



Don't **Fire** Your Developers and Other Lessons of the **AI Revolution**

Robert Hodges - Altinity CEO

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AI...Is it good or bad thing?

B B C

Bill Gates: AI is most important tech advance in decades

Geoffrey Hinton says there is 10% to 20% chance AI will lead to human extinction in three decades, as change moves fast

- **'We need dramatic changes': is societal collapse inevitable?**

The Guardian US ▾

...And what about jobs?

FORTUNE

Nvidia CEO Jensen Huang says AI will 'probably' bring 4-day work weeks: 'Every industrial revolution leads to some change in social behavior'



r/Layoffs • 5mo ago
RareMeasurement2

AI has ruined the job market



Why OpenAI's Sam Altman Thinks AI Will Replace the CEO Role

And how does it affect open source and databases?

FORTUNE

**MIT report: 95% of
generative AI pilots at
companies are failing**

AXIOS

**AI "workslop" sabotages
productivity, study finds**




Travis Reeder ✓ • 2nd

Builder of Software | Tech Advisor | Always Be Buildi...

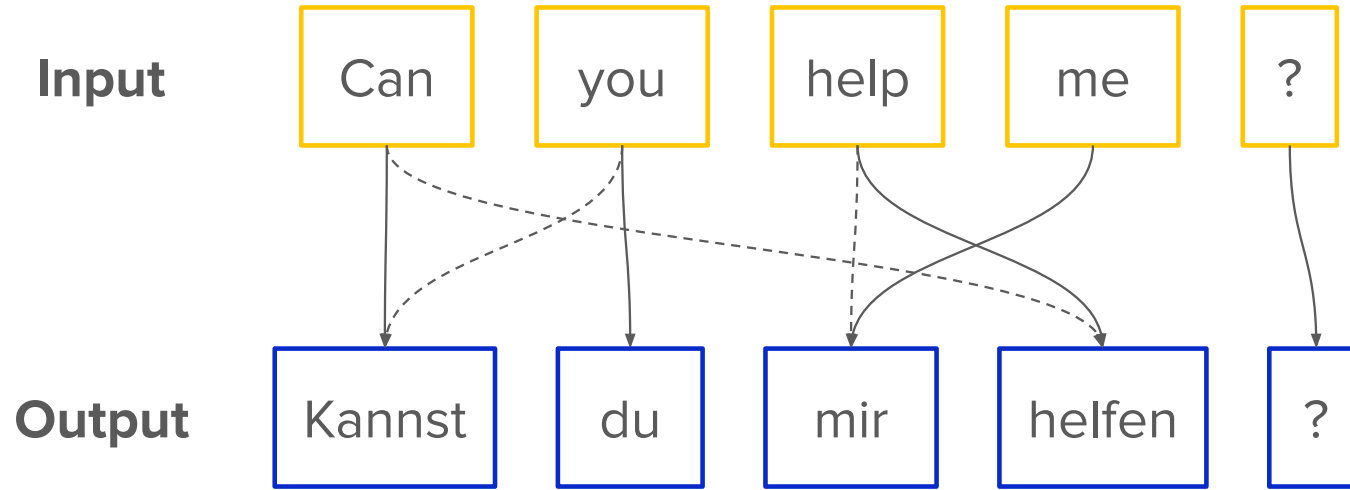
7mo • 🔄

AI is going to kill open source.

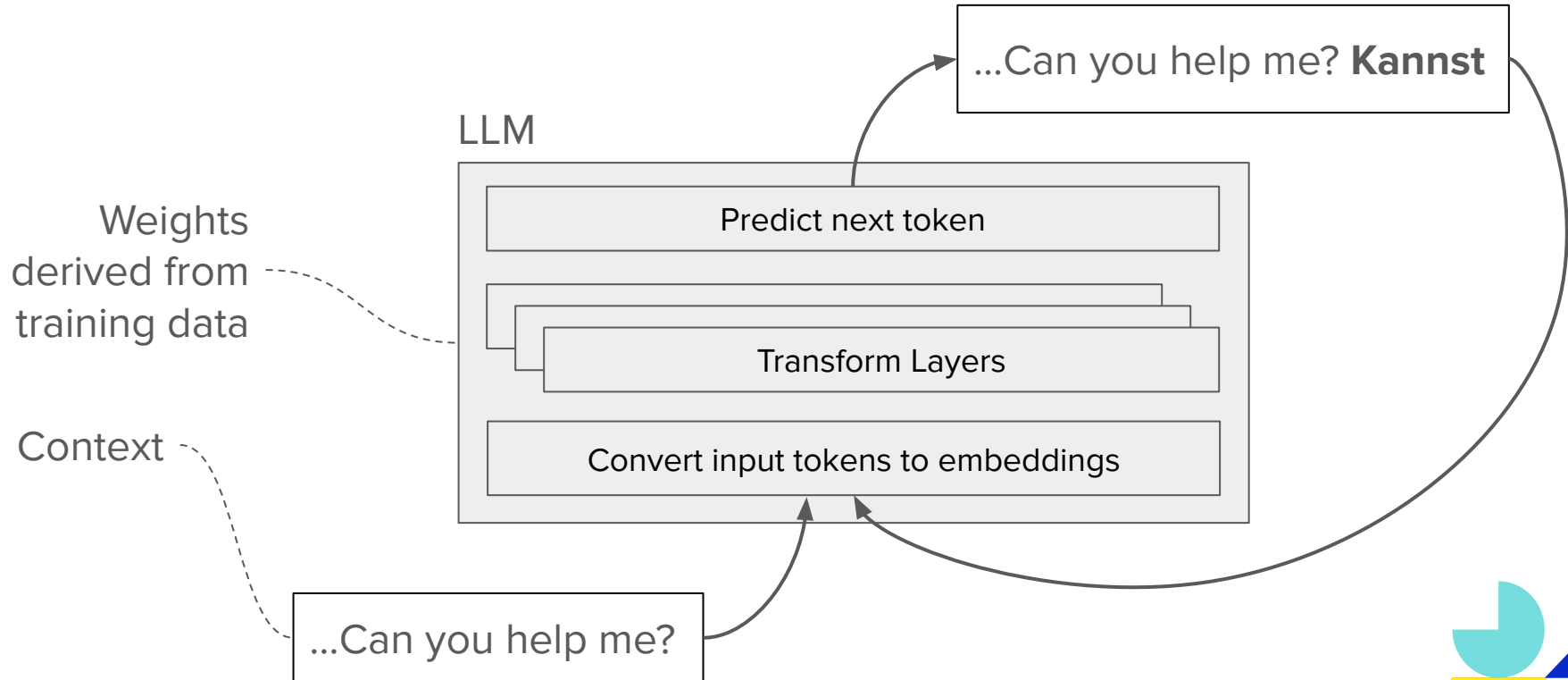


I guess we're going to have to
figure it out ourselves.

A typical problem that AI solves: translation



How does a Large Language Model work?



What does LLM translation look like in the wild?

ChatGPT 5 ▾

Please translate this quote: Ich habe viel gesehen und noch mehr gedacht: die Welt eröffnet sich mehr und mehr, auch alles, was ich schon lange weiß, wird mir erst eigen. Welch ein früh wissendes und spät übendes Geschöpf ist doch der Mensch!

Here's an accurate and natural English translation of that quote:

"I have seen much and thought even more: the world reveals itself more and more, and even everything I have long known is only now becoming truly my own. What an early-knowing and late-practicing creature man is!"

This is a reflective observation about human nature — how understanding often precedes mastery, and how lived experience gradually makes knowledge personal.

Is it always that good???

ChatGPT 5 ▾

Where does the quote originate?

That quote originates from **Johann Wolfgang von Goethe**, the great German writer, poet, and thinker.

It comes from his “**Maximen und Reflexionen**” (“Maxims and Reflections”), a collection of aphorisms and philosophical observations compiled from his notes and letters after his death.

The passage reflects Goethe’s lifelong theme of the gradual unfolding of wisdom — that humans often *know* things intellectually long before they *live* them fully. It encapsulates his view of experience as the bridge between knowledge and true understanding.

Wrong!!!



LLMs don't just train on human language.

LLMs also train on open source code.



Vibe Engineering is a new, elite coding practice

The rise of **coding agents**—tools like [Claude Code](#) (released February 2025), OpenAI's [Codex CLI](#) (April) and [Gemini CLI](#) (June) that can iterate on code, actively testing and modifying it until it achieves a specified goal, has dramatically increased the usefulness of LLMs for real-world coding problems.

Simon Willison
<https://simonwillison.net>

LLMs accelerate onboarding to open source code bases

Question to Codex in VSCode

Under what circumstances will ClickHouse unable to write to a JBOD disk? Please include code references.

Codex Answer

JBOD Write Failures

- Part exceeds volume limit: `VolumeJBOD::reserve` immediately refuses any reservation larger than the configured `max_data_part_size`, forcing the caller to try another volume (`src/Disks/VolumeJBOD.cpp` (lines 119-123)).



AI agents depend on expert direction

[T]here is a lot of human coding, too. I almost always go in after an AI does work and iterate myself for awhile, too...I believe good AI drivers are experts in their domains and utilize AI as an assistant, not a replacement.

Mitchell Hashimoto
Vibing a Non-Trivial Ghostty Feature

Developers interact with agents using human language

Request to Copilot/Claude Sonnet in VSCode

Please create a new unit test in test.py that connects to ClickHouse on port 9000 using the default user and an empty password. It should select the version() using `select version()`, ensure that it is not null, and print it.

Copilot Response

I'll add a new unit test that connects to ClickHouse on port 9000 using the clickhouse-driver. Here's the solution:

1. Import the `clickhouse_driver` module at the top of the file
2. Add a new test method that connects to ClickHouse on port 9000
3. Execute a `SELECT version()` query using the driver



LLMs have the potential to increase contributions to open source projects.

Projects should welcome engineers who use them, as well as their AI agents.

The real risk is not having AI agents for development.



Some important fine print...

US copyright law is still working through issues with AI-generated code.

“[T]he outputs of generative AI can be protected by copyright only where a human author has determined sufficient expressive elements.”

<https://www.copyright.gov/newsnet/2025/1060.html>



LLMs can help build open source analytic
databases.

How can analytic databases make LLMs
work better?

Let's match up strengths and weaknesses

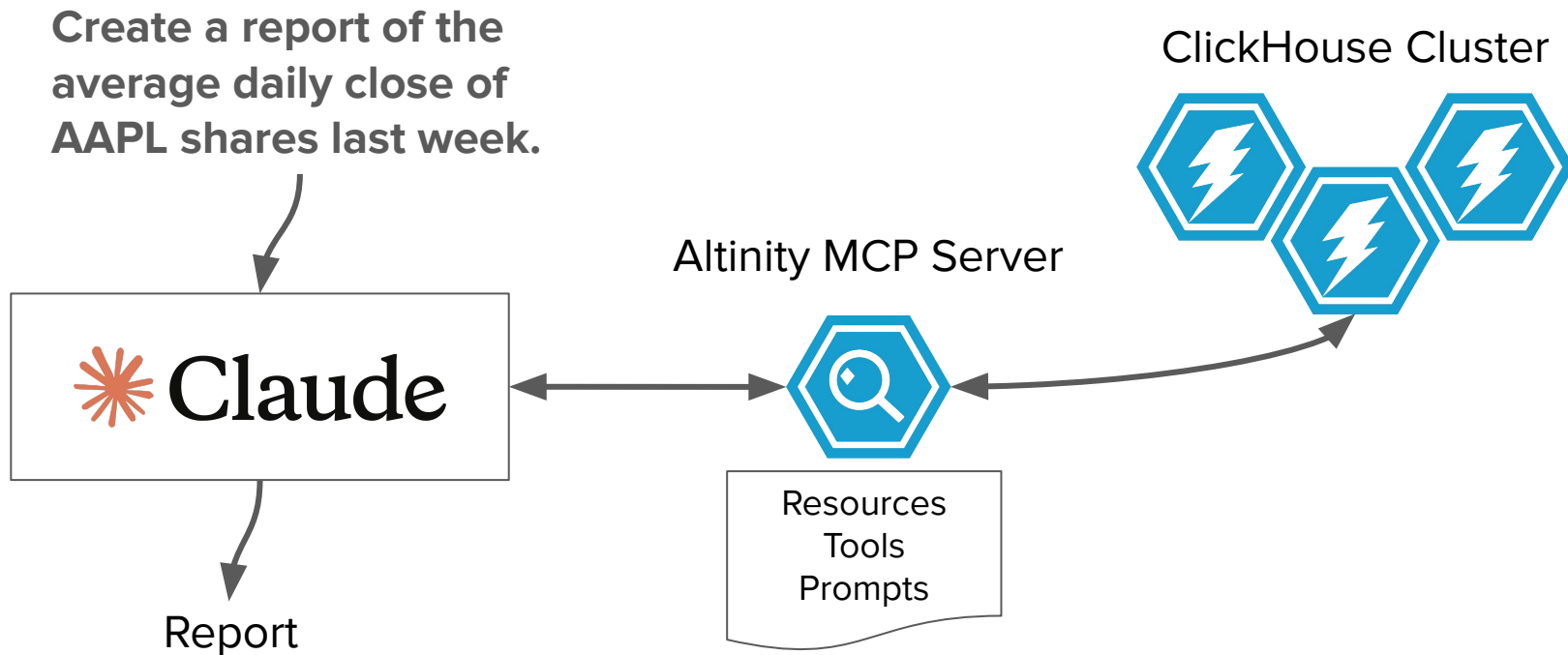
LLM Weaknesses

Slow **Outdated Data**
Hallucinations
Security Holes
Finite Context

Analytic DB Strengths

Fresh Data **Curated Datasets**
Scalable RAM / CPU **Fast Query**
Deterministic Responses **Robust Security**

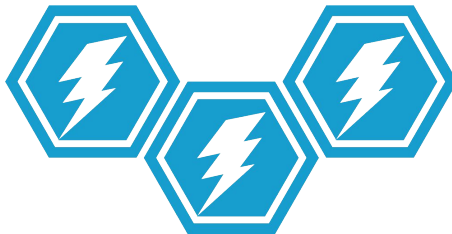
MCP servers give LLMs access to external data



Standard database features to enable AI inference

Compute/Storage
Separation

ClickHouse Cluster



RBAC policies on
data

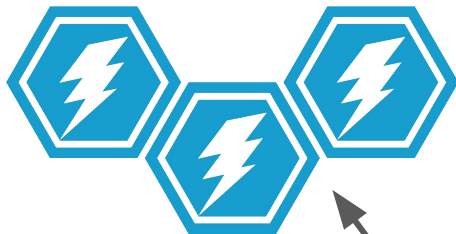
Reliable Response

OAuth Support
(i.e., SSO)

Vector Search

Data lake storage enables sharing of data for training

Real-time Dashboards



Pre-Training and/or Fine Tuning



Frontier models are still not *normal technology**

Expensive

Slow

Security Holes

Frequent
Hallucinations

* <https://knightcolumbia.org/content/ai-as-normal-technology>

Are smaller, locally run models the next step?

Small Language Models are the Future of Agentic AI

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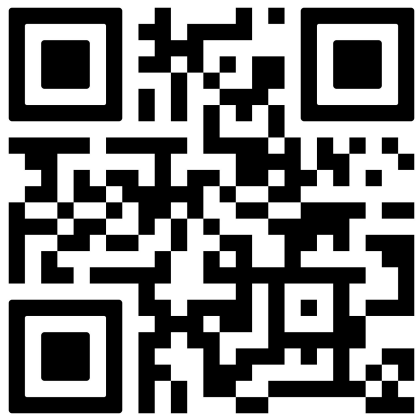


The winners in AI will be those who best combine the strengths of humans and machines

Right now it's messy and raw, but the path is clear: we are no longer just using machines, we are now working with them.

Armin Ronacher
AI Changes Everything

LinkedIn



Thank you! Questions?

Contact us to learn more about
Altinity's products and services

<https://altinity.com>

Or: Contact Robert Hodges (me) on
LinkedIn