kenya, while it is women who cut fellow women, **men are the decision-makers**. However, they have no idea what is cut, how it's done and what damage is caused to women", Tony Mwebia, founder of the Men End FGM foundation, stated.

Why should we fight against it?

Female genital mutilation can cause **severe health consequences** for women, including: bleeding and problems urinating, infections, complications in childbirth and increased risk of newborn deaths. In addition to the severe pain during and in the weeks following the cutting, women who have undergone female genital mutilation experience various long-term damage – whether it is **physical**, **sexual or psychological**.

Moreoever, "the pain inflicted by female genital mutilation does not stop with the initial procedure, but often continues as ongoing torture throughout a woman's life", says Manfred Nowak, former UN Special Rapporteur on Torture.

Female genital mutilation is recognized internationally as a violation of the human rights of girls and women:

- It reflects deep-rooted inequality between genders, and constitutes an extreme form of **discrimination** against women.
- It is nearly always carried out on minors and is a violation of the rights of children.
- The practice also violates a person's rights to health, security and physical integrity, the right
 to be free from torture and cruel, inhuman or degrading treatment, and the right to life when
 the procedure results in death.

Some argue that because female genital mutilation is a traditional practice, it should not be questioned or banned. While culture and traditions are key to a community's well-being and unity, they should not be perpetuated if they cause violence against human beings. In addition, **culture is never permanent, but rather evolves overtime**. Behaviours and mindsets can change if people understand the prejudice caused by such practices. With this said, efforts to ban female genital mutilation should also be carried out in a cultural-sensitive way.

Unfortunately, discussing sex and related topics such as female genital mutilation is still **taboo** in many Kenyan communities, especially among men. Moreover, men who speak against female genital mutilation can be seen as traitors, attacking a long-standing cultural practice. But eliminating

FGM will only be possible if all society members (families, communities, religious leaders, decision-makers, media, etc) and international community work together.

Every year on **6 February**, the International Day of Zero Tolerance for female genital mutilation calls for the end of this practice.

Additional resources:

- UNICEF: Que sont les mutilations génitales féminines? Le point en 7 questions
- BBC News: Kenyan men join battle to end FGM
- AfricaNews: Kenya upholds female genital mutilation ban
- Reuters: Kenya dismisses challenge to its ban on female genital mutilation

Information about Kenya



Kenya

Capital: Nairobi
Population: 48.5 million
Area: 582,646 sq km
Languages: Swahili and English
Major religion: Christianity
Life expectancy: 63 (M), 69 (W)
Currency: Kenya Shilling

Sources: BBC and Britannica

Key facts

- Situated on the equator on Africa's east coast, Kenya has been described as "the cradle of humanity". In the Great Rift Valley palaeontologists have discovered some of the earliest evidence of man's ancestors.
- In the present day, Kenya's ethnic diversity has produced a vibrant culture but is also a source of conflict.
- The Islamist militant Al-Shabab movement, active in Somalia, has also been launching a
 growing number of attacks in Kenya, including the 2013 Westgate shopping mall in Nairobi
 and the 2015 attack on Garissa University College in northwest Kenya.
- Other pressing challenges include high unemployment, crime and poverty. Droughts frequently put millions of people at risk.

Government

President: Uhuru Kenyatta since 2013

Sources:

BBC