

# Artificial Intelligence in Development & Humanitarian Systems

Use cases, lessons, and IATI's  
role in responsible adoption

Dr Jack Lord · ODS Labs



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[www.opendataservices.coop](http://www.opendataservices.coop) | [contact@opendataservices.coop](mailto:contact@opendataservices.coop)

## Executive Summary

Artificial intelligence is no longer a future possibility – it's reshaping how decisions are made, services are delivered, and problems are understood. The development and humanitarian sectors are beginning to respond, but much of the activity remains surface level.

For The International Aid Transparency Initiative (IATI), this moment offers a clear opportunity: to lead by doing, and to help show what responsible, effective use of AI looks like in practice.

This report explores how AI is already being applied across humanitarian and development work – from anticipating disasters to improving internal operations, making sense of unstructured data, and reaching people faster. These real world use cases offer early signals of what's possible. They also point to the importance of near real time, open, and well documented data, something IATI is uniquely positioned to support.

The IATI Secretariat and wider community have started experimenting with AI, from smarter portfolio summaries to AI assisted translation and semantic search. These early efforts demonstrate value not just for data specialists, but for implementers, funders and governments who need insight they can act on. They show how AI can lower barriers to engagement with IATI data, and create new opportunities to support coordination, learning, and decision making.

Looking ahead, there is clear potential to build on this foundation. This includes improving how data is published and interpreted, expanding access for non-technical users, and working with others building public interest AI tools.

These are practical, achievable steps that will help IATI deliver on its promise of transparency, coordination, and shared progress.

# 1. Trends in AI

**Key Insight: AI is poised to reshape economies and societies worldwide. For any initiative aiming to drive change through technology, engaging with AI is a strategic imperative.**

Artificial Intelligence (AI) has expanded rapidly in recent years. Breakthroughs in machine learning, natural language processing, and generative models have led to the rapid development of powerful new tools, services, and approaches. These advances are reshaping economic, social, and political environments globally, prompting significant investment and policy attention.

Generative AI (GenAI), in particular, has become a “blockbuster technology” with enormous social and cultural impact. Adoption rates have outpaced prior technologies, with 40% of US working age adults reporting using GenAI in mid-2024.<sup>1</sup> Global investment has surged: funding for private AI companies exceeded \$100 billion in 2024, large tech companies plan \$300 billion of AI related capital expenditure in 2025, and governments are making significant funding commitments.<sup>2</sup> But this investment remains geographically unequal, with the US dominating.

AI is having a large and growing impact because it is now able to match or exceed human-level performance in a wide range of cognitive tasks. It offers several highly useful functions: summarising large volumes of information; performing complex reasoning and inference; and generating text, images,

and audio that enhance communication. AI ‘agents’ can use these capabilities semi-autonomously: understanding, planning and executing complex tasks with limited human supervision.<sup>3</sup> Meanwhile, the cost of using AI continues to fall, even as performance steadily improves.<sup>4</sup>

The rapid growth in AI capabilities has led to extraordinary levels of public and political interest in AI. Politicians, tech leaders, and academics have bracketed AI alongside technologies like the printing press, electricity or the internet, reflecting the belief that it will transform how people work, communicate, and interact.<sup>5</sup> The extraordinary nature of this discourse has also spurred policy interest, both in the positive potential for AI and in managing the potential downsides around environmental impact, disruption in jobs markets and the potential to reproduce or increase social biases and discrimination. Governments around the world are responding with national AI strategies and multilateral initiatives, such as the 2025 AI Action Summit in Paris, to establish common principles and governance frameworks for responsible deployment and funding for public interest AI.

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<sup>1</sup> [The Rapid Adoption of Generative AI, Federal Reserve Bank of St Louis](#)

<sup>2</sup> [Decade Of Disruption: How Megarounds, Global Expansion And AI Doubled VC Investment In 10 Years, Crunchbase](#); [Tech megacaps plan to spend more than \\$300 billion in 2025 as AI race intensifies, CNBC](#); [Trump announces private-sector \\$500 billion investment in AI infrastructure, Reuters](#)

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<sup>3</sup> [Through the Chat Window and Into the Real World: Preparing for AI Agents, Centre for Security and Emerging Technology](#)

<sup>4</sup> [DeepSeek-R1 Upsets AI Market With Low Prices, Statista](#)

<sup>5</sup> [Large AI models are cultural and social technologies | Science](#); [Artificial intelligence and our future | Bill Gates](#)



## 2. The UN System's Approach to AI

**Key Insight: AI's promise to accelerate progress on the SDGs is now widely recognised across the UN system. But while strategic ambition is high, implementation remains limited and often shallow in technical terms.**

Artificial Intelligence is attracting growing strategic interest across the UN system. UN Secretary General António Guterres called for "an AI that is shaped by all of humanity, for all of humanity", one that can "save lives, create jobs, foster progress and contribute to an innovative and inclusive future".<sup>6</sup> In 2024, the UN General Assembly adopted resolution A/RES/78/265, which recognises the potential for AI to advance the SDGs, while emphasising the need for AI systems to be "safe, secure, and trustworthy" and align with human rights and international law.<sup>7</sup> The 2025 Human Development Report suggests that, used intentionally, "AI can magnify the best of what humanity can achieve".<sup>8</sup>

UN bodies are increasingly experimenting with AI, with over 400 reported AI initiatives in the 2023 United Nations Activities on Artificial Intelligence.<sup>9</sup> UNDP has articulated a vision of inclusive, accountable, and pro-development AI, rooted in equity, sustainability, and global cooperation.<sup>10</sup> UNDP's 2025 "AI Sprint" will invest in "AI foundations, skillsets, and capacities to ensure we are able to support AI enabled development". UNDP is actively supporting countries to build inclusive AI

ecosystems by promoting policy frameworks, building institutional capacity, and offering tools such as the AI Landscape Assessment (AILA) to help governments assess their AI readiness and governance structures.<sup>11</sup>

But while the strategic commitment is clear, the integration of AI technology in individual projects tends to be limited, often focused on analytics, existing machine learning techniques, or pilot projects. This creates a significant opportunity for technical initiatives like IATI to play a leadership role by building credible, replicable AI implementations that lead to sustained real world impact.

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<sup>6</sup> [Artificial Intelligence Can 'Save Lives, Create Jobs, Foster Progress', Secretary-General Tells Seoul Summit](#), [Great Power, Greater Responsibility: UN Secretary-General Calls For Shaping AI For All Of Humanity](#)

<sup>7</sup> [General Assembly adopts landmark resolution on artificial intelligence](#) | UN News: A/RES/78/265 General Assembly

<sup>8</sup> [Human Development Report 2025](#)

<sup>9</sup> [UN AI Actions - AI for Good](#)

<sup>10</sup> [UNDP – Bending the AI Arc Towards Equity](#)

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<sup>11</sup> [Artificial Intelligence Landscape Assessment \(AILA\) | United Nations Development Programme](#)

### 3. AI in the Humanitarian and Development Sectors

**Key Insight:** IATI's broad and diverse network – spanning funders, implementers, partner countries, and civil society – gives it a unique vantage point in the development and humanitarian sectors. This cross cutting reach positions IATI to act as a connector and convenor: surfacing high value AI use cases and shaping them in close dialogue with those who need them most.

AI has the potential to significantly improve the impact of humanitarian and development work. Across the sector, there are growing signs that this potential is starting to be realised: AI is being adopted in different settings and, in some cases, is already changing how programmes are delivered and decisions are made.

The following key themes highlight how AI is already being applied in ways that improve the impact of humanitarian and development efforts:

#### AI Augmented Delivery

AI is helping organisations expand the scale, speed, and precision of their activities, reduce bottlenecks and personalise support. The International Rescue Committee (IRC) is using AI across a number of areas, including signposting services in crisis zones, anticipatory support for those affected by natural disasters, and providing personalised education.<sup>12</sup> Healthcare is a particularly high potential area. AI is being used, for example, in triage services, helping to prioritise patients, route cases appropriately, and support more responsive health interventions in low resource settings.<sup>13</sup>

#### Organisational Effectiveness

AI is being used to strengthen internal systems and processes that underpin humanitarian and development programmes. One example is GANNET, an AI powered system that assists humanitarian responders by generating near real time situation reports from trusted data sources. By automating the scanning, compilation, and interpretation of data, GANNET supports more timely and informed operational planning in crisis contexts.

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<sup>12</sup> [The International Rescue Committee named one of Fast Company's Most Innovative Companies of 2025 | International Rescue Committee \(IRC\)](#)

<sup>13</sup> [Enhancing Maternal Healthcare: Training Language Models to Identify Urgent Messages in Real-Time](#)



## Access to Digital Public Goods

AI can play a role in building and improving the impact of digital public goods. For example, the AI powered global tree canopy height map developed by the World Resources Institute (WRI) and Meta can be used for land use monitoring and planning and improved environmental governance.<sup>14</sup> The IMF is testing StatGPT, a system that will allow natural language querying of its microeconomic datasets.<sup>15</sup>

There is also growing recognition that public interest AI should itself be treated as a form of digital public good, which means building or fine tuning open AI models that are transparent, modifiable and free for anyone to use.<sup>16</sup> Doing so will require access to high quality, well documented open datasets, such as the IATI corpus.<sup>17</sup> Investment and policy interest in this area is increasing, with donors and development agencies exploring ways to fund the infrastructure, governance, and community support needed to build and sustain public interest AI ecosystems.<sup>18</sup>

## Better Decision Making

AI is increasingly being used to generate insights where conventional data systems are weak or incomplete, and to make use of the data that exists. The Global Initiative on Resilience to Natural Hazards through AI Solutions is a collaborative UN effort to prepare for and reduce the impact of disasters.<sup>19</sup> The NOVISSI cash transfer programme in Togo used satellite imagery and mobile phone data to identify vulnerable recipients during COVID-19. This AI driven social protection initiative reached over 900,000 people, demonstrating how AI can inform emergency response in the absence of a dynamic social registry that can help social systems find and assess potentially eligible individuals.<sup>20</sup>

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<sup>14</sup> [Using Artificial Intelligence to Map the Earth's Forests - Meta Sustainability](#)

<sup>15</sup> <https://statgpt.dialx.ai/how-it-works>

<sup>16</sup> [Digital Public Goods Alliance - Open Data for Public Interest AI. The Open Source AI Definition – 1.0](#)

<sup>17</sup> [A Fourth Wave of Open Data? Exploring the Spectrum of Scenarios for Open Data and Generative AI](#)

<sup>18</sup> [Current AI](#)

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<sup>19</sup> [Global Initiative on Resilience to Natural Hazards through AI Solutions](#)

<sup>20</sup> [Novissi Togo - Harnessing Artificial Intelligence to Deliver Shock-Responsive Social Protection \(English\)](#)

## 4. AI and IATI

**Key Insight: AI is already unlocking new ways of engaging with IATI data – making it easier to search, summarise, and identify funding trends. These early use cases demonstrate the potential for generative AI to significantly improve data accessibility and usefulness across the development sector.**

There is growing interest in the potential for generative AI to unlock new ways of engaging with International Aid Transparency Initiative (IATI) data. These applications aim to make complex datasets more usable, interpretable, and accessible – supporting funders, implementers, and researchers to better understand aid flows, identify opportunities, and coordinate action.

In particular, we see use cases emerge around four themes:

### Activity Identification

One of the most promising applications involves identifying thematic patterns in funding, for example, isolating activities related to food security, digital public infrastructure, or renewable energy. This capability is critical for those tracking sector wide trends or planning new programmes, and it also supports knowledge sharing by showing “who is doing what, where”.

AI-based activity tagging builds on existing natural language processing and machine learning techniques<sup>21</sup>, but the use of LLMs and retrieval based approaches should increase accuracy. The Secretariat has developed a proof of concept analytical tool that adds information extracted from linked documents to the information available about an activity when searching.

### Improving Services

Experiments are underway across IATI systems to test how AI can improve functionality and support users more effectively.

AI-assisted translation of technical documentation is already in production, helping reduce the cost and complexity of providing guidance in multiple languages. Developers are also trialling AI based code generation and improvement tools, using AI to support product prototyping, and testing its utility in streamlining technical guidance.

Additional use cases include using AI to detect and resolve duplication or ambiguity in content and documentation – helping improve the efficiency and clarity of IATI’s communications.

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<sup>21</sup> [Is climate finance wrongly reported by over a billion dollars per year? Development Initiatives](#)



## Portfolio Summarisation

Generative AI is being tested to summarise large portfolios of IATI data by theme, geography, or organisation. This supports programme analysis, benchmarking, and strategic planning across funders or implementing agencies. The FCDO funded DevExplorer project is a leading example, enabling portfolio level narratives built from the underlying structured data and linked documents published in IATI. Relevant subsets of the data analysis can then be analysed using natural language, for example identifying common implementation difficulties across programmes.<sup>22</sup>

## Discoverability

Agencies such as Germany's BMZ and UN Women are exploring AI powered search functions over IATI and internal datasets. These tools use semantic understanding of user queries to return relevant project activities and documents, improving the discoverability of data and supporting richer user experiences while maintaining trust through careful presentation and limited processing.<sup>23</sup>

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<sup>22</sup> [DevExplorer: DevExplorer – AI and International Development](#)

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<sup>23</sup> [Meet our new AI - powered search: IATI Community Exchange 2024](#)

## 5. AI and the Future of IATI

**Key Insight:** To lead on responsible and effective AI for development, IATI can take a dual approach: invest in technical innovations that make data easier to publish and interpret, and position itself as a trusted partner in the growing ecosystem of public interest AI. 2025 offers a clear opportunity to embed this focus in IATI's strategic direction – making AI a practical thread within the new Strategic Plan.

Fully realising the potential of AI means acting at two interconnected levels: supporting strategic development at the initiative level, and targeting technical and service capabilities in high impact areas.

### At the initiative level:

#### **Positioning IATI as a leader in applied AI in the aid and development sectors**

IATI has a unique role to play as an enabler of AI and an implementer and convenor of responsible innovation in the aid and development sectors. Its distinctive combination of structured and unstructured data, wide network of stakeholders, and long-term work on transparency and coordination provides a strong foundation. There is scope for IATI to continue applying this foundation in innovative ways – supporting AI use that is grounded in context, open by design, and driven by shared benefit.

#### **Building partnerships and funding pathways for public interest AI**

IATI data is already being used in generative AI tools and exploratory pilots. With targeted investment and partnership building, the data standard and corpus could be further developed to support public interest AI applications – from training transparent models to building shared infrastructure. There is growing funder interest in this space, and IATI can help shape the narrative

on what ethical, high quality, and openly governed AI inputs look like in practice..<sup>24</sup>

#### **Building an 'AI offer' that demonstrates the value of IATI data and membership**

AI presents a new way to engage with IATI data – making it easier to navigate, summarise, and use in everyday decision making. Beyond transparency, the data can help users understand, coordinate, and improve activities across organisations – but this potential is only unlocked when data is both well published and well used. AI can support both sides of that equation: improving data usability and showing funders, implementers, and governments the tangible value of participation.

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<sup>24</sup> Funding opportunities might include: updating the IATI Standard to better support model training and use with AI tools; working with reporting organisations to improve the coverage and suitability of their data for this purpose; using AI to streamline publication workflows and improve the quality and coherence of IATI data, e.g. reconciling organisational references; expanding coverage of unstructured document data, such as reports, strategies and impact assessments, in order to allow AI tools to find and analyse relevant information; implementation of AI augmented decision making platforms in partner countries.



## **At the technical and service level:**

### **Using AI to improve operational insights**

AI can enable the IATI Secretariat to gain faster, more granular insights into data quality issues and emerging trends across the dataset. These insights could feed directly into publisher support and community engagement, allowing the Secretariat to act more responsively and proactively.

### **Strengthening traceability and data networking through AI**

AI tools such as entity recognition and matching can help augment the IATI dataset by linking entities across activities and organisations. This could unlock new forms of traceability – such as tracking the flow of funds across implementers – or help surface networks of related work across themes, geographies, or delivery chains.

### **Exploring and promoting the potential of unstructured data within the IATI corpus**

IATI directly links activities to unstructured document data that contain a wealth of untapped information on development and humanitarian activities. AI tools are well suited to making sense of data of this kind, and the IATI Standard provides the grounding to make this information reliable and actionable.

### **Using context to augment IATI data**

AI tools have access to real world knowledge that can be combined with the specific details in a document to generate new, usable information. For example, it may be possible to classify activities in Pala as being in Chad, even if the document never mentions Chad explicitly.

### **Improving discovery, analysis and visualisation for non-technical users**

IATI is necessarily a complex data standard, which has created a high technical barrier to entry. Advances in AI tooling mean that there is an opportunity to make the insights in the IATI corpus accessible to a much wider audience through natural language search, analysis and visualisation.

### **Identifying related and thematic activities to enable collaboration**

AI tools can help identify clusters of related or complementary activities – enabling collaboration, learning, and alignment between organisations. This is a well established AI use case, and shared tooling in this space could add tangible value for the sector.

### **Reimagining the architecture of data quality and publication**

AI tools could help reduce the burden of publishing data, especially for smaller organisations, by generating structured IATI data from reports or project documents that could then be checked by humans. AI could also support easier data publication by enhancing interfaces and workflows, for example by suggesting sector codes, finding organisational identifiers or allowing users to ask questions within tools like IATI Publisher. AI could also be used to augment existing data quality diagnostics through approaches like anomaly detection and pattern recognition.

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## **Improving the interpretability, explainability and relevance of IATI data.**

AI can add value to IATI data by making it easier to understand and apply. This includes matching up data across activities and organisations, for example, resolving when different entries refer to the same implementing partner or location. AI can also help interpret IATI data in the context of the reporting organisation's programmes, budgets, or geographic footprint, providing users with clearer insight into how individual activities fit within a larger strategy and operating model. Finally, AI can help link IATI data to other relevant datasets and sources of real world knowledge, enhancing the interpretability and practical relevance of the information it provides.

## **Making AI a visible, integrated part of IATI's future direction**

There is an opportunity in 2025 to make IATI's AI work more visible and intentional – aligning it with the initiative's strategic direction, work planning, and community practice. Several avenues can help embed this focus more deeply across the initiative:

### **Integrating AI into IATI's Strategic Plan**

Incorporate these priorities explicitly into IATI's long term strategy, ensuring alignment with the initiative's vision for transparency, effectiveness, and innovation.

### **Creating space for dialogue and co-design**

Member meetings, Technical Advisory Group forums, and community channels offer valuable opportunities to explore shared priorities, test emerging use cases, and shape IATI's AI direction through open conversation.

### **Linking AI to near term delivery**

Upcoming deliverables in the Work Plan provide a practical way to showcase the value of AI – by embedding tools into services, surfacing insights, and grounding the discussion in real user needs.

### **Building strategic partnerships**

There is growing interest in co-designing AI approaches that serve the public interest. IATI is well placed to work with funders, implementers, and research institutions to pilot new use cases, shape shared infrastructure, and develop sustainable models for AI investment.

## Conclusion

Artificial intelligence is already reshaping how development and humanitarian work is delivered, understood and improved. With its unique role as both a data standard and a global community, IATI is well positioned to bridge structured and unstructured data, connect technical innovation to real world outcomes, and support the responsible use of AI for public good.

Early experiments across the Secretariat and the wider community show the value AI can deliver, from smarter search and summarisation to more intuitive ways of engaging with complex datasets. These first steps point to a much larger possibility: embedding AI across IATI's strategy, services and partnerships to lower barriers to data use, strengthen insight and collaboration, and make transparency more actionable for funders, implementers and partner countries.

Making progress in this space will depend on deliberate, practical steps – including improving data quality, making unstructured information easier to interpret, and developing tools that support wider access and understanding.

By supporting early adoption of generative tools, strengthening the foundations for AI ready data, and helping organisations translate insights into action, IATI can help demonstrate how open data infrastructure enables more effective, transparent, and inclusive development outcomes.

## About Open Data Services

This report was developed by Open Data Services, technology delivery partner for the International Aid Transparency Initiative. Open Data Services help mission driven organisations use data to tackle global challenges and deliver lasting change.

We work alongside governments, multilaterals, charities, academics, and social innovators to design and deliver practical data initiatives – shaping strategies, developing shared standards, building tools, and analysing complex information to generate clear, actionable insights.

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## About the author

Dr Jack Lord is a specialist in the design and delivery of data initiatives. He has advised a range of organisations on strategy and implementation, including Sport England's OpenActive, the Scottish Government, and Open Telecoms, a joint project of the World Bank and the International Telecommunication Union.



## About the International Aid Transparency Initiative (IATI)

IATI is a global initiative to improve the transparency of development and humanitarian resources and results in the following ways:

- IATI offers access to data on international resource flows from over 1600 organizations, including bilateral and multilateral donors, development finance institutions (DFIs), NGOs, and private sector organizations;
- IATI data is open and accessible to anyone in the world. For example, search the data on IATI's Country Development Finance Data tool;
- Governments are increasingly using IATI to track resource flows into their countries. The data is being used in development cooperation reports and national budget planning and to supplement data in national aid information management systems (AIMS).