

# AI FOR HUMANITARIANS: SYNTHESIS REPORT

## Introduction

When used ethically and responsibly, AI has the potential to significantly enhance how we respond to humanitarian crises. It can help to overcome language barriers, automate the analysis of large datasets, provide real-time insights into community needs or strengthen anticipatory action and early warning systems for natural disasters.

However, as with all technology, it also presents substantial risks, including challenges around data security, bias and discrimination, environmental impacts and the potential for over-reliance. These risks are heightened in humanitarian crises, where response teams may lack the skills, knowledge or capacity to responsibly and ethically apply AI.

Our [AI for Humanitarians: Shaping Future Innovation](#) initiative is designed to build capacity among humanitarian innovators and agencies. Last year, ten grantees took part in a six-month learning journey to build their knowledge of the technology, take part in group discussions and complete hands-on exercises trialling AI tools.

This report synthesises the [shared insights](#), reflections, and lessons of the grantees. It captures how their understanding has evolved, highlights foundational concepts, and outlines key opportunities, challenges, and forward-looking commitments for integrating AI responsibly and effectively into humanitarian work.

## Evolving understanding of AI's role

Throughout the six-month programme, the grantees' exploration of AI significantly reshaped their initial perceptions. What began as broad enthusiasm, often focused on popular tools like ChatGPT, evolved into a more nuanced, critical, and informed perspective. Early on, the teams viewed AI as a quick-fix solution or a tool for automation. Through hands-on experience and reflective learning, they came to view AI not as a replacement for human expertise but a means of reinforcing human judgment, particularly in emergency contexts.

This shift in understanding emphasised the importance of locally informed, collaborative, and human-centred approaches. The effective and ethical use of AI in humanitarian work was shown to require more than technical skill. It also demanded a deep understanding of operational realities, ethical implications, and the diverse settings in which humanitarian organisations operate.

## Key learnings and foundational concepts

- **The centrality of data**

Data quality, diversity, and governance emerged as foundational to any AI application. Grantees stressed the need for strong data protection, meaningful consent processes, cultural sensitivity, and proactive efforts to identify and address bias. The political dimensions of data collection and use were also highlighted, especially where unequal power dynamics are present.
- **Applicable AI tools**

Natural language processing (NLP) and large language models (LLMs) were considered particularly relevant for processing unstructured, multilingual data. These tools were seen as valuable for amplifying community voices and drawing insights into decision-making frameworks. Other useful tools included predictive analytics, geospatial AI, image recognition, and chatbots.
- **Ethical imperatives**

Grantees reaffirmed that ethical principles must guide AI use. These included respect for human dignity, data privacy, transparency, accountability, cultural relevance, and the principle of 'do no harm'. There was consistent emphasis on the importance of human participation and oversight (aka 'human-in-the-loop' decision-making) and the integration of ethical review across the AI lifecycle.
- **Risk and regulatory awareness**

Key risks identified included data breaches, algorithmic bias, the potential misuse of AI in sensitive environments, and an over-reliance on AI outputs without adequate human oversight. Navigating these risks required both organisational safeguards and adherence to regulatory standards such as the General Data Protection Regulation (GDPR) and emerging AI-specific legal frameworks.
- **Structured project design**

Structured ideation and design processes – such as workshops and prototyping sessions – were essential for refining ideas, clarifying objectives, allocating resources, and engaging relevant stakeholders. This helped grantees turn abstract concepts into actionable projects.

## Professional growth and applied practice

The learning journey strengthened grantees' confidence and capability to engage with AI meaningfully, enhancing their ability to assess proposals, advocate for responsible innovation, and implement AI tools in practice. The teams developed a stronger grasp of both the technical aspects of AI and its ethical and contextual implications, positioning them to bridge the gap between technology and humanitarian values.

Grantees applied their learning across a range of challenges, including:

- Amplifying community voices and integrating them into peacebuilding strategies
- Tackling gender bias and embedding feminist principles in AI design
- Supporting marginalised farming communities with native-language AI tools
- Addressing context loss and tokenisation in qualitative data analysis
- Using predictive modelling to improve waterborne disease detection and prevention
- Enhancing outbreak management by improving data pipelines and communication systems
- Optimising supply chains to reduce stockouts and delays
- Strengthening mental health and psychosocial support services through better data coordination

## Reflections on opportunities and risks

Grantees identified substantial opportunities for AI to enhance humanitarian efforts. These included the ability to process large volumes of data rapidly, identify patterns, support predictive analysis, and provide real-time insights to improve the relevance and timeliness of humanitarian responses. AI also offered the potential to bridge language and communication gaps, automate administrative processes, and support more community-centred interventions.

However, grantees also recognised critical risks that must be carefully managed:

- **Data quality and bias:** Incomplete or biased data can lead to harmful or misleading results
- **Privacy and security:** Mishandling sensitive data can endanger vulnerable populations
- **Over-reliance:** Excessive dependence on AI risks marginalising human insight and contextual knowledge
- **Transparency and accountability:** Commercial tools often lack clarity around data processing, limiting trust
- **Inclusivity:** Addressing digital exclusion, language diversity, and differing levels of digital literacy remains essential
- **Cost and scalability:** The financial, infrastructural, and ethical costs of AI implementation must be better understood and managed

To harness AI responsibly, grantees advocated for a thoughtful, community-centred approach. This includes collaborating with local stakeholders and technical experts, investing in capacity-building, embedding transparency in AI design, and prioritising open-source solutions that reflect humanitarian values over commercial incentives.

## Looking ahead

Grantees plan to build on early prototypes by deepening their technical capabilities, particularly in NLP and LLMs, and exploring more advanced applications like real-time sentiment analysis. Future work will focus on piloting tools in new settings, embedding AI more systematically within organisations, and expanding collaboration with local and technical partners.

At Elrha, we will continue supporting this momentum through the Humanitarian AI Lighthouse, a new community-led initiative to strengthen ethical, practical, and inclusive AI use across the sector. Through this mechanism, we will fund applied research, convene diverse actors, and share learning through case studies, newsletters, and open-access resources. Together, these efforts aim to ensure responsible AI development that is grounded in humanitarian principles and remains responsive to future challenges.

## Conclusion and key takeaway

For organisations embarking on similar journeys, grantees offered this advice: **approach AI with curiosity, humility, and a strong commitment to collaboration.** Define clear objectives rooted in community needs, foster diverse partnerships, and engage critically with the capabilities and limitations of AI tools.

The overarching takeaway from this collective experience is clear: **ethical considerations must be central to every phase of AI development and use in humanitarian contexts.** When guided by principles such as transparency, inclusivity, and respect for human dignity, AI can be a powerful tool for good. It has the potential to amplify community voices, strengthen strategies, and drive meaningful, sustainable change.