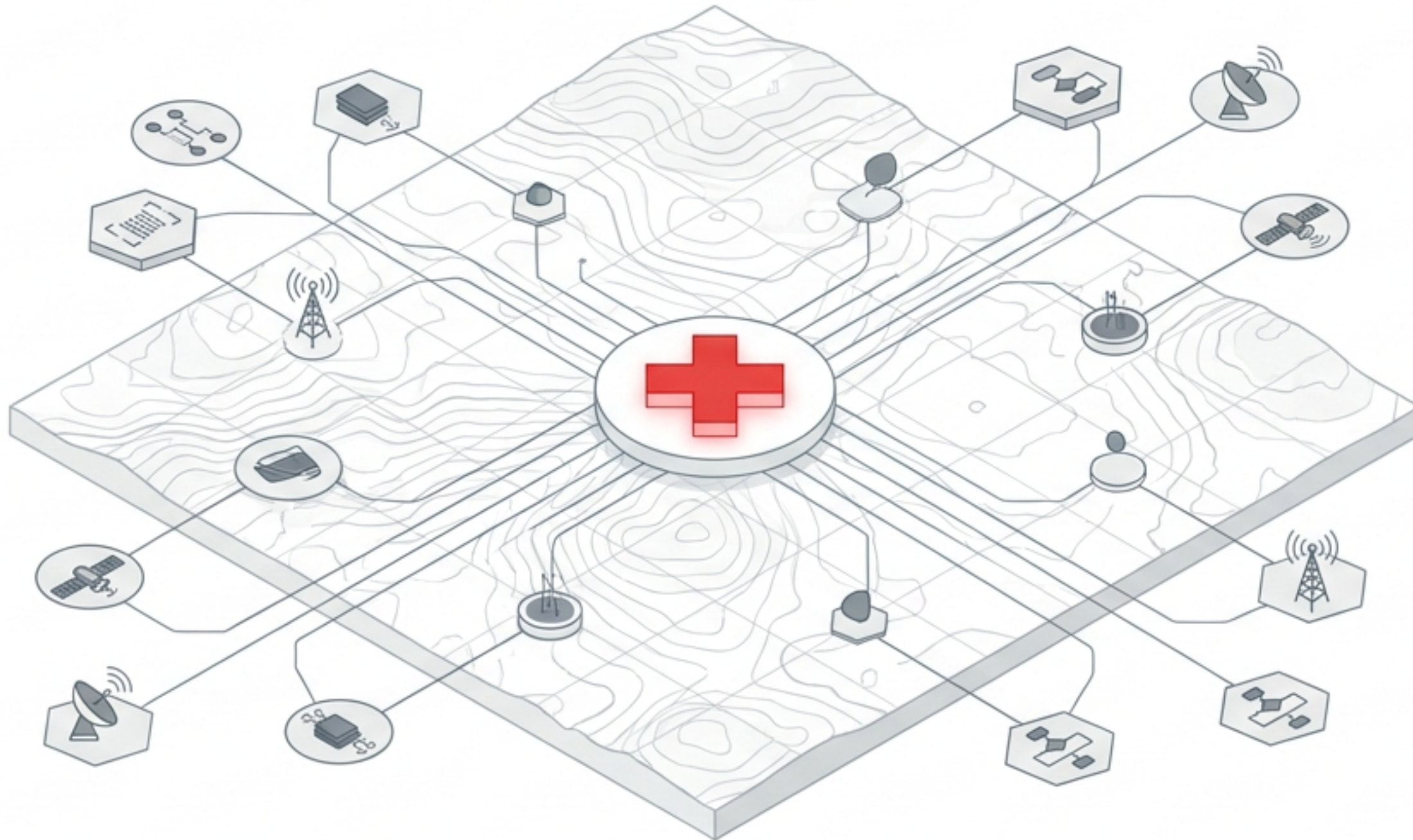


On the Edge of Innovation: AI & The Digital Humanitarian

How the Red Cross Network harnesses spatial data and artificial intelligence to scale compassion.

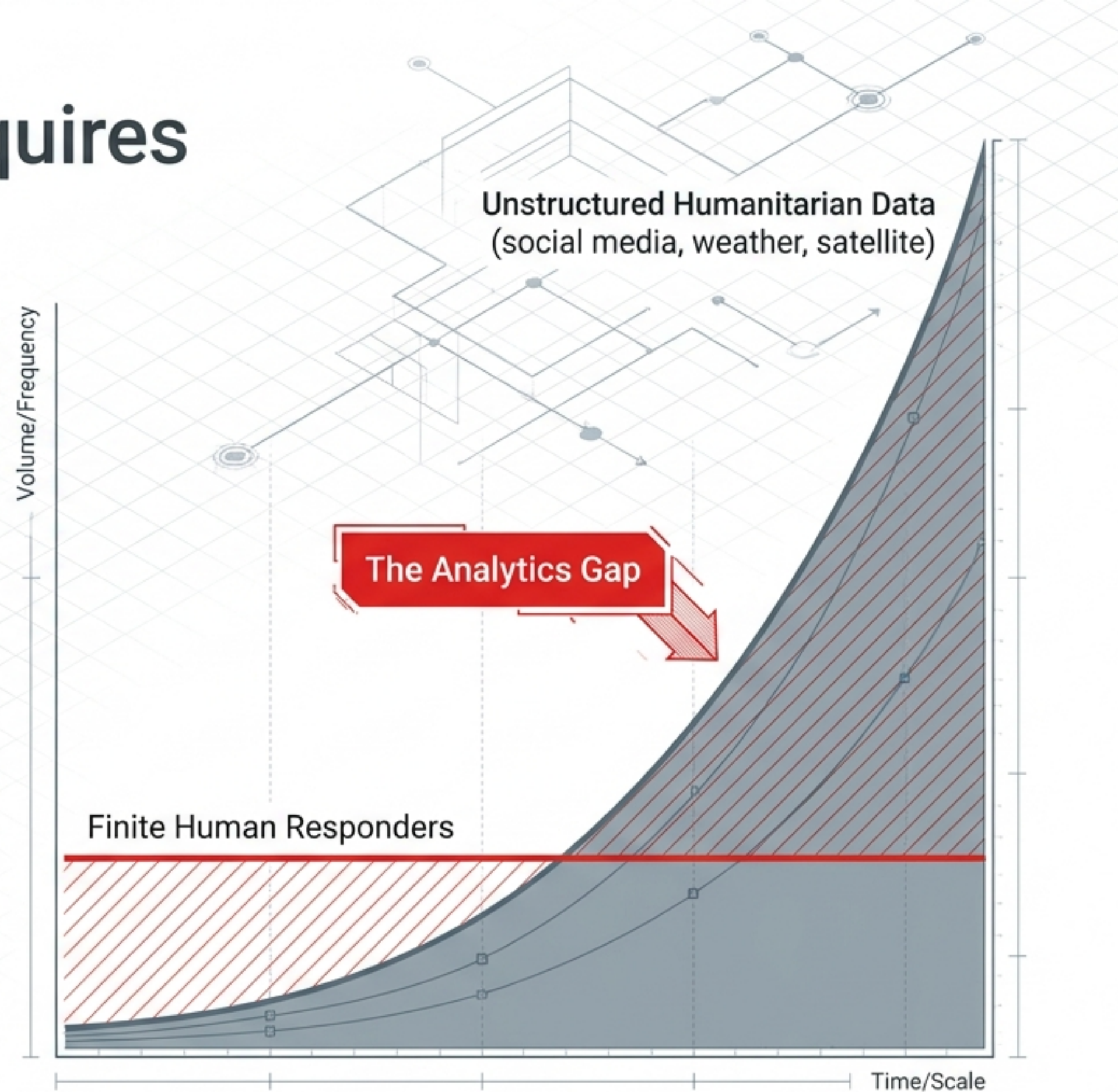


Unprecedented Scale Requires Unprecedented Tools

Disasters are growing in frequency and complexity.

Traditional, analog methods of information management cannot process the sheer volume of data generated by modern crises.

The demand for reliable spatial data outweighs the supply of human analysts.



A Strategy Fit for a Digital World

Digital transformation is a deliberate evolution.

The International Federation of Red Cross and Red Crescent Societies (IFRC) and national branches operate on a maturity model designed to move from traditional relief to proactive, predictive ecosystems.

Data-Driven & Proactive

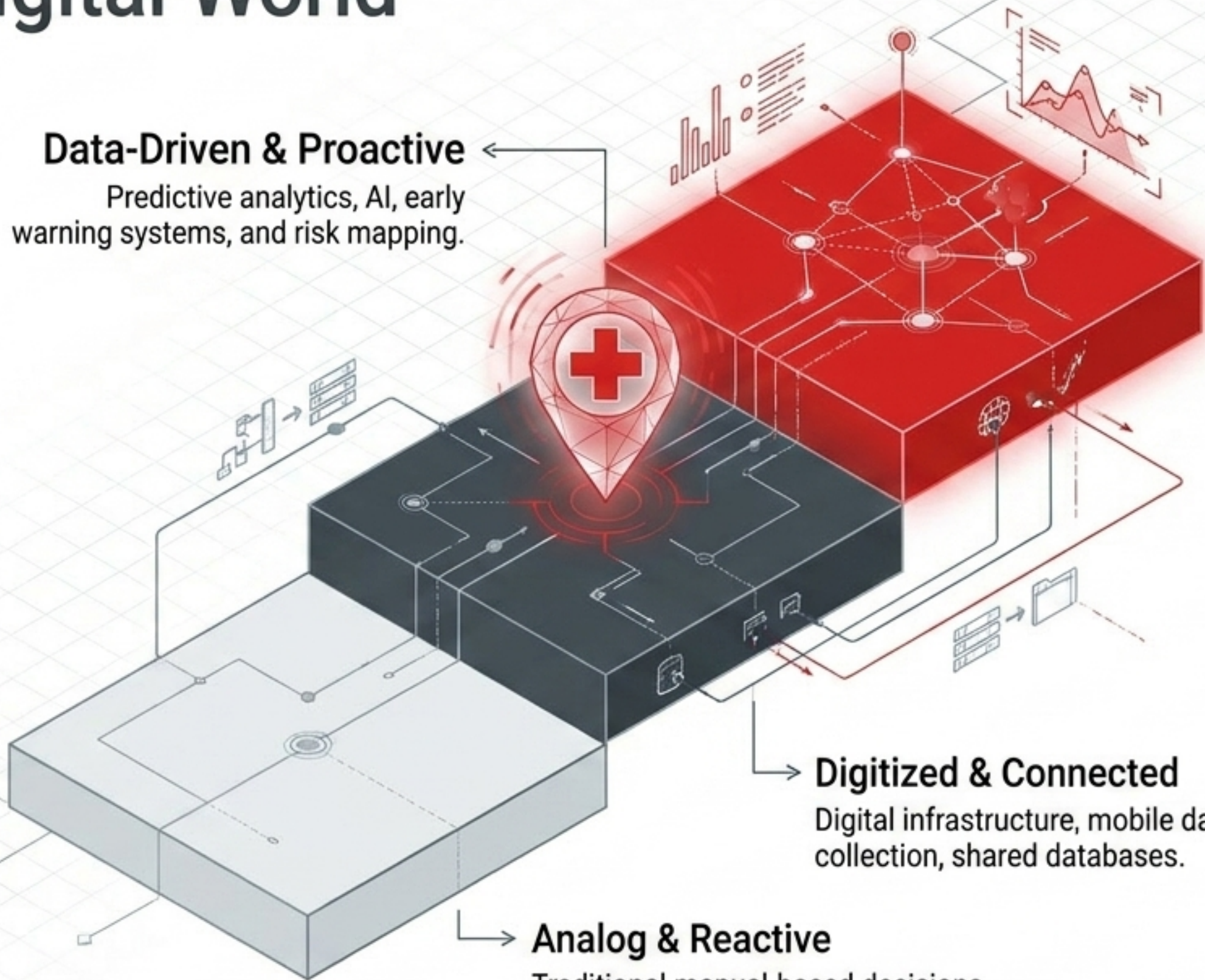
Predictive analytics, AI, early warning systems, and risk mapping.

Digitized & Connected

Digital infrastructure, mobile data collection, shared databases.

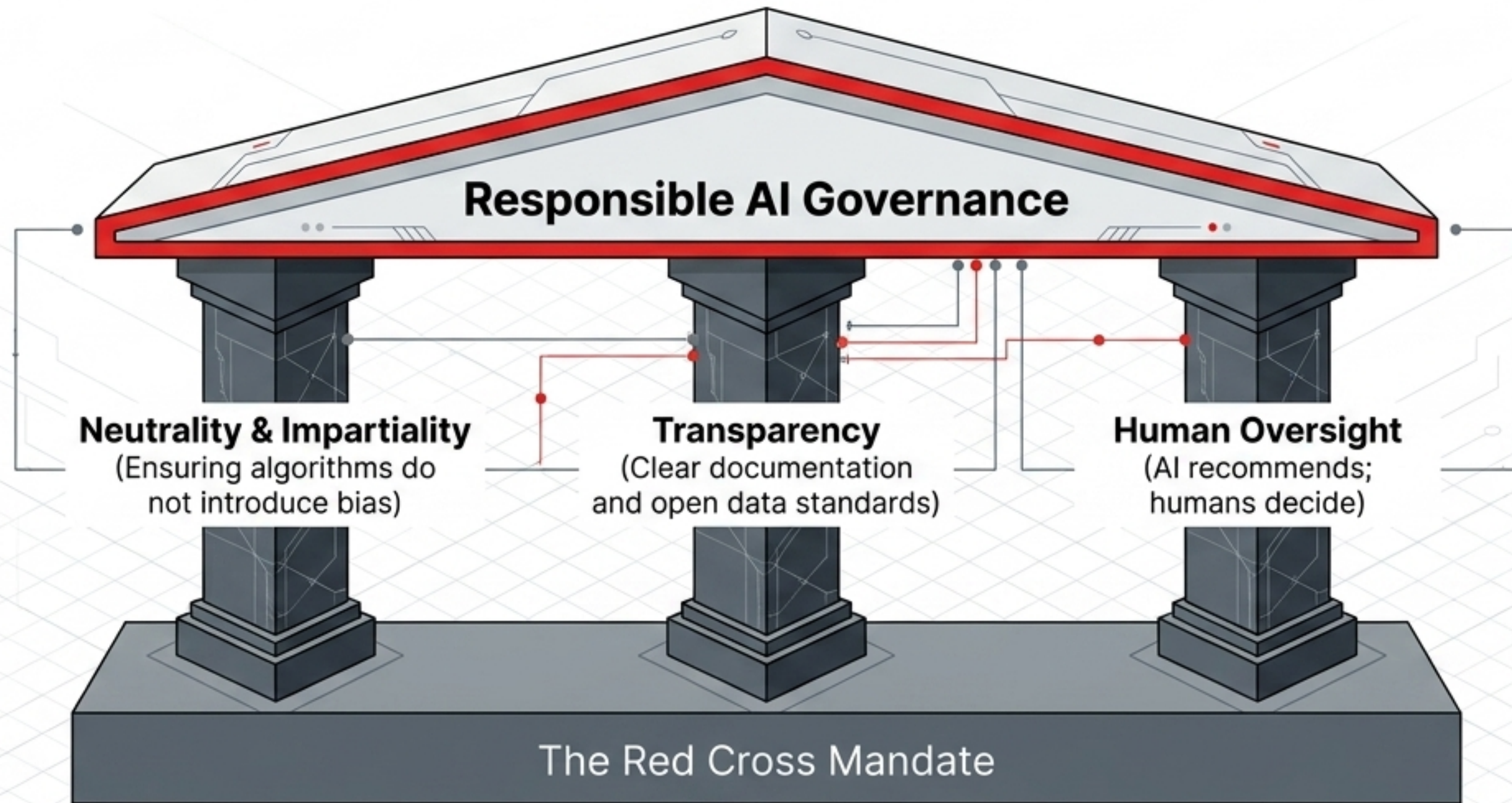
Analog & Reactive

Traditional manual-based decisions.



Innovation Anchored in Humanitarian Principles

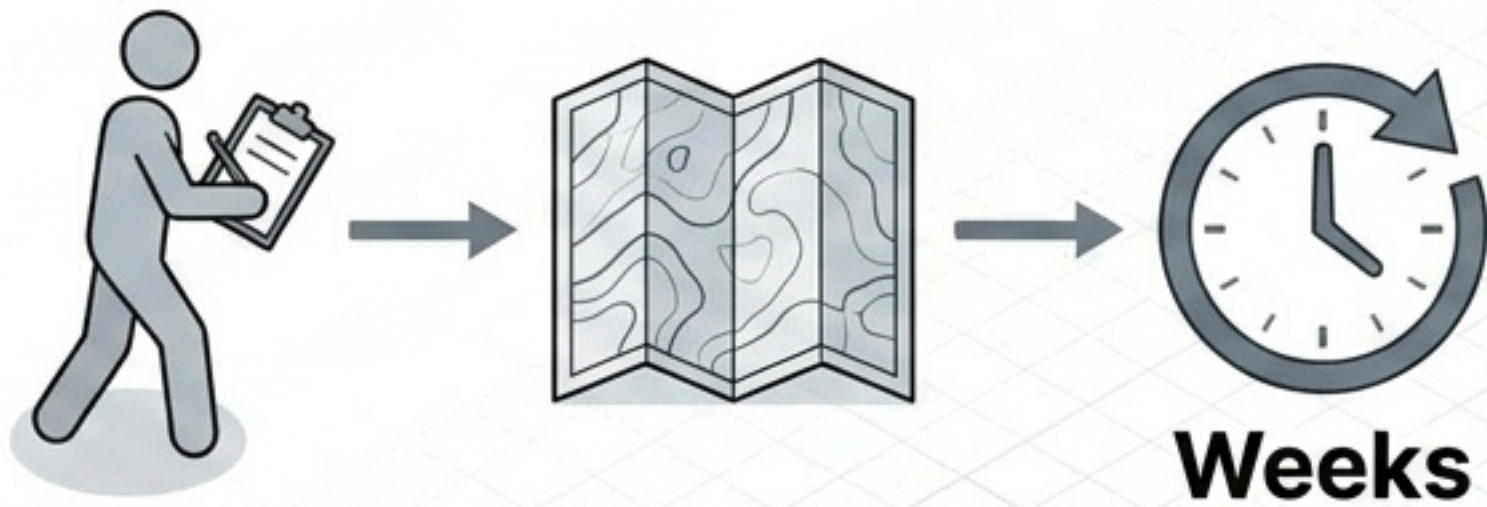
Guided by the International Committee of the Red Cross (ICRC) and UN Chief Executives Board (CEB) frameworks, technological adoption is anchored in fundamental principles. We prioritize ethical AI that is human-centered, neutral, and transparent.



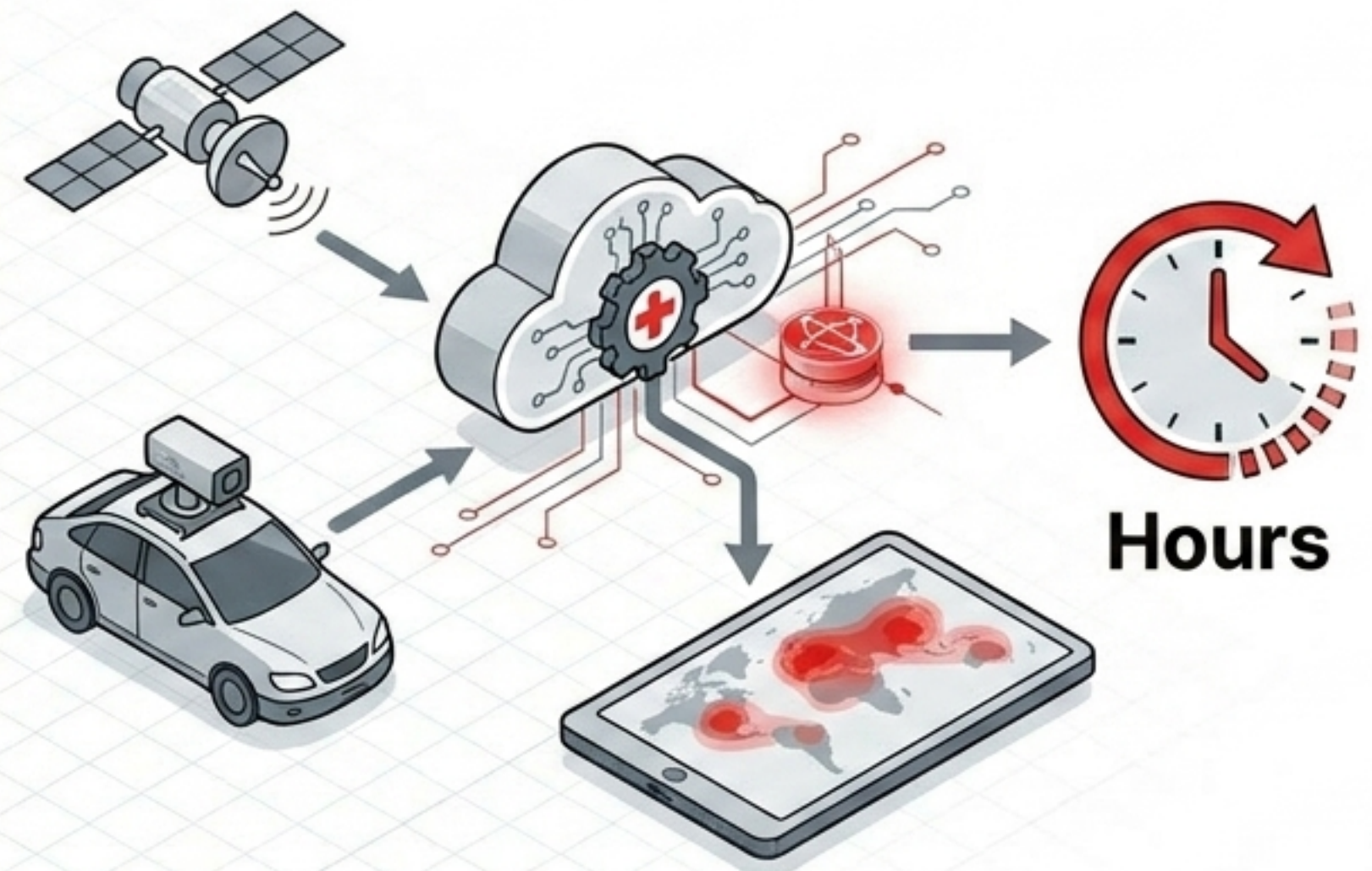
Accelerating Damage Assessment

Collaborating with AWS and Microsoft Philanthropies, the American Red Cross is utilizing AI to assess structural damage to homes. By analyzing pre- and post-event satellite imagery alongside car-mounted camera data, AI models identify damage hotspots to prioritize response areas.

Traditional Assessment

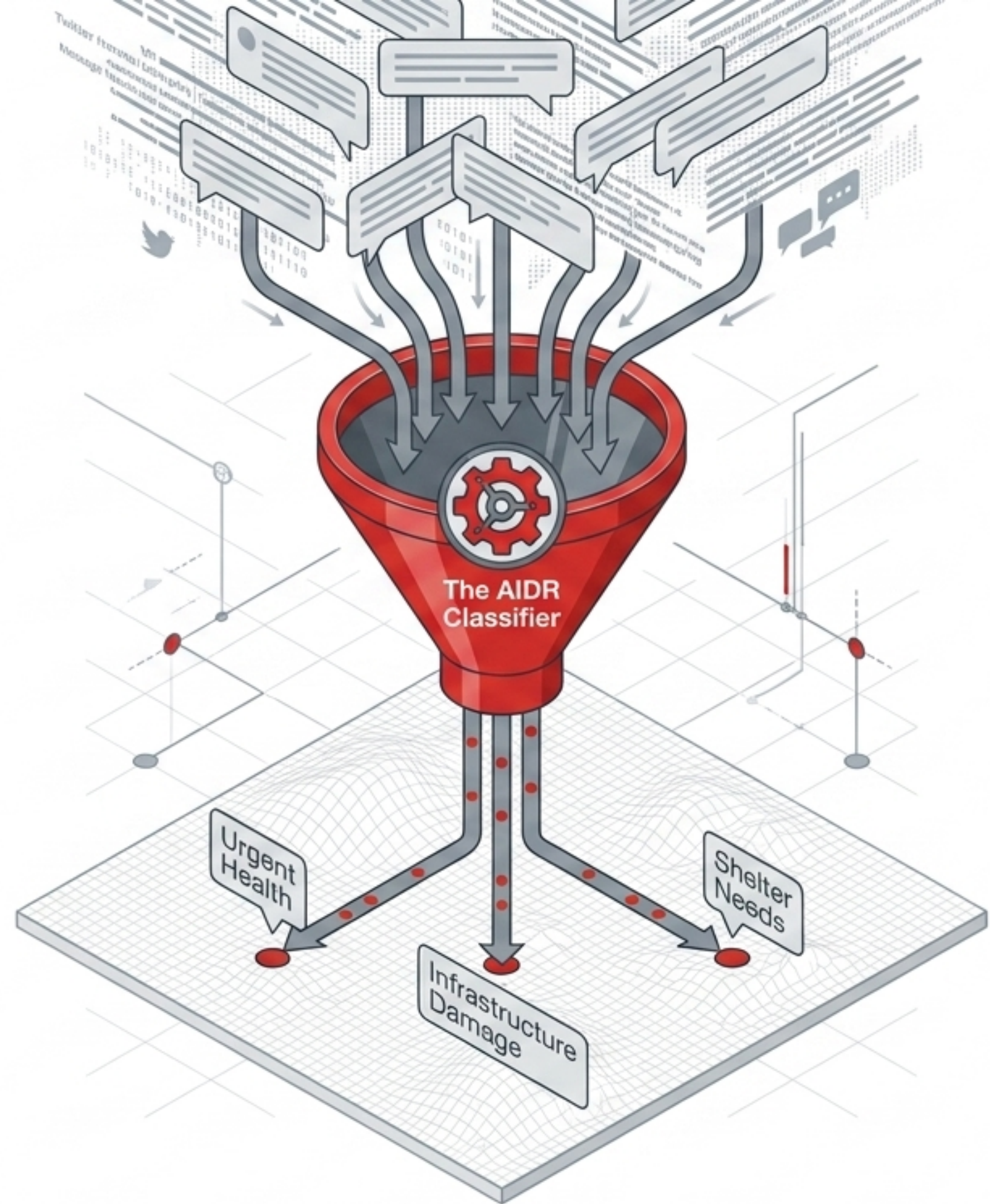


AI-Augmented Assessment



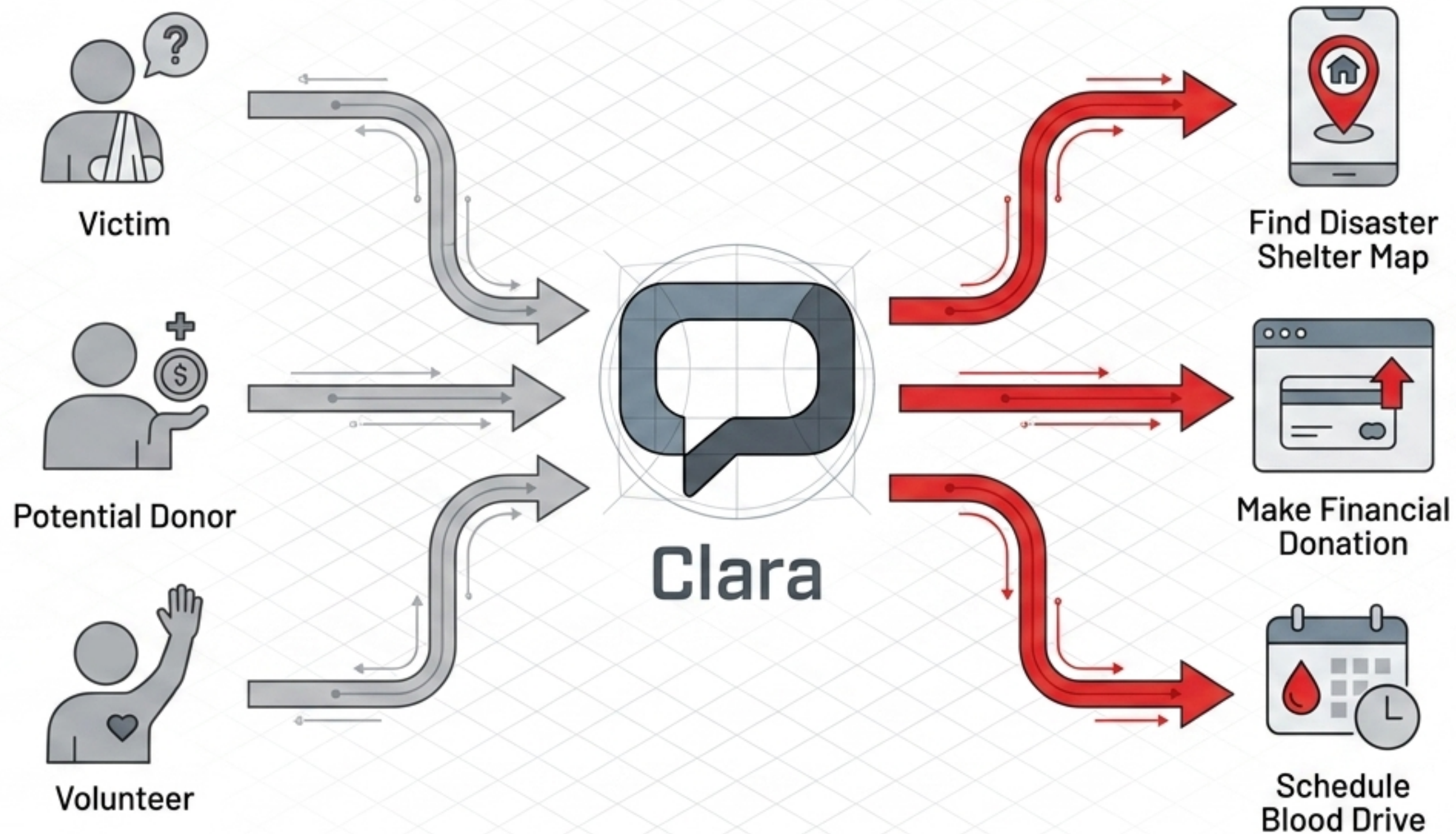
AIDR: Mapping the Chaos of Crisis

Artificial Intelligence for Digital Response (AIDR) ingests and classifies massive volumes of text data during emergencies. Successfully
Successfully deployed during the **2010 Pakistan floods**, the **2014 Chile earthquake**, and by UNICEF in Zambia, AIDR turns **noise into geographic priority**.



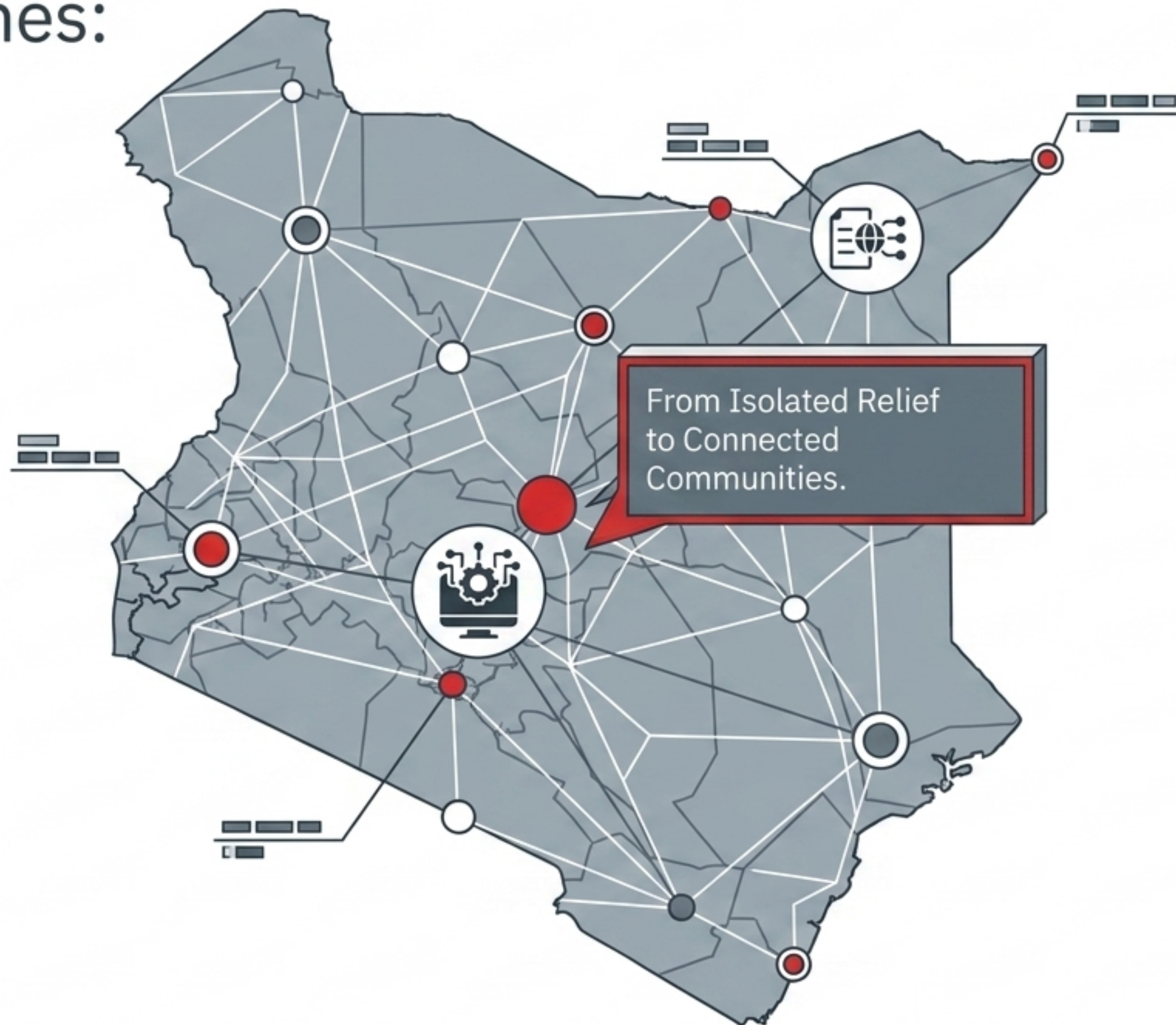
Clara: Routing Need to Action

Named after founder Clara Barton, "Clara" is a virtual chatbot hub that uses natural language processing to guide individuals through the stress of a crisis, instantly routing them to the precise help they need.



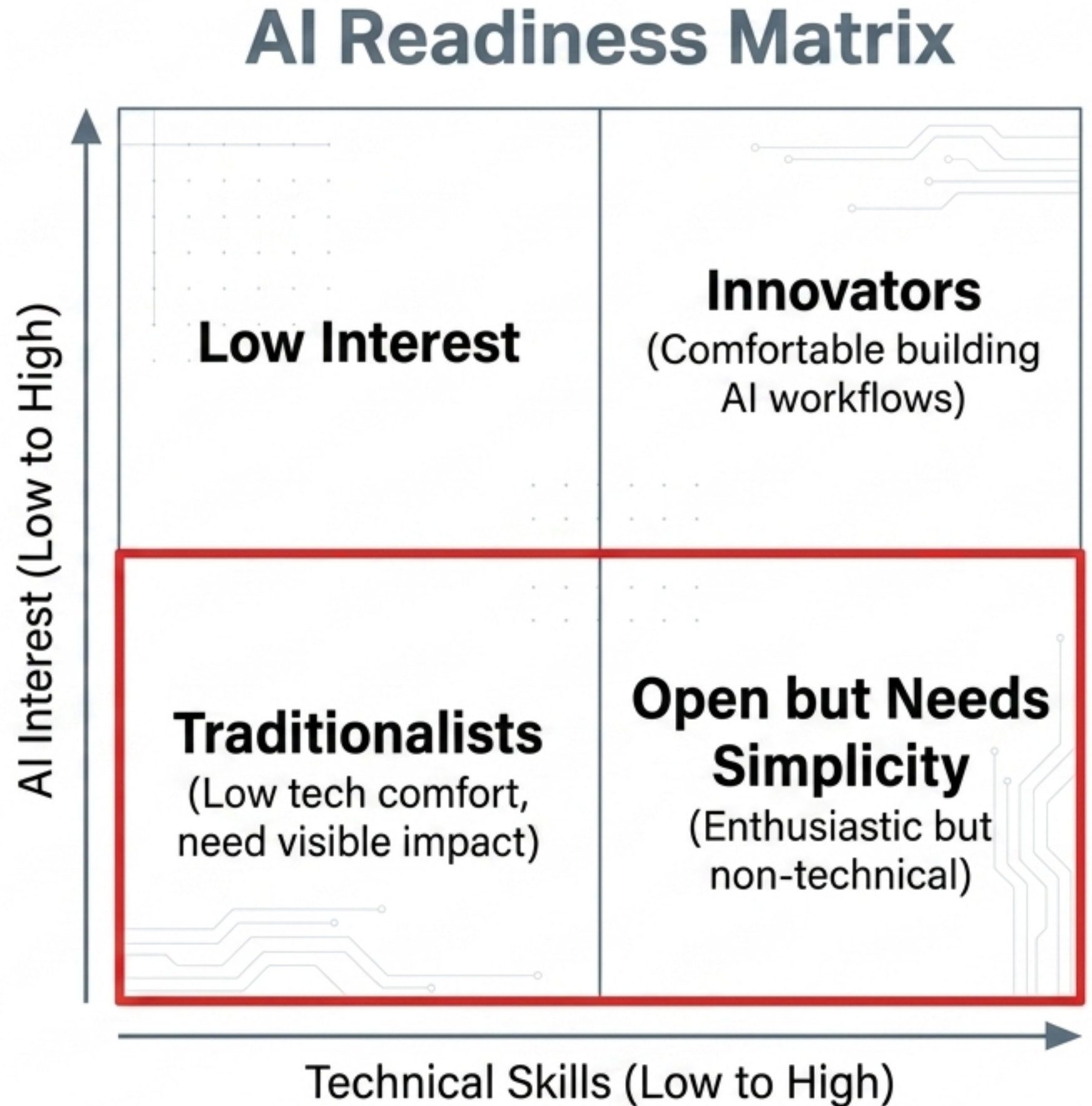
Empowering the Frontlines: Kenya Red Cross

The Kenya Red Cross Society (KRCS) is bridging the digital divide for its 260,000 volunteers. The goal is moving from isolated relief to connected communities, utilizing open-source tools, universal design, and predictive impact analytics.



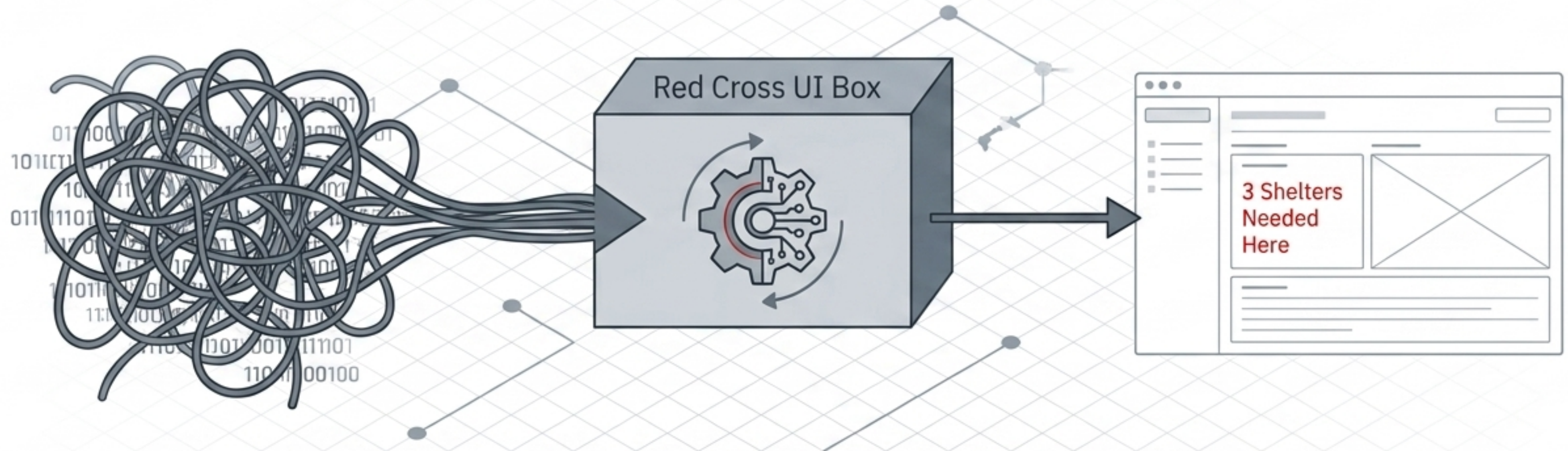
Managing the Human Side of AI

Deploying AI to a massive volunteer base requires understanding user psychology. We must map our workforce's readiness to tailor our toolsets, ensuring no one is left behind in the digital transition.



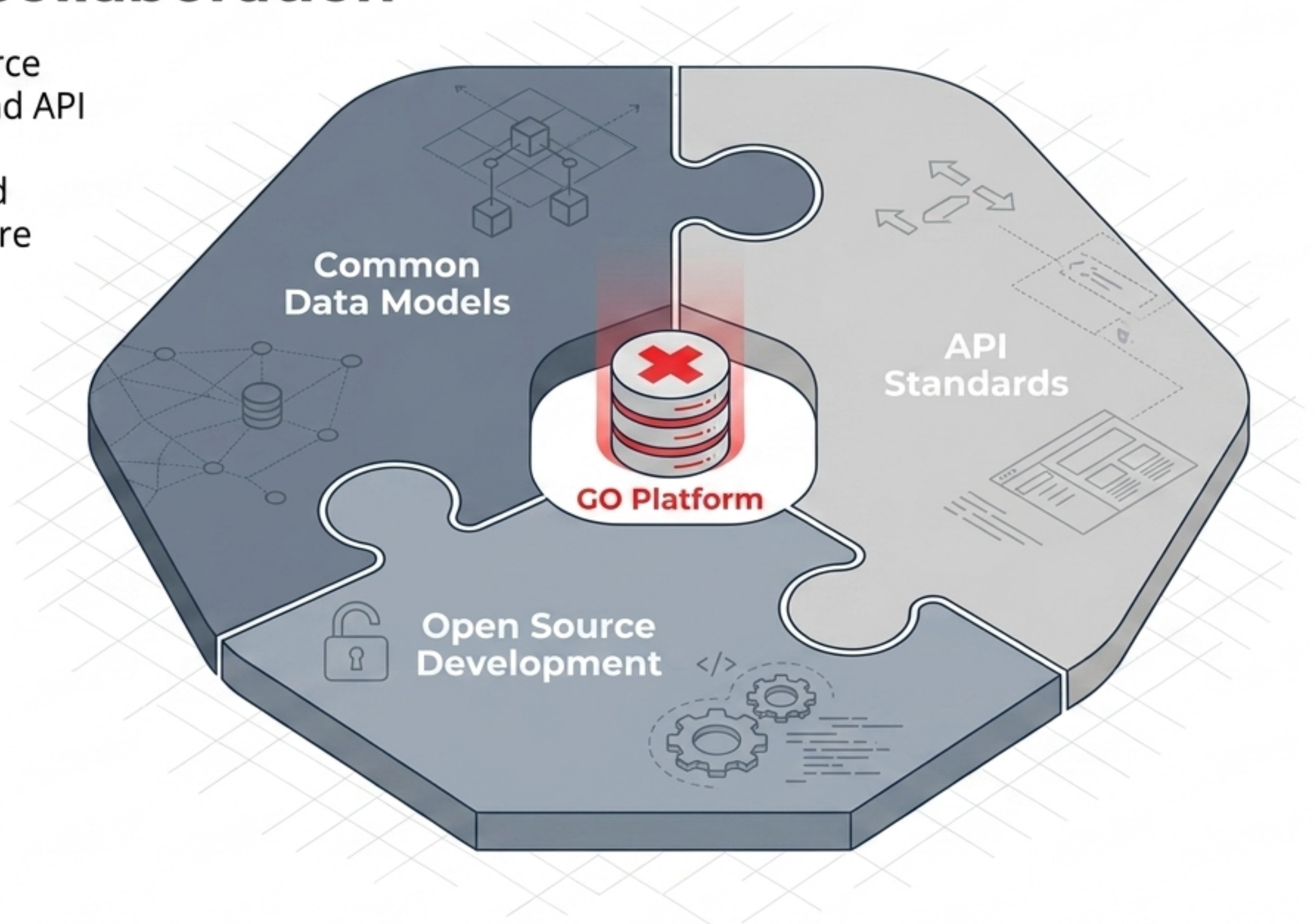
Designing for the Traditionalist

To successfully onboard tens of thousands of volunteers, spatial AI tools must be invisible on the front end. We require AI copilots, natural-language GIS, and plug-and-play dashboards that hide the backend complexity.



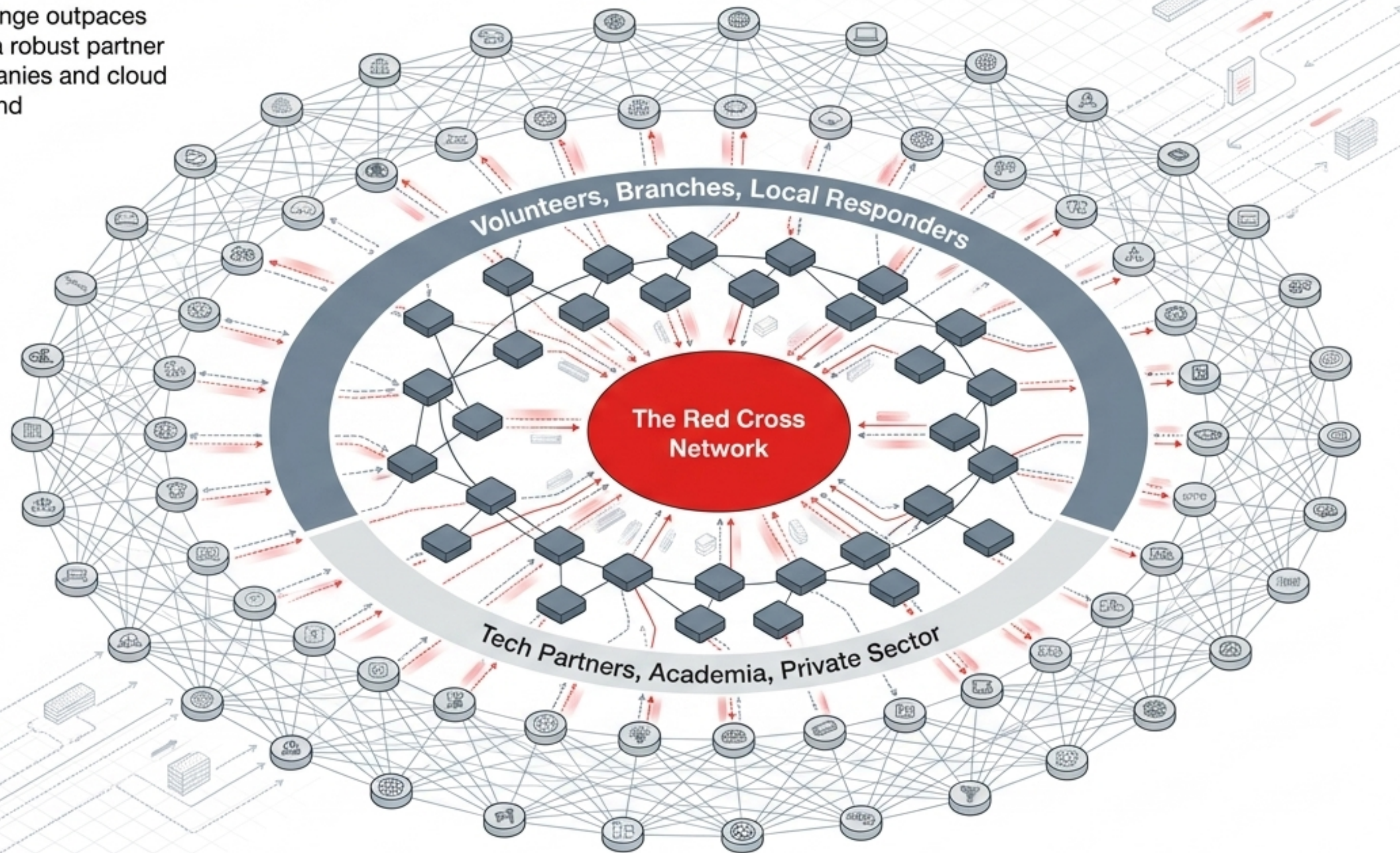
Interoperability: The Language of Collaboration

The IFRC is committed to open-source solutions, common data models, and API standards. We cannot afford data silos. Shared data responsibility and universal standards ensure the entire humanitarian network can share insights instantly.



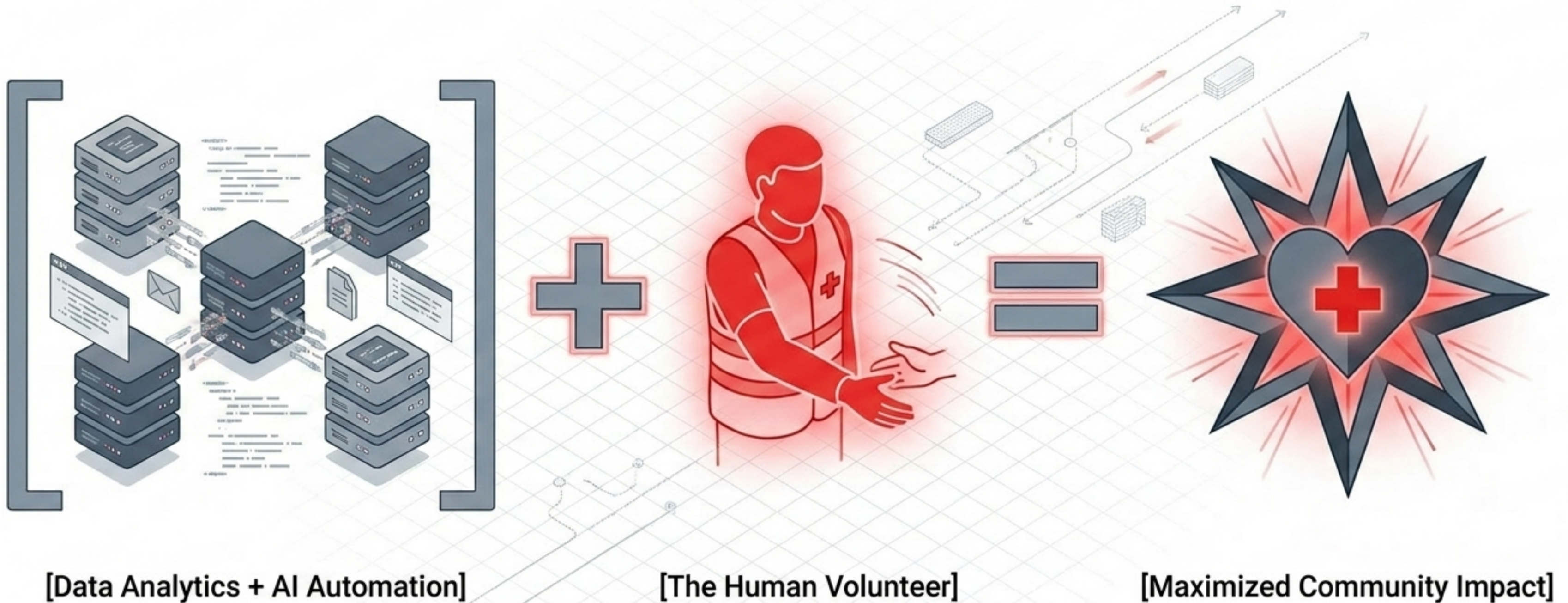
We Cannot Build This Alone

The scale of the humanitarian challenge outpaces any single organization. We rely on a robust partner ecosystem—from global tech companies and cloud providers to academic institutions and open-source communities.



AI Multiplies Compassion

AI does not automate empathy; it automates the administration of empathy. By allowing technology to handle data sorting, damage mapping, and logistics, we free up human volunteers to do what only humans can do: hold a hand, distribute a meal, and offer hope.



Map the Future With Us

The GIS community possesses the exact spatial skills required to build the next generation of humanitarian technology. Lend your expertise, help us build natural-language spatial tools, and partner with the Red Cross to turn geographic data into lifesaving action.



data.digital@redcross.org | Join the Humanitarian Innovation Network



Thank You



For technical partnerships and strategic inquiries:

data.digital@redcross.org

www.redcross.org/innovation