CONNECTIONS

UNHCR Innovation Service
Connectivity for Refugees

UNHCR
The UN Refugee Agency

LUXEMBOURG
AID & DEVELOPMENT

UNHCR
Innovation
Service

UNHCR
The UN Refugee Agency

TABLE OF CONTENTS

CONTRIBUTORS

Rosie Afia, Market Engagement Manager - Innovation Fund, GSMA Mobile for Humanitarian Innovation

Giulia Balestra, Communications and Impact Consultant, UNHCR Innovation Service

Alpha Amadou Diallo, Admin and Finance Officer, UNHCR

Katie Drew, Innovation Officer, Feedback and Data, UNHCR Innovation Service

Aaron Kristopher Martin, Postdoctoral Research Fellow, Tilburg Law School

Lauren Parater, Innovation Officer, Strategic Communication, UNHCR Innovation Service

Hans Park, Strategic Design and Research Manager, UNHCR Innovation Service

Yiannis Theodorou, Senior Director, Advocacy/Acting Head of Digital Identity, GSMA Mobile for Humanitarian Innovation

John Warnes, Innovation Officer, Connectivity for Refugees, UNHCR Innovation Service

NOTE FROM THE EDITORS

Connections is the first publication of stories and articles on Connectivity for Refugees by the UNHCR's Innovation Service. Three years ago, UNHCR set off on a journey to bring connectivity to some of the most disconnected places and persons, trying to make the digital divide smaller. Three years of experiments in the connectivity space, testing approaches, forging partnerships and (re)adjusting direction and trajectories have resulted in a great number of insights and lessons. As a young initiative, yet one that is rapidly growing and expanding in terms of reach and global presence, with this publication Connectivity for Refugees is taking an opportunity to "press pause" and reflect on these lessons, from the early promises and early achievements to the so called failures (hint: the only failure would be to not have taken the opportunity to learn and improve!).

This publication is a collection, and recollection, of the important road travelled so far: good and less so practices, work and experiments in the field, bright spots of innovation within the digital space. It is also a glimpse into the future, the road ahead and some of the tools that can guide the initiative and keep moving it in the right direction: a clear strategy and mission, backed-up by research to have a more solid understanding of the intersections and intricacies of Connectivity for Refugees. The vision of Connectivity for Refugees is that "displaced populations and communities that host them have the right, and the choice, to be part of a connected society, and have access to technology that enables them to build better futures for themselves, their families and the world". This remains an important compass to navigate a future that is more and more uncertain, and also more and more about the digital.

With important contributions from UNHCR field offices, colleagues and partners, Connections is a reminder of the type of mindset and concerted effort that is needed to realize this vision. It is a reminder that only when working together to find solutions that work for everyone, yet are also specific to the community and context, we can make our digital future a more inclusive and equal one.

A BRIEF CONNECTIVITY FOR REFUGEES GLOSSARY

This brief glossary is designed to help you navigate the universe of connectivity and provide you with insights and explanations about key connectivity terms and acronyms. We have tried our best to come up with useful definitions and information in a simple and jargon-free (or almost) language.

Accessibility: The ability and ease at which an individual or community have access to a mobile device or service for its intended purpose and regardless of age, gender, diversity. Accessibility depends on multiple factors such as affordability, availability, and adoption (see respective definitions below). There are general accessibility challenges that all community members in a determined location can face (such as network coverage or poor infrastructure) and there are challenges which are specific to displaced populations (such as having the identification documents needed to register SIM cards).

Adoption: The ability and ease at which an individual and the broader community can operate a mobile device or access any mobile service for the intended purpose. When referring to a specific technology or innovation, the term describes acceptance and diffusion of the new product among the population considered.

Affordability: The ability of an individual to bear the financial costs of accessing products, devices or services. In this context, affordability includes the cost of the device, data plans, and any other additional costs fees incurred to charge the mobile device battery. Displaced populations often have to spend considerable amounts of their disposable income in order to stay connected with their families back home or to access vital services and life-saving information.

Availability: The extent to which mobile connectivity is available to an individual or community in a specific location. Availability depends on external factors such as network infrastructure and electricity provision. Availability can be very limited and remains a key challenge in providing connectivity to the refugee population, because of the nature of displacement, and the social and geographical realities that refugees encounter.

Community Technology Access (CTA) Centre: A community centre facilitating access to internet connectivity as well as other digital opportunities, related to education, training or professional purposes.

Connectivity: The level of connection, both qualitative and quantitative, that end-users have with the internet and other communication networks, and to other users of these networks.

Connectivity mapping: A detailed study of the availability of internet connectivity in a specific location and looking at different aspects of connectivity such as infrastructure, and quality of coverage.

Connectivity needs: The specific needs and demand for access to internet connectivity and services in a given environment and for a specific end-user group. These needs vary per specific end-user group and their different demographics, including age and gender. The connectivity needs of displaced populations are exacerbated by their status and vulnerabilities: on the one hand they often face challenges in access to connectivity throughout displacement, and on the other hand, they often rely on this same connectivity for protection, information, health, education and other life-saving purposes.

Digital divide: The gap between people who have access to connectivity, and those who lack it and indicating the subsequent inequalities in accessing information and communication technologies. Due to their status and vulnerabilities, displaced populations are often disproportionately affected when it comes to connectivity access.

Digital inclusion: The criteria and requirements necessary to ensure that end-user, including disadvantaged communities (such as displaced populations), have access to and are able to use Information and Communication Technologies (ICTs) and that this responds to their connectivity needs.

Digital literacy: The ability to effectively and critically access and navigate digital information and communications technologies, as well as make use and contribute to various resources on the internet.

End-user: The person who ultimately uses a product or technology and for whom the product has been designed and is intended for.

Mobile penetration: The percentage of population having access to telecommunications services in a specific geographic location.

Usability: The ability and ease at which an individual can operate a computing device, fixed or mobile, for its intended purpose or access a digital service as per need.

KEY ACRONYMS

CFR   Connectivity for Refugees
CTA   Connected Community Centre
DIST   Division of Information Systems and Telecommunications
ETC   Emergency Telecommunications Cluster
KYC   Know Your Customer
GSMA   Global System for Mobile Communications Association
ICT   Information and Communication Technology
ICT4D   Information and Communications Technology for Development
ITU   International Telecommunications Union
IVR   Interactive Voice Response
MNO   Mobile Network Operator
M4D   Mobile for Development
M4H   Mobile for Humanitarian Innovation
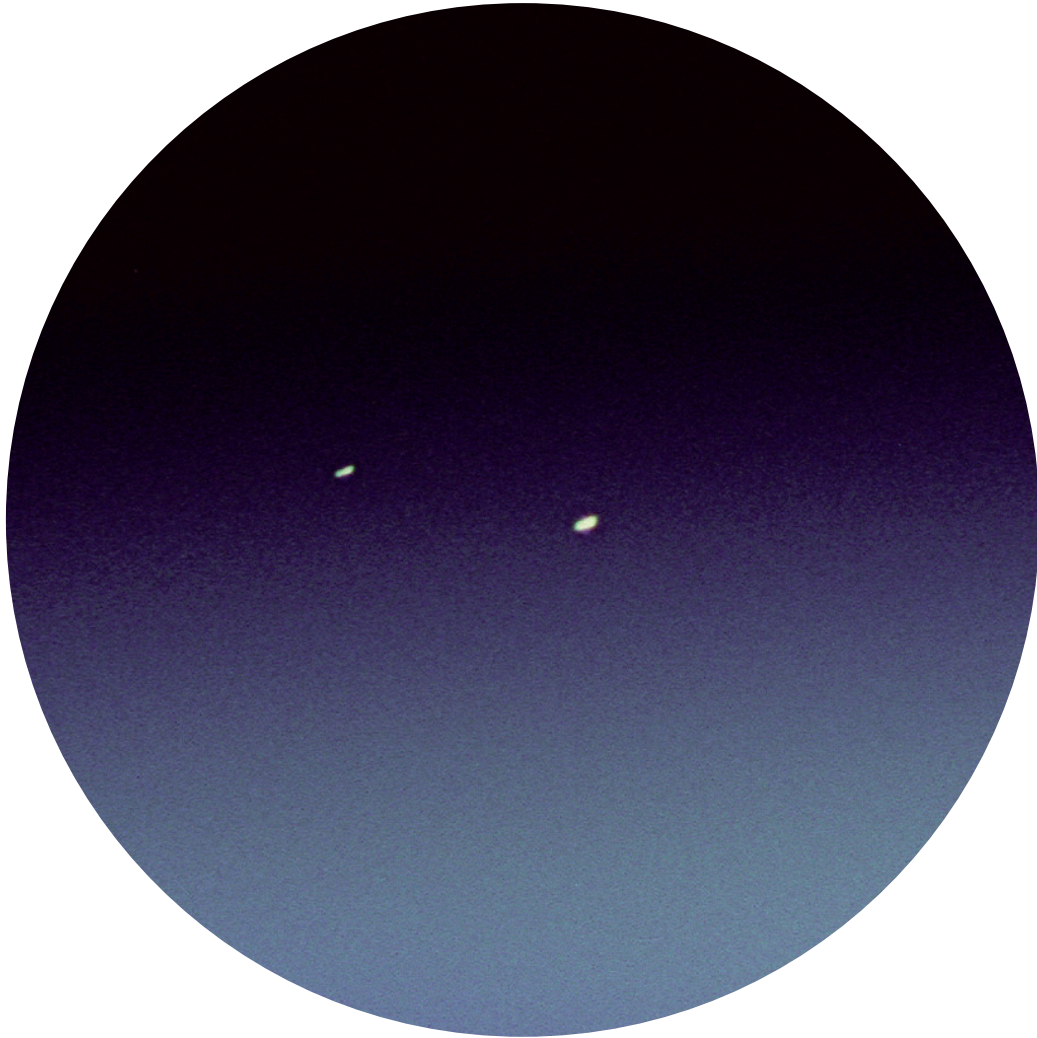
CONNECTIVITY FOR REFUGEES: TURNING EARLY LESSONS INTO FUTURE DIRECTIONS

Connectivity for Refugees formally started as an initiative in November 2016 with the launch of research conducted by Accenture Development Partnerships, and an associated Connectivity for Refugees report. This research was commissioned by UNHCR's ICT division and, given the experience in piloting and developing new initiatives, handed over to UNHCR Innovation Service for this incubation period. The research aimed to determine what impact could be made on the lives of refugees through internet connectivity, and to develop a practical route towards connecting those who are currently not connected – bridging the digital divide.

Three years since the inception of the Connectivity for Refugees initiative, the Service is taking a moment to reflect on how things have progressed, unpack the lessons learnt from pilots undertaken across a number of countries, identify obstacles and challenges, but also progress and impact.

Early lessons

Plan for meeting fundraising goals, prepare as if you won't: UNHCR set itself an ambitious fundraising goal of USD 6 million in the first year, announced in the launch report. We thought as many of our partners did; that the nature of the topic would lead to a high level of interest from fundraisers. Sadly, the world had other ideas and humanitarian aid and development funding has faced challenges across the board: the goal wasn't reached, understandably. The parameters of the pre-determined fundraising effort hampered the Connectivity for Refugees initiative's ability to pivot as necessary to face these new realities, and using money that was internally made available in more creative ways.

Building new profiles and structures is resource intensive: A lot of effort went into trying to support the establishment of the Connectivity Coordinators throughout operations, firstly by encouraging field operations to invest, and also through dialogue with the UNHCR's regional bureaux. This internal advocacy was resource intensive and could have been more systematic, with greater coordination with UNHCR's Human Resources division. While a number of staff in ICT posts were engaged, the initiative could have leaned further on the broad range of skills within existing protection and field delivery teams as well, with less of a focus on the technical / infrastructure side, but more background in engaging with local communities to assess needs, and coordination with diverse stakeholder groups.

Centralised programming and administration slows progress: With a core team established in HQ, and few coordinators in place, the team started to become quite heavily involved in certain projects that were to take place at field level, without having the necessary accountabilities or

authorities on delivering such projects. Additionally, taking on aspects of programme design for field operations from HQ has resulted in more complex and resource intensive programming.

Creating a dedicated thematic can result in the issue becoming siloed: Having dedicated Connectivity coordinators sometimes resulted in the issue of connectivity becoming siloed away from areas that would benefit from it i.e. in one operation digital education was the responsibility of the Connectivity coordinator, rather than being driven from within UNHCR's local education team. In another operation, aspects of communicating with communities were to be delivered by the connectivity coordination function, rather than integrated into community based protection programming.

Evidence and data: There were significant resources invested in research at the outset of the initiative through the partnership with Accenture. However, when speaking publicly about the project, or the state of connectivity in a particular country, or even whether legal access was available to networks for refugees, there was limited documentation of pilot initiatives to date. This has hampered UNHCR's ability to broker partnerships or undertake data-driven decision-making.

Creating field-level buy-in is difficult without supporting resources: It was easiest to generate buy-in for the project where resources from headquarters were allocated to a field operation. When an operation's own resources were required – whether financial or human, the issue was deprioritized in light of broader budget contractions in other areas that critically required resources. The case that connectivity is a cross-cutting supporting infrastructure to many areas of delivery from cash-transfer programming through to education. We've seen connectivity bring about an array of opportunities in these areas and the initiative could have made a better case for investment in connectivity that would result in exponential gains across the operation.

Top-down solutions are less effective: Applying solutions we have developed (either in HQ by the initiative or its partners) top-down to challenges we look for has resulted in numerous project inefficiencies. For instance, in one operation community mobile phone charging stations were simply too large and bulky – something that could've been avoided with more community involvement in the design stage of the project. Across the board, many of these issues could have been addressed with adequate and appropriately driven community consultation and feedback. Where communities had ownership, and buy-in, connectivity projects were generally more effective, for example the Refugee Information Centre in Uganda was established by a community based organisation with resources pooled from the local community – including their own laptops and smartphones. This demonstrates the importance the community places on connectivity, and their willingness to sustain the centre and maintain access.

Legal barriers can make or break Connectivity for Refugees: There were and are numerous locations where legal and regulatory restrictions prevented any form of a project or interventions from taking place. In many cases this was having a lack of clarity about whether refugees were able to access SIM cards or not. Further efforts need to be taken to understand the legal and regulatory barriers to connectivity which means understanding the legal and regulatory frameworks and advocating for technical changes to incorporate refugees into these, or potentially policy shifts where they are found to be exclusionary.

While the business case in many areas is strong, sometimes it is not commercially viable and alternative solutions need to be explored: A lot of focus is being placed on sustainability of connectivity initiatives, in that services remain when UNHCR's ability to fund things on an ongoing basis decreases due to prioritisation of new emergency refugee situations. Where connectivity through mobile network infrastructure is commercially viable the spending power of communities is sufficient to connect populations on an ongoing basis; there is a good business case for Mobile Network Operators. Sustainability is often difficult even when there is a business case, as profit margins may or may not result in commercial viability, but there are many areas where a viable solution may be tricky to establish at all and alternative approaches need to be explored, acknowledging – realistically – that UNHCR's resources that may need to be invested on an ongoing basis to keep the population connected.

Impact is difficult and resource intensive to measure: The project team gave priority to kick-starting a number of pilots and initiatives over the first two years, with more time invested in getting new things off the ground as opposed to reflecting on how the pilots were being undertaken, and what impact they were having. Though some key performance indicators had been outlined within the initial strategy document, substantive application of and measurement of the pilots against these is still ongoing, with many more insights still to be gleaned from these endeavours.

New directions

A learn-fast and early approach to connectivity allows us to be flexible and adjust our course as we go, while we keep on moving forward. Building on the lessons highlighted above, these are the are five strategic areas that the initiative needs to focus on to scale its work inside and outside of our organisation:

1. **Strengthening partnerships and working through consortia.** Rather than position Connectivity for Refugees as a core implementing function, we will ensure that we capitalise on where UNHCR can add the most value and work strongly in partnership when external expertise is required. This will be about building and developing strong relationships with trade groups such as the GSMA, with infrastructure providers, different consortia such as the new Broadband for Refugees initiative and other UN agencies such as the ITU.

2. **Strengthening evidence-based advocacy at a higher level.** In order to create conducive environments for connectivity activities, there is a need to ensure that the right policy and regulatory environment is in place to encourage investment from Mobile Network Operators in refugee-hosting areas and the ability for refugees to legally access these network through acquiring SIM Cards. This is achieved through developing more robust advocacy platforms, having a direct liaison with Ministries of Communication, Telecommunications Regulators and at the global level with convening entities such as the ITU and the new Broadband 4 Refugees initiative, which aim to transfer good regulatory practice amongst different telecommunications regulators.

3. **Building competencies of staff and partners.** Hand in hand with the above, substantive efforts will be made to build the capacity of staff to address the thematic even where the global initiative isn't operational. This will start with specific foundational elements about what the topic is, and how to engage with relevant actors, and get more specific as the materials are developed. External partnerships will be leveraged to develop this material.

4. **Strengthening accountability through data, transparent documentation and evaluation.** A dedicated focus will be made to gather data, shared data (in line with UNHCR's data protection guidelines and principles) and document activities and initiatives. UNHCR plays a core coordinating and brokering function and enhanced efforts will be required to develop materials and case studies based on UNHCR and external interventions. This would also extend to mapping connectivity itself, and evaluating progress in line with the overarching strategy.

5. **Prioritising innovative projects and sharing of promising practices.** Housed within the Innovation Service, the initiative has an imperative to push the boundaries of what can be achieved, utilising different ways of working, non-traditional partnerships and alternative business models to promote connectivity across refugee and hosting populations. A triage process will be established to prioritise initiatives that push the boundaries of our approaches to Connectivity for Refugees.

Through early lessons we have been able to identify the directions for the future. Now, how do we get there? Our compass is made of four key principles that have so far been vitally important, and that will keep guiding us in our mission to connect millions of displaced persons that remain unconnected.

1. **Transparency and Accountability.** In times of resource constraints above the board, the Connectivity for Refugees initiative will prioritise accountability and transparency. This will ensure that we're having the most tangible impact per dollar spent and open ourselves up to feedback and constructive criticism.

2. **Simplification.** From the lessons learned, it became clear that inefficiencies hampered progress on good ideas. Like any large organisation, UNHCR has certain systems in place, and protocols to follow – most with good reason. In order to capitalise on the positive aspects of these, an approach will be taken to simplify our approaches as and where possible, from humanitarian programming through to advocacy.

3. **More bottom-up and community-driven approaches.** Connectivity for Refugees is a 'community-first' initiative, rather than a 'technology-first' initiative. Through reinforcing this in every piece of work that is undertaken we will be able to better leverage the capacities within refugee and hosting communities to the fullest extent to support their access to connectivity and its benefits, encouraging their participation through all stages of programme design and delivery at the operational level.

4. **Devolving delivery and programming to operations.** In line with the above, there will be a steer away from HQ driven programming towards operational field level programming. By taking this closer to the communities we're supporting, greater ownership can be developed by field operations and communities themselves, with the HQ team of Connectivity for Refugees been seen as a true supporting function, leveraging global partnerships and expertise, rather than a reporting line, or programmatic obstacle.

Moving forward can only happen if we acknowledge the road travelled so far, with its turns and detours, potholes and impasses. As the Connectivity for Refugees initiative grows and prepares to scale, we keep on our horizon both what is behind and ahead of us: the important lessons and adjustments along the way, our direction but also the redirections, and the vision of a future in which refugee communities have the right and choice to be connected.

OPINIONS

THE FINAL FRONTIER FOR INCLUSIVE CONNECTIVITY

By Giulia Balestra

"What happens when refugees tell us—directly and repeatedly—that finding meaning in life is equally or more important than finding food that day? That creating a future for their child prompts them to start a perilous journey and give up the certainty of shelter and food? Refugees come to us and respond to us not as a sequence of needs, but as a whole person."
(The Refugee Rethink: What if Maslow was wrong?[1])

Lesvos, Greece—2015.

A summer that was different, a summer that made other summers be different. We stand on the shore as if we are standing on the door, waiting, looking at the seemingly calm waters and flat horizon. We have food, water, extra clothes, and blankets, first-aid supplies. We think we are ready, ready for what we think are people's first, immediate, basic needs.

"Where can I charge my phone?"
"Is there WiFi?"

We answer with silence, feeling trapped in the survival thinking of an emergency response. We forgot that together, with what keeps us alive, there are things that make us alive. Meaning, purpose, connection.

But what if connectivity was a basic human right? As basic as food. As basic as protection. As basic as education. What if refugees and host communities alike had equal access to the opportunities that come with being online, being connected? What if paying for a phone, for data and calls didn't mean not being able to pay for school fees, health care or food? What if this idea did not make some of us frown, question, doubt, wonder why refugees need WiFi and why they have phones in the first place?

What about you, and us? Why do you have a phone and why do you need WiFi?

Personally, I use my phone and the internet for work, to stay in touch with my family and my friends, and sometimes to distract myself. These are all good reasons, whether I am a refugee or not. Now, imagine you could use your phone to access information in times of crises, to find out how to be safe or access medical care, to translate what you want to say when there is no other way to communicate, to find a job, to find your family. In this sense, the small piece of connected technology that you hold in your hand becomes even more crucial and more valuable to your life.

The digital revolution will be inclusive. Or it won't be. That is our choice.

It is time we look at these digital needs and realise that, yes, there are indeed differences in how and why people connect. Yet there is one thing that we all share (or should share): the right to connectivity. I see a world, not too far from now, not too far from today, where we can rethink our approach and change the way we respond to emergencies, shifting the attention from "needs" to "rights", from "basic" to "human". One where connectivity is a tool to create a more just and inclusive future.
We can all start today with one simple action, so simple we think that it would not make any difference: be better at listening. Let us listen to what people ask and say they need, rather than what we think is best for them. I believe that this can change the way we work as humanitarians and the way we are as humans. Inclusive (dis)connections

We live in a hyper-connected and fast-paced reality, where some days my life is 99% digital and 1%...real. Would I know this if I were not connected already and able to navigate, search and discover anything I wished? Probably not. Today, a third of this same world is not connected to the internet. You could say that maybe it's for the better: I also fantasize about not having an e-mail address, a couch where people can surf on, a liked (or not so much liked) photo or post. After all, aren't we, the other two thirds, controlled by technology, constantly worried about our privacy and data, competing against robots and artificial intelligence for jobs and resources? These worries are luxury too, because we have a choice to connect or disconnect, to choose or not to choose if, how, and when to access the internet.

So whether it is about connecting or disconnecting, what matters is choice and making sure that everyone has the same chance to (dis)connection. Inclusion happens when we strive towards having the same rights and opportunities, and accept that, as long as there are barriers and obstacles in someone else's way, we also are not free.

The promise

Are we creating a better world by providing connectivity? Maybe. Or maybe not. But this is happening either way and while we strive to make the most, we need to ensure that the same rights are provided to all.

I do believe that if there is something that connectivity can help us do, in this virtual space of ours, is to create what we want to see. A better world. A different world. A more connected world. What if we had a tool for change, right here, in our hands? And what could this change look like?

We will only know when you, and I and a person with refugee status, all have access to the same opportunities, when we can all afford for a mobile phone, register a SIM card with whatever proof of identity we dispose of, pay for data, and have the necessary skills to navigate this web and know how to make safe and informed decisions. In other words, until all refugees and hosting populations, regardless of age, gender or demographic group, can access mobile and internet connectivity to build brighter futures for themselves, their families and the world.

How do we make this a reality?

The vision of Connectivity for Refugees, an initiative currently led by UNHCR's Innovation Service, is to bridge the digital divide, connect those who are currently not connected and include everyone in the digital revolution that is taking place globally, regardless of

1   Daniel Wordsworth
https://medium.com/becoming-alight/the-refugee-rethink-part-4-what-if-maslow-was-wrong-27eb49707548

age, gender, and diversity. Our role in this is one of connectors too: we want to bring actors in the network closer together, spur conversation and change, and function as a catalyst in realising the vision of Connectivity for Refugees.

Our work consists in developing a practical roadmap towards this goal and to make sure that we get there. The way we see connectivity is as deeply interlinked to freedom and choice: freedom to have access to opportunities and information, freedom to make better choices and actions. Framed as such, connectivity is both a right and the instrument to exert this same right, a "right to freedom of opinion and expression; [...] to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers" (Article 19. The Universal Declaration of Human Rights).

We have come a long way since the inception of the Connectivity for Refugee initiative, learned a number of important lessons which have reshaped and informed our strategy moving forward. There are still many barriers on the path to connectivity, from technical to social and political: poor infrastructure, legal regulations to register SIM cards, costs of devices and services, lack of relevant content and digital literacy. Immediate action needs to be taken for refugees to have the ability to legally connect to the internet. However, we firmly believe that what is on the other side of the fence—the possibility to create better and more inclusive communities—is worth the attempt to climb it. We will not achieve this if we work in silos: connectivity calls for stronger collaborations and holistic approaches.

Everyone has a different role to play in reaching this same goal, from governments to the international community, to displaced populations and the private sector.

The final frontier

The digital world has its own barriers: there's poor infrastructure and coverage, high costs of devices and data, strict legal regulations and many more challenges. At best these factors are delaying the inclusive future we hope for, at worst they are making it impossible for displaced communities to be, and stay connected.

On one horizon I see physical borders, higher walls and digital barriers making us all more far apart, and highlighting the cracks between us. On the other one, I see the cyber as a place where a shared, inclusive future is a possibility.

I rely on the power of the internet to break down some of these barriers and find ways around (fire) walls. I rely on you to join us in rethinking what we mean by basic needs and who has the right and is entitled to a fulfilling future.

Do we not all want to create connections, find community and belonging? And what if the final frontier is the one of connectivity as a human right?

THE EPOCHAL MISSION OF LOCAL INNOVATORS

By John Warnes

Are you a Voyager 2?

Over the past couple of years, I journeyed to UNHCR's branch office in Lilongwe, Malawi multiple times, working across projects from connectivity to community radio. The communities of Dzaleka refugee camp, approximately half an hour drive from Lilongwe, have been learning to create mobile apps and finally received their licences to broadcast radio last year. More and more young refugees are aiming to undertake tertiary education courses as part of the promise education brings for a brighter future.

While there are a lot of young people taking up the courses, one of the most striking things to consider is how it all got started. Building community buy-in and ownership is something of a holy grail for humanitarians looking to build out forward-thinking programmes with communities, particularly those that leverage new or even old technology. In the case of Malawi, and countless others, it was primarily down to a small number of individuals; the aficionados. I'd define these aficionados as innovators who have been using technology in new and creative ways to support themselves and their community. These innovators are on their own epochal mission that I liken to the spacecraft known as Voyager 2 that recently crossed the neighbourhood of our solar system. The aficionados are extending exploration outside the known and this matters because it influences people beyond the small group who actually do it. They're the ones at the edge of what a community is and bringing in new experiences, ideas, and technology that will make it evolve.

Sometimes technology gets singled out or siloed into something separate for the mainstay of society but actually, it is part of a broader technology adoption lifecycle[1], originally documented in Everret Roger's diffusion of innovations theory[2]. This theory outlines how new technologies get adopted by communities organically, with a small group of early adopters leading the way before broader adoption takes hold. For instance, at one point in the distant past - the wheel - was literally ground-breaking technology. Do you think the organisations of the day had bureaucratic hurdles to overcome in getting people using wheels? Were there dedicated wheel divisions or teams promoting the use of wheels? Unlikely. Rather there would have been a group of people who were the first to try and understand its relevance, and adopt it before it became mainstream, and champion it beyond.

---

1   https://en.wikipedia.org/wiki/Technology_adoption_life_cycle
2   Beal, George M., Everett M. Rogers, and Joe M. Bohlen (1957) "Validity of the concept of stages in the adoption process." Rural Sociology22(2):166–168

Another example of aficionados and the important role they play would be for instance those who were investing time and effort on the internet prior to the dotcom bubble. They have become the founders of some of the biggest technology companies in the world, like Zuckerberg of Facebook or Brin/Page of Google, now Alphabet. Or at the very least will have led the way in their communities evolving around these new technologies.

This same diffusion theory applies across all societies, including refugee communities. Taking some terminology from Roger's process, just like in any society there are a small number of refugees who have grown up with some of this technology, and whose curiosity has led them to experiment, explore and share. They are leading their communities in a society evolving to a dramatic technological shift that will bring them into the digital era and in time through the fourth industrial revolution and beyond.

Take Remy for instance, a refugee at Dzaleka camp in Malawi, whose story has been documented on the UNHCR web portal[3]. The way that technology has impacted his world is paralleled much of mine (given my job and area of work no surprise that I began my internet life in the dial-up age rocking Netscape Navigator as my browser in the mid-90s). Remy is boosting his own knowledge and skills through his TakenoLab endeavour, which teaches coding to the community and provides avenues for them engaging with technology. He is supporting his community and filling life with things important to him through his engagement with technology.

Remy isn't the only one. These aficionados exist in every community, and what is most fascinating is that their approaches, and activities no matter how few or small, often set the stage for more widespread adoption and advancement of technologies amongst populations for years to come. All of this is also mirrored in global trends. According to the GSM Association (GSMA)[4], the percentage of total smartphone connections in Sub-Saharan Africa will double from 34% to 68% by 2025. Aficionados like Remy are taking their approaches mainstream with ever increasing numbers of community members wanting to learn more and adopt what the aficionados are championing.

Looking skyward

The humanitarian journey since the advent of the connected age has been somewhat perilous. The nature of the challenges posed by technological evolution are only now starting to be systematically addressed, and there are still mountains to climb across the board. But if we look up we can see the path upwards. We can see a path trodden by the private sector, where startups have grown at phenomenal rates, and incumbents behemoths are forced to take extremely difficult decisions.

The aid sector and ecosystem hasn't evolved a great deal. Innovation, technology, and connectivity remain peripheral topics in a crowded space with many new work thematics jostling for position in a complex age. Frequently these are used as a vehicle for engaging with the private sector, read: accessing private sector funding/financing. And now, for some reason, articles like that above highlighting Remy's story are still common. It is almost as though the sector is surprised that aficionados exist, or that societal evolution will occur through an amalgam of private sector and humanitarian intervention, rather than communities themselves and those aficionados at the cutting edge.

UNHCR's footprint of connected community centres in 2010 spanned only 24 centres across all operations. In hindsight, this doesn't only seem limited in ambition, but also that such interventions will be somewhat 'exclusive'. A 2013 evaluation of the project[5] highlighted a number of challenges relating to the implementation of such centres in truly stimulating enhanced use of digital technologies and facilitating a cycle of diffusion into communities.

Now let's rewind to the GSMA's African Mobile Observatory report of 2011[6]. This report states that in the five years prior to 2010 mobile penetration in Sub-Saharan increased from 15% to over 50%. These statistics demonstrate the gulf between the reality of what is happening in these societies and our reactions as a supportive humanitarian sector. The CTA intervention when transposed onto that trend of mobile penetration to me implies something inorganic i.e. not built out of the natural evolution many of these communities were going through in respect to 'technology access'.

Given that the majority of humanitarian aid is provided to developing countries, the implications of these sort of statistics on future delivery of humanitarian aid and development is profound. The aficionado's today is the general population's tomorrow and we are lagging behind.

The GSMA Mobile Economy Report 2018 outlines that the major trend facing the developing world is that "smartphone users will gradually transition to higher levels of engagement." In addition, according to Ericsson (in its Mobility Report[7]), global mobile data traffic will increase to 136 exabytes per month (136 billion gigabytes) by 2024, which is 1.3 times more than traffic today. The change is massive.

Furthermore, ideas around what connectivity means are continually shifting. Georgetown and Berkley academics Mayo, Macher, Ukhaneva and Woroch outline a redefinition of the universality of telecommunication services from household access (think Community Technology Access Centres) towards individual access across space and time[8].

3   https://www.unhcr.org/news/latest/2017/3/58c7aa054/connectivity-brightening-future-of-refugees-in-malawi.html
4   https://www.gsma.com/refugee-connectivity/

5   https://refuge.journals.yorku.ca/index.php/refuge/article/view/37503
6   https://www.gsma.com/spectrum/wp-content/uploads/2011/12/Africa-Mobile-Observatory-2011.pdf
7   https://www.ericsson.com/assets/local/mobility-report/documents/2018/ericsson-mobility-report-november-2018.pdf
8   https://link.springer.com/epdf/10.1007/s11149-017-9336-8?author_access_token=j_9NGq8adGrSH63DVt3WjPe4R-

Our understanding of these issues needs to evolve with the trends and if we want to realise our added value to the future of these societies as humanitarians our positioning in our strategies need to frame these appropriately, and our investment and support need to match this direction.

Connecting refugees

The Connecting Refugees report of 2016 was UNHCR's first step in moving the needle to where it needed to be. Research undertaken by Accenture helped bust some myths around refugee phone usage and its importance and this has been widely cited by Broadband for Refugees[9], the GSMA and others. This was a much-needed update to some approaches that had been floating around for decades, like the Community Technology Access Centre. But even then we didn't fully unpack future trends in this strategy. In fact, the word is mentioned once in the report. It states: *"Downward trends in the cost of devices and services, thus increasing refugees' ability to afford connectivity over time."*

Essentially making everybody's life easier. The fantastic thing about technology is that it is continuously evolving. The original Connecting Refugees report highlights percentage figures around refugees that were either 'connected' or 'not connected'. The reality we've learnt is a lot more nuanced than this implicit binary. Connectivity will continually evolve and what it means to people will continually evolve.

Due to decreasing costs of components and innovation taking place on an unprecedented scale within the industry, it is likely, that within the coming decades we'll move towards universal connectivity.

But there are a number of other trends that have an impact on our strategy that weren't covered in this report. And to understand them we don't only head over to Silicon Valley and other western tech hubs, but we need to speak with the aficionados that exist where we are working.

We have reflected on this through a series of blog posts[10] more recently that highlight some of the challenges, but also touch on emerging issues that are getting UNHCR and our operations to think about the strategic implications of some of these technological developments.

It's clear with hindsight there was a mismatch between what UNHCR was trying to deploy as a solution at the time and the overarching societal shift that was taking place that was grounded in the adoption of connectivity by the unconnected en masse.

We have a responsibility to acknowledge trends and work cognisant of their evolving nature. We need to be more strategic in our approach and more adaptable to pivot as and when the direction shifts.

Shades of silicon

Humanitarian innovation practitioners are pretty guilty of being drawn to the buzzwords. Will blockchain help us make breakfast? Are drones going to repair my bicycles? The interventions around these nascent technologies have a slightly bizarre effect on the technology adoption lifecycle. Practitioners are starting to push back against this mantra and the (lack of) evidence they're gathering speaks for itself.[11]

The thing is, as humanitarian organisations we're not the purveyors of technology solutions. We don't design and build it, something that could be easily assumed when hearing the way some speak on the topic. Will we need to become an organisation that has significant capacity for developing technology products in house? I think the verdict is still out on that one but regardless there'll be an impetus for humanitarian organisations to invest more in staff who at the very least understand issues around technology adoption and bridging the digital divide from social, economic and anthropological standpoints, and not only technologically.

This is absolutely imperative when the future of our approach to technology will be significantly more integrated into our work. Commentators theorising about or employing information and communication technologies to tackle development problems (ICT4D practitioners) note the emergence of a 'digital development' paradigm that brings adoption of technologies closer to the mainstay of programming, activities and approaches, rather than as a dedicated sub-area or field in itself. On this journey, we are at a critical fork in the road where those with a responsibility in humanitarian agencies for delivering 'connected programming' need to listen to the trends and pull the aficionados closer to humanitarian intervention. In some areas, humanitarian protection frameworks will manifest themselves digitally. In others, we'll see synergies building with universal service mechanisms delivered through national telecommunications planning.

We are braced for intense market disruption in the connectivity space within a decade. It has been well documented[12] that the satellite industry is being revitalised through the promise of cheaper spaceflight and cheaper satellites. Satellite connectivity – contra to that provided through ground-based mobile network operators will be more difficult for governments to control over. We're seeing the technology, media and telecoms sector evolve in that network operators are expanding and diversifying their incomes streams. They are looking more closely than ever at security, Software as a Service, advertising, e-commerce, media and content but to name a few

wlQNchNByi7wbcMAY6q6nNq3yDvSGHgPY6Xm9AoT4fNFwtxRJHCa9g0HQKVBD1R7QxzUZ9D_zw5S90zCvBjBD1QhIWMiB-cM-iksNmTKhVtZGF9X-Z4cdCZdPNvyRA%3D%3D

9 https://www.broadband4refugees.org/
10 https://medium.com/unhcr-innovation-service/connectivity/home

11 https://www.ictworks.org/blockchain-impact-failure/#.XA5arGj0mUk
12 http://www.economist.com/brefing/2018/12/08/satellites-may-connect-the-entire-world-to-the-internet

which will further disrupt.

I believe the Connectivity for Refugees initiative can play a supporting role throughout the technology adoption lifecycle but specifically at the start and the end of the cycle. UNHCR has a role in enabling aficionados and innovators to push the boundaries of how their communities are engaging with technology in ways that suit them. The restrictions refugees face whether accessing SIM cards legally or the other barriers like the cost of devices slow and sometimes halt technology adoption lifecycles. Our interventions through connectivity for refugees are designed to be a catalyst that supports this cycle. Likewise, at the end of the cycle, those on the other side of the digital divide, the slow adopters and those likely to be excluded often require support from non-commercial entities.

It is this reason why the Connectivity for Refugees initiative will be actively exploring these areas in 2019, not only how these areas will disrupt technologically, but across a number of different disciplines to see what impact this will have on our aficionados who are leading the charge locally.

We'll look at developing our approach to addressing issues of digital risk when connectivity is provided or supported as part of an aid and development agenda, building off the ICRC's recent report on Humanitarian Metadata[13]. We'll be looking at different types of challenges, from business models around device access to ways we can support aficionados in achieving their goals.

I don't believe that the direction our humanitarian innovation needs to take is that of directing Silicon Valley's latest and greatest to the communities we look to support. In all honesty, they don't need our support with that. What we can do as humanitarians though is empower these aficionados and ensure that our interventions can map onto the broader societal trends we're seeing – linking with that adoption lifecycle, and ensuring that our interventions are supporting these organic dynamics as opposed to running counter to them.

UNHCR's Innovation Service wants to make sure that our Connectivity for Refugees initiative brings that futures thinking in its approach, working with refugee aficionados across the globe to help them push the boundaries of their and their communities' adoption of ground-breaking technologies that will bring countless adventures with all their opportunities and risks. As humanitarians our interventions needs to give these adicionados the space to shine, rather than run counter to their aspirations for their community.

13   https://reliefweb.int/sites/reliefweb.int/files/resources/the_humanitarian_metadata_problem_-_icrc_and_privacy_inter-national.pdf

THE MISFIT OF INNOVATION
HOW WE'RE RECLAIMING CONNECTIVITY'S VOICE IN THE INNOVATION SPACE.

By Giulia Balestra

"So, you are all technology officers?"

If your work has anything to do with digital connectivity, chances are you have been asked this question before. For some reason, digital access seems to be a quasi exclusively technology endeavour. I believe, however, that we need to recalibrate our perspective and focus on the other side of the digital equation. A side that is less about tech and more about the people using (or not) the technology itself. It requires us to shift our focus and move away from the hardware so we can see what is at the heart of our work, and reclaim a space *for* and *of* innovation within the work of connectivity.

So let's just break the news now: no, we are not (all) Technology Officers, and neither do we need or want to be. The extent of my tech knowledge is something I owe to hours of user testing, participant observation, and interviews with refugee communities in settlements or urban areas in East Africa. That's how you properly unlearn what you had learned so far, you stress-test your beliefs and assumptions about tech, and relearn what matters: context, cultural and linguistic fit, preferences, and usage patterns. You sometimes learn about the limits of technology, of perfectly designed, shiny solutions that don't work because throughout the process we forgot the other end of technology development. What we call "end user" in fact, should probably be a point of contact at the beginning rather than the end, because this is where innovation truly starts. Creating connectivity solutions in the context of forced displacement can only be innovative when it is an inclusive, collaborative, and human-centered effort. The tech will do its part.

Connectivity: An innovation misfit?

UNHCR's Innovation Service firmly believes that innovation is not the same as technology[1] and has written about this approach extensively[2]. Since 2016, the Connectivity for Refugees initiative sat alongside innovation at UNHCR and, in practice, is driven by the same values and the same ethos. As this young initiative looks at scale and having a presence across different regions, it

1   Why innovation and technology aren't the same: https://www.unhcr.org/innovation/innovation-technology-ar-ent-the-same/
2   What does Innovation ≠ Technology mean?: https://www.unhcr.org/innovation/innovation-does-not-equal-technology/

is important to take a moment and separate connectivity from technology, and technology from innovation, hoping that the ties between connectivity and innovation become more visible and something that we can nurture in the future.

Not so long ago the idea of providing connectivity to displaced populations during emergencies or protracted crises was new to some, seemed hardly feasible from a cost or infrastructure perspective to many, and sounded unnecessary to others. Today, the idea has gone mainstream and different sectors recognise the potential of a connected refugee population: access to connectivity can improve refugees wellbeing and safety, it can aid delivery more efficient and dignified, and can even represent an untapped market for mobile network operators.

However, putting technology at the centre of the discussion, or aligning efforts towards better infrastructure is not the whole picture.

After three years of testing approaches, ideas, making adjustments in focus and direction, have resulted in an initiative that is young yet has a history and legacy, one that is growing in the present while preparing for a future where "digital" and "uncertainty" become our bread and butter. A future that will require us to be agile and adapt easily, be creative and resilient when confronted with new challenges.

How do we change and prepare for the future? How do we make sure that our work remains relevant and can solve complex challenges?

In its inception phase, Connectivity for Refugees was built around three strategic pillars of digital access: availability, affordability, and usability. *Is connectivity available? Is it affordable? Can refugees use it?* These questions were good starting points, they told us about the extent to which network, coverage, SIM cards, or mobile phones were at hand. Still, one of the limitations to these questions was the fact that they told us little about the reasons why refugees have access (or not), and decide to use (or not) the internet. Now, if we are to bring change and innovation to this work, we need to first gain a deeper understanding of why things are the way they are and wherein the potential fails in the system are located.

Connectivity for Refugees' current strategy tries to reflect this shift and evolving thinking towards an approach that, rather than connectivity or tech, is putting people first. If we are able to step away from the "needs" construct[3] and frame digital access in terms of right, then there is so much more to connectivity than infrastructure. We want to know how displaced communities make the decision to connect to the internet, if and to what extent when they provide their data it is out of an informed choice, we want to understand what protection - UNHCR's main mandate -

_____
3   The final frontier for inclusive connectivity: https://medium.com/unhcr-innovation-service/the-final-frontier-for-inclusive-connectivity-7b279550c277

means in a digital space. This is where a new outlook on connectivity that draws insights from research, field experiments, and strategic communication comes together.   That is also when, as an initiative, we can try to shake off some of the legacy and tech-centric narratives and better renew ourselves and our mission.

Reclaiming innovation

If we are taking a stance and a distance from technology it is to remind ourselves that what we bring to the table is innovation rather (or more) than tech. We believe that for the Connectivity for Refugees initiative to truly fulfill its promises, an innovative mindset is required. So, here are a few principles in guiding the way we do connectivity at the Innovation Service:

Humans first, technology second (sometimes last). As much as we can, we go soft on the hardware and stay tech-agnostic. We'd rather invest time and effort in understanding our communities and the local context than come in with a heavy tech solution that is not the right fit. Putting humans first also means focusing on their rights, including the one to connectivity and digital participation, and what actions need to be taken for these rights to be upheld.

Values drive us. We believe in innovation that is accessible, inclusive, and diverse. The same goes for connectivity. Rather than profit, market potential, user acquisition, or disruption, we focus on the value created and impact on communities.

We rely on a network. The Innovation Service facilitates innovation across UNHCR. Similarly, the role of Connectivity for Refugees is to facilitate digital access and inclusion and be a sort of *trait d'union* between refugee communities and service providers, to encourage collaboration and catalyze change. Connections are powerful: it's when different people come together, sectors and disciplines converge towards one same goal that ideas cross-pollinate and innovations happen. Intersections is where positive change and magic happen. Connectivity for Refugees is a great example of this: it's by no means a one man show, and requires a number of actors to work in concert, from refugee and host communities, to governments, to mobile network operators and humanitarian agencies.

We stay open and agile. We are not a tech giant. We don't go into situations thinking "we have the right solution". We try to encourage conversations about our success and failures with UNHCR operations that work on connectivity. We acknowledge that much of our work is a work in progress, it's about testing, failing, trying again, and strengthening our resilience muscles. We are confident that, by following the innovation process, through experimentation, small tests and iteration we can hopefully have smaller failures and quicker improvements in the connectivity space too. That's what we do through the Community Connectivity Fund, for instance, and

through that, we create safe spaces to test ideas, cultivate curiosity and a culture that values learning and growth through practice.

Sometimes we take leaps of faith. Innovation is by definition about discovery and novelty. Connectivity for Refugees is equally about being deliberate in looking at the unknowns ahead of us and taking a sneak peek into the future of connectivity and displacement. This means that sometimes we feel as if we were walking in the dark with the tiny torch of intuition or hunch guiding us. During these explorations sometimes we come across interesting things, some other times we bang our head against something too. For example, we work with researchers, institutions, and independent writers who can push us beyond and expand our understanding of connectivity for refugees. And who make us look at things we are not yet seeing.

Innovation by default.

Technology is a tool and very often it is a good one. However, innovation is many tools at once and among my personal favourites is the intentional willingness to question and challenge our own assumptions and beliefs. If we look outside the technology focus, we can see how innovation permeates and shapes our approach to providing connectivity to displaced persons. It's a matter of when, if, and how you decide to use a certain tool. Innovation gives us the skillset and space to address the complexities of both the digital world and displacement. That's why we think that before tech, connectivity needs innovation.

NEW MODELS OF SERVICE DELIVERY: ITERATION, INNOVATION AND THE HUMANITARIAN PRINCIPLE OF "DO NO HARM"

By Rosie Afia

It is true that "pure" market first solutions or Silicon Valley-style innovation is almost never appropriate in refugee contexts, and a "fail fast" attitude is often at odds with the humanitarian principle of "do no harm". However, business and humanitarian principles are not irreconcilable and one does not always take have to precedent at the cost of the other. It is possible to innovate ethically although it takes time and investment. It is also critical to first be honest about the challenges and barriers faced in these situations, and put in place appropriate mitigation strategies before attempting to innovate in refugee settings.

For protracted displacement situations, we know the private sector cannot provide for all humanitarian needs. However, there are many opportunities to overcome some service delivery shortfalls, especially with more sustainable models. After all, refugees can and should benefit from competitive, good quality goods and services, such as mobile technology, pay-as-you-go solar energy, improved water, financial services, clean cookstoves, micro-insurance, and rural connectivity as a start.

The GSMA Mobile for Humanitarian Innovation Fund (M4H Fund) is working to test and provide evidence to demonstrate how working with commercial markets can sometimes provide longer-lasting, more cost-effective and impactful humanitarian assistance to refugees.

Opportunities and challenges of commercial models to fill gaps in humanitarian service delivery.

The GSMA M4H Fund supports 10-15 grantee partners who are testing semi-commercial business models (in collaboration with, or led by humanitarian organizations) in order to provide better quality goods or services to refugees. Whilst living conditions in refugee camps remain extremely challenging there are also vibrant and healthy marketplaces, particularly in areas where refugees have been living for more than two years. In 2018, The International Finance Corporation found that Kenya's Kakuma refugee camp had a thriving informal economy, with more than 2,000 businesses. The 160,000 registered inhabitants were spending around 1.7 billion KES (16.5 million USD) annually. This consumer demand represents an opportunity to address gaps in current humanitarian service delivery with possible market-based solutions.

However, for start-ups or organizations attempting to supply refugees with good quality goods or services, there are also a plethora of challenges that inhibit the development of meaningful business models. For instance, it is tough to cover disproportionately high set-up costs (e.g. due to regulatory or logistical expenditure of reaching remote settlements) while setting appropriate pricing structures to ensure revenue growth. Many organizations struggle to set prices at levels that cover costs and do not also exclude vulnerable community members who typically cannot afford to pay for such services.

Finding appropriate and responsible commercial models with "do no harm" at the core.

There is continued enthusiasm from donors for small-scale investment in piloting new humanitarian innovations (including the GSMA's M4H Fund). This provides the humanitarian sector with the opportunity to find and adapt models with the potential to scale up and out services (such as mobile-based cash and voucher assistance programmes) which better meet the needs of refugees. Indeed, the innovation principles of build, measure, learn, iterate are still fundamental and highly relevant in the humanitarian landscape.

At the GSMA there are three primary ingredients that are prerequisites for seeking out responsible business models which can still allow "do no harm" to remain at the heart of innovation. Innovate, iterate and 'do no harm' requires starting small and measuring impact regularly. In order to test new models and willingness to pay, it is critical to take small investment risks (e.g. strategic, financial, operational, reputational) ideally in controlled environments and ensure those risks align with humanitarian principles.

Partnerships (such as between a mobile operator and humanitarian organization) help mitigate risks by bringing different types of expertise – humanitarian, commercial, and technical – to the table in the delivery of services.

In summary, it is important to be realistic and honest about the risks of attempting to develop responsible commercial models within refugee contexts. The principle of "do no harm" should not be compromised. However, too often humanitarian innovators give up at the first hurdle of exploration and never find a model that could work for both the service provider and refugee customers. By improving the sector's approach to build, measure, learn, iterate processes, it increases the chance of identifying models that could be more sustainable and have the potential to scale up and out to plug gaps in aid delivery for refugees.

INSIGHTS FROM THE FIELD

BUSTING A MYTH: THERE'S VERY OFTEN NOT AN APP FOR THAT!

By Katie Drew

During the Europe 'crisis' of 2015 we experienced a huge surge in volunteer resources, many people wanting to volunteer came with great software/app development skills. At this time, refugees faced significant communication gaps, and their need for clear, translated, accurate information were undeniable. In an attempt to address this challenge, some volunteers applied their skills to develop Information Sharing apps for refugees. Apps were not exclusively developed to share information, but were also developed for employment matching, learning, and strengthening integration. The number of apps being created mushroomed across the continent—some launched with relatively loud fanfare. Unfortunately, many failed to gain traction with refugee communities and quickly became outdated. I definitely don't want to disparage the motivations nor the commitments demonstrated by thousands of volunteers during in Europe. But, 'tech-led solutions' to complex challenges failed to solve the significant communication issues.

In the Europe context, many apps were developed with limited to no interaction with refugees—based on assumed information needs and supposed communication habits. Developed in a 'bubble', many apps duplicated existing well-used communication platforms. They didn't take into account complex issues of trust, how information (and rumors) spread, nor how rapidly the political and protection landscape changed. Additionally, there was demonstrated naivety around data protection and the political sensitivity related to information being shared. I spoke to several disheartened developers who had challenges accessing the information they needed for their app, they also shared their frustrations with lack of resources for roll-out and updates. Developers were lost in humanitarian coordination structures and inhibited by agencies' financing constraints. Yet, the hype continued, hackathons were rife, and the number of 'you need an app' calls I received increased. The app proliferation definitely reached its peak, when someone recommended creating a parallel Facebook App—for refugees.

Let's learn from this—very often there's not 'an app for that'.

Is it worth it?

So, I'm clearly opinionated about Information Sharing apps for refugees! In a classic case of retrofitting my position, I completed 'rapid research' on the Google Play Store. Using the search taxonomy: 'information for refugees', I had a quick review of the background and metrics of the first five returned relevant searches (conducted the second week of October 2018). Yes, there are inherent and huge flaws to this process (for example search language)—it's illustrative rather than scientific. Stay with me...

I was looking for an update date, the version number and number of installs. The most recent update was seven weeks ago (an update to version 3.0.1 of the app). The remaining four apps were all version 1.0—with one as 'old' as July 2017, another seven months old, and the final two apps were at least five months old. One app had been downloaded 1000+ times, three apps had 500+ downloads each, and the final 5+ downloads. So, what am I trying to illustrate?

For information to be useful, it has to be accessible. These apps might have great information on them, they might be beautifully designed but very few people have downloaded them, and arguably fewer are using them. There are over 3 million apps the Play Store—there is absolutely no guarantee that if you build it, they will come. Far from it. There's no rule-of-thumb for how long it takes to make an app, or how much it costs—the variants are huge. I'm not a software developer, and couldn't even pretend to be—but I do know that creating an information sharing app is not a 'quick' process. The complexities of coordinating multiple stakeholders, managing information flows and conducting user testing cannot be underestimated. Nor does the process end when the app is launched on the Play Store. Someone has to be responsible for ensuring the information remains updated and syncs properly with the app. You may discover bugs, and fixes might be needed. Consider the cost-benefit analysis of the development and roll-out of an app that has only been downloaded by five people. How could these resources be better used to engage end-users in two-way conversations? How could time have better been spent to more frequently share relevant, up-to-date, usable information, to more people?

So, do we scrap apps?

No, there could be an app for that. An app may be the solution to a challenge that has been clearly identified with end-users; a solution that you have developed through experimentation, feedback, iteration and more feedback. A solution that has not been jumped straight to, nor because 'everyone has an app'. Another important consideration is the required resourcing to develop an app—they are not 'quick fixes'. Great if you have app development capacity—a staff member, a volunteer, a company—but don't treat this as a 'one-off' coding exercise. What resources will you need for de-bugging and updating? You don't want to fall into the trap of creating version 1.0 which withers, unused in the Play Store.

This is definitely not a technical a 'how to' develop an app guide—I'd be the worst person in our team to write that! However, working with a couple of operations through the app development process—including Salaam in Israel—the following Communicating with Communities approach can help guide thinking.

And if you are going to build an application? Start with these considerations and actions during your process:

1. **Don't jump to a solution first—define the challenge:** Engage the community that you'd like to establish a dialogue with—really understand what is the information and communication challenge you are trying to solve? There are a number of tools that will help you drill down into the challenge—for example, an information and communication needs assessment. This will help you define what the specific challenges are and for whom.

2. **Generate ideas with the community:** Build from the community's preferred communication channels. Work with communities to generate ideas on how these can be improved to address the gaps you've identified; particularly how these can be extended to the groups with the least information. You don't need a Facebook for refugees if they're already using Facebook.

3. **Work with existing community capacities:** Engage local journalists, musicians, actors, app builders, community organizations, Facebook Groups, girls' WhatsApp groups—whatever you find!

4. **Experiment:** Choose an idea and give it a go—but don't go large yet. Test it and learn from your experiment. Speak to as many people as you can during this experimentation. And ask yourself: Are you addressing the information and communications challenge you set out to solve?

5. **Keep experimenting, keep iterating:** See how your communications solution 'runs' and continue to learn. Continue to work out what works and what doesn't, before you go to scale.

6. **Diversify and test your channels:** No community is homogenous—meaning there is no 'silver bullet' or one 'best channel' to communicate via. Everybody accesses and consumes information in a different way—we are all unique. Therefore, plural communication channels are critical—the fewer channels we use in our community communications the more groups or individuals we are in danger of excluding.

HOW TO (RE)BUILD CONNECTION IN DISPLACEMENT—LESSONS FROM UGANDA

When hundreds of thousands of refugees started to flee South Sudan in the summer of 2016 and settle in West Nile, a remote rural region of Uganda, the roads were in poor condition, there was limited access to electricity, and almost no connectivity. The place felt disconnected and abandoned from the rest, people felt disconnected and abandoned too, as if they just found themselves there and did not know what to do with that.

Recently, things have changed. Two years down the line, there is better infrastructure, roads, and access to the Internet. UNHCR recently published this story about how connectivity is changing the lives of the refugees across all the settlements and reshaping the area. Or perhaps, and more accurately, refugees are reshaping the landscape and bringing in resources and much-needed change. From an isolated and disconnected region to one where small businesses are slowly starting to emerge and the refugee and host communities can equally benefit from connectivity: how did we get here? The short answer is: together. For the longer one, read on.

In this piece, we would like to take a moment to go behind the scenes and look at how network coverage can (read: should) be extended to displaced populations. This is also a chance for us to reflect on a two-year journey that started with informal conversations and small-scale investments, the impact of which we are still seeing today.

A long road to 3G

During an assessment mission in September 2016, UNHCR's Innovation Service identified that mobile network coverage across West Nile was a patchy 2G signal at best. With limited access to connectivity, refugees found themselves in an information vacuum, unable to use financial services, connect with their families, and find opportunities. The local community was in no better place with regards to access to connectivity. The lack of coverage wasn't a big surprise given the very low density of population living in the region. Why provide connectivity to only a handful of people? Unfortunately, sometimes numbers matter. And in this case, the numbers changed. With thousands of new arrivals from South Sudan the pressing connectivity needs in the area started being heard and seen as a potential and promising new market.

Recognising that UNHCR cannot connect the refugee population in these settlements by itself, the Innovation Service, working closely with UNHCR's Uganda operation, aimed to rapidly build partnerships with those that could help solve the connectivity problem—Mobile Network Operators (MNO).

This started in September 2016 through direct conversation and liaising with the three market

leaders: Airtel, Africell and MTN. Early conversations were followed by research, documentation, and connectivity mapping or, in this case, connectivity gapping, with Airtel, Africell and MTN, the three market leaders in Uganda. Engaging with the MNOs was crucial in this journey and we want to put emphasis on some of the most important steps of this process.

PROMISING PRACTICES FOR WORKING WITH MNOs

Find and connect with the right people (and mindsets).

Change doesn't just happen. It happens if someone makes it happen. Understanding the context, identifying the gaps and finding your allies and making the connection is the place to start. At this stage, buy-in from the MNOs' senior management made a difference and it helped to move things ahead, faster. Early discussions included alerting MNOs to the new population centres, highlighting poor coverage areas and sharing GPS coordinates to help with their planning processes. Simultaneously we learnt of their overarching infrastructure plans and began to understand more regarding fiber lines in the country and critically how serious they were about serving the refugee market. For example, Airtel is planning to expand 3G coverage across 85% Uganda, including the rural areas, and extend 4G to 50% of the country.

Research, get that data, and package it right.

Information matters: demographics, topography, infrastructure, connectivity mapping. It is important to gather the data and package it right for the MNOs to make the case. This makes it easier to understand the context, gauge the situation and, ultimately, make decisions. What you are trying to build is a business case and show clearly that investment X will have impact Y. In Northern Uganda, MNOs brought more engineers to the field and further assessments were undertaken to identify key areas such as markets, schools and community centres which required improved connectivity. Throughout this ongoing discussion, UNHCR ensured that updated coordinates and population figures were shared with all operators to promote competitive pricing and provider choice for refugees. We also went on follow-up missions to strengthen the MNOs' initial commitment and demonstrate both the scale and impact of the interventions. With over 500,000 refugees in the four settlements, there was a new market for the operators to explore. You've got your argument. Use it.

Data is power, right? Now that you have your business case, you can use it to advocate and strengthen the MNOs engagement. We like calling it a business case, because here you are really talking numbers and clients, or customers. In this case, advocacy happened both in Kampala and at the regional level with UNHCR pushing the connectivity agenda forward.

The results?

Early action showed good results and the initial investment has been instrumental in moving in the right (connectivity) direction and attracting further investments.

In Uganda, the MNOs were able to mobilise resources quickly—within three months of initial engagement all operators had established mobile towers in Bidi Bidi settlement. This included three towers providing 2G and 3G services to UNHCR's base-camp and Zone 1, an additional tower in Zone 2 and finally Zone 5 being connected. The improved coverage across some areas of Bidi Bidi not only meant that refugees were more able to connect with families and friends in South Sudan and across the settlement area, but that they were also able to access information and value added services such as mobile money. Some Cash Based Initiatives started and scaled rapidly to 10,000 households. Network providers also distributed thousands of SIM cards free of charge and assisted with registration. In what seemed no time, 11 new mobile masts popped up across the region bringing additional connectivity and mobile services to thousands of refugees and host community members.

Towers up, barriers down?

Temporary towers, we know, have a limited radius and, as the settlements keep growing, the coverage provided through these towers can easily become insufficient. Yes, both temporary and permanent towers are being established, but there are still gaps in the network coverage in some parts of the settlements and the capacity of the towers is far from being sufficient to serve all users. Other challenges pertain to affordability, both of devices, airtime and data bundles. Another obstacle mentioned in many of our consultations is charging options, both in terms of availability and affordability. So despite this being a successful journey so far, there are still challenges around connectivity and access to this day. The road to rebuilding a sense of connection in situations of displacement is a long and insightful one: among the obstacles, we find on the path, there are valuable lessons we can learn. Keeping these lessons in mind, but not losing sight of the vision lying ahead, we progress towards better network coverage and better connection.

THE WORLD AT YOUR FINGERTIPS: MOBILE MONEY AND FINANCIAL INCLUSION OF RETURNEES IN CÔTE D'IVOIRE

Interview with Alpha Amadou Diallo

In 2018, UNHCR Côte d'Ivoire was selected as one of the recipients of the Community Connectivity Fund which supports Operations to test new ideas that can advance the Connectivity for Refugees agenda. UNHCR's Sub Office of Guiglo, in Western Côte d'Ivoire, proposed the use of mobile money as an alternative to the traditional approach of providing cash grants to Ivorian returnees opting for voluntary repatriation. The traditional approach is for UNHCR's partners to remit the cash as a one-time payment given in an envelope to the head of household at the transit center. We spoke about the project with Alpha Amadou Diallo, Admin/Finance Officer of the office in Cote d'Ivoire since April 2015, and one of our Innovation Fellows who supported the project from its inception phase. Alpha introduces himself as the Operation's "tour de controle" (control tower): his job is to coordinate and assist colleagues in the field to ensure that they have the necessary support to ensure everything runs smoothly. Obviously, nothing runs smoothly all the time, not in Abidjan or Guiglo nor anywhere. But, as Alpha points out, seen from a different angle, and equipped with the right tools, problems are nothing less than the beginning of a new story, one where we strive to bring positive change and improve the way we work and support communities.

Last year, UNHCR Côte d'Ivoire applied to the Community Connectivity Fund and received funding to experiment with mobile financial assistance for returnees. Could you tell us how the idea came to being and what shaped it?

In 2011, when the Ivorian crisis ended and conditions in the country became conducive for repatriation, a lot of refugees started returning to Côte d'Ivoire. For UNHCR it soon became crucial to understand needs and the different ways to deliver humanitarian assistance to returnees: was it through the provision of Non-Food Items (such as utensils, buckets, etc), or cash grants, or a combination of these? Were there alternatives to these modalities? What were the risks and opportunities? To me, this seemed to be a good opportunity to apply what I learned during UNHCR's Innovation Fellowship, and so I volunteered to carry out an evaluation and compare the different approaches to assistance and their impact on returnees.

Not surprisingly, what we learned through focus-group discussions was that cash intervention was the preferred option because it provided returnees with the choice to self-determine how to make use of this assistance. However, returnees also discussed their security concerns and the fact that cash could make them more vulnerable during and after repatriation. If the evaluation meant that UNHCR's cash assistant per se was relevant, it also suggested that the distribution modality was far from being perfect as it could put returnees at risk of being robbed or being taken advantage of.

It wasn't long before the idea of mobile money came about: was that an alternative to make cash assistance safer and more efficient? The evaluation alone was instrumental in laying the foundations of the project but we still needed a way forward, a way to energize our efforts and test our idea. The Community Connectivity Fund just came at the right time.

From the idea, to its design, and realization: what was crucial in this process?

It's really always about listening. There is evidence, here is what we learn by speaking to returnees. When the people we are supposed to serve tell us:"We are happy about the way you're doing things, thank you very much. But there is also another way that could be better...". Communities tell us about the flaws and issues in the way we deliver our assistance from their perspective, in this case in the way we deliver cash. So I encourage us to look at the results of our focus group discussions, to listen to what refugees are saying because at the end of the day, we are not working for ourselves, but we are working for them, we should take what they say and adjust our approaches, because we care.

That's what I mean by walking the talk: participation, inclusion. This is not about checking a box because you have done a participatory survey, and saying "we talked to them, we know their needs, so basta". If what different groups of refugees give us as feedback does not drive us to adjust the way we design and implement our programs, where is our accountability? How are we respecting our principles and ensuring we are doing no harm? Doing a survey doesn't stop there. We need to include communities when we do planning, show them the programs and approaches we are considering, consult them not just on what their needs are but how we could best address them, factoring in the capacities they already have, individually and collectively. When you are doing things in one way, we should keep in mind that the same could be also be done in a hundred different ways. So ask yourself why: is it for the communities? And if you don't know, ask them, ask for feedback, and truly listen to what they have to say.

One of the first things that the project did was to bring humanitarian agencies, Mobile Network Operators, and representatives from the government in Côte d'Ivoire but also in countries of asylum such as Ghana, Guinea, and Liberia together around a table and discuss what mobile money assistance to returnees could look like in this environment. What was the thinking behind it?

Collaboration is what creates value. No one can create value on their own. And creating value is essential, and we can do this only when we include other actors and communities in the conversation. This is very important and the reason why today the discourse in UNHCR is shifting

towards multi-stakeholder approaches. This project would not have happened without this type of collaboration and approach, without including all the actors, internally first as a collaboration between the field and non-field offices, between government partners, mobile money companies, telecommunication regulatory bodies, and other agencies as partners. But first and foremost, we talked to refugees. We went to the neighboring countries where refugees are, and spoke with them about the mobile money possibilities. They expressed enthusiasm but raised the issue of documentation as the major hurdle. We knew from the very beginning that collaboration was what would help us create value for returnees.

For things to move we needed to have buy-in from the local telecommunications companies and they needed to be involved; they needed to understand that this is a good opportunity for them, either within their corporate social responsibility window or to the profitability window or both. We discussed with them as partners, not vendors or suppliers. A lot of the focus is on problems, and we tend to forget that challenges can also mean new opportunities. That's where we come in and try to collaboratively find ways to address the problem in a way that brings results, benefits and ultimately added value. In this case, the result or value created is that returnees have a better likelihood to be reintegrated faster, financially and socially, when they come back to Cote d'Ivoire.

Let's talk about the role of mobile for reintegration and for inclusion in a context of displacement.

There are so many opportunities that come with owning a smartphone in today's world. Nowadays you can open a bank account and have a credit card because banks have understood the importance of integrating financial services with mobile technology. This opens up countless opportunities for the displaced, that's one of the ways to achieve inclusion. Think of a returnee being able to become a mobile money agent, work, do transactions: soon all this is going to be possible with only a smartphone and a SIM card. We can go from brick and mortar services which are most time inaccessible to a lot of rural communities to mobile, especially in the African context where public services and infrastructure are underdeveloped. Refugees can now have the world at their fingertips, open a bank account with a smartphone, access banking, government services, and information. In the 21st century you can't live without a mobile phone, or let's say you can, but it will be very difficult and less than ideal. For me this is now a minimum, it's not a privilege, it's not a courtesy we're giving to displaced populations. This is vital for re-integration. This is a minimum. Now, a returnee is a former refugee and reintegration is the government and our main concern as duty-bearers. If we are not doing something for returnees then what's the use of a person coming back? Returnees need to come back and find good conditions, not more or less than what the local populations is having. These are minimum conditions for repatriation. And for me having access to a bank account, having access to mobile money as an accelerator for financial inclusion, this is a minimum. If not why would someone come back or stay upon return if

he or she is facing better conditions in exile? This is part of the reason why (unsustainable return) some returnees embark on difficult journeys to a better existence elsewhere.

What would you see as the main challenges lying on our pathway as we try to realize an inclusive connectivity agenda?

I would say that the biggest challenge is the way we think about and do "collaboration", and secondly is the issue of identification. If you look at the government tripartite agreements between Côte d'Ivoire and asylum countries that serve as the legal framework for UNHCR's support to the government in regards to facilitation (which has now become promotion), en principe the Voluntary Repatriation Form (VRF) could be used as a temporary identification at least during the first six months after repatriation and before any other type of identification can be provided. But what happened here because of the security situation and terrorism threats, since we had a terrorist attack two years ago, the government has decided to override that and has instructed the mobile communication authorities to not grant SIM cards to those who cannot provide a biometric ID, which the VRF isn't. That's where our efforts are going now, advocating with these bodies for change to make the VRF biometric so that it does not become useless. We understand the political environment and security concerns but this type of trend worldwide can mean that access to important services for a population that is already vulnerable is restrained. I think this is also because the reality of returnees is less spoken about, not well known and understood. So our innovation project is facing many constraints. This project also allowed us to tackle a lot of issues because no ID means no mobile money. So it's not just an idea because thanks to that we drew attention to a gap and initiated a discussion about providing an ID to displaced persons in Côte d'Ivoire.

Innovating connectivity is a necessary and demanding task, one where mindset and motivations can make all the difference. What is your driving force, and what keeps you going?

When I decided to join UNHCR, I did not only want to become a humanitarian agent, but also a change agent. I don't see myself as an Admin and Finance Officer and I don't want to be put in a box, the admin or finance box. I like to be involved in everything because I believe that too much specialization in humanitarian sector is creating silos which are restraining our humanitarian spirit. I do this job because I believe in helping others. As a matter of fact, I don't see it as a job, but a calling. It's been like this for a long time, since I was a kid. My job doesn't make sense if I'm here for other reasons. I left the for-profit banking sector to come to the not-for-profit, development and now humanitarian sector. So I take every opportunity I have (to make things change). They say "Alpha, you're talking again", they say "Alpha, you are a dreamer". No problem, I'm still pushing, with positive energy, fighting within the system to improve the system. I believe everything is possible when you have that positive energy and try to contaminate others

with it. That's it. I'm not taking no for an answer. I don't want this operation to fail, and failure for me is if we don't do things well as per the judgement of the people we serve. Failure is not just you, it's not an individual, it's collective as a team. And successes will be successes of the people we serve, their communities, governments, municipalities, of the whole operation. So this is me: I always think that there is a solution, I always think that it can work.

HOW TO WORK WITH MOBILE NETWORK OPERATORS — LESSONS FROM TANZANIA

Today, we are seeing an unprecedented number of people forced to flee, leaving their homes behind and moving towards an uncertain future. What we are not seeing, is adequate and coordinated responses to large-scale movements and appropriate solutions for refugees and host communities. For the first time in 2016, the General Assembly called for a Summit for Refugees and Migrants with the intent to form a blueprint for a better international response to global displacement. Through the New York Declaration for Refugees and Migrants, the General Assembly decided to develop what is now known as the Global Compact for Migration, a first in its kind agreement on a common and streamlined response to international migration that values collaboration, responsibility-sharing, non-discrimination, and human rights.

The year 2016 seemed to be the onset of a shift in approaches the reaffirmation of the commitment to respect the human rights of refugees, and to better support the countries that welcome them. A more comprehensive response to forced displacement started to take shape with a stronger focus on refugees' self-reliance and active participation in the communities hosting them.

Great, so now what? How do we apply this framework to our work? What are some of the key elements that can guide us when it comes to designing and implementing more comprehensive and inclusive initiatives?

In this piece, we look back at the Innovation Service's work in Tanzania through the lenses of connectivity and private sector engagement to discover potential ways forward in enhancing the global refugee response.

A Comprehensive Response in Action: Connectivity for Refugees

At UNHCR's Innovation Service, one of the ways we see this grand vision being realized is in the Connectivity for Refugees initiative. For a refugee, having access to connectivity often means being able to re-establish a lifeline with family and friends, and being able to obtain lifesaving information and services. Connectivity can also improve access to a wider range of information, education, and livelihoods opportunities that can boost the wellbeing and peaceful coexistence of refugees and host communities.

Yet in spite of these benefits, there are still a number of obstacles limiting the access to connectivity for displaced communities, from a lack of infrastructure to legal regulations and prohibitive costs. We think that addressing and overcoming these challenges requires that we look beyond ready-made solutions and that we are radical in the way we collaborate and engage with other actors in this space.

One of the paths we have explored to bridge the connectivity gap is to forge partnerships with local Mobile Network Operators (MNO). Why MNOs? Simply put, communication is a Mobile Network Operator's core business.

If you are wondering whether this is something you'd like to explore where you are, and how to find your allies amongst MNOs, read on. This piece is part of a series of blog posts where we share insights from our experience working in the Connectivity for Refugees space. In each post, we look at examples from a specific country or aspect of our work, from private sector partnerships to research and assessments, and more. While each story is context-specific we hope that by reflecting back and taking the time to unpack our experience, we can draw some general guidelines and have a global overview for everyone working in connectivity space. We also encourage you to share your experiences with us and inspire others to join the journey towards better connectivity for all.

Tanzania: A tower of connection

One of the first places UNHCR began to test approaches around connecting refugees, specifically as it pertains to engaging with MNOs, is in Northwest Tanzania, home to thousands of Burundian and Congolese refugees.

One of the key aims of taking a comprehensive approach is the idea to provide greater rights and freedoms of both the refugee and host communities. In the case of Tanzania, this meant addressing the exacerbated and pressing communication needs of thousands of refugees fleeing deteriorating situations in Burundi and in the Democratic Republic of the Congo.
In September 2015, UNHCR's Connectivity for Refugees team went on a scoping mission to Nyarugusu Refugee Camp, located in Kigoma Region, Tanzania, to assess the connectivity needs of refugees in the camp. It soon became clear that despite a significant need for connectivity among the community, the infrastructure available did not allow for such needs to easily be met, with few commercial offerings available in the market. Engaging with governmental entities was one step, but in this case, it would not have been sufficient to address the connectivity gap. That's when we started thinking about how to approach MNOs differently, looking more at their strategic investment than current availability in line with the Connecting Refugees strategy. We soon discovered a strong interest among them to invest in improving connectivity for refugees. Vodacom, for example, established a 3G tower in Nyarugusu Camp providing coverage in the area both for the benefit of refugees and the host population. For a number of years, Nyarugusu boasted the strongest and the most stable access to 3G among the three refugee camps in the Kigoma region. It was reported that soon after the tower was constructed it was operating at full capacity, with up to 180,000 calls per day.

A few months later, during a follow-up mission to Tanzania, the results were speaking for themselves. Better coverage came with a massive increase in phone ownership, subscription rates, data usage, and mobile money transactions. It's as easy as that: simply having access to a network connection will result in refugees making greater use of connectivity to support their communication and connection with families and friends. The experience in Nyarugusu helped to build a case for this type of private sector partnerships and a number of MNOs, including Airtel, Halotel, and Tigo, expressed their interest for future investment. Following a year of continued advocacy and an expansion to pursue a sustainable environment where refugees have access to connectivity, the GSMA, the trade association for Mobile Network Operators, researched and evaluated the impact of connectivity in Nyarugusu.

Now, is this excitement about extending connectivity to refugees unique to Tanzania? Will we be able to replicate the same in other places with the same buy-in and success? That is something we are curious about and feel excited to discover. What is your experience? Have you found similar interest among your partners or have a different perspective on this? We are here to listen. From Tanzania to other countries, regions and parts of the world: How does one go about making this a reality? From reflection, three specific insights stood out:

1. **Populations are ready to embrace cellular connectivity:** Research found that the large majority of respondents would like to increase their use of mobile and of the internet; 97% of non-users desire access to a phone, and 57% desire access to the internet. These statistics mirror trends we're seeing globally regarding adoption of mobile devices and cellular subscriptions. This means that with such a clear need for connectivity, MNOs are situated at a unique position to meet that demand. While we have noticed this trend in East Africa, our team is committed to testing this assumption and finding out to what extent this applies to other contexts. Through our collaboration with the GSMA, we are undertaking research in Jordan, Uganda, and Rwanda to understand the connectivity needs of displaced populations and the MNOs interest in supporting with providing such connectivity. And this is just the beginning! We are hoping for more research and assessments throughout the next year. If you are interested in understanding the connectivity demand and different types of value-added services, you can do an information and communication needs assessment here.

2. **Importance of making the business case:** According to research undertaken by the GSMA, refugee mobile phone users in Nyarugusu report spending an average of 4.4 USD per month on credit and data, "a monthly expenditure which exceeds the average revenue per subscriber in Tanzania, despite the limited income opportunities for refugees in the country." This not only reflects the importance of connectivity to refugee communities, but also suggests that "extending coverage to refugee camps could lead to a sustainable business model for MNOs, as a result of camps' typically high population densities and refugees' demand for connectivity."

3. **Investment breeds investment:** Vodacom's initial installation of the tower in the camp, stimulated investment from Airtel, Halotel, and Tigo to support providing connectivity for refugees. Network coverage in the camp improved considerably and today, the great majority of the community enjoys good signal in their own zone, if not at home.

While we've noticed these insights from Tanzania, we're going to continue to test these assumptions and build our evidence base—also with partners like the GSMA through their Mobile for Humanitarian Innovation programme—for enhancing delivery of cellular connectivity to refugees.

Despite each telecommunication landscape being different in each country, approaches can be adapted to suit your context. We hope that the examples and lessons from the Tanzanian context can inspire you and give you more ideas on how to collaborate with MNOs.

More than infrastructure

Collaborating with MNOs is crucial, yes, but the way we work with them is decisive too, and we want to share what we learned from our experiences for you as a reader and potential advocate for MNOs' engagement. Tanzania's case shows how establishing sustainable relationships with various MNOs through informed and research-based advocacy led to more private sector partnerships, greater interest from the MNOs in improving connectivity for refugees, and...3G towers.

Here is what we learned along the way:

1. **Coordinate with humanitarian responders and Mobile Network Operators:** There is a need for better coordination at the operations level and greater ownership in leading, and supporting connectivity initiatives. Leadership is imperative when we consider the importance of continuous sustainable interaction with MNOs to ensure quality network coverage.
2. **Advocate with evidence to build support:** Internal advocacy with colleagues and within the organization is as important as external advocacy with MNOs. Both are pieces of the same puzzle and both will be needed to complete the puzzle of achieving connectivity for all.
3. **Get engaged and stay engaged:** It's not only important to meet with the right people within the MNOs, ensuring their continued interest and mobilization requires a lot of energy and follow-up, and it is vital to make this investment. This further emphasizes the need for greater ownership at the country level in the pursuit of MNO engagement.
4. **Put 'customers' first:** Think about how you can shift perspectives and reframe the situation. Refugees are customers (and good customers!), and if MNOs grasp this then we can move the conversation from Corporate Social Responsibility to considering sustainable business models.

5. **Communicate (often) with your government counterparts:** Communication within refugee communities, and to those outside camps, is more often than not a sensitive topic for governments, especially when applied to a refugee scenario. Because the functionality of governments requires us to put in a thoughtful amount of effort to keep them in the loop, this often takes away time from actually implementing projects and initiatives. Trying to balance government requirements and reporting with project implementation is crucial. Open communication and dialogue will be the first step.

Obviously, the list is not exhaustive, and these lessons are the ones we learned thanks to our experience with the Tanzania operation. How well these lessons will apply (or not) to your operation in attempting to engage MNOs, of course, depends on the context.

One step at a time

The success of advocacy efforts to work with MNOs, and the results of such engagement, is apparent in many other operations outside of Tanzania as well. We have had great experiences working with MNOs in other contexts and we have stories and examples from Uganda, Malawi, and Ethiopia. Each of these distinct places exists in its own contextual domain, and we have experimented and adapted our approaches to solving their specific challenges. Understanding the connectivity needs of refugees and host communities, and beginning to have a conversation with MNOs is a fundamental step in achieving connectivity for all and a better refugee response overall. A step that you can also take starting today.

WHEN INNOVATION IS YET ANOTHER CONNECTED COMMUNITY CENTRE: CONNECTIVITY AT THE MARGINS OF INNOVATION

By Giulia Balestra

All roads lead to the Connected Community Centre

"Please, do not be another Connected Community Centre," I thought as I read through the latest submissions to the first Community Connectivity Fund, launched in 2018 by UNHCR's Innovation Service. The Fund was designed to search and select the most promising and innovative ideas for connecting refugees and the communities that host them, across UNHCR's operations worldwide.

It turned out that almost half of all the applications to the Connectivity Fund were variations around the same theme, and no matter the country or context, the displacement situation, or the specific connectivity needs, there was a Connected Community Centre for every circumstance. As if that was the one key opening all doors to the world of fulfilled digital promises: online learning and better education, professional development, remote work opportunities, access to relevant content and valuable information, and the ultimate possibility to be and stay connected beyond all physical barriers and constraints. It was a copy and paste from place to place—as if this idea was the only path for a connected future.

The response to our Community Connectivity Fund got me wondering. Was the challenge to connect the under-connected too broad or, on the contrary, pointing towards the same, unequivocal direction? How and why, in our collective imagination, did the vision of Connectivity for Refugees take the form of a Connected Centre? After an initial "What's wrong?" reaction, the reflection and curiosity shifted towards these centres: Are they all the same? Do they work? What's their impact? Why is there the assumption that it is the greatest need?

This post is a reflection on some of these questions and a journey to Connected Community Centres, through the Community Connectivity Fund, to discover what happens at the outskirts of innovation and connectivity.

Not all connected centres are born equal

Even when repackaged and reframed, and after some scratching the surface, everywhere I looked in the proposals received, there seemed to a Community Centre in the making. Certainly, the names differed: Algeria had an ICT Lab, Mauritania a Computer Centre, Venezuela the

Technology Centre, and the Democratic Republic of the Congo a Community Internet Access Centre. The interventions were also not all the same: some looked at constructing a new centre for urban refugees or in a disconnected and remote settlement, transforming and repurposing an existing building to make a Connected Centre out of it, or improving an existing facility with better tech, stronger internet, and a more sustainable solar power system. Some of these places lacked proper hardware, others needed better management, a few of them needed to be more accessible, and some just needed to be accessed.

To be clear, we are not against Connected Centres, quite the opposite. The Connectivity for Refugees initiative was born out of a need to streamline where there was fragmentation, to support and experiment with ideas and innovations that are born in the field, to use research, data and communication strategies that bring about change so that all refugees, regardless of age, gender or diversity, can access mobile and internet connectivity to build brighter futures for themselves, their families and the world.

Now, if a Community Connected Centre is the way, or one of the ways, to realise this vision then we are all for it. But we also want to make sure that we don't just drop equipment in a camp and figure out six months down the line that the costs of running a centre on a generator are too high, that the population is digitally illiterate, or that the location is just not convenient and very few people have access to it.

As for everything, but even more when it comes to complex issues such as connectivity, there's a wide range of factors at stake, there are good practices and, usually, no one-fits-all Connected Centre solution.

The Community Connectivity Fund was designed with these dilemmas in mind and as a means to contribute to the Innovation Service's learning agenda around a number of areas relevant to the Connectivity for Refugees initiative, and to specifically find out what works and what doesn't, and if there are good connectivity practices to be drawn across different contexts and scenarios.

And so we decided to invest in hopefully yet, not another, Connected Community Centre.

From the last to the extra mile

Investing in one (or two) Community Centre(s) was also an opportunity to see what it takes for such a centre to be a "good" one, go beyond its simplest expression and provide more than access to technology.

Of course, considering the last-mile contexts in which UNHCR works, setting up a place equipped with tech and internet is already a good thing. But it's only a start: a Connected Centre needs

resources, investments, buy-in from refugees and host communities, and collaboration with partners to function well and to keep running. Let alone have an impact or make a difference. There is, in fact, a critical dead time, between setting up a Connected Centre and the moment when we can see its effects and the community can start benefiting from it. That's the same interval between access and use, between providing tech and connectivity and ensuring that they serve some kind of purpose, an interval where a lot needs to happen and that can determine whether objectives, expectations, needs, and desires are met.

A Connected Centre comes with expectations, both from host and refugee communities and humanitarian organizations. We all hope that access to technology can lead to a capital A type of Access, that connectivity transforms into connection, that skills and instruments translate into opportunity, that underground fiber optic cables can become pathways towards self-reliance and resilience.

Often, however, enhanced digital literacy, education or job opportunities are not a direct, given or immediate result of a Connected Centre being built, but they can be indirect future outcomes, together with many expected and unexpected others, if the right conditions are in place. The evaluation of UNHCR's Community Technology Access (CTA) program provides important lessons and recommendations to ensure that CTAs don't only do what they say, i.e. provide access to technology, and concludes that technology per se is not enough to bridge the digital divide and bring everyone up to the same speed and closer to equal chances. For a CTA to do this, it needs to fit within the local context, understand the needs and demands as well as the larger socio-economic environment, and have the ongoing support of different players.

To add on these best practices, through the funded projects we gathered some ideas and insights on how we can create and encourage the right ecosystem for a connected centre to thrive. Rather than an inclusive list of tips that apply across the board tips, this is more of a snapshot of successful practices in setting up Connected Centres as they emerged throughout the Fund and largely thanks to CTA projects and experiments in Mauritania and Venezuela.

We suggest focusing on these distinct actions related to building connected centres:

- **Communicate, collaborate, and co-design:** Connected centres are a collective effort and one that needs constant communication with the communities involved or targeted in the project. For both of the Fund's projects, Mauritania and Venezuela, the idea of connected centres came from refugee communities and everything was done in consultation with them. This allowed UNHCR operations and the local communities to be on the same page regarding goals and expectations, and make adjustments when needed.
- **Find a focus (competences, skills, themes):** Both projects did not provide a general ICT Training in their centres but they either had a thematic focus or a skill set in mind. They

understood in fact that improving refugees' livelihoods, future opportunities, and wellbeing is not simply achieved by providing basic digital literacy. Training should focus on skills that are in demand in a specific context specific or specific challenges that the community faces. In Caracas, Venezuela, where urban refugees were exposed to particular protection risks and increased vulnerability, the training focused on privacy and how to stay safe online. In Mauritania, the refugees discussed how poor communication and lack of information affected their decision-making and felt that there was a need to change that. Throughout the training, they acquired key competencies and are now creating and testing a digital platform to improve communication in the communities, but also with UNHCR and other partners.

- **Define a narrow target but engage the entire community:** Training should be specific to the needs of participants and designed with these in mind. However, whether the training is for youth, women or disabled persons, it is equally important that the broader community is to some extent engaged and supportive. In other words, in order to guarantee the functioning and sustainability of the centre and its activities, ownership and buy-in are crucial. This can be done by extending training to other groups; or facilitating their access to specific services (internet café, printing, etc).
- **Make a centre out of the centre:** Without community and connection (not only digital), but there is also very little left to a Community Connected Centre. A centre should go beyond itself, and beyond the tech part to create a space for discussion and exchange around both what happens online and offline. In Venezuela, the training on privacy and digital risks was also a pretext to discuss, offline, about other forms of exploitation and abuse and share resources and provide support with and among participants.
- **Create a ripple effect:** What is done and learned within the centre should not stay there if we want the larger community to also have benefits. In Venezuela, for example, youth that received training on digital safety and good online practices, were then assigned to design their own project to bring some of their learning and build capacity in their respective communities.

Long live the ICT Centre

In hindsight, the initial reaction to Connected Centres had little to do with idea and loads to do with ideals. Innovation is a word of promises and magic, it evokes creativity, imagination, and invention, and it seemed that Connected Centres were defying the very definition of innovation. However, looking at these two very different examples of Community Centres seems to suggest that a lot can be achieved in connecting the most vulnerable populations if we allow things to happen at the margins of innovation. After all, one of the greatest opportunities of this first Fund was to be able to challenge our own definitions around innovation and connectivity and see how they are interpreted in each context and in which forms they manifest.

True, half of them were Connected Centres, but they all differed in how they would have been set up, why, and for whom, and they all reflected a different reality. Therefore, when deciding whether a solution is appropriate we should focus not so much on the solution itself, but rather on the context where it is applied. Likewise, it is not the definitions that matter, but how they are interpreted and how meaning is (and should be) negotiated.

We have been rotating around the Connected Centres and realised that they are a universe of their own, yet they are all but universal. But what if it's not an ICT centre? What was the other type of solutions proposed? In the next piece we look at the other half, to see what happens when connectivity is not another Connected Community Centre.

ANOTHER FACE OF CONNECTIVITY: ACCESSING THE INTERNET THROUGH A PERSONAL DEVICE

By Giulia Balestra

When it's not a Connected Community Centre

In one of the latest stories on Connectivity for Refugees, we unpacked lessons from the first Community Connectivity Fund, launched by UNHCR's Innovation Service in 2018, and tried to deconstruct the Connected Community Centre commonplace. In a sense, we took ICT Centres apart to understand why they are a quasi-universal go-to solution and quick fix to broad connectivity challenges. In fact, if there are indeed interesting opportunities and benefits that come with the package, it is also true that a Connected Centre represents a distinct use case and one that is applicable and can work under particular conditions and circumstances. And when it doesn't? What do connectivity solutions in displacement look like when they are not Connected Centres? Let's take a look again at some of the themes that emerged through the 2018 Fund and consider one of the other connectivity underdogs. This idea, when not debated upon or criticized in the humanitarian sector, is often disregarded tout court and relegated to the fringes of connectivity. However, outside the humanitarian world, it constitutes an unquestioned norm, an extension of our sense of self, and one of the defining features of our reality. We are talking about individual device usage - which happens when we use a personal device to connect to the internet, as opposed to when access is shared, as it usually is in a Community Centre.

The reason why this deserves our attention is that this type of access - individual and private - manifests in different and contrasting ways: sometimes overlooked or perceived as a barely adequate solution in the humanitarian context, but an indispensable component of our day-to-day lives, a given for most but still not a given for all.

Once again, the Connectivity Fund gave us an interesting opportunity to look into complex dynamics and see how connectivity exists and articulates in a tension between "us versus them", individual and collective, personal and shared, and how we come to think of these as opposite extremes that never meet.

Rightly so? Read on.

It's also not another mobile phone distribution

If you are having a "been there, done that" moment, bear with us. This is not about another mobile phone distribution to improve how humanitarians communicate with communities (if,

however, you want to do this we have some good practices here). Or at least it is not only about that as it is also not only about one individual using their own device.

Individual level connectivity happens when users have unrestricted access and are able to use mobile technology for a certain purpose. The choice of a broad definition is deliberate and has two main reasons. First, personal device usage can be different things in a humanitarian context: it can mean advocating with Mobile Network Operators (MNOs) for coverage and affordable plans, or creating enabling conditions for users to connect in an independent manner and according to their own needs and capacities. Second, for "unrestricted" access and ability to use there are a number of other connectivity beasts that need to be addressed, including infrastructure, digital literacy, legal access to SIM cards (and therefore to identity requirements), affordable plans, and so on. A comprehensive definition allows us to focus on the user and the intended or desired objective, rather than on the modalities, multiple pathways to get there, and hurdles in-between.

Once again, between what sounds like a simple idea and its realization there is substantial work that needs to be done if we want connectivity to become a right for refugees, or at least as much of a right as it is for the rest of us.

Wondering if it is worth the effort? Let's put the idea out there: what would a humanitarian response look like if every displaced person had a phone number, a mobile money account, freedom and choice to participate and negotiate their space and belonging in a connected society?

I am aware that the argument for mobile phones as a lifeline for refugees is as true as it is worn out, but a mobile phone is not only life-saving. Possibly, in situations where needs and challenges outdo possibilities and solutions, access to mobile can improve, enhance, change the quality of one's life. Nevertheless, for this to happen, access and use need to be the result of choice and autonomy, and not one that is controlled, restrained or limited to specific pre-defined purposes. As UNHCR adopts a more comprehensive response to displacement - known as the Comprehensive Refugee Response Framework - the focus is moving from alleviating suffering or removing what causes suffering to creating the conditions for one to thrive. If this is applied to access to technology and the internet, then the attention has to shift from mobile as a tool for survival to one of fulfillment: it is one thing to be able to access predefined content pertaining to food distributions, disease outbreaks or natural disasters, it is yet another thing to use the technology and the internet to make and nurture connections, to access entertainment, find opportunities for self-improvement or expression. Fulfilling some of these rights and promises (not just the needs) requires full-potential and unrestrained access to connectivity.

Individual access in this sense represents less of a top-down approach to connectivity because communities can define on their own terms their mobile use and activity in a self-determined and independent way. If we value freedom of choice and understand that connectivity is not only

a right but the tool to exercise one's rights, then any type of intervention to improve individual access could be a step in the right direction, even though it might take longer and require more resources to make sure that the process doesn't exclude certain groups or exacerbate inequalities. So the question is not whether individual access is "better than" but rather how we can ensure that it is a valid alternative to other modalities of access, keeping in mind that solutions and appropriateness are always defined and shaped by context.

Rethinking what we think of individual device access

Following two projects supported through the Community Connectivity Fund in 2018, here we look at ideas and themes that emerged and which challenged the way we thought about individual device access and which might take us closer to realizing full-potential when it comes to individual pathways to connectivity.

- **Devices: a value or an incentive?** Two of the initiatives funded by the 2018 Connectivity Fund leveraged personal devices to complete and complement larger programmes and to achieve broader goals. In Côte d'Ivoire mobile phones were used to encourage the adoption of mobile money assistance in lieu of the less efficient and safe cash alternative and, by means of doing so, improving financial inclusion of Ivorian returnees. Similarly, in Venezuela, mobile phones were part of an initiative to improve digital literacy, and offer information and resources to prevent violence, trafficking, and abuse. In both countries, personal devices were not the focus of the intervention, but instead were accessories that facilitated and accelerated impact. Rather than an incentive - because this assumes you can motivate someone to do something by means of something else - mobile phones were a value-add to the program and a way to kick-start wider experimentation around financial and digital literacy.
- **Less tech, more inclusion.** Even though we may think of individual connectivity as purely a tech issue, the real question is beyond tech. Individual device access is almost all about invisible, immaterial, and behind the scenes work. Yet it is a fundamental work. First, it requires sitting at a table with Mobile Network Operators (MNOs), regulators, and the local government to ensure that displaced persons have legal access to mobile (SIM cards registration, mobile money, etc). Second, better coverage in remote areas with a high density of refugee populations needs to be negotiated. Third, we need to deal with the other side of the digital: paper, bureaucracy, protocols, formalities. For instance, the project in Cote d'Ivoire is still waiting for an agreement with MNOs to be signed off so that their solution can be fully operational. Finally, all these endeavours require essential resources: time, dedicated personnel for meetings, pushing things through, shifting minds and behaviours. Progress here is hard to notice and measure because it's made of small steps, but sometimes it's the non-material that counts the most, what you can't see, what happens on the sidelines. Moreover, there are important considerations that pertain to the cultural, social, economic

and political spheres that need to be taken into account and which hinder equality - let alone equity - in access. If we want to be inclusive and provide equal opportunities to the digital, then we need to focus less on tech and more on these aspects.

- **Breadth and depth of impact.** Individual device access can feel like a very limited intervention, one that only reaches a small number of people but doesn't bring benefit to the majority. This might be symptomatic of a clash with humanitarian spirit and values that drive us to do the best with what we have, to maximize efforts, to be cost-effective and help large number of people at the risk of stretching ourselves too thin. Putting aside whether the over-emphasis on numbers is a product of genuine concern or a by-product of donors' reporting requirements, what matters here is that this approach tends to favour breadth over its counterpart: depth. The first can be easily measured and proven: this amount of money helped this many people. But how did it help them? What changed in the way they perceived their present and imagined their future? That's depth, and yes, it takes more time and effort but there is great value in it: knowing if, and to what extent, our projects have a positive and lasting impact on someone's life.

- **To the collective through the individual.** Looking at the 2018 Fund case studies, personal device usage was the means to set collective and systemic change in motion, shifting perceptions and behaviors around technology, creating momentum and interest among the larger community by having the first participants' trust and buy-in. We thought that individual use was against the interests of the wider community, we feared that impact would be limited in number, not scalable, not sustainable. Yet, we've also started to see households who share one phone, or community leaders using their phones for the benefit of all and thus including others who are digitally illiterate or not able to go to the Community Centre to access connectivity. In other words, individual access to devices and connectivity does not have to be limited to the individual. Experience in the field and projects like the ones in Venezuela and Côte d'Ivoire are showing us how individual use can have positive community-wide effects .

Connectivity: unusual business

Delivering connectivity to displaced populations sometimes asks us to rethink the ways we understand interactions between individuals and systems, personal and shared, community-wide or individual level change and impact. Connectivity can blur some of these lines and push us to redefine them, not as absolute terms but as contextual, and relative truths. In this article and the previous one on connected community centres, we have tried to uncover some misconceptions about what community and individual level connectivity look like for displaced populations. If both avenues can be effective in realizing Connectivity for Refugees, there are many other ways and hybrid models that challenge the very definition of collective and individual. It is fundamental then, that we keep stepping out of "business as usual" for connectivity and always ask ourselves whether a solution is appropriate to the context (and why we think it is or isn't), but also if and how our actions are contributing to the ultimate goal of a more inclusive and fair digital future.

RESEARCH

HUMANITARIAN INNOVATION AND REGULATORY SANDBOXES

By Dr. Aaron Martin & Giulia Balestra

Regulators globally are exploring and experimenting with new regulatory and supervisory approaches to innovation, including financial technology (fintech). The concept of a 'regulatory sandbox' has proven to be particularly appealing to the financial sector as it seeks to promote technological and data-driven innovation, and is spreading to other regulated sectors such as telecommunications, data protection, and energy. These playgrounds for innovation allow participants to test new business models and technologies under the supervision of regulators, usually with the rules temporarily relaxed. Regulators also provide targeted guidance to sandbox participants, including help with understanding how an innovation fits within the regulatory framework. As of December 2018, at least 40 regulatory sandboxes were either in operation or under consideration globally. Significantly, many of these are countries that host large numbers of displaced persons (i.e. asylum seekers, refugees and internally displaced persons), such as Jordan, Kenya, Malaysia, Nigeria, Thailand, and Uganda.

This short commentary explores the potential role for regulatory sandboxes in humanitarian innovation. We discuss the stated benefits of the sandbox approach to governing innovation while also acknowledging notable risks and challenges to their sustained deployment. We then reflect on how the humanitarian sector might engage regulators and other stakeholders through sandboxes to develop and catalyze innovations that better serve displaced populations.

Regulatory sandboxes are safe spaces that create an environment for businesses to test products with less risk of being punished by the regulator for non-compliance. and, in return, requires applicants "to incorporate appropriate safeguards to insulate the market from risks of their innovative business". Others define a sandbox as a "framework within which innovators can test business ideas and products on a 'live' market, under the relevant regulator's supervision". The Financial Conduct Authority (FCA) in the United Kingdom is credited as popularizing the concept of a regulatory sandbox in 2015 to describe its program to allow firms to test innovative products, services, and business models in a real market environment. The concept has since spread fast, both internationally and increasingly across sectors, and it is possible to delineate a number of common characteristics of observed sandboxes:

- **Objectives**: Regulators pursuing sandboxes usually do so to advance financial innovation, markets, inclusion, increased competition, and/or economic growth;
- **Rules to Entry**: Applicants must demonstrate a) need for regulatory relief in the form of a sandbox, b) that they are adequately prepared to enter, and c) how their product or service will support the financial sector while providing genuine innovation and benefit to consumers, while managing risks to market stability and transparency;
- **Scope**: Considerations related to the scope of a sandbox include: a) possible sectoral restrictions on participation (i.e. limitations on which institutions are permitted to enter), and, relatedly, whether to allow existing regulated entities to join; b) limits on the number and kind of customers a sandbox participant is allowed to target (e.g. can a proposal involve vulnerable populations?), and c) either time restrictions or size limits (e.g. amount of deposits);
- **Extent of Regulatory Relief:** Only a small number of regulators actually disclose which rules are flexible within the sandbox, and which are steadfast; however, "most authorities refrain from stipulating an exhaustive list of requirements that may potentially be relaxed within the regulatory sandbox";
- **Rules to Exit**: In general, regulatory sponsors will also specify the criteria by which participants may be expelled from a sandbox, including excessive risk taking or rule breaking, or failure to meet the stated objectives of advancing innovation, etc.

Some view regulatory sandboxes as a form of principles-based regulation by which regulators afford participants flexibility and discretion in meeting the policy goals and adapting their innovations in response to the regulatory framework. Others characterize sandboxes as a form of "structured experimentalism".

A number of authors focus on the merits of regulatory sandboxes vis-à-vis specific technology applications. Focusing in particular on the Chinese market, Guo and Liang propose the establishment of a regulatory sandbox for blockchain applications. Likewise, Ringe and Ruof analyze the current EU regulatory framework governing so-called robo advisors (the automated provision of financial advice without human intervention), and recommend the use of a "guided sandbox" to promote mutual learning by both firms and regulators, thus reducing regulatory uncertainty for participants. Ng and Griffin argue that the regulatory sandbox construct could be extended to test the viability of national cryptocurrencies (issued by a central bank), arguing that such a "crypto-sandbox" would permit stakeholders to observe any operational, technical, security, scale, performance, and governance issues with a national cryptocurrency, while providing a view into uptake, benefits, and other opportunities. Likewise, we propose that humanitarian actors should engage regulators from the financial and telecommunications sectors, and potentially other areas, to explore modalities for using regulatory sandboxes to address common regulatory challenges in humanitarian operations, particularly those impacting refugees and other displaced persons.

It may be premature to draw strong conclusions on the effects of regulatory sandboxes. Even the FCA acknowledges this point in its Lessons Learned Report from October 2017: "It is too early to draw robust conclusions on the sandbox's overall impact on competition given its relatively

small scale to date and the time we expect changes to embed in the market". Likewise, Agarwal duly notes that "given that the concept of regulatory sandboxes is still nascent, comprehensive data is not available yet on their effectiveness and economic impact". Still, the expected benefits associated with the adoption of a regulatory sandbox include:

- More **open and active dialogue** between regulators and stakeholders;
- Better regulatory **assessment of innovation** and its risks;
- A **data-driven approach to regulation** that facilitates innovation, competition, and inclusion;
- In countries with a fragmented regulatory framework, for example with respect to the oversight of mobile money or other innovations that may implicate multiple regulatory frameworks, a sandbox may help to **preempt enforcement actions** by a range of regulatory actors;
- For investors, the fact that a firm is participating in a sandbox may **provide some certainty and assurance** about the associated regulatory risks of the innovation they are considering investing in.

There are, of course, potential risks to the use of regulatory sandboxes which must also be understood and managed by stakeholders:

- Risks to consumers and the broader financial system could materialize due to the fact that sandbox **activity is not fully regulated**;
- A **lack of standards for sandboxes** may prove challenging for the cross-border provision of services, though recent calls for a 'global' sandbox may help to address this problem;
- Not all sandboxes disclose the extent of the rules and regulations that may be relaxed; this **lack of transparency** could result in legal uncertainty and unintended consequences;
- Some countries may **lack regulatory capacity** in terms of resources, staff, expertise, and tools to effectively operate a sandbox;
- Challenges may also arise in trying to balance **different regulatory objectives**, such as financial inclusion, stability, integrity, consumer protection, and competition.

How might the humanitarian sector leverage regulatory sandboxes to promote responsible and ethical innovation that benefits displaced populations? One can imagine various scenarios where there is a desire to improve access to mobile connectivity or to promote financial inclusion, for example through microlending or alternative forms of credit scoring.

Recent research by the UNHCR has identified a concrete opportunity for humanitarian actors, their partners, and service providers to engage regulators through a sandbox-like construct to improve the lives of displaced populations. Today, asylum seekers, refugees, and internally displaced persons face persistent legal and regulatory barriers to proving their identity in advance of being able to access a SIM card, open a bank account or use a mobile money wallet. While the identification challenges for these groups are multifold and complex, in general displaced

persons lack adequate proof of identity and other documentary evidence required by mobile operators and financial institutions to legally access services. Identification often proves to be a barrier even if a person is registered with UNHCR and has been issued an identity credential by the agency.

In this case, a regulatory sandbox could be erected to facilitate innovative approaches to meeting Know Your Customer requirements for displaced populations in partnership with humanitarian agencies like UNHCR and private sector stakeholders. Experiments could include testing new forms of 'e-KYC' based on UNHCR's registration data, for example. Lessons learned from a sandbox in one country could be shared with humanitarian agencies and regulators in other countries to reduce access barriers to mobile connectivity and digital financial services.

This is just one emergent area demonstrating how the humanitarian sector might harness sandboxes to improve the lives of populations of concern. There are no doubt many innovative ways of working with regulators to address real challenges faced by refugees and other displaced groups. It is our hope and belief that the sector can think creatively about how best to leverage the international regulatory community's intense interest in sandboxes and other experimental modes of governance to bring real benefits to the people under its protection in a safe and secure fashion.

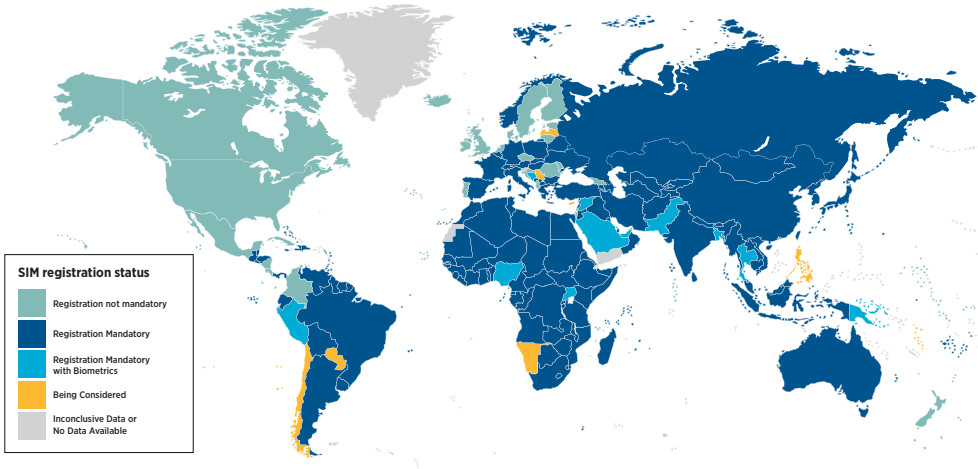# IMPROVING LIVELIHOODS THROUGH THE POWER OF MOBILE

THE CASE FOR ADDRESSING IDENTITY BARRIERS FACED BY FORCIBLY DISPLACED PERSONS

By Yiannis Theodorou

Access to Identity and mobile is key to digital and financial inclusion

The ability to prove one's identity in both the offline and online worlds is increasingly becoming a prerequisite to access a plethora of basic life-enhancing services including healthcare, education, banking and exercising one's right to vote in a democratic election. Lack of official identification is also a key barrier to accessing basic mobile services – such as voice communications and messaging – in over 150 countries[1] where proof-of-identity is mandatory to register and activate a mobile SIM card (Figure 1). In many developing markets, mobile is already playing a key role in unlocking access to several mobile-enabled services, such as mobile money accounts, Pay-As-You-Go energy, water, and sanitation services, educational, health and other digital services. For example, for many of the 866 million registered mobile money accounts[2], a mobile phone is their main, if not their only, means to receive, send and save money. Yet, in order to open a mobile money account, people need to meet 'Know Your Customer' (KYC) requirements, which typically require the presentation of a formal proof-of-identity.

Figure 1 : Status of SIM registration policies (2018)

SIM registration status
- Registration not mandatory
- Registration Mandatory
- Registration Mandatory with Biometrics
- Being Considered
- Inconclusive Data or No Data Available

1   https://www.gsma.com/mobilefordevelopment/resources/access-mobile-services-proof-identity-global-policy-trends-dependencies-risks/
2   https://www.gsma.com/mobilefordevelopment/resources/2018-state-of-the-industry-report-on-mobile-money/

Lack of official identification is disproportionately impacting refugees and other forcibly displaced persons

According to the World Bank, an estimated one billion people around the world lack any legal (state-issued or recognised) identification and are arguably 'invisible' in many formal respects (figure 2). About half of these people live in Sub-Saharan Africa and most are likely to be women and/or forcibly displaced e.g. refugees or those affected by humanitarian crises.

Figure 2 : Share of total population estimated to have an official form of identification (2018)

ID penetration %
- 0–30
- 31–50
- 51–70
- 71–90
- 91–100
- Inconclusive Data or No Data Available
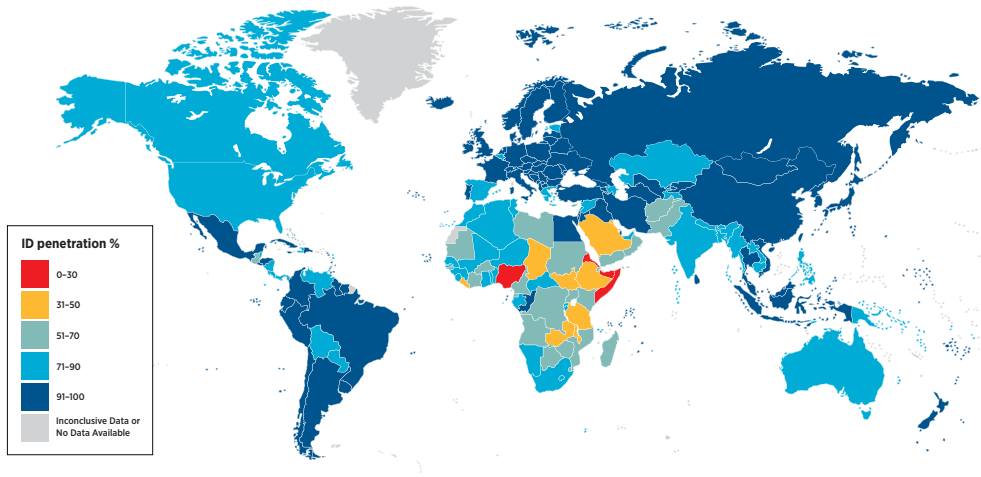
The humanitarian community is increasingly focused on how to ensure those in need of assistance are equipped with acceptable forms of identification, which would allow them to access mobile connectivity and mobile money services *in their own name[3]*.

"*Most of us don't have registration forms [for refugee ID], so our SIM cards are registered in friends' names. We all have proof of residence (POR), but don't have a refugee ID. You can't use a POR to register a SIM card. Some of us have a refugee ID from before but it expired after 5 years.*" (Male, Refugee, Kiziba refugee camp, Rwanda)

One hundred and seventy three countries are hosts to 19.9 million refugees[4]. Yet, recent research by the GSMA found that:

3   UNHCR (2019) – Displaced and Disconnected, https://www.unhcr.org/innovation/displaced-and-disconnected/
4   Under the UNHCR's mandate (excluding those under UNWRA's mandate)

- 75 percent of these countries legally require[5] people to present an acceptable form of identification in order to register for a mobile SIM card in their own name.
- Nineteen of the top 20 refugee-hosting countries mandate SIM registration, the United States being the only country that does not (see Figure 3).
- 80 percent of all refugees live within these 20 countries and so are required to present an acceptable proof of identity to register for a mobile SIM in their own name.
- 81 refugee-hosting countries offer mobile money services, which could potentially be available to 54 percent of all refugees (subject to meeting KYC requirements for opening a mobile money account in their own name).

Figure 3: 12 of the top 20 refugee hosting countries mandate SIM registration and offer mobile money services

Refugee population (in millions)
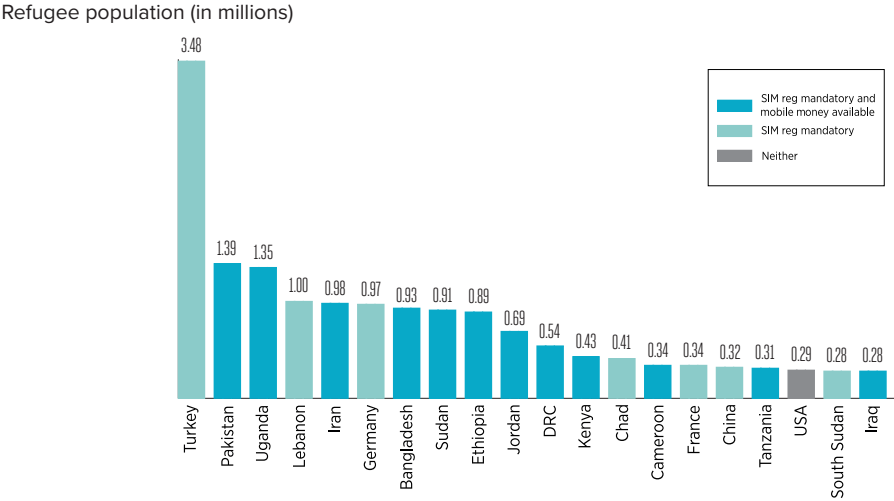
Twelve of the top 20 refugee hosting countries mandate SIM registration and offer mobile money services. 45 per cent of all refugees live within these 12 countries and could *potentially* be financially included subject to meeting their host-country's KYC requirements.

Yet, little evidence exists in the public domain on how many refugees physically possess the identity documentation required for SIM registration and KYC in each host country.

New research[6] was conducted by GSMA and UNHCR[7] in November 2018 to build the evidence base in understanding how refugees access and use mobile technology in specific refugee contexts in Rwanda, Uganda and Jordan, and the associated barriers. The research found that 64% of refugees surveyed in the Kiziba camp in Rwanda have a refugee ID card. In contrast, lack of access to identity documentation is a significant issue for refugees in Bidi Bidi (Uganda) where only 7% reported possessing a Refugee ID[8]. Additionally, a lack of clarity about the national policy for SIM registration made it unnecessarily complicated for refugees to get connected. Those who lack recognised proof-of-identity frequently rely on friends and relatives to register a SIM card on their behalf. However, while formal and informal 'work-arounds' may exist, the inability to access mobile services in one's own name could amount to a missed-opportunity for that individual to be meaningfully digitally and financially included.

Many refugees are still unable to register their mobile SIM card in their own name

Figure 4: Proportion of refugees with a mobile SIM card registered in their own name
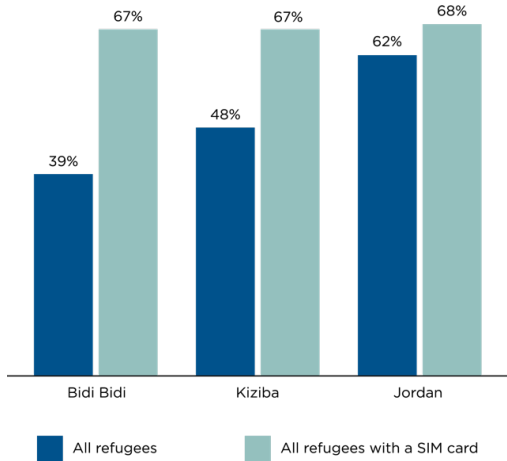
Base:
All refugees (Bidi Bidi: 755, Kiziba: 727, Jordan:728)
All refugees who own a SIM (Bidi Bidi: 447, Kiziba: 518, Jordan: 658).

Sixty-two percent of refugees surveyed in Jordan possess a SIM card registered in their own name. This is a higher percentage than those in Kiziba (48%) and Bidi Bidi (39%). However, in all

5   https://www.gsma.com/mobilefordevelopment/resources/access-mobile-services-proof-identity-global-poli-cy-trends-dependencies-risks/

6   GSMA research will be published in the second quarter of 2019.
7   Alongside UNHCR, GSMA conducted research in Jordan (with urban refugees), Rwanda (Kiziba refugee camp) and Uganda (Bidi Bidi refugee settlement) to build an evidence base to understand the ways in which refugees currently access and use mobile technology, and also examine the nuanced barriers.
8   At the time of data collection in November 2018, a re-verification process was being undertaken, which is likely to account for the low penetration of Refugee IDs.

three contexts, around two thirds of all refugees with a SIM card have it registered in their own name[9].

"If [the mobile money account] is not in your name, you can't withdraw your money. You have to find the person who is registered and they have to come and withdraw the money - he may be very far... If it's not someone you know well they may charge you for that. The challenge is that the owner of the ID may lose their ID and then you can't use the account and withdraw money. It can take years to replace a lost or expired ID." (Male, Refugee, FGD 22, Rwanda)

A key policy consideration for host-country governments[9] (in the context of addressing proof of identity barriers faced by refugees) is to understand and reflect on what forms of identification most refugees have access to, which could be deemed acceptable for meeting such proof of identity requirements. A report[10] by the UNHCR, supported by the GSMA, looks into the identification requirements that forcibly displaced persons face in the context of accessing mobile services, across 20 host-countries. For example, the research found in Zambia refugees can use their Proof of Registration, Refugee Certificates and Refugee Cards as valid proof of identity to complete SIM registration and mobile money registration. Such interim policies[11] could be put in place until official recognition of a refugee's status is complete—a process that can take months or years.[12]

Privacy frameworks can encourage uptake of digital identity and adoption of identity linked mobile services

As the world's economies increasingly 'go digital', governments carry a responsibility to foster and help create a trusted environment where consumers' privacy is respected and their privacy expectations are met. Mobile network operators are often subject to a range of laws and/or licence conditions that require them to support law enforcement and security activities in countries where they operate. These requirements vary from country to country and may have an impact on the privacy of mobile customers. The retention and disclosure of data and the interception of communications for law enforcement or security purposes should take place only under a clear legal framework and using the proper process and authorisation specified by that framework. Given the expanding range of communications services, the legal framework should be technology neutral. GSMA research has found that only 61 per cent of the countries mandating prepaid SIM registration have a privacy/data protection framework in place.[13] This is also true for 54 percent of all African countries (figure 5)

Actual or perceived risks to people's privacy may adversely affect their willingness to register a

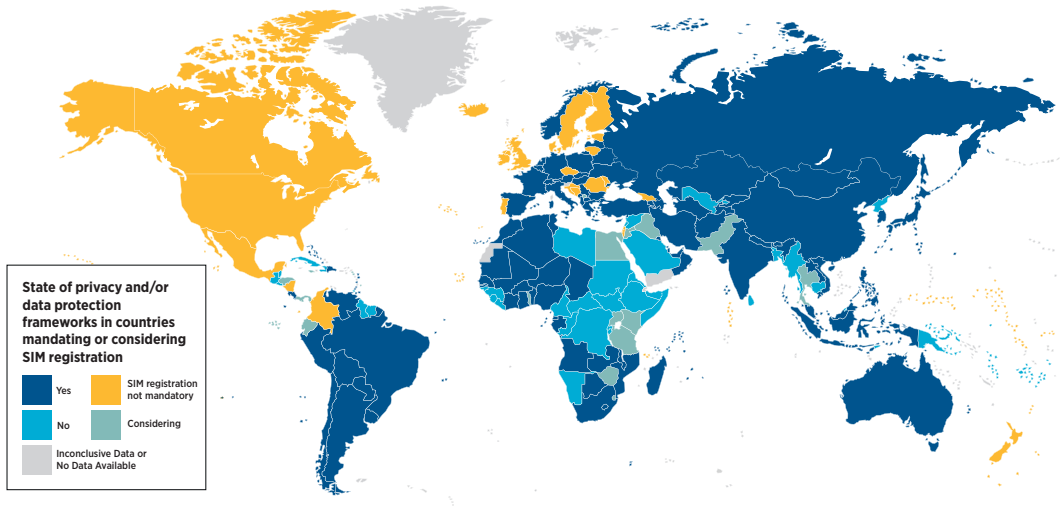SIM card or sign up to identity linked mobile services in their own names.

Figure 5: State of privacy/data protection frameworks in countries mandating SIM registration.

Role of mobile in facilitating identity enrolment through Public-Private Partnerships

The World Bank's latest global FINDEX survey[15] found that registering for a mobile SIM card is the most prevalent use of identification across all countries surveyed, for both men and women. This also suggests that the willingness to register a SIM card in one's own name is driving demand for acquiring a digital identity. For such demand to be met, people who currently lack a digital identity need to be able to easily sign up for one. Given the wide reach of mobile network operators (MNOs) through their nationwide retail presence and agent network, governments have an opportunity to partner with them and leverage their capabilities to enrol millions of hard-to-reach and vulnerable groups of people who currently lack formal identification.

This model is currently being explored in Nigeria and could be particularly effective in other markets such as Somalia, Ethiopia, Swaziland, Zambia and Angola, where it appears there are more people with a unique mobile subscription than an official proof of identity.

Public-Private-Partnerships between MNOs and governments have also been successfully tested in the context of digital birth registration in countries such as Pakistan, Tanzania and Ghana.[16]

---

9   It is worth bearing in mind that the rate of SIM ownership in each context varies quite dramatically between the three contexts included in the research. In Bidi Bidi 59 percent of refugees own a SIM, in Kiziba it is 71 per cent and for urban refugees in Jordan it is 90 percent.

So what does this mean for policymakers working on their digital transformation strategies?

To improve social, political and economic inclusion, as well as engender trust in the digital ecosystem among underserved populations, an enabling policy and regulatory environment is essential. Elements of such an environment may include:

- Enabling all individuals to access formal identification in a timely manner;
- Coordination between government and sectoral regulators to ensure that the identity ecosystem can cater for the respective needs of each sector (financial, telecoms, health etc.), but also the specific needs of various consumer groups—especially those forcibly displaced or otherwise marginalised;
- Ensuring proof of identity requirements when accessing mobile and digital services are:
  * clear and as harmonised as possible;
  * proportionate to people's ability to access an acceptable form of identification;
  * reflective of the risk of harm in a given context; and
  * sufficiently flexible to adapt to market developments.
- Fostering trust in mobile and digital identity ecosystems e.g. by establishing or maintaining privacy and data protection frameworks;
- Maintaining robust identification databases and empowering mobile operators to query these when validating customers' identification credentials at the point of SIM registration (where this is mandatory);
- Partnering with mobile operators, key stakeholders and the wider identification ecosystem to help drive identity enrolment and access to innovative and interoperable solutions; and
- Encouraging adoption and usage of digital identity linked services (e.g. by investing in eGovernment and digital social protection portals for beneficiaries).

With just 11 years to meet the 2030 United Nations' Sustainable Development Goals (SDGs) and in particular SDG 16.9 of providing 'legal identity for all', there is a clear need for concerted action; governments, the development community, the mobile and financial services sectors and stakeholders from the wider identification ecosystem need to do their part to jointly address the proof of identity barriers preventing millions of people from accessing life-enhancing mobile services in their own name.

The GSMA's Mobile for Humanitarian Innovation Programme is committed to supporting dialogue between these stakeholders in an effort to create more enabling environments where the basic needs of displaced populations can be met.
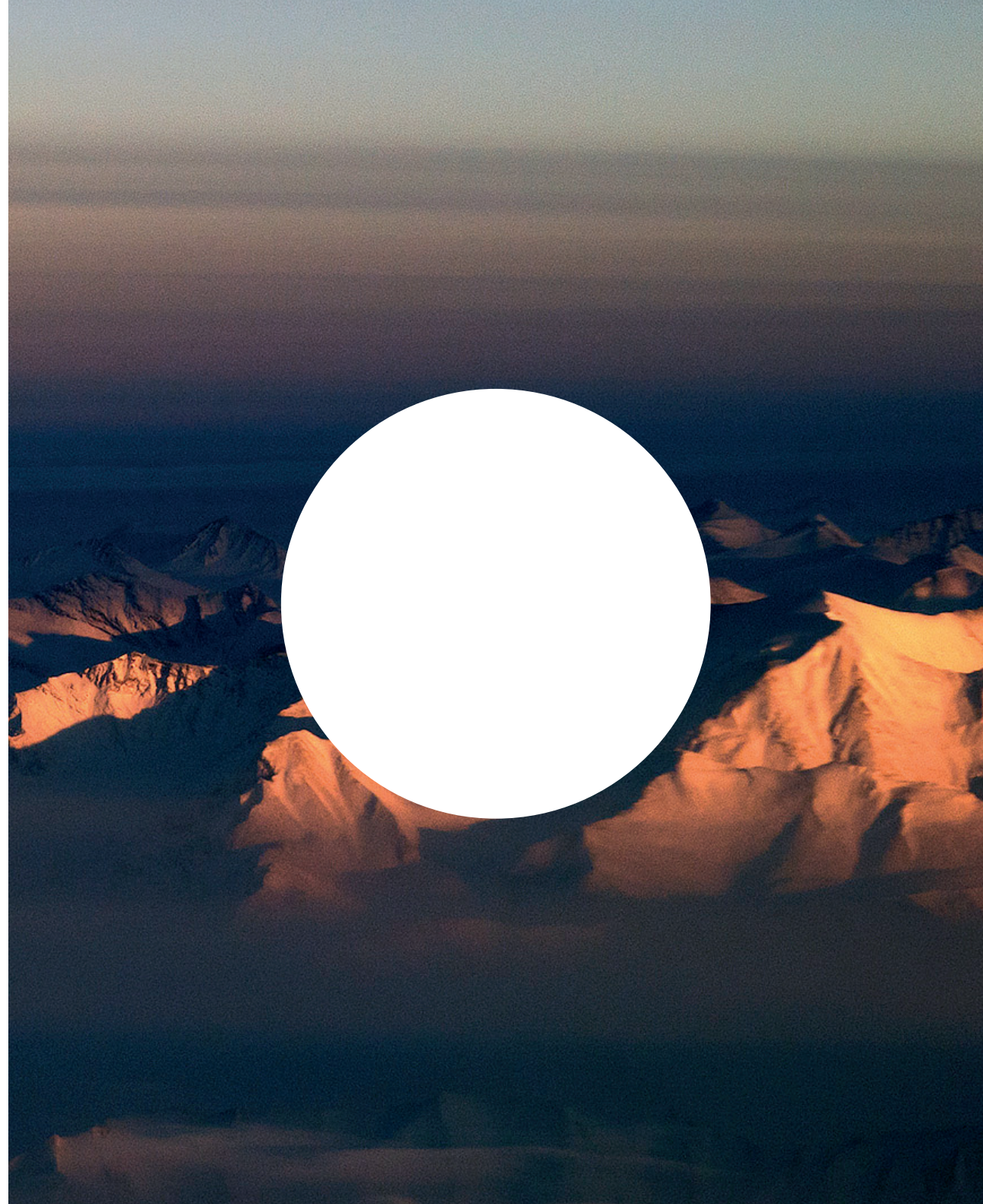
FREQUENTLY ASKED QUESTIONS ABOUT CONNECTIVITY FOR REFUGEES

What is Connectivity for Refugees? Connectivity for Refugees is an initiative by UNHCR's Innovation Service to ensure displaced populations and communities that host them have the right, and the choice, to be part of a connected society, and have access to technology that enables them to build better futures for themselves, their families, and the world.

What is the Innovation Service's role? The Service sets a direction and through a three pillar strategy (field support and experimentation; strategic communications and storytelling; research) ensures that field operations and UNHCR can deliver Connectivity for Refugees aligning efforts towards common goals. The Service encourages a culture of distributed leadership and collaboration, highlighting good practices across UNHCR operations globally that foster inclusive and connected environments for refugees and ensure that everyone can benefit from these learnings and approaches.

What does connectivity mean? Connectivity is many things at once, all different and all having a vision in common. Connectivity is both building a tower to connect a settlement, and strengthening the capacity of UNHCR operations. It's providing digital literacy and IT education where it's needed, it's identifying access obstacles through research and doing advocacy to remove them, it's using communications and the power of stories to catalyse change. Connectivity doesn't mean digitizing the humanitarian response and making all services and assistance to refugees digital, but rather ensuring that digital transformation and the future of a connected society are accessible to all, they are the result of choice, and they are inclusive.

Why is connectivity important? Because a lack of connectivity constrains the capacity of refugee communities to organize and empower themselves, cutting off the path to self-reliance. But it also constrains the kind of transformative innovation in humanitarian assistance at a time when such a transformation has never been more necessary.

How was the Connectivity for Refugees initiative born? Connectivity for Refugees started in 2016 with the launch of a research conducted by Accenture Development Partnerships, and an associated Connectivity for Refugees report. This research was commissioned by UNHCR's Division of Information Systems and Telecommunications, which provides Information and Communications Technology services and support to the organization and enabling communication to all operations. In 2016 the initiative transitioned to the Service. From 2018, the strategy has evolved based on the experiences and learning and together with the many changes in the digital world and status of connectivity globally.

How can we collaborate/ engage /know more? Get in touch at hqconref@unhcr.org if you think your work aligns with our goals and if you have new ideas on how we can make this happen.

How can refugees and affected persons be part of this initiative? The initiative works for refugees and with refugees. Any project that impacts local communities requires their involvement and solutions are designed, tested, and implemented hand in hand with them. We don't close the feedback loop, but rather keep it open as an ongoing conversation that strives towards improvement.

Why is UNHCR working on connectivity? Aren't there other organizations and companies that do that? Connectivity is a broad field and there are many actors working on different components. What is unique about UNHCR is, following its mandate, a critical role and position in bringing all relevant actors together, encouraging collaborations that make a difference, convening expertise and coordinating interventions always having refugees' best interests at heart.

Why is the Innovation Service working on connectivity? Because mindset matters and advancing the Connectivity for Refugees agenda doesn't come without an eagerness to experiment, a hunger for change, a reverence of failures (that is, of what they can teach us), and a healthy desire to challenge the status quo. Our reality, and even more so the digital one, is a fast-paced and dynamic one and in order to succeed we need to incorporate future thinking into our work to understand what the connected society of tomorrow looks like and how it can be harnessed to support refugee protection.

Are you only focusing on refugees? Connectivity doesn't stop at borders or ad the edge of a refugee camp. Interventions to bring access to internet benefit refugees and the communities hosting them. The initiative is driven by a "whole of society" approach and its agenda aligns with the local national planning so that investments are done where they are most needed and they include host communities.

Who is paying for it? UNHCR helps try and ensure that enabling environments exist and uses resources to experiment with new business models to find sustainable solutions. It is not sustainable for UNHCR to pay for connectivity and this is why partnerships and advocacy with mobile operators and other providers is vital. The initiative has received support from the Government of the Grand Duchy of Luxembourg.

Who are you looking to collaborate with? We cannot create a connected refugee population on our own. Collaboration is key and we seek to build strong, multi-faceted partners - at national, regional and global level - who share our bold and ambitious vision to ensure that all refugees and host populations have access to the internet regardless of their context or situation. Some of these partners might include regulators, telecoms agencies, Mobile Network Operators, governments, civil society and the private sector.

UNHCR Innovation Service
Connectivity for Refugees

@unhcrinnovation
unhcr.org/innovation