

Bridging humanitarian digital divides during Covid-19

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Key messages

- Early predictions that Covid-19 would radically change how digital technology is used in humanitarian action have not yet materialised. The most effective tools have been those already known to work at scale, such as providing digital cash through mobile money.
- In contrast, some proposed new uses of technologies, such as drones to check for fever, have been ineffective, and others such as contact tracing apps may expose aid users to greater risks to their privacy or inappropriate surveillance.
- Marginalised groups are already at risk of being excluded by digital approaches, an issue that is exacerbated when such tools are used remotely as necessitated by Covid-19. Systems put in place now will outlast the pandemic, making careful assessment and mitigation measures critical.
- Humanitarians are not using digital technology in a vacuum. They need to work more closely with a wider range of actors, including governments and the private sector, and understand both the opportunities and risks that this presents. The increased and rapid uptake of digital tools clearly increases the potential for digital harm, but we found few examples of organisations taking mitigating action.

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Introduction

While digital technologies have been increasingly employed in humanitarian crises for more than a decade for communication, situation analysis and delivery, they are needed now more than ever due to the Covid-19 pandemic (Willitts-King et al., 2019). Restrictions on travel, a switch to remote working and ‘social distancing’ have left international, national and local humanitarian staff unable to access affected communities, while logistics and humanitarian supply chains are disrupted. At the same time, needs continue to increase. There is now an urgent need for humanitarian actors to engage with affected people differently but, despite initial predictions, there has not been a significant shift in how the sector uses and considers new technologies to do so (Aly, 2020; Bharania, 2020).

This briefing note analyses how humanitarian actors are deploying digital technology to address specific challenges posed by Covid-19; how relationships between technology providers, governments and humanitarian organisations are changing due to the pandemic and what this means for the future of technology in the humanitarian sector. In doing so, it aims to move beyond the initial predictions to provide preliminary evidence of emerging trends in practice and highlight key issues to watch as the crisis develops.

This analysis is particularly important in understanding how Covid-19 impacts longstanding unequal access to technology and its benefits in humanitarian contexts,¹ a so-called ‘digital divide’ (Madianou, 2015; World Bank, 2016). Although technology has often facilitated greater inclusion in humanitarian responses, for example through sending mobile money to people in need, inclusion² is not guaranteed. For instance, technology-based systems that register affected populations and disseminate aid may,

in the absence of any viable alternatives for aid users, compromise notions of ‘informed consent’ and instead result in ‘forced inclusion’, with affected populations required to use such tools to access aid (Willitts-King et al., 2019).

According to the World Economic Forum, the increased reliance on digital infrastructure and connectivity due to Covid-19 has accentuated the global digital divide by exacerbating existing vulnerabilities and creating new ones (Ramos, 2020). Now humanitarian actors, policy-makers and donors must think critically about how to ‘do no digital harm’ and employ technology effectively to provide adequate humanitarian assistance during the pandemic while working to reduce and mitigate the digital divide.

How Covid-19 is changing technology use in humanitarian responses

A growing number of humanitarian organisations are using technology to support their work during Covid-19. Beyond an observed increase in use, however, has the pandemic response changed *how* technology is used and considered in humanitarian responses? In this section we examine whether Covid-19 has driven a change in mindset in the sector across three areas:

- Whether the perceived utility of technology-based approaches has shifted.
- How Covid-19 has impacted the relationship between humanitarians and host governments.
- Whether it has facilitated a more ‘networked’ and collaborative approach to responses.

Greater use of technologies – and a better understanding of their limits

Since the onset of Covid-19, various digital technologies that involve utilising mobile phones, applications such as social media, and

1 This briefing note is part of a larger project looking at the humanitarian ‘digital divide’ (HPG, 2020). It was informed by a review of literature and key informant interviews with 16 individuals from research institutes, non-governmental organisations (NGOs), United Nations (UN) agencies and the private sector. Members of the project steering group, Larissa Fast, Mark Silverman and Aarathi Krishnan, made a number of useful comments on an earlier draft.

2 Inclusion, in this context, refers to: ‘actions taken to ensure the right to information, protection and assistance for all persons affected by crisis, irrespective of age, sexual and gender identity, disability status, nationality, or ethnic, religious or social origin or identity. Inclusive action focuses on identifying and removing barriers so that those individuals and groups who are more vulnerable, marginalised and/or excluded can participate in decision-making and benefit from humanitarian action on an equal basis with others’ (Searle et al., 2016: 4).

mapping platforms have been proposed and used, including in humanitarian settings, as organisations, governments and the private sector seek to continue distributing relief and providing services through remote and contactless methods. Humanitarian actors have also used digital tools and social media to disseminate public health messages and combat the ‘info-demic’ of false and misleading information. For many, the current crisis appears to mark a shift to a model of humanitarian assistance that utilises more digital tools. Many interviewees reported greater interest in digital technology from donors, the private sector, host governments and humanitarian partners alike.

The humanitarian sector has always been enthusiastic about new technology-based solutions that appear attractive and demonstrate a commitment toward ‘innovation’ for competing organisations, while promising to mitigate complex humanitarian challenges. However, one interviewee from an international non-governmental organisation (INGO) suggested some responders appeared to be stuck in a ‘mid-2010s mindset’ of fetishising technology and apps (see for example Culbertson et al., 2020).

Over time, some of these technologies show themselves to be unsuitable to deliver effective responses. This has been seen during Covid-19, where an initial ‘scramble’ towards new technologies has since dissipated as many highly touted ‘solutions’ have proven to be unrealistic or ineffective in delivering the benefits promised. Interviewees noted that conversations around ‘immunity passports’ have also become more muted due to privacy concerns as well as epidemiological issues, such as not yet understanding how immunity for Covid-19 works or how long it lasts (Privacy International, 2020).³ Although there was hope that drones could be used to disinfect public spaces, encourage social distancing, detect fevers and deliver test kits and personal protective equipment (PPE), in practice they have had

very limited use. Where drones have been used successfully in mapping or to deliver tests or equipment, most of these delivery corridors predated the pandemic (Meier, 2020).

Instead, the many examples of digital technologies working successfully at scale during this crisis are tried and tested. The most successful initiatives build on or adapt pre-existing technologies that had been extensively tested and used prior to the current crisis. Mobile money payments, for example, have been used for decades, and the infrastructure for this system has steadily improved over the past few years. A shift to such remote channels has occurred in response to Covid-19 (CALP, 2020): in Jordan, for example, the UN High Commissioner for Refugees (UNHCR) has worked with the government to scale up the population supported by humanitarian actors using cash transfers and mobile money (Tholstrop and Peachey, 2020).

Although the current crisis has driven greater adoption of existing tools, it has also led to more critical analysis of their uses. For instance, interviewees involved with remotely collecting data and mapping outbreaks, health facilities and other infrastructure recognise that this is less accurate than doing so in person. Understanding of the limits of these tools is growing as many affected governments search for tools that can disseminate health information or assist contact tracing systems. While healthcare facilities can be mapped relatively easily, attempting to measure more complex impacts, such as the changes to livelihoods or well-being, is a far more ambitious undertaking, especially in humanitarian contexts. This mirrors remote data collection in hard-to-reach contexts such as parts of Somalia, where the neat, quantitative data provided by digital tools fails to capture more complex inequalities and power dynamics.⁴ This risks creating an ‘alternative reality’ (Jaspars, 2020). In order for such mapping and assessment projects to meaningfully coordinate responses or provide information for aid users, they must

3 Immunity passports were initially proposed to facilitate travel for people who had recovered from Covid-19 or, in due course, been vaccinated against it, so that they would not be infectious.

4 For example, access constraints in contexts such as Somalia and Syria over the past decade have driven technology-based innovations, including phone-based data collection, SMS feedback channels for aid users as well as remote means of conducting training and for monitoring and evaluation (Obrecht and Warner, 2016: 29; Haddad and Svoboda, 2017: 7).

rely on in-person verification from those on the ground. This continued dependency on staff to carry out such verification is both common and desirable for ensuring technology-led approaches are inclusive.

Technology forcing greater engagement with governments

National and local governments across the world, including those already affected by existing humanitarian crises, are the primary actors responding to Covid-19. The pandemic's society-wide impacts, enormous costs and generation of huge quantities of data serve as a reminder to humanitarian organisations of both their relatively marginal role in crisis-affected contexts and the necessity of working with other actors, including governments, in order to mitigate this complex and 'mutually exacerbating catastrophe' (Gates, 2020). Doing so presents new opportunities to work as part of a larger and more effective network of responders. However, there are also greater potential risks of abuse as governments turn to technology to track and respond to the virus, for example in using health data to track political opponents under the pretext of public health.

Many humanitarian actors have an inconsistent record of engagement with governments.⁵ Yet the scale and nature of the Covid-19 crisis has meant calls for humanitarian organisations to work more closely with governments have grown louder, particularly around strengthening national health and social protection systems that are built on digital infrastructure (Konyndyk and Saez, 2020). For example, some governments such as Togo have provided blanket social protection payments to those under quarantine using mobile money services (Adegoke, 2020; Soon-Shiong et al., 2020). Since digital technology now underpins many of these systems, from cash transfers to track-and-trace, humanitarian organisations and governments need to develop and operate many such systems together.

The centrality of government response globally to the pandemic means that there may now be opportunities for humanitarians to increase their advocacy where government policy constrains humanitarian goals. Covid-19 has led host governments to focus on displaced populations due to concerns that the virus could be transmitted to and from such groups; however, many governments have restricted displaced people's access to technology, increasing their vulnerability. In the Rohingya camps in Bangladesh, for instance, refugees have historically been denied SIM cards and, until recently, access to the internet (Internews, 2017). In contrast, successful advocacy by organisations such as GSMA on 'know your customer' requirements (that can prohibit the purchasing of SIM cards and other devices for displaced people) has meant a relaxation of rules in countries such as Jordan and Ghana, potentially opening up mobile money channels for these countries to receive support for their large refugee populations during the pandemic (Muthiora, 2020).

From silos to networks?

Governments and humanitarian organisations must work within a much wider network of actors to be more effective. As one INGO respondent suggested, reduced access to affected populations and the consequent need to employ more diverse and specialised communication approaches has led to more 'collaboration across organisations and across sectors, building greater networks to account for the gaps in our expertise more so than we would have in the past'.⁶ Another interviewee described greater cross-departmental collaboration on technology within their organisation in developing tools and guidance, making joint investments and creating partnerships. Several others were aware of the need to work with specialised external actors in the private sector rather than trying to implement everything in-house. Respondents particularly felt a need to ramp up systems for mobile money delivery and

5 The reasons for this tend to be simplified as a humanitarian commitment to 'neutrality' during crises – a commitment that can not only be perceived as exclusionary to local aid groups, but has also been increasingly questioned as necessary in order to provide relief during crises (Slim, 2020) .

6 A more detailed discussion of the characteristics and challenges of 'network humanitarianism' is provided by Currión (2018).

that ‘big data’ collection is likely to lead to more serious engagement with the private sector.

While the private sector’s expanding role in humanitarian response is not new – and neither are the challenges and risks surrounding it (Zyck and Kent, 2014; El Taraboulsi-McCarthy and Willitts-King, 2017) – the specific challenges posed by Covid-19 and the need for quick solutions is accelerating private sector involvement, especially technology companies. For example, the International Rescue Committee (IRC) has partnered with Google, Microsoft and other corporations to provide information about the pandemic to refugees and asylum-seekers in Europe via existing digital platforms like Facebook and WhatsApp (IRC, 2020). Similarly, the World Health Organization (WHO) is now using both WhatsApp and Facebook in seven languages to provide Covid-related news and information, and the International Federation of Red Cross and Red Crescent Societies (IFRC) has partnered with the global messaging app Rakuten Viber to share trusted information about the pandemic (IFRC, 2020; OCHA, 2020).

However, others also warned of the need for vigilance in cases where priorities do not align, highlighting the need for humanitarian actors to develop clearer, protection-driven standards to guide engagement with private technology actors. As one INGO respondent pointed out, during the pandemic many technology companies have remained focused on bringing more people onto their platforms, rather than addressing digital inclusion by supporting under-reached or marginalised groups. Another respondent highlighted how ‘big data’ analysis initially performed voluntarily by academics as a public good to inform Covid-19 responses had been taken on – and in some cases appropriated – by private companies for profit. This highlights a broader concern that – especially in times of crisis – the profit motive may embed itself in, or ‘hollow out’, areas such as the humanitarian space that had previously operated according to different value frameworks, leading to those with the most critical needs being neglected (Madianou, 2020).

How technology is both helping and hindering more inclusive humanitarian action during Covid-19

Although digital tools assist humanitarian organisations to reach aid users and work more effectively with other actors, they can carry a heightened risk of excluding the most marginalised people in a crisis. These aid users likely lack the means to access assistance or information through digital devices, limiting the usefulness of such approaches, or these digital tools can expose them to new risks. This section considers such issues in the Covid-19 context before examining the pandemic’s impact on digital approaches to communicating with communities as a means to build more inclusive responses.

Digital divides

The digital divide presents a crucial barrier in reaching the most marginalised people in a crisis. Concerns over unequal access to technology as well as its safe and effective use have been prominent during this pandemic and have been seen as so serious as to warrant a ‘second-order disaster’ (Madianou, 2020). The pandemic’s impact on inequalities more generally is a cause for concern, including a reversal of trends in global poverty reduction and a disproportionate impact on women, including in relation to employment, health and gender-based violence (UN Women, 2020; World Bank, 2020).

For example, any system based on ownership of a smartphone, including for disseminating public health information or tracking symptoms, is limited by often vast inequalities of access across gender, wealth and other lines (Mesmar et al., 2016; Woodward and Kruegar, 2020). Studies in displacement settings such as Bidi Bidi camp in northwest Uganda have already indicated dramatic differences in mobile phone ownership, where women are 47% less likely to own a mobile phone and 89% less likely to access the internet through a mobile phone than men (GSMA, 2019: 5). Interviewees also noted that aid users with audio-visual impairments may struggle to effectively access internet and mobile-based services, echoing concerns around the need to account for disability in any Covid-related technology (Brown, 2020). Such differences are heightened by the reduced

physical presence of humanitarian responders who would normally complement engagement with other, non-digital means.

During the pandemic, the sector has put even greater emphasis on its preference for ‘hardware’, such as new equipment and tools, over the ‘soft’ elements of programming, including good community relationships, training and less quantifiable investments. These soft elements are, however, arguably more important during Covid-19, both for determining whether digital-based approaches are successful and for bridging digital divides by providing a better understanding of the needs of affected communities. For humanitarian organisations, digital tools are unlikely to be adequate substitutes for the kind of good pre-existing relationships with affected communities that can determine whether projects are successful (Stahelin, 2020).

Digital risks

While some aid users may be excluded from assistance by digital divides, those who do receive assistance may also be exposed to a range of risks as a result of expanded digital programming by humanitarians – a trend that had accelerated even before the pandemic (ICRC, 2020). These risks include the potential for data gathered from aid users to be used for increased surveillance (Hosein and Nyst, 2013; Latonero, 2019), to be misused by aid agencies or governments (Jakobsen and Fast, 2019) or exploited by commercial entities (Madianou, 2019; Zwitter and Gstrein, 2020).

The pandemic has accelerated the adoption of the types of tools and platforms that rights and privacy advocates argue are high-risk to users, particularly contact-tracing health apps. Concerns have been raised by government health ministries over how other branches of the same government may be misusing health data. For example, an NGO supplying user data to a municipal healthcare authority in the USA was instructed not to provide data that would enable individual neighbourhoods to be identified on the grounds that it might be used by law enforcement. The increased and rapid uptake of digital tools clearly

increases the potential for digital harm, but we found few examples of organisations taking mitigating action.

Communication and community engagement

Communication and community engagement (CCE) is recognised as a critical component of humanitarian responses to the Covid-19 pandemic (Lough and Holloway, 2020). The need to reach large numbers of people as quickly as possible with trusted health messages has highlighted the potential role of digital technology in facilitating better CCE.

The expanded use of digital tools has been an opportunity to foster more meaningful two-way communication with affected people. For instance, one UN agency’s increasing awareness of the importance of communicating with people via social media led to a growing understanding within the organisation that a formal, one-way approach to continually disseminating content needed to be replaced with more two-way, personalised engagement.

Effective two-way communication during the crisis can be a lower priority in the rush to produce and disseminate messages, as seen in previous public health emergencies such as Ebola in West Africa (DuBois et al., 2015) and the Democratic Republic of Congo (DeWulf et al., 2020). One example is WHO’s Covid-19 chatbot – an automated online source of interactive advice accessed by WhatsApp and other platforms – that has been criticised as overly formal and inadequately grounded in local contexts for its messaging to be effective (MacPherson, 2020).⁷

In some ways, the Covid-19 crisis has also confirmed the aid sector’s reliance on face-to-face approaches. Recognising that the majority of aid users say they prefer in-person communication (Mosel and Holloway, 2018; Ground Truth Solutions, 2019; 2020), agencies operating where Covid-19 transmission is still high are already prioritising safe face-to-face interactions with aid users rather than pursuing digital-only tools.

There is also a question over whether new attempts to use ‘big data’ from sources such

7 As one interviewee put it, ‘we’ve been asking [WHO’s chatbot] every day for five months whether we should drink bleach to cure Covid and it still hasn’t figured out a good response to that’.

as social media posts to monitor rumours and adapt messaging (see for example UN Global Pulse, 2020) actually constitutes meaningful two-way communication or is just a new form of ‘surveillance humanitarianism’ (Latonero, 2019). In cases such as these, we can see how technology can ‘facilitate distance’ and allow existing approaches to continue without the meaningful involvement of aid users, rather than build a more participatory or inclusive model of aid.

Conclusion

The disruption caused by Covid-19 may well have caused a shift towards greater use of digital approaches to reach people in crisis, but early predictions of a radical transformation have not yet been realised. The most effective use of technology in humanitarian contexts has been of tried-and-tested tools, such as mobile money provision and other means to distribute funds remotely, rather than new technology such as immunity passports, or new uses of existing tools such as using drones to measure temperatures.

Meaningful engagement with affected people can be enhanced through digital approaches, for example by replicating two-way conversations remotely or creatively using social media to disseminate messages and engage in dialogue. However, this also risks increasing distance with aid users. Technology-only approaches tend to over-promise their impact and risk the further exclusion of some aid users. Primarily, this is because remote tools are less effective at reaching the most marginalised people, compared to

approaches that include in-person verification. Therefore responders must consider how to safely continue face-to-face engagement in order to mitigate inclusion challenges and avoid exacerbating them further.

Change as a result of Covid-19 is seen less in the particular tools and hardware that humanitarian organisations use and more in how technologies contribute to articulating their position within a wider network of government departments, big technology companies and specialist private actors. Attitudes have the potential to shift as humanitarians recognise that tools used in crises can be developed by private organisations and that governments hold the key to allowing affected people to access additional means of support during the pandemic. These considerations could help deliver the whole-of-society approaches that Covid-19 requires, but also increase the risk of data being used to work against the interests of aid users.

Lastly, technology-based approaches are often ‘sticky’ in that their adoption during a crisis is likely to be permanent. Some observers see this as a ‘one-way ratchet’ of increasing surveillance and the potential for abuse of technology (McDonald, 2020). Despite such concerns, the ‘efficiency gains’ made through reaching more recipients suggest that humanitarian actors are unlikely to retreat from such approaches if and when public health and access restrictions are lifted. This means it is especially important to carefully consider the adoption of any new technologies as they are likely to remain a permanent feature of the humanitarian system.

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