

TECHNOLOGIES

IN HUMANITARIAN SETTINGS :

ENGAGEMENT AND

LOCAL INNOVATION

Playbook

Version 1.0 / December 2022



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Other publications in this series:

- Frost L, et al. Technologies in Humanitarian Settings: Community and Stakeholder Engagement. Harvard Humanitarian Initiative. 2022.
- Sebastián S, et al. Technologies in Humanitarian Settings: Engagement and Inclusion of Women. Harvard Humanitarian Initiative. 2022.
- Turner W, et al. Technologies in Humanitarian Settings: Supporting Community-led ICT Innovations. Harvard Humanitarian Initiative. 2022.
- Sebastián S, et al. Technologies in Humanitarian Settings: Balanced, Principled, and Complementary Partnerships. Harvard Humanitarian Initiative. 2022.
- Frost L, et al. Technologies in Humanitarian Settings: Digital Upskilling of Humanitarian Actors. Harvard Humanitarian Initiative. 2022.

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Icons used in this playbook to illustrate the technology use system were retrieved from UNOCHA's Humanitarian Icons Library v.02, Noun Project

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Playbook

for Technology, Engagement, and Local Innovation

What
is the playbook?

Advances in technology are playing an increasingly outsized role in support of the planning, design, targeting, implementation, monitoring, and security of humanitarian operations. This playbook is a tool for anyone interested in ensuring that humanitarian technology is rooted in local engagement and support for local innovation: frontline humanitarian workers, humanitarian organizations, technologists, donors, or community leaders. **It is designed as a series of open-ended questions** intended to uncover assumptions and test the local relevance, engagement, and localization of technology design efforts and technology deployment to support humanitarian action.

Why
ask questions
rather than
provide answers?

The playbook (and the questions it contains) is grounded in experience, research, case studies, and consultation on engagement and local support for the development and implementation of digital technologies for use in humanitarian settings. Through these efforts, we have learned that **there is no single pathway toward successful engagement and local support for ICT innovation**. Context matters and step-by-step guides are rarely applicable. There is also a lack of evidence on how to best engage and support local innovation. However, we found that **when innovators and frontline humanitarians ask themselves the right questions, they uncover what needs to be done, identify unspoken assumptions, and find solutions**.

Who
should use the
playbook?

Regardless of location, budget, or experience level, anyone (local or international) working on the use and development of “public-facing” technologies in humanitarian settings can and should ask themselves questions about engagement and local support. **The audience for this playbook is therefore broad—from local frontline actors and local leaders to global stakeholders and donors**. That said, some questions may be more relevant to some actors than others, and the primary users of the playbook should be those individuals and teams directly driving the development and use of humanitarian technologies.

Questions in the playbook may sound like they address external actors, and that the community is treated as a subject rather than a participant. What we learned from the case studies is that **even community-led innovations and technologies are championed by teams who must ask themselves questions** about how they relate to the wider community, and how they will ensure continued engagement and/or participation. The dichotomy is not between international versus local, or implementer versus subject – rather it is about the relationship between an implementing team – even if it is a part of the community – and the population it seeks to serve.

Is the playbook useful for **community-based teams and innovations?**

Questions in the playbook are aimed at teams engaging in the use or development of humanitarian technologies. These questions can also easily be adapted to fit within an evaluation framework or matrix. As such, **the playbook can be used for both internal and external reviews and evaluation** of the use of technology in humanitarian contexts. The playbook can inform **learning and accountability objectives**. Our research, however, shows that formal evaluation often occurs too late to effectively inform technology development and use.

Is the playbook useful for **evaluators?**

Therefore, the playbook is primarily proposed as a “self-improvement” tool for teams directly involved in the development and implementation of humanitarian technologies.

The digital transformation of humanitarian action was made possible by significant donor support and investment. However, funding practices for technologies often lack flexibility, perpetuate top-down dynamics and power asymmetries, or fail to provide direct funding for community-led innovations. Donors can **use selected questions from the playbook to inform their assessment of “meaningful engagement and local support”** and ensure that better mechanisms to integrate feedback and shared decision-making power are in place.

Is the playbook useful for **donors?**

**How
should the
playbook be
used?**

The playbook is designed to ask clear and relevant questions mainly about public-facing technological innovations, for example, during the creation of a technology-enabled community feedback mechanism by a local innovation team. **It should form the basis of a “living document” in which answers are spelled out** to consolidate important information, identify unspoken assumptions, facilitate communication, and identify potential issues and explore options. When challenges, gaps, or issues are identified, for example because of unsatisfactory answers to specific questions, users should use an internal and/or external participatory process to **propose action ideas and next steps**. Importantly, the playbook is not meant as a one-time test or validation before a project can move forward.

As a living document, the responses to the questions are not meant to be “final” nor should the questions be answered all at once or in sequential order.

Generally, there are no “right” or “wrong” answers. Rather, questions are meant to generate an in-depth understanding of where a particular innovation stands regarding the issues raised in the questions. Incomplete or missing answers are acceptable if consideration is given to the questions and time is devoted to subsequently providing answers. The playbook will be most valuable when innovators regularly review answers and check on past commitments to action and next steps. **Some questions are more important than others and the answer will have more weight** on the relevance, effectiveness, and acceptability of a technology. When relevant, we have noted important questions with a warning signal.



The playbook is designed to be **usable and relevant at any stage of the technology development and implementation cycle**. It is meant to move away from linear or step-by-step frameworks and rather encourage constant reviews and questioning of the process. Importantly, however, the case studies have shown that engagement or community support for innovation often only happens after a specific technological solution has been identified. Often, engagement stops after some initial validation, with much more limited effort to follow up throughout the innovation lifecycle. We, therefore, suggest that using the playbook should be among the first steps taken by teams driving an innovative use and/or development of technology in humanitarian settings. Teams should set a timeline to periodically review the playbook based on milestones and project development.

**When
should the
playbook be
used?**

**How was the
playbook
created?**
And where can I
learn more about
this topic?

The playbook was created through an iterative process that started with a series of five case studies on humanitarian technologies, each exploring specific facets of (local) engagement.

Research for the case studies was followed up with validation and discussion sessions with experts and the broader humanitarian community through a series of webinars. With this process, we identified the most common challenges and some lessons learned pertaining to engagement. Importantly we found limited evidence and rather anecdotal evidence of “what works”. We found that many frontline humanitarians across the globe were confronted with similar questions and challenges, but often addressed them informally. Many more, often failed to consider some critical challenges. The playbook is an attempt to ensure that critical issues are indeed taken into consideration. It is not, however, an exhaustive list of questions, and we hope it will generate more.

Readers interested in learning more about specific aspects of the research or more insights around specific questions can refer to the case studies which also offer valuable references.

LIST OF CASE STUDIES:

- Frost L, et al. Technologies in Humanitarian Settings: Community and Stakeholder Engagement. Harvard Humanitarian Initiative. 2022.
- Sebastián S, et al. Technologies in Humanitarian Settings: Engagement and Inclusion of Women. Harvard Humanitarian Initiative. 2022.
- Turner W, et al. Technologies in Humanitarian Settings: Supporting Community-led ICT Innovations. Harvard Humanitarian Initiative. 2022.
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- Frost L, et al. Technologies in Humanitarian Settings: Digital Upskilling of Humanitarian Actors. Harvard Humanitarian Initiative. 2022.

How is the playbook structured?

Recognizing the dynamic nature and various pathways of innovation processes, this playbook does not adopt a sequential structure from problem recognition to ideation, adaption, and scale-up. Rather, we have structured the questions around five components forming a “**technology use system**”. These components are briefly described here and provide the organizing structure for the set of questions outlined in the playbook. As a result of this approach, **some questions may overlap or repeat** across system-use components, but responses should be relevant to the specific component considered



TECHNOLOGY

Regroups questions around engagement / local support and the initial problem/driver of the innovation, the characteristics, requirements, applications, the status of the innovation, and the anticipated risks and benefits.



PEOPLE

Regroups questions around engagement / local support and the nature and relations between the actors (including staff), stakeholders, and communities concerned by, and potentially interacting with, the proposed technology, as well as those involved in technology decision-making and development.



POLICIES AND PROCESSES

Regroups questions around engagement / local support and the internal and external normative environment (strategies, norms, standards, regulations) in which the technology is developed and deployed.



PARTNERSHIPS

Regroups questions around engagement / local support and the resources and partnerships that enable or inhibit technology development and use.



OPERATING ENVIRONMENT

Regroups questions around engagement / local support and the political, social, technological, and operating environment in the humanitarian settings where the technology is developed or deployed.

PLAY

QUESTIONS ABOUT ...



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QUESTIONS ABOUT “FITNESS”

- What is the origin of this innovation effort?
 - ▶ Is it seeking to solve a specific problem?
 - Who identified the problem? Was it a diverse and inclusive process?
 - What evidence do you have that it is a problem?
 - ▶ Or is it “opportunistic” e.g., not seeking to solve a specific problem, but rather rooted in perceived opportunities that a technology can advance humanitarian action. Often this is about leveraging existing technologies for innovative humanitarian applications.
 - Who selected the technology? Was the proposed use validated? With whom? Was it a diverse and inclusive process? 
- How much is the problem and/or technology relevant to the concerned affected community?
 - ▶ How do you know? Who was consulted or engaged?



Problem-driven innovations are common in the humanitarian space, but a problem must be perceived to exist for such innovations to be triggered. Who perceived the problem? Is it perceived by others to exist, especially affected communities? How do you know?

Opportunity-driven innovation ('the hammer looking for a nail') is not inherently wrong. It can lead to significant changes and innovations, but it requires increased effort to ensure the fit between the proposed technology and the context. How is this being done?


To ensure a good fit between the proposed technology and the context/challenges experienced by the community, it is important to consult the target community and consider the diversity of views and experiences, notably by including women and under-represented minorities. Often, communities are consulted about digital technologies after a challenge/problem and/or an innovation has already been identified, typically by international organizations and donors. (Frost et al 2022).

In answering these questions, teams should consider how initial engagement should shape fundamental choices.

Organizations often opt for 'high-tech' innovations, which are not necessarily suitable, feasible, or appropriate compared to 'low-tech' solutions (Turner et al, Sebastián et al 2022). To determine the suitability of innovations, community engagement must start early (Frost et al 2022).

For example, *"the user experience for a young mother in Tanzania is very different from the user experience from a working father in Tanzania. So, you need to design the product very differently for each user ... We actually want to design the product with this in mind, not just pick up a product at the end and then deal with the problems."* (Interviewee, Sebastián et al 2022).

QUESTIONS ABOUT APPROPRIATENESS

- What evidence do you have that this is an appropriate technological solution? 
 - ▶ What about specific evidence from the community concerned by the implementation?
- Is the ICT appropriate within the existing digital systems of the organization, partners, and/or communities?
 - ▶ Does it fit into the larger digital ecosystem of the organization, partners, and the community?
- Are there alternative technologies or non-technological solutions to the proposed technology?
 - ▶ How were options assessed?
 - ▶ What are the advantages of this technology? What about from the perspective of the community?
- Has this technology been tested, validated, or used elsewhere? Is it supported by evidence?
- Does the technology involve complex maintenance and fragile systems? How resilient and sustainable is it? Is it adapted to the rapidly changing context of operations?



Building on the previous set of questions, teams should formally examine any evidence supporting the appropriateness and likelihood of a positive contribution by the technology used or proposed.

While a wide range of valuable ICT innovations exists, not all ICTs are equally appropriate for an identified problem or community. For example, there has been an overreliance on mobile and web-based applications, but the applications are not necessarily well-designed for the users (Turner et al 2022). To encourage the uptake, scale-up, and sustainability of proposed ICTs, the solution must be appropriate, accessible, and usable by the intended end user. How do you know your innovation is suitable in any given context? How was this determined? Who was asked? Has this solution been tried and tested in another environment?


As one humanitarian notes, *“the challenge is taking a step back and making sure that you deeply understand the local context and people’s relationship to technology, how people are already using technology, the technical capacity, and the landscape of what apps and services are already available.*

Because if we know one thing, it’s that the humanitarian sector does not need a new app. If you’re not adding value to the end user, you’re just doing it for yourself, and I don’t think you’re doing your job as a humanitarian” (Frost et al. 2022).

This example highlights the importance of looking critically at the appropriateness of the technology considered by your team. Comparative analysis should be used to examine the comparative advantage of one solution compared to other solutions.

As part of these questions, consider the available resources and infrastructures, and consider the sustainability of meeting new requirements.

QUESTIONS ABOUT POTENTIAL BENEFITS

- Did you assess the potential benefits of this technology 
- ▶ To what extent do you anticipate that the technology will produce an improved solution?
 - ▶ To what extent do you anticipate that the innovation will be scalable?
 - ▶ How do you know? What evidence do you have? Who did you ask?
 - Is there evidence from multiple independent sources?
 - Is there evidence for this specific context or similar ones?
 - What is the cost-benefit balance?
 - ▶ Are the potential benefits equally distributed?
 - Consider age, gender, and diversity (e.g., people with disabilities)
- What are the expectations of communities concerned by this technology?
- ▶ Have you engaged clearly about expected benefits and limitations?





Presumably, the proposed innovation is intended to bring positive change to an identified problem and affected community.

These questions are designed to facilitate the gathering of insights and lessons learned from other relevant instances of technology use and development. The information may guide the implementation process. Teams may review this protection-focused example of risk and benefit analysis from the Cash Learning Partnership. This example is not specific to technology but includes relevant considerations, notably around data. Teams may also consider conducting pilots in a non-emergency setting to ensure and demonstrate the benefits for communities (Frost et al 2022). Such pilots should include qualitative reviews to examine both intended and unintended benefits.

Through this process, teams should ensure that benefits are examined from a perspective of diversity and inclusion. Technological products are inherently biased if they are designed for specific users but fail to receive input and engage these users.

Your team should therefore define who exactly will be benefiting from the innovation. Are any groups or subgroups, notably women and under-represented minorities, at risk of receiving fewer benefits?

QUESTIONS ABOUT POTENTIAL RISKS

- Did you assess the potential risks of this technology? 
 - ▶ How? What lessons learned do you have? Who did you ask?
 - Was this assessed in similar or safer settings?
 - Is your assessment of risks limited to technical features or have you considered broader protection and access issues, for example?
 - ▶ Are the potential risks equally distributed or affecting specific groups? Which ones? 
 - What is the potential that this technology will reinforce structural inequalities or exclusion patterns?
 - Consider age, gender, and diversity (e.g., people with disabilities)
 - ▶ Are there any financial risks or risks associated with unforeseen costs and delays? For you and/or for the communities or other stakeholders?
 - ▶ Are there risks associated with the long-term management and sustainability of the technology?
- Have you engaged with the community clearly about constraints and risks?
- Are mitigation/risk management procedures in place?



This set of questions naturally follows an analysis of the benefits and should lead teams to question the risks or costs - benefits of the proposed work.

While ICT innovations have tremendous benefits, they may also carry substantial (unintended) risks. Data collection, storage, and sharing can leave data exposed to (un)intentional leaks and hacks that may have severe consequences for communities and/or end users of the innovation.

In humanitarian contexts, it is further important to consider risks beyond technological issues of data protection and cyber-security. Whether or not the technology can be safely accessed, for example, should be part of any ICT assessment in humanitarian contexts, ideally with the active participation of women and other groups likely to experience risks.

Teams should ask themselves Who might be most vulnerable to these risks? How can these risks be minimized or mitigated?

For example, Sebastián et al (2022) documents multiple instances of gender-based violence through technological platforms (online, ICTs). These harmful experiences impact the way women interact with technology. It is therefore critical to consider women's and girls' safety from the onset.

Teams should carefully consider the wide range of potential risks. Discussions may be informed by a review of ICRC's "[Doing No Harm in the Digital Era](#)"

QUESTIONS ABOUT TECHNOLOGY CHARACTERISTICS

- How complex is the technology in comparison to existing solutions?
 - ▶ Does it require specific skills or knowledge? From whom? Are these skills and knowledge available in this setting?
- How disruptive or “foreign” is the technology compared to existing tools and instruments?
- How simple is it to demonstrate, try, and test? For whom is it “simple” – how can you simplify the tool (e.g., through engagement)
- Is simple, plain language guidance or training available? To whom? What other dissemination materials exist? What will be developed in the future?
 - ▶ Will this material be provided in multiple languages that reach the target audience?
- Are there champions or early adopters who can provide support to the organization and/or communities concerned?



With this set of questions, teams will uncover potential barriers and challenges resulting from the technology itself. While in many instances complexity emerges from poor design, a certain level of complexity and lack of familiarity with specific solutions is to be expected.

The case studies have consistently shown that ‘high-tech’ technological solutions “*may not be feasible or suitable due to lack of infrastructure, effective due to lack of accessibility, or efficient due to maintenance requirements or knowledge required to implement or maintain the technology or maintain the technology within the community*” (Turner et al 2022). For these reasons, ‘low-tech’ solutions should not be overlooked. The anticipated level of familiarity and comfort with technology should drive such choices.

In addition, efforts at diffusing technologies have shown that easier, visibly demonstrable, and less disruptive technologies have a higher chance of success. Such technologies, however, may only result in incremental benefits.

More fundamental disruptions and complex solutions will require more attention to training and support.

The case studies also highlight the importance of having all the explanatory materials (manuals, training, consultations, dissemination materials) that accompany a technological innovation accessible. This includes ensuring that the material is adequate, and that the language is clear and accessible to the (non-expert) intended end user, including translation if needed (Frost et al 2022).

QUESTIONS ABOUT THE TEAM

- Who leads this technology project?
 - ▶ How diverse is the organization/group/unit? Is it inclusive of women? Of under-represented minorities?
 - ▶ What about the leadership and board?
 - ▶ How 'connected' are you to the communities concerned by the technology?
- Who are the different members of the team, how do they relate to each other, and what are their roles?



Leadership and institutional commitment are necessary to ensure that the digital transformation of humanitarian response does not fail broader efforts to give more power, funding, and resources to humanitarian aid organizations and people based in crisis-affected countries. These questions help teams understand their dynamic, diversity, inclusion and commitment to engagement, and local support.

The composition of leadership and teams involved in an innovation project can play an important part in the implementation of an innovation. As re-cited by Sebastián et al (2022) *“it does not matter how good your tools are if you do not have the right people. You create people that think they know what they are doing even though they might not, and ... that is even more dangerous.”*

As a team, even emerging from a local community facing humanitarian needs, you need to ask yourself who do you represent, who is potentially excluded?

Local teams may inherently have a strong connection to the broader community and its challenge. However, pre-existing and structural inequalities may not always be recognized.

For granting organizations, understanding teams is important to potentially provide development support and adjust granting rules that may bar local organizations and teams from applying (requirements about organizations’ legal status, grant application format and language, etc..) Teams may use the case studies for more information about existing barriers, good practices, and solutions (Turner et al. 2022).

QUESTIONS ABOUT TECHNOLOGICAL CAPACITY

→ Within the organization/group/team, what are the resources, skills, and capacity for the use and/or development of ICT relevant to this technology?



- ▶ How do you assess this?
- ▶ What are the gaps?
- ▶ Do the right people have the appropriate levels of tech and data literacy?
 - What about knowledge of security and ethical issues?
- ▶ Is there necessary/mandatory training?
- ▶ How do you consider/promote diversity in training and recruitment?

→ Do you need skills not currently available?

- ▶ How will you recruit an adequate person?

→ What training, resources, and mentorship are available to the team?

- ▶ What is available internally, externally; locally versus globally?
 - Is it available continuously? Offline?
- ▶ Are there relevant recognized credentialled/accredited programs?
- ▶ What methods of learning are needed for different groups in your team?




This set of questions may seem obvious, but experience shows that teams often embark lacking specific skills they need.

Case studies show that the disconnect between developers and implementers often results in tools that must be implemented by individuals who do not possess the level of skills and knowledge needed to implement increasingly complex tools. In such events, implementers may circumvent functionalities or simply disregard the technology.

In some instances, capacities may be lacking among specific groups or subgroups such as women. Ideally, the best teams to address such concerns include women. Gender norms and barriers frequently prevent women ICT innovators to access the same opportunities as men, which widens the gender-digital divide and leads to fewer women being involved in the development or implementation of an innovation. (Frost et al 2022).

QUESTIONS ABOUT ENGAGEMENT CAPACITY

- Within the organization/group/team, what are the available resources, skills, and capacity for engagement with relevant communities? (resources include time, financial, and human resources) 

 - ▶ Is anyone experienced or trained as a facilitator?
 - How 'connected' is the engagement team to the relevant communities? What about internal diversity?
 - Is the training formal or experiential?

- Do you need and/or have access to diverse outside local resources (teams), skills, and capacity for engagement?
 - ▶ Do you have established partnerships/networks? How inclusive is this network?
- Whether internal or external, how connected and trusted is your engagement team to the communities concerned? Who do they represent?




Understanding the dynamics of representation, trust, and capacity for engagement between your team or partners and the community is essential. To do this, teams implementing innovations should ideally be composed of individuals who are extensively trained, have relevant lived experience, and/or shared identity when relevant to ensure effective engagement (Frost et al 2022).

For example, gender gaps and digital barriers have the potential to limit women’s abilities to fully benefit from the use of ICTs. Yet, trying to reach women in a context in which the men are the gatekeepers, can be difficult. As one case study participant notes, *“You have to really understand the political context and make sure that you include everyone, because otherwise they might feel left out. You have to know your chain [and] the hierarchy of the powers within so that you follow them accordingly [and win their hearts]. If you fail one, then it’s going to take you backward”* (Interviewee, Sebastián et al 2022)

One additional lesson learned from the case studies is that a “local” team should not be automatically assumed to be able to engage and gain the trust of communities concerned by the use or development of technologies.

More generally, if gaps exist, it is important to identify opportunities to gain skills and knowledge. [IFRC and ICRC’s guide to community engagement](#) is a good example of available guidance and material to strengthen engagement capacities.

QUESTIONS ABOUT “THE COMMUNITY”

- Who are the community or communities that this technology will concern?
 - ▶ What are the locations and characteristics of this or these communities? Have you mapped stakeholders? 
 - ▶ What languages do they use?
 - ▶ How familiar is the community with technologies similar or aligned with the one proposed?
 - ▶ What channels are commonly used to transfer/build skills?
- How diverse are the communities? Have you developed a diversity matrix or other means to capture the diversity of groups concerned by the technology (e.g., stakeholder mapping)?
- Did you separately consider the community at large, the users (community members, partners...), and other stakeholders not directly involved but with potential influence?
- Are any groups at specific risk of exclusion in the engagement process? What about unequal access to technology or digital literacy?
 - ▶ How will you address this? What approaches can you use to enable a more inclusive and truthful discussion?



The case studies have shown that the absence and inconsistencies in defining ‘local’ and ‘community-led’ processes hinder meaningful local ownership and decision-making roles in ICT development and implementation. The first step towards engagement is to define this community – even for community-led teams and to outline the relations between your team and the community.

These questions will help highlight what you know about the community and its dynamics (even as a member of the said community). You should use or plan on using assessment tools and resources to better understand information and communication and other relevant aspects specific to the technology you are working with. Create knowledge about the community with the community as much as possible.

Through this process, begin outlining groups or subgroups within the community who may differ from other members and may experience structural inequalities or face other access challenges.

For example, GSMA’s Mobile for Humanitarian Innovation program reached hearing-impaired individuals by engaging sign language translators who were prominent within the deaf communities (see Frost et al. 2022).

Useful tools include:

[UNHCR’s Information and Communication Needs Assessment Tool](#)

[Internews’ Information Needs Assessment](#)

QUESTIONS ABOUT REPRESENTATION


- What are common modes of representation in this community?
Who is typically recognized as “speaking for the community”? (e.g., elected leaders, traditional leaders, civil society members)?
 - ▶ Are they trusted? How are they connected to the community at large?
- Who is trusted in the community?
 - ▶ Consider trust among under-represented minority groups.
- How are representatives equipped with the relevant knowledge of tech and data literacy to engage with you and the proposed technology?
 - ▶ Can this be strengthened? How? By whom?



Case studies show that identifying the right interlocutors is a common challenge for community engagement and support around humanitarian technology. The representation questions are designed to assist teams in identifying these challenges

Leaders and gatekeepers often play important roles in communities. Understanding how to navigate these conversations and relationships are critical to reaching individuals who may be more closely guarded, such as women: *“In any society, information is power. They [representatives] can act as gatekeepers, they might not necessarily be representative, there might be someone who’s a self-appointed leader to undermine the actual sort of leadership structure.”* (Interviewee, Frost et al 2022).

QUESTIONS ABOUT ENGAGEMENT OBJECTIVES AND FEEDBACK

- What are you seeking to achieve through engagement, participation, or empowerment?
 - ▶ Is it instrumental or value-based?
 - ▶ Is it sufficient? Are those consulted or engaged compensated for their time? If not, are they able to devote adequate time?
- What role does the concerned community hold? Are they merely informed? Consulted? Engaged? Empowered? 
 - ▶ What power/decision-making role will communities hold? Who will hold it? Does it include under-represented minority groups?
 - ▶ If communities are not directly involved in decision-making, how will engagement be linked to decision-making processes?
- What feedback and response will be given to communities engaging in the use or development of this technology?
 - ▶ How quickly will feedback be given?
 - ▶ How will feedback be given, by whom, and to whom?



There is strong support for community and stakeholder engagement in the development and implementation of digital technologies for use in humanitarian settings. Implementation, however, has been slow and there have not yet been sufficient sector-wide efforts to put community engagement into practice.

This initial set of questions seeks to clarify the rationale for engagement as a starting point to define modalities and roles. As noted, even local teams need to clarify their relations with the community at large.

Understanding and clarifying what teams are trying to achieve will help ensure that adequate resources and processes are put in place.

Ideally, throughout any innovation process, teams will continue to meaningfully engage with communities. As one interviewee said, *“I think one of the best teaching things you can say about community engagement is that you must give people feedback on their feedback”* (Frost et al 2022).



Who teams decide to engage with in any given community also matters and must be representative of your target audience. This is not always carefully considered, as a case study participant notes:

“Many of the tech innovators emerging from the national scenes are often members of the urban middle class or national elite (and not just diaspora as mentioned). These are technically “local” actors if we use that term to designate all national residents, but they are often quite shielded from the reality of life in refugee settlements, areas impacted by drought, conflict zones, etc.” (Turner et al. 2022)

Definition:

Instrumental engagement is about deriving clear value and benefits from engagement, while value-based engagement can be seen as engagement for engagement’s sake because it is the right thing to do.

QUESTIONS ABOUT ENGAGEMENT PROCESSES

- What mechanism and governance arrangements are in place to ensure the involvement/representation of diverse communities? 
 - ▶ What approach/modalities do you use to engage/consult communities? How do you obtain consent? Are you using tools like journey maps, focus group discussions, digital diaries, etc.?
 - How are participants identified? (See also “people” questions)? How are under-represented minorities specifically engaged?
 - What language is used? What factors can enable truthful engagement? What are the ‘safe spaces’ where engagement can be maximized?
- When will engagement occur? Is it continuous? How is it or will it be maintained throughout implementation? 
 - ▶ Is the engagement process and content adjusted based on progress/stages?
 - ▶ Are there specific ‘checkpoints’ to review inclusion and assess unintended consequences and potentially adverse events?
- What resources (financial, human...) are allocated to empowerment and engagement?
 - ▶ Is it sufficient over time? Are those consulted or engaged compensated for their time? If not, are they able to devote adequate time?



Engagement processes must be carefully designed to ensure considerations for community dynamics and diverse perspectives. As the case studies have shown, emerging practices, such as Human-Centered Design (HCD) to engage communities and stakeholders around technological innovations, can remain opaque and extractive, reinforcing asymmetrical relationships among humanitarian actors.

This set of questions is designed to help teams identify who is and is not included or engaged, and how.


In practice, a maximalist approach (inclusive of everyone) may not be possible or even practical - some technologies may simply not apply to some groups (e.g., people with disabilities) but it is important to recognize and be aware of these limits. One case study participant noted: *“We are working [on a mobile technology project with refugees] with people who have hearing impairments and people with visual impairments. And we asked them to*

map out their community and placed figurines around the map to show where they go, who they interact with, and where they feel safe...that map gave us a deeper understanding of what daily life looks like and helped us as researchers to better understand the challenges that need to be programmed for.” (Frost et al 2022).

Engagement processes require participants to participate freely and voluntarily. How will your team ensure this? [USAID’s guide for monitoring engagement](#) may help teams navigate such questions.

Finally, community and stakeholder engagement requires flexibility, iterations, and long-term programming, with the support of adequate financial and human resources, including facilitators trained and experienced in relevant concepts and approaches. Teams should ensure that they map the resources available and needed.

QUESTIONS ABOUT KNOWLEDGE AND EVALUATION

- How is “success” defined for this technology?
 - ▶ How does the community define success?
 - ▶ Is the lack of success acceptable to you? The community? Donors?
- How much time will you need to determine failure or success?
- How will you assess success and failure? How will you monitor implementation over time? 
 - ▶ What indicators will you report on? How will you assess unintended benefits/challenges?
 - Do you include indicators of inclusion, engagement, and upskilling? Which ones?
 - ▶ Are the questions suitable and understandable to different stakeholders?
- How will you formalize and share your learning and evidence?
 - ▶ Internally and externally?
- Do you carry out routine assessments on digital access, knowledge, and skills among this community?
 - ▶ Do you have instruments and data collection efforts specific to such assessments?





A key finding of the process of conducting the case studies for this playbook is the common lack of monitoring and evaluation of technology use and development. The gap is even greater when considering efforts to uncover exclusionary dynamics or unintended consequences (positive and negative). As a result, knowledge sharing within and across teams remains limited, hindering common understanding of intersectionalities and collaborations between teams.

This set of questions aims to help teams identify key variables and indicators to assess and define a process to monitor indicators and share knowledge.

There are numerous guides for the monitoring and evaluation of humanitarian programs that can provide valuable insights, such as [IFRC's Project/programme monitoring and evaluation guide](#). Fewer guides are specific to the monitoring and evaluation of technologies.

ELRHA's Monitoring, [Evaluation and Learning in the Humanitarian Innovation Fund](#) provides a useful introduction and will require teams to think deeper about indicators of inclusion and engagement.

QUESTIONS ABOUT RIGHTS AND ETHICS

- Do you know and understand the regulatory frameworks for the technology you propose to use and develop in your context (country...)?
 - ▶ Is that knowledge present across relevant actors within your team?
 - ▶ Is that knowledge shared with partners?
 - ▶ How do you ensure compliance?
- What ethical guidelines frame your use or development of technology?
- Are the rights and interests of communities respected? How do you know? 
- What data will be collected/generated by this technology use? 
 - ▶ Is the data necessary? Will it be used? How?
 - ▶ Who will the data be shared with? How? Who will be involved in data analysis and feedback?
 - ▶ How will you obtain informed consent? What data protection and retention policy do you or will you have in place?




This set of questions will require teams to navigate increasingly complex sets of internal and external regulations that guide the use and development of technologies. One example of a failure to consider such regulations is a project to develop a pricing/purchasing platform locally. The technology did not comply with internal protocols at the global level, notably on cybersecurity, and had to be abandoned. Similarly, technologies supporting the collection and sharing must comply with national and regional rules such as the European Union's General Data Protection Regulation and similar regulations emerging elsewhere.

With regards to ethical principles guiding the development of technologies, adopting, understanding, and ensuring the shared knowledge and commitments to rules regulations and principles is important. Some valuable resources and guidelines can be adopted and/or adapted, such as the [Principles for Digital Development](#).

On data aspects, IFRC's chapter on [responsible data practices and data sharing](#) in the data playbook provides relevant exercises and guidance.

These guides and frameworks should not only be adopted at the highest organizational level but should also be implemented by humanitarians at any level of engagement.

QUESTIONS ABOUT NATURE, SCOPE

- Who are your partners and stakeholders for this technology? 
Consider all types of partners – non-governmental organizations, government and international agencies, funders, private sector.
- ▶ How were they identified? Are they diverse?
 - ▶ How do you relate to each other? Is the relationship formalized (MOU...)?
 - How do you communicate/engage?
 - Will technology change this dynamic? How?
 - Does the partner show flexibility and adaptability?
- Are the partners locally present/active? Who do they represent?
- What is the scope of each partnership?
- ▶ What are the respective roles, rights, and responsibilities? How are they distributed?
 - ▶ What are the respective risks and benefits?
 - ▶ How are potential power asymmetries addressed?
- Does the partnership affect flexibility in the design and use of the ICT? How? Are there contractual or donor requirements?
- What will the financial aspect of the partnership be? How much flexibility will be provided?




Case studies show that the use and development of technology often rely on partners at various stages, from ideation to implementation. Partnering with local organizations, refugee-led, and/or women-led organizations may provide valuable insights and input about how to effectively develop and implement the target innovation and reach the communities. Considering women-led organizations, for example, they have an *“incredibly rich knowledge of women’s lives and all of the challenges that women are facing and all of the normative barriers that they are up against... and of course, they also have access to the community”* (Interviewee, Sebastián, et al 2022).


However, poorly conceived partnerships around digital innovation can lead to new forms of “techno-colonialism.” (Sebastián, Meléndez Vicente et al 2022). Rather, there is a need to intentionally develop equitable partnerships which *“generate higher levels of trust and capacity”* (Turner et al 2022).

Furthermore, the co-creation of solutions can result in stronger and more sustainable solutions and builds trust between partners. Such co-creation and equal collaboration are most effective when conceived early in the design phase and are maintained throughout the different phases of the humanitarian program cycle.

The questions in this section are aimed to inform your approach to partnership. Your team’s answer may be informed by a review of the [Principles of Partnership \(PoP\) of the Global Humanitarian Platform](#).

QUESTIONS ABOUT CAPACITY

- Do you know the strengths and weaknesses of your partner(s)? How about technological and data capacities, including cyber security? 
 - ▶ How was it assessed?
 - ▶ Are the partners able to problem-solve as needed?
 - ▶ What is the most effective method of learning for the partner(s)?

- What support (training, resources, mentorship, funding) can you provide to strengthen partners? What support can you request from partners? 
 - ▶ What about digital infrastructures, skills, and administrative capacities?
 - ▶ Is there a long-term support strategy?
 - ▶ What external resources can you facilitate access to?
 - Are there recognized credentialled or accredited programs you can provide access to?
 - ▶ Are the skills of partners maintained and updated over time? How?



Questions about capacity and potential upskilling follow from how partners view and define their collaboration using the previous set of questions. Our case studies show that most actors are not working to support the digital transformation of local partners. (Sebastián, Meléndez Vicente et al 2022). This applies both to asymmetrical relations between international actors and local actors, as well as local-to-local partnerships.

Generating ‘*higher levels of capacity*’ directly benefit the partnership. Awareness of needs is necessary to intentionally support partners or request support from partners. Indeed, mutually beneficial partnerships rely on learning from each other. Support can be facilitated through humanitarian incubators and accelerators, which are often focused on building capacity (Turner et al 2022).

With this set of questions, your team will explore how intentional it is at working with partners how to intentionally provide or acquire the skills and knowledge necessary for the successful use and deployment of technologies.

At the simplest level, this may be about understanding needs and building a list of accessible resources (for example, online training) that partners can use. – Teams should ensure to go beyond direct implementation-related skills and knowledge to include more strategic aspects of humanitarian innovation and digital programming.

Of particular importance, teams should spell out how the partnership will handle data rights, access, and responsibility to reduce extractive practices yet maintain data security. More broadly, partners should outline how they will work together to address the growing complexity and frequency of cybersecurity threats (Sebastián, Meléndez Vicente et al 2022).

QUESTIONS ABOUT ENGAGEMENT

- As part of this partnership, are you...?
 - ▶ Creating joint training and upskilling resources for partners and other stakeholders?
 - For whom?
 - How will it be shared?
 - ▶ Advocating, supporting, or implementing best practices around engagement? How?
 - ▶ Researching/advancing joint learning on the use of technology and community engagement?
- Do the partner(s) themselves demand/advocate for community engagement around this technology?
- Is the feedback of your partners systematically captured? How?








These questions will lead your team to think about specific and concrete aspects of the partnerships in jointly building engagement and engagement resources. Case studies around the use of technologies in humanitarian settings show that joint upskilling around engagement is rare.

Importantly, teams often fail to consider the feedback from their most direct partners. Rather they focus on direct community feedback. The latter is essential, but partners have equally important insights and should be closely involved.

QUESTIONS ABOUT CONSTRAINTS

- What constraints does the environment create for this ICT use/development?
- Are the existing [digital] infrastructures (electricity, surges, bandwidth) appropriate to support and scale the use of ICT? 
- Are there constraints for communities to access/use ICT? 
 - ▶ What constraints?
 - ▶ In which settings are these constraints present?
 - ▶ Are these constraints affecting specific groups such as under-represented minorities?
- Are there constraints for you (humanitarian organization) to access/deploy the ICT (in constrained environments)? 
 - ▶ What constraints?
 - ▶ In which settings are these constraints present?
 - ▶ Are these constraints affecting specific groups such as under-represented minorities?



These questions will lead your team to think about broad sets of constraints that may impede access to or use of the technology and consult as necessary to ensure you understand the context.

Reflect on

- The potential for denial of access or restriction of access to people in need of assistance, which would undermine the usefulness of the technology,
- Any impediment to importing needed components, procurement issues, or consideration for exporting outputs, like data generated by the technology?
- Any potential for interference with the implementation of the technology or risk of violence or attacks because of the use of technology?
- Are there any physical barriers or environmental and security constraints to consider?
- Constraints that may directly relate to the use of technology (e.g., connectivity, legal and political restrictions).

QUESTIONS ABOUT MITIGATION

- How will the operating environment be monitored for constraints and adverse events?
 - ▶ How will local stakeholders be involved?
- What mitigation measures are in place if constraints exist?
- What are the contingency plans in case of potential external adverse events?
- If remote implementation occurs, what are the constraints and risks?





These questions will lead your team to think about the constraints identified with the previous set of questions and reflect on what measures, if any, can be put in place with the community and local stakeholders to mitigate constraints. What actions are necessary?

The importance of having mitigation plans available became clear during the COVID-19 pandemic. Frost et al (2022) found that organizations who had established in-country, local partnerships before the pandemic and who were actively involved in the facilitation of community engagement faced fewer disruptions in community engagement practices compared to organizations that relied on international staff more heavily.

There is no single pathway toward successful technology use and development in humanitarian settings. However, the likelihood of **success increases when innovators and frontline humanitarians ask themselves the right questions** and engage and support communities early and throughout the development and implementation of technologies.

The playbook is designed for teams to **creatively engage with challenging questions** and ultimately propose actions to identify unspoken assumptions and **uncover what needs to be done.**

