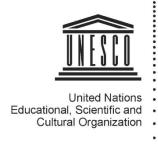# YouthMobile

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EMPOWERING YOUNG PEOPLE

2016 and beyond

YouthMobile is…

…an innovative UNESCO initiative that aims to engage a critical mass of young people to acquire basic technical skills and confidence to develop, promote, and sell locally relevant mobile applications (Apps) that address local issues of sustainable development.

Launched in 2014 by the Communication and Information Sector of UNESCO, the YouthMobile Initiative seeks to demonstrate that programming mobile apps can be fun and requires different skillsets and ideas.

The initiative also aims to provide an opportunity for young men and women to be introduced to entrepreneurship and to create viable employment opportunities in the mobile/Information and Communication Technologies (ICTs) industry.

The global objective of the Initiative is to empower at least 25,000 young people to develop, distribute or sell mobile Apps for sustainable development by 2017.

Why?

At a time when the world is looking for new ways to build peace and sustainable development, encouraging innovation and creativity of the youth will be vital in effectively addressing these challenges.

As the global community approved the new Sustainable Development Goals (SDGs) to achieve by 2030, the YouthMobile Initiative recognizes the significant potential of smart mobile applications to achieve the SDGs -- especially as the next 1 billion new internet connections will be from mobile devices in the hands of young people in developing countries.

The positive impact of connectivity on a country's economy is well documented. Economics, local demand, and technology are all coalescing at the same time. Mobile learning thus represents a significant opportunity for local community leaders and the private sector. However, as today's society is heavily impacted by mobile communication technologies, there is an increasing awareness that technology should not only be perceived by the general public as a consumer good.

The Internet is often seen to be a vector for services to people and communities. It is exactly for this reason that everyone, particularly the youth, should acquire a comprehensive understanding of technology as a tool for expression, creativity and innovation which should be mastered for harnessing its potential – and deliver innovative effective services, but also to apprehend its risks and dangers.

By advocating to incorporate ICT development trainings for teachers and individuals working in the private or government sector, YouthMobile aims at leveraging efforts geared to developing the capacities of these teachers and trainers and raise awareness about the potential of mobile phones in everyday life.

The YouthMobile Initiative builds on the experience of many worldwide programmes that introduce young people to computer science programming (learning-to-code) and problem solving (coding-to-learn). The Initiative also builds on the consideration that for millions of young people, the smartphone in their pocket is a very powerful computer, and probably their only computer, used for nearly every aspect of their lives: communicating, learning, taking pictures, and playing games. Such computing power can be used for directly addressing their personal challenges or the problems faced by their local communities.

Indeed, the opportunities for mobile phones to enable youth to reach their potential and educational opportunities are numerous. For example, Estonia and UK introduced coding in primary schools in 2012 and 2013 respectively. The US has been pushing initiatives such as Code.org and the "Hour of Code", supported by some major tech companies, which advocate that every school student should have the opportunity to learn computer coding.

Furthermore, in an increasingly connected and technological world, one of this century's biggest challenges is to understand and harness data, information and knowledge. "Coding" or "programming" is an excellent and stimulating way of introducing students to these concepts.

YouthMobile has the potential to accelerate access to this vocational training along with informal and formal education. It can help create a more practical and current set of learning tools to match the rapidly changing skills required in today's workforce, building a new generation with the required skills and confidence to succeed in an emerging knowledge society.

CODING AT SCHOOL IN EUROPE

A 2015 survey has shown that **15 EU countries** have already integrated coding in their school curriculum at various levels.

Coding at **primary school** level soon: **9** EU countries

> Already integrate: Estonia, France, Spain, Slovakia, UK.

> Will integrate: Belgium (Flanders), Finland, Poland, Portugal.

Coding at **upper secondary school** level in general education: **12** EU countries

> Austria, Bulgaria, Denmark, Estonia, France, Hungary, Lithuania, Malta, Poland, Slovakia, Spain and the UK.

Computational thinking

But coding is not just for 'computer geeks' or those seeking employment in the ICT sector. Most countries say their aim is also to develop students' logical thinking skills and problem-solving skills, which are beneficial to all students.

Source: http://www.euractiv.com/sections/eu-code-week-2015

For Who?

UNESCO strongly believes that encouraging innovation and creativity of youth is vital for effectively build new realities for themselves and their communities.

Thus, the primary targets of YouthMobile are young women and men who are making important decisions for their future. The UNESCO initiative aims to empower them by making them directly benefit from up-to-date knowledge in the rapidly-changing world, and to give them the necessary skillsets to be competitive in the local, national or international markets.

Within UNESCO's mandate and commitment to promote equality between women and men, the YouthMobile initiative pays particular attention to young women. As women are vastly underrepresented in in the STEM fields (Science, Technology, Engineering and Mathematics), UNESCO strongly believes that the YouthMobile initiative can contribute to solving the gender imbalance that exists internationally. By introducing young women to the necessary 21st century skillsets, YouthMobile Initiative intends to help them become powerful agents of change to achieve gender equality.

This aspect is particularly important as highlighted by the 2013 Report of the UN Broadband Commission which indicated that women were on average 21% less likely to own a mobile phone – representing a gender gap of 300 million women.

YouthMobile also deliberately targets disadvantaged youth, people with disabilities, in rural areas, Least Developed Countries (LDCs), Small Island Developing States (SIDS), and in Indigenous and minority communities.

How?

Owing to the outcome of the first YouthMobile Experts Meeting that was held at UNESCO's Headquarters in March 2014, which brought together world-leading training providers of mobile apps development for young people to share best practices and design a strategy to reach a critical mass of young people. The Initiative carried out the first YouthMobile training workshops a few months later along with collaborators to the programme.

The first YouthMobile experts meeting, Paris, France
©UNESCO, 2014, Aleksandra Humo

The YouthMobile Initiative works with ICT-enabled youth organizations globally to provide youth with informal learning opportunities and assists Member States in the development of long term strategies to include Mobile App development into the formal education system and scaling-up access to the necessary 21st century skills.

These partnerships also seek to create a sustainable pool of trainers, support staff, and mentors, and to develop and share comprehensive, multi-lingual, open-licensed training materials for mobile apps development for young people.

Finally, the YouthMobile Initiative seeks to support activities building solid links between the worlds of skill education, entrepreneurship and marketing, so that beneficiaries of training initiatives, particularly unemployed youth, get more opportunities to effectively use their skills for giving shape to their ideas as viable real-life business activities. This link will be further explored in 2016-2017, with a specific focus on Africa and women.

An overview of YouthMobile activities in 2014-2015
T=Training Workshop; A=National Assessment; ●=Competition; C=Conference; F=Future Project

Strategy

YouthMobile aims to cooperate with UNESCO's Member States to assist in the introduction of mobile apps development curricula within the formal education system, by training teachers to teach the students and identifying all schools worldwide with existing programs for advanced computer studies through situation analyses.

The Initiative seeks to collaborate with Ministries of Youth, Labor, Education, Women, Information and Communication Technology (ICT). Hence, it focuses on policy development and standard setting to build inclusive and sustainable knowledge societies and provides technical assistance by experts, needs assessment and policy formulation. One of the objectives is to reduce chronic youth unemployment through the sale of smart mobile applications, the formation of small businesses, and through acquisition of employability skills.

The Initiative also develops the capacities of teachers and telecommunication advocates as well as raises awareness about the potential of mobile phones in everyday life for all in society. In fact, trainers are empowered to teach a new, innovative course in mobile apps development, acquiring ICT-pedagogy skills.

Finally, UNESCO seeks to work closely with national authorities by encouraging them to provide open data and on engaging the private sector to do so to allow young people to build mobile apps based on the data provided. Such data could then be used by the youth to solve local issues and contribute to sustainable development. Hence, YouthMobile will also collaborate with the national authorities and the private sector of the country to develop competitions aiming to solve a specific issue identified by the authorities in collaboration with UNESCO.

Results

Since its inception, in March 2014, the YouthMobile initiative has successfully been rolled out in 15 countries worldwide and has contributed to expanding the outreach of a number of other relevant exciting initiatives, such as the Technovation Challenge (global), the Mobile4Change competition (Spanish speaking countries), and the World Summit Youth Awards (global).

This Report presents a summary of the major activities and achievements of the UNESCO YouthMobile Initiative worldwide.

Partnership with Technovation Challenge

2015-2016

The UNESCO YouthMobile Initiative and the Technovation Challenge NGO (USA) teamed up to integrate their expertise, resources, and services for sustaining innovation including from young African women.

This activity aims to address the strong gender imbalance which exists internationally, especially in Sub-Saharan Africa, in regards to women's presence in the STEM fields (Science, Technology, Engineering and Mathematics).

Given the rapid expansion of IT in Africa, UNESCO believes that by targeting young women and providing them with the necessary 21st century skillset they will become powerful agents of change to achieve gender equality, one of the organizations strategic priorities.

The Technovation Challenge attracts thousands of girls from around the world each year. © Technovation

Technovation has been inspiring and educating young women to solve real problems using technology since 2009. Since then, over 5,000 girls from 64 countries have completed the Technovation curriculum. Though this partnership, UNESCO supported the participation of more African women's groups to the Global Technovation Challenge.

UNESCO YouthMobile and Technovation Announce Strategic Collaboration

Activities in AFRICA

The "*Searching for Martha*" initiative, Rwanda
2015 Transform Africa Summit (21-22 Oct 2015)

With the slogan "*1 million Mpowered young African women by 2016*", UNESCO launched a project to search for accomplished, young, African women entrepreneurs in the area of training young people in mobile apps development.

Searching for Martha Workshop delegates
© Alisa Amupolo, Namibia

This initiative was inspired by Martha, a very gifted young woman from the Kibeira Slums in Nairobi who developed outstanding ICT skills and then trained over a thousand young people to use ICT and particularly harnessing mobile technology. UNESCO believes that there are thousands of other Martha's across Africa, and this initiative aims at finding these Martha's and empower each one to train another 1000 young women. An effort like this could really transform the continent creating empowered women entrepreneurs!

In October 2015, working with the Africa Development Bank (ADB), ITU and the Rwanda ICT Chamber, the UNESCO YouthMobile Initiative organized an Exploratory Workshop for the project, named "Searching for Martha", held during the prestigious 2015 Transform Africa Summit in Kigali, Rwanda.

The workshop brought together 10 accomplished young African women entrepreneurs and all possible partners to brainstorm the design for the 2016 pan-Africa project: as a result a draft implementation plan for the project was submitted to UNESCO for finalization.

The workshop was implemented in collaboration with Her2Voice, Rwanda.

New UNESCO YouthMobile "Searching for Martha" Project launched in Kigali to empower young, African, women mobile apps entrepreneurs

Rwanda: "WiSci (Women in Science) Girl's STEAM Camp"
July 2015

In partnership with the Rwandan NGO Her2voice, UNESCO conducted a YouthMobile training consisting of a mobile apps development to further develop awareness of the role of mobile computing power in directly addressing challenges faced by young people challenges and problems faced by their local communities.

The YouthMobile workshop was part of a training campus in Computer Science, Robotics, and Design/Art/Culture which brought together a diverse group of female high school students including 90 African students from Ethiopia, Ghana, Kenya, Nigeria, Rwanda, South Africa, Tanzania, and Uganda. It was geared towards addressing gender inequality at the high school level, and heling them to make important career and college education decisions.

Highschool girls for USA and eight African countries participating to the UNESCO YouthMobile mobile app training. CC-BY Her2Voice

Her2Voice NGO provided the girls with basic technical skills based on the very popular App Inventor from MIT and the confidence to conceive and realize solutions through the creation of specific mobile Apps depending on the objective of a certain particular app.

South Sudan youth develop mobile Applications
2014-2015

UNESCO staff, Lydia (right) and Doreen (left), organized the second YouthMobile training in Juba, South Sudan. CC BY SA UNESCO

Amazing innovations and creative minds were unveiled on Saturday, 18 April 2015 by the youth of South Sudan, during a colorful closing ceremony of the second training on YouthMobile applications development (the first was held in 2014). The well-attended event was held in the UNESCO Juba Office, which culminated to an exciting demonstration and sharing of six mobile applications, relevant to South Sudan context. This project was implemented in partnership with the Ministry of

Telecommunication and Postal Services, South Sudan, and Zain South Sudan.

This workshop was a direct follow-up to the first workshop, where 43 young South Sudanese were trained on how to develop mobile applications based on the App Inventor curriculum from the globally renowned Massachusetts Institute of Technology.

UNESCO empowers global youth to develop mobile applications for sustainable development
YouthMobile initiative successful in hosting app development training in South Sudan

Ghana: Training youth leaders in App development
May – December 2015

The UNESCO Office in Accra, Ghana, in partnership with Ghana-India Kofi Annan Centre of Excellence in ICT (AITI-KACE) and the National Youth Authority (NYA) trained 30 youth leaders on how to develop mobile applications with the capacity to solve local challenges.

The training programme which covered a period of 26 weeks involved a face-to-face training workshop (Java Programming and Android Application Development), mentoring of participants and extended training through e-learning (AITI online platform) and Apps Contest (Evaluation of Skills Development).

Nigeria National Assessment on Mobile Apps training providers and opportunities
October 2014

A Comprehensive Survey and Assessment of Existing Mobile Apps Trainers and Initiatives was conducted in Nigeria, with a view to explore the local and national ongoing relevant initiatives and design consequent YouthMobile partnership and activity plans in the target countries in Nigeria

The report provided a reference point from which the proposed training by UNESCO could be implemented and the availability of qualified trainers determined whose expertise would be utilized to help achieve the primary objective of the UNESCO YouthMobile Initiative.

Nigerian Secondary School Students develop Mobile Applications

July-August, 2015

The Abuja students is in the training workshop © UNESCO

Sixty-eight students from government secondary schools in Abuja, Nigeria, participated in a YouthMobile four-week long training on development of mobile applications. Students, from various secondary schools in the Federal Capital Territory (FCT) converged at the Government Secondary School (GSS), Jabi, to develop applications around challenges or problem areas of the society they were asked to identify.

This training was the first of its kind to be organized by UNESCO in Nigeria and was based on the beginner and intermediate levels of the App Inventor curriculum from the well acclaimed Massachusetts Institute of Technology (MIT, USA). The workshop was supported by Samsung. About 150 Samsung ATIV Book 2 laptops were donated to the participating schools to further complement the training.

Nigerian Secondary School Students develop Mobile Applications, seek more training opportunities
UNESCO trains FCT schools on Mobile Applications

Kenya: YouthMobile trains mobile Apps makers

July, 2014

From 17 July 2014, 40 young people were provided with mobile App development training. The workshops were held within the framework of the new and innovative UNESCO YouthMobile Initiative in partnership with the Dev School and Kenya National Commission for UNESCO.

UNESCO YouthMobile partners with the Developer School of Kenya to train mobile apps makers

Youth Training on Mobile App Development in Nairobi, Kenya - CC BY SA

Kenya: Youth Capacity Building to Transform East Africa through Mobile Technology

October, 2015

The Kenya National Commission for UNESCO (KNATCOM) and eMobilis organized a first of its kind regional mobile Apps development training workshop in October 2015, for 44 youth from East African countries including Kenya, Uganda, Rwanda and Tanzania.

Core courses were designed to enable young people to benefit from the global mobile revolution. They included software development skills in Android, Windows Phone, HTML5, databases and USSD protocol (Unstructured Supplementary Service Data) offered at eMobilis Westlands facility.

REGIONAL CAPACITY BUILDING OF YOUTH ON MOBILE APPS DEVELOPMENT FOR SUSTAINABLE DEVELOPMENT WORKSHOP HELD ON 25TH - 30TH OCT' 2015 AT AICAD

Students were given the opportunity to present the Mobile Apps that they developed at the end of the workshop, in a small competition among the participants. The winning team from Uganda, presented a uniquely designed App and web platform called "Dot Event": the App aggregates and allows sharing of information across tech hubs in Africa so that their activities, events and member projects are highlighted. Users can submit information and book tickets to events being held at various hubs. Each team member was awarded a Samsung Galaxy J5.

The Kenya team took second position with an App named "Kilimo" for enhancing sustainable agriculture practices and supporting farmers across the country. One goal of their app was to reduce poverty levels through sustainable agriculture by improving participation of all the stakeholders across the region. Members of this team were each awarded with a Samsung Galaxy Neom. The Management of Social Transformations (MOST) App from Uganda came in third position: the app sought to promote equality and diversity. Users got the opportunity to air social injustices and to report abuse.

Youth Capacity Building to Transform East Africa through Mobile Technology

Namibia National Assessment on Mobile Apps training providers and opportunities

June, 2015

The UNESCO Windhoek Office commissioned an assessment on the YouthMobile Initiative to identify mobile Apps development initiatives already implemented in the country and identify suitable training providers.

The assessment was finally presented as a comprehensive Feasibility Study which shows existing facilities in formal and informal educational institutions that may be utilized in the biennium 2016-2017 to implement the UNESCO YouthMobile Initiative in the country and empower in-school and out-of-school youth with programming skills

The comprehensive study provides both a preliminary plan and an analysis of implementation costs.

Activities in other REGIONS

Kazakhstan, Uzbekistan and Tajikistan: YouthMobile Initiative Survey in Central Asia
January - March 2015

Within the framework of YouthMobile Initiative, the UNESCO Almaty Office conducted a conducted survey to identify youth initiatives in the field of mobile Information and Communication Technologies and determine youth needs and priorities in this area.

The goal of the questionnaire was to examine the actual status of development of mobile programming in Kazakhstan, Uzbekistan and Tajikistan, and the potential entrepreneurial opportunities for young people.

The results of the questionnaire ware presented in a YouthMobile Assessment Report, which was released by working group from the International IT University (Almaty). The report included a review of activities in Central Asia, such as the HackDays, specific courses and training opportunities, as well as descriptions of local mobile applications and repositories. Finally, the report provided recommendation for future YouthMobile activities and partnerships.

UNESCO YouthMobile Initiative Survey in Central Asia

Kyrgyzstan: YouthMobile Training in Bishkek
December, 2015

The UNESCO YouthMobile Initiative organized a ten-day YouthMobile training workshop on teaching in partnership with Kloop Media Foundation in December 2015. The training attracted 25 participants from Kyrgyzstan.

The training contained the following key components:

1. WordPress as a platform on Mobile Programming: trends, challenges and opportunities
2. The Core Curriculum as a tool for promoting quality mobile programming education with focus on sustainable development goals (CI: 4,5,8,9,16)
3. Mobile programming in Action: what and how (a model lesson)
4. Workshop: Sharing experiences in mobile programming from the local perspective
5. Simulated teaching presentations by participants followed by feedback from the Course instructors.
6. Workshop preparation required installation of the software to user computers it is necessary to deliver user computers one in advance to training. As well as own Android smartphone.
7. The first week is preparatory for participants: lectures and reading materials as joint activities.

From this workshop, participants learned about methods and approaches for mobile programming and adapting to sustainable development needs.

Afghanistan: Mobile application development training for youth
November 2015

In partnership with Technation, UNESCO launched in November 2015 a hands-on practical mobile Apps training for youth in Afghanistan. Within the UNESCO Global YouthMobile Initiative, the project kicked off in Kabul, to help build capacities of young Afghan graduates and University students to develop mobile based software solutions to resolve local issues.

With the support from the UNESCO Office in Kabul, the project was implemented by TechNation, a Kabul-based technology firm, TechDera, a community technology center, in collaboration with TechWomen Afghanistan, a network of women in technology, and TechLabs, a software development house.

Thirty Afghan girls and boys participated in this Mobile Apps Development training Program, which included a hands-on practical training and a yearlong internship program covered by Technation. This was a unique program and the first of its kind in Afghanistan, where young people gain practical and theoretical knowledge in this field.

TechWomen Summit, Kabul, Afghanistan © UNESCO Sayed Habibullah, 2015

The students have learned about Apps development, how Apps are designed, made functional, usable and user-friendly. As part of the workshop, each participant has conceived, developed and deployed a simple mobile application, which, once finalized, could be possibly made available on major App Stores.

UNESCO launches Mobile Application Development Training for Youth

Costa Rica: Agricultural Apps development training programme
June-December 2015

UNESCO, in consultation and collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA), the Omar Dengo Foundation, FAO and the Division for Technical and Entrepreneurial capacity-building of the Costa Rica Ministry of Public Education, has been supporting the planning of an initiative (to be deployed in 2016) for motivating youth on agricultural issues through the learning of mobile apps technologies.

The Plan, to be further developed and implemented in 2016, foresees a one-year project to be deployed in ten Technical Professionals Schools (CTP) distributed throughout the country, to integrate the two disciplines of ICT and agriculture in weekly exploratory workshops conducted by teams of teachers (one agriculture and one informatics).

This project is intended to trigger different processes, such as:

- Promoting interdisciplinary concrete projects, also involving agriculture and computer science teachers of CTP
- Awakening students' interest in Agricultural issues by using new technologies to solve specific problems so that they acquire the capacity to understand, manage and/or guide relevant developments.
- Encouraging computer students to have first-hand experience on the needs and expectations of agricultural sector workers, in order to trigger creative conception of technology use for addressing them.

The developed plan foresees that least 400 students will be involved in joint agricultural and computer science weekly workshops, and will learn how to develop apps that respond to real needs in communities nearby related to the agricultural field. An app competition among the participating schools is also planned.

Thailand: National Assessment on Training Providers in mobile application development

November, 2015

A comprehensive analysis on the development of mobile apps, led by the UNESCO Bangkok Office, has been unfolded within the Southeast Asia Region. The National Report was dedicated to the analysis of the local and national ongoing relevant initiatives and the design of consequent YouthMobile partnerships and activity plans in the target countries. Meanwhile, the YouthMobile Initiative is actively exploring the cooperation with the Free and Open Source Asia (FOSSASIA) NGO in 2016.

Cambodia: YouthMobile Training Program

October 2015

UNESCO YouthMobile, in cooperation with the InSTEDD iLab, launched a three-month pilot training program on app development in Cambodia. 12 participants were selected from more than 100 applicants from diverse backgrounds. As most of the young participants had already knowledge or experience on Web or desktop application development, the training programme focused on intense mobile apps development, based on an open source technology called Phonegap. The training program also incorporated social perspectives to enable the direct application of young people's knowledge to the development of social solutions for Cambodia.

Launching Cambodian Youth Mobile Training
Program Builds Mobile App Skills for Cambodian Coders

Bangladesh: National Assessment on Mobile Training Providers

November 2015

A National assessment was conducted by the UNESCO Dhaka Office. The study focused on exploring local and national ongoing relevant initiatives with the aim to formulate and design future YouthMobile partnerships and activity plans in the country.

The assessment analyses that in particular the increasing women engagement in the mobile App development sector in Bangladesh. Although the participation of women, especially students, in computer programming and mobile app development is still very low, there are comforting signals showing some positive changes.

Women are increasingly participating in app development workshops and programming (coding) competitions, and their results are also satisfactory, with an average success rate and eagerness to engage in related sectors. Recent App-development training activities involving women attracted the support and participation of the government sector, private organizations and IT entrepreneurs.

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Lebanon: Youth Coding Programme: taking programming and computing skills to another level

October - December 2015

The UNESCO YouthMobile Initiative and Lebanese American University in Beirut (LAU) teamed up to start a series of training programs for teachers and secondary school students in Lebanon in 2015. Fifteen teachers participated in a training workshops held during October 2015, while 70 secondary school students participated in 3 workshops between October and December 2015. The training paid particular attention to both less privileged communities and Lebanese. Female participants to computing-related fields at universities.

Teachers and students cheering after receiving their certificates at LAU in Beirut © UNESCO Beirut 2015

These trainings were the first step to integrate programming skills and computing thinking concepts as part of the education system in primary schools in Lebanon. This allowed teachers and principals to teach a new, innovative course in mobile apps development, as they would acquire new ICT-pedagogy skills. In addition, these trainings have been complemented with student-oriented activities including mobile app development workshops and competitions on themes related to sustainability.

These trainings enabled the students to acquire high-level 21st century skills and confidence to develop/promote mobile Apps to resolve local issues of sustainable development. In a long-term, YouthMobile offers learning opportunities for youth to engage in society and earn livelihoods as mobile app entrepreneurs.

Through this training program, UNESCO and LAU hope to reach out to a wide range of schools in Lebanon through awareness campaigns, technical training workshops, as well as competitions. In this context, UNESCO Beirut and LAU launched a Mobile App Development Contest for secondary schools students, the results of which will be announced in the end of March 2016.

85 secondary school students and teachers benefit from UNESCO Office in Beirut and LAU Youth Coding Programme

Brazil: Technovation Challenge 2015 Winner – "The last drop" App

June, 2015

Five students from the State Technical School Cícero Dias / NAVE Recife, a public school in Pernambuco (Brazil), created a game for cell phones that show how important it is to save water.

The app aimed to promote environmental awareness among children. Throughout different phases of the game, the main character Vitoria needs to close water taps before the water runs out of the building where she lives.

The app, called 'The Last Drop', made it to the final stage of the Technovation Challenge 2015.

Game for mobile phones is created by Brazilian girls to combat water waste

YouthMobile Competitions

Finland: 2015 Ocean Apps Challenge, Oulu
25 May - 27 October 2015

In cooperation with the YouthMobile Initiative, the City of Oulu, Finland, held in 2015 the Ocean App Challenge, a competition among regional senior secondary schools, engaging students to learn about marine ecosystem and address issues of sustainable development.

Students were encouraged to imaging applications interacting with environmental sciences, by making use of data and on-line resources from Argo, a worldwide network of freedrifting profiling "smart" floats, collecting vast amounts of data in real time.

The winning App, called "Aaro's Adventure" was conceptualized and designed by 17-year-old students from the Laanila High School, Oulu. The application concept, which was not fully implemented, in view of its complexity, aimed to sensitize people on the fragility and preservation of Oceans. It consisted of five different mini games in which the data from the world oceans' Argo buoys, reporting on the salt levels, temperatures and water pressures, were combined with other data sources in an attempt to stimulate the user in interactive activities, such as boat-fishing or garbage collection. With the help of this mobile app, students hoped that "the spreading of information on the condition of the world oceans will be both informative and fun". Working at the design of this app, they said, "Unites information technology, game design and open data resources for a more sustainable future on our planet".

Oulu City students demonstrating the "Aaro's Adventure" mobile game. © Tiina Fredriksson

The school competition was organized by the Arctic City of Oulu, in cooperation with the Finnish Meteorological Institute, to draw national and international attention to the unique sea area of the Baltic and the Arctic areas covered by sea and ice as climate change has a major impact on the Arctic region. The City of Oulu has challenged the six largest cities in Finland through shared development strategy (6Aika), to combine open data, marine ecosystems and sustainability.

With the support of the NxtVn Group, the winner team of the Ocean App Challenge shared their experience at the 9th UNESCO Youth Forum, which was held at UNESCO Headquarters in Paris, France from 26 to 28 October 2015.

9th UNESCO Youth Forum: Building your own mobile apps for sustainable development
http://www.argo.ucsd.edu/Argo_in_schools.html

UNESCO © - Oulu Students, Ocean App Challenge presentation at the Youth Forum

Spain: UNESCO YouthMobile Initiative and Telefónica Educación Digital launched the Mobile4Change Competition

March - July 2015

The UNESCO YouthMobile Initiative assisted Telefónica Educación Digital to launch the Mobile 4Change Competition on 25th March, 2015 (in partnership with Qualcomm). Seven-hundred-six young developers from 39 countries participated in this challenge.

The Competition empowered women and young people to develop mobile solutions for social good. The Competition consisted of three different categories: a general category and two special categories, one dedicated to apps aimed at the empowerment of women and the other for young people between 18 and 25 years old. Each category had five finalists, of which three were prize winners.

© Telefónica

The winners were announced on 26 June in Madrid and awarded a monetary prize and got the chance to exchange experiences with international mobile developers and investors. In addition, the winners were supported with computer equipment and training.

Angel Carillo, a Mexican engineer, won the Mobile4Change prize in the category Empowerment of Women:

Mexico News Daily: App wins award for young engineer

With Patronage of UNESCO and the YouthMobile Initiative, Telefónica Educación Digital launches the Mobile for Change app competition

YouthMobile in events, conferences and other activities

France: Apprendre en codant (INTEL), Paris 2014

June 2014

With its new "YouthMobile" initiative, UNESCO wants the largest number of girls and boys have the opportunity, through the code, to put technology at the service of local and global issues related to sustainable development. In collaboration with Intel's ® Coding for Kids, a round table at the festival Future en Seine 2014 has explored best practices and approaches where the code is used as a means of artistic creation, and for understanding social, scientific and environmental problems. The proposed pedagogy model was based on peer-to-peer. Technically, the code was introduced very gradually and at each step the learner acquired ready-to-use expertise.

In addition, the round table focused on other innovative approaches recently adopted in France, such as Simplon.co and Ecole42, with a view to assess the feasibility of larger deployments and sustainability of similar initiatives, particularly in emerging countries.

Young Palestinian female students learning mobile apps development, in Ramallah.

Learn by Coding
Intel Coding for Kids : Apprendre en Codant, Une collaboration UNESCO YouthMobile et Intel Software

Finland: 2014 Slush Conference, Helsinki

17 - 20 November, 2014

The Slush 2014 Conference was the focal point for Eurasian startups and technology talent to meet with top-tier international investors, executives and media. The conference attracted over 14,000 attendees, with 3,500 companies from 80 countries, 750 investors, over 700 journalists, and 300 speakers.

Based on a strong working relationship with the Rovio Fun Learning Division, which is an industry-changing entertainment media company and creator of the globally successful Angry Birds franchise, UNESCO was invited to present the YouthMobile Initiative in the Conference Education Track.

France : Journée Jeunesse et Développement en Afrique, Paris

February, 2015

The Conference, organized by the Union Internationale des Associations et Organismes scientifiques et techniques (UATI), the Union Internationale des Ingénieurs et des Scientifiques utilisant la langue française (UISF), and the International Council for Education, Science and Technology (ICEST) focused on new technologies as a key factor for development in Africa, as an integral and necessary part for innovation and for supporting other forms of innovation.

The YouthMobile Initiative was asked to present about its activities, development plans and its philosophy: in light of the fastest growing African mobile phone market, ICTs are a chance and an opportunity for young people in Africa. This is particularly true when addressing access to employment for more than one billion young people under 25 years in the coming decades. Initiatives such as YouthMobile, could help fostering emerging innovation, local markets and eJournées.

Journées Jeunesse et développement en Afrique

China: Conference on Mobile Learning and Computational Thinking based on App Inventor

13-15 June, 2015

The 1st International Conference on Mobile Learning and Computational Thinking Education, based on App Inventor was held from June 13th to 15th. The topics included computational thinking, innovative thinking, unleashing creativity, and App making for education, industry, sustainability and relevancy.

As a very promising project on mobile App development, the YouthMobile Initiative keynote emphasized the significance of learning how to make App solutions among young people, particularly for young women.

Prior to this conference, in July 2014, a MIT App Inventor Summit hosted by the MIT Center brought together a diverse range of individuals from the areas of mobile Apps development, mobile technology and computer science. Participants had the opportunity to share their ideas and practices. This summit also opened up a way for the YouthMobile team to stay abreast of the latest developments within the MIT App Inventor community and seek to new collaborations.

9th UNESCO Youth Forum: YouthMobile Workshop, Paris, France

26 - 28 October 2015

Felicia Khoja Kamriani highlighting MIT App Inventor CC BY SA UNESCO / Davide Storti

G. Ihejiamaizu (Nigeria) and N. Guillaine (Rwanda) presenting on Technovation and Searching for Martha. CC BY SA UNESCO / P. Chiang-Joo

Bouna Kane and Paul Guermonprez presenting on kids coding initiatives in France. CC BY SA UNESCO/Lydia Liu

Within the framework of the 9th UNESCO Youth Forum, a number of speakers were invited to share their ideas and practice cases in the areas of mobile Apps development, mobile technology and ICT skills in various Forum sessions.

As the unique part of this Youth Forum, YouthMobile organized a capacity-building Workshop on Wednesday 28 October, 2015 attracting over 100 Forum delegates. The Workshop provided the delegates with a good opportunity to exchange on the transformative power of youth conceiving and building mobile apps for sustainable development.

1. The City of Oulu, Finland, where 8 senior high-school students demonstrated a game App concept for preserving the Oceans, following school-competition (YouthMobile OceanApp competition);
2. Ms Felicia Khoja Kamriani from MIT, USA
3. Entrepreneurs Ms Neza Guillaine (Rwanda) and Ms Grace Ihejiamaizu (Nigeria) speaking on YouthMobile, the Searching for Martha Project and the Technovation Challenge
4. Ms Laura de Reynal from Mozilla France introducing the revolutionary Webmaker mobile tool for developing mobile Apps
5. Mr. Paul Guermonprez from Intel, France and Mr. Bouna Kane IMS Entreprendre pour la Cité, France

9th UNESCO Youth Forum - Building your own mobile apps for sustainable development

FUTURE PROJECTS

South-East Asia: partnership with FOSSASIA
2016

FOSSASIA is the premier Free and Open Source technology organization in Asia for developers, designers, startups, and contributors. Projects at FOSSASIA range from open hardware, to design, software, mobile development and education. Their annual event, the FOSSASIA Summit, brings together the local Open Technologies communities.

Hong Phuc/FOSSASIA 2011 – CC BY

As the global leading program on youth mobile apps development, several YouthMobile events will take place during the 2016 FOSSASIA Summit in Singapore, with the aim to draw young people's attention on the potential of mobile app technology and, more importantly, to encourage them to acquire computational thinking skills.

During 2016, UNESCO and FOSSASIA plan to organize in different areas of South-East Asia several training workshops on mobile apps and small-size computer devices development. In light of the rapid growth of mobile phone usage in the region, the importance of learning these new skills is increasingly recognized and this joint initiative aims at increase innovation in South-East Asia's mobile app market.

Gabon: "Train My Generation: Gabon 5,000" (funded by Airtel)
2015 - 2017 (3 Years Program)

In partnership with Airtel, UNESCO is deploying in Gabon, a major comprehensive training program entitled "*Train My Generation: Gabon 5,000*". The first phase of the project was officially launched on May 4, 2015.

The YouthMobile Initiative, as a part of training program, is expected to promote mobile technology-based innovation and knowledge, by training at least 120 students in mobile Apps development before 2017.

The aims of this program is to offer a scientific and entrepreneurial training to 5,000 young Gabonese men and women aged from 18 to 35 years old in the use of information and communications technologies over a period of 3 years.

Airtel has provided US$4.3-million for UNESCO to implement this project, which is being implemented by UNESCO. In its first phase, the initiative is creating fully equipped cyber centers, with laptops and servers given to schools in Oyem, Bitam, Lambaréné, Libreville, Franceville and Port Gentil. The 5,000 young people targeted in the program are going to receive basic training in ICT. The project is also expected to provide online training to 100 secondary school science teachers, which will trickle down to 15,000 high school students preparing for their final examination.

Mbadjina/UNESCO © 2015 - Picture of the officials with the students

The program is organized around four major themes: introduction to computers, tutoring via distance-learning (e-learning), career guidance for youth entrepreneurship, and assistance for finding scholarships in specialized fields.

Launch of the first phase of the project "Train My Generation: Gabon 5000"

Mentoring Girls to Lead and Innovate by Learning to Code, Ghana
2016

Promoted by UNESCO's Information for All Programme, YouthMobile together with Tech Needs Girls (TNG) has submitted to the Ghana authorities and a panel of investors the project proposal "Mentoring Girls to Lead and Innovate by Learning to Code". The aim of this proposal is empowering girls to be critical thinkers, create technology and develop their full potential, by teaching girls how to create technology.

The project, which has already found support from some local IT companies, is expected to officially launch in 2016.

It foresees two distinct programmes:
- – P1, Capacity building Camps for Mentors (18+ years old)
- – P2, After-school coding classes for students (6-18 years old)

Information for All Programme (IFAP)

Alcatel Lucent Foundation/NOKIA: Digital Education Forward, Paris
2016

The #DIGITALEDU program, a partnership which is being established between the UNESCO YouthMobile Initiative and Alcatel-Lucent Foundation, in collaboration with the MakeSense/SenseSchool, aims to identify projects of social entrepreneurs with a strong impact on education thanks to digital technologies, and on digital literacy. It will mobilize youth around the world, Alcatel-Lucent (ALU) employees, and UNESCO network to take action in helping them to scale up developing innovative and impactful solutions.

The overall objective of this program is to boost the impact of innovative solutions, in particular Mobile based solutions, developed by social entrepreneurs in the field of digital education, by mobilizing youth and ICT experts around in order to help them take up the challenge and accelerate them to be fully efficient, with a specific attention to the participation of women among the various stakeholder groups.

The project is built around the following schema:
1. CALL FOR PROJECTS: Identification of projects with a strong impact (education/Apps, mobile technologies)
2. ACCELERATION: Engage students, young adults, and local communities to imagine innovative solutions to accelerate/scale up the projects (ideation workshops, capacity building, accelerators, on-site and online group work): mobilizing Alcatel employees (including Bell Labs experts), UNESCO networks and local actors.
3. INCUBATION: Prototyping of 2-3 projects with best impact potential with teams of students and ALU employees/UNESCO local teams/networks (technical & business mentoring) and help them "to scale up developing innovative and impactful projects" – Among the final "prize" for these young entrepreneurs, an internship with Bell Labs is considered.

Geographical scope: worldwide, with a focus on Senegal, Mexico and France for on-site workshops, as well as other countries, such as USA, Canada, France, Ireland, Israel, Belgium, China…

The UNESCO YouthMobile Team

UNESCO CI/KSD, Paris, France.

UNESCO Field Offices: in particular South Sudan, Kenya, Nigeria, Namibia, Ghana, Gabon, Zimbabwe, Lebanon, Kazakhstan, Thailand, Cambodia, Bangladesh, Bangkok, Afghanistan, China, Costa Rica, Brazil.

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