

Cobots, dark factories and PRs



<https://www.flickr.com/photos/maitreyoda/7856293086/>



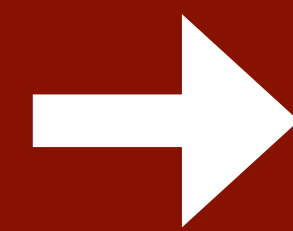
Uncertainty

Robots

Modules



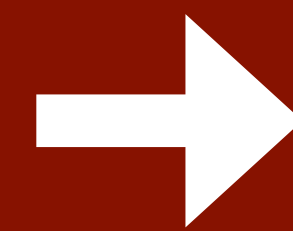
**Machine
Code**



Assembly



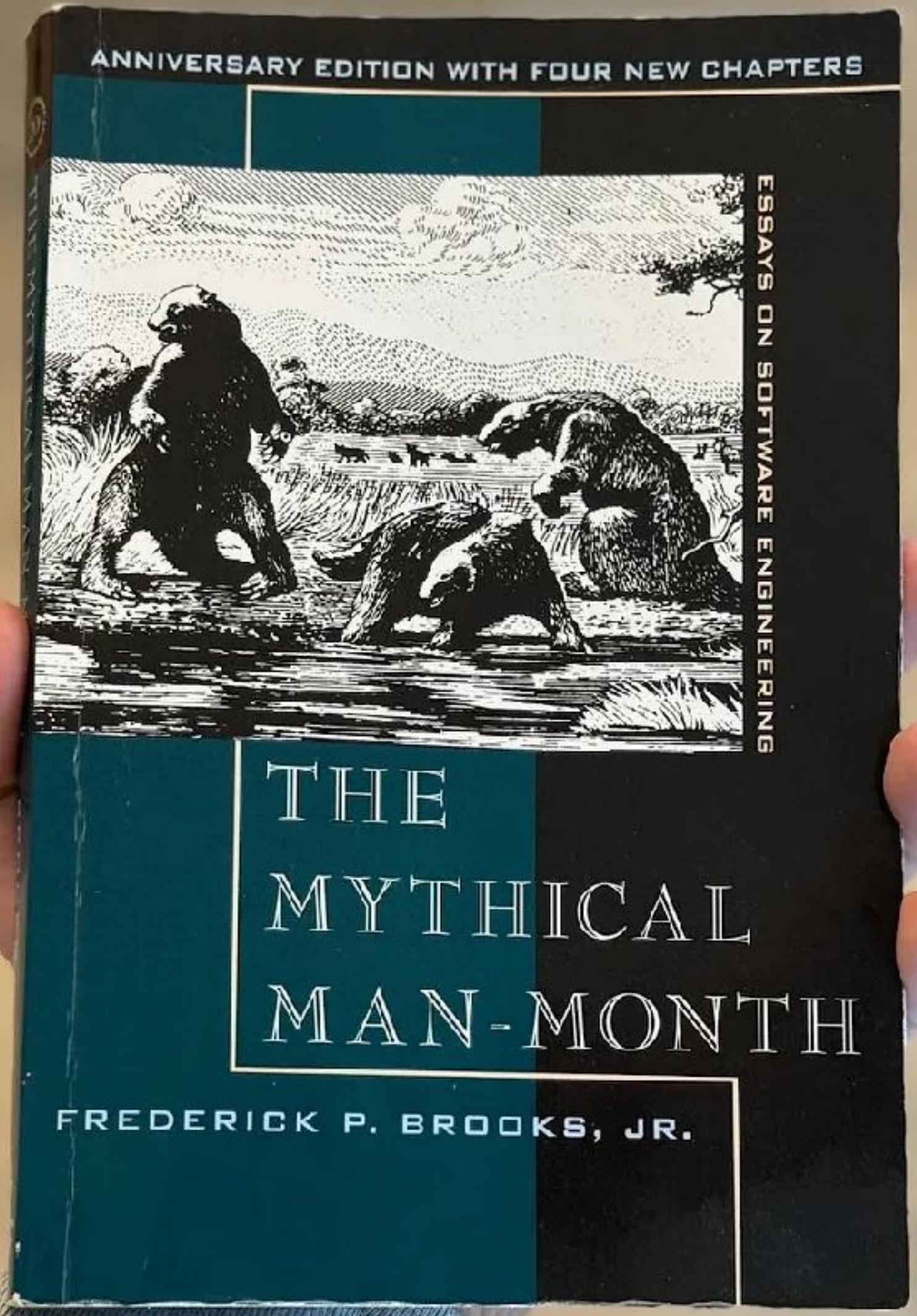
**Programming
Languages**



AI

We were promised

Jetpacks



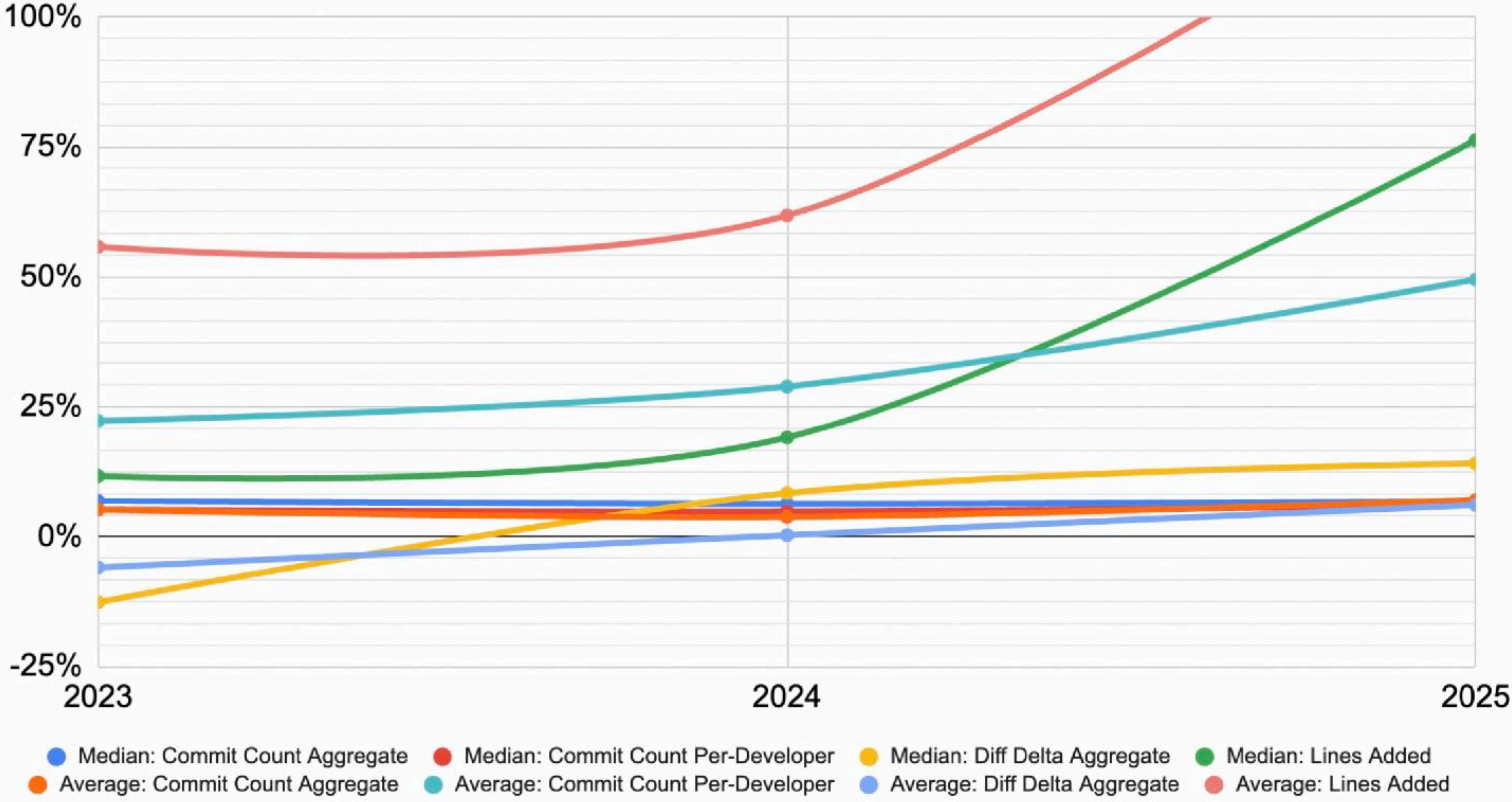
<https://newsletter.pragmaticengineer.com/p/what-changed-in-50-years-of-computing>

Not 10x,

~10%

Various Sources:
DORA state of AI-
Assisted Software
Development 2026,
DX ([https://
getdx.com/blog/ai-
productivity-gains-
are-10-percent-
not-10x/](https://getdx.com/blog/ai-productivity-gains-are-10-percent-not-10x/))

Change in Developer Output vs 2022



Source: https://www.gitclear.com/research/ai_tool_impact_on_developer_productive_output_from_2022_to_2025

**So what is the
issue?**



<https://unsplash.com/photos/huge-wave-at-daytime-KrQJzrZiCak>



<https://unsplash.com/photos/a-person-sitting-on-a-couch-with-a-book-on-their-head-oOo1hf6-uhQ>

**AI was supposed to
free us - instead we
seem to have *less*
time**

**PRs are getting
bigger, and more
frequent**

**(I think PRs are dumb
and stupid but I lost
that argument)**



**Is human review a
bottleneck?**

LGT M

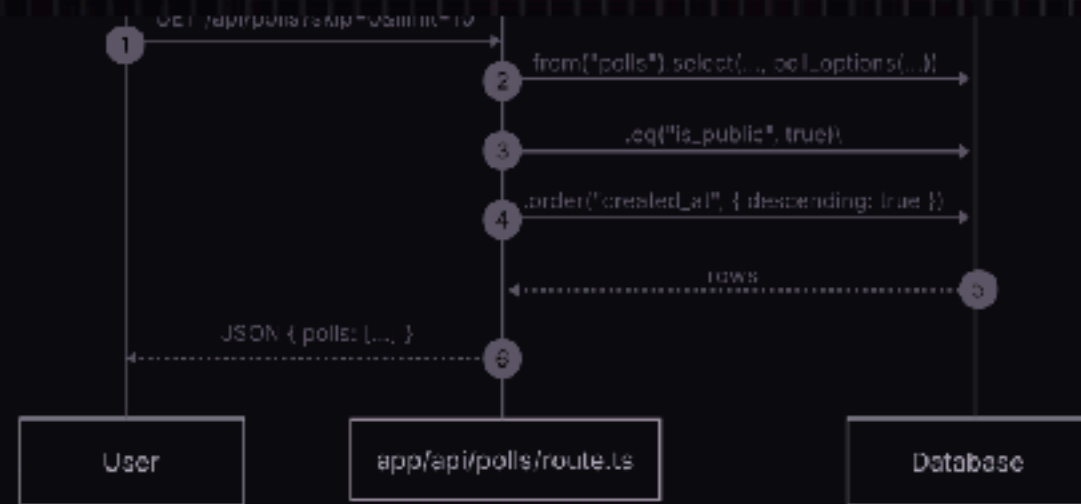
**Let's use AI for
code review!**

Cut code review time & bugs in half, instantly.

Reviews for AI-powered teams who move fast (but don't break things)

[Try it for free](#)

2-click install   



Estimated code review effort


3 (Moderate) | ~20 minutes

Nitpick comments (3)

Review details

Files selected for processing (11)

Files with no reviewable changes (2)

 **coderrabbitai** (bot) 1 min ago


Potential issue | **Minor**

... A 404 might be more suitable for not found errors.

```

- status_code=400,
+ status_code=404,
  
```

Committable suggestion


 **jbrooks215** (author) Now

Great catch! Just Fixed it.

Recommended to use a wildcard imports


-7 +1

Committable suggestions

 **jbrooks215** (author) 2 minute ago

@coderrabbitai No, we want to get rid of star imports.

**So now we have AI
write code, and
review code, and
change code**

The image features a solid green background. On the right side, there are three large, white, abstract shapes that resemble stylized, overlapping teardrops or rounded triangles pointing downwards. These shapes are positioned to the right of the main text, creating a modern, minimalist aesthetic.

**So now we have AI
write code, review
code, and change
code**

**But if AI is writing
code for AI...**

**...why are we
looking at it?**

**What is a code
review for?**

1. Correctness

2. Shared Learning

3. Alignment To Strategy

And Practice

4. An auditable Unit Of Work

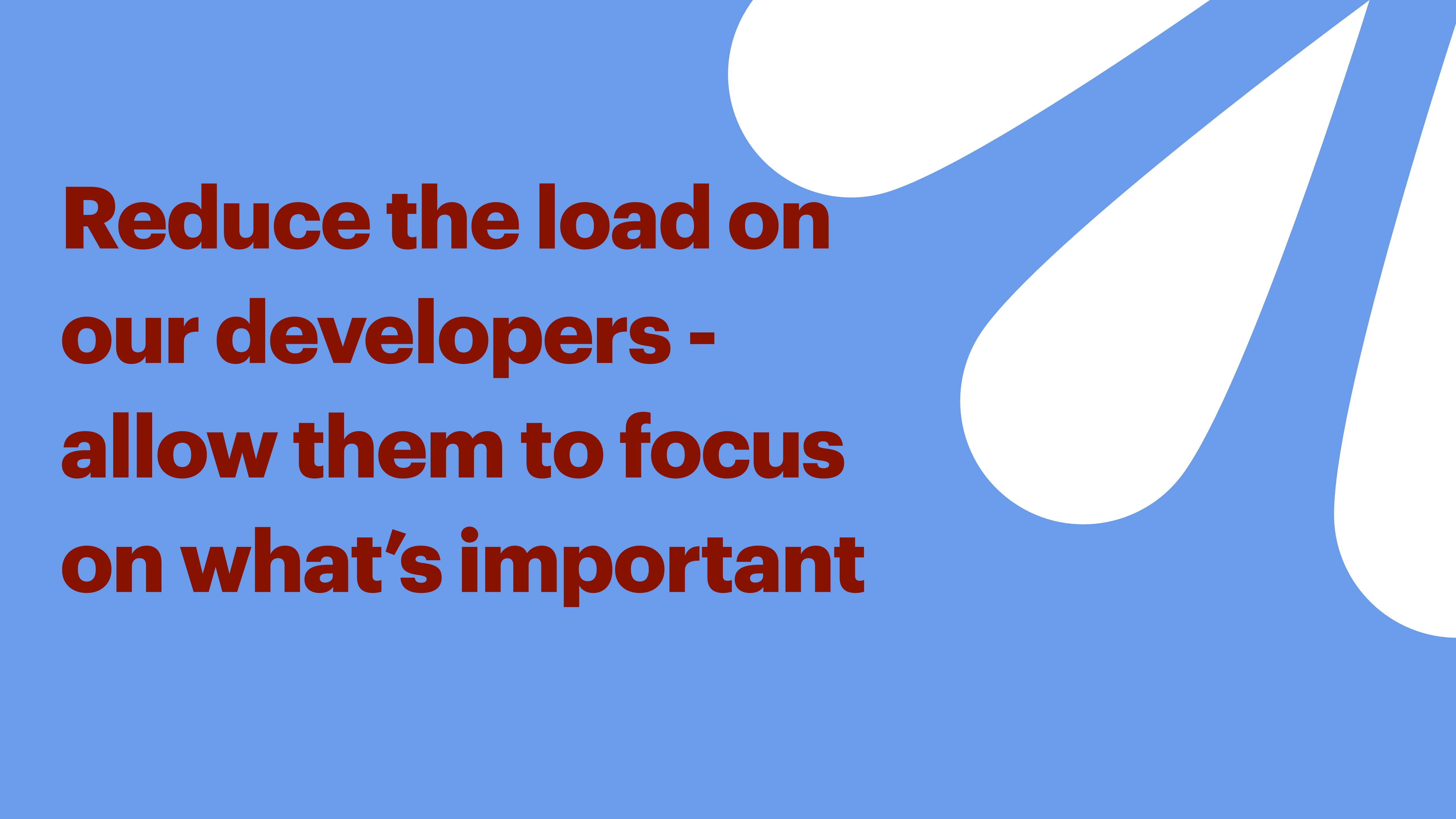
~~**1. Correctness**~~

~~**2. Shared Learning**~~

**3. Alignment To Strategy
And Practice**

4. An auditable Unit Of Work

**So why can't we
just give our code
to AI, wholesale?**



**Reduce the load on
our developers -
allow them to focus
on what's important**



Industrial Robots

The background is a solid dark green color. On the right side, there are three large, white, abstract shapes that resemble stylized robot heads or mechanical components. These shapes are positioned in the lower right quadrant of the image, with their top edges curving upwards and to the left, and their bottom edges tapering towards the right. The shapes are layered, with the one on the far right being the most prominent and the one on the left being partially obscured by the others.



<https://www.aboutamazon.com/news/operations/amazon-hercules-robot>



<https://www.satech.it/en/machine-guards-for-industrial-robots/>

Dark Factories

The image features a solid dark green background. On the right side, there are three large, white, organic, teardrop-shaped elements that overlap each other, creating a sense of depth and movement. The top-most shape is partially cut off by the right edge of the frame. The middle shape is positioned below and to the right of the top one. The bottom-most shape is the largest and is positioned below and to the left of the middle one. The overall composition is minimalist and modern.



<https://theprint.in/ground-reports/indias-only-dark-factory-polymatech-kancheepuram-tamil-nadu-automation/2850562/>

Loop

Engineering?

Loop Engineering

JUNE 7, 2026

Loop engineering is replacing yourself as the person who prompts the agent. You design the system that does it instead. A loop here can be thought of a recursive goal where you define a purpose and the AI iterates until complete. I believe this may be the future of how we work with coding agents. However, its still early, I'm skeptical and you absolutely *have* to be **careful** about token costs (usage patterns can vary wildly if you are token rich or poor), so I want to unpack what it is and what it means.

Peter Steinberger recently **said**: “You shouldn’t be prompting coding agents anymore. You should be designing loops that prompt your agents.” Similarly, Boris Cherny, head of Claude Code at Anthropic, **said** “I don’t prompt Claude anymore. I have loops running that prompt Claude and figuring out what to do. My job is to write loops”.

<https://addyosmani.com/blog/loop-engineering/>



**Have AI create
code in dark
factories**

Sounds

crazy?

**Who here has
outsourced
code?**

**Or used a 3rd
party library?**

It's too

risky!

**Is all code
equal?**



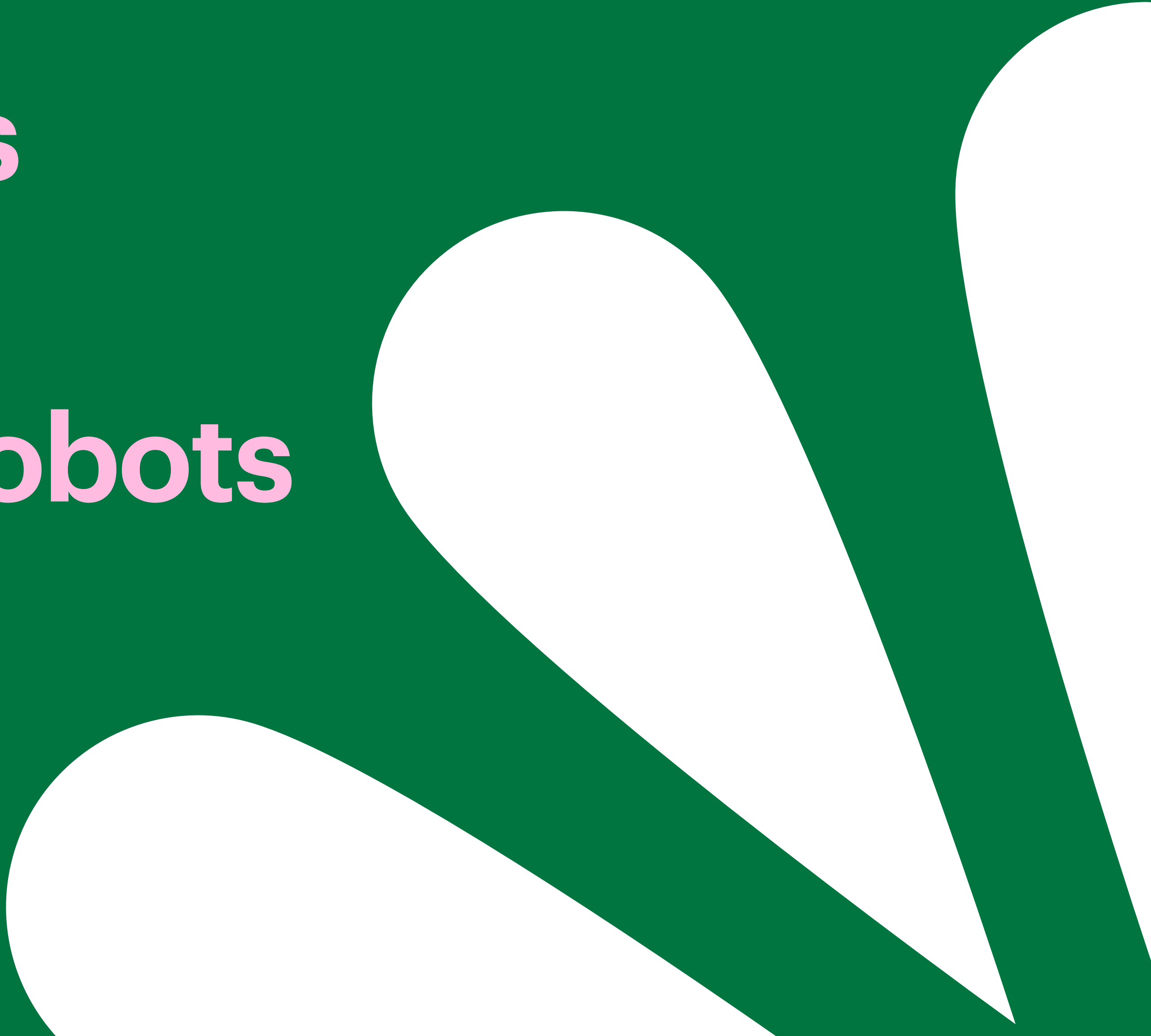
<https://unsplash.com/photos/a-very-tall-building-with-lots-of-windows-NVXq-uuN9Xk>



Photo by [JACQUELINE BRANDWAYN](#) on [Unsplash](#)

**So why treat it
the same?**

Cobots
vs
Industrial Robots

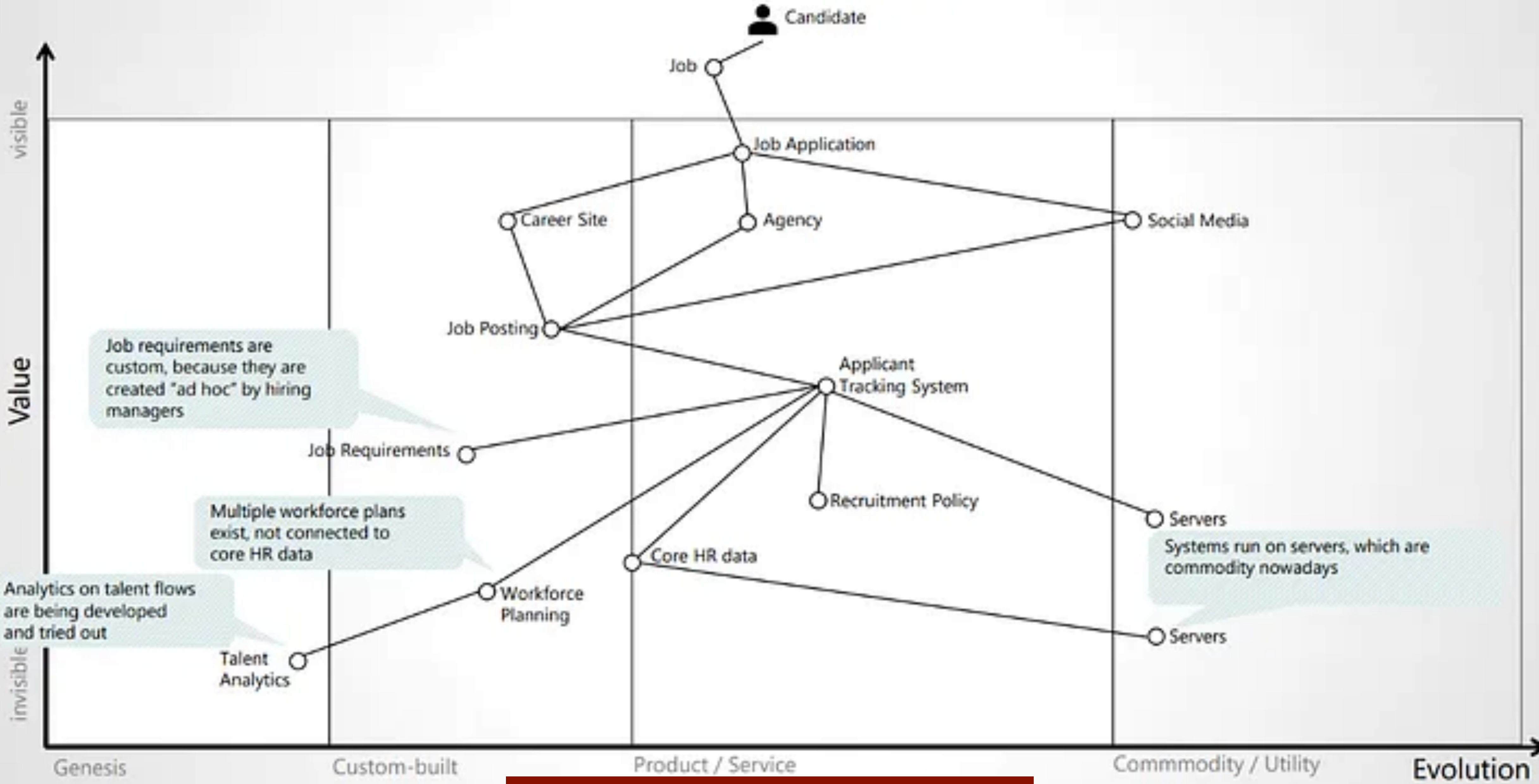
The background is a solid dark green color. On the right side, there are three large, white, abstract shapes that resemble stylized robot heads or components. These shapes are layered, with the top one being the most prominent and the others behind it, creating a sense of depth. The shapes are smooth and rounded, with some tapering towards the bottom right.



<https://digitalhealth.tu-dresden.de/projects/innovation-projects/cobot/>



<https://www.satech.it/en/machine-guards-for-industrial-robots/>





**For important code -
AI and developer
work hand in hand**

**For less critical
code, just give it
to the AI**



**Outsource
modules to
the AI**

**What makes it ok
to use 3rd party
code?**

**Or to outsource
code?**

Trust



<https://unsplash.com/photos/four-people-all-on-laptops-two-men-and-two-women-listen-to-person-talking-in-a-board-meeting-ZT5v0puBjZI>

**How much do you
trust your *AI*
Agent?**

**How much do you
trust your *AI*
*vendors?***



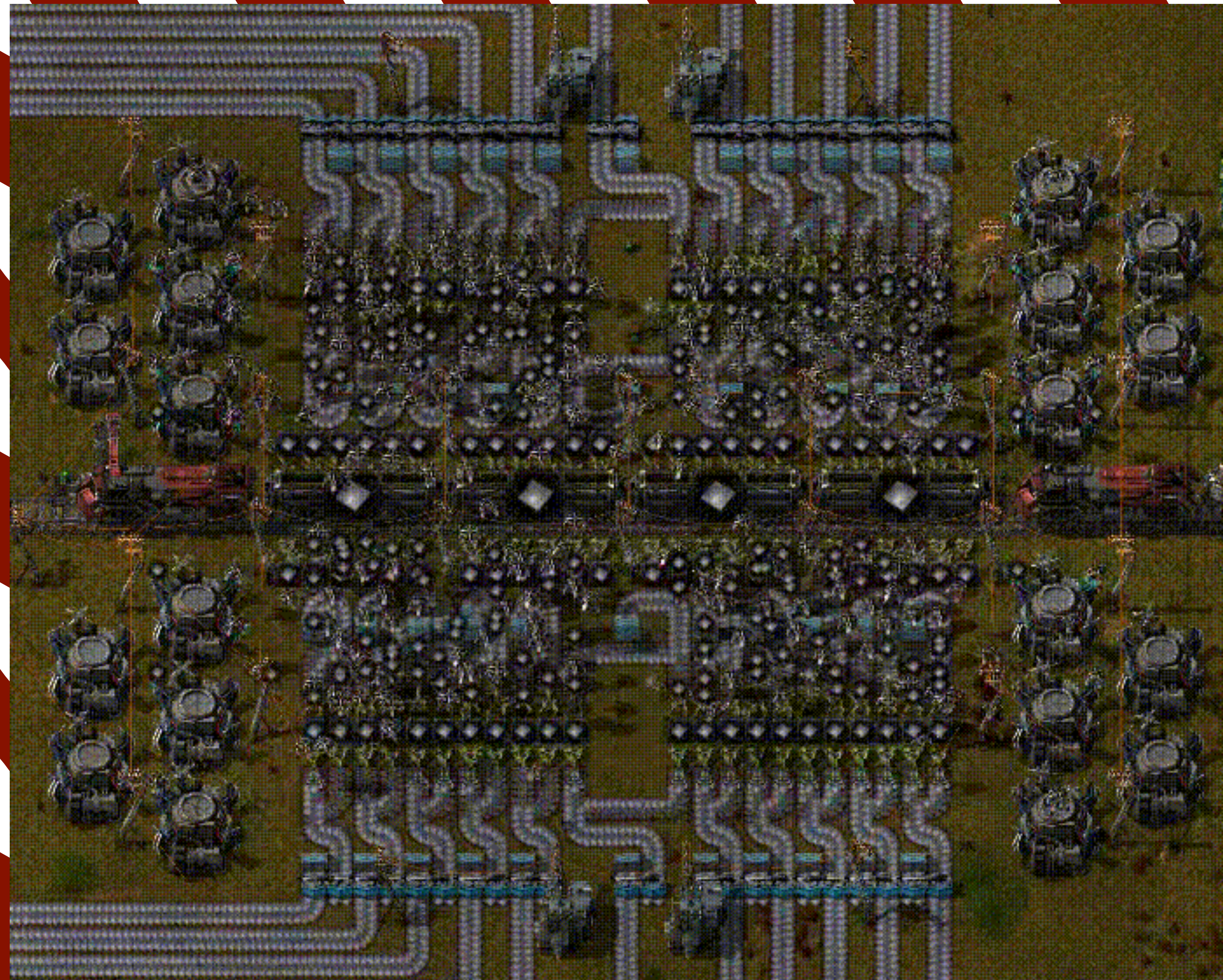
**Testing becomes
(more) vital**

As does

observability

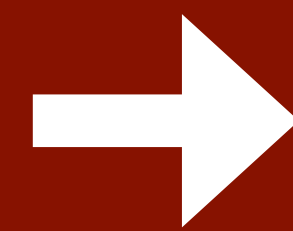


<https://unsplash.com/photos/black-flat-screen-tv-turned-on-near-black-and-gray-audio-component-iYkqHp5cGQ4>

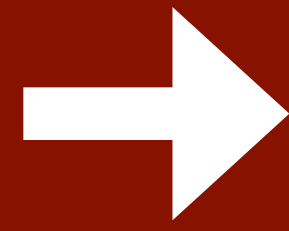


<https://wiki.factorio.com/index.php?title=File%3ARoboTrainStation.gif>

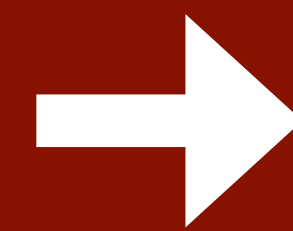
**Machine
Code**



Assembly



**Programming
Languages**



AI

Trust



Human involvement





<https://digitalhealth.tu-dresden.de/projects/innovation-projects/cobot/>



<https://robotsguide.com/robots/roomba>



<https://theprint.in/ground-reports/indias-only-dark-factory-polymatech-kancheepuram-tamil-nadu-automation/2850562/>

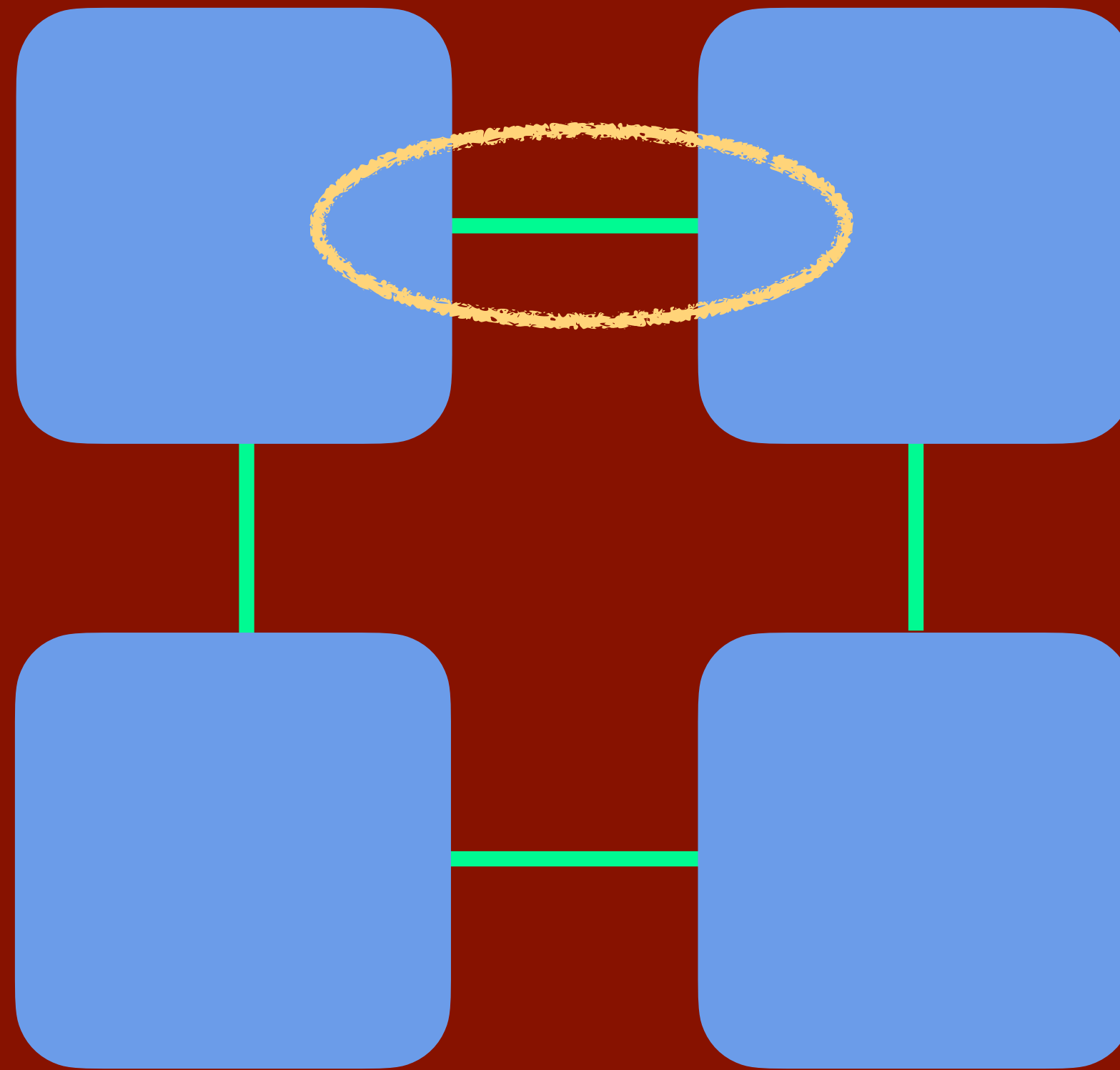
**So where is the
human still vital?**

**“...essential part of any program,
the theory of it, is something that
could not be conceivably be
expressed, but is inextricably
bound to human beings.”**

-Peter Naur

Programming As
Theory Building,
Peter Naur, 1985

Hard to change

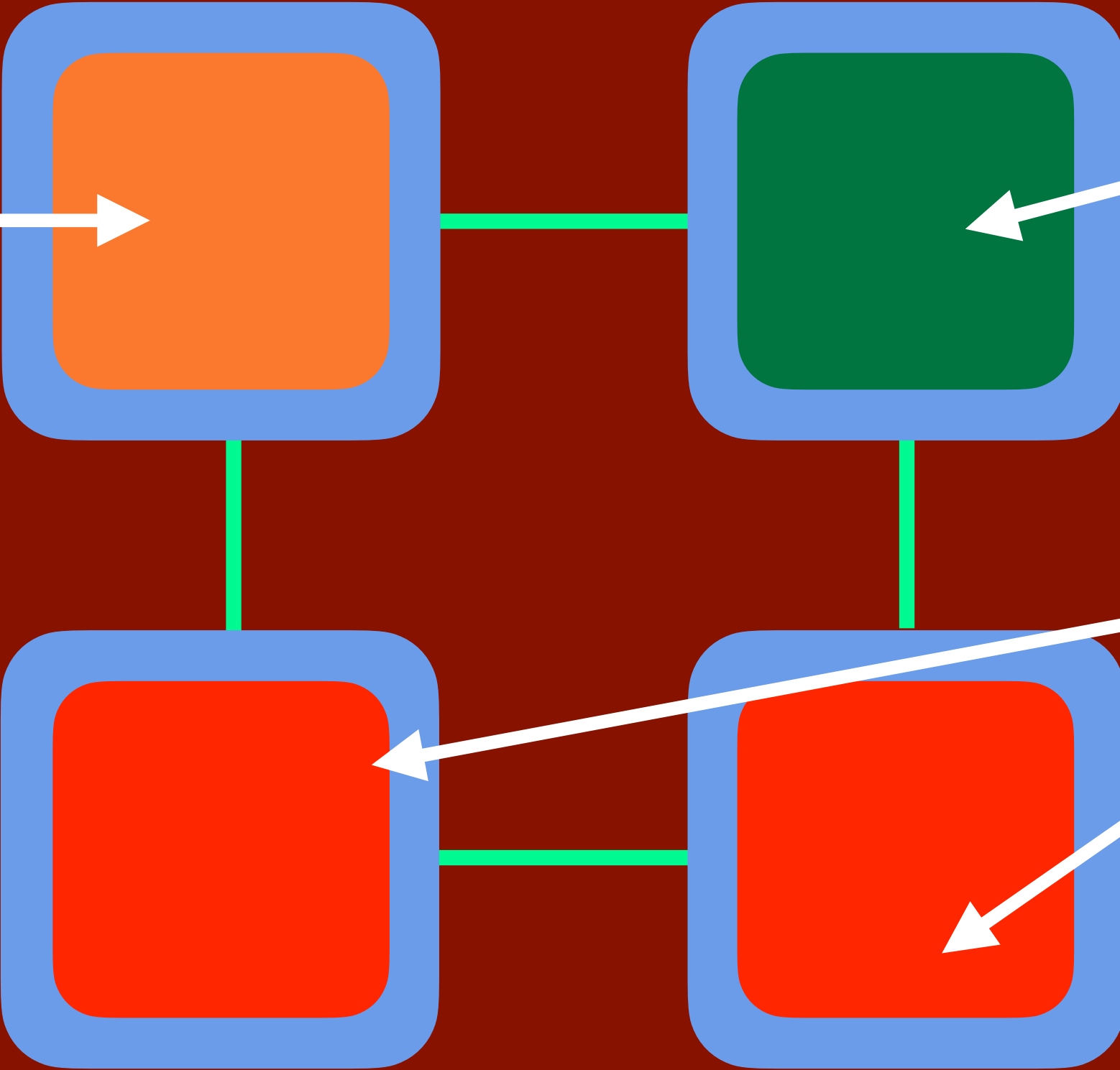


Inputs and outputs

A user interface

Verification points

Sequential



Highly collaborative

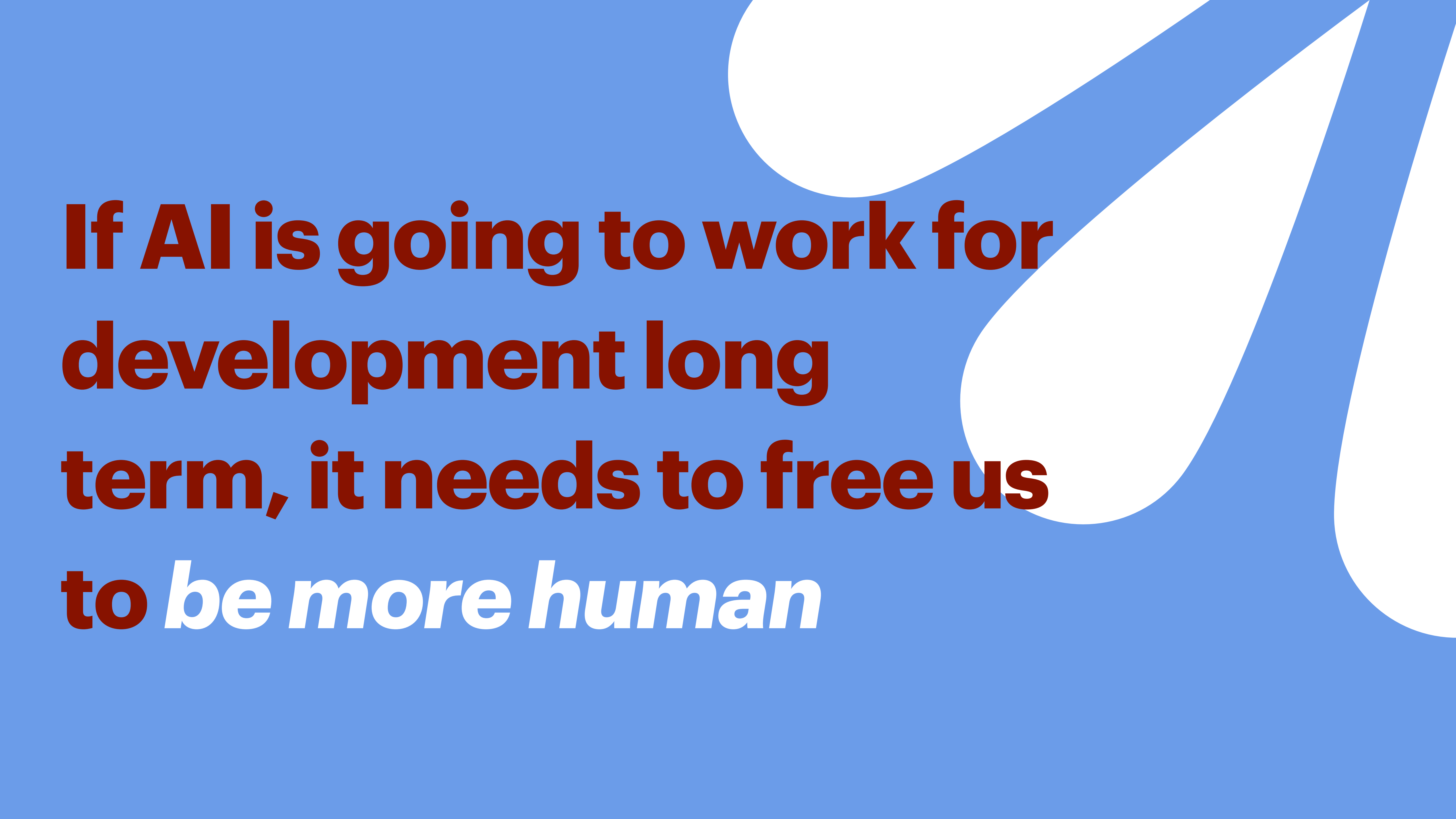
Hands-off

**“There is no such
uncertainty as a sure
thing”**

- Robert Burns

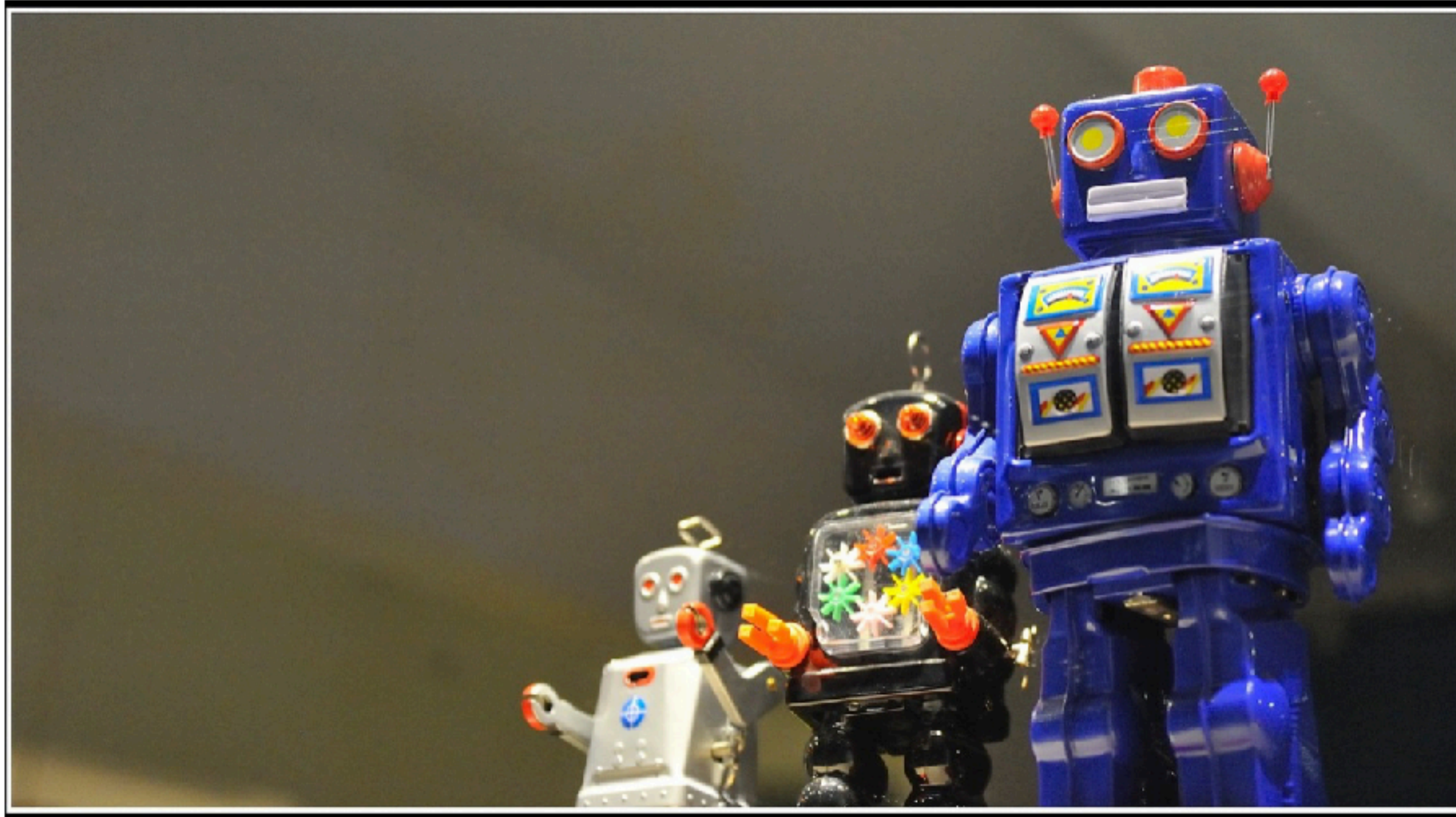


**A modular architecture
is the perfect hedge
against an uncertain
future**



**If AI is going to work for
development long
term, it needs to free us
to *be more human***

- 1. Re-examine why you have humans review code**
- 2. Identify boundaries (modules) in your system to vary working approaches**
- 3. Take time to build trust in AI**
- 4. Our near future will likely be a range of working models, not one-size fits all**



Rog01 <https://www.flickr.com/photos/maitreyoda/7856293086/> CC BY-SA 2.0

Dark Factories, Cobots, And The Potential Future Of The PR



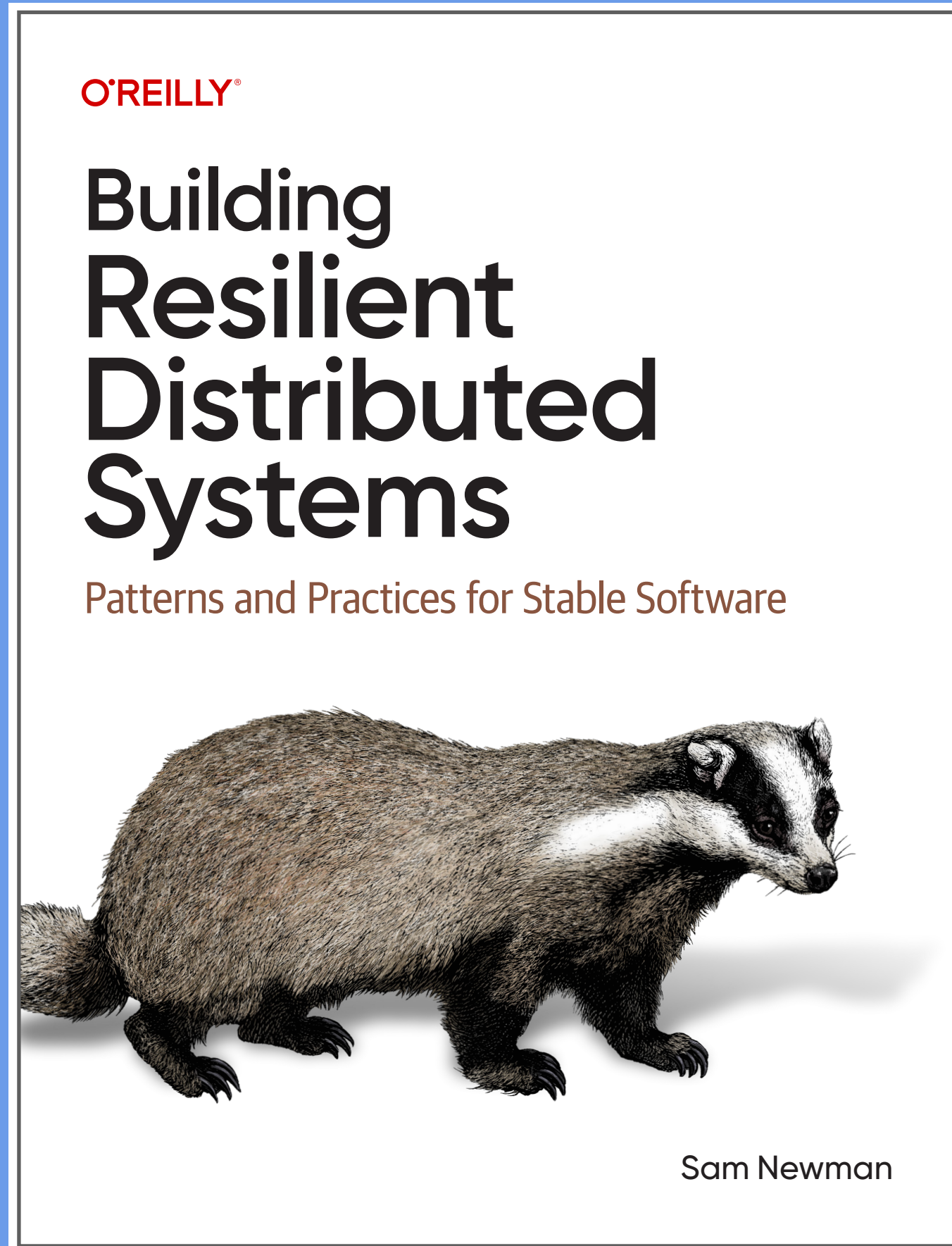
Sam Newman 

Independent technology consultant, author of Building Microservices and Building Resilient Distributed Systems. Availabl...



May 22, 2026





Slides