

Issues Blocking AI Adoption: A Decentralization Perspective

Summit on Responsible Decentralized Intelligence
- Future of Decentralization and AI,
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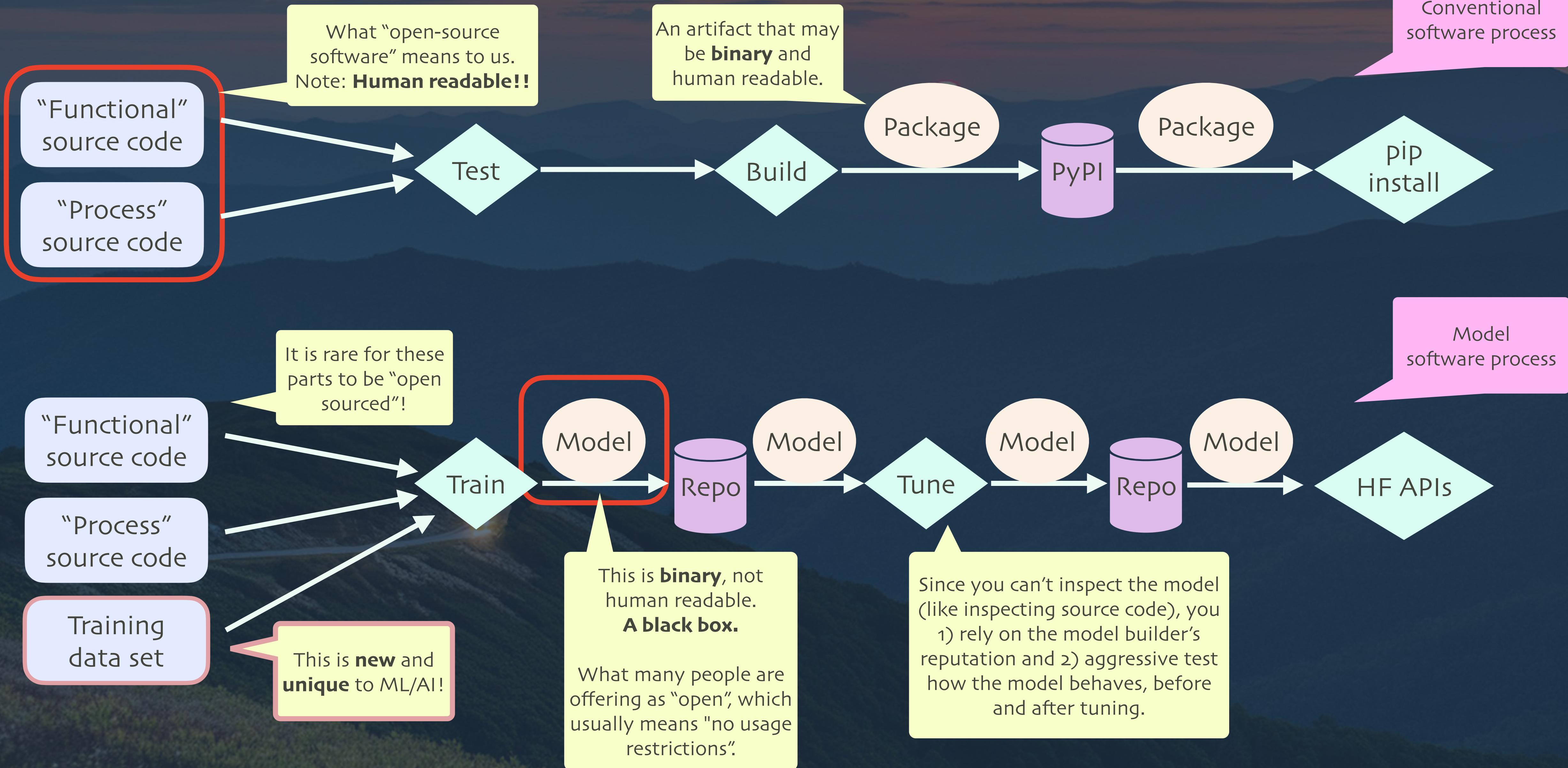


- Should AI Be “Open” or “Closed”?
- The AI Alliance
- “Alignment” Issues Blocking AI Adoption
- Decentralization Solutions

A wide-angle photograph of a mountainous landscape at sunset. The sky is a vibrant orange and yellow, transitioning into darker blues and purples. In the foreground, a winding road or path leads through a grassy, hilly area. The path is illuminated by a few bright lights, possibly from a vehicle, which creates a glowing trail against the darkening terrain. The background features a range of mountains, their peaks silhouetted against the bright sky. The overall atmosphere is serene and contemplative.

Should AI be
“open” or “closed”?

First, what does open mean??



Why Open (as Much as Possible)?

- “The benefits can be summarized as autonomy, transparency, frictionless reuse, and collaborative improvement.”
- Although it is common to go from proprietary to open:
 - E.g., Windows/Unix/MacOS → Linux

Do we want AI technology controlled
by a few entities or more widely available?

The AI Alliance

A community of technology creators, developers and adopters collaborating to advance safe, responsible AI rooted in open innovation.

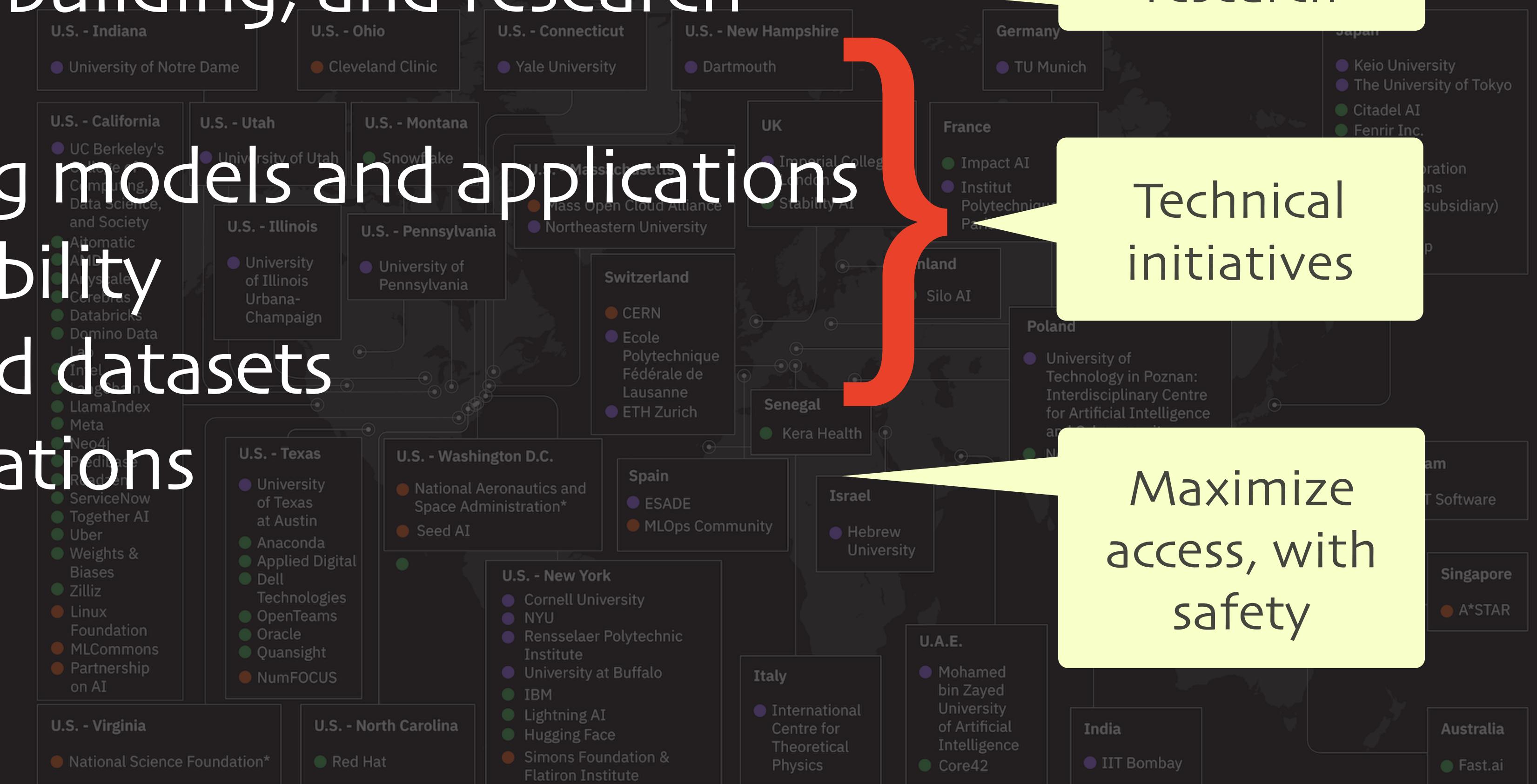
Diagram as of February.
>110 Now



The AI Alliance

A community of technology creators, developers, and adopters collaborating to advance safe, responsible AI rooted in open innovation.

1. Education, skills building, and research
2. Trust and safety
3. Tools for building models and applications
4. Hardware portability
5. Open models and datasets
6. Policy and regulations



Technical initiatives

Maximize access, with safety

Spreading knowledge, research

A large, medieval-style castle with multiple towers and spires, set against a dramatic sky with birds flying overhead.

“Alignment” Issues Blocking AI Adoption

How can
decentralization help?

Alignment



Alignment

Alignment - Assuring that the model or AI application works as intended, i.e., that the results satisfy requirements for:

- Usefulness for user goals
- Secure
- Free of bias
- Free of objectionable speech and concepts
- Free of copyrighted material
- Factually correct, i.e., free of hallucinations

Alignment

Alignment - Assuring application works as results satisfy requirements

- Usefulness for users
- Secure
- Free of bias
- Free of objectionable content
- Free of copyright issues
- Factually correct

Alignment is the hardest problem blocking broader adoption of Gen AI.

No successful production system today is just a chat interface and a “bare” model.

Decentralization

- Federated Learning:
 - Align models to local “requirements” (e.g., your face) while preserving privacy
 - Distribute the compute overhead
- Distributed Ledgers:
 - Secure the data supply chain for training, tuning, and inference

Decentralization

- Federated Learning
 - Align models to local data (like your face) while maintaining global accuracy
 - Distribute the computation across multiple devices
- Distributed Ledger
 - Secure the data source and tuning

Governance of the supply chain:
While most AI users currently accept “open” models with opaque training data lineage, that will likely change.

What Actually Works?

 **Dare Obasanjo**
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There is a big difference between tech as augmentation versus automation.
Augmentation (think Excel and accountants) benefits workers while **automation** (think traffic lights versus traffic wardens) benefits capital.

LLMs are controversial because the tech is best at augmentation but is being sold by lots of vendors as automation.

Jun 10, 2024 at 10:31 ·  · Ivory for iOS ·  112 ·  181

◀  ★  ...

<https://mas.to/@carnage4life/112593042823322764>

Emphasize Augmentation

- Keep humans in the loop, but improve productivity:
 - Distilling information more quickly
 - Translating between human and “domain languages”
 - SQL, Python, but also domain jargon (medical, finance, science, ...)
- Use complementary tools
 - Use deterministic tools for factual accuracy, logical reasoning, and planning
 - What Agent frameworks enable

Emphasize Augmentation



A.I. Needs Copper. It Just Helped to Find Millions of Tons of It.

An exploration site run by KoBold Metals in Chililabombwe, Zambia, in June. Zinyange Auntony for The New York Times

Train model with geological and mining data to predict where the copper is likely to be

The deposit, in Zambia, could make billions for Silicon Valley, provide minerals for the energy transition and help the United States in its rivalry with China.

<https://www.nytimes.com/2024/07/11/climate/kobold-zambia-copper-ai-mining.html>

Thank You!



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- Let me know what you think!
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