

The Digital Worlds of Displacement-Affected Communities

Methodology

This document details the methodology behind the research study, **“The Digital Worlds of Displacement-Affected Communities”** [↗](#). This research analysed the role of mobile technology in the lives of displaced people and the communities that host them in three locations: northern Lebanon, Iowara in Papua New Guinea (PNG), and Bor in South Sudan. This accompanying methodology report describes the research design, data collection, data analysis, project management and risk management.

This method note is being shared both to provide more transparency on the research process, and to make tools available for other researchers to adopt or modify for future research on these topics. We hope making these documents publicly available will encourage future research to take a participant-led approach to exploring the use of mobile technology in humanitarian settings, not only within the humanitarian sector itself but also the private sector and academia.

This document is designed as a supplement to the findings reports and includes:

1. An overview of the research design and its intention;
2. Details on data collection;
3. Details on data analysis;
4. Methodological limitations;
5. Plans to return findings to research participants; and
6. Links to the tools and instruments used throughout the process.

This paper does not share any of the findings from the study. These can be found in one of the stand-alone findings papers [here](#) [↗](#)



This material has been funded by UK aid from the UK government; however, the views expressed do not necessarily reflect the UK government's official policies.

Overview

The methodology aimed to create an understanding of how displaced people and the communities that host them access and use mobile phones. There were two research objectives:

1. To provide a holistic understanding of the impact of mobile technology on people’s lives in displacement contexts. This included gathering data on people’s experiences accessing and using mobile technology, including the benefits, challenges and risks of using mobile-enabled services.
2. To provide information on emerging themes and priorities to inform humanitarian organisations and mobile network operators (MNOs) seeking to design digital interventions with and for displacement-affected communities.

The methodology was designed to be user-led, focusing on the perspectives, experiences and priorities of mobile phone users. It was conducted in three phases, allowing us to heavily adapt the methodology to emerging findings from each context, both in terms of the research questions that were explored and the tools that were used. Phase 1 was undertaken by the GSMA, while Phases 2 and 3 were carried out by a team of researchers and local research associates from The Research People (TRP),

with a great deal of support from UNHCR colleagues in country and field offices in Lebanon, PNG and South Sudan, as well as the global UNHCR Innovation Service.

It was important to select a range of study contexts that would provide different insights into how displaced people’s experiences of using mobile phones have changed in recent years. The GSMA and UNHCR worked together to identify 16 candidate countries and then shortlist them on the basis of (1) geographic spread and risk factors; (2) UNHCR country office interest and capacity; (3) mobile penetration; and (4) humanitarian situation. The teams selected three final contexts: northern Lebanon, Iowara in Papua New Guinea; and the Protection of Civilians (PoC) site (an IDP camp) near Bor Town in South Sudan.

During Phase 1, key thematic topics for each context were selected based on desk-based research and key informant interviews. During Phases 2 and 3, these thematic areas were explored in depth (along with broader topics of access to, and use of, mobile technology) using research tools including interview templates, participatory group activities and survey questions. These were significantly adapted and updated in response to implementation realities and emerging findings.

Thematic topics	Northern Lebanon	Iowara, PNG	Bor, South Sudan
Climate change		✓	
COVID-19	✓		
Digital leisure	✓		✓
Financial well-being		✓	✓
Misinformation, disinformation and hate speech (MDH)	✓	✓	✓

In addition to the steering group (which included representatives of the GSMA and UNHCR), this phase of the research was guided by an advisory group and a user research group. The **advisory group** included a remunerated representative of a national-level NGO from each of the three research countries. They

reviewed the methodology, provided advice and critique on ethics and approach, contributed to the analysis process and reviewed all outputs.

Data collection

Data was collected using an iterative three-stage process that remained responsive to emerging findings. To ensure the research was sensitive to the realities of each context and conducted in the most relevant local language, a research associate was recruited from each setting. This also helped to contain risk related to spreading COVID-19.

The research was collected during the second year of the **COVID-19 pandemic** and in the run-up to elections in Lebanon and PNG. A detailed risk assessment for the research was conducted and then updated every fortnight. It outlined risks relating to the health and safety of the research team and participants, as well as safeguarding, data and research implementation. Specific gates were agreed where risks were presented to the steering group and mitigating actions signed off.

Phase 1 Desk research and key informant interviews

The research began in June 2021 with a detailed scoping exercise to finalise the main research questions and key stakeholders within each study context. Introductory calls were held with the UNHCR country offices and sub-offices. A literature review of 111 documents was conducted to explore existing research related to each of the thematic areas, as well as to understand the displacement contexts and existing research on the use of mobile technology by displaced people. This was complemented by 32 key informant interviews with humanitarian agencies, mobile network operators (MNOs) and other actors working in the digital humanitarian sector.

The research associates were all **trained** in using the tools, ethical data collection practices (including COVID-19 safety) and qualitative analysis. Additional mentoring was provided where needed (particularly with the participatory methodologies). Data was collected and stored following a research code of conduct, as well as bespoke health and safety, safeguarding and data protection policies.

User interviews, non-user interviews and digital day diaries were all sampled using a **purposeful strategy** based on gender, age and disability status. Additionally, data related to device type, literacy, languages, ethnicity and religion (in Bor only) was collected, but not used to inform the sample design.

The **approach to engaging participants** was tailored to the sensitivities and realities of each context. In Lebanon researchers worked, via UNHCR, through community structures and leaders, being sensitive to intercommunal tensions and the volatile security situation. In PNG, a female research associate was recruited and spent significant time building relationships with community leaders and with men in the community to mitigate concerns about women's involvement in the study. In South Sudan, work was conducted via the UNHCR office in Bor, through community leaders as well as various groups in the community for youth, women and people with disabilities. In Lebanon and PNG, group activities were conducted with men and women separately.

Phase 2 Qualitative data collection

The second stage of data collection was conducted between January and February 2022 and focused on in-depth qualitative methods with displaced people. The research lasted approximately three weeks in each context and involved a range of tools (see Table 1). Based on available resources, it was decided to focus solely on displaced people during this phase to achieve the desired depth, as opposed to spreading it across both displaced and host communities.

Phase 3

Quantitative data collection

The final phase of data collection lasted approximately four weeks in each context and involved collecting primarily quantitative survey data, as well as a small amount of additional qualitative data.

Surveys were conducted with both the host communities and refugee communities in northern Lebanon and in Bor, South Sudan. In Lebanon data was collected and analysed in two cohorts (Tripoli and Akkar) because of the different social, ethnic and religious fabrics of the communities, along with the different economic and infrastructure realities. Because the host community in Iowara, PNG is very small (estimated at 200 people, including children) qualitative interviews were conducted with a small group of representatives instead of a survey. Similarly, the number of surveys with refugees in Iowara was reduced from 400 to 360 due to small overall population size.

The survey was implemented in Kobo Collect using tablets. The survey took 20–25 minutes and the majority of the instrument was adapted from the GSMA Connectivity Needs and Usage Assessment (CoNUA) toolkit, with additional questions added in relation to the emerging humanitarian themes.¹

A **random stratified sampling strategy** was designed for each context to ensure that the sample represented the wider population being consulted as far as possible. Information on the demographics of the refugee population was obtained for northern Lebanon and Bor; for Iowara this was extrapolated from data related to the host population. A sample was then designed that matched the demographic characteristics of the population in terms of gender and age.

In all three contexts a **door-to-door sampling approach** was used where enumerators visited the Nth household to sample each participant. This ensured the sample was random, representative of the wider populations being studied and included vulnerable and potentially underrepresented communities. Unfortunately, a door-to-door sampling approach was not possible with the host community in Bor Town, and therefore a market-based sampling approach was used instead.

A team of six to eight enumerators were recruited in each context to collect the survey data. The research associates delivered three days of training that covered the survey and ethical data collection processes, including COVID-19 safety, consent, safeguarding and data storage. The teams then conducted a one-day pilot to test and update the tools and sampling processes.

¹ Baah, B., Downer, M. and Kruk, L. (2021). [The Connectivity, Needs and Usage Assessment \(CoNUA\) Toolkit](#). GSMA.

Phase	Tool	Northern Lebanon	Iowara, PNG	Bor, South Sudan	
1	Key informant interviews	Stakeholder interviews to provide contextual knowledge of the humanitarian and digital landscape of the study areas.	12	13	7
	Document reviews	Reviews of published literature to provide contextual knowledge of the humanitarian and digital landscape of the study areas.	32	29	50
2	Service mapping	A snapshot of the main mobile apps and digital services used in the context.	1	1	1
	User interviews	Semi-structured interviews guided by open-ended templates designed to explore participants' lives, priorities and relationships to their mobile phones as well as the thematic areas.	20	16	19
	Non-user interviews	Semi-structured interviews guided by an open-ended template designed to explore barriers to accessing and using a mobile phone, including the implications of being a non-user for accessing information, leisure and services.	4	7	5
	Digital day diaries	Diaries over three days capturing how people used their mobile phones, including when, where and how, as well as how their experiences affected other aspects of their life.	11	11	10
	Key informant interviews	Stakeholder interviews to build on Phase 1 and provide contextual knowledge of the humanitarian and digital landscape of the study areas.	4	4	6
	User research group weekly tasks	Tasks undertaken by the user research group and discussion of key topics through WhatsApp, SMS or Facebook, or face-to-face meetings.	4	1	3
	User research group discussions	Facilitated discussions to enable the user research group to engage with and analyse the emerging research findings. Activities included ranking, mapping and matrix mapping the key themes arising from the research.	2	1	2
3	Fact sheet	Comparing the costs of purchasing phones and airtime and of charging devices in different markets.	1	1	1
	Surveys	The survey was developed to explore mobile access, use and impact, as well as the emerging humanitarian themes, and administered to refugees in the three locations. Approximately half of the survey questions were drawn from the GSMA CoNUA toolkit while the other was developed specifically to validate and quantify findings from the qualitative research.	Host community: 420		Host community: 399
			Refugees: 420	Refugees: 360	IDPs: 401
	User interviews with the host community	In-depth semi-structured interviews guided by open-ended templates designed to explore participants' lives, priorities and relationships to their mobile phones, as well as the thematic areas.	0	12	0
	User research group discussion	A facilitated discussion to enable the user research group to engage with and analyse the research findings. Activities included ranking, mapping and matrix mapping the key themes arising from the research.	2	1	2

Data analysis

MaxQDA was used for qualitative data analysis to code all the data. The coding framework was collaboratively developed and derived from the research questions and emerging themes from Phases 1 and 2. Codes were regularly updated and amended to reflect the emerging themes from the data.

The quantitative survey data was analysed using Excel and Tableau to generate descriptive statistics for the research questions. The analysis also included disaggregation by key demographics.

The research associates drafted a short contextual introduction to the key factors that informed the mobile environment and use in the research locations. These were used to inform an analysis of key themes,

together with detailed discussions between TRP and the research associates.

This analysis was again guided by the advisory group and user research group. Validation workshops were held with the user research group in each location and the emerging findings were presented and discussed with the advisory group at each phase. The enumerator teams also participated in a two-hour validation workshop to discuss their observations on the data collection process, and to identify important themes for the analysis. A final validation workshop was also conducted with key stakeholders, including the UNHCR country teams, local humanitarian actors and MNOs in each context.

Limitations

While a lot of effort was put into ensuring the robustness of this study, there were still a few methodological limitations:

- **Increasing cases of COVID-19 in Lebanon**

necessitated interviews and focus group discussions to be conducted remotely during the initial phase of the qualitative data collection. This presented some difficulties, such as interview cancellations and no-shows, as well as participants struggling with unreliable network connections, lack of mobile data and intermittent electricity. This modality also likely meant that the most digitally excluded individuals were unlikely to be able to take part. Participants were also very reluctant to discuss sensitive issues, particularly related to misinformation, disinformation and hate speech, over the phone. Additional qualitative interviews were conducted in person once COVID-19 restrictions were lifted in Lebanon to address some of these limitations.

- **Security concerns in Lebanon.** The enumerators used tablets to collect surveys, which raised questions from some of the community in Akkar and presented security risks to the enumerators who experienced hostile behaviour during one of the days of data collection. To maintain their safety and proceed with data collection, some surveys were then collected using paper tools and later uploaded on Kobo Collect.

- **Hesitancy of female phone users to participate in the qualitative interviews in PNG.**

It was challenging to contextualise some of the survey findings for women because of the very small sample of women who were willing to discuss their relationships with mobile phones in depth in the first phase of the research. This was also the case for older participants, as it was challenging to identify refugees that were over 60 who were also mobile phone users to participate.

- **Translating and interpreting technical terms like “digital leisure” and “well-being”** was particularly challenging in South Sudan. To ensure all questions and concepts were clearly understood by research participants, we identified several phrases that meant the same thing, along with examples that the researchers could use during interviews and surveys. Working with a research associate fluent in English, Dinka and Nuer, and enumerators fluent in either language helped ensure that the terms were understood clearly.

- **Research fatigue from respondents.** Data was collected among refugees, IDPs and other vulnerable groups who are frequently surveyed, normally as part of needs assessment exercises. Some respondents were hesitant to be interviewed and, in a handful of cases, hostile. By clearly explaining the purpose of the study and how the data collected would be used, participants agreed to take part in the study. We allowed for a 20 per cent non-response rate in the survey collection plan and mitigated challenges by hiring more enumerators in South Sudan and allowing for a longer data collection period in all the contexts.

Returning findings

Findings will be disseminated to participants at the end of the study, in collaboration with the user research group and key contacts in each location:

- A graphic summary of key findings translated into the local language shared via community centres/ churches in PNG and South Sudan (contacts to be gathered by the research associate during Phase B and logistics/costs for printing/distribution of posters to be discussed)

- In-person sharing of findings via the Caritas Officer in Kiunga and the priest in lowara in PNG who can share the information with the community after a Sunday service.
- Possibility of using WhatsApp voice notes to engage participants in Lebanon, as validated by UNHCR Lebanon and key actors.

Research framework

The research framework was designed to respond to key priorities and issues highlighted during the foundational research. Research questions (RQ) 1-3 are foundational questions exploring how displaced people access and use mobile from their own perspectives. RQ4 and 5 build on these findings to draw out people’s experiences of the specific emerging themes.

Theme	Question	Country-specific sub-questions
Mobile access, use and impact	1. How do people in humanitarian contexts use their mobile phones? What is the real and perceived socio-economic impact of using mobile phones from a holistic perspective?	<ul style="list-style-type: none"> • How do people in humanitarian contexts use their phones? • What are the socio-economic benefits that refugees/IDPs, their households and communities have derived from mobiles? • How has connectivity impacted refugee/IDP behaviour patterns, in terms of migration, experience of living in refugee/IDP settings and knowledge about and access to services? • How has connectivity impacted social interaction and communication between refugee/IDP communities and with the host communities?
	2. How does mobile phone ownership, access, use and impact among people in humanitarian contexts differ depending on demographic factors?	<ul style="list-style-type: none"> • What are the social and political dynamics that affect phone ownership and use? • How do demographic factors affect phone ownership, access and use by refugees/IDPs?
	3. What are the perceived and/or real risks of using mobile-enabled services?	<ul style="list-style-type: none"> • What are the risks of using mobile-enabled services? What are the specific risks for vulnerable groups? • What are the unintended consequences of using mobile-enabled services and how can they be best addressed?

4. How are people in humanitarian settings experiencing the following emerging themes in their everyday lives? How, if at all, are they currently using mobile technology in relation to these themes?
5. What are potential opportunities for mobile technologies to address the above themes (4a-4e)? What are people’s preferences and priorities and what opportunities do mobile-enabled services present in this regard? What kinds of services do people most want and need?

<p>a. Financial well-being (including financial services, cash assistance and employment)</p>	<p>Bor and lowara</p> <ul style="list-style-type: none"> • What financial service products are people currently using? How are they using their phones to manage finances or earn an income? • To what extent are people accessing mobile-enabled livelihoods? • To what extent is there an appetite for mobile money services? • How does the community perceive MNOs and financial institutions? Where do they obtain this information? How will it impact mobile money uptake? • Would mobile technology be relevant to or appropriate for CVA programming in Western Province/Bor?
----------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>b. COVID-19</p>	<p>Northern Lebanon</p> <ul style="list-style-type: none"> • How do Syrian and Palestinian refugees use mobile phones to access and share information relating to COVID-19? • What services do refugees seek and access in their everyday lives related to COVID-19? What are the key drivers and barriers? • Did COVID-19 change how mobile phones are accessed and used or have any effect on the digital divide (including gender differences)?
---------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>c. Digital leisure and entertainment supporting well-being</p>	<p>Bor and northern Lebanon</p> <ul style="list-style-type: none"> • What drives demand for mobile phones? • How do mobile phones facilitate entertainment and well-being in people’s everyday lives? [Including entertainment; sexuality and romance; self-actualisation; gaming; and social interaction/capital] • How does gender, age, ethnicity, income level and literacy level affect digital leisure? • Where/how does digital entertainment fit into the digital skills journey?
--------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>d. Climate change and resilience, including food security</p>	<p>lowara</p> <ul style="list-style-type: none"> • What are the main ways climate change is affecting people? How is climate change (soil quality, extreme weather) impacting farmers and smallholders? • How is access to mobile currently impacting food security, access to clean water, farming and knowledge of climate hazards? • Are people using mobile in ways that support DRR and/or better anticipation of disaster? What are the main pain points that could be addressed through mobile?
-------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>e. Misinformation, disinformation and hate speech (MDH)</p>	<ul style="list-style-type: none"> • What are the common MDH themes and how are these influenced by mobile access? (In PNG: Especially as it relates to COVID-19 and vaccination efforts?) • Where are people accessing this information? • Who are trustworthy sources of information? Who is not? • How has COVID-19 changed information access/sharing behavior? • How can humanitarian organisations use mobile as an effective tool for managing and mitigating MDH?
-----------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Annex: tools

Qualitative data:

- ➔ [Service mapping template](#)
- ➔ [User interviews](#)
- ➔ [Non-user interviews](#)
- ➔ [Stakeholder interview guide](#)
- ➔ [Digital day diary](#)
- ➔ [User research group focus group discussion guide](#)
- ➔ [User research group bi-weekly task log](#)

Quantitative data:

- ➔ [Factsheet](#)
- ➔ [Survey in South Sudan](#)
- ➔ [Survey in Lebanon](#)
- ➔ [Survey in PNG](#)



GSMA Head Office

1 Angel Lane

London

EC4R 3AB

United Kingdom

Tel: +44 (0)20 7356 0600

Fax: +44 (0)20 7356 0601

