EXPLAIN: ESSENTIAL BRIEFINGS FOR HUMANITARIAN DECISION-MAKERS

AI IN THE HUMANITARIAN SECTOR

When discussing AI in the humanitarian sector, it is crucial to distinguish between its potential value and its proven impact. While generative AI (GenAI) is widely accessible and hyped for its efficiency gains, a persistent knowledge gap makes it difficult to assess its real benefits. Humanitarian decision-makers need critical literacy to navigate AI's actual impact, deployment challenges, and budgeting requirements.

Humanitarians must recognise both the opportunities and risks of AI. Traditional AI analyses and automates, while generative AI (GenAI) creates new content based on trained data. GenAI tools like ChatGPT and Gemini rely on large language models (LLMs) trained on vast public datasets, aiding humanitarian tasks like information synthesis and report generation. However, concerns around bias, transparency, reliability, and ethical risks—such as misinformation and non-consensual data use—pose challenges for humanitarian applications.

Generative AI in the humanitarian sector is emerging, but not yet systematic. While discussions on AI often focus on generative AI (GenAI), non-generative AI tools like machine learning and predictive analytics remain more prevalent in automating key processes. Most humanitarian use of GenAI is limited to backend tasks, with large-scale adoption hindered by uncertainty, risk concerns, and a lack of technical expertise.

Humanitarians must define the use of AI tools in programming to assess their risks, benefits, and relevance.

1. GenAI improves efficiency in everyday tasks like drafting emails, summarising meetings, and editing reports, though its adoption in humanitarian work remains informal and difficult to track.

2. AI is increasingly integrated into institutional workflows, enhancing internal processes and automating humanitarian tasks to improve efficiency at scale.

    - AI enhances internal knowledge management by cleaning data, making databases queryable, centralising information, and streamlining task management, while also improving supply chain management through real-time data integration and tracking.

    - Big data analytics support MEAL tasks by extracting insights, synthesising data, processing surveys and feedback, generating metadata, and coding lessons learned, as demonstrated by Catholic Relief Services' use of machine learning in Malawi to assess food insecurity risk.

    - AI aids decision-making in humanitarian settings by improving population density estimates for aid distribution, using semantic segmentation to assess building damage, supporting vaccination

programs, and assisting in medical applications, with the European Crisis Management Laboratory testing Large Language Models (LLMs) for extracting news and compiling time-sensitive risk data.

3. AI tools enhance community engagement by personalising interactions through platforms like WhatsApp and Facebook, with chatbots varying from simple decision trees to more advanced NLP- and GenAI-powered models. However, challenges in accuracy, cultural appropriateness, and oversight—such as those seen in IRC's Signpost initiative—highlight trade-offs in AI sophistication, while sentiment analysis helps process community feedback more efficiently.

4. AI is expanding humanitarian capabilities by enabling tasks previously limited by cost or resources, such as AI-driven family reunification and anticipatory approaches predicting displacement. While models like the Danish Refugee Council's AHEAD and WFP's VAM use machine learning to forecast displacement and food shortages, these applications involve high-risk factors, including predictive analytics, sensitive data, and potential unintended consequences.

AI tools pose risks such as misinformation, bias, opacity, and privacy concerns, while also threatening the humanitarian mission by undermining the 'do no harm' principle, exacerbated by the lack of common standards.

- **Data gaps and misinformation:** Poor-quality data leads to inaccuracies, mistranslations, and misinterpreted nuances, with AI tools often trained in data-rich languages like English, leaving humanitarian contexts underrepresented and increasing risks to operations and communities.
- **Bias and discrimination:** AI outputs reflect biases from dominant datasets, and the lack of community input and local knowledge heightens the risk of inaccurate, irrelevant, or discriminatory decisions.
- **Reliability challenges:** GenAI tools frequently generate false information ("hallucinations"), while model drift degrades AI accuracy over time, leading to misinformation, service denials, or flawed reports.
- **Privatisation and vendor lock-in:** Dependence on private AI providers risks undermining humanitarian neutrality and increasing reliance on proprietary systems with limited control.
- **Privacy and consent risks:** AI tools handling sensitive data expose communities to security breaches, while adoption pressures may lead to exploitative pilot programs where informed consent is fragile.
- **Opacity and accountability:** AI decision-making is often opaque, limiting oversight and making it difficult for individuals to challenge service denials or verification failures, especially with proprietary models.
- **Human rights implications:** AI's energy demands strain infrastructure, its data-labelling process is linked to labour exploitation, and AI-driven misinformation complicates humanitarian efforts.

The rise of GenAI has raised the stakes for humanitarians, making shared standards more urgent than ever. The

rapid rise of GenAI has intensified the need for shared standards, as its adoption in the humanitarian sector grows without clear safeguards. Previously used for specialised tasks, AI is now widely accessible, leading to increased experimentation, but without a common framework, its use remains informal and fragmented.

Rigorous research is needed to assess AI's utility and costs in humanitarian operations, with clear boundaries for GenAI use, as most tools are not designed for humanitarian needs.

- **Stronger research on GenAI in humanitarian contexts:** Humanitarians need applied research and critical literacy to assess GenAI's risks, including data privacy concerns and the opacity of AI-driven decisions.
- **Understanding costs, skills, and risks:** Organisations must evaluate whether the financial and human resources required for GenAI development and testing are justified, especially given funding constraints and uncertain returns.
- **Supporting staff in responsible AI use:** Clear guidance and training are essential to help humanitarian staff critically assess AI-generated content, protect sensitive data, and understand AI's limitations.

Humanitarians need holistic assessment approaches to fully capture AI's ethical risks, ensuring informed and responsible adoption.

- **Keep communities at the centre:** AI adoption must prioritise participatory design, community consultation, and inclusion to ensure accessibility and relevance.
- **Establish clear standards and Policies:** Humanitarian actors should define acceptable AI use by referencing established standards and creating policies that set ethical principles, testing protocols, and boundaries.
- **AI is not always the answer:** Decision-makers must assess whether AI genuinely adds value or if simpler, safer solutions are more appropriate to avoid unnecessary complexity.
- **Understand and assess risk:** Organisations must continuously evaluate AI tools, scrutinise claims, and ensure they have the capacity to audit evolving risk profiles.
- **Account for resource demands:** AI adoption requires investment in data collection, expertise, risk assessments, and maintenance, which, if overlooked, can lead to unsustainable implementation.
- **Share knowledge and learnings:** Openly sharing AI experiences, challenges, and validated use cases can help close the sector's knowledge gap and promote responsible adoption.
- **Build, buy, or borrow?:** Organisations must weigh security, customisation, and ethical trade-offs when deciding whether to develop, purchase, or adapt AI solutions.
- **Develop a humanitarian-specific AI ecosystem:** Tailoring AI to humanitarian needs, such as using Small Language Models trained on verified data, can improve privacy, governance, and resource efficiency.

Interest in GenAI is growing amid tight budgets, but its adoption must be driven by community needs rather than cost-cutting pressures. Humanitarians must critically assess claims about AI's efficiency while considering risks, ethical concerns, and the impact on crisis-affected communities. Safe, responsible AI use depends not just on the technology itself but on the systems that ensure its ethical implementation, reinforcing the importance of past lessons on innovation and the "do no harm" principle.

This quick read delivers the essentials from ALNAP's full briefing on AI in the humanitarian sector.

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