



RESPONSIBLE AI

To enable flourishing in
and by Low- and Middle-
Income Countries (LMICs)

White Paper 01, July 2025

RAi UK White Paper Series

Our Mission: Translating Ideas into Impact

The Responsible AI UK (RAi UK) White Paper Series presents interdisciplinary, thematic studies exploring how to responsibly harness the opportunities of artificial intelligence across key priority areas. Each paper aims to translate research into tangible impact.

As the national convenor of the UK's academic AI ecosystem, RAi UK brings together leading voices from **academia, government, industry**, and the **third sector** to deliver holistic assessments of the most pressing opportunities and challenges in responsible AI – and to catalyse action.

This series is designed to drive momentum by:

Convening the ecosystem, challenges, and opportunities

Collaborating with the people and organisations best placed to act

Catalysing real-world change by informing and inspiring action

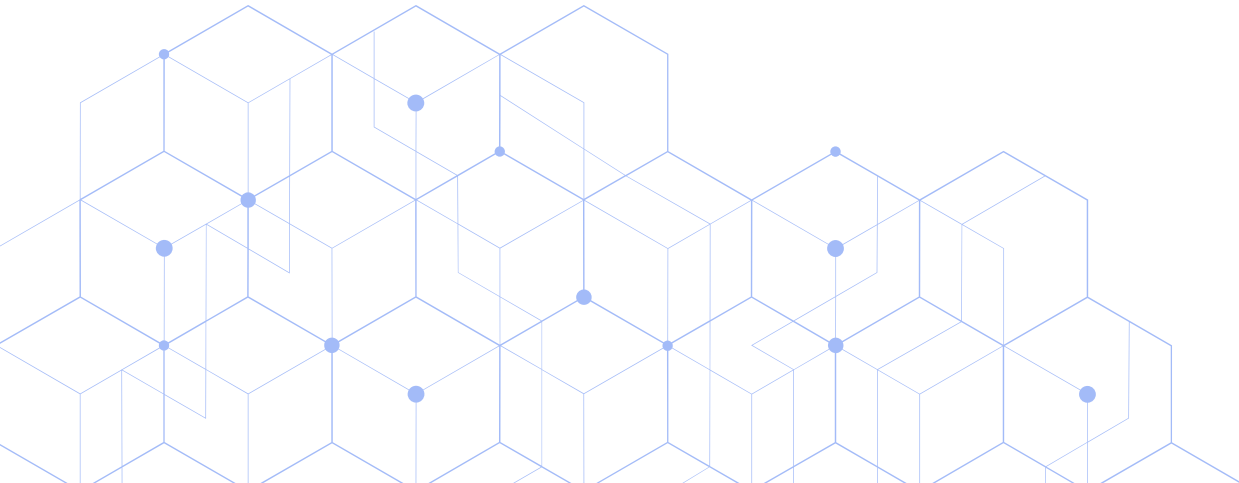
Current and Forthcoming Papers

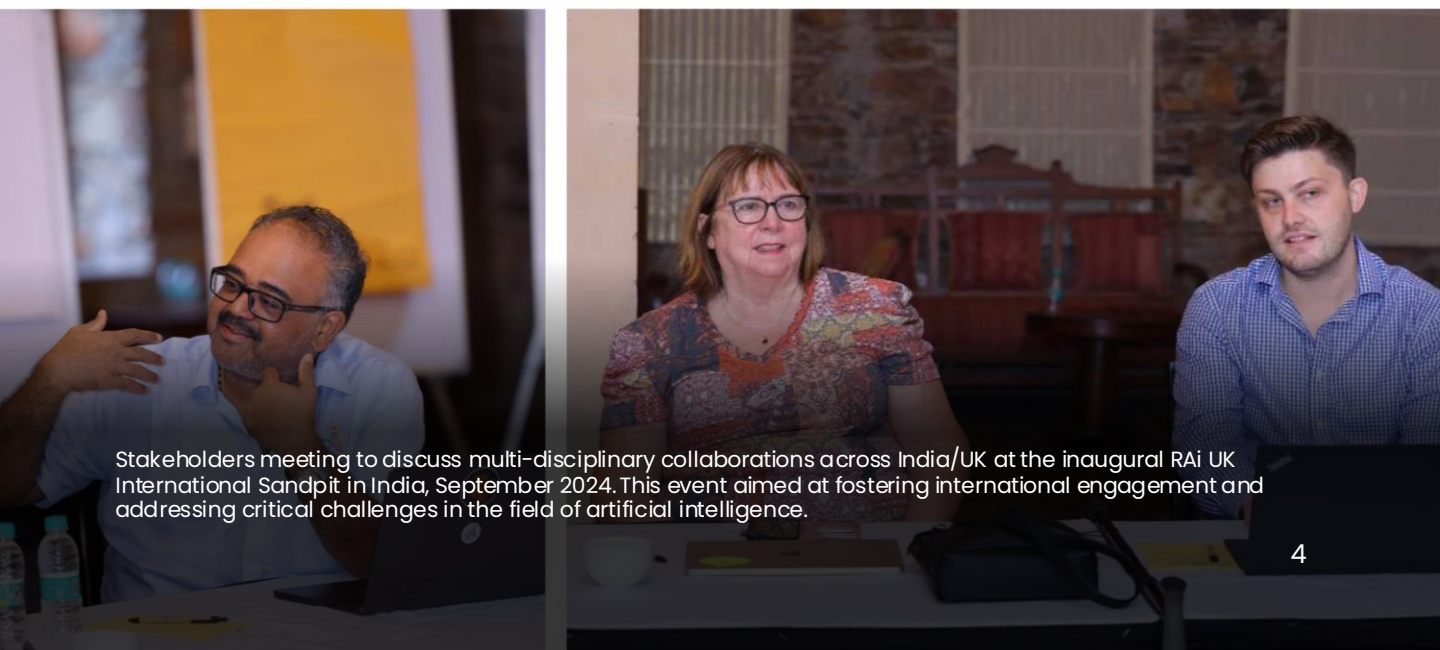
- *Responsible AI to Enable Flourishing in and by Low- and Middle-Income Countries (LMICs)*
- *Frameworks and Toolkits for Assuring Responsible AI*
- *Advancing Trustworthy Artificial Intelligence: Lessons Learned and Emerging Challenges*
- *Responsible AI & Healthcare* (December 2025)
- *Responsible AI & Education* (December 2025)

Have an idea for a future paper or interested in joining a future workshop?
We welcome suggestions. Get in touch: info@rai.ac.uk

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Stakeholders meeting to discuss multi-disciplinary collaborations across India/UK at the inaugural RAI UK International Sandpit in India, September 2024. This event aimed at fostering international engagement and addressing critical challenges in the field of artificial intelligence.

Executive Summary

This report explores how governments and industry in Low- and Middle-Income Countries (LMICs) might adopt AI to serve the values, needs and aspirations of individuals and communities, and drive the achievement of development goals. It draws on RAI UK projects working with partners in India and Indonesia and in countries in Africa and in South America, and identifies challenges, early solutions and policy implications.

The aim is to identify priority areas and questions for RAI UK and other researchers and organisations to explore further. In this report we focus on the emerging challenges and other outputs of research on AI for LMICs.

We convened leaders and members of projects that explore embedding AI tools and resources that are sensitive to local, cultural norms and end-user experience through co-creation with communities. Researchers from the following projects presented their findings and reflections:

- **RAISE:** Responsible Generative AI for SMEs in UK and Africa
- **For the FATES of Africa:** A Co-Developed Pipeline for Responsible AI in Online Learning Across Africa
- **Amplify:** Empowering Underserved Voices in Spoken Language Interaction in India and Africa
- **Responsible AI Networks for Industries and Governments in Latin America**
- **AEGIS:** Automated Empathy: Globalising International Standards: Japan and Ethically Aligned Regions
- **Off-grid AI Deployments:** Re-gearing AI Model Development Through Community Co-Design

In addition, 26 workshop attendees were asked to reflect on presentations from:

- **Global Center on AI Governance**
- **Robotics for Global Development**, a project by UK's Foreign, Commonwealth, and Development Office (FCDO) and Frontier Tech Hub

This White Paper summarises the discussions of participants during the workshop.



Poster display at AEGIS workshop, National Institute of Informatics, Tokyo, Japan, June 2024. Photo credit Ben Bland.

Limitations, Barriers and Risks

Globally, development of AI is disproportionately concentrated in certain places and organisations and for the objectives of those organisations, most of them very large international technology companies. That means AI is not being developed in, or for, the majority of contexts around the world. Following current trajectories, many populations will remain comparatively underserved by AI developments. In particular, intersectional gendered inequalities across the entire AI value chain present risks to the achievement of gender equality.

Where it is applied, AI developed elsewhere can often be a poor fit for the needs of many communities. Users may experience design disjunctions when products designed and built in urban China are used in rural environments in African countries. The need to design for diversity is practical as well as ethical. Indonesia for example has over 600 ethnic groups, converses in over 700 languages, and has many more dialects. While Islam is the leading religion, it is only one of six officially recognised religions, alongside hundreds of indigenous spiritualities. As AI is integrated into everyday life, these differences matter. Where AI is developed, constraints on skills, finance, access to markets, computing infrastructure and

connectivity can all limit impact.

Disparities may be greater with AI than with other technologies, because AI can be infrastructurally demanding. Inadequate or inaccurate data make it hard to develop bespoke models, use-cases and solutions that succeed in context, even where they are promising in principle. Costs and benefits can be distributed unequally, replicating or exacerbating existing inequities. Available online resources may require skills like speaking English, that are unevenly distributed.

‘Big Tech’ corporations – which mostly means US-based global majors but in some regions includes other incumbent technology companies – have market presence and power that influences what is offered and available, how decisions about technology are made, and regulations. The market presence and power of international digital companies can crowd competing local innovation, leading to monopolies and extractive practices. Also as elsewhere, hype around Generative AI has led to some adoption where it does not offer good solutions to the challenges it is applied to. Transplanting some tools, for instance Generative AI models developed in the US, can even limit what options are explored.



Participants at FATES of Africa workshop, Nairobi, Kenya. Photo credit: FATES project team.

Costs condition many decisions. Small and Medium Enterprises (SMEs) use models that offer free or lower cost services, use less computing power, and use cloud systems which are mostly developed outside the continent.

Local storage systems are either non-existent or very expensive. International reputation and recognition are influential. The RAISE project reported that some African customers appear to prefer non-

African Large Language Models (LLMs) solutions over African, whereas some others sought local solutions and rejected dominant western technology as part of a neocolonial project. A hyper scaler data centre may consume 450MW+, while a developing country city may need about 2GW - which is about 5 data centres. For comparison, Meta is building a data centre in the US that is 2.3GW.

In many global south economies, Big-Tech partners with local IT, IT enabled services (ITES), telcos or other incumbent conglomerates. Examples of recent investments are shown below:

India:

Reliance is in talks with NVIDIA on ChatGPT (for hosting OpenAI models locally in India). Reliance to build a new 3GW data centre in Gujarat (state in India), for local hosting of AI models.

\$1 billion

Thailand:

Google to invest \$1 billion in Thai Data centre cloud infrastructure.

\$1 billion

Kenya:

Microsoft 'AI for Good' lab in Kenya. Microsoft & G42 to invest \$1 billion in green data centre and cloud.

\$8.7 billion

Malaysia:

Microsoft investment of \$2.2 billion cloud and AI Infrastructure development. Oracle: \$6.5 billion in Malaysia as AI for public cloud region.

\$1.7 billion

Indonesia:

NVIDIA partnership with telco PT Indosat to build an AI centre. Microsoft investment of \$1.7 billion in cloud and AI infrastructure and training Indonesian talent in AI skills.

In many of these contexts, among companies and wider publics there is often a lack of knowledge and of trust relating to AI. Skepticism has positive value where it makes for intelligent customers and critical evaluation, but lack of engagement and suspicion can make it difficult for local innovators to obtain support and get started.

Across our projects, experiences have broadly borne out the expectation that directly transferring AI tools and governance from the US, China and Europe into different contexts often fails, or produces unacceptable risks and outcomes, including exacerbating inequalities.

Many of the obstacles appear not to be specific to generative AI or responsible AI, appearing across applications of AI and some other digital technologies, but they can be particularly acute for AI. AI powered online learning, for instance, can be comparatively demanding in network and infrastructure terms. The long-discussed problem of digital divides between and within countries can exacerbate the problem. While AI technologies may offer the promise of overcoming such divides, in practice the opposite effect can frequently be observed.



Researchers and mentors at the inaugural RAI UK International Sandpit , co-hosted with the Centre for Responsible AI (CeRAI), Neemrana Fort Palace, India, September 2024.

Opportunities

The projects discussed at the workshop have increased knowledge of where specific barriers are, and how they can be addressed, in particular about what works in learning and sharing around AI in these contexts. Local deployments benefitted from locally-developed solutions, and have generated potentially transferable learning. One example is the Artificial Intelligence for Development (AI4D) programme, which is a partnership between FCDO and Canada's International Development Research Centre (IDRC). IDRC has supported networks including the Hub and Network for AI in Maternal, Sexual and Reproductive Health (MSRH) in Sub-Saharan Africa to design locally led innovations.

Participatory innovation, agile tech infrastructures, open source libraries, technology transfer networks, digital platforms, online learning and other functions can all support beneficial deployment if effectively embedded into local contexts. LMIC innovations increase the diversity of technology and add to the global range of tools to address global problems.

Overall, there appears to be a lack of guidance specifically about adapting approaches successfully across different contexts. The projects discussed directly address that in different ways, and we can explore how to expand effective support. It

was noted that labelling certain approaches as "effective in LMICs" without sufficient understanding and practical guidance on adapting to local ecosystems could be damaging and wasteful.

There was strong appetite for approaches that can have a multiplying effect through education, empowerment and best use of resources. If online learning can be adapted through methods that realise its potential in different environments, it can increase skills, access and capture of economic and social benefits. SMEs are already using Generative AI to improve efficiency in software development. A survey by E&Y in India with 500 roles in IT/ITES points to productivity gains from using Generative AI in software development and IT consulting.

There are really exciting opportunities for AI to preserve and sustain culture in unwritten languages, while giving practical support to communities for communication for economic engagement. Guidance on low and no internet solutions for online learning can grow capability to use AI. Assistive tools for visual impairment can bring people back into wider communities and workforces. Successful use-cases in the digital payments domain can propel other economic and social impact.



Launch event for CENIA's Latin American Index of Artificial Intelligence, Santiago de Chile, September 2024.
Photo credit: Responsible AI networks for industries and governments in developing countries, Latin America project team.

It is necessary to be realistic about the maturity of governance and infrastructure and how those affect implementation of innovations in LMICs. Bottlenecks in access to software, hardware, data and connectivity are recurrent challenges. Approaches that can reduce those constraints or the effects of those constraints may offer generalisable opportunities.

Actions to promote responsible AI globally will need to be dynamic, considering the rate at which technology is changing. The adoption of artificial intelligence may well create more inequalities within societies that are already highly and persistently unequal. Responsible adoption of AI should avoid increasing existing inequalities. Responsible AI is not an independent phenomenon. It needs to be seen in the broader contexts in which it materialises which means in the context of global and local inequalities, and exploitative international relationships. Responsible AI may play a role in alleviating pre-existing inequalities but will not on its own be able to overcome them.

It is common practice to mediate access to technology co-creation through local partners. However, grassroots organisations must navigate existing social structures and hierarchies, which have persisted for centuries. Challenging these entrenched power dynamics for the sake of equitable access in development projects may not always align with their interests. Given the diversity of communities, a continuous, social science-driven approach is essential to ensuring equitable access when introducing innovative technologies in rural contexts within LMICs.

The sectors where there is highest potential for gains include healthcare (and specifically more personalised healthcare at scale), education, financial consulting, journalism, climate change solutions, ethical governance systems, waste management, and disaster risk reduction. Technology applications designed for education and health can be difficult to scale across communities and contexts, but that is where richer, more respectful and more rewarding technologies can be developed.



RAISE team visit to AI Technologies for Africa (AITECAF), Cameroon. Photo credit: RAISE project team.

Governance and Regulation

Many LMICs are creating policies, programmes and institutions at pace to address the governance and regulation challenges related to AI. While high-income countries might be seen to have an advantage in this regard given their existing cognate regulatory frameworks, there may be opportunities for LMICs to “leapfrog”, less burdened by legacy (see links in Additional References section).

The Global Index on Responsible AI found that efforts to govern AI responsibly and protect human rights were comparatively lacking in countries across Africa and the Majority World. The African Union has recently published a Continental Strategy on AI (2024), which is being adopted by member states in the region as a blueprint national AI strategy. An Implementation Plan outlining activities, priorities and necessary resources has been developed by the African Union Commission but has yet to be published.

Innovators in LMICs, as much as those elsewhere, need to find balance between driving innovation, respecting data governance and avoiding excessively extractive practices. They do not necessarily see models internationally who have done that and are relevant and visible to them, to help them avoid ethical misalignment and establish appropriate transparency. Harmonisation across laws and policies can enable scaling. Jurisdictions diverging – even for sound local reasons – from regulatory

approaches from the US and Europe could result in fractured markets. However, there are (and probably should be), different motivations at work in AI governance, differing across places because of local priorities. Therefore, there are ongoing challenges in agreeing commonalities while not imposing inappropriate external models. LMICs are not only technology takers but also regulation takers, adopting regulation or regulatory frameworks designed for the European Union or the United States, with the EU framework focused on risk mitigation and the more on innovation.

There is a lack of diversity in global conversations and decision-making around AI. We are not aware of many Global South organisations undertaking civil society or community impact research on Generative AI or AI in general. Research from the Brookings Institute shows how current AI safety frameworks frequently overlook the lived experiences of communities across Global Majority nations.

There is strong demand in LMICs for support on policy, human rights and risks, in industries with increasing use of artificial intelligence, particularly finance, and from regulators and policy makers. Universities and civil societies play crucial roles in places where governments were doing little on issues around bias, discrimination and human rights. There can be a lack of awareness about data rights and how they can be exercised.

Coffee BAR



Paschal Ochang (RAISE) and the CEO of Upeolabs, Kenya.
Photo credit: RAISE project team.

In the research for the Global Index, gender and children's rights were the lowest scoring in terms of themes addressed, with only two countries across Africa citing gender equality in national AI frameworks, and none addressing children's rights.

Projects have delivered insights into how regulation is being made in countries and regions, which could provide better evidence-based support to policymakers choosing regulation for their contexts and priorities. It would be helpful to develop knowledge of who is "copying and pasting" regulation, and why, and whether that maps across to different kinds of polity, political structure, regime and orientation. Equally it will be helpful to know more about examples where public participation is being used to adapt regulation from elsewhere to local priorities and contexts. There are also instances of effective governance, where the local community has been involved previously within the local context.

Evidence on success or failure may offer more generalisable insights. The FCDO-funded AI4D programme has a pillar on policy and regulation, linking local universities with governments to reduce dependence on international partners. This has resulted in continued deep policy engagements in Ghana, Kenya, Senegal, and South Africa and emerging ones in Benin. Although the primary object of the labs is to strengthen capacity, they have also become hubs of innovation and national centres of excellence and are being called on by local governments to speak to issues of

policy. Publishing examples and terms of working with lawmakers and decision makers could replicate collaborative environments that involve public, private and third sectors to achieve robust but adaptive regulation.

Governments trying to develop policy on AI are in a highly contested political space where there is a lack of reliable evidence, but a lot of marketing and news media talk about an AI race which countries should not fall behind in. We should seek to understand the pressures they are under, as they experience and describe those pressures. AI replacing jobs is absolutely a concern for policymakers but not for innovators, and policy-makers need to deal with those conflicts. AI ethics also have political dimensions, which can change over time with economic conditions and political inclinations and priorities. Appetite for action for social good can be intermittent in politics and institutions, as we have seen with Meta and fact-checking. That appetite may also come and go among innovators and start-ups, so there are pragmatic arguments for supporting it when it does appear.

To support policy-makers to enable safer adoption of AI solutions, we need more robust evidence of what impact responsible, participatory and inclusive approaches can have. Responsible AI needs to be seen as advantageous. The case has to be proven that AI codesigned with communities and serving them broadens overall economic benefits.

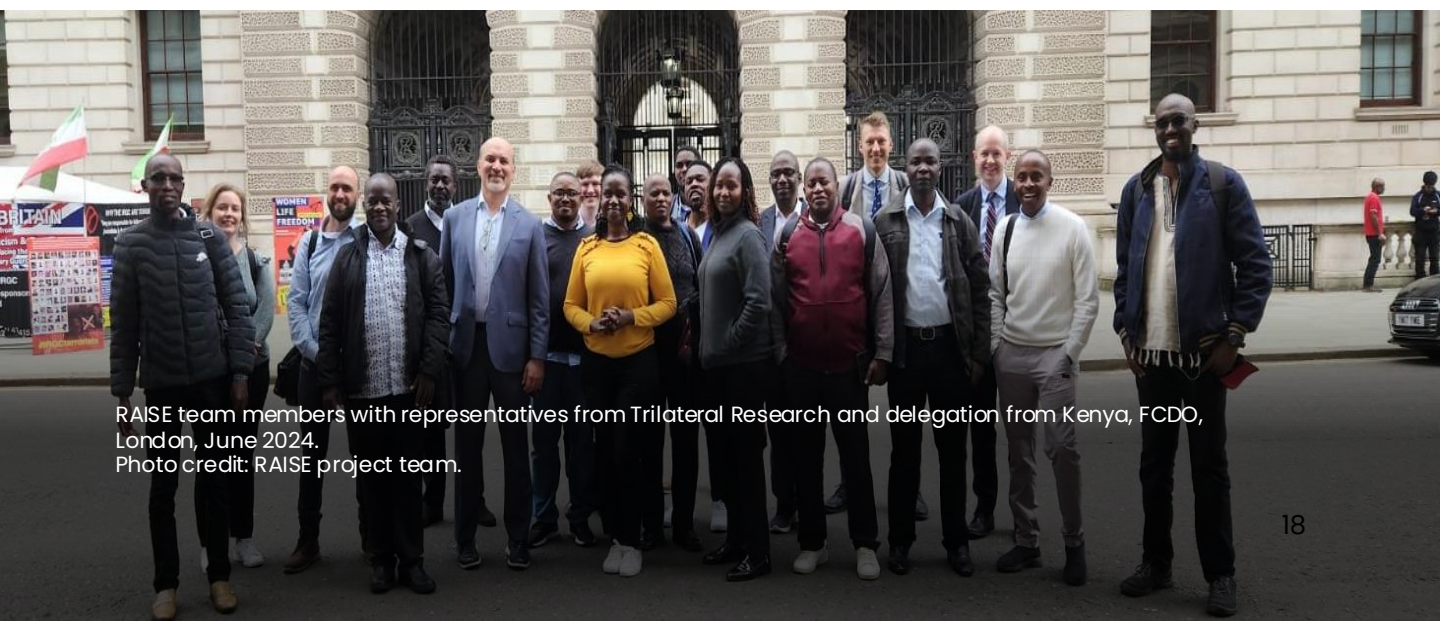
Projects found demand for information and other support for self-regulation by the private sector. In some contexts, projects encountered uncertainty about what the local regulatory requirements mean in practice in different sectors, so there may be demand for clarification. The best solutions may not be in law, but contextual regulation or standards, developed with industry.

Responsible AI could be viewed from ecosystem perspectives. We might further develop understanding of functional ecosystems in LMIC contexts, to understand what introducing AI can do in and to an existing ecosystem, and which actors (including regulators, universities) and levers could have the most positive influence. That could be national ecosystems, which would be different kinds of system across UK, Kenya and Nigeria. There are also application ecosystems for instance healthcare, or technology ecosystems. Guidelines arguably play a role in this space, but better evidence would be helpful on exactly what role they play and how they interact with other types of

governance interventions, including standards and regulation and so on.

Responsible AI projects could be aligned to help strengthen the oversight and effectiveness of institutions of democracy (electoral bodies, human rights institutions, and regulators in countries), ensuring that they are able to make and implement decisions on digital regulation and uptake. They should also support local civil society organisations to address digital trust: the challenges of some of these communities cannot be imagined from outside.

At the moment there is a great deal of movement in national and global policies in relation to regulation and governance of AI. Future projects and objectives will need to recognise current global and national positions and descriptive terms, and not assume buy-in to “responsibility” as a guiding principle. A multinational company that has recently abandoned Diversity, Equity and Inclusions (DEI) actions may now be regarded as less trustworthy by people in the global South.



RAISE team members with representatives from Trilateral Research and delegation from Kenya, FCDO, London, June 2024.
Photo credit: RAISE project team.

Questions and Further Opportunities

Workshop participants proposed these areas for further exploration

Toolkits for community participation:

Amplify in particular demonstrated that applying lessons can accelerate development of demonstrators of locally appropriate and inclusive AI. Local involvement should be defined by and with locals, finding answers to questions they ask and generating evidence they can use. Equitable technology can start with equitable research processes. Learning will be more impactful externally when it shows that local people have found these people-centred governance approaches to be empowering.

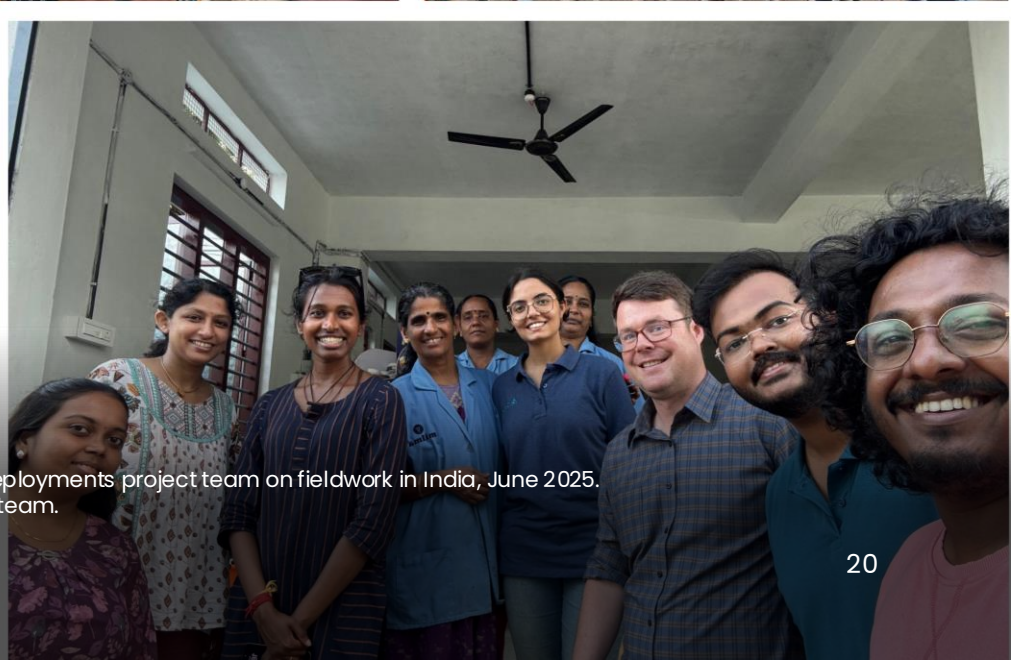
Some of these projects are already producing this kind of output, to operationalise the meaning of being locally led, to make culturally sensitive and relevant practices integral to AI lifecycles. We could reiterate these models with more communities, turning pipelines and architectures into more toolkits which can have a global impact, standardising the process of putting projects together. Additionally, it can be important to sustain existing relationships while innovating on community-driven maintenance and ownership of these technologies. But where are the priorities? In what new areas could toolkits for operationalising community collaboration on AI deliver most value? Can we test what learning can be transferred from online education to online health support?

Better understanding of cultural factors affecting AI governance:

More analysis of cultural factors that influence decisions on AI governance would be valuable: including risk-based, values-based, and rights-based. Differences can be complex. The same human rights may be complied with for different reasons. Privacy is comparatively less valued in some regions, but respect and protection from unwanted intimacy are. Attention to framing is vital for engagement. Can we better map cultural values relevant to AI uptake and governance?

Understanding reciprocity: The reasons a community will engage can involve local factors that need to be recognised. Minority language groups have in many cases been oppressed through and by linguistic exclusion, so helping them keep their language alive in a connected world has community value. There could be analogies to develop with adapting robotics to different communities, through co-design.

Where is AI most likely to under-deliver in LMICs, on current trajectories? FATES of Africa aims at the gap between the potential of online learning to narrow skills and development gaps, and current results in practice. We can see other areas where AI is not meeting LMIC needs, but which matter most, which have the greatest potential value?



Members of the Off-grid AI deployments project team on fieldwork in India, June 2025.
Photo credit: Off-grid project team.

Lower import and customs costs for hardware: This is a common issue, but it would be valuable to understand in which sectors and places it has most impact, and what scope there is to support governments to reduce those additional costs.

Repairing technology: When technology from a different country breaks down, sending it back and forth for mending is unsustainable, and repair can void warranties. Absence of the right to repair increases dependency on international companies. There may be value in developing evidence, definitions, and common policies on right to repair and/or training and validating local repair.

Certification: There is a need for localised certification of technology and adopting developing safety regulations. Experts want online courses accepted by brick and mortar universities. Building local open source modular technology (eg ground robots for agriculture) needs an enabling skills development environment. Can we learn more about where the most potential and need are?

Governance communities: Peer learning sessions can enable LMIC policy-makers to engage with peers about how they have proceeded, what has worked and what has not, in low resource contexts.

Engaging young workers: Scalability is the biggest problem for AI in LMICs. There are challenges but also potential in demographics. Youth unemployment is high in many LMICs, but there is appetite to own and design technology for their

communities and not just take what is imposed. What incentive structures have been proven to work, to engage them in AI education to drive innovation at the grassroots level?

Open Source AI and robotics: Projects reported wide appetite for open source, and DeepSeek has recently reinvigorated global interest in more sustainable and lower resource AI approaches. There is potential in locally-led development robotics that use minimalism as a design lens for sustainability. Could we develop better understanding and policy positions around open source and sustainability for AI in LMICs? Covering definitions, gradations, advantages, disadvantages, adaptability to contexts.

LLMs: LMIC contexts share the global challenge with inaccuracy of LLMs, but may not have access to expertise on correcting them. Are there channels to facilitate that, to reduce the harms from unreliable LLMs in LMICs?

Standards: There is potential for developing industry specific regulation and standards to support bringing AI applications into standards operating procedures. In which sectors in LMICs is the high value demand for this?

Connectivity: 4/5G providers extending services have helped to advance social justice. Satellite and solar powered resources can reduce some infrastructure barriers. Are there opportunities for supporting wider rollout of new solutions?



Participants at FATES of Africa workshop, Nairobi, Kenya.
Photo credit: FATES project team.

Further reading

Responsible Ai UK
<https://rai.ac.uk/>

Projects

Responsible Generative AI for SMEs in UK and Africa (RAISE)

Impact Accelerator

<https://raise-project.uk>

https://rai.ac.uk/new_projects/raise-responsible-generative-ai-for-smes-in-uk-and-africa/

<https://rai.ac.uk/responsible-generative-ai-for-smes-in-the-uk-and-africa-raise-impact-accelerator-project-rri-and-edi-practice/>

RAISE is working to understand the practical issues that organisations, particularly SMEs, face when developing products and services that integrate or are based on generative AI. Through guidance and policy briefings, the project seeks to foster economic growth and innovation for SMEs in the UK and Africa (with case studies in Kenya, Zimbabwe and Nigeria), as well ensuring that generative AI technologies are deployed in a manner that benefits society (mitigating risks, reducing potential for harm, and facilitating benefits). Project workshops have created a new network of SMEs that will become self-supporting, expanding their business and supporting the exchange of Generative AI good practice.

Eke, D. & Stahl, B. (2024). *Ethics in the Governance of Data and Digital Technology: An Analysis of European Data Regulations and Policies*. DISO 3, 11.

Ochang, P., Stahl, B., Eke, D., Buckley, M., Poder, I., Hughes, J., Rodrigues, R., & Barnard-Wills, D. (2024). *Responsible Generative AI for SMEs in the UK and Africa: RAISE guidelines*. RAi UK <https://doi.org/10.17639/r59s-3w96>

Ochang, P., Eke, D., Stahl, B., Buckley, . M., Poder, I., & Hughes, J. (2024). *Small and medium enterprises will use generative AI. But how can they be helped to implement it properly?* RAi UK <https://doi.org/10.17639/90WV-P416>

Ochang, P., Stahl, B., Eke, D., & Cameron, H. (2024). *Responsible Generative AI for SMEs in UK and Africa (RAISE): First Virtual Human Centric Design Workshop Report*. ESPRC and RAi UK <https://doi.org/10.17639/4pdx-6n38>

Stahl, B. C. (2024). From Corporate Digital Responsibility to Responsible Digital Ecosystems. *Sustainability* 16, 4972 <https://doi.org/10.3390/su16124972>

Stahl, B. C. (2024). Locating the Ethics of ChatGPT—Ethical Issues as Affordances in AI Ecosystems. *Information* 2025, 16, 104 <https://doi.org/10.3390/info16020104>

For the FATES of Africa: A Co-Developed Pipeline for Responsible AI in Online Learning Across Africa

International Partnership

<https://raifatesafrica.wordpress.com/>

<https://www.southampton.ac.uk/research/projects/for-the-fates-of-africa-a-co-developed-pipeline-for-responsible-ai-in-online>

https://rai.ac.uk/new_projects/for-the-fates-of-africa-a-co-developed-pipeline-for-responsible-ai-in-online-learning-across-africa/

FATES of Africa is a research project protecting and championing responsible AI among online learners in Sub-Saharan Africa. Online learning is widely celebrated as the gateway to universal educational access. Yet, the opposite is more often true, with online learning found to exacerbate rather than alleviate societal divides. The project's focal output will comprise of a decision-making toolkit that will be available online and downloadable by all. Through partnership across disciplines, sectors, and Sub-Saharan African countries, comprehensive expertise and experiences across the educational ecosystem has been gathered, with initial insights curated at the Comparative & International Education Society (March 2025, Chicago). Grounded analysis of the consultation data, will align to a shared protocol covering four key areas for responsible AI in online learning for Africa: people-centred AI; ethical AI; contextualisation; policy and governance.

Amplify: Empowering Underserved Voices in Spoken Language Interaction

Impact Accelerator

<https://unmute.tech>

https://rai.ac.uk/new_projects/amplify-empowering-underserved-voices-in-spoken-language-interaction/

AI-driven systems for spoken language interaction (SLI) are currently only available for a small fraction of the world's languages, a consequence of the challenges in developing the required capabilities for both automatic speech recognition and downstream processing tasks. Working in India, South Africa and Kenya, this project adopts a radical new approach to the provision of SLIs for language communities where the availability of transcribed speech training data is limited or non-existent; and, most significantly, for languages with no written form at all.

Reitmaier, T., Kalarikalayil Raju, D., Klejch, O., Wallington, E., Markl, N., Pearson, J., Jones, M., Bell, P., & Robinson, S. (2024). Cultivating Spoken Language Technologies for Unwritten Languages. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)*. Association for Computing Machinery, New York, NY, USA, Article 614, 1–17
<https://doi.org/10.1145/3613904.3642026>

Reitmaier, T., Wallington, E., Klejch, O., Kalarikalayil Raju, D., Markl, N., Nielsen, E., Bailey, G., Pearson, J., Jones, M., Bell, P., & Robinson, S. (2024). UnMute Toolkit: Speech Interactions Designed With Minoritised Language Speakers. In *Proceedings of the 6th ACM Conference on Conversational User Interfaces (CUI '24)*. Association for Computing Machinery, New York, NY, USA, Article 56, 1–6
<https://doi.org/10.1145/3640794.3665564>

Responsible AI Networks for Industries and Governments in Latin America

International Partnership

https://rai.ac.uk/new_projects/responsible-ai-networks-for-industries-and-governments-in-developing-countries-latin-america/

Working in partnership with CENIA (National Center for Artificial Intelligence) in Chile, the expert team are exploring the economic and social consequences of implementing AI in countries that are primarily technology recipients and regulation-takers. The main aim is to provide a model for international partnerships to address the challenges of adopting responsible AI in the Global South.

Automated Empathy: Globalising International Standards (AEGIS): Japan and Ethically Aligned Regions

Impact Accelerator

<https://emotionalai.org/gpai-standards>

<https://automatingempathy.ai/resources>

https://rai.ac.uk/new_projects/automated-empathy-globalising-international-standards-aegis-japan-and-ethically-aligned-regions

<https://rai.ac.uk/the-ethics-of-emulated-empathy-considering-the-significance-of-anthropoc-and-humes-collaboration/>

AEGIS is developing a methodology for responsible AI for systems that purport to emulate human empathy. Building on academic work led through the Emotional AI Lab and, separately, the IEEE P7104 Standard for Ethical Considerations in Emulated Empathy in Autonomous and Intelligent Systems, the team are developing IEEE P7014.1 – a technical standard and soft law that will address the overlap between emulated empathy and human-AI partnering. Recommended Practice for Ethical Considerations of Emulated Empathy in Partner-based General-Purpose Artificial Intelligence Systems, will focus on learning/expertise in Japan and aligned regions, but will now look to incorporate learnings from around the world. Use cases encompass general-purpose artificial intelligence products marketed as ‘empathic partners’, ‘personal AI’, ‘co-pilots’, ‘assistants’, and related phrasing for ‘human-AI partnering’, with emphasis placed on inputs from Japan and other underrepresented regions including Indonesia and India.

Bakir, V., Bennet, K., Bland, B., Laffer, A., Li, P. & McStay, A. (2024). When is Deception OK? Developing the IEEE Recommended Practice for Ethical Considerations of Emulated Empathy in Partner-based General-Purpose Artificial Intelligence Systems (IEEE P7014.1), *IEEE International Symposium on Technology and Society (ISTAS)*, Puebla, Mexico, 1-6 <https://doi.org/10.1109/ISTAS61960.2024.10732349>

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Off-grid AI Deployments: Re-gearing AI Model Development Through Community Co-Design

RAi UK/CeRAI Integrator

<https://rai.ac.uk/cornerstone/>

This project integrates ethnographic, design, and AI engineering insights to co-create off-grid AI solutions for diverse communities within India and the UK. The team will develop vision and audio classifiers and detectors that function with intermittent power and connectivity. These will be leveraged as design materials in community co-design workshops to uncover use cases for off-grid AI classifiers. Community-centric data-collection and evaluations will enable local updates to the models, empowering community members to become model-builders.

Global Center on AI Governance

www.globalcenter.ai

As Africa's first dedicated think tank on AI policy, the Global Center on AI Governance serves as a global hub for research, training and technical advisory on equitable AI governance. The team has been integral to national, international and regional processes on the governance of AI. This has included working with the UN, UNESCO, AU, South African Government, Nigerian Government and Kenyan Government in informing their strategies on artificial intelligence. The Global Center on AI Governance publishes the Global Index on Responsible AI www.global-index.ai

Robotics for Global Development

<https://irevolutions.org/category/robotics/>

The first-ever Robotics for Development Project launched by the UK's Foreign, Commonwealth, and Development Office (FCDO) and Frontier Tech Hub. While other emerging technologies like artificial intelligence receive considerable attention, the application of robotics in international development is systematically overlooked. This project aimed to identify meaningful opportunities for robotics, and to consider what factors will be essential to enable the responsible, inclusive, and sustainable use of robotics to tackle global development challenges.



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About Responsible Ai UK (RAi UK)

With a £35 million UKRI investment, RAi UK is a programme dedicated to delivering interdisciplinary research and fostering ecosystems, including international ecosystems, that support Responsible AI research and innovation. Through extensive consultations across the UK, RAi UK has identified emerging challenges in responsible AI and deployed over £17 million into projects aimed at accelerating the adoption of responsible AI practices and technologies. RAi UK brings research-based expertise that is connective, adaptive, and world-leading through field-building, and engagement with communities, publics, industries, and governments. The RAi UK research community includes expertise from across social sciences, law, engineering, computer science and other disciplines, and aims both to achieve learning and to put it into

practice and support that with new dedicated tools.

As well as informing our future work, we will create as much value as we can from projects we funded since the Programme's start in May 2023, in terms of evidence and practical policy ideas, for use by external policymakers, including government bodies, Non-Governmental Organisation (NGOs) and other international actors. We can share, develop and promote enablers that can help AI work for everyone, in different contexts internationally. RAi UK can take a leading role turning that into actionable knowledge and making it available globally to build toolkits and frameworks that people can use. We will also continue to act in a convening role, enabling new discussions and building networks with access to practical tools.

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