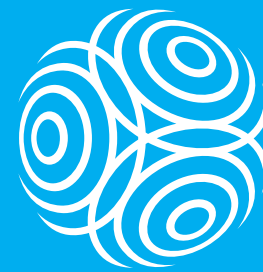




UN GLOBAL PULSE ANNUAL REPORT 2020



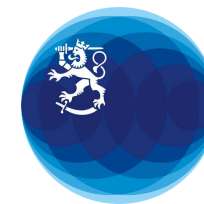


**GLOBAL
PULSE**

UN Global Pulse is funded entirely through voluntary contributions from UN Member States, foundations and private sector entities. For innovation and transformation to thrive it needs investment - particularly in people. Funding positions and personnel isn't as exciting as transformative technologies, but not doing so risks transformation being limited to rhetoric, hubris, and unused technologies and tools only. A sincere thank you to the donors - and people - who invested in our team.



Australian Government



Ministry for Foreign
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Federal Ministry
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**COVID-19 Solidarity
Response Fund - WHO**

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WHAT OUR PARTNERS SAY ABOUT US

"UNGP Jakarta is known for cutting edge research, expertise and credibility of the team. We also have a history of great collaboration."

Ryce Chanchai
Gender and Governance Specialist
UN Women Indonesia

"Working with UNGP Jakarta has been great. Their technical expertise and patience working with a rather complex bureaucratic hurdle helped us find reassurance on the pathways we choose to take in the programme."

Biondi Sanda Sima
Head of Implementation
Jabar Digital Service

"We can always rely on UNGP to provide impeccable research. The social media monitoring they generated have helped AIRA prioritize the countries to work in after detecting the volume and reach of misinformation."

AbdelHalim AbdAllah
Africa InfodemicResponse
Alliance Coordinator
WHO Regional Office for Africa

"We worked with UNGP Jakarta to develop a platform that now serves as IOM's data-driven baseline assessment tool for better emergency response programming."

Tjosy Sipasulta
CCCM/DTM-IM Coordinator
IOM

"UNGP Jakarta is a great initiative. Very 'non-UN' in that it's agile, innovative, forward looking and responding to country needs. It has helped with making better decisions by inspiring others about what to do and how to do it outside of the rigid 'UN programmatic approaches' to capacity building."

Gemma Van Halderen, Director
Statistics Division
UNESCAP

"Our work with UNGP is setting standards and methods that will make analytics more actionable in health. They're excellent professionals and colleagues."

Tina Purnat
Technical Officer
WHO

"The tool developed by UNGP made our annual data collection process much faster. It also encouraged us to further think how to make better use of digital tools in data collection and analysis."

Vilma Kyyroenen
Associate Political Affairs Officer
UN DPPA

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MANAGING CHANGE

A very long year.

The year 2020 was many things. UN Global Pulse (UNGP), along with the rest of the world found itself in an entirely predictable (and predicted) context. It was a year of asymmetries and competing logics. Offices, rather than being spaces for work, for creativity, and togetherness, became spaces of threat, of risk. Work and personal lives blurred, with our homes becoming makeshift offices and meeting rooms instead of intimate personal spaces. Reading a room became watching people through a virtual background and the constant fight with the unmute button.

Whilst we were adapting to a life at home, millions of the most vulnerable of our world were adapting to increased inequalities, to a stark lack of social security, to increased poverty and to death. It is in this context that we were asked by the UN Secretary-General's office to assemble a team that could help the UN make sense of a rapidly changing world in all its complexity. This team needed to work out how technologies, partnerships, new streams of data and information, and innovation, could create new insights to fuel sensemaking and decision making.

The road has been both rewarding and challenging. From Jakarta to Helsinki, and from Kampala to New York, we learned a great deal in 2020. We got some things wrong and we were faced with failure. Some partnerships didn't come to fruition. Funds did not flow as we hoped. In some cases, efforts to support were turned down. Data sets and algorithms didn't always work, legal agreements stalled and timezones messed with scheduling. Some of these hurdles were acceptable because that's the nature of innovation.

You fail, but you learn. You fail, but you iterate. You fail, but you share those lessons so that others can learn.

The good news is that there were a lot of successes. The team would build epidemiological models with UNHCR and OCHA, UCL and Durham University to

support decision making in Cox's Bazar refugee settlement. It would support WHO fight infodemics in Africa, countering often dangerous claims of cures, rumours of self-medication, and of anti-vaccine sentiment. With OHCHR the team would investigate the effects of the pandemic on some of the world's most vulnerable people. With the Development Coordination Office (DCO) we managed to rapidly scale existing tools and approaches. The Secretary-General and his Senior Management Group were briefed on progress, and the Deputy Secretary-General provided regular advice and guidance. The cadence of needs were matched with a revised approach from the UN Global Pulse team, and its partners.

Because we were not necessarily set up for crisis response, we created the Crisis Insights Team to test new approaches and ourselves and the way we worked. The year 2020 required us to simultaneously manage change in a pandemic and to respond to the needs emerging from the pandemic. It also made us realize that change needs to be a constant in our now normal. Among the many things we learned in 2020, some are worth including here. We learned that we lacked experience in working in crises settings, our instincts and reactions were not well-honed in terms of the cadence of demands or context. We lacked structures and the right kind of fluidity. Our back end processes, including operational support, were hugely under resourced and underappreciated. This meant

that getting new team members on board, or new funding streams, partnerships, or procuring tools was incredibly difficult and time consuming.

And whilst we learned the above and we adapted, we also learned that investing in teams rather than gadgets is an important -- an essential -- part of transformation and reform. Critical un earmarked funds allowed us to adapt quickly and to provide security during global upheaval. Time and time again we learned the value of true innovation which requires investment in understanding challenges and problems before producing solutions.

We also learned about mental health. Our team worked on models that predicted the numbers of deaths from the COVID-19 disease. For some, this will have a profound effect on their worldview moving forwards. Many of us dealt with home-schooling, becoming teachers and educators, or becoming our own personal trainers. Some of us had to self isolate for months on end and to be alone, perhaps at times unhealthily finding solace only in work. We learned that as managers, our role must also deepen in understanding and empathy.

Building on the above and much more, we also learned that we wanted a different future for UNGP. This future refocuses our work but also our culture. We're going to build on the last ten years of

experimentation and engagement, and we're going to broaden our work to include Futures and Foresight so we can better anticipate and hopefully influence the future of our world. We're going to do more innovation that reaches beyond AI and data, so that we can contribute to an even more agile United Nations. We're going to investigate how we can pivot towards Behavioural Science, and contribute to the ongoing digital transformation of the UN. We will innovate our operational backbone so that we can establish strong partnerships quicker. We will streamline our administration to have resources flow freely through our network to create better conditions for the network of humans to thrive.

The good news is that some of this good work has already started. Our newest team joined our network from Helsinki in 2020 and they're already shaping what futures and foresight could look like. In Kampala, the team is using digital technologies to understand the effects of COVID-19 on peacekeeping operations. In Jakarta the team has been fusing behavioural science and human centered design towards improving financial inclusion in Indonesia. And in New York, the team is working tirelessly with the Executive Office of the Secretary-General to tackle operational challenges, and alignment with overarching priorities.

If 2020 taught us one thing, it is that change is never easy, but always possible.



CRISIS INSIGHTS IN RESPONSE TO COVID-19

Our Crisis Insights Team was created in 2020 at the request of the Secretary-General to support UN inter-agency work on advanced analytics and artificial intelligence for responding to COVID-19 and future crises. It works in the three areas outlined in the UN's response plan to the crisis, namely 1) The health response; 2) Safeguarding lives and livelihoods; and 3) A better post COVID-19 world.



MODELLING THE SPREAD OF COVID-19 IN COX'S BAZAR REFUGEE SETTLEMENT

We helped bring together experts from WHO, UNHCR, OCHA, Durham University and IBM/MIT AI Lab to apply epidemic modelling against COVID-19 in the Cox's Bazar settlement. Results helped inform decision making on the ground.

IDENTIFYING AREAS WITH HIGH RISKS FOR COVID-19

Part of data innovation is about finding new uses for official data that was collected for other purposes. That was the case for our work in Jakarta to identify areas at risk for COVID-19 based on their transmission risk and transmission potential.

FIGHTING THE COVID-19 INFODEMIC WITH RADIO DATA MINING

We successfully tested the technology we developed to extract, transcribe, and analyse public radio discussions to unearth insights about COVID-19 in Uganda, where statistical data and other online data sources are scarce.

USING SOCIAL MEDIA MONITORING AGAINST THE COVID-19 INFODEMIC

We used social media monitoring to unearth insights that WHO used to issue recommendations and solutions for timely course correction of communications and better engagement strategies.

FORECASTING MIGRATIONS RELATED TO COVID-19 MOTIVATED BORDER CLOSURES

We worked with UNHCR and applied machine learning and econometric forecasting methods to estimate the number of displaced persons who would enter Brazil from Venezuela and their need for humanitarian aid.

GOVERNANCE OF AI DURING COVID-19

We amplified our participation in the development of AI governance processes in the Global South by supporting the Governments of Uganda and Ghana to develop Ethical Standards for Artificial Intelligence.

WHY WE ARE

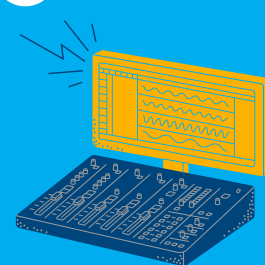
UN GLOBAL PULSE IS THE UN SECRETARY-GENERAL'S INITIATIVE ON DIGITAL INNOVATION, REAL-TIME DATA, AND ARTIFICIAL INTELLIGENCE FOR SUSTAINABLE DEVELOPMENT, HUMANITARIAN ACTION, AND PEACE.

Our role, much as the innovation landscape, is fluid which means we continuously reposition our work when and where it's needed. Our overall vision has remained consistent since our inception. We want to contribute to a future in which real-time data, analytics, and AI are harnessed safely and responsibly for the public good. Realizing this vision means increasing the volume of applications and tools with potential for global impact, creating the right policy frameworks, and strengthening ties with the relevant communities of practice.



OUR OBJECTIVES

1



DRIVE

exploratory research on new insights that can be gleaned from unconventional data sources, artificial intelligence, and future and foresight.

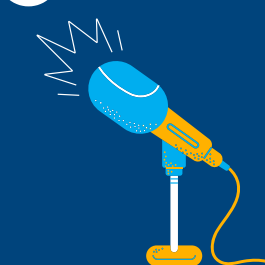
2

ASSIST

UN entities, governments, and development partners in making better use of data.



3



ADVOCATE

for the ethical use of data and technological platforms in line with the protection of privacy.

We accomplish these objectives through a network of innovation labs which are made up of multidisciplinary teams of data scientists, engineers, designers, social scientists, communication experts, and data privacy and legal specialists who work together with development and humanitarian practitioners to test, refine, and scale digital innovation.

OUR NETWORK

UN GLOBAL PULSE NEW YORK

UN Global Pulse New York, also referred to as Pulse Lab New York, established in 2009, serves as the headquarters of UN Global Pulse and is the thought-leadership and knowledge sharing hub for the network. The Lab works closely with UN agencies and government counterparts to get a better understanding of the policy and implementation issues they are grappling with and to explore how new data sources can provide useful insights that support decision makers.

UN GLOBAL PULSE KAMPALA

UN Global Pulse Kampala, also referred to as Pulse Lab Kampala, opened its doors in 2014 as the first innovation office in Africa working to develop digital data-driven applications to support UN Programmes on the ground. The Lab has pioneered work on speech-to-text transcription for vernacular African languages to extract insights from public radio discourse to support sustainable development. Over the years, it gained a regional dimension working with UN Country Teams in Somalia, Zimbabwe, Ghana, Kenya, Senegal and recently Mali.

UN GLOBAL PULSE JAKARTA

UN Global Pulse Jakarta, also referred to as Pulse Lab Jakarta, was set up in 2012 as a joint data innovation facility of the United Nations (through UN Global Pulse) and the Government of Indonesia (via the Ministry of National Development Planning). Functioning as an analytic partnerships accelerator, the Lab operates in the problem, solution and identity spaces where it applies mixed-methods research approaches. The Lab's mandate focuses on catalysing connections across the UN, governments, the private and development sectors, as well as civil society to support policies and action for effective development and humanitarian practice.

A NEW LAB:

UN GLOBAL PULSE FINLAND

A new Lab joined our network in 2020! UN Global Pulse Finland is made up of experts spanning the fields of innovation, transformational and change management, communications, sustainable development and humanitarian response. The Lab engages with a variety of partners to develop, co-create, and promote technology and innovation solutions which accelerate progress on achieving the SDGs. This includes cross-sector collaborations with government ministries, NGOs, development banks, academia, and the private sector.

Due to its wide range of experiences, knowledge, and skill sets, the Lab is an ideal addition to the UN Global Pulse network. Its focus areas will be on:

- **Building Futures and Foresight capabilities** which will enhance the work of the UNGP network. This is in part a response to the question: How can we make the UN more agile and responsive to better address needs and new challenges, for example, preparing for and mitigating health emergencies and disasters?
- **Promoting system wide change** in scaling innovation for sustained and improved humanitarian, peace and development outcomes.
- **Becoming an operational hub** for experts, technical support, learning and building capacity for our development partners.

The Lab aligns with the UN Secretary-General's priorities and with Finnish Development policy objectives such as gender equality, human rights, and climate change. It will use innovation and technology to help achieve the SDGs and other pressing global priorities. This means drawing on and sharing lessons, expertise and know-how from a much wider development community. Our hope is that this approach will create a better quality of global digital public goods which will benefit more people, communities, and systems.

A warm welcome to our new Lab in Finland!

discovering and explaining various aspects of data and AI, and in shortening the path from research to operational use.

ways of working and bring about greater opportunity to advance collective action on our common priorities.

In 2020, as our collective modus operandi was forced to change due to COVID-19, we found new ways to connect with the community of practice, leveraging online conferencing platforms and tools. In the pages that follow here, we've provided a snapshot of our activities, outlining their impact and their alignment with our key functions.

THE NETWORK IN ACTION: COVID-19 RESPONSE

DATA SCIENCE AND ANALYTICS

MAPPING THE LANDSCAPE OF ARTIFICIAL INTELLIGENCE APPLICATIONS AGAINST COVID-19

In this review, we conducted an overview of studies using Machine Learning and, more broadly, Artificial Intelligence, to tackle aspects of COVID-19 as the pandemic began to spread. We identified applications that address challenges posed by COVID-19 at different scales, including: molecular, by identifying new or existing drugs for treatment; clinical, by supporting diagnosis and evaluating prognosis based on medical imaging and non-invasive measures; and societal, by tracking both the epidemic and the accompanying infodemic using multiple data sources.

We also conducted a review of datasets, tools, and resources needed to facilitate AI research, and discussed strategic considerations related to the operational implementation of multidisciplinary partnerships and open science. Given the rapid progression of infections, real-time short-term forecasting can be a vital source of information both for medical professionals and public policy decision makers. Our research highlighted that models in particular, must be flexible in order to adapt to changing protocols and procedures.

An important aspect of successfully using new technologies in the fight against this and future pandemics is international cooperation. Few of the systems we reviewed in our research had at the time of review the operational maturity needed to combat the virus. However, they had moved the needle in the right direction with an abundance of useful information to drive progress. Ours was the first comprehensive mapping of AI applications against COVID-19 and has been referenced in over 100 publications since it was published.

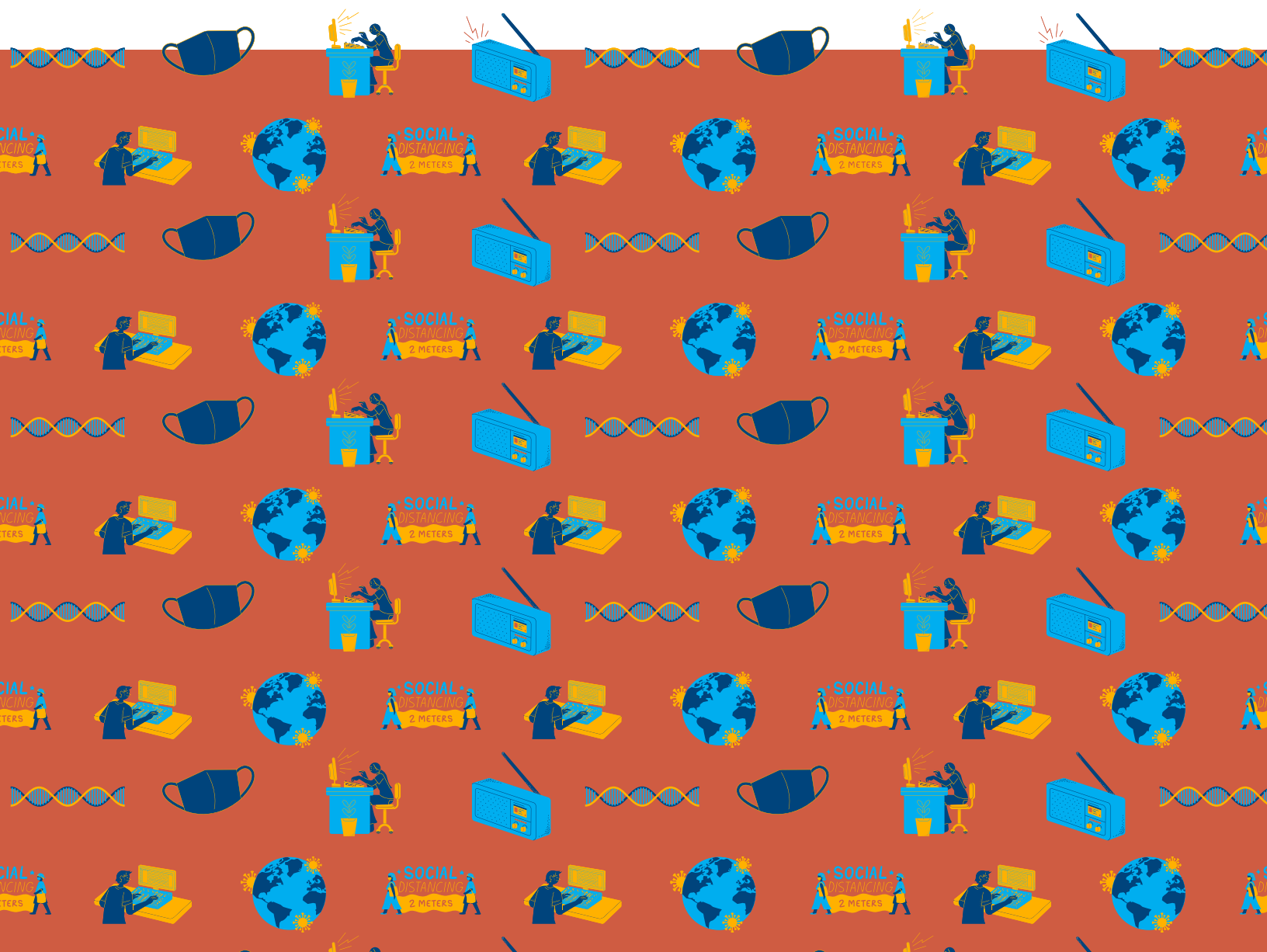
AI COOPERATION TO SUPPORT THE GLOBAL RESPONSE TO COVID-19

In an unprecedented effort of scientific collaboration, researchers across fields raced in 2020 to support the response to COVID-19. Members of our data science team in New York together with others at ITU, Mila-Quebec AI Institute, UNESCO, and WHO proposed a framework to categorize multidisciplinary AI research against COVID-19 on three scales: molecular, clinical, and societal (epidemiology and infodemics).

Their review revealed interesting findings. First, the hyper-fragmentation of data-sharing efforts is a challenge and might result in advances that are restricted to particular projects and local communities. Open science can accelerate knowledge dissemination and capacity building of national health systems, supported by multi-stakeholder AI partnerships operating across international borders.

Second, one of the challenges of making a greater impact with AI applications is not knowing where to start and how efforts can be most effective. There is a need for greater cooperation between practitioners and the AI community. The AI community already is, and should continue to seek advice and guidance from domain experts, including government officials, healthcare professionals and first responders. In addition, to effectively combat the infodemic that has been spreading alongside the virus, the international community must share and amplify good practices, identify priorities, facilitate partnerships, and provide advice and technical assistance to governments and relevant national stakeholders to foster international cooperation.

Third, any AI application that could be used in the fight against COVID-19 ought to undergo an assessment to ensure that it complies with ethical principles and, above all, respects human rights. Stakeholders should ensure that principles, including those of openness and accessibility, are at the heart of AI-enabled solutions.



ON THE VALUE OF SHIP DATA FOR EPIDEMIC MODELLING OF DISEASES

Ships are an important means of transportation for both people and goods, which also makes them potential hotspots for diseases, especially those with a longer incubation period. Based on research we previously conducted with vessel tracking data, we already knew that Automatic Identification System (AIS) data is a valuable source of information. Therefore, our team in New York set out to explore whether insights from this type of big data could be used in epidemic modelling of diseases to inform a more efficient and timely operational response.

AIS data forms a global database of maritime traffic. Most large commercial, international, and passenger ships must be equipped with an AIS transmitter, which reports dynamic details about the ship's position – such as its location, speed, and course over ground – and static details, including a ship's identifier, type, and flag. This information is routinely used to monitor port security and detect fishing behaviour.

We researched how AIS traffic data can inform epidemic modelling using two case studies. The first looked at the plague outbreak that hit Madagascar in 2017, affecting an estimated 2,348 individuals and resulting in 202 deaths. The second study analysed COVID-19 infections on cruise ships like the Diamond Princess. Our methodology consisted of gathering information from ports and ships and constructing an origin-destination matrix.

We learned that we can use AIS data to visualize individual ship trajectories to understand, for example, whether ships came to shore in cities with high risk of infections and to account for their arrival times in future ports in near real-time. This type of information could be useful in complementing insights from flight data, especially when modelling the spread of diseases in port cities and island nations.

LEVERAGING DIGITALIZATION TO HELP WOMEN ENTREPRENEURS COPE WITH THE EFFECTS OF COVID-19

As part of the UN COVID-19 Response and Recovery Multi-Partner Trust Fund (COVID-19 MPTF), UN Women partnered with UNGP Jakarta and Gojek Indonesia for a mixed-methods research to understand the extent to which COVID-19 has affected women entrepreneurs and women-owned MSBs in Indonesia. The focus of the research was on the food and beverage sectors. With evidence suggesting that women who own and run MSBs are relying more on digital platforms to market their products and services, further understanding this phenomenon is critical for designing responsive programmes and addressing gender inequalities that have been exacerbated by the pandemic.

The research resulted in two main outputs, delivered jointly by our team and UN Women:

Leveraging Digitalization to Cope with COVID-19: An Indonesia Case Study on Women-Owned Micro and Small Businesses, a research report which consists of findings from the UN Women-led quantitative component as well as the UNGP Jakarta-led qualitative research, as well as both agencies' policy recommendations. bit.ly/MSBsDig

Is Digitization Helping Businesses Like Yours to Cope with the Effects of COVID-19?: an interactive data visualization portal that features data from the survey conducted by UN Women and Gojek, as well as selected insights from the qualitative research. bit.ly/C19biz

Our team delivered the research design for the qualitative component, which was peer-reviewed by UN Women Statistics Division and Gojek Indonesia. In addition, the team developed a set of research instruments for the qualitative component, consisting of guidelines for virtual interviews and digital observation with 40 MSB owners, 24 of whom are women, spread across urban and peri-urban areas in some of the major cities in Indonesia, namely Jakarta, Medan, Makassar, Semarang and Yogyakarta.

To build on the existing work, UN Women Statistics Division is planning to replicate the survey in other countries in the Asia-Pacific region, using the current research as a case study.

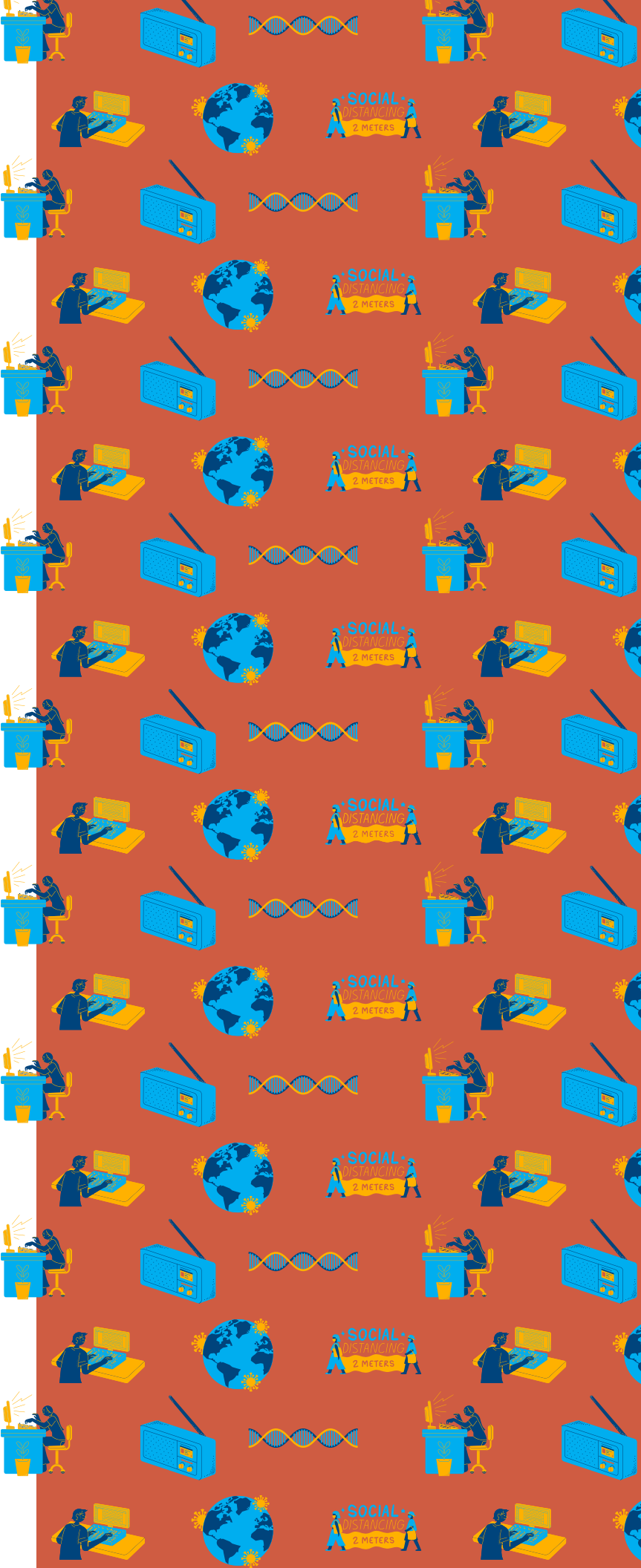
BASELINE ASSESSMENT OF PUBLICLY REPORTED COVID-19 DATA IN INDONESIA

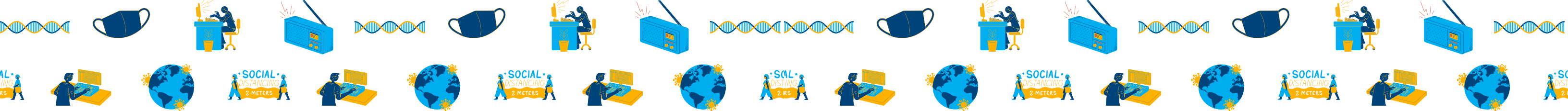
In the early weeks of COVID-19 in Indonesia, UNGP Jakarta began surveying the availability of publicly reported data on cases across the country. Apart from understanding how the pandemic was evolving across the archipelago, we were interested in examining the country-wide data ecosystem. Our baseline assessment in May 2020 revealed that only 20 of the country's 34 provinces had clear reporting sites where data could be obtained, and of the 523 districts, only 290 had updated websites reporting on COVID-19.

Whilst several provinces share their data on public sites through a common domain-naming format (<https://corona.provincename.go.id>), others provide data through their regional health offices or use customised links. West Java in particular is one of the provinces that has complete and updated data, with DKI Jakarta detailing data from the district to the village (kelurahan) level. However, this is far from being the norm across all provinces, notably with data being publicly unavailable for a few. Ranging from PDFs to images, there are also inconsistencies in the format in which the data is presented, thus presenting challenges for other parties to aggregate and/or make use of the data.

In undertaking this process, it became immediately apparent the need for more effective country-wide collaboration and a stronger data ecosystem. Together with the Data and Information Centre (Pusdatinrenbang) in the Ministry of National Development Planning, our team designed a data analysis and visualisation dashboard to monitor how the data was being reported day-to-day on provincial websites. Particularly in handling the COVID-19 crisis, this was an opportunity to identify and address underlying, systemic conditions within the country-wide data ecosystem to ensure a more effective national response, and tackle misinformation where trust in public data is compromised.

In the second phase of our baseline assessment, we further examined the provincial websites' public reporting on COVID-19 to answer: what details are included on each website, how frequently is it updated, and what are the recurring issues in terms of data access and data ingestion? This dashboard is being integrated among the Indonesian Government's COVID-19 monitoring assessment tools.





MODELLING THE SPREAD OF DISEASE IN COX’S BAZAR REFUGEE SETTLEMENT

In settlements for refugees and internally-displaced persons (IDPs), which often suffer from overcrowding, insufficient sanitation, and particularly rapid disease spread, COVID-19 presents a significant threat as will any future epidemics or other health crises.

In an unprecedented collaboration, our team at UNGP New York worked with health professionals from WHO, and experts at UNHCR, OCHA, Durham University and IBM/MIT AI lab to model the impact of public health interventions in the Cox’s Bazar settlement in Bangladesh. To do that, the team developed an agent-based modelling approach informed by data on geography, demographics, comorbidities and other parameters obtained from real world observations.

They designed a three-step process. **First**, they created a ‘digital twin’ of the settlement, including the locations where people usually interact like gathering spots or water pumps. **Second**, they simulated the movement of individuals and their daily routine. **Third**, they modelled the effects of different public health interventions against COVID-19. One scenario the team modelled investigated the spread of the disease depending on the number of people wearing masks and the efficacy of the masks worn. Another scenario looked at the effects of different healthcare delivery mechanisms like home-care versus hospitalization. One final scenario modelled different mitigation measures against the spread of COVID-19 once learning centres reopened--these were closed at the beginning of the pandemic and are indoor spaces where the virus can propagate fast.

Results were shared with public health officials working in the settlement through a series of reports that were used to inform decision making and have been used as a shared reference point between other UN entities and NGOs operating in Bangladesh, including the Inter Section Coordinating Group. Based on the success of this project, we are working with UNHCR to adapt this approach to contexts in Somalia.

RESPONDING TO THE COVID-19 INFODEMIC WITH SPEECH-TO-TEXT TECHNOLOGY

Radio remains one of the most reliable and affordable mediums of accessing and sharing information and an untapped resource for analysis. It includes first-hand accounts of incidents reported by citizens that are not recorded elsewhere. It also includes opinions about the COVID-19 crisis that are not biased by questions framed by researchers and that reveal personal views not biased by fear of judgement.

Over the past five years, our teams in UNGP New York and Kampala have been developing speech-to-text technology for vernacular languages that allows us to automatically transcribe and filter what people say on the radio to identify relevant issues for sustainable development and humanitarian challenges. Based on this technology, we set out to test if we can unearth insights about COVID-19 topics.

We selected the Central Region of Uganda as a case study from where we extracted some 100 transcripts containing COVID-19 keywords over a period of one week in April. While the scope of our initial research was small, it proved that the analysis of public radio discourse can support authorities and international organizations in responding to the pandemic in three main areas: healthcare system monitoring and outbreak detection; managing the infodemic; and the social and economic impact of the crisis. Here are just some examples of topics that were picked up through radio analysis.

“...Some members of the health officials were running away from the patients because they had no protective gear. M: He also said that XXX Cultural leaders should stop confusing the masses that Corona is an Evil Spirit. You see even Pastor XXX was arrested for telling people that the virus does not exist...”.
“...If people had followed what I had told them they would not be regretting. I said Garlic, Entuntunu, Enimawa and eating boiled foods fight Coronavirus...”
“M: ... What are some of the effects of the Government directive? LO: ...one of the effects of the Coronavirus was increasing prices of products like the salt.”

MANAGING THE COVID-19 INFODEMIC WITH SOCIAL MEDIA MONITORING

Falsehoods, which can range from deliberate lies to genuine confusion and errors, often travel alongside novel threats like COVID-19. This abundance of mis- and disinformation makes it hard for decision-makers, healthcare workers, and the general public to distill trustworthy and reliable guidance, increases feelings of anxiety and confusion, and can affect decision-making processes with immediate effects because of a lack of time to conduct quality control.

Our team in UNGP New York provided analytics support to the WHO Regional Office for Africa by mining online data sources including Twitter, news, websites, Youtube and selected forums. Based on the real-time flow of information that we provided, WHO AFRO issued recommendations and solutions for timely course correction of communications and for better targeted engagement strategies. Building on this initial work, our two teams will embark on a year-long project to expand the scope of the analysis and include radio as an additional source of information that would assure that voices of populations not included in the discourse are accounted for.

UNGP also became an active member of the Africa Infodemic Response Alliance (AIRA), the first initiative of its kind that brings together international and regional organizations and fact-checking groups with expertise in data and behavioural science, epidemiology, research, digital health, and communications to detect, disrupt and counter damaging misinformation on public health issues in Africa. Our involvement includes both developing analytics and policy guidelines, as well as as providing continuous advisory and technical guidance for specific initiatives.

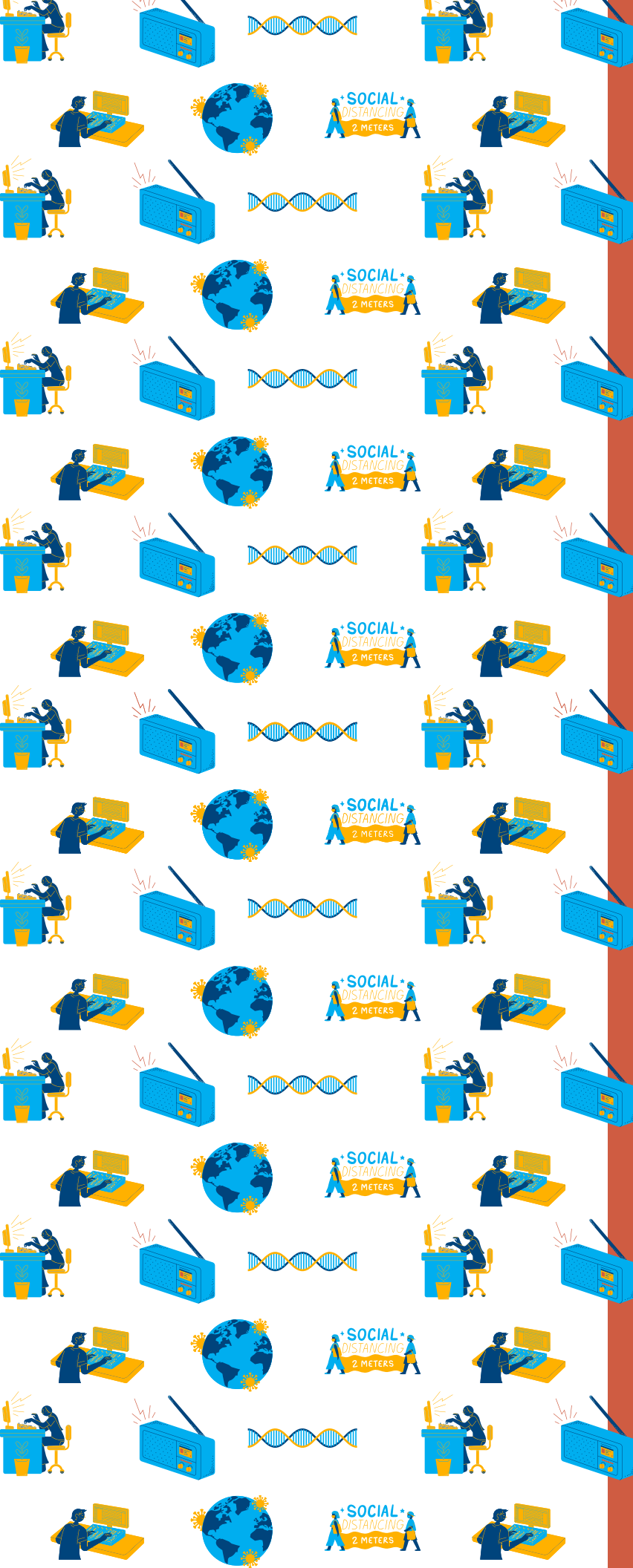
IDENTIFYING AREAS WITH A HIGHER RISK OF COVID-19 SPREAD IN WEST JAVA, INDONESIA

Part of data innovation is about finding new uses for official data that was collected for other purposes. That was the case for our work in Jakarta to identify areas at risk for COVID-19 based on their transmission risk and transmission potential. In this project, we worked alongside the Jabar Digital Service (JDS) of the West Java provincial government and our main government counterpart, the Ministry of National Development Planning with support from UNICEF Indonesia.

After some research, we identified the Village Potential census (PODES) as a good candidate to understand structural factors that could affect transmission of the disease. PODES was last conducted in 2018 and was the best government dataset we had access to, both in terms of content and spatio-temporal scales. This census is typically used to inform policy makers on the development of the villages across the country.

Our team in Jakarta derived two relevant metrics from PODES: (i) transmission potential index and (ii) transmission risk. The transmission potential index is the baseline measure representing the possible capacity of COVID-19 transmission in each village before hitting the first case. One crucial data point was not available in the PODES data — population density. To come up with the population density score, the Lab used the Facebook Population Density Map (FPDM) data accessed through the Humanitarian Data Exchange (HDX) as part of Facebook’s Data For Good Programme.

After calculating the transmission potential, the team determined that the nature of transmissions risk is dynamic and follows the number of cases in villages. The Lab developed a public dashboard which combines different data sources and that can be used to inform policy interventions throughout the province of West Java.



FORECASTING MIGRATIONS RELATED TO COVID-19 MOTIVATED BORDER CLOSURES

Over 220,000 Venezuelans reside in Brazil and Venezuelans regularly cross between the two countries for economic or family reasons. However, border crossings in both directions were restricted as a result of the COVID-19 pandemic. As the Brazilian government considered reopening the border in late 2020, our team worked with UNHCR in order to forecast the number of displaced persons who would enter Brazil from Venezuela and their need for humanitarian aid. This would help us determine whether the existing shelter infrastructure is sufficient or whether capacity must be expanded in anticipation of these new flows.

The team experimented with a variety of different methodologies. First, we collected real-time data on potential indicators from different data sources (e.g., social media) to measure proxies for large numbers of people travelling to (or planning to travel to) the border.

Second, we applied machine learning and econometric forecasting methods to estimate future arrival levels according to different economic and social indicators. Third, we developed an interactive queuing simulation to model how new arrivals move through the different stages of border crossing and relocation to allow protection teams to provide adequate services.

One of the core challenges to forecasting is that there is a large timeframe of unusual data because of COVID-19 and there is no clear expectation about what the current demand for travelling to Brazil from Venezuela is. The team tested different strategies for predicting future outcomes, work that will continue in 2021.

A NEW LINE OF WORK FOCUSED ON FUTURES & FORESIGHT

While COVID-19 has thrown the world into havoc, it also presented an unforeseen opportunity to transform the ways we work to change the future. This is our momentum to accelerate positives and to anticipate emerging threats, plan for more uncertainties and take preventive action to build a better, more equal, and inclusive world. The UN Secretary-General has placed great emphasis and investment in being able to transform the UN into an organisation that can do all of the above, and much, much more.

This means shifting from single-point and mandate-driven innovation to creating value and innovating with and within global networks and driving deep connections with the broader ecosystem of UN and non-UN stakeholders. To help these transformation efforts we recently added futures and foresight as a new stream of work in our portfolio.

What does that look like?

First, we're adding to elements that already exist by supporting the Secretary-General's strategic priorities through a system-wide approach to futures and foresight, working together with groups like the UN Network for Strategic Futures and Foresight to contribute to assets and tools. In addition, we'll be bringing new foresight expertise into UN Global Pulse to target the SG's priorities by building capacity in his own office. This work includes operationalizing strategies like the Data Strategy and Innovation Agenda, providing new frameworks, models and standards to work as one, and including practical issues like sharing data across silos for better outputs.

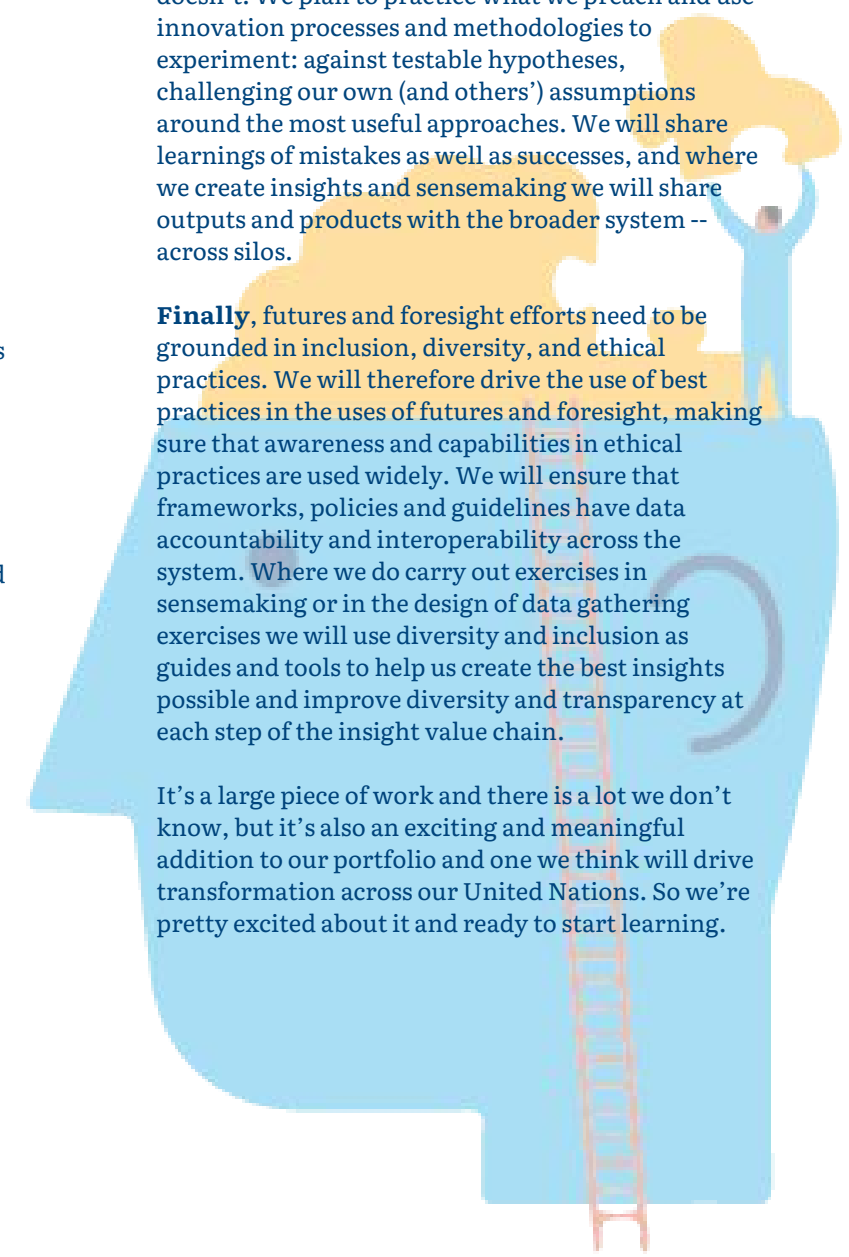
Second, we're going to build foresight capacities through a needs-based service offering. A service to the UN System and beyond. To do this, we can play to our existing strengths and use new technologies such as ML and other AI tools to modernize the foresight practice. We will explore new ways to help us make sense of the world, sharing what we learned and asking questions to understand what the disruptive changes mean to each mandate.

We will also work to help build capacities in terms of methodologies and processes. This will involve building awareness and educational approaches that help decision makers, managers, and others know when and how to use this service for maximum value, like in resource allocation exercises or policy formation. We'll do this through simple steps, like making people aware of what futures and foresight is, or by making sure that insights and sensemaking carried out in one part of the UN are shared with other parts.

Third, we're going to test what works and what doesn't. We plan to practice what we preach and use innovation processes and methodologies to experiment: against testable hypotheses, challenging our own (and others') assumptions around the most useful approaches. We will share learnings of mistakes as well as successes, and where we create insights and sensemaking we will share outputs and products with the broader system -- across silos.

Finally, futures and foresight efforts need to be grounded in inclusion, diversity, and ethical practices. We will therefore drive the use of best practices in the uses of futures and foresight, making sure that awareness and capabilities in ethical practices are used widely. We will ensure that frameworks, policies and guidelines have data accountability and interoperability across the system. Where we do carry out exercises in sensemaking or in the design of data gathering exercises we will use diversity and inclusion as guides and tools to help us create the best insights possible and improve diversity and transparency at each step of the insight value chain.

It's a large piece of work and there is a lot we don't know, but it's also an exciting and meaningful addition to our portfolio and one we think will drive transformation across our United Nations. So we're pretty excited about it and ready to start learning.



FRAMEWORKS FOR RESPONSIBLE USE OF DATA

PRINCIPLES ON DATA PROTECTION AND PRIVACY

The adoption of the UN Principles on Personal Data Protection and Privacy, which we spearheaded through our UN Privacy Policy Group, inspired policy and programme changes across the UN and beyond. For example a number of agencies including UNFPA, OCHA, UNESCO, UNV, UNDP, UNICEF, UN WTO, UN Secretariat, UN Women, and WHO developed their own policies which build on these Principles.

The Principles were also incorporated into the UN Data Strategy and encouraged further policy and programme changes in data protection, partnerships, and risk management across the UN system, establishing a cross-board data governance mechanism for managing data related matters. This work triggered systemic changes in how policy decisions are made by other international organizations as well as governments. For example, the Principles became one of the key instruments in the negotiation between the UN and the European Union on how data should be shared for public good.

Internally, we used the UN Principles on Data Protection and Privacy as a reference for updating our own guidelines, which we apply whenever we collect, use, share, or process personal data as part of our activities.

DATA PROTECTION AND PRIVACY IN RESPONSE TO COVID-19

In 2020, we worked through the UN Privacy Policy Group, which we co-chair, to develop a Joint Statement on Data Protection and Privacy in the COVID-19 Response to support the privacy protective use of data and technology whilst enabling an effective and efficient response in fighting the pandemic. The Statement reinforces that collection, use and processing of data should:

- Be lawful, limited in scope and time, and necessary and proportionate to specified and legitimate purposes in response to the pandemic;
- Ensure appropriate confidentiality, security, time-bound retention and proper destruction or deletion of data in accordance with the aforementioned purposes;
- Ensure that any data exchange adheres to applicable international law, data protection and privacy principles, and is evaluated based on proper due diligence and risks assessments;
- Be subject to any applicable mechanisms and procedures to ensure that measures taken with regard to data use are justified by and in accordance with the aforementioned principles and purposes, and cease as soon as the need for such measures is no longer present; and
- Be transparent in order to build trust in the deployment of current and future efforts alike.

The Statement was endorsed by the UN entities including IOM, ITU, OCHA, OHCHR, UNDP, UNEP, UNESCO, UNHCR, UNICEF, UNOPS, UPU, UN Volunteers, UN Women, WFP and WHO.

MANAGING THE COVID-19 INFODEMIC

Part of our close collaboration with WHO to fight the pandemic resulted in a Joint Statement by UN agencies urging for action against the COVID-19 infodemic. Signed by WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse, and IFRC, the Statement calls on Member States to develop and implement action plans to manage the infodemic by promoting the timely dissemination of accurate information, based in science and evidence. It asks for increased engagement with communities in the development of national action plans to develop solutions and resilience against mis- and disinformation. The Statement calls in particular on the media and social media platforms, to collaborate with the UN system, researchers and academics, and other stakeholders to further strengthen actions to disseminate accurate information.

A TOOL FOR ASSESSING RISKS, HARMS, AND BENEFITS OF DATA-DRIVEN PROJECTS

In 2020 we developed and published the Level 2 of our Risk Assessment Tool that elaborates on the risks and harms of data use and data non-use in humanitarian contexts. Building on Level 1, this tool is designed to measure in detail the likelihood, magnitude and significance of the positive impacts of a data innovation project against the likelihood of the risks and the likelihood, magnitude and severity of potential harms.

The tool prompts users to thoroughly analyze and scrutinize the data privacy and data protection implications of a project at all stages from planning to execution. This promotes awareness, training, privacy by design, mitigation measures, and documents the thinking throughout the project. The aim of our Risk, Harms and Benefits Assessment is to facilitate creativity, capability, and possibility by demonstrating conscientiousness and documenting the high level data privacy and protection considerations.

Additionally, we continued to develop and test an online version of the tool, which we plan to release in 2021. Organizations including WHO, UNHCR, OCHA, IOM, UNICEF and ICRC have drawn on the tool's concepts of risks and harms and data sensitivity levels to make systemic changes in how they make policy decisions.

GOVERNANCE OF AI DURING COVID-19 AND BEYOND

The AI governance challenge is vast and complex, straddling the fields of technology, law, philosophy and ethics. As an innovator in the area of AI for humanitarian aid and development, we continued to lead efforts to ensure that the use of technology does not infringe on human rights, especially when faced with the challenges of a global pandemic.

With that goal in mind, we continued to serve as a Co-Champion for the UN High-level Panel on Digital Cooperation’s Recommendation 3C on artificial intelligence and as a Key Stakeholder for Recommendations 3A/B on digital human rights. The outcome of these recommendations and discussions has been consolidated in the Secretary-General’s Roadmap for Digital Cooperation, published in June 2020, which lays out a path for advancing a safe and equitable future for all, where all people are connected, respected and protected in the digital age.

In an effort to connect our goals with the current global pandemic and to bring to the table various stakeholders and opinions, we held a high level event on Protecting Human Rights During the Covid-19 Crisis and Beyond, during the UN General Assembly in September. The discussions drew upon existing multi stakeholder initiatives, including the UN Secretary-General’s High-level Panel on Digital Cooperation Roadmap and delved into the implications of increased surveillance on human rights during and beyond the COVID-19 pandemic.

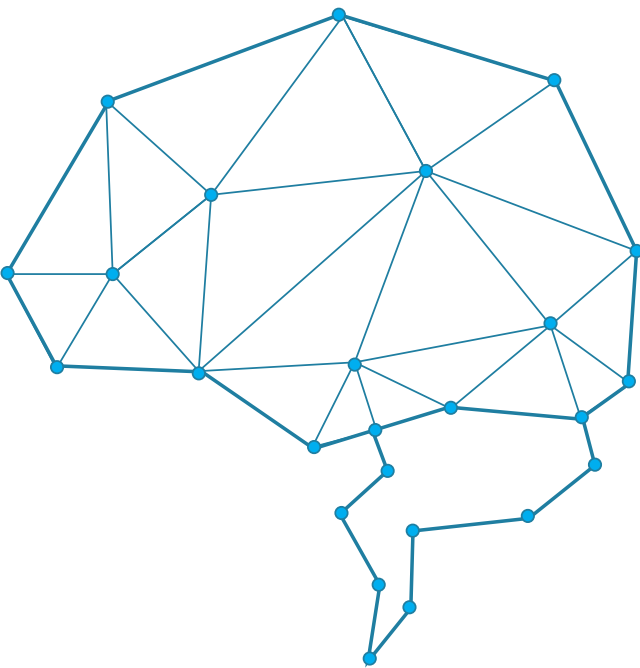
We also looked to amplify Global South participation in the development of AI Governance processes, by supporting the Governments of Uganda and Ghana to develop Ethical Standards for AI. As a member of the Uganda Task Force on the 4th Industrial Revolution, we contributed to the development of an ethical AI blueprint for Uganda and have worked to do the same in Ghana. The objective of these initiatives is to trigger specific policy and programme changes within each of the pilot countries with the intention to lead by example across the Global South.

Moreover, we contributed to the global efforts of creating a normative instrument on the ethics of AI, led by UNESCO, and became a member of the expert working group to develop an internal ethics code for the UN System.

Lastly, UNGP is a co-lead of the Global Data Access Initiative (GDAI), which, as stated in the Secretary-General’s Roadmap for Digital Cooperation, is a multistakeholder initiative that aims to create a platform for sharing digital public goods in a manner that respects privacy. Its main objective is to enable data sharing across the public and private sector to develop AI solutions in the area of disaster resilience, preparedness, response, and recovery.

While we wrangle with how to apply human rights mechanisms to AI, the technology continues to evolve rapidly. Organizations at the UN and elsewhere deploy AI for social good every day, which means new risks are constantly emerging in our work. The ongoing COVID-19 pandemic has seen the use of AI and other emerging technologies (to varying degrees of success) to facilitate contract tracing, combat misinformation, and even conduct biomedical research.

To ensure these and other AI tools enable human progress and contribute to achieving the SDGs, we need to be proactive and inclusive in developing policies and accountability mechanisms that protect human rights, including those that ensure access to reliable quality and unbiased data for training safe and trustworthy AI models. That will be UNGP’s guiding imperative as we forge ahead in 2021.



OPERATIONALIZING OUR APPROACHES

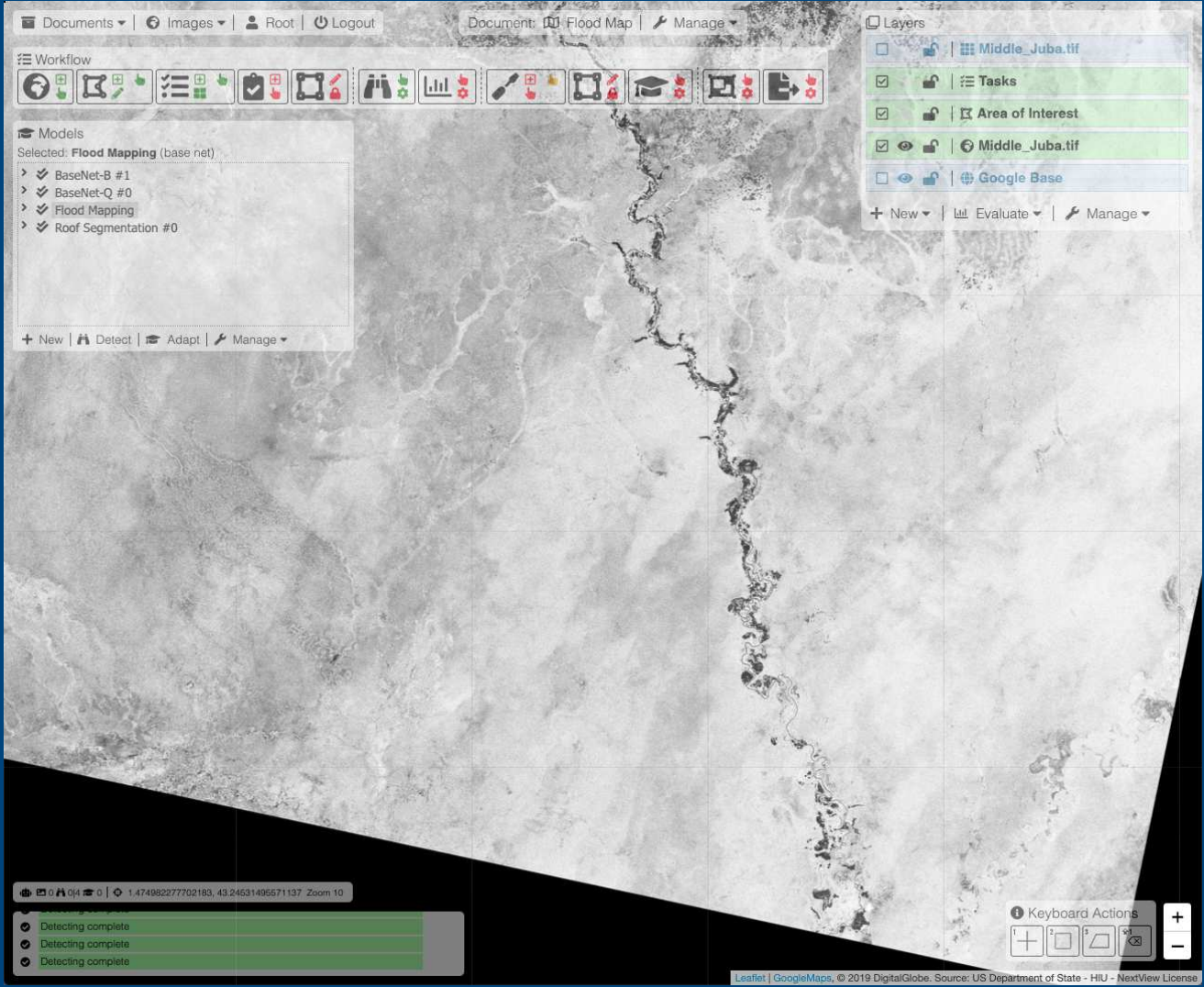
Over the years, our network has created AI-powered products for accessing and analysing different data sources, some of which we believe have the potential to be scaled for wider purposes and geographies. The latest in our toolkit is **PulseSatellite**, a web-based tool that combines cutting edge artificial intelligence with human expertise to extract the most relevant information from satellite imagery for use in humanitarian contexts. Since its development, we’ve been figuring out how we can put this product in the hands of users in the field to free up valuable time spent by analysts performing tasks that an AI can perform in a fraction of that time. Of course the challenge is combining speed with accuracy, and this is what we tried to accomplish. Use cases for PulseSatellite currently include: monitoring population displacement, settlement mapping, damage assessment, flood assessment and identifying the direct impact of earthquakes, volcanoes, cyclones and landslides. To test its capabilities, we opened it up to UN agencies and started working with different teams from different agencies on select ideas. In July 2020, the flood assessment capability was successfully deployed by UNOSAT, our long term partner in this endeavour, after heavy monsoon rains around the Brahmaputra river and in the Sylher district in Bangladesh.

Another example is **Qatalog**, a multi-faceted tool for accessing and analyzing PDF documents, radio, and historical social media data related to specific topics, themes, and discussions. The idea for Qatalog (Query / Assign / Tag and Analyse) was born out of our own experience with products for social media analysis that existed on the market but that did not fit the needs for our sustainable development and humanitarian projects. For one, while social media is widespread across most of the developed world, it is less so in developing and least developed countries, which excludes a large portion of the most vulnerable populations. Therefore, we developed a product that incorporates alternative sources of big data, like information from radio talk shows. In 2020, we integrated radio as a data source for querying and tested its usability. In addition, after discussions with colleagues across the UN, we realized that many parts of the Organization continue to use PDF documents for reporting purposes, which prompted us to include PDFs as another source of information. To streamline the onboarding of new users, which our team spent hours doing on an individual basis, we also created interactive tutorials that allowed us to get people on board faster.

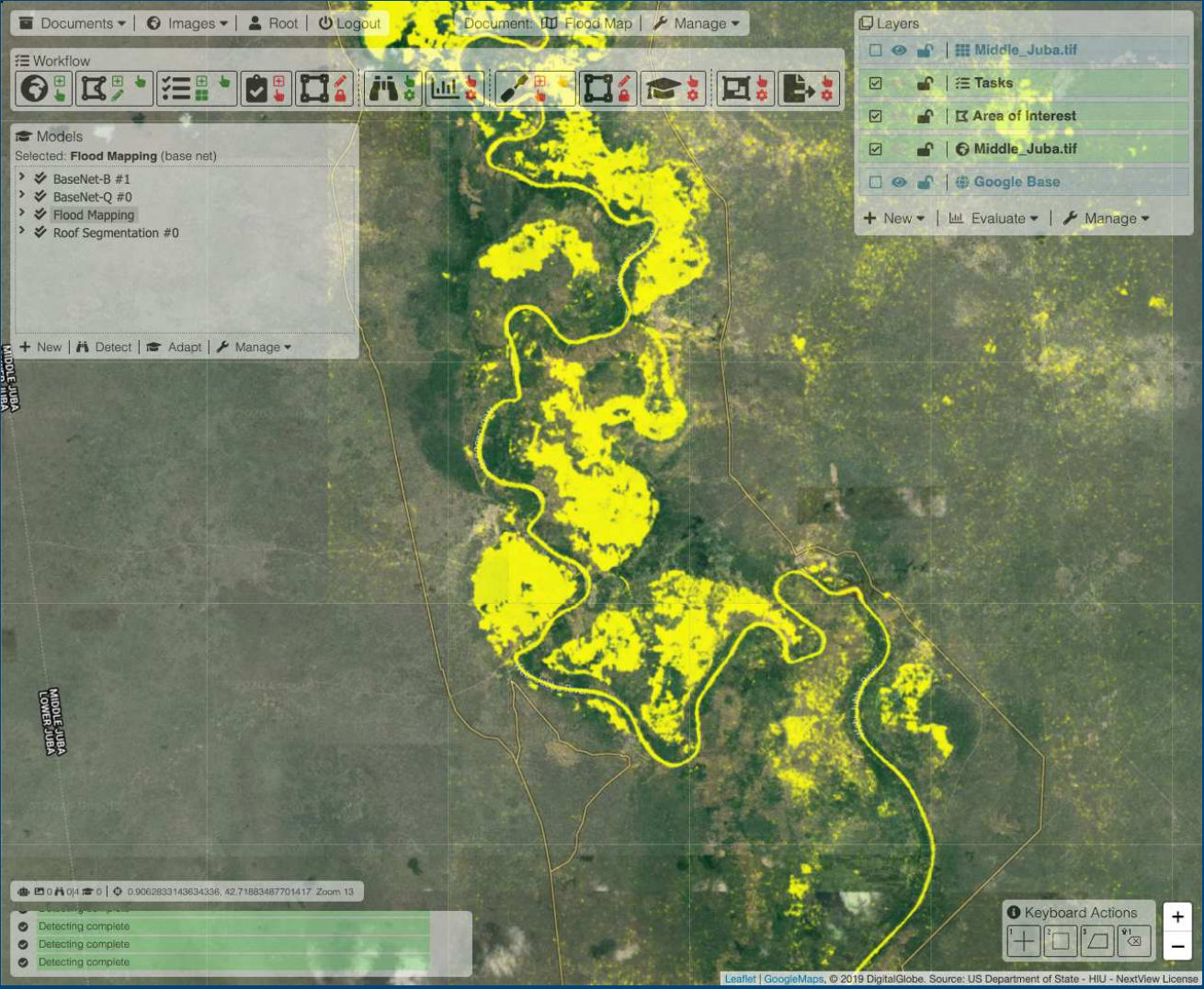
Throughout the process of development, we’ve faced challenges and had to reconfigure and reshape how Qatalog functions. One of the biggest hurdles has been shifting from beta testing to regular use by multiple agencies, which required infrastructure changes for sustainable operations.

Based on this experience, the need for flexibility and continued engineering support have become evident. Even once we have scaled Qatalog and put it in the hands of UN users, we will need to make sure the product is properly maintained and that we have the right mechanisms in place to continue to reconfigure it. What is even more important is also making sure that the final insights, which would be used for reporting and presentations, adhere to our, and the UN’s, privacy policies and best practices. To mitigate any unwanted risks and harms derived from these insights, we drafted “Terms of Use” and “Privacy Policies” for the use of the product. We also created approval processes for any published reports for both internal and external use.

Using **automated speech recognition** to support peacekeeping operations was one of our biggest undertakings of 2020. United Nations peacekeeping missions increasingly need to operate in hostile environments, characterized by frequent attacks executed by extremists and militias directed primarily at military contingents of UN Missions, but also at the civilian population. We acted as the technical implementation partner to design, develop and deploy a technological prototype that would enhance MINUSMA’s (the UN Mission in Mali) situational awareness. The project built on our years of experience working to develop speech-to-text technology for African vernacular languages, and transcribing and analysing public discourse in Uganda and Somalia. Applying this type of technology to a peacekeeping context though presented new opportunities as well as challenges. Our team, spread across 7 countries, worked closely with MINUSMA and our project partners in the UN Office of Information and Communications Technology (OICT) to design and build a functional prototype, which we successfully tested with our partners on the ground in Mali. Due to the sensitive nature of peacekeeping operations, we cannot go into detail on the exact nature of this work. However, based on the results we obtained in this initial phase, we will continue to build the technology in close collaboration with our partners.



PULSE SATELLITE FLOOD MAPPING OVERVIEW



PULSE SATELLITE FLOOD MAPPING DETAIL



OUR CONTRIBUTIONS TO SHAPING THE INNOVATION ECOSYSTEM

As we look at the speed of change around us and the new development and humanitarian challenges that emerge and evolve, we need to be able to draw from and share each other's experiences to become more agile and better adapted. With COVID-19 throwing the world off course, our network had to quickly change and adapt our approach to provide partners with expertise and mechanisms that would allow them to quickly respond not just to the pandemic, but also to the infodemic that accompanied it. To do that, we worked inside the innovation ecosystem bringing stakeholders together through engagement in relevant working groups and initiatives, and by increasing the number of workshops and internal capacity building meetings we hosted.

BUILDING CAPACITY FOR DATA INNOVATION

BUILDING CAPACITY TO GENERATE STATISTICS FROM MOBILE PHONE RECORDS TO SUPPORT COVID-19 RESPONSE

National Statistics Offices (NSO), which are the custodians and main producers of data at national levels, are increasingly experimenting with big data, especially in the context of the COVID-19 pandemic. In response to requests from statisticians in Africa, our labs in New York and Kampala conducted a series of webinars to build the capacity of NSOs to use anonymised mobile phone data for decision-making in response to this pandemic and future crises.

Throughout the course of 10 sessions, experts from the private sector, academia, and the UN discussed applications of mobile data with practical implications for NSOs. The sessions were interactive, combining theory with hands-on coding, and a deep-dive into how to apply data privacy, protection and ethics. While initially we had a regional focus in Africa, because of interest expressed by NSOs in other regions, we opened up the workshops more widely and ended up with over 85 participants from countries including: Nigeria, Uganda, Rwanda, Senegal, Kenya, Somalia, Ghana, Indonesia, USA, Philippines, Ethiopia, Zimbabwe, the United Kingdom, Nepal, Georgia, Gambia and Burundi.

What participants said:

"...My capacity and confidence has been built, to be able to analyze anonymized mobile phone data for COVID-19 and other responses...."

"Public and private entities should go hand in hand in times of crisis. We can take this step further to handle the pandemic better."

"The use of mobile phone data for COVID-19 response shows that data generated by telecommunications companies are not limited to the use of the business, but can also be extended and used by the government to provide better services and policies."

GLOBAL SOUTH AI4COVID PROGRAMME

The Global South AI4COVID Programme was launched in 2020 to support multidisciplinary research focused on evidence-based AI and data science approaches to aid COVID-19 response and recovery in low- and middle-income countries. It is funded by Canada's International Development Research Centre (IDRC) and the Swedish International Development Cooperation Agency (Sida), with support from UNGP Jakarta.

The inaugural cohort consisted of nine research grantees working in 18 countries within the Global South. Ranging from early detection and containment, to mitigation and forecasting, their initial work fell within two overarching themes:

AI for COVID-19 Policy and Decision Making: informing policies that support and build trust in AI and data science, and strengthening the capacity of health systems in low- and middle-income developing countries to respond to epidemics.

User-Centric Data Innovation and AI for COVID-19: deepening understanding of how to develop and scale responsible and evidence-based AI and data science approaches to COVID-19 as well as ensuring that those responses are gender responsive and culturally appropriate, community specific, and based on local needs and contexts.

UNGP Jakarta serves as a technical resource hub for grantees for timely flows of knowledge and expertise and plays a key role in augmenting global communication efforts, identifying opportunities for policy linkages and facilitating mobilization for action in the Global South.

HOSTING THE FIRST UN AIS BIG DATA HACKATHON

Our team in UNGP New York worked alongside the UN Statistics Division, UNCTAD, Marine Traffic, and CCRI, to host the UN's first AIS Big Data Hackathon. The challenge featured 17 teams selected from a pool of applicants from across the world who developed innovations around two primary themes: the economic and trade impacts of the coronavirus pandemic, and the environmental impacts of the shipping industry.

The challenge was designed to highlight the capabilities of the UN Global Platform, which contains 3.6 terabytes of data from ship automatic identification systems (AIS). The winning teams were invited to present their projects to UN colleagues during the 2021 UN Data Forum. Our team also worked with them to incorporate their ideas and methodologies into the UN Global Platform.

LESSONS-LEARNED AND FUTURE DIRECTIONS FOR MODELLING THE SPREAD OF COVID-19 IN SETTLEMENTS

We invited health professionals and researchers to an informal workshop to share lessons-learned and future directions from projects that used epidemic modelling techniques against COVID-19. Participants included colleagues from: DFID, ICRC, OCHA, UNHCR, WHO, the UN Asia Statistics Office, Delft University of Technology, Durham University, Harvard University, the London School of Hygiene and Tropical Medicine and Manchester University.

In the first part of the workshop, public health officials from the Cox's Bazar refugee settlement in Bangladesh talked about the operational challenges they were confronted with during COVID-19 and innovation experts presented ways in which human-centred design approaches can help address these challenges.

In the second half, participants discussed lessons learned from previous and current modelling efforts and laid out the challenges moving forward. From the availability of disease data, to communicating the results, to the need to design new operational interventions to replace traditional ones, participants ideated what is possible and how to get there.

For us, putting together this workshop provided an opportunity to connect with others working in this area to make sure that we coordinate our response for better decisions and stronger support for the people we serve.

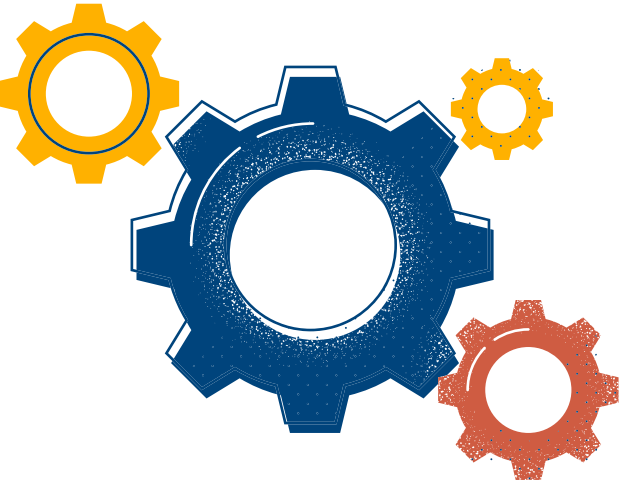
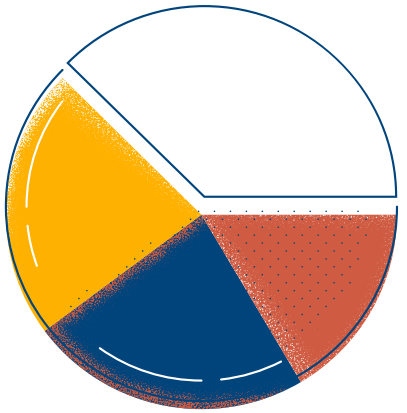
DATA SCIENCE AFRICA - DSA 2020

When UNGP Kampala and Makerere University first envisioned the idea of a Data Science Africa week, they wanted to create a space for youth and enthusiasts to learn about machine learning and AI and how to leverage them to advance sustainable development in Africa.

Since 2015, DSA Africa has become a leading machine learning event for the continent. Nowadays, it is an annual event that is usually split into a three-day summer school where students, researchers, and professionals attend lectures in data science and machine learning, followed by a two-day workshop with presentations from experts from the UN, academia, and the private sector.

This year's event took place between 24th July and 1st August and was held online because of the COVID-19 pandemic. UNGP Kampala supported its organization, as is traditional for our Lab, and showcased some of the latest functionalities in data innovations that have been developed in the past years.

Even though participants were unable to interact online as much as they would have in person, the virtual nature of the event allowed more people to participate with an overall count of over 200 attendees from about 15 countries in Africa. The majority of the participants are students in Computer and Data Science associated fields.



CREATING THE ENABLING ENVIRONMENT FOR INNOVATION TO THRIVE



UN PRIVACY POLICY GROUP

The UN Privacy Policy Group (UN PPG) is an inter-agency group that UNGP founded and which we co-chair together with the UN Office of Information and Communications Technology. Throughout the years, the Group’s work has been instrumental for the UN. The UN PGG developed the UN Principles on Personal Data Protection and Privacy, the first instrument of the United Nations for the privacy protecting processing of personal data. In 2020, the Group’s work led to the development of a Joint Statement on Data Protection and Privacy in Response to COVID-19 to help inform and guide the global response to COVID-19 across the UN system. The Statement was endorsed by UN organizations in November to reinforce our shared commitment to use data and technology in a way that respects the right to privacy and other human rights.

EXPERT GROUP ON GOVERNANCE OF DATA AND AI

We continue to chair the Expert Group on Governance of Data and AI, which includes international leaders who serve as advocates for privacy and the human rights-centric approach to data and AI in development and humanitarian practice. Since its launch in 2015, the Group has been a key contributor to the efforts and deliverables of our network by providing its expertise and guidance, including on the development of the UN Principles on Personal Data Protection and Privacy, the UNDG Guidance Note on Data Protection and Privacy, UN Global Pulse’s Risk Assessment Tool, and our work around data protection and privacy during COVID-19.

SMART AFRICA AI WORKING GROUP

Through the AI Working Group, our network and partners are sharing policies for strong and ethical AI across Africa, fostering AI expertise and solutions to help create the enabling environment for open data to boost AI exchanges across Africa. The working group was established in 2020. Its first order of business was creating a blueprint for national AI strategies to help guide efforts of African countries. Based on this blueprint, the group will select pilot projects which will be implemented in 2021.

GEO-AI WORKING GROUP

UN Open GIS is an initiative of the United Nations to develop open-source technology in the field of geographic information systems. The newest working group of UN Open GIS, created in 2020, is the GEO-AI Working Group, which we co-chaired together with the Food and Agriculture Organization (FAO). In its first year of activity, the Geo-AI Working Group gathered experts from across the ecosystem and began ideating how to incorporate their common knowledge into GIS work. The Group held its first consultation in September to consolidate the expertise of its growing members. One of the Group’s objectives is to address current challenges in implementing AI into geospatial work, like reducing the obstructions of satellite imagery by cloud cover.

GLOBAL PRIVACY ASSEMBLY COVID-19 TASKFORCE AND WORKING GROUP

In 2020, while we continued to be an active observer of the Global Privacy Assembly, we also joined the group’s COVID-19 Taskforce where we contributed our expertise on how to ensure safe and privacy respectful data sharing mechanisms during the pandemic. This work led to the adoption by the Assembly of a Resolution on the Privacy and Data Protection Challenges Arising in the Context of COVID-19. This work will continue in 2021 under the newly formed Global Privacy Assembly COVID-19 Working Group that aims to strengthen the collective capacity of members to respond to data protection and privacy challenges brought about by the pandemic.

SMART AFRICA DATA PROTECTION WORKING GROUP

Smart Africa is an organization initiated under the auspices of the African government that works to harmonise data protection legislations across Africa. Because of our years of experience developing frameworks for the safe and responsible use of data, we were invited to join these efforts as a member of the working group. In 2020, the group began mapping the existing data protection and privacy frameworks across the continent to identify commonalities and points of divergence. This line of work was derailed by the pandemic and is set to continue at full speed in 2021.

GSMA AI FOR IMPACT ADVISORY BOARD

This GSMA initiative defines the technical, commercial and ecosystem requirements to deliver viable data-driven products and services that adhere to principles of privacy and ethics. It is guided by a task force of 20 mobile operators and an advisory panel of 12 UN agencies, which we are one of. At the national level, the GSMA supports real-world implementations, replicating proven models and delivering market-shaping campaigns to unlock demand and address barriers. During the year, we continued to advise the group through regular consultations.

GLOBAL DATA ACCESS INITIATIVE

To enable cross-sectoral data sharing mechanisms, we joined the Future Society’s AI Initiative and the Mckinsey & Company’s Noble Intelligence initiative to create a Global Data Access Initiative. This mechanism brings together some 70 companies and organizations to turbocharge innovation by serving as a platform for collaboration between governments, the private sector, academics, and international institutions. In 2020, the GDAI organized a high level event during the UN Data Forum as a first step in setting up the technical infrastructure needed to facilitate access to quality data.

OUR PUBLICATIONS AND SCIENTIFIC ARTICLES

Aside from projects and products, our collaborations often yield scientific papers and technical reports where we distill our methodologies, results and lessons learned. Because we take the time to write about our work and go through the grueling process of peer review -- which means subjecting our work to the scrutiny of other experts -- we are perhaps one of the few recognized data and AI practitioners operating inside the United Nations. In addition, we work with UN partners to produce technical reports where we describe our experiments with new data sources and emerging technologies for the benefit of all UN.

TECHNICAL REPORT
Leveraging digitalization to cope with COVID-19

TECHNICAL REPORT
#JustSaveIt - Encouraging Usage of Agent-Based Bank Accounts to Improve Financial Inclusion

PAPER
Mapping the landscape of Artificial Intelligence applications against COVID-19

Journal of Artificial Intelligence Research 69 (2020) 807-845

PAPER
Inferring High Spatiotemporal Air Quality Index: A Study in Bangkok

Conference on Neural Information Processing Systems

PAPER
Operational response simulation tool for epidemics within refugee and IDP settlements

medRxiv 2021.01.27.21250611

TECHNICAL REPORT
Data Innovation Metropolitan Sustainable Transportation

TECHNICAL REPORT
Identifying Potential Positive Deviants Across Rice Producing Areas in Indonesia

PAPER
Fully Convolutional Neural Network for Rapid Flood Segmentation in Synthetic Aperture Radar Imagery

MDPI, Remote Sens. 2020, 12(16), 2532

PAPER
Data Analytic Platform for Logistics Planning and Information Management Following Natural Disasters

2020 Australasian AID Conference

PAPER
Considerations, Good Practices, Risks and Pitfalls in Developing AI Solutions Against COVID-19

AI for Social Good Workshop 2020

PAPER
From plague to coronavirus: vessel trajectory data from ship automatic identification systems for epidemic modeling

Journal of Travel Medicine, Volume 27, Issue 6, August 2020

PAPER
Who is More Ready to Get Back in Shape?

Conference on Neural Information Processing

PAPER
PulseSatellite: A tool using human-AI feedback loops for satellite image analysis in humanitarian contexts

Proceedings of the AAAI Conference on Artificial Intelligence, 34(09), 13628-13629

PAPER
Assessing the Use of Transaction and Location Based Insights Derived from Automatic Teller Machines (ATMs) as Near Real Time “Sensing” Systems of Economic Shocks

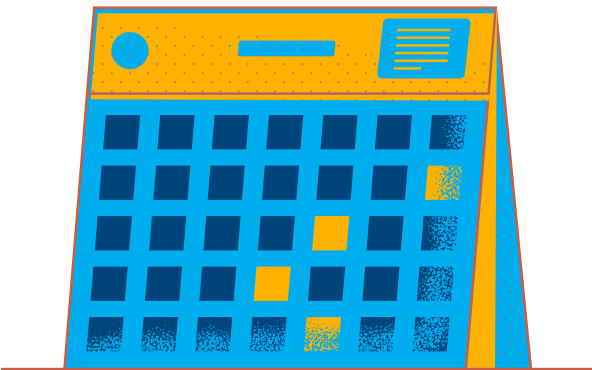
Conference on Neural Information Processing Systems

PAPER
Artificial intelligence cooperation to support the global response to COVID-19

Nature Machine Intelligence volume 2, 295–297(2020)

SHARING WHAT WE'VE LEARNED

One of the many ways we continue to learn and share what we have learned in terms of failures as well as successes is by convening diverse groups of thinkers, or joining diverse groups of thinkers in one place at one time. The COVID-19 pandemic has given us much to ponder when it comes to attendance, in particular environmental impacts, and challenges to diversity especially when hosted in the US or Europe. We've embraced digital convening and will be maximising these media moving forwards, pandemic or no. We'll also continue to refuse participation in non-diverse panels and events.



JANUARY

Open Source Software as Critical Digital Infrastructures: Legal Technologies & Institutional Design

14 January 2020
This workshop explored how different frameworks, foundations, standard-setting organizations, and non-jurisdictional maintenance hubs might be part of the solution to address the under-maintenance of open source software. UNGP New York joined discussions around the challenges and opportunities of open source licenses as a public digital good.

Urban Motion Volume 3

17-19 January, 2020
The School of Architecture, Planning and Policy Development at Institut Teknologi Bandung (ITB) organised a panel discussion under the theme “Resilience in the Era of Disruption”. Our humanitarian data advisor in UNGP Jakarta discussed how real-time sensing from non-traditional data can help governments assist vulnerable populations after natural disasters.

FEBRUARY

SDG 16+ Global Technical Workshop

5 - 7 February 2020
UNGP New York attended a workshop hosted by the Danish Institute of Human Rights and The Global Alliance for Reporting on Progress on Peaceful, Just and Inclusive Societies which addressed critical challenges pertaining to the national monitoring of SDG16: Peace, Justice and Strong Institutions.

AAAI Conference on Artificial Intelligence

7 - 12 February 2020
At AAAI-20, one of the premier conferences on AI in the world, UNGP New York launched Pulse Satellite, our collaborative web-based tool that combines cutting edge artificial intelligence with human expertise to extract the most relevant information from satellite imagery for use in humanitarian contexts. The tool was built in collaboration with UNOSAT.

Annual Australasian AID Conference 2020

17-19 February 2020
In partnership with the Asia Foundation, the research conference brought together researchers from Australia, the Pacific and Asia who are working in international development and policy. UNGP Jakarta shared research insights on how it developed MIND, a data analytics and information management system to inform post-disaster logistics planning.

Conference on Data for Peace and Security

20 - 21 February 2020
This 2-day conference organized by the Ministry of Foreign Affairs of The Netherlands, highlighted the opportunities of data-driven innovation and technological developments for peace and security. UNGP New York was invited to present our work in the form of data-driven projects and policy frameworks developed to assist global peace and security efforts, including our radio monitoring tool.

Co-creating Inclusive Innovation

21 February 2020
Taking place during the World Economic Forum, this seminar addressed questions of how emerging technologies can promote a more equitable environment for children and adults, including those suffering from mental health issues. UNGP New York was invited to speak around its work leveraging big data to decrease the digital divide, address existing social inequalities, and promote inclusive innovation.

Counted and Visible: Global Conference on the Measurement of Gender and Intersecting Inequalities

26 - 27 February 2020
In a panel on Gender Data Governance in the Digital Era, UNGP New York presented examples from our own work around ethics, big data, and AI. Our director discussed how to approach data collection in order not to reinforce discrimination, bias, or stereotypes against individuals and groups. The event was organized by UN Women in collaboration with the UN Statistics Division.

Lab Visit: UNESCAP Delegation

28 February 2020
UNGP Jakarta hosted a visiting delegation from UNESCAP Asia and the Pacific, headed by its Executive Secretary Armida Alisjahbana. The team shared the evolution of its data journey from working mostly with social media data in its early days to now having research partnerships with a diverse range of data providers.

MARCH

Diálogo (im)probable. Ética y Revolución Digital

4 March 2020
UNGP New York's chief data scientist attended the event to share our expertise in driving policy efforts around data privacy and protection at the UN. The conversation, organized by the Innovation and Technology for Development Centre (itdUPM), focused on the ethical and organizational challenges posed by digital technologies.

Tech Talk: From Research to Product

4 March 2020
The Directorate of Information Systems and Digital Transformation at Institut Pertanian Bogor University invited UNGP Jakarta to share its experiential learning on bringing together academics and decision makers working in the policy space. The Lab discussed how it partners with government counterparts to develop fit-for-purpose tools and prototypes through a co-design process.

Privacy and Pandemics: Corporate Data Sharing Workshop

26 March 2020
Privacy and civil liberties are increasingly a point of inflection as efforts to collect and use population data to contain, mitigate and fight the spread of COVID-19 are launched. UNGP New York joined experts for a conversation around preserving civil liberties and democratic values while allowing for ethical uses of data in times of crises.



MAY

AI for Good Global Summit

4 - 8 May 2020
At this year’s AI for Good Global Summit, the UNGP network hosted three sessions centred on data privacy and data protection; ethical development of AI; and data for social good. The AI for Good Global Summit is the leading United Nations platform on AI, connecting AI innovators with problem owners for sustainable development. The Summit is organized yearly by the ITU and XPRIZE Foundation, with involvement from UN agencies including our network.

JUNE

EduData Summit Series

3 June 2020
The EduData Summit series explored how higher education can meaningfully use data to drive innovation for global benefit. UNGP New York shared our experience on how we can leverage data-driven innovation for education and to meet environmental imperatives. The session session gathered some 435 registrations from 67 countries.

CogX

8 June 2020
To address the question: “How do we get the next 10 years right?”, this global leadership summit and festival of AI and breakthrough technology convened forward-thinking policy makers, academics and activists. UNGP Jakarta described how the Lab implements its mixed-methods approach when designing interventions, by combining human centered design with AI and data analytics.



Berlin Summer Dialogue 2020: Crisis Prevention: From Ambition to Action -New Pathways for the UN

9 June 2020
The annual event organized by the German Cooperation and the Federal Ministry for Economic Cooperation and Development (BMZ) addressed the following questions: What can new technologies contribute for early prediction and warning of conflicts? How can the cooperation of international organisations in conflict prevention be improved? And finally, How can the necessary political will be generated for early detection and preventive action?

JULY

Data Privacy Risks and Data Protection: What Happens When Sensitive Peacekeeping Data Leaks? How Can We Prevent It?

16 July 2020
In an internal session organized by the DPPA-DPO Information Management Unit, UNGP New York presented our data protection and privacy frameworks and shared insights and lessons learned from applying our own Risk Assessment Tool, a data privacy, ethics and data protection compliance mechanism designed to help identify and minimize the risks of harms and maximize the positive impacts of data innovation projects.

RightsCon Online 2020

29 July 2020
Described as the world’s leading event on human rights in the digital age, UNGP Jakarta participated in a virtual roundtable that addressed the question: Can Global South institutions survive the GovTech onslaught? Highlighting proofs-of-concept from Indonesia and the wider Asia Pacific, our Data Innovations and Policy Lead explained how with appropriate checks and governance, digital innovation can help to address the COVID-19 crisis.

AUGUST

UNDESA Expert Group Meeting

4 - 7 August 2020
UNDESA, UNCTAD and ITU organized an expert group meeting around the theme of “Socially just transition towards sustainable development: The role of digital technologies on social development and well-being of all”. UNGP New York was invited to share its expertise on digital governance and more broadly, data privacy, protection, and ethics.

Leveraging Data in the “New Normal”

5 August 2020
Organised by the Australia-Indonesia Centre, the webinar considered learnings from the pandemic, how data has been collected and the role of data in disaster preparedness. UNGP Jakarta shared insights from its assessment of Indonesia’s country-wide data ecosystem in relation to the availability of publicly reported data on COVID-19, as well as some of the underlying conditions that need to be addressed.

Asia and the Pacific Transport Forum

24-26th August 2020
The forum provided an opportunity for experts in the Asian transport community to meet and share thoughts on key transport issues that have come about in the “new normal”. Speaking on the theme of building resilience to future crises in transport, our team in Jakarta highlighted potential benefits of enhancing the role of big data to address changes in urban transport and shape future development of the transport system.



SEPTEMBER

International Data Sharing and Artificial Intelligence Cooperation in Global Public Health Emergencies: A Virtual Roundtable

2 September 2020
UNGP New York joined a panel discussion on Data Sharing, AI Cooperation, and the Transnational Response to COVID-19 to discuss the challenges and opportunities for transnational collaboration among researchers racing to support the response to the pandemic.

Mempertahankan Semangat Keria di Tengah Pandemi COVID-19

2 September 2020
The Indonesian Ministry of State-Owned Enterprises invited our team in Jakarta to share its work on COVID-19 response in Indonesia. UNGP Jakarta underscored why effective response calls for shifting from simply innovating for the sake of innovation, to addressing underlying challenges in the data ecosystem to ensure greater adoption and more sustainable solutions.

2020 Global Virus Network Special Annual Meeting: Epidemics & Pandemics in the Modern Era

22 - 23 September 2020
This meeting focused on lessons learned from previous viral diseases and discussed preparedness for the second wave of SARS-CoV-2 and future pandemics. UNGP New York presented during a session on Information Mining and Validations and shared our experience working with WHO to mine online sources to understand dynamics of both the pandemic and the infodemic.

OCTOBER

Protecting Human Rights During the COVID-19 Crisis and Beyond: Digital Pandemic Surveillance and the Right to Privacy

5 October 2020
At the 75th UN General Assembly, UNGP New York hosted a high-level multi-stakeholder panel that delved into the implications of increased surveillance on human rights during and beyond the COVID-19 pandemic. The event narrowed in on contact tracing, the use of biometric and health-related data, and other technological interventions. Co-hosted with UN Human Rights, Access Now, and sponsored by UN Member States, the discussions drew upon existing multi stakeholder initiatives, including the UN Secretary-General’s High-level Panel on Digital Cooperation Roadmap.

Ministry of Change Innovation CoP Week

9 October 2020
Sharing stories and lessons alongside colleagues from UNDP Philippines Pintig Lab, the Head of our team in Jakarta discussed how the team has evolved from mostly focusing on data innovation, to now embracing its emerging identity as an analytic partnerships accelerator for development and humanitarian action in the region. The event was a collaboration between UNDP and States of Change.

Data Science for Social Good Summit

14 October 2020
The online summit co-organized by DSSG Portugal, SoGooD²ata and Nova SBE showcased impactful projects, provided first hand learning opportunities from global leaders and offered learn-by-doing workshops for NGOs, Government and tech-savvies. UNGP New York was invited to talk about its work applying AI to analyze public voices in support of the 2030 Agenda.

Safe and Trustworthy AI-Based Data Algorithms - Emerging Best Practices in the Global South and the Global North

20 October 2020
UNGP New York organized this session at the UN World Data Forum to bring perspectives from the Global South and the Global North around the safe and trustworthy use of AI systems, especially in the time of COVID-19. Discussions not only reviewed developments in this space, but looked more specifically at how cultural approaches influence ethical considerations of AI and data algorithms and how we can develop flexible best practices for data governance and national human rights-based approaches.

Leveraging Data and AI to Achieve the SDGs While Moving Toward a Global Data Access Framework

21 October 2020
UNGP New York hosted a discussion on the technical infrastructure necessary to facilitate access to quality data through the development of a Global Data Access Initiative. Building on discussions held during previous years at the UN General Assembly, the AI for Good Global Summit, and the World Government Summit, the session investigated three proposed use cases in Global South countries.

CDAC 2020 Online Annual Public Forum

28 October 2020
Under the theme Accountability in the Age of the Algorithm, the Communicating with Disaster Affected Communities Network organised a public forum to discuss digital inclusivity and issues that constrain it. UNGP Jakarta talked about the importance of designing inclusive solutions that also cater to the world’s most vulnerable populations, and shared how local initiatives can offer practical solutions that can be further scaled for social impact.

NOVEMBER

UNESCAP Asia-Pacific Stats Café Series

2 November 2020
Furthering the discourse on integrating big data sources into official statistics, UNGP Jakarta presented its research results on using mobile network data to map population displacement in the Pacific following natural disasters and leveraging real-time sensing from social media data to infer commuting statistics in Jakarta.

Global Crises and Socially Responsible Data Responses

9 November 2020
UNGP New York was one of the organizers of this session of the Internet Governance Forum (IGF) to uncover how data sharing can provide relevant tools for prevention and management of global health crises. The summary of the workshop featured a list of case studies mentioned by speakers and participants in order to provide a menu of good practices for policy approaches.

Gender Equality & Social Inclusion Conference Call

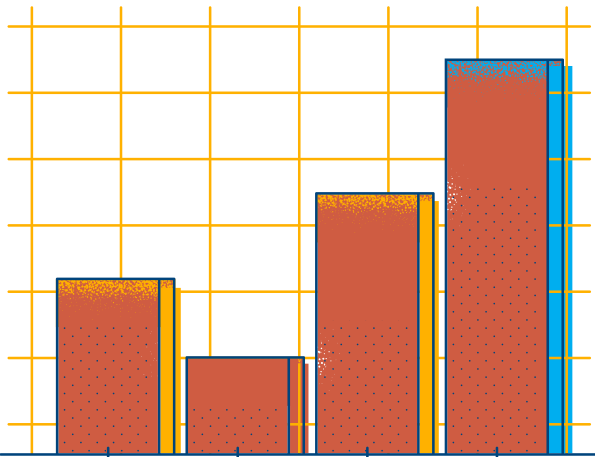
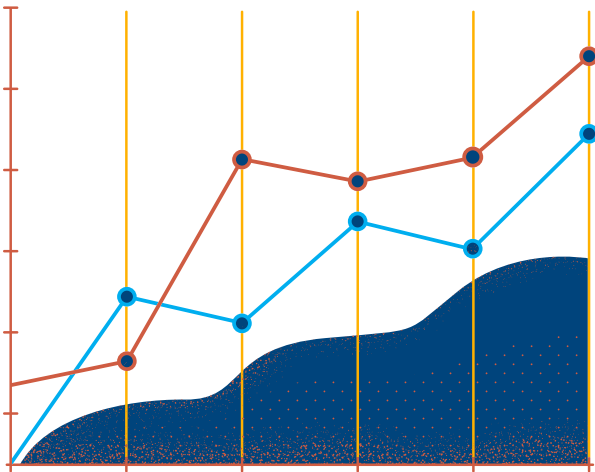
9 November 2020
As part of Abt Associates’ Gender and Social Inclusion Community of Practice regular monthly call, UNGP Jakarta articulated how the Lab went about embedding gender in its After Dark research on the safety of women travelling at night and how the findings and recommendations are influencing transport outcomes for women and girls in Indonesia.

Indo Data Week

22 November 2020
The week-long knowledge sharing virtual event brought together visionaries, practitioners, decision makers and researchers from the fields of data science and sustainable development. UNGP Jakarta presented in its inaugural session on how Big Data can promote data-driven decision making for effective government response to COVID-19 at the national and sub-national levels.

Digital Agriculture Solutions Forum for Asia and the Pacific 2020

30 November 2020
FAO and the ITU organised the forum to share ideas on how communities can build back better through sustainable digital interventions for agriculture. Discussing its research on Identifying Potential Positive Deviants (PDs) Across Rice Producing Areas in Indonesia, UNGP Jakarta described some of the enabling conditions that are necessary to ensure that successful innovations are made accessible to broad-based users.



DECEMBER

Big Data Forum Trinidad and Tobago - A smarter future: Exploring Big Data opportunities for Trinidad and Tobago

1-2 December 2020

The Forum illustrated the potential for Big Data to add value and reduce risk across business, social and economic spheres. It also explored the transformational potential of Big Data and looked at ways to build and promote trust, collaboration and innovation across multiple sectors.

ITU World Telecommunication/ICT Indicators Symposium 2020

3 December 2020

The symposium gathered government officials, regulators, national statisticians, data producers and researchers to discuss issues related to information society trends and their measurement. UNGP Jakarta shared its experiential learnings on the feasibility of leveraging mobile phone data for disaster response in the Pacific and in Indonesia.

Report Launch: Leveraging Digitalization to cope with COVID-19

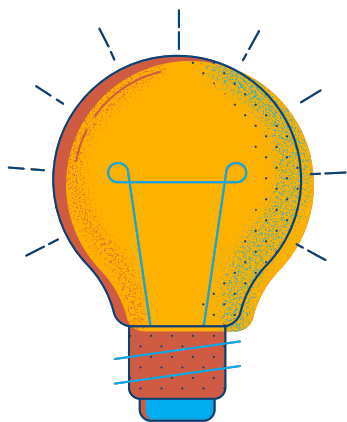
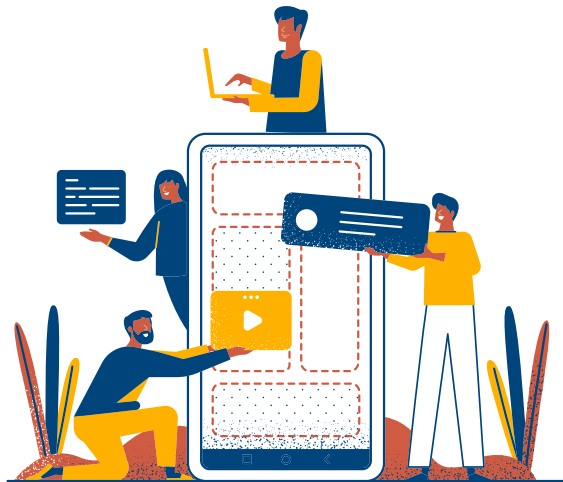
11 December 2020

In a public forum attended by representatives from the Indonesian Ministry of Women Empowerment and Child Protection, Indonesian Chambers of Commerce, and the Ministry of Cooperatives and Small and Medium Enterprises, UNGP Jakarta and UN Women presented the results from their joint research which examined the difference in outcomes and coping strategies between women and men owned micro and small businesses in response to the pandemic.

2020 Conference on Neural Information Processing Systems

12 December 2020

The conference is one of the largest AI virtual gatherings, where participants from across the globe get to share and explore some of the most cutting-edge AI innovations that are addressing real-world challenges. UNGP Jakarta had three papers accepted to this year's conference, which were featured during the virtual conference halls.



ACRONYMS

4IR	The Fourth Industrial Revolution
AAAI	Association for the Advancement of Artificial Intelligence
AFPS	UN Agencies, Funds and Programmes
AFTECH	Asosiasi Fintech Indonesia
AHA CENTRE	ASEAN Coordinating Centre for Humanitarian Assistance
AI	Artificial intelligence
AI4COVID	AI for COVID-19 Programme
AIRA	Africa Infodemic Response Alliance
AIS	Automatic identification system
ASEAN	Association of Southeast Asian Nations
ATMS	Automatic teller machines
B2G	Business to Government group of the European Union
BAPPENAS	Indonesian Ministry of National Development Planning
BD4SG	Big Data for Social Good
BMZ	German Federal Ministry for Economic Cooperation and Development
CCCM	Camp Coordination and Camp Management
CDAC	Communicating with Disaster Affected Communities Network
COVID-19	Coronavirus Disease 2019
COVID-19 MPTF	UN COVID-19 Response and Recovery Multi-Partner Trust Fund
CTBT	Comprehensive Nuclear-Test-Ban Treaty
CV4GC	Computer Vision for Global Challenges
DCO	Development Coordination Office
DFAT	Australian Department of Foreign Affairs and Trade
DFID	United Kingdom Department for International Development
DKI	Special Capital Region of Jakarta (Daerah Khusus Ibukota Jakarta)
DPO	Department of Peace Operations
DPPA	Department of Political and Peacebuilding Affairs
DSA	Data Science Africa
DSSG	Data Science for Social Good Portugal
DTM	Displacement Tracking Matrix
EDPS	European Data Protection Supervisor
EIOS	Epidemic Intelligence from Open Sources
EOSG	Executive Office of the Secretary-General
EU	The European Union
FAO	Food and Agriculture Organization of the United Nations
FPDM	Facebook Population Density Map
GDACS	Global Disaster Alert and Coordination System
GDAI	Global Data Access Initiative

GIS
GIZ
GSMA
HDX
HLP
HP
IAPP
IBM
ICML
ICRC
ICT
ICT4D
IDPS
IDRC
IFRC
IGF
IOM
IOS
ISOCARP
ITB
ITDUPM
ITS
ITU
JDS
KIAT
MDPI
MILA
MINUSMA
MIT
ML
MPTF
MSBS
MWC
NBS
NGOS
NOVA SBE
NPT
NSOS
NYU
OCHA
OHCHR

Geographic information system
German Corporation for International Cooperation GmbH
Global System for Mobile Communications
Humanitarian Data Exchange
High Level Panel
Harmful practices
International Association of Privacy Professionals
International Business Machines Corporation
International Conference on Machine Learning
International Committee of the Red Cross
Information and communications technology
Information Communications Technology for Development
Internally displaced persons
International Development Research Centre
International Federation of Red Cross and Red Crescent Societies
Internet Governance Forum
International Organization for Migration
International Organizations
International Society of City and Regional Planners
Institut Teknologi Bandung
Innovation and Technology for Development Centre
Sepuluh Nopember Institute of Technology
International Telecommunication Union
Jabar Digital Service
Korea Institute for Advancement of Technology
Multidisciplinary Digital Publishing Institute
Quebec AI Institute
United Nations Mission in Mali
Massachusetts Institute of Technology
Machine learning
United Nations Multi-Partner Trust Fund Office
Money services businesses
Mobile World Congress
National Bureau of Statistics
Non-governmental organization
Nova School of Business and Economics
Treaty on the Non-Proliferation of Nuclear Weapons
National Statistics Offices
New York University
United Nations Office for the Coordination of Humanitarian Affairs
Office of the United Nations High Commissioner for Human Rights

OICT
OIOS
PAG
PBSO
PDS
PDF
PODES
R&D
RNN
SARS
SARS-COV-2
SDG
SSG
SIDA
SMES
SRHR
UC
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UNAIDS
UNCDF
UNCTAD
UNDESA
UNDG
UNDP
UNEP
UNESCAP
UNESCO
UNFPA
UNGP
UNHCR
UNICEF
UNIN
UNITAR
UNODC
UNOPS
UNOSAT
UNPPG
UNSD
UNSOM

United Nations Office of Information and Communications Technology
UN Office of Internal Oversight Services
Privacy Advisory Group of UN Global Pulse
United Nations Peacebuilding Support Office
Positive deviants
Portable Document Format
Village Potential census
Research and development
Recurrent Neural Network
Severe Acute Respiratory Syndrome
Severe Acute Respiratory Syndrome Coronavirus 2
Sustainable Development Goals
Secretary-General
Swedish International Development Cooperation Agency
Small and medium-sized enterprises
Sexual and reproductive health rights
University of California
University College London
United Kingdom
United Nations
Joint United Nations Programme on HIV/AIDS
United Nations Capital Development Fund
United Nations Conference on Trade and Development
United Nations Department of Economic and Social Affairs
United Nations Sustainable Development Group
United Nations Development Programme
United Nations Environment Programme
United Nations Economic and Social Commission for Asia & the Pacific
United Nations Educational, Scientific, and Cultural Organization
United Nations Population Fund
United Nations Global Pulse
United Nations High Commissioner for Refugees
United Nations Children's Fund
UN Innovation Network
UN Institute for Training and Research
United Nations Office on Drugs and Crime
United Nations Office for Project Services
Satellite imagery analysis programme of UNITAR
United Nations Data Privacy Policy Group
United Nations Statistics Division
United Nations Assistance Mission in Somalia



OUNV
UNWTO
UPM
UPU
USA
VAWG
WEF
WFP
WHO
WHO AFRO

United Nations Volunteers
United Nations World Tourism Organization
Technical University of Madrid
Universal Postal Union
United States of America
Violence against women and girls
World Economic Forum
World Food Programme
World Health Organization
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