



Think Piece

Data innovations for tackling fragility What does it mean for monitoring,

evaluation and learning?

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Fragile and conflictaffected settings demand complex, nuanced solutions. What do digital technology and big data innovations mean for how we do monitoring, evaluation and learning in these settings?

Itad has been working in conflict-affected and emergency settings globally for over 35 years, providing evidence and helping our clients learn how tackle some of the most intractable problems the world faces.

Emerging digital technology and 'big data' innovations can help us map and understand the complex challenges affecting fragile and conflict-affected settings to deliver more nuanced, targeted and ultimately more effective solutions.

This Think Piece shares reflections from our projects, particularly the **Global Mine Action Programme 2** (GMAP2), to further explore the potential and pitfalls of digital tech in the context of fragility.

The emerging landscape of digital tech and data innovations

What do we mean when we talk about digital tech and data innovations? This landscape is constantly evolving, and for us the overlap with monitoring, evaluation and learning (MEL) includes:



Remote Data Collection such as using mobile phones for surveys or online platforms



Secondary Data Analysis that makes the most of geospatial, social media and even acoustic data



Advanced Analytics modelling policy impact or stimulating effects under different conditions



Sentiment analysis using machine learning algorithms to assess meaning in text



Data visualisation that allows the user to interact with the data to inform decisions





Digital tech and big data can transform how we generate and use evidence in fragile settings

It can help us to:

Examine impact in fragile settings at an affordable cost.

Fragile settings are highly complex and volatile, access is difficult, and resources are often constrained. This makes it particularly challenging to generate robust and timely evidence to inform responses, monitor progress and adapt.

Given increasing pressure on aid budgets, digital tech solutions are particularly appealing as they can provide a cost-effective means of gathering evidence, as well as support effective targeting of interventions and so help to 'do more with less'. As part of our Global Mine Action Programme 2 (GMAP2) project, our geospatial impact evaluation is looking at the links between mine clearance and development outcomes in Afghanistan. We are utilising geospatial data and satellite imagery to examine the results of mine clearance across large and difficult-to-access areas at a relatively low cost. It represents one of the first studies of its kind for the mine action sector.



Predict and more effectively responding to conflict and climate shocks.

Our work with UNICEF helped visualise the Covid -19 WASH response in Ethiopia, South Sudan, Zimbabwe and Uganda. Our dashboards transformed the activity data normally compiled on Excel spreadsheets into visualisations. By placing different datasets on top of each other we could reveal new insights, such as in Ethiopia where we layered vulnerability mapping data with emergency response activities.

Develop more precise, multidimensional understandings of complex issues such as fragility and resilience.

In the Horn of Africa, <u>our</u> <u>work with the International</u> <u>Organisation for Migration</u> is using a natural experiment and advanced modelling to assess the resilience of returnees impacted by the extreme events of the Covid-19 pandemic.

Empower local voices to inform and design responses that better meet their needs.

For example, mobile data collection tools and open-source software are increasingly being utilised by local communities to monitor conflict dynamics and support community-level responses. This improved locallevel ownership can help ensure responses to conflict are better informed by the needs of those affected

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It is risky to assume that data innovations will automatically translate into better results

These innovations also come with potential challenges and pitfalls for those delivering emergency assistance, seeking to prevent violence, and build peace and social cohesion. These include:

Digital divides: there is a risk that those without access to digital tech will be excluded.

Ethical issues: open source or digitally captured data may undermine ethical principles of anonymity, confidentiality, informed consent, and may lead to participants and others being placed at risk of harm.

...barriers may be created due to the specialist expertise required

Barriers to acquiring and implementing digital tech and **approaches:** additional barriers may be created due to the specialist expertise required, or limited bandwidth to absorb and engage with large volumes of data.

Existing power structures:

there is a risk that rather than challenging the existing power structures which shape outcomes for those living in fragile and conflict settings, these innovations are subsumed within them and used to maintain the status quo.



Implications for how we use digital tech and big data in fragile and conflict settings

We draw out two key lessons for using digital tech in fragile and conflict-affecting settings:

1 Emphasise locally-led solutions with proportionate and timely evidence

The dynamics of conflict and fragility are often highly context-specific, unpredictable and fast-moving. Local stakeholders are often best placed to interpret and respond to new evidence. Ensuring that relevant evidence is immediately available and accessible to the appropriate stakeholders allows more effective responses.

It is therefore important that digital innovations are applied collaboratively and involving a wide range of stakeholders with an emphasis on locallyled solutions and insights. For example, mobile data collection tools and opensource software (for example <u>Ushahidi</u>) are increasingly being used by local communities to monitor conflict dynamics and support community-level responses. This improved local-level ownership can help ensure responses to conflict are better informed by the needs of those affected. The focus should always be on generating proportionate and timely evidence in a form that can then be used to inform adaptation.

...mobile data collection tools and open-source software are increasingly being used by local communities to monitor conflict

One purpose of our GMAP2 evaluation is to generate insights and lessons on the opportunities and limitations of digital tech for the mine action sector. By <u>sharing those insights</u> <u>and lessons</u>, we aim to support the sector to reimagine its approaches to data collection and analysis.



2 Integrate digital tech with traditional data sources and analysis techniques

Maximising the quality and integration of 'traditional' data collection techniques can help increase the effectiveness of data innovations by providing a stronger evidence base from which to apply new data analysis techniques. We can also support linkages between new technologies and their practitioners, existing datasets and traditional data collection processes, and relevant stakeholders from across that ecosystem. This is not only about integrating different methods and datasets, but also creating dialogue between traditional and non-traditional stakeholders.

For example, the <u>GMAP2</u> <u>impact evaluation</u> looks at the links between mine clearance and development outcomes in Afghanistan by drawing on both satellite and geospatial data as well as pre-existing data collected by mine action implementers and other development and stabilisation practitioners on the ground.

As part of the study we, and our partners AidData, have sought to convene stakeholders from across the sector (such as geospatial evaluation specialists, mine action implementers, and donors) to explore existing datasets, support enhanced evidence gathering on the ground and enable those working in the sector to share feedback and guide our approach. By doing so we aim to support the effective integration of innovations to ensure their full value is realised for the sector.

What's next?

What is certain is that, despite the potential pitfall and challenges associated with the digital tech revolution, these are exciting developments for those of us doing MEL in fragile and conflictaffected settings.

Itad is committed to realising the potential of digital tech for MEL so we can support better understanding and more effective responses to the complex challenges of conflict and fragility.

If you are interested in learning more about Itad's approach to digital tech, the get in touch, or <u>take a</u> look at our digital tech pages.

Read next: <u>Building back better:</u> <u>How we are realising the potential</u> <u>of digital tech for MEL</u>

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