

The Weight of AI

Structural Issues in Taming AI from African Perspectives

Moving from Digital Ethics to Material Justice in Business Communication

Rebecca Mbaya

© 2026 Rebecca Mbaya. All rights reserved.

Presentation flow

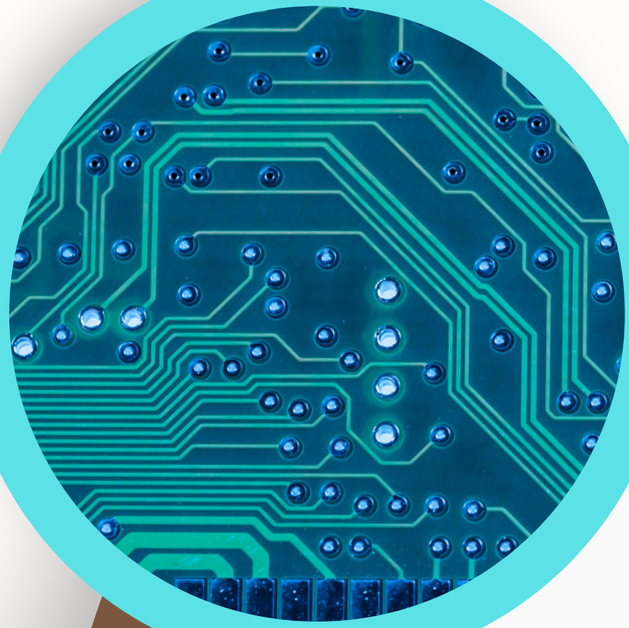
1. Can you Spot the hidden weight?
2. What is the hidden weight?
3. Why is the weight hidden?
4. Who carries the hidden weight?
5. Why spot the hidden weight?
6. Make the hidden weight visible



© 2026 Rebecca Mbaya. All rights reserved.

Can you spot the hidden weight?

An example of selective framing





Microsoft to expand Azure Maia system to multi-gigawatt deployments

Oct 12, 2026 | Scott Guthrie - Executive Vice President, Cloud + AI

Maia 300 is a complete intelligent system designed for the new types of AI workloads emerging today: Long-context reasoning, latency-sensitive conversational experiences and sustained, multi-step agentic tasks. By improving efficiency across the system, we expect Maia 300 to deliver 40% more tokens per megawatt compared to leading GPU-based systems. And in a full 96-accelerator configuration, it delivers up to 7x the rack-scale token throughput of Maia 200.

Source: Microsoft to expand Azure Maia system to multi-gigawatt deployments

© 2026 Rebecca Mbaya. All rights reserved.

What is the hidden weight?

The “**weight**” is the accumulated human, material, environmental, economic, and political burden that allows AI tools to exist and appear seamless. It is the full set of dependencies and burdens that are removed from the user’s immediate experience.



- **Material infrastructure**: minerals, chips, servers, fibre networks, data centres, electricity, water, land, and cooling systems., logistics, and repair.
- **Human labour**: data collection, annotation, translation, content moderation, evaluation, maintenance, logistics, and repair.
- **Political costs:** decisions about whose data, language, knowledge, and priorities are treated as central.
- **Economic costs:** public subsidies, concentrated ownership, unequal access to computing capacity, and costs shifted to workers, suppliers, and communities.
- **Social costs:** surveillance, job displacement, exclusion, unequal language performance, and exposure to harmful content.
- **Environmental costs**: emissions, water withdrawals, land use, pollution, hardware disposal, and e-waste.

© 2026 Rebecca Mbaya. All rights reserved.

Why is the weight hidden?



Communication as a Structural Failure

The structural paradox of AI communication is that it makes AI appear universal, autonomous, and frictionless by foregrounding what the user receives while marginalising the labour, resources, infrastructures, and harms that others provide or endure across the **AI supply chain.** The weight is not eliminated but it is displaced and rendered invisible at the point of use.

AI communication makes the technology appear lightweight and frictionless by foregrounding the benefits delivered to the user and backgrounding the labour, resources, infrastructures, and harms borne by others.

The weight is rendered invisible from the user’s view because the structure of AI communication gives prominence to what the user receives while marginalising what others provide or endure.

© 2026 Rebecca Mbaya. All rights reserved.

Who carries the hidden weight?

The Global South and marginalised regions: The central issue is unequal visibility and unequal power: those who receive the benefit are made most visible, while those who provide or endure the conditions of production are pushed into the background.



Upstream (before minerals become chips): The DRC is a useful case study here because it reveals two layers of AI's upstream weight: material dependence and extractive harm

- **The weight of material dependence:** Africa provides minerals that are essential to the wider technology system. The DRC is especially important to the global cobalt supply chain: the US Geological Survey estimates that it accounted for about 75% of global cobalt mine production in 2024. The global technology system depends on geological resources concentrated in places such as the DRC. The country's mineral wealth makes it materially important to batteries, electronics, telecommunications, computing, and the wider digital economy.

- **The weight of extraction**: The extraction of those mineral resources has been associated with child labour, environmental damage, illicit trade, and the financing of armed groups. UNICEF has estimated that around 40,000 children were involved in artisanal mining in southern DRC, many of them in cobalt-producing areas. These resource conflicts are a documented mechanism through which mineral wealth becomes insecurity. The final technology may appear clean, weightless, and autonomous because the violence and extraction embedded upstream have been displaced from view.

TAIS Perspective **Minister Raissa Malu**



© 2026 Rebecca Mbaya. All rights reserved.

Who carries the hidden weight?

(Mid & downstream of the chain)

- **Data workers form a cross-cutting layer of the chain:** They appear wherever information must be produced, cleaned, interpreted, evaluated, and governed. 43 of Africa's 54 countries, involve workers employed through outsourcing firms for predominantly North American and European clients.
- **Interpretive weight**: Data workers do not merely perform mechanical tasks. They decide what an image depicts, whether speech is abusive, how a phrase should be translated, whether an answer is accurate, and what counts as culturally appropriate. They supply the human judgement that the system later presents as machine intelligence.
- **Emotional and psychological weight**: Content moderators repeatedly view violence, abuse, exploitation, and graphic material. AI evaluators are exposed to disturbing content while testing safety systems. This work carries psychological harm without appearing in the final product. The user sees a clean interface; the moderator has absorbed the disturbing material that helped make the interface safer.
- **Economic weight:** precarious employment, lack of formal protections, and psychological harm associated with content moderation.
- **Representational weight:** African data workers often make global systems more capable of handling African languages, accents, images, and social contexts. But their work is often used to improve systems whose ownership, revenue, and decision-making remain elsewhere.
- **Invisible-value weight:** Data workers are frequently described as "*support staff*" or "*outsourced labour,*" even though their work is central to model performance. Their contributions are absorbed into the apparent intelligence of the system.


Dr. Adio-Adet Dinika,


Joan Kinyua,


Kauna Malgwi

© 2026 Rebecca Mbaya. All rights reserved.

Who carries the hidden weight?

African AI builders: they are simultaneously trying to reduce technological dependence and carrying the costs created by that dependence. They carry the burden of technological representation. Their work is treated as evidence of Africa's innovation potential, while the structural constraints limiting that work can be overlooked.

Language and speech builders: Their weight is the burden of collecting, labeling, and modeling African languages without allowing that work to become another form of epistemic and economic extraction. **TAIS Perspectives: Kelvin Roman, Michel Wenezoui,Anri Lombard, Adam Kossowski...**

Application builders: Their weight is the burden of translating general-purpose AI into systems that work in specific African conditions. **TAIS Perspectives: Aaron Charles, Evelyn Namara, Agbo Obinnaya. Lucien de Voux…**

Compute and infrastructure builders: Their weight is the physical burden of making responsible AI possible on the continent. **TAIS Perspectives: Justice Mukaro, Karind Ori, Michael Jidael…**

Researchers and open-source communities: Their weight is the burden of giving away what they build, datasets, code, and findings, while others with far more resources build products on top of it. **TAIS Perspectives: Jesusegun Adewunmi, Bronson Bakunga, Khalifa M Niamadio...**



Public-sector and institutional stewards: Their weight is making decisions for everyone, about systems they can't fully inspect, built by companies that don't answer to them. **TAIS Perspectives: Mutheu NyagahKhimulu, Isaac Bayoh, Betty W. Kyalo, Mame Fatou Gueye DIOUM …**



© 2026 Rebecca Mbaya. All rights reserved.

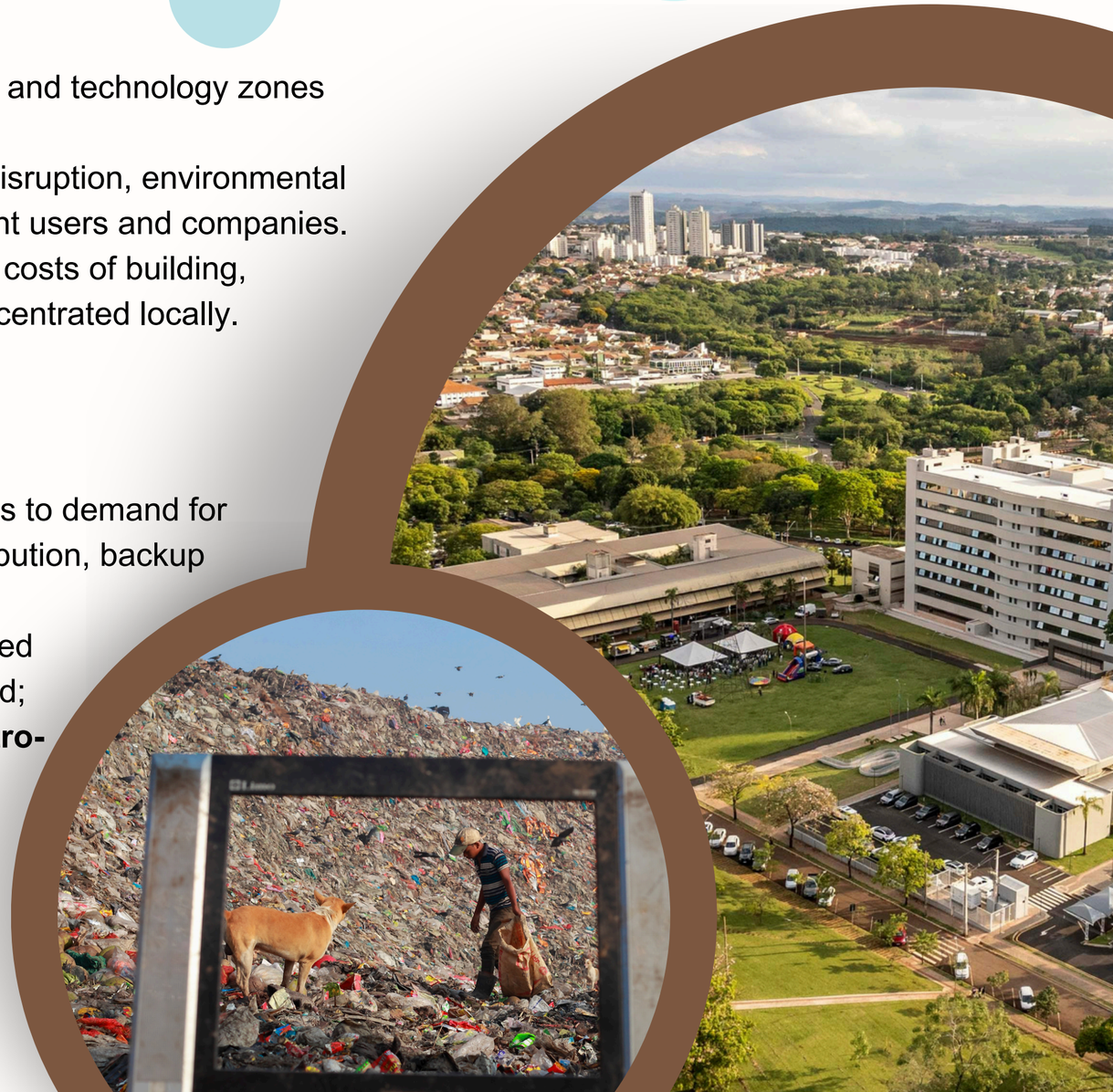
Who carries the hidden weight?

Communities hosting infrastructure

- Communities near data centres, power plants, fibre routes, server facilities, and technology zones carry the local consequences of digital expansion
- Pressure on electricity and water systems, land-use change, construction disruption, environmental stress, and limited control over infrastructure that may primarily serve distant users and companies.
- The benefits of AI and cloud services may be distributed globally, while the costs of building, powering, cooling, maintaining, and replacing the infrastructure remain concentrated locally.

E-waste communities and workers

- The African e-waste burden is not caused only by AI. But AI expansion adds to demand for servers, accelerators, cooling systems, networking equipment, power distribution, backup power, and replacement hardware.
- Recent analysis of AI data-centre infrastructure warns that estimates focused only on servers and accelerators miss most of the equipment mass involved; servers and accelerators account for roughly **13% of a data centre's electro-mechanical infrastructure** by weight, while cooling, power distribution, backup systems, and networking make up much of the remainder.
- The same analysis projects that AI-driven equipment retirement could reach **395–617 million tonnes globally between 2025 and 2050**, reflecting rapid hardware refresh cycles.



© 2026 Rebecca Mbaya. All rights reserved.

Why spot the hidden weight?



© 2026 Rebecca Mbaya. All rights reserved.

Spotting the hidden weight protects the story from becoming a liability. It helps communicators make AI claims credible, accountable, and resilient before stakeholders expose the gap between the promise and the system behind it.

Trust is now an AI communications problem

AI is already a top reputational risk

Hidden dependencies create material business risk

The business context is already shifting

"AI washing" makes precision a professional duty

The evidence already exists, though it is not visible where the promise is made

The African Innovators Series(TAIS) can serve as the evidence base for the **S.P.O.T the Weight framework.**

Thank You

reaconsres@gmail.com

https://reamby.substack.com/

@www.linkedin.com/in/rebeccambaya



THE AFRICAN INNOVATORS SERIES

© 2026 Rebecca Mbaya. All rights reserved.