

Open Access Repository www.ssoar.info

Digital Accountability: The Untapped Potential of Participation When Using Technology in Humanitarian Action

Düchting, Andrea

Erstveröffentlichung / Primary Publication Konferenzbeitrag / conference paper

Empfohlene Zitierung / Suggested Citation:

Düchting, A. (2023). Digital Accountability: The Untapped Potential of Participation When Using Technology in Humanitarian Action. In *Proceedings of the Weizenbaum Conference 2023: AI, Big Data, Social Media, and People on the Move* (pp. 1-10). Berlin: Weizenbaum Institute for the Networked Society - The German Internet Institute. <u>https://doi.org/10.34669/wi.cp/5.4</u>

Nutzungsbedingungen:

Dieser Text wird unter einer CC BY Lizenz (Namensnennung) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier:

https://creativecommons.org/licenses/by/4.0/deed.de

Terms of use:

This document is made available under a CC BY Licence (Attribution). For more Information see: https://creativecommons.org/licenses/by/4.0





Proceedings of the Weizenbaum Conference 2023: AI, Big Data, Social Media, and People on the Move

DIGITAL ACCOUNTABILITY

THE UNTAPPED POTENTIAL OF PARTICIPATION WHEN USING TECHNOLOGY IN HUMANITARIAN ACTION

Düchting, Andrea Centre for Humanitarian Action Berlin, Germany andrea.duechting@fellow.chaberlin.org

KEYWORDS

digitalisation; digital transformation; accountability; participation; humanitarian

DOI: 10.34669/wi.cp/5.4

1 INTRODUCTION

Over the past decades, digital technologies have seen a massive increase in use and have profoundly shaped the humanitarian sector. Their exponential growth has greatly increased the amount of data to be managed and accelerated the speed with which information travels (ALNAP 2022; OCHA 2021). This growth triggered discussions around the efficiency of necessary humanitarian services to respond to rising needs and sector-wide funding cuts. The request for more evidence-based programming, improved coordination, and increased accountability pushed many humanitarian organisations to 'go digital'.

The COVID-19 pandemic, Venezuelan migration crisis and ongoing Ukraine response especially influenced the way humanitarian organisations digitalise. At the same time, questions were raised on how best to communicate with local actors and affected populations, including people on the move. The use of digital tools like mobile messaging apps, social media or AI-based solutions are increasingly discussed to leverage the potential of more effective aid delivery whilst seamlessly enhancing accountability and doing no digital harm.

Despite its potential, humanitarian practices look different. Existing opportunities to engage people and make their voices heard through real-time information sharing and two-way communication are hardly recognised. Various forms of humanitarian feedback mechanisms have been introduced to increase accountability but reality shows that they are mostly used for one-way information sharing or showing impact to donors (ALNAP 2022; Ground Truth Solutions et al. 2022; Owl Re 2022; CHS Alliance et al. 2015)

In sum, massive amounts of personal and non-personal data are collected for various purposes, often without systematically using the data and considering long-term aspects related to data management and governance. To avoid doing harm, humanitarian organisations focus more on data security than processes to inform affected people about the full usage of their data and their rights. Yet, some organisations started to raise questions about people's involvement in data and technology-related decision making and to discuss approaches to co-creating with affected people and building data agency. The debate about digital accountability in the humanitarian sector, however, remains limited and is only picking up slowly (Cieslik et al. 2022; Currion 2022; et al. 2022; Vinck et al. 2022; Ada Lovelace Institute 2021; Hilhorst et al. 2021; OCHA 2021; Madianou 2019; van Solinge 2019; Jacobsen et al. 2018; Madianou et al. 2016).

Humanitarian practitioners are generally aware of the need to improve transparency when processing people's data and the need for an honest discussion about power dynamics in an offline and online sphere. They usually differentiate between legally imposed data subject rights and rights-based approaches that allow tackling programme quality issues and power imbalances. Organisations might be committed to put people at the centre of (data-related) decision-making and (digital) programme design but without systematically embedding digital technologies in overall organisational processes. For this to happen, change and mindset shifts are needed in addition to political willingness. Raising awareness on digital accountability, building digital capacities and capabilities have the potential to avoid doing digital harms while increasing people's data agency (Cieslik et al. 2022; Schächtele et al. 2022; Vinck et al. 2022; Ada Lovelace Institute 2021; Bryant 2021; CDAC Network 2021; OCHA 2021; Williamson 2020; Madianou 2019; Jacobsen et al. 2018; Greenwood et al. 2017; Madianou et al. 2016; Sandvik et al. 2014).

The paper examines the tension between digital technologies, participation, and accountability by exploring their interlinkages, benefits, and challenges. It analyses the ways in which humanitarian actors hold themselves responsible and accountable when using digital technologies and shows ways in which affected people can hold organisations to account.

2 METHOD IN BRIEF

The paper is based on two main questions:

- (1) How do humanitarian organisations use digital technology to strengthen the participation of and accountability to affected populations?
- (2) How do humanitarian organisations hold themselves responsible when using digital technologies? In turn, how can affected people hold organisations accountable when using digital technologies?

The literature review comprised documents like academic papers, operational reports, guidance notes, strategies, and webpages about the use of technology in humanitarian action, digital transformation, and accountability. Several in-group discussions following Chatham House Rule served in shaping and validating the research.

In addition, 22 qualitative, dialogue interviews were conducted with diverse humanitarian stakeholders. Due to the sensitivity of the topic, the interviews were not recorded and no interviewees are cited. Interview memos were drafted and shared with interviewees for their reference and potential rectification. The memos were structured and analysed as per the following sections: Reasons for going digital, digital transformation, digital accountability, challenges, and vision.

The paper was further informed by two conceptual frameworks: Arnstein's Ladder of Participation (1969) and the Core Humanitarian Standard on Quality and Accountability (2015). The Ladder of Participation originates from the discussion about increasing citizen participation and describes eight levels and three categories of participation including non-participation, tokenisms and citizen power (Arnstein 1969).

The Core Humanitarian Standard (CHS) is a core value in the humanitarian sector encompassing Nine Commitments aiming at a principled, accountable and high-quality support for future system change (ALNAP 2022; Hilhorst et al. 2021; CHS Alliance et al. 2015). The CHS is used as the main accountability framework for measuring quality and effectiveness of humanitarian action by putting affected people at the centre. The research particularly focused on Commitments Four and Five (CHS Alliance et al. 2015).

3 DIGITAL PARTICIPATION AND ACCOUNTABILITY IN HUMANITARIAN ACTION

Humanitarian organisations use digital technologies to engage people and increase accountability by sharing real-time information and asking people's feedback. Interactive tools like social media and mobile messaging apps alongside digital tools for managing feedback data continue to be on the rise. According to Lough, "social media is likely to play an increasingly prominent role for affected people in current and future crises [and] it is not a phenomenon humanitarian actors can continue to side-step" (Lough 2022, 7). Lough proved that digital communication tools are particularly important to

people on the move, no matter if across borders or within countries, and used for news consumption and communication with family and friends but hardly with humanitarians. Latest studies further reiterate the need for an in-depths analysis of different types of technologies aiming at better understanding their opportunities, trade-offs and risks, and fostering digital inclusion and accountability to those already marginalised and left behind (Lough 2022; CDAC Network 2021; Bryant 2021; OCHA 2021; Madianou 2019; Madianou et al. 2016; Sandvik et al. 2014).

3.1 Digital Technologies for Information Sharing and Collecting Feedback

In addition to traditional forms of participation and collecting feedback, humanitarian organisations currently apply a mix of digital and non-digital approaches to inform people, collect their feedback and ask about their satisfaction. These vary from helpdesks, suggestion boxes to toll-free hotlines, mobile messaging apps, social media and AI-based solutions like chat- and voicebots.

In comparison to most offline approaches, digital tools are mainly used for one-way information sharing and sometimes for rumours tracking but hardly considered to actively consult affected people. Many humanitarian organisations prefer technologies like hotlines, IVR or SMS but hesitate to use mobile messaging apps, social media, not to speak about bots. When applied, they are hardly considered as two-way communication channels and mainly used for limited purposes like information campaigns or sharing programme updates.

The focus on one-way communication channels is mainly due to data protection and privacy concerns, resource constraints as well as unclear roles and responsibilities amongst different teams. Its limitation to one-way information-sharing thus reinforces a tokenistic involvement of people and leaves humanitarian organisations to continue using traditional ways for two-way communication, assuming this preference is mutually shared by affected people.

Interviewees further referred to a cultural and ethical divide when using mobile messaging apps and social media platforms. They are mostly opted against and restricted for data protection reasons, even though affected people might have chosen those tools as preferred option to receive information and communicate with humanitarian stakeholders. Instead, numerous in-house tools are developed and introduced to affected people without necessarily diversifying communication channels and fostering digital inclusion of diverse population segments (e.g. youth, persons with disabilities).

3.2 Legal and Social Accountability in Humanitarian Action

The ethical dimension of accountability and using technologies for accountability purposes include questions on how technologies are best applied when impacting those whose data is processed and who are meant to benefit from using such technologies. It goes beyond giving account (e.g. informing affected people about the technology and data processing activities) and taking account (e.g. collecting feedback, involving affected people in design and decision-making). It raises questions around responsibility, transparency, and ownership. In other words, digital technologies can contain new accountability needs but also reveal important accountability gaps (Hilhorst et al. 2021; Jacobsen et al. 2018).

Pizzi et al. differentiate between social and legal accountability from a technology perspective: "Social accountability requires that the public have been made aware of [the] systems and have adequate digital literacy to understand their impact. Legal accountability requires having legislative and regulatory structures in place to hold those responsible for bad outcomes to account" (Pizzi et al. 2020, 173). Following this logic, affected people need to be made aware and capacitated to understand the impact of using technologies and take informed decisions. Regulatory frameworks like data protection are one aspect to increase organisational responsibility and data subject rights, humanitarian principles and human rights frameworks further highlight the need for a principled approach.

Due to its nature, legal accountability is mostly considered as a 'must have' by humanitarian organisations. It mainly refers to compliance aspects that are requested by donors and decision-makers, including data protection and privacy regimes like GDPR, national legislation in addition to organisational policies. While non-governmental organisations are bound to such laws, international organisations are generally exempted and follow best industry standards instead.

Most of the interviewees considered the collection of consent as a good practice to increase legal accountability while acknowledging that people are hardly made aware about the full scope of technology and their rights, thus questioning the consent to be really meaningful. While consent is an important cornerstone of data protection and data governance, "it is increasingly viewed as insufficient on its own to foster accountability" (Global Partnership for Sustainable Development Data 2022, 36f). For the consent to be meaningful, affected people need to understand the purpose for using the technology and their data-related rights. Instead, power asymmetries and digital literacy levels influence affected people's decision to share or not to share their personal data in return of assistance (i.e. data for aid) (Veron 2022; Bryant 2021; Holloway, Al Masri, and Abu Yahia 2021; ICRC and Brussels Privacy Hub 2020; Greenwood et al. 2017).

Social accountability is more characterised as an ethical question and a 'nice to have' (e.g. digital literacy, data agency, design justice). While digital transformation and the use of technology is generally driven by efficiency, many organisations do have an aspiration to address long-standing power asymmetries with digital technology. The importance of trust and trustful relationships were repeatedly mentioned. Informing people about programme design, technologies, and data as well as their right to express their opinion and raise complaints are the very basic for creating trustful relationships, in digital and non-digital sphere (Bryant 2022; Martin et al. 2022; Ground Truth Solutions and OCHA 2022; Owl Re 2022; Barbelet, Bryant, and Willitts-King 2020; Madianou et al. 2016).

Beyond audit requirements, humanitarian organisations approach accountability from programme quality lenses with limited leverage to change digitalisation processes or the use of technology at organisational level. When talking about digital technologies in accountability, it seems like humanitarian actors need to start talking about the transformative bit of digitalisation leading to system change and a debate about accountability 2.0, as one of the interviewees called it.

3.2 Case Study: Humanitarian Organisations in Ukraine's Digital Ecosystem

To better understand the linkages between digital technologies and accountability, the ongoing humanitarian crisis in Ukraine is particularly interesting to look at. Humanitarian organisations are part of a functioning ecosystem with a civil society which, in comparison to many other humanitarian and migration crises, is digitally literate and knowledgeable about their data rights. The fact that people are digitally connected and used to digital services pushed many humanitarian organisations to its limits. New ways of informing and communicating with affected people through chat- and voicebots are explored but sceptically viewed by humanitarians who are not used to work in such digitised environments. The ongoing crisis, thus, feels like a reality check for the humanitarian system and raises operational as well as ethical questions around digital transformation and communication technology for increasing digital participation and accountability (Calp Network 2022; Ground Truth Solutions et al. 2022; Grunewald 2022; Humanitarian Outcomes 2022).

The experience of Ukraine showcases the importance of digital literacy in claiming data rights and taking informed decisions. When people understand their rights, they are in a position to raise concerns and ask about their data. Some interviewees shared the experience of people claiming their data to be updated or erased but difficult to respond to as most organisations missed the relevant processes like transparent data flows to track down all data points.

In addition, hotlines and data systems were set-up fast but humanitarian organisations were soon overwhelmed with the sheer number of incoming calls and requests. Interviewees confirmed that feedback mechanisms, in theory, could be used for claiming data subject rights but were rarely used. In Ukraine, people did raise data concerns and many organisations had to realise that their systems were not fit for purpose. While processes and systems are legally compliant, they fail the operational reality check. This raises practical as well as ethical questions around the humanitarian system's ability and willingness around digital accountability and its operationalisation.

The humanitarian crisis in Ukraine is an interesting example to question current digital accountability practices and highlight the importance of digital literacy and people-centred approaches. When affected people are used to navigating digital tools and claiming their data rights, they do not question but demand digital services and hold organisations to account.

4 KEY FINDINGS

The analysis confirmed that digital technologies are indeed a viable option to strengthen the participation of and accountability to affected people. To leverage the full potential, technologies however need to be embedded in long-term transformation processes aiming at people's increased decisionmaking or 'citizen power' as it is called in Arnstein's Ladder of Participation. It is not only a matter of using digital tools for specific business processes but integrating technology in systematic ways that trigger mindset shifts and system change.

While affected people worldwide use digital tools to communicate with each other, this is not the case with humanitarian actors. When choosing digital tools as preferred communication channel, people's choices often conflict with data protection and privacy concerns challenging organisations to fulfil their full commitment to respect people's preferences for participating in humanitarian response and sharing feedback. Humanitarian organisations hence prioritise potential risks over actual benefits.

Digital tools are mainly used for sharing information and only few organisations apply digital tools for two-way communication with affected people. Resource constraints, privacy concerns, and political willingness are the main bottlenecks to exploring new ways of engaging affected people in a virtual space, leaving trade-offs like misinformation and disinformation widely unnoticed. The tension of tokenistic activities versus decision-making power further increases when digital technologies come into play as digital transformation adds another layer of complexity to longstanding power relations on the one hand and the dilemma of replicating offline problems to an online environment on the other.

While digital technologies in humanitarian action have the potential to contain new accountability needs, they also reveal important accountability gaps. Legal accountability is primarily associated with compliance requirements and collecting meaningful consent, and social accountability is still in its infancy and yet to be explored. Affected people are rarely consulted in technology-related decision-making and remain stuck at the tokenistic level of information sharing and consultation.

As per Arnstein's Ladder of Participation, empowering people refers to trustworthy partnerships and 'citizen control' reflected in data agency and stewardship concepts which are yet to be explored and introduced to accountability standards like the CHS. The humanitarian crisis in Ukraine highlights the importance of digital literacy for people to digitally engage and control their data. New approaches need to be considered to increase digital accountability alongside people-centred approaches in technology choices and a whole-system approach to raising awareness about new digital responsibilities. Simple answers are needed to address complex issues and the dilemma of increasingly replicating offline challenges into an online environment.

ACKNOWLEDGEMENTS

The research paper is part of the Data and Digitalisation Project aiming at increasing digital literacy of international humanitarian actors. The research and the author's involvement were funded by the German Federal Foreign Office.

REFERENCES

- 1. Ada Lovelace Institute. 2021. 'Participatory Data Stewardship. A Framework for Involving People in the Use of Data'. Ada Lovelace Institute. https://www.adalovelaceinstitute.org/report/participatory-data-stew-ardship/.
- 2. ALNAP. 2022. 'The State of the Humanitarian System'. London: ALNAP/ODI. sohs.alnap.org.
- 3. Arnstein, Sherry R. 1969. 'A Ladder Of Citizen Participation'. *Journal of the American Institute of Planners* 35 (4): 216–24. https://doi.org/10.1080/01944366908977225.
- 4. Barbelet, Veronique, John Bryant, and Barnaby Willitts-King. 2020. "All Eyes Are on Local Actors": Covid-19 and Local Humanitarian Action'. HPG (ODI).
- 5. Bryant, John. 2021. 'Digital Mapping and Inclusion in Humanitarian Response'. Working Paper. HPG Working Paper. London: ODI. https://odi.org/en/publications/digital-mapping-and-inclusion-in- humani-tarian-response.
- 6. ——. 2022. 'Digital Technologies and Inclusion in Humanitarian Response'. HPG Report. London: ODI. https://cdn.odi.org/media/documents/Digital_inclusion_synthesis.pdf.
- Calp Network. 2022. 'Registration, Targeting and Deduplication: Emergency Response inside Ukraine'. Thematic Paper. Calp Network. https://www.calpnetwork.org/publication/registration-targeting-and-deduplication-emergency-response-inside-ukraine-thematic-paper/?utm_source=CALP+Network+Master+List&utm_campaign=94dd42b618-EMAIL_CAMPAIGN_2022_10_12_10_56&utm_medium=email&utm_term=0_debc722091-94dd42b618-372359747.
- CDAC Network. 2021. 'Peer Pressure: How Deepening Digital Access Is Transforming Communication as Aid'. Webinar presented at the HNPW 2021, Online. https://www.youtube.com/watch?v=jn1b5NbUzpU.
- 9. CHS Alliance, The Sphere Project, and Groupe URD. 2015. 'CHS Guidance Notes and Indicators'. Guidance. https://corehumanitarianstandard.org.
- Cieslik, Katarzyna, and Dániel Margócsy. 2022. 'Datafication, Power and Control in Development: A Historical Perspective on the Perils and Longevity of Data'. *Progress in Development Studies* 22 (4): 352–73. https://doi.org/10.1177/14649934221076580.
- 11. Düchting, Andrea. 2023. Digital Accountability: The Untapped Potential of Participation when Using Digital Technology in Humanitarian Action. Berlin: Centre for Humanitarian Action. https://www.chaberlin.org/en/publications/digital-accountability-2/.
- Greenwood, Faine, Caitlin Howarth, Danielle Escudero Poole, Nathaniel A. Raymond, and Daniel P. Scarnecchia. 2017. 'The Signal Code: A Human Rights Approach to Information During Crisis'. 1. Harvard Humanitarian Initiative. https://hhi.harvard.edu/publications/signal-code-human-rights-approach-information-during-crisis.
- Ground Truth Solutions, and OCHA. 2022. 'Listening Is Not Enough. People Demand Transformational Change in Humanitarian Assistance. Global Analysis Report'. Analysis. Ground Truth Solutions. https://groundtruthsolutions.org/wp-content/uploads/2022/12/GTS_Global-Analysis_November-2022_website.pdf.
- 14. Grunewald, Francois. 2022. 'Real Time Evaluation of the Humanitarian Response to the Crisis Resulting from the War in Ukraine. July 24th August 18th, 2022'. Real Time Evaluation. Groupe URD. https://ukraineresponse.alnap.org/help-library/real-time-evaluation-of-the-humanitarian-response-to-the-crisis-resulting-from-the-war.
- 15. Hilhorst, Dorothea, Samantha Melis, Rodrigo Mena, and Roanne van Voorst. 2021. 'Accountability in Humanitarian Action'. *Refugee Survey Quarterly* 40 (4): 363–89. https://doi.org/10.1093/rsq/hdab015.
- Holloway, Kerrie, Reem Al Masri, and Afnan Abu Yahia. 2021. 'Digital Identity, Biometrics and Inclusion in Humanitarian Response to Refugee Crises'. HPG Working Paper. London: ODI. https://cdn.odi.org/media/documents/Digital_IP_Biometrics_case_study_web.pdf.

- 17. Humanitarian Outcomes. 2022. 'Enabling Local Response: Emerging Humanitarian Priorities in Ukraine. March-May 2022'. Rapid Review. https://www.humanitarianoutcomes.org/projects/Ukraine-review-2022.
- ICRC, and Brussels Privacy Hub. 2020. Handbook on Data Protection in Humanitarian Action. 2nd Ed. Edited by Christopher Kuner and Massimo Marelli. 2. Auflage. Geneva, Brussels: , Brussels Privacy Hub. https://www.icrc.org/en/data-protection-humanitarian-action-handbook.
- Jacobsen, Katja Lindskov, and Kristin Bergtora Sandvik. 2018. 'UNHCR and the Pursuit of International Protection: Accountability through Technology?' *Third World Quarterly* 39 (8): 1508–24. https://doi.org/10.1080/01436597.2018.1432346.
- 20. Lough, Oliver. 2022. 'Social Media and Inclusion in Humanitarian Response'. Working Paper. HPG Working Paper. London: ODI. https://odi.org/en/publications/social-media-and-inclusion-in- humanitar-ian-response.
- Madianou, Mirca. 2019. 'Technocolonialism: Digital Innovation and Data Practices in the Humanitarian Response to Refugee Crises'. *Social Media* + *Society* 5 (3): 205630511986314. https://doi.org/10.1177/2056305119863146.
- 22. Madianou, Mirca, Jonathan Corpus Ong, Liezel Longboan, and Jayeel S. Cornelio. 2016. 'The Appearance of Accountability: Communication Technologies and Power Asymmetries in Humanitarian Aid and Disaster Recovery'. *Journal of Communication* 66 (6): 960–81. https://doi.org/10.1111/jcom.12258.
- Martin, Aaron, Gargi Sharma, Siddharth Peter de Souza, Linnet Taylor, Boudewijn van Eerd, Sean Martin McDonald, Massimo Marelli, Margie Cheesman, Stephan Scheel, and Huub Dijstelbloem. 2022. 'Digitisation and Sovereignty in Humanitarian Space: Technologies, Territories and Tensions'. *Geopolitics*, March, 1–36. https://doi.org/10.1080/14650045.2022.2047468.
- 24. OCHA. 2021. 'From Digital Promise to Frontline Practice: New and Emerging Technologies in Humanitarian Action'. https://www.unocha.org/sites/unocha/files/OCHA%20Technology%20Report.pdf.
- 25. Owl Re. 2022. 'Humanitarian Accountability Report 2022'. Annual Report. Geneva: CHS Alliance.
- 26. Pizzi, Michael, Mila Romanoff, and Tim Engelhardt. 2020. 'AI for Humanitarian Action: Human Rights and Ethics'. *International Review of the Red Cross* 102 (913): 145–80. https://doi.org/10.1017/S1816383121000011.
- Sandvik, Kristin Bergtora, Maria Gabrielsen Jumbert, John Karlsrud, and Mareile Kaufmann. 2014. 'Humanitarian Technology: A Critical Research Agenda'. *International Review of the Red Cross* 96 (893): 219–42. https://doi.org/10.1017/S1816383114000344.
- 28. Schächtele, Kai, Ingo Dachwitz, Felix Zimmermann, Chris Köver, Christine Meissler, Martina Hahn, and Sven Hilbig. 2022. 'Atlas der Zivilgesellschaft: Freiheitsrechte unter Druck. Schwerpunkt Digitalisierung'. Berlin: Brot für die Welt. https://www.brot-fuer-die-welt.de/themen/atlas-der-zivilgesellschaft/.
- Solinge, Delphine van. 2019. 'Digital Risks for Populations in Armed Conflict: Five Key Gaps the Humanitarian Sector Should Address'. *ICRC Humanitarian Law & Policy* (blog). 12 June 2019. https://blogs.icrc.org/law-and-policy/2019/06/12/digital-risks-populations-armed-conflict-five-key-gaps-humanitarian-sector/.
- Veron, Pauline. 2022. 'Digitalisation in Humanitarian Aid: Opportunities and Challenges in Forgotten Crises'. 143. Ecdpm Briefing Note. Brussels: ECDPM. https://ecdpm.org/wp-content/uploads/Digitalisation-humanitarian-aid-ECDPM-Briefing-note-143-2022.pdf.
- 31. Vinck, Patrick, Emmanuel Letouzé, Tatiana Goetghebuer, Maria Antonia Bravo, Romain Fourmy, Kevin Henkens, Jeroen Peers, and Stephen Matthew. 2022. 'Strategic Evaluation of WFP's Use of Technology in Constrained Environments'. Strategic Evaluation OEV/2020/002. Centralized Evaluation Report. World Food Programme (WFP), Aide à la Décision Èconomique (ADE). https://www.wfp.org/publications/strategic-evaluation-wfps-use-technology-constrained-environments.
- 32. Williamson, Jazmin. 2020. 'Ensuring Accountability to Affected Populations in Humanitarian Settings: "Holding Humanitarian Organizations Accountable to People." *Independent Study Project (ISP) Collection*, April. https://digitalcollections.sit.edu/isp_collection/3295.

33. Worthington, Robert, and Andrea Düchting. 2023. Enabling Dignified Humanitarian Assistance through Safe Data Sharing. Landscape Mapping. Geneva: International Federation of the Red Cross and Red Crescent Society. https://interoperability.ifrc.org/.