The Coronavirus (COVID-19) Response
ICT Case Repository

#WSIS Stocktaking just launched mid-term special report on #covid19 Response – ICT Case Repository.

We have invited community to share how are they using #ICTs to help their communities respond to the Coronavirus pandemic, ensuring the impactful use of the WSIS Action Lines in advancing SDGs.

150 solutions were submitted within a month. Thank you all for sharing your success stories with the world.

We will be featuring here an elsewhere on WSIS social media projects and activities that have been introduced during the Coronavirus disease around the globe, which provided solutions for efficient and secure continues work, social engagements, and life at large.

As a part of the WSIS Stocktaking ongoing efforts to promote the good use of ICTs in making social impact, and in order to provide useful, replicable and actionable information to all WSIS community and beyond, the platform www.wsis.org/stocktaking continuous to collect projects and activities on how ICTs are assisting stakeholders in their everyday life, work, and combating challenges caused by this extraordinary pandemic.

We invite all to EXPLORE, SUBMIT, SHARE and PROMOTE this repository as we look forward to publish a final report during the virtual WSIS Forum 2020 final week (7-10 September).
Bangladesh NGOs Network for Radio and Communication (BNNRC) has been mobilizing all community radios for developing and broadcasting awareness building programs on COVID-19: Coronavirus contamination to protect lives and livelihoods since March 1, 2020. Now 18 Community Radios stations in Bangladesh have been broadcasting 165 hours Coronavirus prevention education in line with the National Preparedness and Response Plan for COVID – 19, published by Directorate General of Health Services, Health Service Division, Ministry of Health and Family Welfare, Government of the People’s Republic of Bangladesh. There are 200 community youth and youth women working as community broadcaster. The COVID -19 demands cooperation among government, CSOs, local business communities, multi-stakeholders. BNNRC are continuing work 24×7 to reach rural communities in Bangladesh with life-changing information through the community radio. It’s not easy to get information to the hard-to-reach at the best of times, and we will continue to strive to make sure the needs of these communities are not forgotten. To that note, we’ll be continuing to share stories of our work, and the work of community broadcasters and rural people, while also supporting communities in getting the information they need about COVID-19. In this perspective, BNNRC has been working on COVID -19 covering with the following issues: Animate CSOs, Government, health service providers and communities for reinforcing collective action; Keeping community people’s daily life normal and livelihood function; Mobilize further cooperation among government, CSOs, local market and communities’ response.

**BENEFICIARIES**

Rural communities

**ICT TOOLS**

Community Visual Radio and Social Media

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Rapid social distancing & Quarantine/ Isolation have caused massive pressure on the community radio sector extremely due to short notice. Fundraising process have been cancelled and revenues such as advertising income are drying up overnight resulting in immediate cash flow problems, cuts in grant-funded projects & many community radio stations have few or no cash reserve to tide them over situations like this. This project is looking for fundraising partnership. Community Radios stations, as one of the source of information, helping to raise awareness on COVID- 19 and reinforcing Behavior Change Communication (BCC) by CSOs, Government, health officials and locally elected bodies (LEB). Community Radio stations are building awareness to change attitudes among community people at different points in their daily lives. Community Radio stations, as a platform for those who involve in COVID -19 responses to update rural communities. They are also providing a channel for two-way communication with community people where listeners are sending SMS or call in with questions. Community Radio stations have been coordinating with the District and Upazila level Coronavirus Prevention Committees. Community Radio stations have assigned one broadcaster in each radio stations as the focal person to coordinate COVID – 19 program. Community Radio stations are broadcasting programs on COVID -19 in local languages or dialects.
We invite all children and adolescents to participate in the First Edition of the Science and Technology Projects Contest Scratch4All. We invite them to think, create, contribute, innovate, undertake. Their project will be a contribution to their school and their community. We promote reflection on the usefulness of programs to represent ideas and solve problems. Stimulate trust through the use and execution of programs designed by the participants, with the promotion of a responsible use of technologies and collaborative work.

**BENEFICIARIES**

Beneficiaries are children and adolescents.

**ICT TOOLS**

With Scratch you can program your own interactive stories, games and animations; and share your creations with others in the online.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge has been access to the Internet. We are interested in collaboration with other projects in the area of educational technologies, computational thinking and creative learning. The winning works will be promoted in celebration of World Scratch Day during the May activities, in order to make the project presented and its authors and institution more widely known. The project is replicable, and has been extended to all primary and secondary schools in the country.
Volunteered Geographic Information (VGI) on the Covid-19 outbreak in Fortaleza, Brazil, was obtained through an internet-based survey with non-probabilistic snowball procedures from 12,000 respondents during 8-10 April 2020. Analysis of the VGI identified 181 confirmed Covid-19 cases in the city distributed among more than half the neighborhoods, mainly in those with high socio-economic status. VGI also indicated 795 suspected Covid-19 cases distributed in nearly all neighborhoods. 97.5% of research participants considered that social isolation important to combating the spread of Covid-19. 68% of respondents indicated that everyone in the residence was in full compliance with social distancing. The main reasons for less than full compliance were paid work, purchasing food and medicine, paying bills, and disbelief that social isolation is important to contain Covid-19. The results aim to contribute to geospatial understandings of Brazil’s Covid-19, which began 26 February 2020 in São Paulo and had 25,684 confirmed cases and 1,552 deaths by 14 April.

**BENEFICIARIES**

This type of data collection may increase the quantity of data available on the pandemic and offer critical spatial information for decision making among public health authorities.

**ICT TOOLS**

Our research protocols focused on obtaining VGI directly from residents through a 12-question survey that allowed for one free response regarding the reasons for non- or partial compliance with social distancing recommendations made by Brazil’s Ministry of Health on 12 March 2020. We deployed the survey between 8 and 10 April 2020, obtaining 12,000 responses through an internet platform on the Labocart/Geografia site of the Universidade Federal do Ceará (UFC). On 8 April 2020 we published the survey the Labocart website, which was shared through contact lists through WhatsApp. Within eight hours we were contacted by UFC’s upper administration and state authorities who were directly involved in controlling COVID-19. These officials asked us to include the entire Fortaleza metropolitan region and to publish our preliminary findings and maps so that authorities could compare the VGI we collected to their official data. In the next days, we received support from UFC’s upper administration to disseminate the survey through WhatsApp. We were invited to participate in TV programs and offer press release of preliminary findings among our collaborators.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

We plan additional work to disseminate the survey and produce maps that show the spatial dynamics of COVID-19, not only in the Fortaleza urban area but also in rural and coastal areas where traditional communities may have less access to health care. We also aim to use data from health agencies, aiming to ascertain relationships with social vulnerability, per capita income, housing types, educational attainment, health infrastructure, among other variables.
The National Information Contact Center (NICC) (Info311) is a single-point-of-access non-emergency phone number that allows the public to call in for information on Government services / policies, make complaints, or report problems. More importantly, the system allows citizens to make inputs and also allows Government to “push” information to the citizenry as well as conduct survey to elicit feedback on Governmental issues.

**BENEFICIARIES**

Make information more readily available to the citizenry.

**ICT TOOLS**

A fifth generation contact center solution-ZXNGCC.A multi-media contact center system that seamlessly allows the convergence of mobile, narrow band, fixed and data communications and processes data and content coming from different media.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

We have embarked on an Education and Awareness programme aimed at sensitizing the public to stop the prank calls to give opportunity to the real people in distress and in need of governmental information on COVID-19 and other related matter. New Partners in the area of “Technological Assistance” are welcomed. Our project is sustainable. The 311 is a Toll Free Service. The Government of Ghana has officially sanctioned the Contact Centre as the main avenue and repository of information for the general public on governmental services and access to general information. And so there is an oversight responsibility from the Central Government which will ensure proper supervision to enable citizens have access real time information on government services and elicit feedback. Our project is replicable. It can be replicated in other countries. The basic facilities needed for the set-up such as access to Toll Free Number, establishing connectivity with Telecom Companies among others can easily be done and acquired through proper coordination with the Ministry responsible for Communications and the Nations Regulatory Company.
Preventing Covid-19 is our responsibility
OGERO Telecom
Government, Lebanon

https://www.ogero.gov.lb

To cope with the spread of the Corona virus, OGERO took a set of measures including doubling free of charge, the ceiling of Internet consumption and speed for the unlimited packages, for its users encouraging citizens to stay at home and conduct their work at distance and enabling students to continue their studies online. OGERO have launched an awareness campaign calling for a reasonable use of the Internet, in particular by number of computers connected simultaneously or by reducing the quality of videos on YouTube. Noting that OGERO is maintaining local caches for the major OTT content (YouTube, Netflix, Facebook.) so its National Broadband network carried easily the surge in traffic. Some extra capacity was added where needed mainly between the major regions and Beirut to handle the additional demand. OGERO is continuously upgrading its capacity on its submarine cables and increasing the size of its international peering links in order to meet the increasing demand of the Lebanese market but it is noted that 2 months after confinement our international links are not strained.

BENEFICIARIES

All users, mainly students for online studies and corporate for work at distance

ICT TOOLS

Broadband

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The huge challenge was to cope with the additional demand but extra capacity was added to connect Beirut, the capital, with the major regions. Plans are made to expand international links. OGERO is cooperating with its usual partners.
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The First International CyberSchool of the future for the new IT-generation KIBERone
LLC «System»
Private Sector, Russian Federation

https://kiber-one.com

Due to the spread of COVID-19: 1. We have converted the training into an online format; 2. We have developed a support program for parents of our students so that they can be closer to each other and spend more time together.

BENEFICIARIES

Our audience is children and teenagers from 6 to 14 years old, and we have made our program available by transferring training online.

ICT TOOLS

Multimedia (educational online platforms, specialized software, presentations), audio-visual equipment (laptops, projectors), the Internet, information in electronic format (video, audio)

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Not all parents have good digital skills, so they can't always help their children with online learning. We help children to master technology through remote support. The sustainability of the project is due to several factors: 1. Shortage of qualified IT specialists in many countries of the world, which indicates the demand for high-quality specialized education now and in the future; 2. Stable demand for high-quality services for the additional development of children in the field of digital technologies: According to the company’s own marketing research, the number of children in the world who regularly attend training centers in the field of digital technologies is growing by about 6-10% annually; 3. Additional full-fledged education in the format of an IT school. The project program implies long-term comprehensive training, which is designed for a period of up to 9 years and can take place in parallel with the basic education and in addition to it; 4. Team of qualified specialists involved in the implementation of the project. The project team consists of specialists in programming and IT, management, marketing, and pedagogy. The total number of employees and developers is about 100 people; 5. Constant adjustment and updating of the training program through the introduction of modern educational modules, relevant training platforms, as well as interesting and non-standard tasks and projects for self-implementation; 6. Sources of stable financial flows: The volume of financial revenues of the company is formed through three permanent channels: training in its own divisions, the implementation of franchises (lump-sum contributions), and regular payments by existing franchisees (royalties); 7. The possibility of replication of the project in any locality (population size does not matter); 8. The project’s target audience is children and adolescents aged 6-14 (children at this age are especially susceptible to new knowledge, are interested in modern technologies, and actively use gadgets, but use them mainly for entertainment) and their parents (they care about quality education of their children, and precisely at the age of 6-14 invest the core capital in their development).
With the low demand from culinary businesses, making farmers’ incomes decrease significantly, the alternative taken is to sell to end consumers, a digital market is needed to connect farmers directly to end consumers so that in this difficult time farmers still get the proper income. Shopping for vegetables and fruit online is no longer a lifestyle, but has become a necessity. RegoPantes.com (means FairPrice) by 8villages continues to try to be a marketplace between farmers and consumers and keep involve farmers in the value chain to reduce dependence on many parties.

**BENEFICIARIES**

Indonesian farmers

**ICT TOOLS**

Smartphone, by giving the right incentive which is marketplace for farmers and buyer, farmers want to learn more, upgrade themselves to go beyond planting and involve more in the value chain.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Before COVID-19, farmers depend on bus to send their product from outside West Java, now since the bus stop operating, the connection cut out, together with Coordinating Ministry for Economic Affairs, 8villages leverage the state-owned train company to deliver fruits, and not just solving the logistic problem, it also reducing logistic cost up to 60%. Our project is very sustainable, because it’s already running for 3 years now. Farmers receive better income and buyer receive fresh product directly from farmers. We manage to start the project by connecting farmers in Central Java to customers in Jakarta, now we have supply coming from farmers in Java and Bali and connect them to consumers in Jakarta, Bogor, Depok, Tangerang, and Bekasi. We also successfully connect farmers to businesses too.
The Coronavirus (COVID-19) Response – ICT Case Repository

Safe Remote Learning
SWGfL
Civil Society, United Kingdom

https://www.swgfl.org.uk
https://swgfl.org.uk/resources/safe-remote-learning

The Covid-19 outbreak has meant many schools have been forced to close. Safe Remote Learning supports schools in planning and carefully considering how to adequately safeguard children, staff and parents when learning online.

**BENEFICIARIES**

Schools

**ICT TOOLS**

Guidance and support provided. Also invaluable Information for teachers in working at home.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

There are a number of online live and recorded video options that schools may consider, ranging from merely setting homework or providing access to online resources through video tutorials and interactive video conferencing. Staff capability and the age of your children is going to determine your approach.
The Coronavirus (COVID-19) Response – ICT Case Repository

COVID Symptoms Tracker with Data Sharing
Open Health Network
Private Sector, United States of America


We released Free covid.openhealth.cc in English, Spanish, Chinese, French & Russian to enable people to track their symptoms, share with physicians before and after telehealth and in person appointments, find covid testing center nearby, manage medications, donate plasma and more.

BENEFICIARIES

There are tens of thousands people worldwide using covid.openhealth.cc daily, share data with doctors to get immediate feedback on treatment, escalations if needed. Governments use heat map to predict next hot spot. Physicians use this tool as it enables them to track symptoms in between appointments.

ICT TOOLS

We deployed web, iOS & Android apps. Future updates include integrations to wearables devices, EHR and more.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

We need to create a wider awareness of this solution. We’d like to partner with more government officials, healthcare providers. This offering can easily be adapted to many other disease areas. We have been working with many prominent healthcare organizations for many years in cardiology, cancer, wellness, addictions, GI and other disease areas and know how to create solutions that deliver value.

WSIS Stocktaking Platform  www.wsis.org/stocktaking
We have launched an online COVID-19 consultation platform. People can directly contact doctors online with COVID-19 treatment experience for advice. Doctors are available 8:30-24:00 (GMT+8).

**BENEFICIARIES**

The platform started to serve China from January 24th and expanded to overseas from March 8th. More than 200 Chinese embassies overseas have recommended AliHealth Online COVID-19 Consultation Platform.

**ICT TOOLS**

The platform is built in a mobile app, AliPay. Users can enter consultation page by searching "scientifically fight disease".

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The platform is currently free of charge. AliHealth has subsidized $570,000 for the consultation fee. We are looking forward to partner with more doctors.
Social Watcher is a large-scale community service which utilizes media and ICT tools and expertise. The service utilizes Artificial Intelligence, Text Mining, Big Data analytics and visualization, and Natural Language Processing to analyze the public opinion regarding political and social issues in Kuwait and study the impact of those political and social issues on the Kuwaiti society. During Corona Virus outbreak, we developed an online indicator which provides an analysis of the public interaction with the spread of the Corona virus in the State of Kuwait during the days when the virus spread in the country. The indicator implemented as an online dashboard which shows daily updates statistics about coronavirus cases in Kuwait using Data Visualization techniques. The dashboard also shows the trending tweets and hashtags in Kuwait on Twitter during the period of the spread of Corona virus in Kuwait.

**BENEFICIARIES**

Govermental Organizations that have interest in understanding public opinion trends in relation to Corona Virus outbreak. Journalists, media professionals, decision makers, politicians, professionals interested in the Kuwaiti public affairs, and the general Public.

**ICT TOOLS**

Artificial Intelligence, Text Mining, Big Data analytics and visualization, Natural Language Processing, and Web Services Integration.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

We have several challenges: 1- The running cost of data analytics software and the cost of web hosting. In this respect, Social Watcher offers its service for free and this means that the cost of running this service is handled by the project owners. 2- The time and efforts needed to keep up with the event. 3- The time and efforts needed for the collection of data, preparation and cleansing of data, analysis of data, visualization of data, and presentation of results (designing infographics for example). 4- Decision makers, politicians, and many media professional lack the understanding the role of social media analytics to identify the public opinion. 5- Misunderstanding of our efforts by some political figures. 6- Illiteracy in understanding interactive infographics and interactive dashboards among some of our audience. 7- Resistance to change by some of our targeted audience segments. 8- Since our reports are freely available for the public through an open access web platform, our efforts are at the risk of being stolen by others. The project is sustainable through continuous Research and Development (R&D) to enhance the social media analytics, text mining, and natural language processing tools and methods we use and through responding to user's feedback. This project is replicable through using the same analysis methods and applying and adapting the same social media analytics and visualization tools to the social media content published in other societies and countries.
"Cibervoluntarios Responde" is a Free online support to stay connected, for citizens who may need technological aid during this health crisis. From home, anyone who may have technological questions can ask online to a team of 1,500 cybervolunteers. The platform has offer more than 150 answers in three weeks of confinement in Spain.

**BENEFICIARIES**

"Cibervoluntarios Responde" has the support of 1,500 cybervolunteers throughout Spain willing to help all people who need to solve questions related to technology for example for people who has never telework before, help elderly to use video call apps to stay connected with their families or helping parents and kids with online school tasks. Note that all communication is established online, however, because some people may not have access or do not know how to access online, a telephone number is also available to help in this situation.

**ICT TOOLS**

"Cibervoluntarios Responde" is a free online platform that helps and supports citizens in this period. Cibervoluntarios Foundation makes an extra effort in its aim to promote the use and knowledge of new technologies as a means in order to alleviate social gaps and generate a more inclusive society. For example, the new service can help elderly people to make online grocery shopping.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Fundación Cibervoluntarios is always looking for new partnerships and collaboration between multi-stakeholder organizations, private and public, to amplify our goals. Fundación Cibervoluntarios collaborates with more than 700 organizations to carry out all our programs. The initiative "Cibervoluntarios Responde" is an online tool and it can be sustainable and replicable with the know-how and experience of the cibervoluntarios network.
The President of UKE urged telecommunications operators to take the necessary actions to guarantee service continuity by preventing and removing the effects of network congestion resulting from increased demand during the COVID-19 outbreak. Pursuant to Regulation 2015/2120 of the European Parliament and of the Council, during such threats as the coronavirus epidemic, the regular ban on the use of non-standard traffic management measures may be reduced. The Regulation allows measures to be taken in order to: 1. preserve the integrity and security of the network, of services provided via that network and of the terminal equipment of end users; 2. prevent impending network congestion and mitigate the effects of exceptional or temporary network congestion. At the same time, we remind the public about adoption and publication of the Joint Statement from the Commission and BEREC on coping with the increased demand for network connectivity. Actions taken by operators in accordance with the above-mentioned premises arising from Regulation 2015/2120 and the Statement from the Commission and BEREC will not lead to a violation of the prohibition to apply traffic management measures.

**BENEFICIARIES**

All the consumers/users, especially those whose professional life fully or largely relies on fast broadband connection.

**ICT TOOLS**

As a result of COVID-19, almost all the activities, both professional and leisure, shifted to the online world. Consequently, data usage increased dramatically. Since many individuals and entities rely fast connection, we want to make sure that the continuity of network and data transfer is provided. Therefore, UKE asked telco operators to take necessary measures in order to equip the customers with whatever is needed. In this way we support the digital transformation but also, if not foremost, make sure that digital world is flawlessly functioning now.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The biggest challenge for all of us now is increased demand for data transfer and reliable connection. Thus, UKE asked the operators for joint efforts to make sure that we can overcome these challenges as best as we can. As mentioned above, it is a joint initiative with the telco operators. Multistakeholder collaboration is a key, especially during this COVID-19 crisis moment. This project is definitely replicable and similar actions could be taken in other regions and countries.

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WSIS Action Lines

Sustainable Development Goals

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WSIS Stocktaking Platform  www.wsis.org/stocktaking
UKE came up with different tools and ideas to facilitate transition from school-based to home-based education during the COVID-19 outbreak. We offer students and their parents the three following cycles – their content will be updated on a regular basis so users can access new resources. a) #Talktochild – during this unusual time, most of us moved our activities to the virtual world. We work, learn, exchange messages and follow news in the network, we also enjoy online entertainment. This is an opportunity for parents to see how children use the Internet. We encourage you to read our articles about the effects of the Internet and social media on children and young people. b) Did you know that...? – the history of telephony, mail or the Internet is more complex than we think. Thanks to our campaign children will learn the most interesting facts, dates and characters related to telecommunications and post. c) I click sensibly! – our well established and known educational campaign is continued online! It is our proposal to spend time together at home. For younger and older children we have prepared puzzles related to telecommunications - among them on-line quizzes, crosswords, cross-sections and coding diagrams.

**BENEFICIARIES**

Children and their parents – we are aware how many different challenges they are facing now, that is why we want to make sure that necessary tools and advice are provided.

**ICT TOOLS**

Digital transformation cannot fully happen without taking education into account. Learning and teaching are the basis for any progress to come. That is why we decided to provide students and their parents with tools and materials to ensure continuity of education. We use online platforms and various materials in order to facilitate education during this challenging time.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The biggest challenge is the transition in itself – sudden shift of education from schools to homes. However, we want to take this challenge as an opportunity that shows us how important digital tools are and how efficiently we can use them, especially during this sort of unusual situation. We are happy to collaborate with schools and other institutions (also from different sectors) in order to ensure the continuity of education. This project is replicable and we can already see many other institutions, entities, and countries implementing similar strategies by providing students (and teachers) with different tools available.
China Unicom epidemic prevention and control big data platform
China Unicom Network Technology Research Institute
China
http://www.chinaunicom.com

In the early stage of the coronavirus disease (COVID-19) outbreak, China Unicom adopted various schemes to support the prevention and control of the outbreak. Based on the analysis of telecommunications big data, China Unicom provides users with the service of “inquiry of places visited within 14 days” to help relevant departments improve the efficiency of itinerary inspection of mobile personnel. In addition, by analysis of operator big data, we can obtain the complete location information of users reported by communication base stations from countries, provinces, and cities to scenes, streets, and buildings. Based on this data resources and technology, China Unicom launches an epidemic prevention and control big data platform combined with SEIR Infectious disease model, establishing an epidemic prevention security rating evaluation model to evaluate the epidemic prevention security rating of various areas of the city.

**BENEFICIARIES**

China Unicom epidemic prevention and control big data platform can bring benefits to government departments, enterprises and individual users.

**ICT TOOLS**

Based on the SEIR model, operator’s big data epidemic prevention work is mainly carried out at two levels: controlling the source of infection and controlling the transmission route.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

There are two main challenges in the analysis of epidemic data. First, the timeliness requirements are high while data processing is difficult. Because the analysis involves massive data of millions of users in multiple cities, it is necessary to preprocess the data and perform feature extraction in the process of multidimensional analysis and combine machine learning for model training and optimization at the same time. However, the situation of the epidemic is changing rapidly, and early detection can prevent it earlier. Fortunately, we have an excellent technical team and sufficient computing resources. After several rounds of program discussions, the efficiency of data processing has been effectively improved to meet the timeliness requirements. Second, the difficulty of team communication during the epidemic increased. Because of work from home during the epidemic, communication between colleagues is not smooth, and it is easy to delay the project process. To this end, we actively formulate a remote communication mechanism. This project contributes to the realization of sustainable development. In the short term, it is difficult to completely eliminate the coronavirus disease (COVID-19), the impact of coronavirus disease (COVID-19) has been received globally. Thus, the epidemic prevention and control work has been gradually normalized. The assessment of security levels in key areas, the detection of migration and the analysis of public opinion can ensure that social individuals participate equally in epidemic prevention and control, improve self-prevention capabilities, and can help the government to carry out resumption of work in an orderly manner and realize social long-term sustainable economic development.
Starting from March 20, 2020, on a daily basis the Sverdlovsk Philharmonic’s Digital Concert Hall broadcasts educational programs and concert recordings from its archive collection for free, from 13.00 to 17.00 (Philharmonic lessons, lectures, daytime family concerts) and from 18.30 to 21.00 (evening concert programs). Live streams are also run via our accounts in social networks and partner websites (cultural media, digital cinemas, city news portals), reaching from 70K to 130K views per day.

**BENEFICIARIES**

Citizens of Sverdlovsk region and Yekaterinburg, Russia and any other country, as all the broadcasts are open and free of charge. The main benefits are: access to the high quality musical educational programs for school children of grades 2 through 9 created by the Philharmonic’s musicologists, access to recordings of concerts of the Philharmonic's orchestras and choir, and those of guest artists, conductors and groups.

**ICT TOOLS**

We fully utilized our Concert Hall without Borders technology (WSIS Champion 2018) when we faced the lockdown situation. Our goal was to continue the concert activities of the Sverdlovsk Philharmonic and keep on providing the public with free access to musical education and cultural values.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Funding for ensuring quality broadcasts is the main challenge. Currently, we are supported by the local government grant, but if the economy needs extra time to recover from the Covid-19 pandemic consequences, we may face the need to explore alternatives. Our Concert Hall without Borders project has been running since 2009. The sustainability is ensured by many factors. The main ones are: the fact that the Philharmonic has its own venue and three symphonic collectives, which perform regularly at the concert hall and are available for recording. The high (and growing) demand from the population is an important factor, especially from our beneficiaries in the remote areas of the region, patients of the welfare institutions, educational system, etc. Another important factor is the financial support, in our case it’s the governmental grants. Personnel is important - tech staff, musicologists, editors, admin, etc. This is a replicable project and can be reproduced by a similar cultural organization which has a capacity to create video programs and broadcast them via internet. Besides, it is always possible to join our project and re-broadcast our content to your audiences.
The Coronavirus (COVID-19) Response – ICT Case Repository

Head of Smart school group
Government
Iran (Islamic Republic of)


Social private Network

BENEFICIARIES
Students, teachers, Manager Schools and Parents

ICT TOOLS
SNA, LMS, Virtual Class. Skyroom, Adobe connect and MOOCs

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

We have 3 Challenges. 1: Lack of proper telecommunication infrastructure and internet network
Solution: It needs to be upgraded in the long run. 2: Lack of access for all stakeholders due to financial problems of some families and some teachers. Solution: The government should provide these people with facilities. 3: Low internet speed. Solution: Increase in bandwidth by the government. If we achieve the desired results. It is used in all kinds of events that may occur. It can be used even in normal conditions.
The President of UKE together with the Minister of Digital Affairs, NASK and Orange Polska, Polkomtel, P4 and T-Mobile Polska have entered into an agreement on cooperation in the special protection of Internet users against data phishing sites, including for personal data, during the states of emergency, such as an epidemic. The agreement will contribute to protecting consumer interests. In connection with the COVID-19 outbreak, Internet domains are increasingly appearing to mislead and phish for users’ personal data as well as financial resources, in particular using SMS and MMS. This is facilitated by increased use of electronic communications during the widespread model of remote work and online education. The agreement is the basis for joint actions of UKE, the Ministry of Digital Affairs, NASK and operators to create and efficiently maintain a list of alerts regarding Internet domains that are used to phish for subscribers’ data and funds. The register developed by NASK will complement UKE’s current anti-fraud activities. UKE investigates, among others the phenomenon of consumer frauds such as “wangiri fraud”, which is provoking a subscriber to call back a missed international call, or impersonating another operator to induce a new contract.

**BENEFICIARIES**

The people who benefit from this project are all the Internet users, the most vulnerable in particular (e.g. elders who are not so tech savvy or kids who have not yet acquired enough digital skills to safely operate within the digital world).

**ICT TOOLS**

Digital transformation cannot happen without ensuring security and consumer/user protection. Meaningful and inclusive connectivity has to be rooted in safety in every possible form. Otherwise, this process of transformation will rather increase existing gaps instead of bridging them. The joint agreement is a great example of collaboration between different entities and showing that there is a common prevailing goal – protecting citizens and allowing them to equally benefit from the digital opportunities.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPPLICABILITY**

Phishing activities are the biggest challenge in this scenario that is why UKE and the other entities signed this agreement. We are aware that it requires constant action and being up to date with activities taken by phishers. Therefore, we join our efforts with e.g. the operators so together we can be more effective. The agreement was signed in cooperation with the abovementioned entities. Consumer protection is our priority and we know it requires joint efforts, from each possible side (telecom operators, civil society, government, etc.). Collaboration across sectors is crucial in this case. The project is replicable and gives a great example on how to collaborate with other entities. This sort of agreement and the following actions can be replicated in any other environment/region. It also shows how quick a response to a given crisis situation should be – all in order to protect the customers.
Mexico City has developed a thorough strategy consisting of several coordinated actions that aim to solve some of the issues derived from the pandemic. The automated screening model was launched to provide attention to people that suspected to have coronavirus. Users of this service enter their contact information and symptoms, following an automated flow of questions. According to their responses, the system formulates a general diagnosis. This system allows for better patient monitoring and follow-up care and is available via SMS, online, through the city’s official app, and by dialling the city’s call center, Locatel. In addition to this service, more than 6,000 medical kits have been delivered to people whose cases have been confirmed as coronavirus, to help keep sick patients from leaving their homes. A website shows the availability of hospitals beds capable of treating COVID-19 cases patients in Mexico City and the metropolitan area. The forms for applying to the Unemployment Insurance Program are now available online to people who have lost work because of the health crisis.

**BENEFICIARIES**

Beneficiaries are the residents of Mexico City who are in need of assistance because of COVID-19, lost their jobs due to the pandemic, are owners of a microenterprise that has been economically affected, or are just looking for credible, official information regarding the current situation. The screening tool, as well as the information on available hospital beds are both available in English as well.

**ICT TOOLS**

The automated screening model alleviates the pressures on the health system by using an automatic question flow that gathers information on the people that might be infected with coronavirus. The hospital availability tracker has proved to be an efficient means to avoid having patients visit more than one hospital looking for an available bed, therefore diminishing the risk of contagion.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The developers are working around the clock and it has been a challenge to count on enough personnel to keep up with the needs of the city. Another significant challenge has been to make it possible for the different platforms to interoperate and share reliable, updated information. It is also necessary to process the information gathered almost in real time. We are looking for partners that could provide human and digital resources to analyse and make an efficient use of the data gathered through all the platforms put to place. The interphase that has already been developed for providing information on the hospital availability could continue to be in place after the pandemic is over. The automated screening model could be later adapted for other ends, whether health-related or not. New procedures that formerly could only be done in person are now available online, thus broadening the scope of digitization in the city. This project could be replicated in cities that are in need of an automated screening tool to provide information to patients or to give them medical attention, allocate resources for people who have lost their jobs due to the pandemic, allocate resources for entrepreneurs whose businesses are struggling to continue operating due to the pandemic, or provide face-to-face attention to people who have been victims to certain kinds of crimes but are unable to leave their homes.
Due to the global pandemic situation, caused by the SARS-CoV-2, the training sessions that were initially scheduled to take place in a face-to-face scenario had to shift to a b-learning modality. The fact that alternative solutions were proposed, discussed and negotiated with the people involved in the project has helped to overcome any fear of not accomplishing the work. In addition, the preliminary diagnosis of the ICT skills was updated, so as to make everyone at ease with the following stages of the project.

**BENEFICIARIES**

Our project is mainly addressed to pupils, students, teachers, and school librarian teachers. The key benefits are improving ICT literacies and social skills through the use of digital tools; strengthening communication and other soft skills by participating in a learning, teaching and training community, in which typically our primary beneficiaries are not usually involved in. The participants have been having the chance to follow an innovative and unique training, at least in the Portuguese context, and in some cases are also benefiting from the use of certain technological services that are not generally provided by their educational organizations.

**ICT TOOLS**

We use video-conference tools (Zoom Colibri). There has also been an increase in the use of other ICT tools (email, Moodle, Word, PowerPoint, Genial.ly, videos, podcasts, WhatsApp), not only to fulfil the training tasks and assignments, but also for communication, mentoring, supervision and support.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenges are related to (self) organization, in time and effort, caused by the unexpected current pandemic situation that has forced us to work from home. It is more demanding to follow (and succeed in) an online course, compared to face-to-face course. And the risk of drop-out is much bigger too than in face-to-face courses. Continuous assistance and mentoring are the key to fight these challenges. Partnership would be most welcome to explore one aspect of the project in which an IT specialist is needed, i.e. data science, artificial intelligence, and semantic scholarship. Funding could allow us to hire specific services (e.g. administrative support), and/or to provide for scholarships (e.g. research scholarship). Other types of partnerships are envisioned for instance with political/official stakeholders in education. A strong innovating social entrepreneurship spirit has kept the project self-sustained. The principles of open access and open science we have been following are aligned with the Portuguese national strategy for digital skills (Portugal INCoDe.2030) and, at an international level, particularly with the SDG 4. It all started in only one school. In this school year we have been working with 6 schools. We were reaching only the district of Lisboa, and now we are also reaching the district of Santarém. In the near future, we expect to further replicate the project (e.g. in the United Republic of Tanzania), aiming at continuing to foster the development of digital skills and competences, including ICT and informational, on an individual or global-society scale, ultimately where most needed in close alignment with the United Nations’ Sustainable Development Goals.
The Coronavirus (COVID-19) Response – ICT Case Repository

COVID-19 Tracker with localized content
Bangladesh Computer Council
Government, Bangladesh


It is a web based data/information collection system that shows the collected data through maps. It exposes API (Application Programming Interface) to be integrated with external systems, and it is connected to the National e-Service Bus platform. Therefore, any other system or organization (if needed) can get updated information on Corona virus infections in real-time. The main purpose of this system is to ensure authentic information delivery for the citizens of the country. The Salient Features of the COVID-19 Tracker include user interface in Bangla. The Tracker collects data from authenticated National/International sources (IEDCR.gov.bd, worldometers.info, www.jhu.edu). It focuses Bangladesh statistics at default page loading and users can view comparison & statistics of multiple countries in chart or graphically. The search can be performed in Bangla or in English. The Tracker refreshes automatically every 5-10 minutes. Full screen map view, bubble map view and change map legends view are available and the Tracker provides a mobile friendly view. There is also an option to search, sort, filter and export data from tabular format.

BENEFICIARIES

The project is developed to provide authentic information service to General People, Journalists, Scientists and Statisticians, and Decision Makers in Bangladesh. It is also beneficial for the general public as a result of provision for displaying or searching in Bengali.

ICT TOOLS

It is the FIRST EVER Map-based graphical COVID-19 Tracker in Bangla Language. It tracks Covid infections-related data. It uses Java based Web Application, HTML5, Node.js, JSON and Map and Chart tools. ESRI Bangladesh has contacted us showing interest to assist us to extend COVID-19 tracker. Local freelancers have shown interest to develop iOS/Android app based on the tracker. Wikipedia Bangladesh has mentioned URL of the tracker as an information source in its article related to COVID-19.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Local authentic source was a main challenge as we show segregated infections count for smaller geographic areas (i.e. District) of Bangladesh. Our COVID tracker does not require manual data entry because it may introduce human errors. Unfortunately, we are yet to get API from the local source IEDCR authority, hence we have to process data from IEDCR and upload to our portal after quality check. We have feedback to show infections count for a smaller geographic area (i.e Upazilla) of Bangladesh. However, IEDCR does not publish such data in public and there is no other reliable source. The Tracker is developed in partnership between Division (ictd.gov.bd) and Bangladesh Computer Council (bcc.gov.bd). However, as we take data from IEDCR (Institute of Epidemiology, Disease Control and Research), it will be good to develop partnership with them. In that case, we can get data via API in real-time. The tracker now has an official roadmap and BNDTA team is officially responsible to maintain and upgrade the tracker dedicatedly. The Tracker is replicable to any geographic region of the world. However, it may require some customization and localization changes. In generic sense, this project is replicable for any disaster prevention scenario where quick flow of information needs to be established.

WSIS Stocktaking Platform www.wsis.org/stocktaking
The UK’s Government Digital Service (GDS) support to the COVID-19 response

Government Digital Service (GDS) - GDS is a unit of the Cabinet Office
Government, United Kingdom


GDS have been at the forefront of the UK’s response to COVID-19. Our existing services have been in high demand. They are ensuring citizens remain informed and able to access vital services. Across the digital, data and technology function across government, 39 user facing digital services have been developed as part of the COVID-19 response, with a further 40 in the pipeline. GOV.UK, the place to find government information and services online, is supporting the design of a range of new products. The GOV.UK content team is also working closely with the Prime Minister’s Office to organise the management and improvement of all coronavirus content. Visitors to GOV.UK per week have gone up over 600%. GOV.UK Notify - the government’s messaging platform, has been used for National Health Service (NHS) text message support for the extremely vulnerable and those isolating at home; business continuity messaging for public sector staff; and FCO travel alerts. Over 250 local authorities and 173 services use Notify. At its peak, over 8 million SMS messages were sent using Notify, compared to a daily average of 150,000. GOV.UK Verify, used to prove identity online. Verify is receiving approximately 500% more traffic from certain services, and this has risen to up to 900-1000% at its peak. GOV.UK PaaS is a cloud hosting platform that allows departments to deploy applications without infrastructure specialists.

BENEFICIARIES

An Extremely Vulnerable Persons Service, which is managing the needs of over a million extremely vulnerable people who require support in order to self-isolate. A service to allow business to let government know what help they can provide. Our minimum viable product (MVP) for this focused on personal protective equipment.

ICT TOOLS

The UK’s COVID-19 response highlights that good digital projects are based on much more than just technology, but on strong digital policy, services and standards and embedded digital, data and technology skills across the public sector.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

To be able to meet the heightened demand for our existing and new services, we’ve had to reprioritise and adapt our ways of working. We have published new guidance on conducting user research remotely while people must stay at home because of coronavirus. We’ve also built new relationships with some parts of government. One of the services allow business to let government know what help they can provide. Our minimum viable product (MVP) for this focused on personal protective equipment. The Crown Commercial Service (CCS) ‘Working From Home’ Task Force collaborates with the GDS DDaT COVID-19 Working Group to ensure a coherent cross-functional response to meet procurement demand with suitable and available supply. The sustainability of what we have done is grounded in the fact that the bulk of our response has been built from existing digital services, standards, skills and policies (digital foundations). GOV.UK now streams the government’s daily press conferences live from GOV.UK. Since going live, these products have been continually iterated and scaling up continues.

WSIS Action Lines

Sustainable Development Goals
Digital Approaches to Resilience and Adaptation in Jamaica (DARAJA Project)
Caribbean Climate Innovation Center
Private Sector, Jamaica

http://www.caribbeancic.org

The proposed solution will be a new climate resilience and adaptation methodologies and technologies to improve climate risk management and COVID-19 responses in Jamaica through this program.

BENEFICIARIES

The main beneficiaries from this project are vulnerable communities and small groups, which include recluse farming communities.

ICT TOOLS

The platform will be complemented by a smartphone-based weather application for communicating information directly to individuals, which will provide a tailored weather, and COVID information.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Lack of information on climate and weather data makes some communities extremely susceptible and vulnerable coupled with the information on the COVID-19 situation daily bulletin. A second aspect of the project will focus on the creation of a Climate Resilience Sandbox, to support the development of innovative solutions for early-warning systems & risk reduction systems utilizing open data from searchable online database of all key international (NASA, ESA, Caribbean Scientific Institutions), as well as the national datasets on climate hazards and exposure data related to climate risk in Jamaica. This project will directly stimulate business development in Jamaica by establishing a climate resilience data innovation incubation program for up to 10 SMEs/start-ups utilizing big data and artificial intelligence to access the DARAJA Information Sharing Platform. These innovators will utilize the data to develop added value products and services that help to build climate resilience. The alumni of this program will become the founding cadre of private sector actors to engage with MSJ and the public sector agencies releasing their data sets onto the DARAJA Platform. Their business initiatives will combine data and information from DARAJA with other relevant information to create revenue-generating products and services that improve Jamaica’s overall resilience to weather and climate shocks. This will be published and licensed as open data. It will offer rapid prototyping and marketing testing guides for Jamaica start-ups/SMEs interested in creating new open data driven climate risk information products and revenue streams. This project is a piloted project currently in Jamaica that will be replicated for the rest of the Caribbean.
The Coronavirus (COVID-19) Response – ICT Case Repository

Audiopedia Corona Awarenesses WhatsApp Campaign
URIDU
Civil Society, Germany


The coronavirus affects all of our lives. However, in the poorest countries it will be devastating. Especially for women and girls, who will be on the frontlines of the response. Knowledge about symptoms, transmission, and prevention of COVID-19 is vital. But how can we provide this information to marginalized, often illiterate populations? The audio recording of localized messages and their distribution via WhatsApp is an efficient and timely solution, not only to spread accurate information, but also to counter fake news. Audiopedia is a non-profit project that makes health knowledge audible. For this project we set up a global Corona Awareness Campaign using WhatsApp Audio which currently includes +62 translations and audio recordings in more than 30 languages (see https://www.audiopedia.org/corona/). The campaign provides easily shareable text and audio information on a dedicated web site, which has been optimized for mobile web (www.audiopedia.io/corona/). Both smartphones and smart feature phones can access the contents, people can share to WhatsApp with just one click. To ensure credibility of the messages we are cooperating with NGOs that work in health education, disaster risk management, and social and behavior change communication. Being a member in relevant networks enables us to be able to reach out to thousands of NGOs that can act as multipliers with high credibility among the local population. NGOs can become part of our Audiopedia NGO Network (https://www.audiopedia.org/ngo) to coordinate their efforts with us.

BENEFICIARIES

This project is especially destined to marginalized populations, especially illiterate rural women. They can benefit from accurate, reliable and accessible health information about COVID-19.

ICT TOOLS

The ICT Tools for our project include mobile web apps, smart feature phones, smartphones, WhatsApp, and social networks.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Fake news and misinformation are predominantly generated through messaging services like WhatsApp, which play a major role for our target group. In order to convey reliable information and fight fake news one must use the same communication channels and mechanisms. WhatsApp is a powerful tool for this kind of campaigns for several reasons: messages come directly to the user's phone, from known contacts, and therefore seem more credible, the immediacy of message delivery can create a feeling of urgency about particular topics and it can be used to penetrate communities that do not have access to other platforms. Various measures have been taken in the past to curb the viral spread of fake news - with limited success. Fighting misinformation is important. But instead of just reacting, NGOs and government organizations should be enabled to create viral SBCC campaigns for mobile communication channels by themselves. We are looking for NGOs that would partner with us to disseminate this information. And funding partners to expand the project. The project is sustainable as it is entirely digital and open source. We are actually planning to use it in as many languages/regions as possible. And to adapt it to other health related campaigns, such as TB, Ebola, Zika etc.
The Coronavirus (COVID-19) Response – ICT Case Repository

Wi-fi Home by Beinday
BEINDAY by INTERFACE SAS
Private Sector, Senegal
http://interface.sn & https://beinday.com

While one in two inhabitants of this planet is currently confined, business life is getting organized. Beinday by Interface SAS maximizes the potential of the Wi-Fi connection in Senegal to promote telework and e-commerce during this period of fight against COVID-19. We have implemented Wi-fi Home dedicated to real estate agencies and owners of rental properties. The focus was on "STAY AT HOME" because of the COVID-19 pandemic. The objective is to be able to better adapt its product in the current context.

**BENEFICIARIES**

Before the COVID-19 crisis, the Wifi Events, Wifi-Biz and Wifi-zone offers met with success with our users. Today, the COVID-19 crisis forces us to be confined. So, we had to quickly highlight the Wifi-Home which is very useful for teleworking. The added value is precisely to allow families to connect to E-commerce platforms so that they can track their delivery in real time during COVID-19. The strengthening of digital connection systems allows a large number of users to be connected to networks without creating disturbances.

**ICT TOOLS**

Beinday is a platform for monetization and injection of advertising content through free Wi-Fi through its various offers ranging from Wi-Fi Home (in homes) Wifi-Biz (in reception areas) to Wi-Fi Zone (Public spaces) via Wi-Fi on board (in public and private transport) and Wi-Fi Edu for schools and universities.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Our strategy is precisely to go in partnership with these real estate companies to always stay in the B to B to C taking into account the particularities of their sector. The objective is to make the real estate product much more attractive through simple and efficient Wi-Fi for the benefit of the client who is the tenant by integrating this service into the rent package by the lessor. We will take care of recruiting these companies, which evolve in the hiring in order to be able to integrate our solution in their offers. We are going to work with all operators who also wish to support us in this new segment with our Wi-Fi Home solution on the Beinday platform for the management of tenant users. An African ambition well achievable after a stake of 35,000 euros made by the Delegation for Fast Entrepreneurship of Women and Youth DER / FJ, new funding mechanism for young entrepreneurs set up by the State of Senegal with a fund which amounts to more than 43 million euros. Recently, the start-up also raised another 35,000 euros. After a first failure with a company whose name was disputed to them by a big American company, the team is convinced that success is not far away. Consisting of several different profiles including IT engineers, telecom specialists, managers, finance, marketing, communication and sales experts, Interface SAS is managed by a top management made up of two Senegalese and two Germans who have come together in association with a team of 6 full-time premises in production. The band has just had a patent from the African Intellectual Property Organization (OAPI) to establish itself in the 17 countries targeted, on the continent with different offers relating to both events and dedicated WIFI banks, cars, establishments open to the public and reception areas, such as cultural places, etc. In a country where not everyone has access to the Internet yet (only 58% versus 25% in Africa), the project quickly found supporters. Sonatel, Expresso, Free and the Arc Télécoms Access Provider contract or negotiate with the start-up Interface SAS which celebrated its first purchase order. The objective is to be present in around twenty countries including Benin, Cameroon, Gabon, Mauritania, Niger and Togo with a presence by 2022 in Mali and Côte d’Ivoire.

**WSIS Action Lines**

**Sustainable Development Goals**

WSIS Stocktaking Platform www.wsis.org/stocktaking
The project BIRD (Broadband Infrastructure for Rural Area Digitalization) is for affordably closing the digital divide that help cope with COVID-19 by enabling remote work, tele medicine etc. at every corner of the globe. During 2016-2018, ITU-T SG5 and SG15 published ITU-T L.1700, L.110 and L.163. The president of Global Plan Inc. initiated the standardization discussions and worked as the key editor. By meeting those standards, an affordable optical cable solution was proposed.

**BENEFICIARIES**

Primary beneficiaries are unconnected people, particularly those who live beyond difficult terrain with low income. The main benefits/services are the unprecedentedly practicable and affordable availability of terabit-capable connectivity.

**ICT TOOLS**

Technologies/ICT tools used in BIRD is affordable and reliable optical fiber cable connectivity that meets new ITU-T standards. It is applicable to urban-rural broadband backhaul connectivity for tele medicine, distant learning and remote work. The cost of optical cable installation are typically 70 to 80 per cent of the entire CAPEX of the network today, with cable installation currently relying on heavy machinery and highly skilled labor. This challenge is made even greater by the low densities of rural communities. To reduce the cable installation cost, a lightweight, robust and thin optical cable is used that meets ITU-T L.110. The cable well realizes a terabit capability, low latency and cost-effective upgradability/scalability needed for ever-growing demand toward 5G era and beyond. The cable is with ease of handling and excellent environmental durability implementable from the ground surface to underground to air to water by following L.163 standard. With this cable, the civil work can be simple and easy without demanding heavy machinery and skilled engineers. The CAPEX can be reduced by ~80% than with conventional cables.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The challenge was to make ITU-T agree that cost-effective implementation be the standard's top priority for rural communications in developing countries, where reliability is the second most important attribute. This reversed the common approach to fibre-optic connectivity design – reliability is usually the first prize, but with L.1700, affordable implementation comes first. The next challenge was to identify the cable design realizing the lowest installation cost. The cable for the BIRD solution selected is lightweight thin robust that is based on the submarine cable technologies. To seek for the partners to globally deploy the BIRD solution, it must be recognized that closing the digital divide and coping with COVID-19 should be recognized as the need from prevention of societal loss rather than from pursuit of financial profits. Another point is solution's compliance with ITU standards that is unprecedentedly aiming at closing the digital divide thereby coping with the pandemics today and tomorrow. The solution BIRD is developed aiming at the best sustainability from the holistic point of view by considering not only the sustainability of the solution itself but more importantly, socio-public sustainability that is realized through broadband optical cable connectivity at every corner of the globe.
In the CoronaSurveys project we combine crowdsourcing, the wisdom of the crowds, and the multiplicative effect of indirect reporting to estimate numbers and their evolutions over time.

**BENEFICIARIES**

The decision makers can use our results and estimates to make more informed decisions.

**ICT TOOLS**

Online surveys to collect data, data repositories (GitHub) to make the data available publicly, data processing tools to estimate pandemic parameters, web technology to show the results are the ICT Tools that we are deploying for this project.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

We are facing challenges in deploying a system for multiple countries. We also have to attract participation, clean the data from bogus responses, generate estimates of number of cases, number of new cases, infection rates, etc. from the data. We are finding solutions to present the estimates in a useful form and to reach decision makers so they make use of our results. From the above challenges the hardest is to deploy the surveys in many geographical areas. Partners that are interested in doing so in their country or region, or are willing to fund promotion campaigns are welcome. The project is sustainable because we use very limited resources. It can not be replicated because the data that is not collected at a given point in time is lost.
We built a digital platform that organizes information related to the decentralized production of resources for hospitals during the Covid-19 pandemic and connects the necessary stakeholders to make donations of medical supplies viable: producers (makers/designers/players from industry/universities), hospitals, volunteers who help logistics, material producers, possible local donors. The platform collects demands from hospitals and connects them with local makers who can help, highlighting active initiatives and also hospital protocols.

**BENEFICIARIES**

Our main beneficiaries are hospitals and local makers. Hospitals have their demand for PPE supplied and local makers can exchange information regarding the production on a small and large scale. The objective is to build a lexicon common to both groups, which usually work in such different ways. The platform aims to give visibility to a national problem and to pressure agents from industry and public authorities to act while generating a feeling of solidarity with health professionals and calling on citizens for generous actions.

**ICT TOOLS**

When using our platform, the user can find via Google Maps initiatives that are working daily to fight COVID-19 in Brazil. Besides the main goal - aka meet the immediate needs of local hospitals - we use this channel to connect small and big players across the country so they can locate their peers and exchange information and experiences on combating COVID-19. Many of these small players lacked visibility and needed research, studies, and prototypes.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Brazil has 8,516 thousand km² and its population is more than 200 millions. Our main challenge was to locate small initiatives in states farthest from large capitals, exactly where there is a structural need in the public and privates hospitals. This challenge can be overcome with mass dissemination of our platform through social media, search engines, and specialized debate environments on the fight against COVID-19. Our main goal now is to expand the coverage area of the platform so we need a partner that can disseminate the platform aiming to connect more players across the country and save lives. Our platform uses Google Maps to search and insert initiatives in Brazil. Therefore, it is possible to use the same principle for other countries that are facing the same difficulty.
The Coronavirus (COVID-19) Response – ICT Case Repository

"Ngabuburit online" with the theme of Downloading Blessings of Ramadan
ICT Volunteer Bojonegoro
Civil Society, Indonesia

http://www.rтикbojonegoro.or.id

We went through this year’s Ramadhan in a very different atmosphere from previous years, we had to find various ways so that the atmosphere of the fasting month this year was still felt, for that we present the event "ngabuburit online with the theme of Downloading Blessings of Ramadan". "Ngabuburit online" is an Islamic religious lecture carried out during the Ramadan of 2020. Due to the Covid-19 outbreak that has an impact on all aspects of life, we try to help the speakers by utilizing digital technology to still be able to do lectures from their respective homes. This is important for us to do where currently in Indonesia there is a large activity limitation (PSBB). This activity takes place by utilizing the Google Meet application so that the face-to-face atmosphere between lecturers and auditors can still take place from their respective places.

BENEFICIARIES

The beneficiaries of the program are the Muslim community in Bojonegoro and the speakers at Bojonegoro.

ICT TOOLS

We use an existing Google Meet application for these activities; ICT Volunteer Bojonegoro since the last three years has received an application grant from Google so this is the time to use it for the benefit of the people in our region.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Because this is new, we must be able to provide short training to (lecturers) of lecturers to be able to operate the Google Meet application, besides that we must be able to overcome the lack of signal in certain areas so that this activity can continue well and all of that we can handle it well. In carrying out this activity we partnered with religious organizations and boarding schools in Bojonegoro, there were 10 organizations involved together to carry out these activities. This program is ongoing, we will continue to develop and perfect this program in the future, of course we will also use program techniques for various interests such as education for various levels (elementary to high school) it is very possible to adopt this program. The project can be explored in any region, especially areas that have similar beliefs with us in Indonesia.
The Taleemabad learning series is the national curriculum of Pakistan presented in an engaging animated format, consisting of hundreds of video lessons and thousands of assessments. Through contextualised storylines and engaging characters, we can build a deep relationship with children, which enables us to retain their attention for longer, thus helping us instil deep-rooted learning. The content (lessons, assessments, practice questions) is available in Urdu, English and soon in multiple regional languages.

**BENEFICIARIES**

The Taleemabad platform is aimed at providing education to children living in remote access areas, who do not have access to the same learning opportunities as children who go to high-cost private schools in the cities. Parents who have become disillusioned with education and its benefits through years of being exposed to subpar education that has not brought any improvement in their lives. Children with stunted learning levels. We are providing free content to these children through the multiple channels mentioned before. The app contains all the features of the Taleemabad platform - animated video lessons, gamified tests, parent portal and adaptive learning - at a minimal cost of 20 PKR (0.13 USD) per week.

**ICT TOOLS**

Close to 40.4 million children have access to a television, 24.5 million have latent access, and 1 million children have a personal device. Smartphone penetration and the constant increase in 3G/4G connectivity has allowed us to take the Taleemabad platform all across Pakistan, and in places where access to these resources is limited, we are now able to reach them through television. Recently, Taleemabad was picked by the Federal Government for daily broadcast on a free to air special new channel called ‘Teleshool’, run by the national broadcaster. Taleemabad is also being aired on a Provincial cable channel called ‘TaleemGhar’, launched by the Punjab government, and is also available on a content aggregator called Ilm Exchange, launched by the LEAPS study faculty at Harvard. Our placement on these channels, plus a very strong surge in growth (35,000 new users joined the platform in April, compared to 2500 in February) means that we have a serious shot at reaching a substantial number of children with Television, or latent smartphone access.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Content production is an expensive activity in terms of time and money. To date, we have produced 480 videos but to keep up pace with the rate at which tv channels are burning through content (4 hours per day, for 5 days a week) we need to keep churning out more videos. We are looking for funders to help us complete our goal of creating content for the entire K-12 spectrum. We also need partners for evaluation of our content and to conduct impact assessments to make us more cognizant of our shortcomings and help us pivot to provide an even better learning solution. In the past 5 years, we have gathered a team of experienced curriculum developers, assessment specialists, data analysts, designers, developers, and animators. These team members have also often travelled to rural Pakistan together, engaging with students and understanding their pain points. As such, they are well equipped to design and produce an educational platform that can begin to solve these problems for the students. The content creating process has become linear and can be replicated anywhere in the world.
The COVID-19 Humanitarian platform is a joint project of Johns Hopkins Center for Humanitarian Health, Health in Humanitarian Crises Centre (of the London School of Hygiene and Tropical Medicine), and Geneva Centre for Education and Research in Humanitarian Action (of the Graduate Institute of International and Development Studies and the University of Geneva). The three Centres created the COVID-19 Humanitarian platform to gather, curate, analyse, interpret and disseminate COVID-19-specific and sensitive interventions that are being implemented in a variety of humanitarian settings. The goal is to facilitate the sharing of context-specific field experiences about how humanitarian actors, with their programs, are responding to and being adapted to the COVID-19 pandemic.

**BENEFICIARIES**

This website is with a cross-disciplinary nature. It hosts both technical guidelines as well as operational field experiences. The information is not only useful for humanitarian actors, but also helpful to health professionals to understand ways the humanitarian sector respond to the COVID-19.

**ICT TOOLS**

We use an online platform to invite sharing of experience and co-create knowledge. Our objective is to capture examples of how humanitarian organisations are responding to and adapting their existing programs or innovating new programs to address COVID-19 in their unique environments.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Diversity matters: Many of the approaches used to prevent and respond to COVID-19 in the most affected areas thus far (e.g., China, Europe and the United States of America) will not be feasible in most humanitarian settings. Numerous humanitarian organizations are creating guidance and tools for the field, but there is a need for more evidence describing how such programs are being adapted according to varying contexts and socio-cultural settings. These adaptations and innovations need to be shared widely so others can learn from them and adopt or modify them according to their specific setting. Time constraint: On the platform, users can click on ‘Share field experience’ to provide inputs. However, knowing that humanitarian actors are busy in responding to COVID-19 and many will not have the time to respond, we have undertaken interviews with colleagues in the field, and then uploading the content to the website using the standardized forms. The three centres and their belonging universities are partners of the COVID-19 Humanitarian platform project. These provide sufficient research and administrative capacity. However, the nature of the project is to engage local partners to share their experience. In addition, partners with ideas on how to improve the flow of information from the field to the platform are of interest. The project is designed in a way to facilitate self-reporting, so organisations can continue to share their experiences and learning. The knowledge captured will be useful for professionals from the humanitarian sectors and health sectors as COVID-19 evolves and in future epidemics and crisis situations. It is also used for learning in the future in both sectors, as field based experiences can be synthesized and analysed to identify transferable lessons. As the project is with a global coverage, replication should avoid duplication and rather consider pooling efforts. Field experiences are collected and summarized in a standardized form to ensure consistency when data is collected across many contexts.
Virtual Assistance to Citizens about COVID-19  
ESTRATERO TECHNOLOGIES  
Civil Society, Ecuador  

http://www.estratego.com.ec

We made our virtual assistant AMALIA available to the citizens, to give them information from official sources. Through this service, false news is avoided. In addition, day-to-day information is provided on COVID-19 cases as well as information of deceased people.

**BENEFICIARIES**

The main beneficiaries are the city that has an immediate information point about COVID-19 from official sources. The main benefit is 24/7 uninterrupted and timely attention to official information.

**ICT TOOLS**

We use an existing Google Meet application for these activities; ICT Volunteer Bojonegoro since the last three years has received an application grant from Google so this is the time to use it for the benefit of the people in our region.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The most complicated task was creating trust in the citizens for AMALIA, it could be solved by support from recognized organizations, that are in favour of the diffusion. We are looking partners in other countries to promote AMALIA in their cities and to contribute to give information of COVID and social distancing measures for the citizens.
With the remote working model, technical personnel were enabled to continue their planned work at their home with the remote working model. Remote desktop solution allows them to access everything they need for a productive working day. All the meetings started to be held via teleconferencing and video conferencing. Pre-planned or needed meetings are currently hosting live online conference system. All IP telephones in office call forwarded to GSM number of our staff. COVID-19 awareness trainings were prepared and offered to our staff through our e-learning portal.

**BENEFICIARIES**

Our primary beneficiaries are mainly judicial workers and lawyers. We also serve to the Ministry officials. We develop and host e-justice services.

**ICT TOOLS**

VPN software is used for accessing intranet as for remote working. Applications such as authorized storage environments, communication/video conferencing tools, project management tools are used when working remotely. Our IT department provides e-signature or admin tokens to the staff who will use the VPN service. And also all the e-signature which needs to be renewed because of e-signature certificates have expired are renewed. All the online meetings fulfil the principles of confidentiality and membership of authorized staff.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

We have to take actions against COVID-10 within a limited time. That is the main challenge. We overcome this challenge with an organized working team efficiently and to minimize repeated activities.
Let thy food be thy medicine. We are involved in organising community resources and connecting AgTech to areas that are in desperate need of better food security, and to secure future food supply chain strength. Providing access to the tools everyone needs to keep food local and available, which helps populations fight Covid-19 with ample, healthy, fresh local food. Moving consumers to food citizens is crucial for future survival of new outbreaks and crisis preparedness.

**BENEFICIARIES**

We have an angel investor Dialogue Group, and have crowdfunded within our community. The main benefits have been keeping operations sustainably growing so that we can achieve SDG #2 Zero Hunger by 2030.

**ICT TOOLS**

We became data driven organisation after our Hacks Against Hunger participation in WSIS 2018 Geneva. We now have over 800 stakeholders across the world collaborating collectively through a community platform where we match people with the local resources, space, training, volunteers, to remove any barriers that are keeping them from becoming actively involved in community-supported agriculture. Much of the new agriculture technology is appealing to those in the digital world, and our open-source software development guides users to the resources tailored specifically for them.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Main challenge is further funding so we can train new impactors and get more HUBs up and running so the network can scale. We also have an internal team who cannot dedicate full energy and time to the growth because they are not paid. We are actively adding Stakeholders to our AgSphere, a collection of agTech impactors and innovators, businesses, NGOs, universities who can contribute to faming access, and growing anytime, anywhere.
The Coronavirus (COVID-19) Response – ICT Case Repository

AFLI initiatives
The Arab Federation for Libraries & Information (AFLI)
International Organization, Tunisia


Initiatives implemented by the Arab Federation for libraries & information (AFLI), coinciding with the Corona virus crisis is a cultural program that includes a series of webinars deals with a variety of topics in the field of libraries, information, knowledge and crisis management. One of the webinars was on the role of knowledge management in crisis management: Corona virus as a model. Eight webinars were conducted until now, and it is still ongoing. The webinars is broadcasting live on AFLI YouTube channel due to the high turnout. We are honoring best active libraries during the period of the Covid-19. Libraries were divided into: large & medium libraries and small libraries. The initiative ends by the end of May 2020. The Knowledge Continues Initiative on AFLI Facebook group, which is a short record of well-known academics and professionals in the Arab world to talk about the importance of continuing knowledge and readership during the period of home quarantine. The number of posts exceeded 25 posts. We are also honoring young children in drawing competition aged from 6 years and less and from 7 to 10 years. Three prizes for each category were dedicated for the winners. Free courses for MENA professionals are under process.

BENEFICIARIES

Direct beneficiaries are librarians and information professional in MENA region (Middle East & North Africa) as they preserve community culture, protect and provide access to information. Professional Library Associations also benefit directly. Indirect beneficiaries are the Community/users: As Librarians are actively engaged in the community, enabling them to fulfill their roles will require developing their skills, it is imperative in a world in which technological advances and the changing in information-seeking behavior of library users are affecting everything libraries do.

ICT TOOLS

Different technologies are used like webinar service (zoom) to provide AFLI webinars during quarantine, announcing our activities through different social media channels such as: Facebook to announce the activities and communicate with our beneficiaries. YouTube for live broadcasting of the webinars. Slideshare for sharing the content of the webinars to our beneficiaries. Repository for backup of recorded webinars series on AFLI. Involving in virtual experience improved Arab librarian’s ICT skills, readiability to engage, and enroll in various professional webinars, courses available on the web. Promoting modern information literacy skills that would support the concept of virtual learning in the community which help in creating a true information society. Building a sustainable learning platform gives opportunities for continuing development and improves access to information resources for library & information professionals all over the Arab countries equally, especially for those how suffer from lack of professional training due to the unstable conditions. Maximizing knowledge sharing among Arab librarians through virtual meeting, which leded to generate new ideas ready to be adopted regardless of the cultural context.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Sustainability of the program would be a challenge after the current presidency of the Boards is over. The initiatives can be sustained. In terms of financial sustainability AFLI voluntary staff works to coordinate and conduct the webinars to ensure a steady flow of maintaining and continuing the program with support from AFLI who will pay for the webinar service. This was not the first time that the Arab Federation for Libraries & Information (AFLI) provides webinars for the Arab Librarians & Information professionals, as AFLI conducted many webinars before during the year 2013, and the webinars are currently replicated again from the year 2019-2022.

WSIS Action Lines

Sustainable Development Goals
All human activity has gone online since the coronavirus lockdown began. This has resulted in an exponential rise in fraudulent online activity. TaC International has developed a real-time free assistance for victims of cybercrime. The assistance is offered worldwide by trained Youth IGF (www.youthigf.com) Senior Ambassadors located on different continents around the world and able to assist in different languages (Arabic, English, French, Portuguese, Russian) and time zones.

**BENEFICIARIES**

The service is to offer to victims of cybercrime a real-time assistance with the first advice on what to do after the problem has been identified. Essentially, the beneficiaries are victims of cybercrime.

**ICT TOOLS**

An online platform is used to deliver the real-time assistance for victims of cybercrime. An app is foreseen to be developed as well.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge is to be able to assist all victims who are in need of help. By having a large number of people present online and delivering real-time assistance. They have received support from industry partners and collaborates closely with national CERTs. The project has proven to be sustainable as it has been tested during the lockdown in Europe. Sustainability is also based on assistance from the trained Senior Youth IGF Ambassadors located in different countries. Replicable in that the real-time assistance platform can also be implemented at the national level.
The Coronavirus (COVID-19) Response – ICT Case Repository

Administrative Modernization Agency (AMA)
ePortugal webportal (single digital gateway for public services)
Government, Portugal


The Portuguese single digital gateway for public services, ePortugal was quickly adapted to provide new information, tutorials and services for citizens and companies. ePortugal is the privileged vehicle to provide both citizen and businesses the services they need in the context of social distancing. The wide range of transactional services that can be performed on the ePortugal portal, include: changing the address on the citizen card, requesting birth, marriage and/or death certificates or requesting over 500 business licenses and permits. The portal offers specific service channels for citizens and businesses, namely the Citizen Call Center and the Business Call Center (available by phone and email) and SIGMA, a chatbot based on artificial intelligence that assists the user and provides him/her with information about the services available on the portal. It's worth mentioning that ePortugal was developed with a focus on accessibility and usability, adapting to any type of device and presenting a simpler and clearer language.

**BENEFICIARIES**

The portal is available to everyone and was developed taking into consideration usability and accessibility requirements.

**ICT TOOLS**

ePortugal is based on Liferay DXP, with a responsive design that allows optimal access from any device. It has the usability and accessibility silver seal, which identifies and promotes the implementation of best practices in terms of accessibility and usability in websites and apps that are meant to simplify the use of online public services by the citizens, more specifically citizens with disabilities. Operated by AMA, ePortugal uses several digital infrastructures and platforms, which are at the core of the Portuguese digital transformation efforts: (1) National and authentication provider (autenticacao.gov); (2) Interoperability platform - IAP; (3) The national Catalogue of Entities and Services. The content management system allows the creation, organisation, elimination and publication of content in an adaptable and real-time manner.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge was involving potential users and other stakeholders from the development phase. There were also postponements due to the integration of several applications with the portal. AMA, is the partner entity responsible for coordinating and managing the ePortugal, having the responsibility to obtain, update and upload content of services and entities of all the Public Administration. The Catalog of Entities and Services (CES) is sustainable and replicable as it can be used in the future to provide information to several other portals regarding the Portuguese public services. The CES, along with the ePortugal portal, is managed by AMA.

WSIS Stocktaking Platform  [www.wsis.org/stocktaking](http://www.wsis.org/stocktaking)
The Coronavirus (COVID-19) Response – ICT Case Repository

Key2enable Assistive Technology Mena Ltd
AaaS - Assistive Technology as a Service
Private Sector, United Arab Emirates

https://key2enable.com & https://tix.life/planos

As a hardware/software company, they schedule a virtual workshop of our complete solution for students and persons with disabilities. They send the hardware equipment to their respective locations. The online platform is configured for that specific student or person with disability along with installation follow ups. The recording of an e-learning platform will be launched for professionals working directly with the children/people. This will be available in English and Arabic.

BENEFICIARIES

Parents together with specialists, we indicate what we understand that will work better in each case.

ICT TOOLS

They have developed a subscription model called Accessibility as a Service (AAAS) in Brazil since October 2019. In this Platform they are working directly with the END-USER - B2C. They receive any questions and doubts from the parents through their online platform, and together they understand the best solution for that particular child/person. They coordinate an online training session with the parents who will sign a subscription contract. The results will be sent to their homes by any means of communication of their choice.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The challenge in Brazil is the lack of funding within families and their understanding on how to use technology. Interested in collaborating with companies/entities aimed at providing education to persons with disabilities. It is sustainable. The subscription plan offered to families allows them to use the proprietary Assistive technology with their child(ren). Similar to a virtual tech caregiver which allows their child(ren) to communicate, play, and learn with technology. It is completely replicable. Ability to teach any person with minimum computer knowledge how to use the Assistive technology with the person(s) with disabilities they will attend to.
PJSC Rostelecom
Hosting Call center – virtual automatic telephone station (VPBX)
Private Sector, Russian Federation


Rostelecom has been deploying call-centers on short notice on the basis of the Virtual Telephone Exchange service (VPBX) with allocation of a nationwide phone number, enabling millions of people to make free phone calls at the allocated number and ask questions of interest to them. Having in place a high-tech cloud-based solution, the companies are now able to handle much higher order volumes. Rostelecom has launched a Home Office service. The new offering will enable entrepreneurs to maintain efficient channels of communications with employees, customers and partners, while staying at home.

BENEFICIARIES

Beneficiaries are B2B companies (big, small and medium-sized businesses) in Russia, private and state-owned companies. An actively developing network of European confectionery houses and restaurants.

ICT TOOLS

Virtual PBX is the organisation of telephony via the Internet with the functions of call forwarding, distribution and recording. Connecting Virtual PBX is easy; receive calls to SIP-phone, mobile or computer.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The project is sustainable and can be easily replicated. It is based on a standard solution with settings and customisation as required to meet specific needs of business customers, and can be used for both in-office communications and receiving incoming calls made by service users. It is also possible to provide remote workplaces for contact center operators.
The Coronavirus (COVID-19) Response – ICT Case Repository

Association Eseniors
"Life is not about waiting for the storm to pass, it's about learning how to dance in the rain." - Sénèque.
Civil Society, France

Eseniors has sent out to several thousands of seniors and professional partner institutions regular newsletters with useful information for physical and mental health.

**BENEFICIARIES**

The primary beneficiaries are seniors in Paris.

**ICT TOOLS**

The whole team has got accustomed to ZOOM meetings. We also sent tutorials to seniors about ZOOM and TeamViewer and offer to further help over the phone.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Open to partners providing information about other activities, news or to disseminate our letters to as large an audience as possible. The information sent is mostly written in English but the same could be done in other countries in their native language.
Healthrostrum
Private Sector, Tunisia

https://www.healthrostrum.com/

Healthrostrum.com is a social network for health that enables people to share their health experience and connect with a caring community.

BENEFICIARIES

Patients, health care professionals and health enthusiasts.

ICT TOOLS

Using mainly web technology at the moment.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Primary challenges are marketing and fundraising. This can be addressed by forming partnerships and raising money or having access to grants. Partners in the field of healthcare, such as: health related companies, associations and medical universities.
The Coronavirus (COVID-19) Response – ICT Case Repository

Foundation for Environmental Education
#YREstayshome challenge
International Organization, Denmark

https://www.fee.global/

YRE International is publishing on different social media environmental challenges for students to share their story from lockdown time and environmental improvements. The best stories will be awarded.

**BENEFICIARIES**

Students ages 11-25 years old; Teachers; Parents; Communities; Different stakeholders

**ICT TOOLS**

Interactive webinars via ZOOM for students e.g. about indoor photography, YouTube influencer. Tools include: (1) Computers, laptops, cameras, microphones for interviews (students) for e.g. interviews; (2) software programmes for making videos from activities

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge is access by students from different countries to tools that can be used to share stories. Working with 45 countries, some being developing countries, not all students have access to tools and internet. Opportunities are provided to attend the webinars via mobile and options to post stories to help them minimize accessibility issues. The project is aiming to build core skills in students as ambassadors of their environment and influence their community while being at home. As such, they are interested in partners for webinars to develop computer skills for students and to publish stories from students. It is sustainable in that it can be used by students from every country around the world and challenges are universal and valid for all students.

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**WSIS Action Lines**

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**Sustainable Development Goals**

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WSIS Stocktaking Platform  www.wsis.org/stocktaking
The Coronavirus (COVID-19) Response – ICT Case Repository

Information and Communication Technology Agency
Continuous Education for School Children through multi-channel approach amidst COVID-19
Government, Sri Lanka


Multiple platforms used to offer online educational content. The most common was the transmission over broadcast media through television channels. A TV program incorporated to state electronic media and freely available satellite TV networks, included following: live interactive teaching sessions, revision programs, content from National Institute of Education repository and Sri Lanka Rupavahini Corporation (National TV station) repository, Nenasa education TV content, eThaksalawa a Learning Management Solution (LMS). Information and Communication Technology Agency of Sri Lanka (ICTA), introduced a video conferencing platform to assist the students through an innovative real time learning feature. ICTA also introduced a comprehensive collaboration tool to ensure continuous communication among education authorities and schools.

BENEFICIARIES

Long term beneficiaries of this programme are the entire student population in Sri Lanka. Through this they find a medium to continue their studies without interruptions. From the positive reviews received it was apparent the students found this novel attempt useful and user-friendly.

ICT TOOLS

National TV Broadcasts: dedicated time slots in both state and private media channels to cover all syllabus requirements, supported by the Ministry of Education; Online interactive web platform: eThaksalawa; SMART text book which has been developed with the consultation of ICTA by Education Publication department.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Key challenges of this project were: unavailability of online facilities (both connectivity and devices), this created an unequal environment for the students to continue their studies; unavailability of material readily available to be broadcasted, shared with students; Cost of connectivity; Seeking partnership with government agencies from other countries engaged in education activities or any donors. There is a clear road to sustainability since the government of Sri Lanka backs all these initiates through the Ministry of Education and ICTA. All programs initiated can be replicated if: proper engagement models with the private sector are clearly documented and agreed upon, disparity of ownership of devices is reduced, there are equal connectivity facilities for all children.
The Coronavirus (COVID-19) Response – ICT Case Repository

Information and Communication Technology Agency
Supporting Sri Lanka Technology Startups during COVID-19
Government, Sri Lanka


ICTA estimates a thriving startup ecosystem will result in a minimum of USD 1 billion of foreign exchange revenue by 2025 brought in by exports, investments and startup exits. All possible measures taken to save these startups now will determine our socioeconomic development in the next 5 years. There was much synergy between tech startups and tech freelancers but lacked a common platform. With that, StartupSL initiative was born with the objective of gathering technology startups and freelancers to www.startups.lk platform enabling representation of their unique offerings.

BENEFICIARIES
Technology startups and freelancers in the country. Identification of the market serviced and the maturity of the startup will provide information in order to streamline government relief during and post COVID-19.

ICT TOOLS
Web development tools, social media platforms for activation, SLACK for volunteer coordination, Trello for collaboration, Anydesk for remote support, WhatsApp for communication, JITSI meet for video conferencing, Mailchimp/zoho mail servers for external communication.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY
The buy-in and recognition from the ecosystem is the key challenge of such a venture. The platform has to be backed by sound initiatives and partnerships in order for the startups and freelancers to gather around it. We look for organizations involved in similar types of projects for collaboration. This is an initiative which is imperative for the future of the country. Developing the website with required functionalities for onboarding is stage 1 but the most essential is the roadmap of the platform and what it promises for its beneficiaries. This is unique for each ecosystem.
Since government machinery was expected to continue their operations without disruption, it was essential to facilitate it through the adoption of suitable tools and technologies immediately. In this unprecedented situation Information and Communication Technology Agency (ICTA) has introduced a novel platform based on a popular open source software. The usage is free of charge, with telecom companies waiving the connectivity fee to the site. ICTA has continuously facilitated to increase the adoption through dedicated consultation and also produce user guides to use this platform.

**BENEFICIARIES**

Virtually the direct beneficiaries are all state sector employees, amounting to nearly 1.5 million with the entire population indirectly benefiting from the activity.

**ICT TOOLS**

The platform, https://meet.gov.lk as a free and easy to use video conferencing platform based on Jitsi (open-source project) for Sri Lanka’s state sector. It allows one to easily build and deploy secure video conferencing solutions. At the heart of Jitsi are Jitsi Videobridge and Jitsi Meet, which let one conduct conferences on the internet, while other projects in the community enable other features such as audio, dial-in, recording, and simulcasting. This platform associates all features of Jitsi, which includes passing everyone’s video and audio to all participants, rather than mixing them first, resulting in lower latency, better quality and, a much more scalable and inexpensive solution. The solution is compatible with WebRTC, the open standard for Web communication and supports advanced video routing concepts such as simulcast, bandwidth estimations and scalable video coding.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The biggest challenge was the state sector not fully prepared for the transformation. Not all employees were tech-savvy. This challenge was addressed by the sheer necessity. Application of a proper adoption strategy which was focused on building trust, dissemination of knowledge and skills with hands on support was implemented to ensure that government officers embraced the transformation. Interested in collaborating with government agencies from other countries carrying out similar projects. There is a clear road to sustainability since the government of Sri Lanka backs all these initiatives through the Ministry of Education and ICTA. This project can be replicated easily under similar circumstances if: proper engagement models are clearly defined and agreed upon in the private sector, disparity of ownership of devices is reduced, the stakeholders are prepared for the immediate transformation.
Multiple platforms used to offer online educational content. The most common was the transmission over broadcast media through television channels. A TV program incorporated to state electronic media and freely available satellite TV networks, included following: live interactive teaching sessions, revision programs, content from National Institute of Education repository and Sri Lanka Rupavahini Corporation (National TV station) repository, Nenasa education TV content, eThaksalawa a Learning Management Solution (LMS). Information and Communication Technology Agency of Sri Lanka (ICTA), introduced a video conferencing platform to assist the students through an innovative real-time learning feature. ICTA also introduced a comprehensive collaboration tool to ensure continuous communication among education authorities and schools.

**Beneficiaries**

Long term beneficiaries of this programme are the entire student population in Sri Lanka. Through this they find a medium to continue their studies without interruptions. From the positive reviews received it was apparent the students found this novel attempt useful and user-friendly.

**ICT Tools**

National TV Broadcasts: dedicated time slots in both state and private media channels to cover all syllabus requirements, supported by the Ministry of Education. Online interactive web platform: eThaksalawa. SMART text book which has been developed with the consultation of ICTA by Education Publication department.

**Challenges / Partnership / Sustainability / Replicability**

Key challenges of this project were: (1) Unavailability of online facilities (both connectivity and devices), this created an unequal environment for the students to continue their studies; (2) Unavailability of material readily available to be broadcasted, shared with students; (3) Cost of connectivity. Seeking partnership with government agencies from other countries engaged in education activities or any donors. There is a clear road to sustainability since the government of Sri Lanka backs all these initiatives through the Ministry of Education and ICTA. All programs initiated can be replicated if: proper engagement models with the private sector are clearly documented and agreed upon.
Rostelecom is Russia’s core systemic enterprise with a headcount of over 200 thousand employees, offering telecommunications and digital services across entire Russia. In order to ensure maximum safety and protection of those employees they decided to equip their offices with thermal camera systems to measure visitors’ body temperature and reduce the risk of an infected visitor coming inside the office, given that high temperatures is the main sign of COVID-19.

**BENEFICIARIES**

Currently, beneficiaries are large and medium businesses, as well as governmental enterprises: construction industry, fuel and energy complex, food and processing industry, agriculture, healthcare, transportation, information and control system, communications, housing and utilities, population service industry, administrations, social facilities.

**ICT TOOLS**

A stand-alone thermal camera unit enables instant on-site measurements of visitors’ temperature and required servicing. They have integrated thermal cameras with their video-surveillance and data intelligence platform, added access management systems, and connected cameras with a single monitoring center, thus creating a comprehensive solution that enables transition from local temperature measurements to centralized monitoring of the epidemiologic control at the regional and federal levels, and Big Data-based decision-making.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

High cost for social entities. Owing to further development of their platform, they will be able to support people detection and taking accurate body temperature measurements using low-cost thermal camera units, thus creating a revolutionary solution based on their software at an affordable price. They welcome partners in telecommunication operations wishing to offer thermal surveillance solutions to their customers, developed by Rostelecom. Also, manufacturers of thermal surveillance equipment. This project continues to develop and is planned for development in the next 5 years.
The Coronavirus (COVID-19) Response – ICT Case Repository

Ministry of Transport and Communications
Ehteraz - Tracking and Monitoring Smart Platform
Government, Qatar

http://motc.gov.qa

The app uses a GPS feature and Bluetooth to track and control COVID-19 cases. The profile of each user is linked to QR Code by automatically extracting the user’s health information from official entities.

**BENEFICIARIES**

General public. If a case of coronavirus is discovered, the application enables the authorities to track the areas where an infected person was present - from the time of downloading the app until the moment of infection. The authorities can also identify all the persons or a large percentage of who have had contact with the infected. They will then receive messages through the app and have priority in testing.

**ICT TOOLS**

The technology that Ehteraz was based on is the technology of Analytics. The latter would use certain inputs and then come up with a customized analysis. In our case here, the inputs were GPS locations. Analytics is a rising technology that is being used and developed more and more due to its efficiency. It is insightful in areas where decisions need to be taken, and in areas which record a lot of data and information.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge was to persuade the residents of Qatar to download the application and use it on their smartphones. However, this was addressed by educating citizens on the importance of the application in maintaining their safety. Currently partnering with Ehteraz in cooperation with the ministry of Public Health in Qatar. They would also like to have partners from the technology, marketing and any other sectors that will bring added value to the project. This project was launched specifically to fight the Covid-19 crisis. However, it is considered to be a sustainable project where it can be used in the future for any similar pandemic.
Al-Asas security robots are robots that perform patrols in both residential and public areas of the country to educate the community on the importance of preventing gatherings. The goal of these robots is to spread awareness about Covid-19, and to detect violators of rules and regulations.

BENEFICIARIES

Our primary beneficiaries are the people of Qatar and the Qatari Officials. From one end we are ensuring the safety of our officials who should monitor the quarantine.

ICT TOOLS

The main technology adopted for this project, was the technology of Robotics. The field of robotics has greatly advanced with several new general technological achievements. One is the rise of big data, which offers more opportunity to build programming capability into robotic systems. Another is the use of new kinds of sensors and connected devices to monitor environmental aspects like temperature, air pressure, light, motion and more. Internationally, when a task is dangerous for a human to do, as is the case today in regards to Covid-19, the role of robots comes into place.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The existing robotics technology challenges are mainly related to signal and functionality. It can be overcome by embedding third party technology to avoid the challenges. The Partners needs will depend on the additional knowledge and technology in the same field of robotics, functionality and transmitting that can add to the existing project. They are keen with an open vision for the future. The project is sustainable in the sense that it was already used previously and now, it’s being used in different types of events with various tasks each time. This has been done by having standardization and guidelines with fixed procedures to accommodate the project requirements and needs. If the same robots can be procured, then the project can be replicable.
The goal is to spread awareness related to Covid-19 and prevent gatherings to limit the spread of the virus. Drones were launched in several areas to spread awareness messages through speakers about the importance of aiding by the social distancing measures to limit the spread of the virus.

**BENEFICIARIES**

People of Qatar by ensuring their safety and Qatari officials by assisting them in doing their job of monitoring the situation.

**ICT TOOLS**

Unmanned aerial vehicle technology covers everything from the aerodynamics of the drone, materials in the manufacture of the physical UAV, to the circuit boards, chip set and software, which are the brains of the drone. Drones are gaining popularity more and more as they eliminate the need for workers to physically access hostile environments, where factors such as height, wind, waves, weather, and radiation can lead to accidents or health issues.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The existing drones technology challenges are related to signal and data streaming mainly. It can be overcome by embedding third party technology to avoid the challenges. The Partners needs will depend on the additional knowledge and technology in the same field of drones, connectivity and transmitting that can add to the existing project. They are keen with an open vision for the future. The project is sustainable in the sense that it was already used previously and now, it's being used in different types of events with various tasks each time. This has been done by having standardization and guidelines with fixed procedures to accommodate the project requirements and needs. If you can produce the same drones, then the project is replicable.
In light of the Covid-19 situation, Qatar leveraged e-Court to ensure accessibility to justice is maintained during the social distancing period. E-Court is a paperless e-case management solution that covers the full court process lifecycle from case filing to issuance of a judgement. It allows parties to file and access case papers and communications with the court and regulatory tribunal. e-court can be accessed from any portable electronic device to retrieve case files, attend virtual court hearings, and send or receive communications from anywhere in the world. Available in both English and Arabic.

**BENEFICIARIES**

People of Qatar; have access to justice from home during the Covid-19 Crisis.

**ICT TOOLS**

For this project to be implemented successfully Webinar and Appointment Tools were utilized to enable the virtual court hearings. Webinar tools are playing an immense role in the digital transformation of our nation, and especially during these times where personal interaction is risky. Also, clouds play a major role in this project, as they store data of uploads.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenges are: manage provision of budget approval, logistics of delivery for end users devices, applications and tools supply such as: laptops/notepads, networking and internet. They are currently looking for partners in the remote communication area. The project is sustainable, it focuses on meeting the needs of the present with compromising the ability of future generations to meet their needs. Their remote communication project includes: communication via e-communication, conference telephone, video conference, the internet, to enable the office tasks remote for staff/judges/clerks who are not physically present in office to communicate with each other and litigated on a substantially simultaneous basis. The project is replicable, as it is based on an interface where people can access these services.
In the context of national ICT initiatives advocated by both Tunisian Ministry of Communication Technologies and Digital Transformation and the Tunisian Ministry of Health, VegaNet has developed a mobile application named Wikaia (in Arabic: «Prevention») as part of a voluntary initiative. Wikaia allows any professional who is running a business during this pandemic to check randomly if anyone should have been confined or is declared infected by Covid-19, as recorded in the government database to which Wikaia is linked. Wikaia is proven to be an important tool to control the spread of the virus and keep people aware of their obligations during this pandemic phase. The check is made by scanning the ID document barcode and the tracking is made by using GPS information communicated through the application.

**BENEFICIARIES**

Both the public authorities and citizens are considered to be beneficiaries of the solution. Wikaia allows for: keeping track of infected or potentially infected people, helping to ensure economic stability, feeding the Health Authority's database with important data regarding the contamination and the risk of contamination, taking the appropriate steps and measures to limit the spread of the virus.

**ICT TOOLS**

Wikaia uses: OTP to secure the account, barcode scanner to make it easy for users to check people's ID documents without having access to any personal data, GPS data: each ID check will lead to recording the GPS data of the person to be able to make later the necessary data matching, big Data processing, mobile application and a web dashboard, webservices with the Government Database.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenges were: Accessibility, to the government health database. They overcame this through a joint initiative lead by the Ministry of Communication Technologies and Digital Transformation (MCTDT) and providing appropriate guarantees and technologies to keep all the collected information secure and confidential. Usability, they overcame this by developing a very user-friendly mobile application without any prior training. How to address the application to people who do not have smartphones. They overcame this by creating web-services linked to the health database and a USSD code. Wikaia has the support of the (MCTDT) and the Tunisian Ministry of Health. Also one of the three Telecommunications operators in Tunisia to provide Wikaia freely to users. This project is replicable to all countries as it addresses global issues related to the pandemic situation and relies on technologies that can be used at large-scale. It is also replicable at a national level, as Wikaia can address national security issues.
As the global COVID19 pandemic continues, the lives of the global population have been dramatically altered, bringing into sharp focus just how much we rely on digital systems and products for essential services in our day to day existence. Sadly across Africa, many people with disabilities are experiencing a secondary source of isolation—digital isolation. To address this digital accessibility gap in Africa, inABLE quickly launched a monthly Inclusive Design in Africa webinar series that investigates how Africa can prepare to move forward in improving digital access for all people.

**BENEFICIARIES**

The primary benefit of the webinar series are government representatives, educators, ICT sector, Fintech, city planners, business leaders and other African countries responsible for digital accessibility policy and implementation. The main benefit of the webinar series is to have a comprehensive discussion about the long-term benefits of digital inclusion, assistive technology and inclusive design by engaging global digital accessibility experts and leaders to share lesson learned and how to tips.

**ICT TOOLS**

inABLE utilized the Zoom video communications, a cloud platform for video and audio conferencing, chat, and webinars across mobile, desktop, and room systems. Facebook, Twitter and LinkedIn social channels are used to advertise the webinars to maximize attendance. The first-ever April 30th webinar included live sign language interpreters and a professional caption typist to ensure both live and recorded version of webinar were accessible. Also, the recording was uploaded to YouTube and linked to InclusiveAfrica.org webinar landing page.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Ensuring complete digital accessibility, the Zoom webinar for every registered participant comes with challenges. In terms of partnership, corporate support is needed to cover the costs of Zoom subscription, sign Interpreters, profession caption typist and other creative marketing costs. Google supported the April webinar. With support from charitable and business partners, as well as digital accessibility champions, tech-innovators and advocates this webinar series is very sustainable. Post webinar recorded viewings can be scheduled at live or remote digital accessibility events. As for replicability, inABLE is working on a production play book that could accelerate the speed of webinar set up and advertising to respond to relevant digital accessibility topics, innovations and advancements in Africa. The online global reach is limited by cultural or technology barriers, including language (English) internet and computer assistive technology access at this time.
MyCyberHygiene builds awareness, confidence and security in the use of ICT. This project helps to counter COVID-19 amid increase in fraud, cybercrime and cyber attacks by raising cyber awareness and cyber hygiene training with a unique free online platform. This is a way of boosting the human element in cyber security at times of crisis. As coronavirus has forced offices and schools to close, the web remains our lifeline. As we are told to work from home and stay away from others, we all growingly rely on cyberspace in getting news, receiving education, in holding conferences, ordering food, or sending emails. Unfortunately, cybercriminals are aggressively making use of the crisis, as we've seen phishing e-mails & ransomware, DDoS attacks, malware and data stealing apps applied. To help battle this, people need support with cyber security awareness training.

**BENEFICIARIES**

MyCyberHygiene believes a modern economy requires workers with modern skills. Everyone should have the necessary skills to benefit fully from the Information Society. Therefore, capacity building and ICT literacy are essential. Current and future workers need to develop lifelong cognitive, technical, and socio-emotional skills required of a well-educated worker in the 21st century. Workers also need to be capable of processing the ever-increasing information available on the internet.

**ICT TOOLS**

CybExer offers cyber hygiene risk mapping course with an unique online platform for governments and enterprises. This platform combines e-learning courses for your employees with comprehensive risk assessment for the organization. For the individual user, the course goes through everyday situations in digital world, where ignorance or simple carelessness can bring about many problems

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The Cyber Hygiene e-Learning Course is based on a project first implemented by the Estonian and Latvian ministries of defence and the European Defence Agency as a direct response to sophisticated, targeted cyber-attacks against government entities in 2015-2016. The project is replicable and easily scalable as the it is based on CybExer’s proprietary Cyber Hygiene e-Learning Course at CybExer’s online digital e-learning and risk mapping platform. Following its success in the defence sector, the course has been adjusted for wider use in cooperation with the State Information Authority of Estonia since 2017.
The Coronavirus (COVID-19) Response – ICT Case Repository

CMHS – ICRT
Media
Government, Cuba

http://www.radiocaibarien.icrt.cu

Since the first positive cases of COVID-19 were diagnosed in Cuba (March 2020), the Radio Caibarien website started a series of publications using in particular journalistic genres to provide a real information for people about the COVID-19.

**BENEFICIARIES**

All people get information from CMHS radial signal and from they live audio at website in Internet. This information have been shared on sites of the national press bodies, such is the case of Cubadebate, Naturaleza Secreta, Casa Editora Abril, company of Construction and Assembly of Granma, CMHW, Santa Mambisa, among others, as well as international sites such as: Rodexo from Spain and Walter Lippmann from the United States.

**ICT TOOLS**

The information provided by the Radio Caibarien website always use all accompanied by ICT linked to the hypermedia journalism and it use in the articles texts, images, audio, etc; all to provide a real information about the COVID-19 in Cuba and in the world.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICAIBILITY**

The principal challenges encountered is work from home, finding day by day the problems with internet connection and work with others journalist to provide information not only for Caibarien but for all Cuba. In essential, media information. We would like to get and set information about the COVID-19, media, science, ICT, all information certificated to provided a real information to our people. CMHS believe they project replica table, because one just needs to copy the information provided from this website for set information for the people, always talking about the source, in this case, about our website.
Zimba Women, have introduced the SME E-Commerce and Digitization Resilience Programme through the Zimba Mart e-commerce platform to respond to this challenge by (1) Identifying women-owned or women-led SMEs which have fundamentally sound value propositions but have been severely impacted by COVID-19; (2) Providing dedicated COVID-19 impact analysis and contingency planning to these SMEs through offering business training and digital literacy training via our online platforms; (3) On-boarding SMEs onto the women-owned, women-tailored e-commerce platform to both adjust to the market dynamics created by COVID-19 lock down actions and begin to take advantage of the latent market opportunities offered by e-commerce in Sub-Saharan Africa; and (4) Provide bespoke follow-on support to the women-owners/leaders to enable them to protect their enterprises and take full advantage of e-commerce opportunities. All support is also provided remotely when necessary.

**BENEFICIARIES**

Zimba Mart focuses specifically on women. There is no marketplace, physical or online that is specifically targeted to women merchants, yet women form the largest percentage of small scale suppliers of home, agricultural produce and clothing apparel.

**ICT TOOLS**

We have adopted the use of e-commerce digital tools which have presented numerous opportunities. In general, and during lock down, SMEs on-boarded on the Zimba Mart platform have benefited from adopting an e-commerce approach in a number of ways, including lower transaction costs; reduction in advertising and promotion costs; rapid communication between buyers and sellers; ability to reach new customers; shorter supply chains; and eliminating physical limitations. Due to this; we have moved most of our women trainings online to enable the on boarded SMEs learn how e-commerce is enabling their business growth and to encourage them to update their social and business pages to take advantage of the increased traffic to their sites due to the Zimba mart. The Zimba mart has also given us more visibility as we have customers from not only Kampala our main office location, Eastern and Western Uganda but also as far as the US from customers making food orders for their families in Uganda.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Zimba Women is currently working with over 10000 women-owned businesses and women in STEM in Uganda, Kenya, Nigeria, South Africa and other African countries. These women have received business training and digital literacy training through our technology platforms.
#Covid19TechChallenge
D&D International - Digital Democracy
Civil Society, Peru

https://www.democraciadigital.pe

#Covid19TechChallenge promoted the creation of digital tools that help national authorities and citizens to face Covid-19 in Peru. Participants registered Apps or online initiatives of various kinds (web, blogs or social networks) that seek to attend, without profit, the current health crisis in Peru as a result of the Covid-19.

BENEFICIARIES

The target beneficiaries of this project is Peruvians. Most proposals were designed for a national scope, even though participants came from 9 regions all over Peru: Ancash, Arequipa, Cajamarca, Cusco, Huanuco, Junín, La Libertad, Lima y Puno. That was a great achievement.

ICT TOOLS

By April 5th we received 70 digital proposals from 9 regions from Peru. Participants registered Apps or online initiatives of various kinds (web, blogs or social networks) that seek to attend, without profit, the current health crisis in Peru as a result of the Covid-19. Most of proposals were designed for a national scope.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

At the beginning, the main challenge was to disseminate the Call for participation to #Covid19TechChallenge all over the country, using mainly our institutional online platforms and social media. At the end, the main challenge was related to the support given by the Digital Government Secretary (SEGDI) of the Presidency of the Council of Ministers (PCM) to the digital proposals that won the #Covid19TechChallenge.
Track querying APP
China Telecom
China
http://www.chinatelecom.com.cn

To help reopening the economies, getting people back to work, and continuing to protect the country, China Telecom has launched a product, namely track querying application, to provide the individuals subscribers with five major functions: itinerary query, contact query, epidemic forecast, return to city query and regional risk query. The itinerary query function allows queries to all cities or countries stayed or visited within the last 14 days. The contact query function checks close contact risks with infected person. The epidemic forecast function predicts the cumulative number of infected people nationwide. The return to city query function checks the number of people who have left their residence. The regional risk function calculates the close contact risk regarding the current location. Interfaces to other stakeholders are also provided.

**BENEFICIARIES**

There are beneficiaries for both individuals and the society. Through risk prediction and epidemic forecast, individuals get to know the risk region and probability as well as their own status, which largely helped with reopening the economies, getting people back to work, and continuing to protect the country, which benefit both the economy and the quality of life through open and transparent data.

**ICT TOOLS**

Big data and open source architecture techniques are applied, through components of zookeeper, yarn, kafka, spark, more than 20 open source components have been deployed in the category of storage, computing, and management. The system provides platforms with capability of cross-domain data correlation based on network data and location data. The SIR model is introduced to analyze the development trend of the epidemic. In the SIR model, seven factors are used: average recovery time, transmission rate, number of people cured, number of deaths, average incubation time, population mobility, and the strength of government prevention and control mechanisms. The spatial clustering analysis algorithm, DBSCAN is used to quickly cluster to pin down key areas and generate risk heat map.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

This project is sustainable, the project provides information of risk for individuals during pandemic or crisis, although COVID-19 is not a commonly occurred situation, regional and small-scale contagion emerges ever now and then. It could be applied to daily life as a common tool as well as further utilized as certificate for specific tasks.
The Forum for African Women Educationalists - Zimbabwe Chapter (FAWEZI) has begun seeking out and sharing "statements, poems, and stories" on the impact of COVID-19. We are interested in promoting stories and narratives from marginalized and often un-heard populations such as Zimbabwean women, students, and residents of rural areas. ICT is essential both to the collection, and dissemination of these stories. In addition, these perspectives are from everyday Zimbabwean citizens - not politicians, not NGO workers, not foreign humanitarian workers, not corporate interests (aka all the people who typically get a seat at the 'stakeholders' table) - therefore they are essential to promote so that all the stakeholders who do have power know the struggles and perspectives on the ground.

**BENEFICIARIES**

Primary beneficiaries are FAWEZI beneficiaries, alumni, school children, members, and individuals who follow our sites. FAWEZI is using Facebook, Twitter, blog, and WhatsApp as an effort to reach the different groups. Most of the adolescents have mobile phones and can access WhatsApp. These are the people whose stories we are trying to tell. On the other side, beneficiaries include policymakers, international donors, partners, and stakeholders. These are the people we want to influence with the stories.

**ICT TOOLS**

ICT has been essential to this initiative in three ways. First, crowd platforms such as WhatsApp have been our main means of collecting stories from across the country, from urban and rural areas alike. Second, we have been using social media such as Facebook, Twitter, and Zoom to share these stories with our international following, made up of donors, supporters, beneficiaries, and partners. Finally, one of the main topics of these stories has been the inaccessibility of ICT to poor and rural communities, and the fear that ICT, which was beginning to bridge opportunity gaps before the pandemic, is now making them worse than ever, with only those with access able to continue with their education and livelihoods.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Our focus as an organisation is to ensure all children access education. Regarding this project, in particular, one of the most common topics - the inaccessibility of ICT tools - is also one of our challenges on the front end since many people we would like to reach to hear their stories cannot access WhatsApp, the internet, or any of our SMS lists. This project is replicable as other organisation can also use ICT to spread messages on the COVID-19. Depending on the target audience some can also use text messages, online calls etc.

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WSIS Stocktaking Platform www.wsis.org/stocktaking
According to the UNESCO, school closures in Pakistan have led to disruptions in education for approximately 46 m students, including 17 m primary grade learners. In this grave situation, SABAQ has been actively working with the government to ensure the continuity of learning. In light of this, we have made our K-5 app, Muse free for all students to use on the Google Play Store. We have also partnered with the federal government to provide our e-learning content for free to be aired on TeleTaleem, the national TV channel started by the Federal Government to broadcast K-12 educational content.

**BENEFICIARIES**

Muse's main beneficiaries are primary grade children in Pakistan, who are out of school at present due to the school closures in the face of COVID-19. These children primarily belong to low to mid-income schools that cannot offer online classes to students. As a result, students are missing out on essential studies and falling behind, exacerbating the existing learning gap.

**ICT TOOLS**

Muse, SABAQ’s flagship product, is an Android-based learning app for the primary grades with over 1,500 digital resources for Math, Science, English, and Urdu. Designed to make learning fun and engaging, Muse has animated story-based video lessons, e-books, interactive quizzes, and learning games. Our content is tailored to the local context and available in three languages: English, Urdu, and Sindhi. During the COVID scenario, the use of EdTech is limited only to students in high-tier private schools that are conducting online classes. However, students in lower and mid-tier private schools and public schools do not have the necessary resources to deliver eLearning. This is where Muse comes in. Our app is without cost for the COVID crisis and will be offered at a low-cost-subscription-based model afterwards, ensuring all children can benefit from e-learning.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

One of the challenges that Muse has been facing is how to raise awareness about the use of the app amongst parents and children. To reach users on a wide scale, there needs to be communication to disseminate the message that the Muse app is helpful for children and the use of it to parents since the devices the children will access Muse on are their parents’ devices. SABAQ already has a partnership for implementation idea with the Sindh government. It also has the necessary technical expertise in-house to develop the solutions.
Online Gaming and COVID 19: Alarming increase in Cyber threats against Children
Ada Lovelace Software Pvt Ltd
Private Sector, India
https://adalovelacesoftware.com

Children are often unsupervised when playing online games increasing predator ability to start a relationship with the child and gain the trust. An online game gives the predator and child a shared interest making a child more comfortable about talking to the stranger. A predator can use this relation to bring the child for a sexual encounter, ask the child to communicate by private chat, instant messaging, Social media apps and exchange of sexual content, even live stream sexual acts as well.

**BENEFICIARIES**

Online gaming Companies can help protect children parental controls, blocking and reporting annoying user, moderators to monitor online chat and help young gamers safe online. Policy makers, Public and private sector partners, Schools, Parents must take steps to address this issue.

**ICT TOOLS**

Online Gaming and COVID monitors social Networks such as Facebook, Twitter, Myspace. Instant Messaging such as IM, MSN and Chatrooms such as Skype, Yahoo, MIRC.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

In Indian subcontinent there is a 300% rise in Cyber Crimes in last two years. Most of the Cyber Crimes against Children have Digital Origins. One of the prominent reason is children's are exposed to technology & the world much before they are mature to understand and handle issues. It is the duty and responsibility of all the stake holders mentioned to act in all capacity to keep children safe online. The virus knows no borders and online perpetrators respect no borders. Therefore, we need to work together collectively and collaboratively across borders for safety and security of the children. This can be done through Child online protection. Child e-safety, Child trafficking protection.
The reBIRTH on the internet (REviver na Rede) is an initiative to support online social networks to strengthen new forms of active job search and promote employability, social integration, socialization, and social and digital inclusion in the Madeira Region, Portugal. The aim is to help unemployed adults to take advantage of social networks (e.g. Facebook) to improve their employability. These global social instruments can respond to these needs and contribute to the development of local communities. Currently, the various online spaces involve more than 50,000 people, in a region with less than 255,000 inhabitants. In view of the various implications of the coronavirus pandemic (COVID-19), from the social level of individuals to their professional and economic situation, the project has mobilized a number of initiatives to help the relief of social isolation, improve the good use of social networks, strengthen media literacy and digital skills, and promote job search through social networks. These initiatives have a strong pedagogical, social and solidarity basis, relying on voluntary work, in a spirit of social entrepreneurship.

**BENEFICIARIES**

The reBIRTH on the internet project (REviver na Rede) is intended to residents in the Madeira Region, Portugal, namely unemployed people. The initiatives we have developed in the context of the coronavirus pandemic (COVID-19) are also intended to all those who were employed, but due to the measures taken by the government to control the pandemic, were forced to suspend their labour activities and were isolated at home in confinement.

**ICT TOOLS**

Although our project privileges Facebook as a practical field of work, including for applied research studies, when we started to address the negative effects caused by the coronavirus pandemic (COVID-19) we decided to expand the presence to other social networks, such as LinkedIn, Twitter and Instagram.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The project has remained sustainable thanks to a strong spirit of social entrepreneurship combined with volunteering, a dynamism that has become a challenge to manage, but has so far ensured the survival of the project. On the other hand, the use of free tools, services and software, as well as the use of open educational resources, contributed to reduce costs. Thus, the project has maintained its financial sustainability in its application to the community in which it intends to intervene. However, with the crisis caused by the coronavirus (COVID-19), particularly at the economic and social level, the project needs to invest in its structure, either in technical or human resources, to meet the large increased request.
A voice-based community media platform to support rural and low-income communities in dealing with the fallout from COVID-19
Gram Vaani Community Media (Onion Dev Technologies)
India

https://gramvaani.org/?p=3631

Our technology solution empowers hard-to-reach communities (low literacy, rural, without internet) for combating COVID-19 through Awareness building, countering misinformation, seeking community feedback, self-assessment survey and guidance and grievance redressal. Launched on March 23rd, 2020 it has partnered with 27+organisations and received 600k+ calls from 200k+callers, 8k+ user stories. Our solution is fully operational and is being used in 80+ districts in 10 states and through few country-wide programs too. Operated on basic phones, Mobile Vaani (a community media platform) provides not only an option for communities to access information but also contribute towards reporting the ground situation, this is useful for policy makers. MV phone application accessed via smart phones provides an easy option to forward audios to those without internet. We’ve build more than 150 audio capsules based on technical advisories for issues such as building empathy and understanding among users; keeping children and parents engaged at home during lockdown.

**BENEFICIARIES**

Our primary beneficiaries are rural and low income communities, those with no internet connectivity and industrial laborers in urban cities.

**ICT TOOLS**

We are running COVID-19 related services on five state specific COVID-19 IVRS (missed-call and toll-free number) helping access of authenticated information, seeking community feedback, identifying high risk cases and also facilitating grievance redressal amongst the rural communities. COVID related services are also running in our Mobile Vaani clubs present across 10+states in the country and has accumulated 2M+ users, along with being a rich source of learning and innovation in terms of novel processes for content development and field operations, to embed technology based interventions in the day to day life of communities.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Response to the COVID-19 service has been very good in partnership with other organisations including state governments, in geographies where we are working. We are also getting calls from other geographies where our technology can be applied and are exploring partnership with new organizations for a structured response in these areas. Partnership with field response partners in wider geographies will help in local response and will lead to larger impact. A wider publicity of the IVR phone number will also increase uptake of the service across states.

WSIS Action Lines

Sustainable Development Goals

WSIS Stocktaking Platform www.wsis.org/stocktaking
The Digital Mobile Key (DMK) is the national mobile eID solution, provided by the Administrative Modernisation Agency (AMA), which serves to authenticate national and foreign citizens when accessing online services. Besides the citizen’s phone, whose number is registered during the enrolment process, authentication requires a user-defined PIN to receive a one-time password, which is then validated by the authentication services. There’s also a mobile app that allows citizens to receive the code through a push notification. This way, citizens can access digital services anywhere and anytime, in a secure, free-of-charge and user-friendly way. With the outbreak of COVID-19 and as Portugal entered a state of emergency, developments were made to ensure any DMK remains active until June 30, regardless of the expiration date on the physical ID card, to avoid unnecessary travels to onsite services.

**BENEFICIARIES**

The Digital Mobile Key enables both public and private entities to provide a better and simpler authentication method, while decreasing communication problems, lowering operations and development costs and diminishing the human resources needed. This allows them to make available a variety of digital services that they could not previously provide, such as the renewal of the Identity Card, the opening of a bank account, the changing home address, or the request of a medical ePrescription, for instance.

**ICT TOOLS**

The Digital Mobile Key is implemented over the National Identity Provider and receives SAML requests from external Portal and Systems. This solution is supported in a SQL Server 2008 R2 database and a .NET application that provides services to external components. Digital Mobile Key also uses the national SMS Gateway supported in the national interoperability framework as an external component that is invoked by the application to send SMS.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The Digital Mobile Key source code can be reused by public or private organizations under the EUPL license, and the solution is based on the open standard SAML specification. There are, however, some requirements for full replicability such as authentic sources of information, to provide the required attributes (personal data), an interoperability platform that ensures data exchange between entities (we reinforce that this is only after the citizen consents to it) and an SMS gateway to send the OTP for every authentication/signature.
Although not specifically created to address the COVID-19 outbreak, the pandemic has highlighted the importance of solutions such as the Public Administration’s SMS Gateway (GAP), a central technology platform that enables mobile messaging (SMS and MMS) between Portuguese public entities from different sectors and citizens. It was created with the focus of interlinking and streamlining communications between the Public Administration and citizens, enabling informational services (such as alerts and notifications) and transactional ones. Managed by the Administrative Modernization Agency (AMA), the GAP is available for public entities that wish to reuse it for their communication services with citizens, as it is the case of the Ministries of Health, Internal Affairs, and Transportation, among others.

**BENEFICIARIES**

The main beneficiaries are the public entities that use a reliable, inexpensive service and, of course, the citizens as end-users.

**ICT TOOLS**

In technological terms, the Portuguese SMS Gateway – GAP - presents a modular, layered service-oriented architecture distributed across application servers and database servers that support services. The services are designed according to a service-oriented architecture through the provision of SOAP and REST web services. AMA as a provider through VPN or dedicated communications circuits ensures secure communication channels, provides access to the platform and guarantees the operability and reuse of communication software with national mobile network operators, according to their SLA contractors. The connection between the SMS Gateway and the “consumer entities” information system is based on web services developed to that effect. The terms of usage of the Platform are established in the protocols previously signed with AMA. The provision of public services through a simple system (SMS) that is deep-rooted in the Portuguese culture is quite effective and simultaneously addresses the problem of low digital literacy that Portugal still fights. From ePrescriptions to civil security warnings during this pandemic, citizens can count on the government to always be at hand.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge encountered was assuring the service was financially sustainable, while still offering economic savings to the public administrations that used it. For this end, we needed to bring as many entities as possible to use the GAP, and we’ve done so by offering the service free-of-charge at the beginning (supported by AMA’s budget) until there were enough entities using the GAP the costs truly became competitive.
Outreach Social Care Project is a grass-roots non-profit organization based in South Africa and Democratic Republic of Congo since 2008, working with disadvantaged and underprivileged communities in townships and rural areas. The organization has undertaken the initiative that delivered to and supported people affected and infected by COVID-19, through the provision of prevention, awareness, livelihood as well as the psychosocial support. South Africa like the rest of the world is gripped by the coronavirus pandemic. Social distancing, promulgated as the most effective way to curb the spread of infection, is impractical for rural and informal settlements in South Africa, where people live in close-knit communities both physically and socially and lack basic housing, water and sanitation facilities. Many models point to the burden of disease being highest amongst poor people because of higher incidences of TB and HIV and weak and overburdened health services.

**BENEFICIARIES**

The beneficiaries of this project are girls, women and older people.

**ICT TOOLS**

Outreach Social Care Project has addressed immediate needs in the townships and rural areas in KwaZulu Natal, South Africa by collecting data and utilizing innovative approaches with the current technology available: mobile technology, SMS, WhatsApp, internet, etc.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The health, safety and well-being of all people in South Africa and Democratic Republic of Congo, is and will remain a top priority for all. While we continue to advocate for equal opportunities, justice for all, and access to livelihoods and speaking out against all forms of gender-based violence, United Nations Global Sustainable Development Goals and COVID-19, let’s not forget to look out for the women and girls in our circle of influence. Outreach Social Care Project will be unable to contain the COVID-19 pandemic and manage the cases, and without external support, health infrastructure is likely to collapse, and many lives lost. The virus is rapidly spreading and very complicated to manage as severe cases require isolation and intensive care unit (ICU) services. High prevalence of comorbidities that weaken immune systems like HIV and AIDS, maternal illness and TB are likely to increase risk of infection.
The Coronavirus (COVID-19) Response – ICT Case Repository

Financial inclusion ecosystems with Digital neighborhood Banking Agents
Proexponente
Private Sector, Ecuador
http://idpayer.com

We help banks and financial cooperatives to process all their operations from each neighborhood business thanks to our biometric devices that allow people to make any payment or transaction with facial biometric validation without contact and with the highest standards of security for citizens.

BENEFICIARIES

The beneficiaries of this project are people in main cities or towns who cannot access to banking services.

ICT TOOLS

We use biometrics as a contactless transaction system beating a card or a cell phone without the need for people to use the internet. Low-cost biometric devices that increase the reach of banks and financial cooperatives, reducing investment in ATMs or physical agencies. We work with API integration with the Banking Systems.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

People who accumulate in bank agencies and fail to use the new technologies because they do not have technological education, access to the internet or they do not have enough education. That is why we chose this project as a collaborative economy alternative so the banking services can be in your own neighbourhood and with biometries as an inclusive and protective method against the pandemic. This project partners with banks and financial cooperatives and can be replicated in all Latin-American countries in the first stage. The project has a B2B business model for banks and cooperatives that can expand their coverage at low cost, reducing the investment of hitritical channels such as ATMs and physical agencies. In addition, the project seeks beneficiaries for 75% of Latin American citizens who have not yet managed to access quality banking services and during the pandemic have been more excluded.
Universal Adoption of Clout Tech in Fighting Coronavirus Spreading in the Entire World

**BENEFICIARIES**

We are looking forward in making the decision to “move to the cloud of things” technology and it is just a first step and then continue working together in Designing for ICT. We take this opportunity to thank all the Parties. For their efforts, we are looking forward in making. The right decision to “move to the Clout/Cloud of everything technology and it is just a first step and then continue working together in Designing. For Cloud of every things global implementation and preparing. Success strategies to help Africa and the entire world for the imperative. “Universal adoption of clout tech in fighting coronavirus spreading in the entire world.

**ICT TOOLS**

This project uses CLOUT(5G,IOT,AI, CLOUD). The internet changed our lives dramatically in the intervening years predating an era of Clout/Cloud of Everything. We can continue to expect more exciting changes. Announcing the launch of its newest technology, Clout/ Cloud of Everything, changes the concept of how we use things; with more intelligence, more efficiently and greater accessibility for all mankind. Developing countries in Africa must embrace and promote the spirit of service through the Cloud of Everything efforts in reaching/meeting the 17th and 169th SDG Goals. True success comes when preparation meets the right opportunity by helping others become successful. This is the case for universal adoption of Clout/ Cloud of everything technology in Africa and the entire world. As COVID-19 continues to spread widely and claim lives, Clout technology is helping halt the COVID-19 outbreak. Modern technologies used by Developed countries in CLOUT to combat the Corona virus 19. Clout include advanced tech like IoT, AI, CLOUD, 5G, 3D.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Building a better connected world, in technological, Industrial, business, life style Revolution, Our Better Connected World is a smart world: Smart connectivity between people, between people and things, and between things and other things, is propelling our world on a new journey. The cloud of every things technology, helping elderly and handicapped people and holds the promise of fixing the millennium-old human problems of poverty, disease, violence, and poor leadership in Africa and the entire world The knowledge that we got from cot tech could change the life of a patient, or change the world, Everything Changes with the Internet of Everything tech. “If cloud of things opportunity does not knock, build a door for it” the only impossible cloud of things journey is the one you never begin.

WSIS Stocktaking Platform  www.wsis.org/stocktaking
Since the start of the pandemic, in América Móvil we have been concerned about the health of our co-workers, therefore, as part of the company's actions to deal with COVID-19, in collaboration with the Carlos Slim Foundation, we developed the MonitorFCS App, in order that our co-workers and their families can carry out daily monitoring of their health status and, in case of presenting symptoms related to COVID, receive the necessary attention and information. Moreover, through our subsidiary Telcel in Mexico and in collaboration with two banking institutions, we collaborated in the development of the COVID-19MX App, to help the population to generate a personal and family self-diagnosis.

**BENEFICIARIES**

The main beneficiaries in the first case are our co-workers and their families, while in the second one is the general population. By providing tools that allow them to monitor their health on a daily basis, we contribute to avoid saturation of the health systems, and we offer peace of mind to people who does not have the disease or, where appropriate, we provide the necessary information so that they can get medical assistance.

**ICT TOOLS**

With the Apps developed by América Móvil -in collaboration with other institutions- we help people to get a health diagnosis facilitating medical attention if required. By having a previous diagnosis, the Apps also allow doctors to take care of the patient in a faster and more accurate way.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The biggest challenge is that people use the tool, as well as to generate an awareness of the importance of monitoring their health on a daily basis, since this is the only way in which a medical authority can have a complete picture of the person’s state of health. The main way to address this, is through communications and outreach efforts, to build confidence in the adoption of these easy-to-use tools that become great allies in stopping the spread of COVID. The MonitorFCS App, collaborates with the Carlos Slim Foundation, whose experts are responsible for the support, monitoring and full operation of the application. In the case of the COVID-19MX APP, the developers are the technical teams of the BBVA Mexico and Santander Mexico banking institutions, the administration of the application corresponds to the health authorities, while for Telcel users, there is no cost of navigation or in the messages (SMS) used by the App.
eKadaiBrunei.bn
The Authority for Info-communications and Technology Industry of Brunei Darussalam (AITI)
Government, Brunei Darussalam


eKadaiBrunei.Bn is a directory website that connects the general public and businesses to local eCommerce Platform, eCommerce Vendors, logistic and delivery services. The website serves as a business matching platform between local businesses in adopting eCommerce activities by the Micro, Small and Medium enterprise (MSMEs) especially home base businesses. At the moment there are 14 eCommerce Platforms, 6 eCommerce Vendors and 18 logistic and delivery services registered to the platform since the date of initiation, 1 April 2020. eKadaiBrunei.bn enables MSMEs to select the any available local eCommerce platforms to sell their products or services in accordance to their preference. In relation to the COVID-19 Situation, the website provides awareness to enables general public for online purchasing of their daily need items such as food, groceries, clothing’s, home items and many more without any social interaction. This is to provide the general public to experience the ease of eCommerce tracIons in daily activities especially to those individual who are in the quarantine period. Meanwhile for businesses, the website provides an alternative solution for businesses to gain more customer and sell their products via online.

BENEFICIARIES

The primary beneficiaries are the eCommerce vendors. Since the launch of eKadaiBrunei, the total no. of visitors is 15836 since 5th April. We have received a total of 355 enquiries from MSMEs where 65% are from the food and beverage MSMEs.

ICT TOOLS

The website uses a website as the ICT tools. The website is created via wix.com. The website comprises of list of local eCommerce Platform providers, eCommerce Vendors, logistic and delivery services including the product from the Village Legislative Councils. The website also includes a contact us tab, it enables the project owners to identify new local ecommmerve platform/vendors and also provides a business matching sessions between the MSMEs and the eCommerce Platforms.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The main challenges faced during the project implementation is the how to convince the small businesses especially businesses who are used to traditional selling methods.
To accelerate the construction of dedicated hospitals for COVID-19, China Telecom launched the on-cloud hospital solution. All medical systems and information systems are deployed on cloud, to save the time consumed on the deployment and installation of required IT equipment. Provide computing and storage capabilities for the deployment of core systems such as hospital information systems and image storage transmission systems. The all-on-cloud solution accommodates all major business and information systems on cloud, including the hospital information system (HIS), laboratory information system (LIS), and picture archiving and communication systems (PACS), as well as the operation management, resource management, knowledge management, and customer service, such as queuing system, and all databases.

**BENEFICIARIES**

The primary beneficiaries are the hospitals and the patients. The main benefits are as follows: First, IT maintenance in local is reduced, the only work required are to dock and test in the given environment. Second, the deployment of all healthcare applications are accelerated. Third, the solution could be replicated to other hospitals to allow sharing of business and information systems among hospitals.

**ICT TOOLS**

For one hospital, 7 dedicated cloud servers are deployed to support the services and applications, the same type of services are allocated in different underlying servers. A pair of host and backup databases are designed, data are backed up timely to make sure the availability and reliability.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The major challenge of this project are the security and privacy issue regarding the healthy data. The project has a multi-level security mechanism, which prevents user misoperation and dirty data, and ensures data integrity. Security mechanisms are designed for database storage, retrieval, extraction, release, and management at all levels and angles. The project adopts international standard encryption algorithm to encrypt the transmission of sensitive data on the public network to ensure the security of sensitive data. The project has an authority management function, preventing illegal user access, deletion, modification or disclosure of data.
"Permission to leave the house" e-services
National Agency of Information Society
Government, Albania


All citizens leaving the house for: 1. Grocery shopping, pharmacies or urgent matters; 2. Working reasons; 3. Health-related reasons; 4. Business-related reasons; are required to obtain a special permission from the e-Albania portal. Interoperability ensures that: The online form with personal vehicle data already prefilled is provided to the citizens who own a vehicle and have it registered under their name. After the real-time validation, the permission is sent immediately electronically to the citizen via email/SMS and the QR code ensures the authenticity of the permission when showed to the police officers. An e-sealed attestation proving that a particular business is allowed to operate during the emergency situation, is also available for download on the e-Albania portal.

BENEFICIARIES

The beneficiaries are citizens, businesses and public administration employees. In terms of impact, this digital revolution of public services in Albania translates into a reduction of service acquiring costs, facilitation of bureaucratic procedures, reduction of time to obtain services, but also enhancement of transparency and improvement of service provision quality. Citizens and businesses are able to apply 24/7 from their homes or offices, which was crucial especially during the pandemic situation, to avoid gathering in state counters.

ICT TOOLS

Albania has long embarked on the public services transformation process and we strongly believe in changing the mindset of the citizens regarding this inevitable new form of communication with state institutions. e-Albania acts as a front-end point for government institutions to deliver their services, thus operating as a one stop single access point to citizens 24/7. The portal, which currently provides more than 620 e-services, is connected to the Government Interoperability Platform that is the underlying and core architecture allowing the interaction between 53 electronic systems of public institutions.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The main challenge is digital literacy in certain age groups. However, we are trying to address this issue by training the civic employees working in counters to assist citizens who will come at the counters, to apply online on e-Albania. We are trying to partner firstly with Western Balkans economies to enable regional interoperability and recognition of trust services.
Rural farmers face a lot of challenges in their crop production and they usually seek advice from extension agents (Govt. and private companies), input retailers. Restricted movement due to COVID 19 means these farmers cannot access their natural knowledge source. But getting timely and customized information for their crop problems is crucial. Otherwise, farmers are likely to make choices that will accumulate at higher costs and even produce less than the expected amount of yield.

**BENEFICIARIES**

Farmers are well aware that as a source of agricultural information service, input retailers have a strong conflict of interest. But more often than not farmers do not have a choice to get a neutral expert consultation before they make a critical farming decision. This is where FQS plays an important role. Our FQS was designed and disseminated to provide farmers with a source of neutral expert agricultural consultation whereby they can verify whatever information service they get from their other usual sources including input retailers. It is geared to be a demand-driven solution with farmers raising a query whenever there is an actual need.

**ICT TOOLS**

Farmers, family members of farmers, or infomediaries (lead farmer/ field staff) can place a query by responding to a series of branched questions with relevant images of the problem. The agriculture expert reviews all the information on a web dashboard and then sends the recommendations and solutions to the infomediary through a variety of digital channels including SMS (Short Messaging Services), Voice Message, or via phone calls which is then passed on to the farmers within 3-6 hours. Because of the solution, professional experts providing the service are no longer limited by geography and can attend many more cases on a given day than in traditional circumstances.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The FQS service is accessible from anywhere in Bangladesh. We are planning to replicate the service for Nepal. mPower is already working with the International Potato Center to make the service accessible from the farmers under their DDBIO project and can receive solutions through an App. Agricultural information service has traditionally been provided to farmers for free- as a result, farmers do not have an intrinsic propensity to pay for agricultural advice. Therefore, in an effort to commercialize FQS and to make the service sustainable, we are looking forward to creating a business model where we can cross-subsidize services to farmers from revenue earned from elsewhere.
Rural, agricultural SMEs are amongst the most vulnerable during periods of economic stress. They are also experiencing greater inequality. Although a third of laborers are in agriculture, they earn a tenth of GDP. During the spread of Covid-19, agricultural exports tumbled further impacting this sector. Meanwhile, low income drives the rural-urban migration of youths, causing agricultural communities to age rapidly. New Economy Academy (NEA) believes that for rural, agricultural SMEs, education is a path to empowerment, socio-economic equality, financial security and better social outcomes. NEA has created webinars so it can continue to educate agricultural SMEs at the grassroots level. The webinars are hosted by national experts on exports, technology and business and are free.

**BENEFICIARIES**

Primary beneficiaries are SMEs and agricultural entrepreneurs, mainly in remote Northeastern provinces that are more rural and statistically more prone to poverty. Their products include rice, vegetables, fruit, processed agricultural products (powdered rice drinks, rice cereals etc.) and others such as silk handicrafts and prepared sauces. The majority are exporters.

**ICT TOOLS**

NEA uses a variety of technologies to target agricultural SMEs as well as smooth the offline-to-online transition. This allows for greater participation and higher technological literacy amongst its participants, who are concentrated in northeastern regions. Telephone, social media channels and messaging apps are used to target and nurture relationships with target groups prior to and following the webinars.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The NEA believes the webinar model can be replicated in other sectors, regions and across other agencies as well, in particular for grassroots efforts. Thanks to the webinars’ online nature, they are relatively saleable, accessible and low-cost. The model is content-agnostic, allowing it to be replicable across a range of diverse topics.
The Better Connections virtual consultation is built on the Better Connections infrastructure (Computers installed and connected to the internet in labor camps) to allow the migrant workers to have a successful virtual consultation with physicians and doctors in the health centers through online video sessions instead of physically visiting the health center or the hospital.

**BENEFICIARIES**

Migrant workers directly and medical staff indirectly; they have access to medical consultations without risking physical contact which can lead to Virus transmission.

**ICT TOOLS**

For this project to be implemented successfully, Webinar tools and Appointment tools were used. These two tools are main pillars of digital transformation. Specially during these times, these tools play a critical role in contributing to the economy of the country by facilitating remote working. It is thanks to these tools that business continuity was ensured, and people were able to conduct it from home.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenges have been faced due to clinical resources to respond to the virtual requests, as it is a change to the current clinical workflow, and needs to be added into the line-up of physical appointments which are still taking place, and this is creating some adoption challenges. It is also difficult to interrupt physical appointments for virtual appointments in the current workflow. This can be overcome with additional dedicated manpower, which can be assigned and ready to respond to virtual appointment requests at any time as and when they present. The other challenge is also related to lack of awareness of the service, which can be overcome with enhanced marketing and awareness plans regarding the new service available for patients. Technology partnerships for additional support may be required. This project can be sustainable if additional dedicated resources can be committed to the project from the clinical side, it can in the long run support decreased physical appointment load, assuming that workflow challenges can be addressed.
The program has been designed to support SMEs in being at the cutting edge of ICT Development. It offers exclusive content and events, and focuses on three specific areas: clouds, e-commerce, and web presence. The program enhances awareness of the benefits of using modern technology in the business sector and helps SMEs to connect with the right service providers and begin the business digital transformation journey.

**BENEFICIARIES**

SMEs and providers are the main beneficiaries as this project will help them enhance the way they do business and create opportunities to both parties offering them the chance to generate more revenues.

**ICT TOOLS**

The technologies used for this project were mainly Clouds and online interfaces and platforms that enable SMEs to connect with providers. Cloud is the ability to host a software platform or service from a remote location that can be freely accessed and used anywhere via Internet access.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Convincing some SMEs to adopt the digital transformation SMEs. We tried to show them the benefits of going digital, and reflected the digital transformation journey the government is embarking on to highlight its importance. The project is replicable: using the same platform of virtual sessions, it can target other audiences or industries. Going digital is becoming the new way of doing business, and the way we adapted to address this Covid-19 crisis proves its efficiency. By implementing this project, we are future-proofing the Qatari SMEs.
e-commerce Directory was found to provide an easy way for people in Qatar to reach their favorite shops or services easily via online throughout the current situation of COVID-19. It facilitates the process of searching the retail stores or services by using clear and easy categorizing for the user. The category list includes the following: Electronics / Healthcare / Grocery / Fashion / Apparel & Accessories / Home & Kitchen, etc. Also, it covers the most important services requested by the citizens and residents of Qatar to prevent them from socializing during these events.

**BENEFICIARIES**

People of Qatar: as it will help them buy what they need without going out to comply with social distancing; Shops in Qatar: as it will help them generate revenues during the current crisis.

**ICT TOOLS**

e-commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Businesses are using e-commerce as a way to support their digital transformation journey.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge was to convince some people to choose to buy things online and not physically go to stores. Some of the main points highlighted were security (ex: putting private information on the internet such as CVV of cards). We aimed to ensure these people on the safety of the transactions, and the benefits of shopping online. The current situation around Covid-19 has played a role in encouraging people to shop online. The project is replicable. The project is based on an online platform that can be replicated to different industries as well.
This project is a combination of two main initiatives. The first initiative is to provide remote learning to all students, and the second is to provide the required technical support to enable efficient learning without disruption. The main goal is to deliver high quality education for all levels in a remote manner while maintaining effective and high quality learning. In order to achieve the required outcome, the ministry provided and distributed 2200 tablets to students for them to access their online courses and assignments. Also, 4100 internet broadband devices were distributed to ensure a fast internet connection for classes to be efficient. On another end, the ministry purchased the required licenses to access remote support tools in order to assist the schools teachers and administrations in case they face any problem.

BENEFICIARIES

All stakeholders in the education sector, mainly the students; Despite the difficulty to attend schools, students are being provided with the required education to be able to pursue their degrees and certificates without delaying their progression.

ICT TOOLS

This project required the distribution of internet broadband, which adopt high speed transmission technologies. Also, Webinar tools are utilized to be able to conduct remote working in cases of virtual classes. These tools have permitted education continuity, and are being used internationally.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Some challenges were identified in this project. The first challenge was the effective distribution of all devices to students without causing any delay to their participation in the online courses. The second challenge we faced was to procure a system and system infrastructure capable of to accommodate more than 120,000 students. The third challenge was the ability of employees to manage the interaction with the remote support specialists in case of problems faced with the remote working tools. The last challenge we faced, was the ability of some students to access their online courses, and to monitor their actual attendance. In order to address all these challenges, these measures were taken: (1) We assessed the location of each student, then we tried to put into perspective the date of their lessons to be able to come up with an optimal route to deliver all the devices on the right time. (2) We managed to find a solution to this problem by coordinating and cooperating with Microsoft. (3) We provided the right training to our teachers and school administrations to be able to manage the interaction with the remote support specialist to ease the process and make it more efficient. (4) We provided instruction manuals to our students to access their remote courses, and reached out to the parents to make sure the students are attending their classes effectively.
An online platform to allow innovators to develop their entrepreneurial ideas that will help in dealing with the various problems and challenges posed by the spread of the novel coronavirus epidemic through the online portal. The five winning ideas will receive financing and support of QR250,000 each, to develop and implement their ideas, as well as several services, advisory programs and incubation services that will help the implementation of the ideas. Partnership between QDB and a number of entities and institutions in the country. E.g. MoPH, MoCI, MoTC, Ooredoo, Aspetar Hospital, University of Qatar, Hamad Bin Khalifa University, Virginia Commonwealth University in Qatar, Carnegie Mellon University in Qatar, etc.

**BENEFICIARIES**

The beneficiaries of this project are the people of Qatar. They will benefit from the advancements these projects will offer in facing Covid-19.

**ICT TOOLS**

This project was made possible with the use of an online portal that gave access to people to submit their ideas and follow up on their submission. Nationally, and most probably internationally, online portals are being used for governmental websites, as a gateway for people to access Government services digitally during the current crisis.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Choose the right project among many to support and implement it effectively and monitor the progression. Constant communication between both parties is constant to align updates, challenges, and advancements.
The Coronavirus (COVID-19) Response – ICT Case Repository

Virtual appointments / Medical Consultation & Electronic Sick Leaves
Ministry of Transport and Communications
Government, Qatar
http://motc.gov.qa

This virtual service was launched in collaboration between the the Ministry of Public Health (MoPH) and the TASMU Smart Qatar Program (part of the Ministry of Transport and Communications) to provide telephonic/video medical consultation/virtual appointments with physicians to patients with medical queries. This would reduce patients’ visits to the hospitals and health centers as much as possible in order to comply with the measures of social distancing and reduce the risk of spread of COVID-19. Basically, services are provided in the convenience and safety of a patient’s home.

BENEFICIARIES

The beneficiaries of this project are the people of Qatar. More specifically, the people that need to see doctors or physicians, without bearing the risk of getting exposed to the Covid-19 Virus.

ICT tools

For this project to be implemented successfully Webinar Tools and Appointment tools were used. These two tools are main pillars of digital transformation. Especially during these times, these tools play a critical role in contributing to the economy of the country by facilitating remote working. It is thanks to these tools that business continuity was ensured, and people were able to conduct it from home.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

For the virtual consultations and appointments, adoption from clinical staff has been varied, as it is a new technology and new workflow, implemented quickly for the Covid-19 response. Also, adoption from patients because it is a new service that takes adjustment. However, adoption is increasing and services are expanding as the benefits are realized. Electronic sick leaves has been widely adopted, as the system is simpler and does not require a new workflow, however challenges have been there due to technology integration at the beginning to integrate with EMRS, but this has improved. Also, what revealed itself as a challenge in this project was actually the accuracy of diagnosis made by the doctor (diseases can have similar symptoms and may require additional tests) since he can’t inspect the patient’s condition from up close. In order not to put the patient in danger, the video consultation technology was only implemented in primary and secondary care. The project is sustainable, as it supports the provision of accessible and convenient health care services, does not require additional workforce, and actually with time will show additional benefits such as decreased burden to the health system for unnecessary visits that can be provided through self-care and patient empowerment with clinical support when needed.
Ensure the supply of essential food items, hygiene products and medical supplies during the crisis, by supporting government officials with a dashboard that monitors stock evolution, provides alerts, simulates future scenarios, and enables contingency planning. Key information from different sources are integrated in a single platform (e.g. imports data, local production data, stock levels of different key food and hygiene/medical products, etc.). A simple visualization interface provides government officials with an immediate view on actual and projected supply, demand, stock, and potential gaps.

**BENEFICIARIES**

The beneficiaries of this project are the people of Qatar, also, government officials will benefit as it will help them in accomplishing their job in a more efficient way.

**ICT TOOLS**

In order to implement this project, we had to resort to technology as a major enabler to its success. The main technologies used were supply chain analytics and business intelligence. Supply chain analytics can identify known risks and help to predict future risks by spotting patterns and trends throughout the supply chain. Business intelligence comprises the strategies and technologies used by enterprises for the data analysis of business information. BI technologies provide historical, current, and predictive views of business operations. These two are becoming more and more common for all organizations that are going digital, and proved to be essential in many cases such as this one.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge was ensuring the accuracy of the projections. We are monitoring the projections and comparing them with actual numbers and other factors to make sure of the dashboard's efficiency.
The Coronavirus (COVID-19) Response – ICT Case Repository

National Communicable Disease Surveillance and Vaccination System
Ministry of Transport and Communications
Government, Qatar

http://motc.gov.qa

This project revolves around a system that has been developed and accelerated to go live during the Covid-19 Crisis. The system enables the accurate recognition of positive infectious diseases based on lab results and case reports received, including Covid-19 cases, their Geo-location based on address, understanding clusters and locations, and allows for contact-tracing of positive cases.

BENEFICIARIES

The people of Qatar are the primary beneficiaries as the main goal of this project is to protect the people.

ICT TOOLS

The project was based on the technology of Analytics. The latter would use raw data as inputs and then interpret meaningful patterns in data. Analytics is a rising technology that is being used and developed more and more due to its efficiency. It is insightful in areas where decisions need to be taken, and in areas, which record a lot of data and information.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The challenges have been faced due to a roll-out plan which was brought forward in a quicker timeline due to emergency requirements for Covid-19 response. Therefore, full and comprehensive implementation and communication plan is still required. Challenges have been with lack of full and comprehensive utilization of all system capabilities due to adoption and training requirements and speed of implementation, however, these are being implemented now, and adoption and utilization is expanding and increasing as the benefits of the national system are being realized. The implementation of the national surveillance system was planned and required before Covid-19 response, and has always been a part of the national health strategy. Timelines were shortened due to emergency response, however, the system will support and make public health work more efficient and effective in the future and therefore sustainable as it is part of ministry national surveillance requirements.
As an economic hub with substantial global connectivity and movement of people and goods, India is directly impacted by the COVID-19 pandemic. DEF, keeping this in view, has launched an ICT-enabled and community specific relief programme C-DERP project (COVID-19 - Digital Emergency Relief Program) through virtual community and service facilitation. The priority key areas under the program are Complete Corona Prevention Care, Provision of SOS Food & Livelihood, Information, Awareness & Fighting Fakenews and Access to Government’s Covid-19 Entitlements. The 600+ digitally enabled information resource centers and 10,000+ foot soldiers across 25 states and union territories are aid with public schemes, welfare measure information, entitlement facilitation and delivery, support Tele-health & Tele-medicine, Internet support, Alternate livelihood opportunities in times of distress, Consultation and counselling. The aim is to reach over 60,000 households and 3,00,000 individuals with above needs and facilitation. Simultaneously, DEF will create a cadre of 600 Covid-19 Digital Volunteer Force (C-DVFs) for facilitation and deliverance of the services under the same program.

**BENEFICIARIES**

Our beneficiaries and primary target groups are - low-income groups, daily wagers, poor and vulnerable, widow women, elderly, differently-abled, farmers, students, police officers, labors and frontline health workers. DEF is helping availing benefits of entitlements and services. The lives of migrant laborers who are stuck, daily wagers, and auto-rickshaw drivers have come to a still. They eat what they earn and since there exists a financial crunch, such people are the ones adversely affected. Our digital foot soldiers has provided ration and have helped them. The weavers’ community is badly affected with no work. The payments to previous orders have not been made. In order to support them, a new set of order to weave Indigo Saris has been made by our ground team.

**ICT TOOLS**

In reference to accomplish the program objectives, DEF is using ICT tools like Computer, Cell phones, video conferencing and laptops helping us promoting digital transformation in our organization or at a national and regional level as well.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

In these tough times a lot of basic essential items are getting scarce out of which Food Grains ranks at the top with almost 36%, followed by sanitizer at 20%, have stated that it is not available at all. Another challenge that has emerged from this situation is of reverse migration of workers from cities. We are looking for a funding partner to get support for basically across 600 locations. The Crisis Planning Checklist presents key areas that organizations can review to ensure that they are prepared for crisis response and operational continuity. In addition, the Continuity and Disaster Recovery Plan our Covid-19 relief kit provides the outline for a thorough and highly detailed action plan that can be used to respond to low, marginal and critical situations.
The main objective of this project is to promote IT literacy for education and improve the employment potential of learners in India, using FOSS (free and open source software). ICT is an important area that provides jobs to a large number of our students. Software creation, electronic design automation (IC design), numerical computing, and modelling and simulation are some of the ICT areas. We aim to pass on the knowledge of technology and free and open source software (FOSS) through the website to the millions in our country, who lack opportunities and/or access to learn any software.

BENEFICIARIES

The COVID pandemic has hit us hard impacting all domains of our life. This crisis has ushered in a new era of virtual systems. In this direction, the Spoken Tutorial project at the Indian Institute of Technology Bombay, Mumbai, India is working in the domain of IT literacy and health. The project creates audio-video tutorials in local Indian languages which can be viewed on desktop/laptop and smartphones. The tutorials are self-learning tutorials, uses very little bandwidth for access and can be downloaded in a zip format to be viewed for future and offline learning. The tutorials are on average 10 minutes long and uses screen cast technology. Tutorials are created for both IT training using Free Libre and Open Source Software and health awareness during COVID. During these COVID times, these tutorials bridge the prevalent gap of lack of information, lack of proper guidance for skill development and IT literacy, lack of infrastructure facilities available, and difficulty in understanding English. The project has also launched a toll-free helpline number where expert guidance is provided for queries pertaining to premature babies, under-nourished infants, child nutrition, breastfeeding and mother’s nutrition.

ICT TOOLS

The tutorials use screen cast technology and is made for self-learning. Our self-paced, multi-lingual courses ensure that anybody with a computer and a desire for learning, can learn from any place, at any time and in a language of their choice. All the content published on this website are shared under the CC BY SA license.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The project aims to bridge the current digital gap. It also addresses the unavailability of good internet access, expensive commercial software packages, and the inability to pay for accessing learning content. We are looking for partners who can take the tutorials to different countries and cater to the needs of IT literacy and health training. Government agencies, private agencies, individuals and organisations working in this domain can also partner with us. Using Spoken Tutorials, we have trained 5 million students during past six years. Since August 2018, we went for paid model for online tests and certificates. More than 1,000 colleges have participated in it, simultaneously with the completion rate going up three fold. During the COVID-19 lock down, page views of our portal have gone up dramatically, with about 250,000 page views a day currently. Naturally, our Alexa rank is improving; from about 225,000 three months ago to about 80,000 now, dropping by about 4,000 every day. Our India rank is 4,000, dropping by about 400 every day. Coincidentally, our Spoken Tutorial courses also got included in the SWAYAM portal about a month ago, with an AICTE tag. This project is replicable in any country of the world. We already have the audio-video tutorials. These tutorials are ready of adoption by translating them into the local language of the country. The tutorials are made in such a way that the graphics remain the same and only the audio can be translated. The project has signed a MoU will Afghanistan where these tutorials will be used for IT literacy after translating them.
Asia Initiatives launched an innovative program known as SoCCs Buddies, aimed at bettering learning outcomes for the students in under-served communities in India. SoCCs Buddies blends award winning SoCC (Social Capital Credits) system with a pool of mentors to deliver individualized teaching and English Language instruction. The mobile app will allow both teachers and students to login in and track their progress, and earn and redeem “SoCCs” within the app for various goods, services and recognition offered.

**BENEFICIARIES**

The primary focus of SoCCs Buddies are underserved girls and boys across India. We are currently implementing the program in Lucknow, Bhubaneshwar and Yavatmal in India, and expect to expand this to our project sites soon. Providing opportunities for people to earn and redeem SoCCs for goods and services ensures a continuous buildup of “social capital” within communities. Beneficiaries of our program also commit to tutoring three younger children in their neighborhood which ensures a trickle-down of the learning. “Data cards” and digital devices are provided to participants to facilitate this.

**ICT TOOLS**

The primary technology used is a mobile app “SoCC App”, developed with the help of CampusGroups Inc. and Zoom. With the App, they can consolidate everything into one digital platform. This enhances the ability to manage programs and communicate with partners.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Challenges include transitioning to distance learning due to limited student access to suitable digital learning devices and limited availability of reliable broadband connection. Asia Initiatives is addressing this challenge by raising funds to provide devices and data cards for Internet connectivity. Additionally, to leverage a pool of skilled volunteers and mentors to be trained at short notice. The challenge is further compounded by the linguistic and cultural diversity of different regions of India where these schools are located. They are exploring local and multi-sector partnerships to support the existing project and help expand their reach – both long and short term. Short-term needs include: volunteers to impart training skills to the teachers and field staff, leveraging support of the parents through raising awareness and encouraging parental engagement. Long-term: acquiring low-cost digital devices to ensure continuity of learning, reconfiguring lessons to individualized learning and nutritional requirements for the students. The SoCCs Buddies model is based on a low cost approach to imparting education and it’s replicability and flexibility ensures that it is sustainable. The concept of SoCCs is to develop a sustainable non-financial currency - an alternative reward model to encourage social bonding within communities and across the world for the common good of all. With a constant stream of volunteers eager to empower the students in India, they expect teacher availability to remain high. The App is easy to use both for the teachers and students, to schedule the lessons and keep track of the SoCCs points earned and redeemed.

WSIS Stocktaking Platform www.wsis.org/stocktaking
Increasing access to health information for pregnant mothers and infant babies. Since last 8 years “Amakomaya” (Mother’s Love) initiative has deployed unique android apps to strengthen the Nepal’s health system by empowering both pregnant women and health workers with the improvement of access to needs-based health information with electronic recording and reporting of client data. Due to the COVID-19 pandemic lockdown pregnant mothers are not able to receive Antenatal Care (ANC) and babies are not able immunized. To help mother and child maintaining at least 1-meter physical distance the project has introduced time-based appointment system for the client in local clinic. Through the app, beneficiaries can reserve their time-based appointment. Also, have direct access to the toll free number 16600100046 with the partnership of Midwifery Association of Nepal and Paropakar Maternity and Women’s Hospital, Thapathali, Kathmandu.

**BENEFICIARIES**

The beneficiaries of the project are pregnant mothers and their family members. By using Amakomaya Content app, mothers and their family members can receive: personalized audio, video and text messages together with timely notification to access available services offered from the nearest health facilities. The latest offers provided from local government in the app as notification. Use self-evaluation danger sign features in app. Toll free dial number to get instant remote support and consultation.

**ICT TOOLS**

The project has used AI based mobile android application that can be used by both clients and health workers. The application is covering all aspects from pregnancy, child birth and immunization. To integrate all the processes in the same platform, the project has developed 3 different app interfaces and connected asingle reporting system which is interoperable with the existing Health Management Information system (HMIS) of Nepal government. Mothers can check their danger sign in critical situations which record GPS data to support instant rescues by 4 wheeler ambulance or helicopters. For health workers, they use QR-Code technology to register and search women from the data. The recorded data are instantly presented in the HMIS report. GSM based fatal heartbeat rate detection system helped to continuously monitor fetus.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Following are the major challenges, lack of: proper training for health workers and higher officials in the Health Ministry, which has caused delay in the expansion of the project. Locally developed maternal and child health related audio/video content. Locally hosted cloud service connected with local networks. Proper electronic health guideline and roadmap of Nepal government have created lots of duplicated in the application development side. They are interested in the following partners to: develop maternal and child health related audio/video content, build the locally hosted cloud services, provide training to health workers and higher official of the Health Ministry. The project is sustainable because it directly strengths the National health system. Likewise, it is replicable in developing countries like Nepal. It could be replicated in the South Asian Region and African countries.
ekShop, a2i
ekShop Phone e Nittoponno
Bangladesh

https://a2i.gov.bd

ekShop is currently running the nationwide logistics of emergency groceries and medical supplies. ekShop has attained the support of “333”, a government ordained national call center to aid the citizens in this trying time. Citizens can order medicines, groceries, and other emergency goods. ekShop will forward the order list to available volunteers, who will buy from the nearest open shops. The volunteers and volunteer organizations are selected locally to the order delivery location, wherein a database has been created according to their delivery range. Orders are also taken through a Facebook page automated chatbot for maximum reach.

**BENEFICIARIES**

By onboarding volunteers from nearly all districts of Bangladesh, ekShop has aimed to fully utilize its root-level reach (via the rural e-commerce aggregator and Digital Centers) and serve all the general public in this lockdown stage. Particularly for those areas that are under strict lockdown outside of the capital and inside.

**ICT TOOLS**

Web and mobile application for order processing - digitizing usual grocery buying and maintaining quarantine measures for all parties involved. Virtual call center to confirm the order - utilizing dormant workforce and managing volunteers remotely. Facebook chatbot - using popular social media to engage more of the population and encourage them to order online instead of going out.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Managing the logistics. Most of the emergency products are groceries and perishable food products, so stocking and warehousing will prove to be difficult. Difficulty in transferring supplies due to lockdown measures. By using ekShop’s e-commerce and logistic network, we have been able to source products directly from suppliers and farmers and used the National Post chain to deliver them to the concerned parties. The project is partnered with all major e-commerce, payments and logistics players in the country. Also, non-profit organizations looking to assist during quarantine with essential products. They are able to merge the initiative with ekShop’s existing system and all the local shops within it. It can be easily replicated in similar countries, for example Nepal, India, etc. Since the initiative does not require heavy technology or intricate customization, it can be replicated even in lower economic conditions. All that is required is Facebook connectivity (for the chatbot order) and stable call-center support, with a large group of voluntary workers.
Instituto Bem Estar Brasil-IBEBrasil
Comunidades Digitais (Digital Communities)
Civil Society, Brazil


Digital Communities is a program of IBEBrasil that are running more than 10 years in the North of Rio de Janeiro, in rural and peripheral areas, in partnerships with public universities. This project foresee a Community Portal, that allows the community to access internet and to create a communication channel with the users, associated in the community provider. The community of Marrecas is feeding their local community portal with information about the prevention and fighting the pandemic, posting information to the residents of the community in how to act in face of COVID19.

**BENEFICIARIES**

The primary beneficiaries are the rural and peripheral communities in North of Rio de Janeiro.

**ICT TOOLS**

The community network is basically a hybrid network (wireless/wired) mixing WiFi 5Ghz AC/M and Switches with Reverse POE to serve users that are more near the CPEs. In the community portal, they are using a Debian 10 Server with Wordpress that are integrated with a router board with RouterOS with Captive Portal for authentication of the users.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

A challenge with Community Networks is the self-management process, that needs to be improved in the terms of decision making, turning the participation between the local council and all the users widely. In terms of resources (financial and regulatory), the need to adjust the directions of the public policies and funds to attend these initiatives. They intend to implement a decision making platform to involve more users about the issues and solutions about their own community internet provider. They need partners to help communities in two main activities: access to local engineers to obtain licenses, use licensed spectrum or to create another technical project in their own community networks. More people to make political and regulatory incidence in the telecom national agencies and the international spaces linked to telecom and internet issues. The project is sustainable through the associative process created by the users to maintain the community network. Sharing the costs, without profit, allows the users to have a cheaper price to the link and maintenance, that is paid collectively. Community networks are replicable initiatives, as highlighted through the IGF and ITU recommendations. Other repository exist in the APC and ISOC website and on the IBEBrasil site with links and docs about these projects.
The Coronavirus (COVID-19) Response – ICT Case Repository

Digital Development Agency
Bureau d’Ordre Digital
Government, Morocco


It is a platform for digitizing the Order Office allowing administrations and public bodies to create Digital Order Offices in order to electronically manage the flow of incoming and outgoing mail. All actors who wish to contact public bodies throughout Morocco could thus deposit, via this central platform, their letters to the bodies concerned with an acknowledgment of receipt.

BENEFICIARIES

All actors (citizens, civil society, businesses, administrations, etc.) who approach public bodies.

ICT TOOLS

In accordance with its missions, the Digital Development Agency is responsible, among other things, for: promoting the dissemination of digital tools and the development of their use among citizens,. Carry out within the framework of e-Gov programs, the implementation of designs relating to electronic administration projects and the development of digital public services.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Among the main challenge encountered is the change of conduct. Solutions to face these challenges are: awareness and involvement of senior officials of the public bodies concerned. They are open to partnerships if the potential partners wish to share this modest experience with them. This project is sustainable. The government has adopted a circular through which it urges all public bodies to use this platform. It is also replicable, Morocco, through the Digital Development Agency, is ready to share their experience with fellow countries open to such initiatives.

WSIS Stocktaking Platform www.wsis.org/stocktaking

WSIS Action Lines

Sustainable Development Goals
The Uruguayan government in collaboration with private sector companies grouped in the Uruguayan Chamber of Information Technologies (CUTI) developed a specific App for attention to the health emergency: Coronavirus UY, which is currently implemented with more than 330,000 downloads. The App not only gives information, but also assists the population from the beginning of their symptoms, they can communicate with their health provider through Telemedicine (Ref. Law 19.869, on Telemedicine. https://www.impo.com.uy/bases/laws/19869-2020). The App is associated with a single case assistance tray that is carried out based on a protocol established by the Ministry of Public Health (MSP), and a clinical assistance platform, which provides tele-consultation service to suspected and confirmed cases that do not need other assistance.

**BENEFICIARIES**

Both citizens and health authorities. The App is associated with a single case assistance tray that is carried out based on a protocol established by the Ministry of Public Health (MSP), and a clinical assistance platform, which provides teleconsultation service to suspected and confirmed cases that do not need other assistance. To unify and have a single database that allows rationalizing the response of clinically suspicious cases and vectors, organizing demand and assistance to the population, there is a unique form. In addition to digital channels, also the telephone exchanges of all the health providers and a line specially created to face the pandemic, which depends on the MSP provide information.

**ICT TOOLS**

The project uses custom development made by a private company called Ggenexus technology.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The goal for App Covid-19 Uruguay is to continue evolving the app and attract as many citizens as possible to download it and use it. The app can be applied to any pandemic to control it. Since it is about sending symptom info, mutual care distribution and video calling for doctors.
Developments in Literacy, DIL, is partnering with the Pakistani Government’s PTV Tele School Initiative to bring education to children across Pakistan during this time of school closure due to COVID-19. The daily television broadcast began airing early May 2020, which also marked the beginning of the new academic year in most areas of Pakistan. DIL has contributed locally relevant video lessons giving all children across the country an opportunity to continue learning. These televised lessons from DIL, which the organization has developed and field-tested over the past few years, are especially vital for children living in rural areas who are unlikely to have access to either digital or analog learning materials outside of school. In the classroom the TEAL program, which includes hands-on activities, has effectively boosted learning outcomes across core subjects of mathematics, science, English and Urdu. In addition, DIL is piloting a partnership with a mobile communications service provider to offer free access to its digital content, offering yet another avenue to reach families and children whose education has been interrupted by this pandemic.

**BENEFICIARIES**

TEAL learning content was specifically designed to fill the gap in quality education for middle school students, particularly those living in rural and underdeveloped areas of Pakistan. As part of Pakistan’s TeleSchool programming, learning videos developed by DIL are being viewed by school aged children across Pakistan. Developments in Literacy (DIL) was founded with the vision that no child in Pakistan, no matter how poor or underprivileged should be denied access to quality education. Today, a total of 131 schools based in the rural vicinities, shanty towns and urban slum areas of Punjab, KPK, Sindh, and ICT, are operated by DIL directly and in partnership with community based organizations and the government. Direct local presence and where necessary, through partnership, enable DIL to accurately identify and include marginalized groups. The majority of children served by DIL schools, especially girls, would not otherwise have had access to education. DIL provides operational cost, curriculum development, teaching and learning materials, teacher support, and meaningful access to technology to enhance learning. The admission criteria for DIL schools ensures inclusion of the community’s most vulnerable and marginalized groups. “Children, especially girls, from the lowest income households and students living in the immediate neighborhood will be given admission preference. Each grade will have a maximum of 25 students. 70% of which must be girls, children with disabilities will be accommodated, if possible.”

**ICT TOOLS**

Instructional videos developed as part of Developments in Literacy’s TEAL program is being made accessible via Pakistan’s first TeleSchool channel made possible by Pakistan Television Ltd and the Ministry of Education. The channel is available nationally via satellite, terrestrial and cable. On a regional level, this digital learning content is being made available to users free of charge through a partnership with a mobile carrier and will soon be accessible via the DIL website. In the classroom, prior to school closure due to COVID-19, TEAL instructional videos, lesson plans and assessments were delivered via the TEAL app developed through a partnership with Netsol. The TEAL app was designed to function with intermittent internet connection to allow users to download content onto android devices, and was designed to capture user performance and growth on specific learning topics.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Designed for sustainability and sharing, TEAL is embracing an Open Educational Resources (OER) model in which those in need of quality learning content are able to access it for free. By creating high quality content, TEAL lessons are unencumbered by time bound and costly user licensing agreements. The one-time cost of content development is quickly absorbed as more and more users access each lesson. TEAL is replicable. DIL is working to adapt the TEAL model to suit both formal and informal education settings. Applying TEAL videos in response to COVID-19 is an apt example of how TEAL is currently being adapted and replicated.

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WSIS Action Lines

Sustainable Development Goals

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WSIS Stocktaking Platform www.wsis.org/stocktaking
The Coronavirus (COVID-19) Response – ICT Case Repository

Taleemkw: Kuwait Portal to Distance Learning
Kuwait University
Academia, Kuwait


The scope of this work is to enable continuation of learning and education of public throughout the COVID-19 crisis by supporting a national forum for online education learning management system (LMS) and all the supporting hardware and technical support relating to LMS operation. The LMS should support the K-12 pupils that is 683359 total (public and private schools) students. Kuwait has 1489 schools with 85949 teachers and 16090 classrooms in government schools. The Ministry of Education stopped public schools and University till beginning of Aug. 2020 to be resumed. Some private schools do not have the needed infrastructure to resume school using distance learning, this portal will service any school need to implement the Emergency Remote Teaching (ERT) using our infrastructure free of charge, this project will also provide the needed help by providing tutorials and guides to teachers never used online learning to help them better produce their materials and post it on the learning management system (LMS).

**BENEFICIARIES**

The LMS should support the K-12 pupils that is 683359 total (public and private schools) students according to UNISCO statistics.

**ICT TOOLS**

The learning management system is based on a widely used LMS called Moodle, We have customized our copy (Taleemkw LMS) and localized it with some added tools such as: a. Communication: chat, forums natively and Streaming Media through plug-ins. b. Interactive Videos: Quiz questions support adaptivity. c. Dialog Cards. d. Documentation Tool: goal driven activities. e. Find the hotspot on images. f. Agamotto image blender: Present a sequence of images that people are supposed to look at one after the other, e.g. photos of an item that changes over time. g. Dictation (for English classes): You can add audio samples containing a sentence for dictation and enter the correct transcription. Your students can listen to the samples and enter what they have heard into a text field. Their answers will be evaluated automatically. h. Branching scenario: Branching Scenario allow authors to present the learners with a variety of rich interactive content and choices. The choices the learners make will determine the next content they see. May be used to create dilemmas, serious games, and self-paced learning. i. Virtual Tour 360: 360 (equirectangular) and normal images may be enriched with interactivities like explanations, videos, sounds, and interactive questions.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The project is currently running on one server that can support one district, servers with the above specifications are expensive to rent, and external funding or grants will solve this problem. We have initial agreement with Microsoft to support our users to use the introductory package of Microsoft 365 that comes with MS Teams, this will be very helpful to support the online broadcasting of lectures. This project can be replicated to all countries that use Arabic as the main language for education that include the GCC countries as well as all Middle East Arab speaking countries with Arabic school system.
On March 9th, Saudi Arabia closed all schools to prevent the spread of COVID-19 and protect students. The Saudi Arabia’s Minister launched Virtual School Program included “Future Gate Platform” to direct students, teachers, school leaders, educational supervisors for flexible and remote learning. During the COVID-19 outbreak, Future Gate Platform proved successful. Over 64,000 teachers have used and created more than 1,000,000 assignments, 400,000 virtual classrooms, 1,700,000 E-Contents, 1,600,000 discussion forums, and 400,000 tests. Over 700,000 students, 3000 school leader and educational supervisor have engaged and used the platform.

**BENEFICIARIES**
The primary beneficiaries are Student, Teacher, School Leader, Educational Supervisor, Digital Transformation Coordinator and Parents. The tools for beneficiaries to do their work through FG Platform which help implement the digital transformation and support the integration of technology into education, they are: Electronic Assignments, Educational Activities, E-Testing, E-Content, Discussion Forums, Lesson Preparation, Monitoring Attendance, Absence, Virtual Meetings, Direct Messaging

**ICT TOOLS**
Future Gate Project provides variety of equipment and infrastructure to schools include: 1. A range of systems including LMS, LOR, and SIS. 2. Broadband connection and wireless access points to schools. 3. Devices (laptops) for the teachers. 4. Smart Interactive Projectors within the classrooms. 5. Building an internal computer web for launching and application. 6. 24-hour technical support to all the schools. Future Gate seeks to complete digital transformation in all schools by developing an integrated work plan, starting with preparation and concluding with evaluation

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**
Related to some technical aspects that present challenges for the Future Gate Initiative, linking the SIS with the FG platform has been the cause of some pitfalls and that can be overcome by having a one platform involved the LMS and SIS together. As far as infrastructure goes, poor internet connectivity or lack in equipment in general, has caused delays and implementation problems in a significant number of classes. The Ministry of Education (MoE) collaborated with Tatweer Educational Technologies (TETCO) being a leading educational technology provider in the region to implement and execute the project. The replicability of the project is possible depending on the scale required. In our project we intended to uplift the schools’ technical infrastructure, hence, it increased the cost. However, the project could be simplified by providing the Learning Management System to reduce cost.
COVID19 Mobile Phone Survey
Centers for Disease Control and Prevention
Government, United States of America

https://www.ncdmobile.org

We implemented a mobile phone survey using Interactive Voice Response in Ecuador. The survey collects information on Knowledge, Attitudes, and Practices, access and availability of testing, and symptomology during the COVID 19 outbreak.

BENEFICIARIES

The primary beneficiaries are the Ministry of Health and the public. The Ministry of Health will use the information collected to inform policy decisions and communication strategies for COVID19.

ICT TOOLS

The survey is utilizing the open-source data collection tool Surveda. In addition, respondents are answering surveys via their mobile phones.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Given that the mobile network operator channel was previously established for a mobile phone survey on non-communicable disease, it was fast and efficient to implement the survey and there were no main challenges. This project can be replicated. In order to send the COVID19 survey to other populations, a mobile network operator channel would need to be established in the new country where implementation is to take place. This project is sustainable because the data collection software, Surveda, is open-source and thus free to use. The only cost for implementation is the cost associated with maintaining the mobile network operator channel and airtime costs.
Due to the global outbreak of Covid-19 the Department of Primary Education is conducting home-based learning activities to fill the education gap of primary school student. In this context, lessons of various subject are being broadcast on Sangsad TV everyday according to the experience teacher. In addition to home-based learning activities for student, digital content is being created and disseminated through YouTube channel, Facebook page, Messenger group. To strengthen this activity, area-wise responsibilities have been given to the teacher, conscious parents in the vicinity of the school and the results are being published everywhere. Beside, a recovery plan has been prepared to compensate the loss of Covid-19 including providing financial assistance to the Prime Minister’s Relief Fund, providing stipend through Mobile Banking, delivering nutritious biscuits to children’s homes under school feeding activity, involving primary education families in relief distribution by district and Upozila administrations of primary education. Virtual meeting is being held regularly to check the progress and continuity of all these works. The follow-up meeting is going on in the Zoom app while sitting in the office or at home while maintaining social isolation.

**BENEFICIARIES**

The primary beneficiaries for this project are the primary school student. The main services are: 1. Providing financial assistance to the Prime Minister’s Relief Fund. 2. Providing stipend Through Mobile Banking. 3. Delivering nutritious biscuits to children’s homes under school feeding activity. 4. Involving primary education families in relief distribution by district and Upozila administrations of primary education.

**ICT TOOLS**

This project relies on the Zoom app, Sure -Cash app, YouTube, Messenger, Microsoft Excel, Facebook page.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge of learning at home is to bring all the students and their families under technology. Many families of primary school students do not have satellite-rich television or smart phone. Many of their parents are still illiterate. Beside, there are also slow learners. To overcome these challenge, area-wise responsibilities have been given to the teacher, conscious parents in the vicinity of the school and the results are being published every week.
The Coronavirus (COVID-19) Response – ICT Case Repository

GoCC4All: Using IT to Provide Access to TV and to National and Local Emergency Information to the Deaf
Dicapta Foundation
United States of America

https://www.dicaptafoundation.org
https://gocc4all.dicaptafoundation.org

We are using our app GoCC4All to deliver information and emergency alerts related to the Coronavirus to people who are deaf-blind. The pandemic created a challenging situation for the deaf-blind community since they rely on touch to communicate and their access to news is limited due to the limited TV accessibility. GoCC4All was created with deaf-blind users in mind and delivers live TV captioning and emergency information through mobile devices and Braille displays. Its users can read the information in different ways: on the screen, on a braille display, or using the voice-over feature of their devices. Users can control the pace, and size of the text and configure the format to fit their needs. Due to the pandemic, we added 2 new caption streams to our app: COVID19 INFORMATION (talks about how it spreads, how to prevent infection, etc.) and COVID19 NEWS (includes recommendations by the National Association of the Deaf about preparing for a hospital visit during the pandemic). Also, places like Puerto Rico are broadcasting a daily coronavirus related civil message. GoCC4All users can receive and access this message as everybody else on the island does thanks to our emergency alerts feature.

BENEFICIARIES
The primary beneficiaries are members of the deaf-blind community, although the emergency alerts are useful for everybody.

ICT TOOLS
GoCC4All uses pervasive technology to create a system that is accessible and easy to use. It uses geolocation to provide emergency alerts that correspond to the area where the user is located. GoCC4All promotes digital transformation at a national level by providing an accessible way for people who are deaf-blind to access TV and emergency alerts.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY
GoCC4All uses pervasive technology to create a system that is accessible and easy to use. It uses geolocation to provide emergency alerts that correspond to the area where the user is located. GoCC4All promotes digital transformation at a national level by providing an accessible way for people who are deaf-blind to access TV and emergency alerts. This project can be sustainable by donations provided by those that want to serve the deaf-blind community. This project is replicable. The TV Captioning section of GoCC4All can be easily adapted to be used in other countries that use ATSC and NTSC standards. The emergency alerts could be adapted to other emergency alert systems that use the Common Alerting Protocol (CAP) developed by the Organization for the Advancement of Structured Information Standards (OASIS). The primary beneficiaries are members of the deaf-blind community, although the emergency alerts are useful for everybody.
As the COVID-19 pandemic has disrupted supply chains around the world, stakeholders have been engaging the Apprise Audit team to discuss potential modifications to the application as they adapt and adjust its operational usage in the evolving circumstances. For example, due to travel restrictions between and within countries, some auditors have been unable to complete routine factory inspections where they utilized Apprise Audit. The absence of these inspections may leave workers more vulnerable to exploitation as mechanisms to ensure accountability and compliance are interrupted. Although designed as a tool to be administered by a frontline responder and used by workers, stakeholders have expressed interest in modifying Apprise Audit to allow workers to instead self-administer the questionnaire. In other cases, local audit teams are able to visit factories, and there has been interest from stakeholders in adding new questions to the Apprise Audit questionnaire to inquire about COVID-19 related matters. These could include questions regarding the availability of hand-washing facilities, mask distribution and usage, adherence to social distancing guidelines and any other protocols mandated by governments or corporations that are applicable in factories. This will continue to support major corporations to understand practices in the factories that comprise their supply chains.

**BENEFICIARIES**

Apprise Audit was developed as a tool to support frontline responders to better identify victims of labour exploitation and forced labour. The app is downloaded on the front-line responders’ phone but is ultimately a tool in the potential victims’ hands. Apprise Audit enhances workers’ voices, improves auditors’ work and facilitates data collection and analysis on working conditions in global supply chains.

**ICT TOOLS**

Apprise Audit is a multi-lingual mobile phone application that was designed to overcome challenges associated with social compliance auditing and to improve frontline responders’ detection of indicators of labour exploitation and forced labour during worker interviews.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

There are many challenges in the social auditing process such as time constraints during factory visits; lack of privacy during interviews; workers appearing to be coached and not feeling safe enough to speak out; communication barriers; and a lack of consistent analysis methods. Auditors rarely cover ILO indicators of forced labour in a comprehensive and consistent manner during worker interviews. These issues result in an overall lack of frequency, privacy, confidentiality, and consistency in workers’ interviews during social compliance audits. These issues deeply affect workers’ possibility to speak out and auditors’ capability to identify indicators of labour exploitation during factory visits. This results in victims and exploitative factories remaining unnoticed. By providing a summary of workers’ feedback in real-time, the app highlights areas for further investigation. It also allows auditors to reach out to more workers and bridge language barriers through its multilingual audio-questions. Data collected through the app can be collated on a content management system, and screening responses can be accessed, analysed, and shared by authorized users and their organizations. This facilitates efficient and consistent data collection of workers’ interviews, enables data retention and tracking of factories’ working conditions over time.
Zen Connect 4 Kids, Families & Teens  
Innovative Trauma Relief Access (INNTRA)  
Civil Society, Switzerland  
https://www.inntra.ch

We are introducing 2 series of 30 minutes live-streaming episodes performed by our team in response to the COVID-19 outbreak. Each episode proposes 2 carefully orchestrated activities (in art, music, dancing, relaxing body energy movement or singing) of 12 minutes each. This process follows a non-cognitive, holistic, creative, and solution-oriented approach to decrease stress and anxiety. Our episodes will be aired regularly on our website and chosen social media platforms. They are accessible to everyone and are free of charge. The series, led by high-level professionals with global field experience in child trauma, stress-management, and resilience, will benefit a wide range of stakeholders: families, children, teenagers, child health professionals, educators, and any organizations (private, semi-private or state) in charge of supervising children and adolescents. Our series’ objective will first, help children and teens to cope with the aftermath of the confinement and the ongoing anxiogenic impact of the pandemic; secondly, help parents smooth out possibly tense interactions with their children. Lastly, on a more global scale, these episodes complement efficiently the work of mental health and well-being professionals who are currently heavily solicited due to the traumatic and multi-level impact of the pandemic on individuals nowadays.

**BENEFICIARIES**

Primary beneficiaries are children, adolescents, and their caregivers/parents.

**ICT TOOLS**

INNTRA collaborators are all located in various countries, so we rely on the use of personal digital infrastructures (personal and/ or professional computers and laptops, relevant application and software programs).

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Four main challenges are identified: 1) Weak technical proficiency in video-editing-making to ensure the quality of our video is visually engaging (inserting a soundtrack, additional visual bits to enhance aesthetics as well as subtitles in regional language). We want to avoid our episode to look “home-made” or too “business-like”. 2) Funding (staff remuneration, purchasing appropriate technological service to create properly our episodes, operational funds). We are currently fundraising. 3) Understanding the IP restriction(s) when it comes to putting online a video-concept, so our organization is protected, and our model stays sustainable. 4) Implementing an appropriate framework to monitor the impact of our programs on various stakeholders (families, youth, professionals) so we can compatibilize this output in our M&E framework. Partnership building is a key component to our organization as we strongly believe in the multi-sectoral necessity of cross border partnerships. It is our objective to build partnerships following one of those two sustainable models (All Inclusive Business model or the Creating Shared Value model) in order to provide tangible deliverables leading to measurable social impact. Our partnership building need and strategy: -Partnering with a medium or large international organization in the domain of Child Protection to sponsor our access with local professionals to assist with 1) producing subtitles and translation and 2) replicate our model (once we find an appropriate way to deal with rights). Partnering with a financial donor either from the private or public sector (we have been operating pro-bono and are currently fundraising). -Partnering with a well-known regional “Ambassador” to facilitate (faster) access to our global youth target audience.

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**WSIS Action Lines**

**Sustainable Development Goals**

WSIS Stocktaking Platform  www.wsis.org/stocktaking
The digital society requires the acquisition of skills related to computer sciences like computational thinking or competences in coding. Also transversal competences like communication, collaboration and creativity are increasingly important. Educational robotics is perceived as a valuable tool to increase such competences and is more and more present in the new school curricula. The Roteco project aims to train school teachers in the field of educational robotics and computer science, to develop a community where teachers can find support and to exchange experiences and educational activities in order to increase the presence of robotics in school classes. A call was made for the community itself to produce activities that can be done at home (https://www.roteco.ch/fr/stories/faire-des-activities-educatives-a-la-maison-comment-et-quoi/). The community has remained active in order to best inform teachers about activities that allow children to continue to do robotics, programming and coding activities.

**BENEFICIARIES**

The project “Robotic Teacher Community (Roteco)” aims at creating a community that enable teachers to independently carry out activities in the field of educational robotics, computer science and computational thinking in class or long distance learning in order to prepare children for the digital society. In this community, teachers find, develop and exchange educational activities related to educational robotics and, more generally, to computer sciences. Furthermore, they are informed with the latest news, events and courses in these fields. The project covers all three major language regions of Switzerland. It is supervised by the University of Applied Sciences and Arts of Southern Switzerland (SUPSI), the Swiss Federal Institute of Technology Zurich (ETH Zurich) and the Swiss Federal Institute of Technology Lausanne (EPFL Lausanne) and is founded by the Swiss Academies of Arts and Sciences.

**ICT TOOLS**

In the project, a collaborative platform has been developed. The platform allows teachers to contact other teachers or experts. Teachers can easily publish, select and download didactic activities of other pairs with the related materials. The social networks of the project as well as our newsletters have been necessary tools for communication and dissemination of information. In order to keep the teachers’ community stimulated, Roteco has participated in numerous online events to inspire teachers. Webinars have been a tool for disseminating information (Ludoviales, Open Education Halfday, Coding from home #4, etc.)

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The first results are promising since there are already more than 170 activities that have been shared among around 500 teachers. However, it cannot be excluded that users on the platform are solely the pioneers that share materials among each other. The aim of a community like Roteco is however to engage also the beginners in order to expand the presence of robotics. These teachers need to be supported and followed in the community. The project is still ongoing and it will be interesting to analyze such questions. During the follow weeks, a survey is planned in order to analyze who are the teachers that are most active in a community, how much they share, how many contacts they build online and what they need in order to foster those elements. We are looking for institutional partners in teacher training such as universities or training centers. We are looking for partners in the educational robotics research sector who want to publish and share their research. We are looking for teachers and schools in the private or public sector committed to change! Some of the activities proposed by the community member are related to the sustainable field. Robotics is used as a tool but the content can be transposed into what the users need.
Tunisian government analyzes emergency call data to understand COVID-19 spread and provide more effective emergency response

Targa / Ooredoo
Private Sector, Tunisia

http://www.targa-consult.com

Established in 2004, the Ministry of Communication Technologies and Digital Economy (MTCEN) is an agency of the Tunisian government focused on improving Tunisia’s communications sector and acquiring new technology to serve the country’s 11 million people. With the onset of the COVID-19 pandemic, the Tunisian emergency services saw a sudden, dramatic spike in incoming phone calls. They received more than 450,000 calls in the first month of the pandemic—the equivalent of two years’ worth in pre-pandemic times. Unable to reach an operator, citizens were calling up to 10 times each. While some calls were placed to a dedicated COVID-19 hotline, many were placed to 1-9-0, the country’s general emergency number. The volume of calls put a strain on emergency services, restricting their ability to provide fast, effective care to those who needed it most. The number of virus-related calls to 1-9-0, rather than to the hotline, limited MTCEN’s efforts to track the spread of the virus. Greater understanding of their call data was key to organizing a consistent, effective response to the virus. MTCEN worked alongside Targa Consult and Ooredoo, Tunisia’s largest telecommunications provider, to create dashboards that provide critical insights into call volumes, times, and geographical variation. Operational in just 24 hours, the dashboards allowed Emergency Doctors to explore and interact with the call data, and make necessary operational changes. The data justified MTCEN developing a public communications campaign that promoted the COVID-19 hotline, while a redirect solution was built to divert non-emergency calls. These improvements provided greater clarity into the call data, and by understanding call density and geographical variation, Local Emergency services can now monitor trends and identify contamination clusters across the country. Additionally, analyzing peak call times allows the government to manage emergency team response and other resources more effectively, helping them stay ahead of the virus. MTCEN also discovered that 57% of calls to the emergency number were under 30 seconds, indicating callers were hanging up before reaching an operator. By visualizing average call length and average number of calls per person, operators can now call back people who were unable to reach the emergency number, ensuring citizens receive the critical response they need.

BENEFICIARIES

Ministry of Health ; Medical Emergency Organization.

ICT TOOLS

Data Analysis and Data Visualization dashboards that provide critical insights into call volumes, times, and geographical variation. Operational in just 24 hours, the dashboards allowed Emergency Doctors to explore and interact with the call data, and make necessary operational changes.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Data Cleansing has been the main challenge. Family and friends have been put to contribution to be able to provide the Dashboards in 24h. The Tunisian Medical Emergency Organisation (SAMU) has expressed interest to have access to the tool after the COVID19 to analyse calls and discover patterns. The concept can be replicated in any country provided we have access to the data either thru Telecom or call center companies.
Global Teens Meetups
EduHarbor
Private Sector, Germany

https://www.eduharbor.com
https://www.eduharbor.com/edu-gtmeeup

Global Teens Program was created as a branch program of the Global Competence Online Project to give more support to all the students who have been studying from home during COVID-19, as well as support their families by running these weekly free Global Teens Meet-ups, where a professional educator will facilitate a 50-minutes meeting with students from all over the world. Students from 9 to 15 years old get to meet each other online, play fun games that help them to discover/share how they are feeling in order to unwind and know that they are not alone. Each MeetUp has a Genius Hour where one of the students gives a sharing about something they have experienced or something they like, such as moving to another country, learning to code or teaching each other magic tricks.

**BENEFICIARIES**

9-15-year-old students who can express themselves in English on an intermediate level. Students from Zimbabwe, UK, Spain, France, China, Zambia, South Korea, India, Colombia, Uganda have joined our Meetups so far. They receive support through fun activities and interactions with their peers online, seeing that everyone is in the same shoes right now. We have run 3 MeetUps and each time had up to 25 students registered.

**ICT TOOLS**

We have used Zoom, Skype and got an offer to use ClassIn as support from the company in China.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge we have is finding a suitable platform, as well as students’ poor internet connection or unstable connection due to weather conditions or individual situations. We have just started the project so we might be looking for partners later on. This project is sustainable. Students only need the internet connection and a device. We also cover SDGs and sustainability as a topic. The project is also replicable. Any educator with experience in online education can gather groups of students and follow a simple flow to create a trustworthy atmosphere for providing valuable support to students.

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**WSIS Action Lines**

**Sustainable Development Goals**
To contain the COVID-19 outbreak in Sri Lanka, an all-island curfew was imposed, causing most of the routine patient care services to be interrupted. Currently, there are access limitations to Non-communicable disease-related services such as medicine as the health system is struggling to prevent this pandemic. Therefore, Ministry of Health and Indigenous Medical Services introduced a novel mechanism to deliver medicines to the doorstep of patients with NCDs to ensure continuous supply of medicine. A mobile phone survey was launched to assess the utilization and performance of the medicine delivery system for patients with noncommunicable diseases implemented by the Ministry of Health of Sri Lanka.

**BENEFICIARIES**

The primary beneficiaries are the governmental health agencies looking to collect population/sub-population data without the scale of logistical coordination and high cost needed for face-to-face methodologies. Mobile phone surveys are especially useful in situations where face-to-face contact is not feasible.

**ICT TOOLS**

An open-source web-based mobile phone data collection tool, Surveda, was used to quickly set up and launch the survey. The survey tool allows for our in-country partners (e.g., ministries of health) to design and conduct a mobile phone survey using various modes (e.g., SMS, IVR, mobile web) and rapidly analyze the data for program and policy decisions.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

One main challenge for implementing the mobile phone surveys at scale using Surveda is the requirement of mobile network connections. Contracting with mobile network operators can be labor intensive and time consuming. An alternative is to use the services of an aggregator, where it is easier to set up the channels although the cost may be higher. International partners are welcomed. This project is sustainable given that capacity building and setting up infrastructure for future use are priorities of the project. The in-country partners are trained in using Surveda, so that they are able to field the surveys with minimal assistance if needed. For countries that have conducted a mobile phone survey using Surveda, the infrastructure and capacity would exist to replicate the survey on any other topic. Zambia, Philippines, Morocco, Malawi, Sri Lanka, and Ecuador have all conducted the Non-communicable Diseases Mobile Phone Survey, as a component of the Bloomberg Philanthropies Data for Health Initiative.
The Coronavirus (COVID-19) Response – ICT Case Repository

Clinical Telemonitoring Center for COVID-19
Federal University of Pernambuco
Government, Brazil

https://www.ufpe.br
http://www.nutes.ufpe.br/coronavirus

This project promotes communication between the general population, which depends on the Brazilian Unified System of Health (SUS), and healthcare professionals and students engaged to help the community to face the pandemic of Covid-19. We deployed a telehealth solution named “Clinical Telemonitoring Center” to provide integrated digital health services to facilitate the tracking of cases and guides patients and the population to face COVID-19, impacting early contingency measures (reducing transmission risks, faster isolation precautions, indicating hospitalization in suspected cases), management of suspected and confirmed cases and prevention in SUS. This is a humanitarian action to help those who need it most: people with no access to healthcare providers, who can’t afford medical care, or live in cities with high demographic density or high vulnerability (sites with high spread of coronavirus) or who need specialized consultation (psychiatry, pneumology, geriatrics, etc.) to ensure continuity of care. This project also provides an alternative to healthcare workers in high-risk groups to continue their activities remotely, and to the overloaded and high cost phone-based solutions provided by governments with long waiting lines.

BENEFICIARIES

People who depend on the Brazilian Unified System of Health (SUS) are our primary beneficiaries by Tele-orientation, teleconsultation, and Remote Patient Monitoring. Increasing the population’s access to health services in primary and specialized care, providing a rapid response system and improving medical care in SUS. At the same time, we seek to support health professionals and students in prevention, diagnosis and therapy, supporting the management and conduct of suspected or confirmed cases in order to qualify the referral of the patient, to improve the cost-effectiveness and the quality of care through telehealth and telemedicine.

ICT TOOLS

We provide a responsive hot site (for web and mobile devices) integrated with applications accessed through a single user registration.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The biggest challenge is to reach the largest number of people, especially those at risk and who can’t rapidly reach healthcare facilities. This challenge is being overcome by intensifying the publicity of the project through several channels (social media - Facebook, Instagram, website, open media - TV, supporter and partner sites - UFPE, Ministry of Education, Ministry of Health, Hospital Clinics, etc.), and mainly based on our user’s experience (word-of-mouth). The second is to incorporate these new digital practices into the routine of health professionals. Awareness and training are being used to overcome this challenge. This project is organizationally and financially sustainable, since telehealth has already proved to be viable and an important instrument to complement face-to-face healthcare. Partnerships and financial support in the public and private sectors are viable alternatives, due to the scalability of the solution, and recognition of the cost-benefit ratio of digital practices. In addition, our institution is a recognized and solid public university in Brazil, with 73 years of commitment to society, the environment and the country’s economy. Our technological strategy can be easily adopted and translate to other languages. However, Internet access must be available, teleconsulting specialist team is according to availability, ethical and regulatory aspects need to be considered, and telecommunications fee can be applied.

WSIS Action Lines

Sustainable Development Goals

WSIS Stocktaking Platform www.wsis.org/stocktaking
Earlyone has released a new solution to battle the outcomes of the coronavirus outbreak. Besides, Earlyone has improved the existing solution by offering a new feature to its users - QR check-in that allows contactless activation of virtual tickets created with Earlyone app.

**BENEFICIARIES**

Earlyone’s primary beneficiaries are those institutions that have a limit on the capacity of customers that their premises can sustain at a certain time period. The solution will help those institutions to (1) Control entry to premises to limit the number of customers allowed in (2) Limit opportunities for COVID-19 to spread by eliminating crowding outside (3) Minimise waiting time of shoppers by scheduling their entry time beforehand

**ICT TOOLS**

Earlyone has released a new solution to battle the outcomes of the coronavirus outbreak. Besides, Earlyone has improved the existing solution by offering a new feature to its users - QR check-in that allows contactless activation of virtual tickets created with Earlyone app.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Due to the COVID-19 outbreak, many Governments around the world are putting restrictions and limits on the number of people that can gather in one place, such as supermarkets, shops, pharmacies or public facilities. Retail Queue Management Solution is designed to help retailers control entry to store letting in only allowed number of shoppers and prevent crowding outside the premises. We are open to new partnerships all around the world as our solution can be implemented anywhere. This project can be replicated to meet the needs of an institution that has unusual type of customer flows. This needs to be discussed.
Genecoin e-health
Genecoin
Private Sector, Brazil

https://genecoin.co
https://www.genecoin.co/covid19

Genecoin is a tech startup developing blockchain based solutions to maximize social and environmental sustainability of biodiversity supply chains. As response to the pandemic, we adapted our biodiversity projects so we could further develop them virtually and we created an e-health project to help fight the disease. For the e-health project, we have partnered with the biotech startup Bio Bureau, who is developing technology for massive COVID-19 testing, and the Brazilian research center in telecommunication, CPqD. The goal of the partnership is to develop a blockchain application to safely store COVID-19 test results, guaranteeing both confidence in the information for all stakeholders and ownership and privacy for the patients. We foresee that the platform could later be used as an immunity passport, allowing people return from isolation without endangering others and enabling the resume of some social and economic activities that would benefit all.

**BENEFICIARIES**

We see the main beneficiary as the individuals tested who gain control over their data. Other relevant beneficiaries are services and industries that need to resume activities, while guaranteeing the safety of their employees and society. The project has been sponsored by the Brazilian government with financial contribution of industries.

**ICT TOOLS**

The main tool being used is blockchain technology. We are leveraging it to safely store COVID-19 test results and empower the user (civil society) with control over their data. They are able to share their own data with government authorities in a transparent but private way (anonymized) or even monetize it by giving access to the private sector, if that’s their wish.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenges are the availability of massive testing solutions, stakeholder engagement and funding. To be able to safely store data in the blockchain, we first need test results and there is still no massive test solution available in Brazil. Get all stakeholders to agree on the most relevant features for the product has been a challenge as well. Securing funding to allow for the complete development of the solution is also a challenge. We are looking both for more laboratories engaged in massive COVID-19 testing that are interested in empowering the tested individuals and for stakeholders interested in integrating such platform with user facing applications for different economic industries that could benefit from massive test data, such as tourism sector for example. On financial sustainability: we understand that the users’ data is valuable to different stakeholders that are willing to pay for it. The platform provides a channel for users to monetize their data and retains a fee in case they decide to do it. The blockchain platform could be used on the background to support different user facing applications, with different regional reach and characteristics.
IFLA and its professional units have relied on digital tools and platforms to facilitate professional communication during the pandemic – and help build the global library field’s capacity to respond. A series of scheduled annual meetings by different IFLA Units were shifted online, addressing, inter alia, ways to adapt the Units’ goals and working plans to the pandemic. Crucially, this allowed the Units to engage members who would not attend otherwise (e.g. due to financial or logistics constraints) – the Asia and Oceania Committee online meeting, for example, reported a record high attendance. Second is the use of ICT to develop relevant online offerings to build library response capacity. These include webinars on relevant topics – e.g. information literacy and addressing digital health inequalities in times of COVID. The Document Delivery and Resource Sharing Section launched a web-based platform for interlibrary resource sharing during the pandemic. Finally, IFLA and other actors in the library field relied on ICT to mobilise an exchange of experiences with libraries’ response to the pandemic and supporting their communities. A wide number of library pandemic responses rely on ICT - from expanding access to online materials, organising online community events, to expanding library public internet access offers, and beyond.

BENEFICIARIES

The primary beneficiaries of these activities are members of the global library sector. For some, the digital transformation opened more channels and opportunities to participate in dialogues, exchanges of experience and collaborations. The sector itself of course stands to benefit from this wider pool of engaged participants, from their experiences and insights. Other members of the sector benefitted from the shift to digital because they could access more digital offers and services – webinars, tools, knowledge databases, etc. Naturally, many of these professional communications and initiatives have a strong focus on adapting, maintaining or improving library services and offers to their patrons and communities. As such, libraries’ communities and patrons are often the key target beneficiaries.

ICT TOOLS

To mobilise professional communication, IFLA relied on online conferencing tools and other web platforms, as well as social media.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

To mobilise professional communication, IFLA relied on online conferencing tools and other web platforms, as well as social media. While not novel in itself, the use of these platforms – particularly video conferencing – was made easier by software and connectivity improvements over the last few years, and the build-up of members’ experience with these tools, especially in those regions most in need of capacity building support. The fairly routine use of many of these platforms pre-pandemic allowed many members to quickly adapt and shift to all-digital communication, which helped deliver an urgent joint response from regional and international groups. This transformation allowed for increased participation across members and facilitated cooperation (e.g. with collaborative productivity tools or file transfers, easing the tasks of minutes and records-keeping), adding value to their meetings; as well as encouraged a full focus on development of new digital offers and resources. Broadly speaking, there is of course scope for collaboration with representatives from other areas – either as subject-matter experts (e.g. for preparing joint webinars or other materials – for example, with health, digital inclusion or information literacy experts), or as implementation partners. For instance, there are examples of collaborations between library and publishing sectors to enable broader remote access to digital materials; or with other organisations and agencies working to help bridge the digital divide during the pandemic and beyond.
In order to tackle the difficulties faced by The Gambian citizens while observing social distancing, Finding Gambia, an initiative founded to provide addresses for every Gambian – in collaboration with Gambia Task Force on Plus Code Addressing System – launched a program that would allowed Gambians to find their generate address using google plus codes (which is also their exact addresses) anywhere they are in the country. The initiative provided training for the Centre for disease control and the Ministry of Health COVID-19 emergency team in plus code generation to help locate callers who suspect signs of the virus and need urgent medical attention. We trained volunteers from the ministry of youth using the technology to help them on contact and provision of essential goods for the populations and help ensure social distancing.

**BENEFICIARIES**

Ministry of Health of The Gambia, Pharmacies, Delivery Companies

**ICT TOOLS**

We use Google, Google Plus, and Google Maps.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

During the corona virus outbreak, The Gambia, just like other nations across the globe is observing the guidelines recommended by the World Health Organization (WHO) and one of these is the observation of social distancing. Citizens were highly recommended to stay at home, regularly wash their hands and avoid large gatherings. Yet still, people needed essential items like food and medicines.

A part from with Gambia Task Force, we also partnered with the UNDP, Ministry of Youth and EU’s Youth Empowerment Office in Gambia and provided training for pharmacies and delivery companies to ensure that citizens stay home and still get their essential goods. We are looking for partners in the tech sectors.

So far, delivery companies have made an improvement of having to drive to a certain area and then make phone calls to ask for more direction to the precise location of the recipient to just getting the direct google plus codes of the recipient and receiving directions from the Google Maps application. Pharmacies now also make deliveries for their customers to stay at home and still receive the essential medicines they need. Hence, allowing Gambian citizens to stay home and observe social distancing, and still getting their essential goods from the comfort of their home.
During the quarantine outbreak in Kazakhstan, a state of emergency was declared and the government decided to prohibit movement across the borders of all villages, districts and regions. Farmers, whose farm fields can be located in several districts and even regions, encountered difficulties in sowing and field work due to difficulties in obtaining paper passes, which put Kazakhstan’s food security at risk. Therefore, it was necessary to implement the solution as quickly as possible so that the sowing took place at the right time.

AgroRuqsat is a free online service designed to address the issues of providing transportation permits for farmers and their suppliers in quarantine zones by remotely receiving applications for electronic passes, processing these applications, and maintaining a register of electronic passes. To obtain an electronic pass, you do not need to physically contact government agencies, fill out a lot of papers and collect stamps. The pass is free and valid for the entire period of emergency and quarantine. Within a few minutes to one business day, the applicant receives an electronic document granting the right to cross the roadblocks to proceed to their land plots.

The transparency of the service helped solve the problem with fake passes and minimize the risks of the spread of the virus. Data is automatically uploaded to the “Sergek” system installed at checkpoints and made available to all police officers. In addition, upon receipt of a pass, an automatic check is carried out on state databases, which excludes the receipt of passes by those who are not involved in spring field work and ensures compliance with quarantine measures. During the first week, all regions joined the Service, including the capital and cities of republican significance.

**BENEFICIARIES**
Farmers affected by the COVID-19 outbreak.

**ICT TOOLS**
Web technology and integration with government databases are one of the main foundations of the work of the AgroRuqsat electronic pass issuing service, which is based on the Qoldau.kz digital platform, where about 200 thousand users (over 90%) of agricultural enterprises, farms and farms of Kazakhstan are located. Innovation speeds up the process of issuing passes. The AgroRuqsat electronic pass mechanism allows you to speed up the process of transport and farmers crossing the boundaries of quarantine zones. To apply for a pass, you must register on the website www.qoldau.kz and login into your personal account, where the user identifies himself with digital identification key. In addition, the electronic pass of the citizen and the vehicle is equipped with an individual QR code. The pass can be printed or photographed on the phone so that it is easier to pass identification outside the checkpoints.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**
One of the main difficulties in the implementation of the project was a tight timing. A sudden outbreak of the virus required an accelerated decision-making and implementation of the service. For three days, the specialists of the Information and Accounting Center did a lot of work: from negotiations to methodological, legal, technical support and integration with several databases. In case of any errors or system failures, it is necessary to eliminate defects as quickly as possible so as not to interrupt the service, and thereby allow farmers to complete their field work on time. In addition, the digitalization level of the agricultural sector in some regions of the country is much lower. The service automatically accepts and processes applications, checks against databases, but is not fully automated. The speed of issuance of a pass depends on how quickly employees of local executive bodies work out applications.
The Coronavirus (COVID-19) Response – ICT Case Repository

African Digital Schools Initiative (ADSI)
Global E-Schools and Communities Initiatives-GESCI
International Organization, Kenya


BENEFICIARIES

In conjunction with Ministries of Education and local education authorities in countries across Africa, GESCI’s African Digital Schools Initiative (ADSI) is currently emphasizing aspects of implementation which also address immediate needs in the context of the COVID virus. These features are currently enabling: Secondary school teachers to develop skills in designing and developing both ICT-based exemplary lesson plans and curricular materials for their learners. Their work is shared on a peer to peer basis through our community of practice platform; Teacher Professional Development is equipping teachers with more skills to device and practice new digitally-driven pedagogies ways to make both teaching and learning more flexible and with reduced time constraints. Teachers acquire the professional skills to prepare exemplary ICT-based lesson plans and develop learning resources for online/offline access by their learners; Learners to continue their studies through our online learning resources platform which provides access to subject-specific resources; School management and local education boards to implement a structured and incremental roadmap for whole school ICT development; Ministries to monitor and assess these developments at first hand as possible pointers to new and more flexible approaches to teaching and learning which are increasingly being facilitated by the availability of new and cheaper digital technologies.

ICT TOOLS

The teachers and students GESCI is reaching out are using mobile phones, laptops, tablets and Internet connectivity to access material provided on Open Educational Resources platforms. This has completely shifted focus on face to face learning as more teachers are now creating content and delivering it to learners through Facebook Live, YouTube live or recording videos and sharing via websites they have developed. This addresses GESCI’s key focus on transforming secondary schools into digital schools of distinction through integration of ICTs in teaching and learning.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Given that many teachers and students are now in remote areas of their respective countries, they have limited access to the Internet and digital devices. As a result, not all can access the resources. GESCI has reached out to other educational partners to curate content and package in compact discs, MP3 and MP4 files which can be aired on national radio or Television. The two mediums are easy to access and in doing that, we also reach out to all learners. A new partnership has developed with subject - cluster teachers in skills development for quality lesson planning and learning resource development. Enhanced relationships with partners and donors through the pursuit of a shared mission to contribute to learners in a time of crisis while maintaining longer term programme objectives. Currently, the project is being implemented in Côte d’Ivoire, Kenya and Tanzania. The project, with all its platforms, frameworks and support, is easily contextualized for any country to implement successfully.

WSIS Action Lines

Sustainable Development Goals

WSIS Stocktaking Platform   www.wsis.org/stocktaking
The Coronavirus (COVID-19) Response – ICT Case Repository

Contactless Camera Enabled Infrared Thermal Scanner
Birla Vishwakarma Mahavidhyalaya
Academia, India

http://www.bvmengineering.ac.in

The contactless infrared thermal scanner is a prototype which is able to scan the body temperature of a person and click its picture as well. With the infrared sensor it will be able to identify the body temperature of a person and as the device is camera enabled the image of a person is captured with temperature annotated. Now here the images will be taken with the temperature recorded and will be sent to the servers and so that it will be easier to identify the people who’ve had high temperature. As in right now because of Covid-19 to stop further prevention the people who have high temperature are needed to be tracked down and with the images which they already have it will be easy for the government to track down these people.

BENEFICIARIES

The thermal scanners available right now costs around 7k to 8k Rupees but the overall cost of making this device(prototype) is around 3000/- and once it is converted into mass production (making it as a full scale device) it can cost around 1500/-, this will be very cheap and efficient for the government along with supporting the #makeinIndia movement.

ICT TOOLS

The prototype consists of a Raspberry Pi, MLX96014- Thermal Scanner, 7-inch LCD display and a camera to click the image- RasPi Camera. As the hardware is set up, the device runs on Linux OS by running the program that has been developed the camera will be enabled and the temperature sensor as well. The sensor here takes a continuous data and it will be able to show the body temperature annotated on the screen. As the camera is enabled the person will be able to see it’s face on the 7-inch LCD display screen along with the temperature annotated at the bottom of the display. As the person’s face is kept near to the temperature sensor the body temperature will be displayed. Now the picture has to be clicked and that picture will consist of the person’s face and her/his body temperature. This picture will be sent to the server database.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Right now, the only option to track the coronavirus patients is to find out with whom they have been in contact where did they go but it becomes quite difficult when tracking down that person. Once the picture is clicked and if that person has high temperature, it will be easier for the government authority to track down that person as they have its photograph and the person’s body temperature as well. I am looking for international organizations working in the field of ICT and Education to support my innovation. This prototype is a light weight and very durable and sustainable device. It works on normal power supply/ battery so it can be easily. Also further converting into device it can be made using 3-D printed device.

WSIS Action Lines

Sustainable Development Goals
To promote seafarer well-being Inmarsat has formalised a 50% discount for crew voice calling services for three months until the end of June. It is also ensuring that calls made to the SeafarerHelp service provided by welfare organisation ISWAN (International Seafarers’ Welfare Assistance Network) are available free of charge over the same period. The discount is available day and night to customers using FleetBroadband voice services. Steps are also being taken to accelerate the launch of ChatCard services for Fleet Xpress, with an introductory discount. Inmarsat’s Fleet Xpress retail users will also be able to benefit immediately from the launch of a free of charge COVID-19 video call service with a trained health professional, especially developed in conjunction with crew health management solutions provider Vikand and software platform provider FrontM to help shipping cope with the impact of the crisis. This is a pro bono service over dedicated bandwidth that allows the Master or Chief Officer to connect by video call to a trained health professional from Vikand. This is not a clinical care or emergency service, but it is a vital information resource to help crew at a difficult time for everyone.

**BENEFICIARIES**

Crew of seafaring vessels and their families, who are able to stay in touch with each other and access important medical information.

**ICT TOOLS**

Mobile satellite services are being used to provide voice connectivity to seafarers far away from any terrestrial connectivity. Satellite broadband solutions are enabling seafarers to use video conferencing technology to get important health information.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Seafaring crew spend long periods away from shore-based loved ones and medical services. This can affect their mental and physical health, as well as that of their families. Making connectivity more accessible to them during these critical times can be of great assistance in relieving these stresses. Inmarsat is working closely with international aid organisations and its business partners to deliver this programme.
The Coronavirus (COVID-19) Response – ICT Case Repository

COVID-19 Response in Burkina Faso and Cambodia
Save the Children US
International Organization, United States of America
https://www.savethechildren.org

In Cambodia and Burkina Faso, through the USAID Breakthrough-ACTION project, and in partnership with each country’s Ministry of Health, Save the Children, and Viamo have coordinated communication campaigns using Viamo’s 3-2-1 Service to quickly disseminate essential information related to COVID-19 nationwide, for free. In Burkina Faso, Save the Children and Viamo developed twenty key messages, including those addressing local misconceptions, a COVID-19 knowledge quiz, and a remote training curriculum for community health workers. The content was validated by the Ministry of Health, recorded in five languages (Moore, Dioula, Fulfulde, Gulmancema and French), and made available to anyone with a mobile phone, simply by calling ‘321’. From March 26th to May 20th, approximately 15,000 unique callers listened to 120,000 key messages on the Service in Burkina Faso. In Cambodia, Save the Children and Viamo developed ten messages to promote understanding, prevention, and treatment of the diseases as well as an interactive audio game to test COVID-19 knowledge.

BENEFICIARIES

The primary beneficiaries of these projects are the people who lack reliable access to information which is important to improving their livelihoods and well-being, due to illiteracy, geographical obstacles, poor Internet connectivity, the high cost of smartphones and computers, gender barriers, etc. and/or those who cannot be reached via traditional communication channels (TV, film, Internet, newspapers and radio). When the global COVID-19 pandemic hit, Viamo acted quickly to add messages, based on WHO messages, on all of their 3-2-1 Services. As of May 20th, more than 5.7 million listeners have listened to over 15.8 million key messages related to COVID-19 (updated impact statistics: https://viamo.io/covid-19-response/).

ICT TOOLS

Partnering with Viamo, Save the Children is focusing on access to evidence-based information via basic mobile phones. Through even the most simple mobile phones, users can access the 3-2-1 Service. By adding COVID-19 information to the Service, callers can easily find the specific information they need at the time when they need it, in a language they understand. The Service is currently available to 200 million mobile subscribers in 18 countries worldwide.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The main challenge is to develop and validate content even while scientific knowledge about the virus continues to evolve, and ensure that the content is comprehensible for lower-literacy people who have little access to other sources of trustworthy information. This challenge can be overcome by continuously adding and adapting content, which we are well-positioned to do through this partnership with the MOH and Viamo. Both Viamo and Save the Children are always looking for partners to expand our work. All content experts are able to partner with Viamo to develop content, either related to COVID-19 or any other relevant theme or topic; for the 3-2-1 Service in any of its 18 operating countries (Afghanistan, Botswana, Burkina Faso, Cambodia, the DRC, Ghana, Indonesia, Madagascar, Malawi, Mali, Mozambique, Nepal, Niger, Nigeria, Rwanda, Tanzania, Uganda and Zambia). This project is sustainable. The 3-2-1 Service was launched nine years ago in Madagascar and has been replicated in 17 other countries since, with all of them still running successfully. The unique value-add of the 3-2-1 Service is that it is free to the user. For the current partnership, the project is focused on COVID-19 information, but the team has experience developing behavior change campaigns across a wide spectrum of topics, so could replicate the project within its footprint of 120 countries either to address the COVID-19 outbreak or other topics.
Inmarsat supports aid and NGO sector during Covid-19 crisis
Inmarsat
Private Sector, United Kingdom

Inmarsat is providing further enhanced support to the vital aid and NGO sector during the Covid-19 pandemic, ensuring emergency responders can continue delivering critical aid and relief. Inmarsat's Broadband Global Area Network (BGAN) and IsatPhone 2 services are crucial connectivity tools for land-based organisations, especially for aid agencies and NGOs. The new initiatives include enabling Inmarsat's BGAN Link plan for usage globally. This means that the normally static, geo-specific service can offer organisations the capability to operate cost-effectively and without complexity within a wider geographic range as they carry out their vital operations. Inmarsat will also offer its BGAN Pro Plan, with a new discount of 50% on the cost of any data usage over the monthly allowance. To support IsatPhone 2 pre-paid users, Inmarsat introduced an emergency voucher including 50% more airtime allowance and a longer validity period for users. Additionally for the IsatPhone 2 GSPS Standard plan, a 50% discount on calls over the monthly limit will be applied. These new initiatives will ensure aid and NGO organisations have access to the connectivity they need to do their job, wherever they are.

BENEFICIARIES
Aid and NGO organisations involved in relief efforts related to pandemic, natural disaster, or other humanitarian operations. Making Inmarsat's satellite communications services more accessible will allow the humanitarian community to continue safely coordinating emergency relief operations, saving lives and helping to rebuild communities.

ICT TOOLS
Mobile satellite service handsets and broadband terminals enable reliable connectivity to ensure that relief actions are informed and make the maximum impact.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY
Covid-19 is affecting the operation of aid and NGO organisations, and the need for reliable connectivity, in a variety of ways. Many are at the forefront of the medical response, supporting health services through telemedicine in remote or developing areas. Elsewhere, the impact of the disease has caused many other issues to the wider economy and people's day-to-day lives, which are also being addressed through the work of NGOs, such as distributing food and other resources. Covid-19 is also adding increasing complexity to the daily operations for aid and NGO organisations as they respond to unrelated crises, such as natural disasters or humanitarian events, causing remote connectivity to be more critical than ever. Effective emergency response depends upon reliable connectivity. Ensuring accessibility of reliable and robust communications technology can help these organisations perform their critical missions and coordinate amongst themselves and with local governments to create the greatest positive impact for affected populations. Inmarsat works closely with aid and NGO partners, including through collaboration with the ITU, as a signatory of the United Nations Crisis Connectivity Charter, and its longstanding support of front-line response organisations like Télécoms Sans Frontières.
Save the Children Rwanda is working to ensure that girls and boys (with or without disabilities) are safe in their homes and are able to exercise their rights to learn, survive and be protected. As a key part of that effort, Save the Children has teamed with GeoPoll to use that company’s software platform to conduct a 2-way SMS survey of adults caring for children in Rwanda. The goal of the survey is to establish the extent of caretakers’ support for their children’s learning and well-being while schools are closed due to the pandemic in order to respond with appropriate services and interventions.

**BENEFICIARIES**

The primary beneficiaries of this data will be Rwandan children, ages 0 to 12, who have been displaced from school due to the COVID-19 outbreak, along with their families, schools, community-based child services organizations and the Ministry of Education. The survey will allow Save the Children, community-based organizations and the Rwandan government to identify the difficulties that caretakers face when caring for children in their homes during the day and to address any resulting child welfare issues by tailoring services to meet those needs.

**ICT TOOLS**

Save the Children teamed up with GeoPoll, a developer of innovative mobile data collection to conduct remote surveys of adult caretakers on the welfare of children at home due to lockdowns. GeoPoll specializes in difficult-to-reach populations that often can only be reached via mobile due to safety, transportation or other issues. GeoPoll has pre-existing partnerships with the mobile network operators in Rwanda and was able to quickly collect data from 500 households using 2-way SMS surveys following a script designed by Save the Children technical experts. GeoPoll surveys are undertaken at no cost for respondents and offer an integrated technology that delivers phone credit incentives upon a survey’s completion. GeoPoll’s technology can be used without Internet access or smartphones, allowing access to an ever-growing population of individuals who only have a basic mobile phone. Surveys can be conducted in multiple languages and allow an interaction with respondents, which is collected and reported anonymously with adherence to data security and internationally-accepted research standards.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The message content must be carefully designed by the Save the Children project team. There can be challenges attaining the ideal number of completed surveys based on the eligibility requirements for respondents. Both GeoPoll and Save the Children are always looking for partners to expand our work. GeoPoll’s software and services can be used around the world to support the mobile data collection needs of both local and international NGOs by offering several ways to monitor, engage and inform priority populations both on- and off-line. Save the Children is always expanding its network of community-based and international partners both in Rwanda and across its 120-country footprint. The project is sustainable. The COVID-19 outbreak is not only making it clear that traditional face-to-face data collection activities are temporarily impossible, it is spurring NGOs and other entities to undergo a digital transformation of their data collection methods. The project is highly replicable. This type of rapid data collection can be undertaken in dozens of countries globally. For the current partnership, the surveying is focused on the care of students at home due to COVID-19, but the surveys could be designed to gather information about any topic and GeoPoll’s platform could also be used for sending messages to support those campaigns based on the data gathered.
The Coronavirus (COVID-19) Response – ICT Case Repository

Testing how much you are at risk by Live Corona Online Based Testing System
IUSOFT Technology
Private Sector, Bangladesh


With this software you can assess for yourself whether you are at risk of being infected with Covid-19 or Novel Coronavirus. It will be used to provide users with self-motivated information, future coronavirus data analysis, big data and artificial intelligence technology.

BENEFICIARIES
People who want to know whether they are at risk of being infected with the Novel Coronavirus.

ICT TOOLS
We use Big Data Analysis and Medical Research.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY
It will be used in data analysis, big data and artificial intelligence technologies. Our partner is ICT Division, Bangladesh. Please be aware that the results obtained from this software cannot be considered as health advice by an experienced doctor. The project can be implemented all over the world.
The main project is to create and put online courses in different areas which helped and still help the Rwandan population, students, employees and employers to keep learning while staying home.

**BENEFICIARIES**

Our primary beneficiaries are students, employees and employers who wish to keep their mind busy in learning online. The main benefit is to give be useful in this period and the main service are those course.

**ICT TOOLS**

We are using internet and applications that allow us to create course and social media to promote our courses and spread the information to the whole country.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

The main challenge is to get people who can help us to create courses and put them online. We would like to have some funds so that we may hire some people who can be in charge. We are looking for partners; we already created https://campus.jobinrwanda.org/ which is the platform where people can get courses we would like to get funds to empower that platform. This project is sustainable in terms of its importance to the Rwandan people. It is very important that people keep empowering themselves even they are not allowed to move. This project can be replicable in any other situation that demands people to stay or work at home, in a situation where people cannot be allowed to move.
Intelsat and Mindset Network NPC, an award-winning developer and distributor of educational materials in Africa, announced they have formally extended their partnership to ensure students, out-of-school youth, teachers, healthcare professionals and patients across Africa have access to high-quality and free educational television and online content. Intelsat has partnered with Mindset since the non-profit was founded in 2002, providing free access to satellite capacity and technology that allows Mindset to rapidly and efficiently broadcast and IP multicast its educational content to over 1,600 schools and 1,025 healthcare facilities across just South Africa. This partnership extension comes at a time when nearly 300 million students throughout Africa have been impacted by school closures and other learning disruptions due to the novel coronavirus (COVID-19), according to UNESCO. Mindset educational resources focus on topics such as COVID-19, HIV/AIDS, tuberculosis, Ebola, child survival, science, mathematics, information technology and English. In addition to the broadcast, and IP streaming and multicasting distribution that Intelsat assists with, Mindset also delivers its educational content through multimedia, DVDs and print materials and their newly launched App.

**BENEFICIARIES**

Thanks to the extension of this partnership students, out-of-school youth and teachers across Africa have access to high-quality and free educational television and online content. Since 2002 this partnership has benefited 1,600 schools and 1,025 healthcare facilities across just South Africa. Today, governments, departments of education, broadcasters and nongovernmental organizations across Sub-Saharan Africa within Intelsat’s satellite coverage area can downlink and redistribute Mindset’s Learn channel.

**ICT TOOLS**

As the foundational architects of satellite technology, Intelsat operates the world’s largest and most advanced satellite fleet and connectivity infrastructure. We apply our unparalleled expertise and the global scale of our network to connect people, businesses, and communities – no matter how difficult the challenge. With an integrated space-terrestrial network reaching 99% of the world’s populated areas, Intelsat is uniquely positioned to help communities and business digitally transform. In Africa alone, Intelsat technology has played an integral role in bringing critical information and education content, and in connecting people throughout the continent for decades. For this project, Mindset broadcasts their health and education channels to clinics and schools across Africa using capacity on Intelsat 17 at 66°E.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Distributing content and information across the African continent can be challenging because there are many communities in remote and rural areas that lack infrastructure and connectivity. The Intelsat-Mindset model makes it easier to overcome these content-distribution challenges and get important information in the hands of more people who need it. For this project, Intelsat has partnered with Mindset Network NPC, an award-winning developer and distributor of educational materials in Africa. Mindset is an independent, non-profit organization aimed at the personal, social and economic development of Africans by creating, sourcing and delivering educational materials through appropriate media to the primary and secondary education community, the health community and other underdeveloped and under-resourced communities where development can be achieved through education. This project has endured for 18 years, and we anticipate sustaining it for years to come. Intelsat’s network covers 99% of the world’s populated areas – even those in remote and hard-to-reach places.
The Coronavirus (COVID-19) Response – ICT Case Repository

Senior Management Connectivity
Ministry of Foreign Affairs
International Organization, Liberia


The Division of Information & Communications Technology (ICT) through this project has connected all senior staff or senior management phones and personal laptops/tables/iPad to the internet to enable them have access to information or updates from stakeholders to promptly respond to the COVID-19 outbreak. This connectivity have allow senior management to create what’sup groups, virtual meetings via zoom among other social groups for information sharing which is presently helping stakeholders to adequately contain the spread of the virus.

BENEFICIARIES

All Ministers Deputy Ministers, Assistant Ministers, Directors and Essential staffs are beneficiaries and their primary services is to receive and share information on COVID - 19.

ICT TOOLS

The Division is using Cisco Routers, Switches, Wireless Controller, Uninterruptible Power supply, zoom software, internet protocol (IP) addresses, Polycom virtual equipment for communications.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Finance is one of the main challenges and this can be overcome when the Division of ICT is empower financially. The Ministry of Foreign Affairs needs partners especially in the area of Information & Communications Technology (ICT). As it stands, the Ministry’s network infrastructures need equipment to replace the old or damaged ones. This project is sustainable. This is because the Division of ICT has competent and professional technicians who are capable to have this project running until the deadline. This project is only focused on the COVID-19 pandemic
Cybersecurity Awareness and Development in Responding to the COVID-19 and Continuous Capacity Building for the post Movement Control Order (MCO)
CyberSecurity Malaysia
Government, Malaysia

https://cyberguru.my/web/guest/online-training

CyberSecurity Malaysia has constantly prepared materials related to cybersecurity awareness and development, to assist the community in responding to the COVID-19 ensuring the impactful use of the WSIS Action Lines in advancing SDGs. These materials are categorised as Infomedia, Webinars and Online Training programs, released to the public at least once per week.

BENEFICIARIES

Beneficiaries are the Malaysian general public, Malaysian government, Cybersecurity Training developers, Cybersecurity training providers and trainers, Working adults, Students, Women, and Others.

ICT TOOLS

We use Social Media, Government channel, Online training platform, Radio, Television and printed publication materials.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Community practices in responding to the message calls are part of the challenges we face. We are ensuring our sustainability through the online training and some sessions of paid webinars. Materials delivered are general for the cybersecurity sector. Is very applicable to the WSIS stakeholders. CyberSecurity Malaysia is more than happy to replicate this information to others within the WSIS social sphere.

WSIS Action Lines
Sustainable Development Goals
The Coronavirus (COVID-19) Response – ICT Case Repository

Closer than ever
Association for Progressive Communications (APC)
Civil Society, South Africa

https://www.apc.org & https://www.apc.org/closerthanever

‘Closer than ever’ is APC’s collective response to C19 - about tools, human and community support, research and policy advocacy, collectively building our network’s capacity to connect and share during this pandemic, and to prepare for the future. Highlights: • A guide for social change organisations wanting to work online with recommendations on the human aspects, tools, processes and support, based on APC’s 30 years of experience. • Resources and solutions from our community supporting human rights online in response to the pandemic, from a community, care and decentralized perspective. • Policy positions and recommendations

BENEFICIARIES
APC members, partners (women’s rights and sexual rights groups, LGBTQI activists, civil society organisations working in human and digital rights), community network peers and the communities they work with.

ICT TOOLS
FOSS tools for online working with safety and security. A suite of tools and guides in the ‘Closer than ever: working online’ guide. Knowledge-sharing platform – based on ‘Discourse’ responding to our network needs to discuss responses to the pandemic, particularly contact tracing, mis-information, increasing gender-based violence and secure solutions for online meetings and collaboration. Sharing infrastructure – matching up those who have capacity to provide critical infrastructure services (such as web hosting, Mattermost, NextCloud, pad and Jit.si) to those who need these services. The system will facilitate ‘matching’ offers and needs among members and partners. Online meeting platforms – working with partners to implement ‘BigBlueButton’ as our network’s video conferencing solution that can be locally hosted and shared with members’ and partners. Re-imagining face to face meetings – ideas for how virtual meetings can be conceptualised and implemented in ways that increase participation in meaningful caring ways, and don’t exacerbate digital exclusion. Webinars: What does 5G mean for global connectivity efforts? In the midst of the COVID-19 crisis, the importance of basic connectivity in staying informed and reaching marginalized communities has been a focal point for those working in community networks and on the issue of universal connectivity.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY
Changed work and life environment. The threat, uncertainty and fear have resurfaced trauma, wariness and anxiety. Diversity of contexts with members and partners in 80 or more countries. Universality of affordable and quality health care, education, connectivity, clean water, food, etc., vary enormously. Levels or severity of lock-down, increasing gender-based violence, oppression of people’s speech and movement, monitoring and surveillance. Navigating decision making and policy processes in new virtual configurations being adopted. Guides: We welcome offers to assist with translation, develop case studies, and provide contextualisation of the guide for regional specificities. Hosting services: We are interested to hear from organisations who can make some of their ICT infrastructure, including data, available to those who need. Testing of applications (BBB): We are interested in hearing from organisations who are committed to development and hosting of the Big Blue Button video-conferencing software. Policy advocacy: We are interested to work with organisations thinking about navigating decision making and policy processes in the new virtual configurations being adopted and developing new ways of engagement. Many of the tools suites and guides can be easily replicated and improved through creative commons licensing. Sharing infrastructure and data to those who need is also replicable.
The Coronavirus (COVID-19) Response – ICT Case Repository

Hellas Sat
Private Sector, Cyprus
https://www.hellas-sat.net

Hellas Sat has partnered with Africom Holdings to assist the efforts of the Government of the Republic of Zimbabwe in the fight against the spread of COVID-19. Hellas Sat is providing free unlimited broadband connectivity to 127 public clinics and hospitals across the country. The deployment was undertaken by Africom Holdings which resuscitated connectivity to infrastructure that was initially set up in 2016 at various clinics and hospitals but due to challenges in accessing adequate foreign currency to pay monthly rentals the sites have been idle.

BENEFICIARIES

Thanks to this partnership, 127 public clinics and hospitals around the country are benefitting from broadband connectivity. This collaboration has also allowed Africom Holdings to resuscitate connectivity to infrastructure that was initially set up in 2016 at various clinics and hospitals but due to challenges in accessing adequate foreign currency to pay monthly rentals the sites have been idle.

ICT TOOLS

The connectivity service is provided through satellite (Hellas Sat 3 satellite @39°E). The satellite broadband gateway that used is installed and operated in HELLAS SAT Teleport facility in Cyprus. At the remote sites (hospitals and clinics) a satellite modem and small VSAT antenna is installed for the reception and transmission of the internet broadband traffic. The network is operating in star network topology. At the remote sites (hospitals, clinics), telephony and Information Gathering tools are interconnected to the satellite modem for the use of the broadband service provided. Information gathering provides faster times in collecting data and moving it to policy makers. Telephony aids faster coordination and lowers communication cost.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Key challenges were the set up of the modem/remote terminals and interconnection of the ICT tools at the hospital and clinics, during the lock-down. Local technical personnel undertook this task successfully. Another challenge is the funding of such project. The requirement and need for such service is a fact, and it is a service that it is greatly required. The health communities in these remote areas of Africa rely on institutional funding like UNPD and World bank and other funding to financially support these must-have services. For this project Hellas Sat has partnered with Africom Holdings, a leading converged communication service provider. A licensed telecommunications operator, Africom is the first company in Zimbabwe to challenge all convention by offering converged communication solutions. With all other telecommunications operators offering traditional products, Africom is the first company to integrate data, voice and video over broadband as well mobility into a single solution. The gains and benefits offered by this project and its impact on the operations of the hospitals and clinics is a great mean for its sustainability. Equipment needed for the provision of the service are already in place and available. The benefits for using them in combination with satellite broadband will eventually create the required resources financially for the continuation of the project. The project that includes the provision of broadband connectivity over satellite as well as the integration of ICT for the provision of services to Hospitals and clinics can be replicated and implemented also to other countries with low penetration of terrestrial connectivity.

WSIS Action Lines

Sustainable Development Goals

WSIS Stocktaking Platform www.wsis.org/stocktaking
The project continues to help a learner and those who help a learner to learn and understand elementary and secondary school mathematics without a classroom.

**BENEFICIARIES**

The website helps anyone “… to help a 7 year old to add whole numbers”. Be they classmates, parents of, teacher of, school content coordinator, reference librarian, materials developer, and others.

**ICT TOOLS**

A simplified user interface is used. Information is displayed in a "calendar style" format with over a 1,000 "months" of links to elementary and secondary school mathematics resources.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

To improve global understanding of mathematics. This is being achieved by providing an age appropriate information searching resource.
The project is launched to provide support to design and implement EDUCATION CONTINUITY PLANS to face the challenges of wide-scale remote learning using ICT Tools.

**BENEFICIARIES**

Ministries of Education, Ministries of ICT, Telecom Operators, Students and Teachers

**ICT TOOLS**

Devices, Platforms, Connectivity, Management Tools

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

One of the challenges is coordination between stakeholders. Our partners are Telecom Operators, Ministries responsible of ICT and Education. 1. The Sustainability of the project is assured by the participation of telecom operators and the integration in their business models; 2. The Sustainable@EDU CONTINUITY PLAN are linked to a Sustainable@EDU MASTER PLAN. The development of Sustainable@EDU CONTINUITY PLANS are applicable to any country and are based in international frameworks created by the most relevant organizations.
The Coronavirus (COVID-19) Response – ICT Case Repository

WSIS Action Lines

Covid-19: Policy Briefings
World Wide Web Foundation
Civil Society, United States of America

http://www.webfoundation.org
https://webfoundation.org/research/covid-19-policy-briefings

The Web Foundation has produced a set of policy briefs in response to COVID-19 to ensure the web/the internet stays open and serves as a lifeline during this public emergency. The topics are misinformation, internet access, and data rights.

BENEFICIARIES
Governments, companies, and civil society

ICT TOOLS
We focused on ICT policies.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY
We focused our challenges around combating misinformation during this emergency, as well as internet access and affordability.
The Coronavirus (COVID-19) Response – ICT Case Repository

Educadigital Institute
Instituto Educadigital
Civil Society, Brazil

https://www.educadigital.org.br
https://www.educacaovigiada.org.br

I’d like to introduce you to our new project Education under Surveillance (https://aberta.org.br/mapping-surveillance-capitalism)

**BENEFICIARIES**

We’ve been trying to support educators and public managers to understand how it is important to promote data protection, specially related to kids and teens.

**ICT TOOLS**

Only open source: jitsi.meet, Big Blue Button, Mumble, Etherpad etc

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

We want to call attention to the lack of transparency and regulation in public-private relations in technological platforms and services, compromising users’ rights such as privacy and the protection of personal data. UNESCO Chair on Distance Education at Brasilia University and Federal University of Para are our partners. We got a first small grant from Derechos Digitales and now we are trying to amplify the geographical coverage to Latin America. We applied for some international funds and we are waiting for the return. We created a program (script) to access the e-mail server of educational institutions and know whether the servers are allocated to external addresses of companies, or under the control of the educational institutions themselves.
Tarassud Plus is an integrated platform having International Standards developed by highly qualified local SME. The monitoring platform enhances the Ministry of Health’s current monitoring system by diagnosing, following up, and tracking the medical condition of individuals infected with COVID-19, who are under quarantine, by using artificial intelligence technology and advanced tracking technologies. The platform consists of two main systems – the medical test program and the registration and follow-up system to check their medical condition on a daily basis. It also monitors the spread of the pandemic and sets priorities by using Artificial Intelligence technology to minimize the intervention of medical personnel in early quarantine stages.

**BENEFICIARIES**

Infected person and quarantined individuals through a medical algorithm that can analyze an individual’s condition through questions. It guides them whether to stay at home in quarantine, establishes/schedule communication with one of the specialized medical institutions, or refer them urgently to the nearest medical institution, if needed. The system is used during primary infection indicators by spotting only the cases that require medical care and directing them to medical institutions. So, it supports the overall medical system by minimizing and scheduling visits to medical institutions, focusing only on cases that need a medical examination.

**ICT TOOLS**

The authorities in charge of the app can identify the infected persons once they get near them. The system also allows the authorities concerned to automatically identify the quarantined person through face detection technology.

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

Our partners are Information Technology and Communications Group, eMushrif company, and Oman Broadband company. It comes as part of initiatives supervised by the State’s General Reserve Fund.
The Coronavirus (COVID-19) Response – ICT Case Repository

AITI Business Continuity Plan for COVID-19
The Authority for Info-communications and Technology Industry of Brunei Darussalam (AITI)
Government, Brunei Darussalam

https://www.aiti.gov.bn

It is a guideline for the preparation and prevention of COVID-19 in AITI that needs to be implemented according to the directions of the Prime Minister’s Office. It is also to assist the AITI Management in the business continuity planning in response to the COVID-19 outbreak.

BENEFICIARIES

AITI employees and relevant stakeholders such as customers, vendors, licensees, dealers and ICT businesses.

ICT TOOLS

Microsoft Teams, VPN and AITI Online Services.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

Internet connectivity for Customer Services front-liners when scheduled to Work from Home (WFH) to ensure business operations are uninterrupted for for licensees and dealers applications. The unit is provided with Internet Broadband for this purpose. Adequate supply of medical equipment for front-liners (e.g. thermometers, surgical masks and disinfectant). The relevant units had contacted various vendors to procure and secure the order as the stocks are very limited at the time. The Prime Minister’s Office had prepared a document on the Guideline for Business Continuity Plan on COVID-19 for Civil Service.
The Coronavirus (COVID-19) Response – ICT Case Repository

Business meets Technology
Women Economic and Leadership Transformation Initiative
Other, Nigeria

https://welti.org.ng

The Awesome entrepreneur applying Critical thinking (No.1 skill to sail through COVID-19 and the New future). This webinar series developed their minds, showed them technological start-up tools, etc.

BENEFICIARIES

Our beneficiaries are young women aged 14-30 who are tech business start-ups trying to find their feet to be entrepreneurs. We through this webinar series taught them to come up with disruptive tools.

ICT TOOLS

These were the tools we taught them how to use-GOOGLE MY BUSINESS

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY

The epileptic network was a major problem. Most of them needed monetary support to wade through the storm while trying to start or improve on their already existing tech. businesses. We are looking for partners who can help them to keep leveraging other tech tools that may be easier for navigation and venture capitalists who may want to fund these start-ups and support them. The project is sustainable because we’ve seen how far the women in the past have created jobs, and also increased their capacity, literacy and adoption of new technology into their businesses in the past.

WSIS Action Lines

Sustainable Development Goals

WSIS Stocktaking Platform www.wsis.org/stocktaking
Our core product, the Situational Awareness Builder (SAB), is based on the principle Fast Detection, Fast Action. During a 3-week sprint in March we have managed to optimise our technology for the fight against COVID-19.

**BENEFICIARIES**

We can integrate existing infrastructure and bundle it with our own and third party algorithms to make a building or several locations (smart cities) more intelligent.

**ICT TOOLS**

Our software is an Intelligent IoT platform enabling a sustainable and holistic business digitization. We bundle several use cases of complex infrastructures (video systems, access control, bms, etc.)

**CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY**

We overcome challenges by improving our technology and integrating algorithms to provide a tailor-made solution. The SAB is a scalable solution as additional use cases can be simply extended anytime.

We are able to support the client directly but in certain regions we need a local partner to support the installation. It is an extendable modular software platform. Any use case can be implemented to improve workflows, security, processes and provide business intelligence. The project is replicable. We are providing a software platform only. Local partners or clients are able to provide their own hardware.
The Coronavirus (COVID-19) Response – ICT Case Repository

Internet awareness and capacity building
RayZnews
Civil Society, Nepal (Republic of)

https://www.rayznews.com
https://learninternetgovernance.blogspot.com

Toolkit on Fact checking, Internet awareness and Capacity building program and Report on Data Breach and PRIVACY in Nepal During COVID19 by Shreedeep Rayamajhi

BENEFICIARIES
International Community, Grassroots community and Next generation leaders

ICT TOOLS
We used Zoom account for reaching out to youth and have used social media as a major part of our outreach and engagement. We are zero funded and the work that we have done is an example of the next generation leadership that we want to evolve from LEARNIG. Rayznews is an internet organization working towards bridging the gaps of internet awareness in Asia pacific and Learn Internet governance is a community collaboration concept where we have developed various toolkits and resources to facilitate the community.

CHALLENGES / PARTNERSHIP / SUSTAINABILITY / REPLICABILITY
The main challenges are resources like ZOOM, lack funds for domain hosting and management, transportation and communication. We are looking for funding opportunity as we lack funds we have recently designed our google beginners class for internet governance which we will be launching soon.

WSIS Action Lines
Sustainable Development Goals

WSIS Stocktaking Platform www.wsis.org/stocktaking
You are invited to continue submitting ICT projects and initiative until 31 July.


WSIS Stocktaking Platform  www.wsis.org/stocktaking