Ideas to shape our AI future

Aka *What can AI learn from past technology driven changes?*



Allan Kelly

allan@allankelly.net

http://www.allankelly.net

Oredev

November 2026

Does AI change everything?

Yes

Everything that came before is invalid

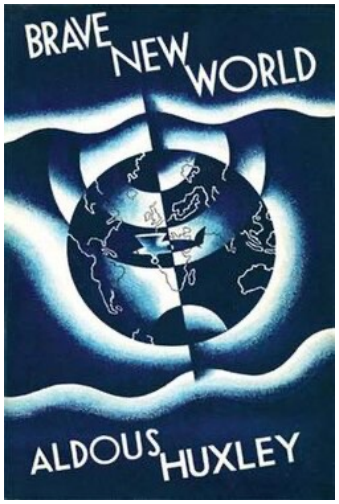
No

There are ideas, models, history that can give insights and guidance

Despite a decade or more of restructuring and downsizing, many US companies are still unprepared to operate in the ?????????? … rapidly changing technologies and ever-shorter product life cycles, product development proceeds at a glacial pace…

AI

α β

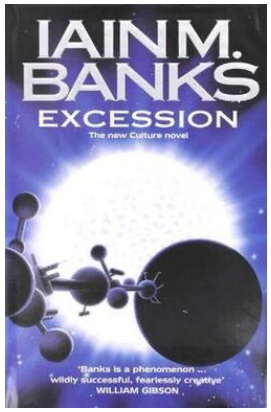


Thinking with my head

Fear Thinking

Another tech revolution
Mostly hype
Jobs created
Things will change
But also stay the same

World of plenty
Everyone is rich
& lots of leisure time



Doom
Job destroyed
My children?

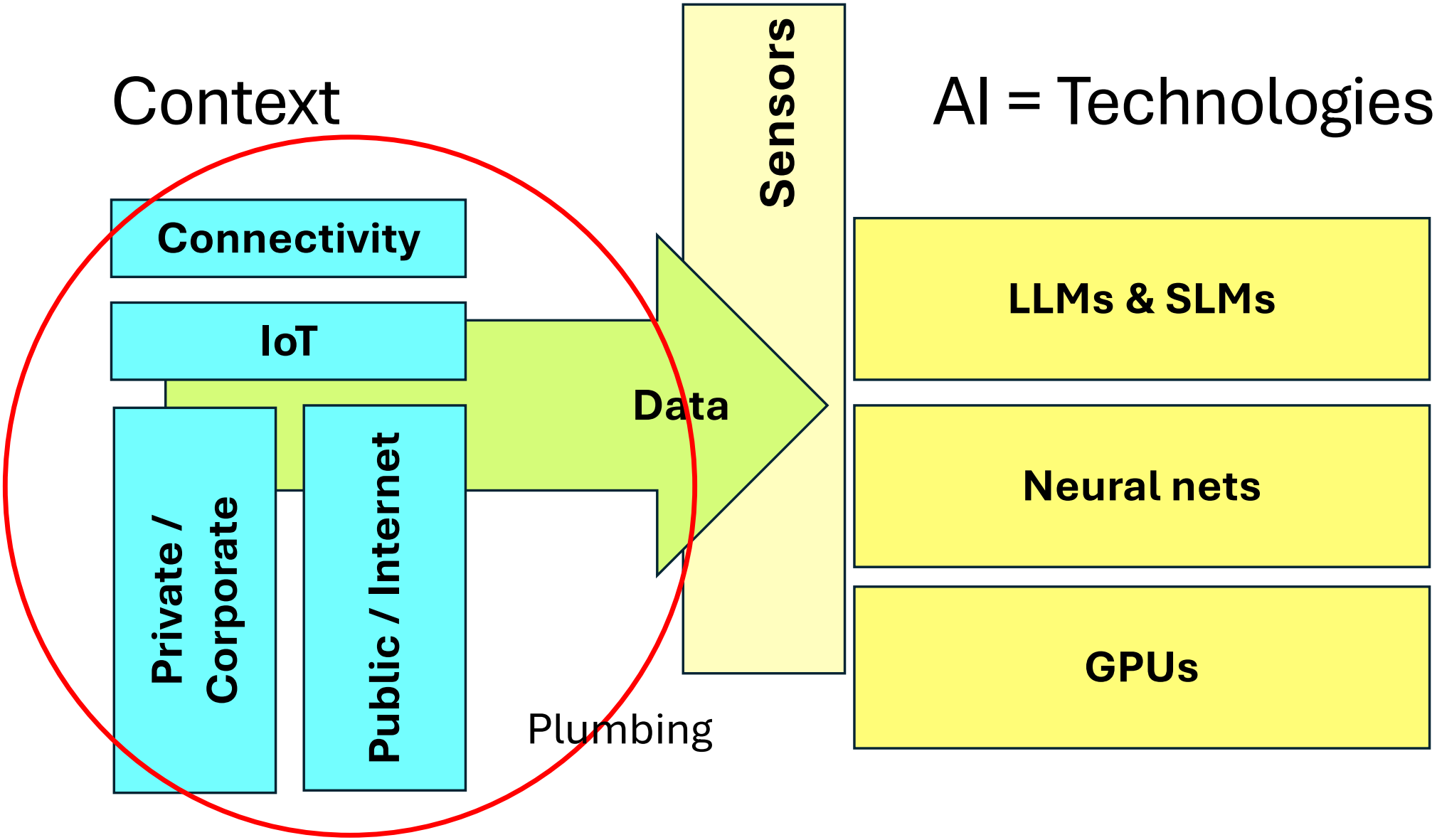


Truth

Reality will be a mix

Our ideas will shape what happen

What is AI?


Context
Connectivity
IoT
Private / Corporate
Public / Internet
Plumbing
Data
Sensors
AI = Technologies
LLMs & SLMs
Neural nets
GPUs

The Internet revolution 1995-2005

End of Middle-men

"often the only humans involved in a transaction will be the actual buyer and seller."



Bill Gates, 1999

Price.com
Hotels.com
Amazon.com
SkySkanner.com
Expedia.com
CompareTheMarket.com
Uswitch.com
PriceRunner.com
Kelkoo.com
Trolley.com
BuyRadar.com

... and every internet influencer who ever gave an affiliate link

Lessons from the internet



Technology change creates opportunities and threat

Predictions are a poor guide

New companies will emerge

New industries will emerge

Legacy companies fail slowly or find niches (e.g. travel agents)



The rate of business change lags technology change

Takes time to productive, install, change processes, change models

Productivity Paradox

You can see the computer age everywhere but in the productivity statistics.

Robert Solow, 1987

IT investment 1960, 70s & 80s

No corresponding increase in productivity

Pick up began in late 1990s

Why?

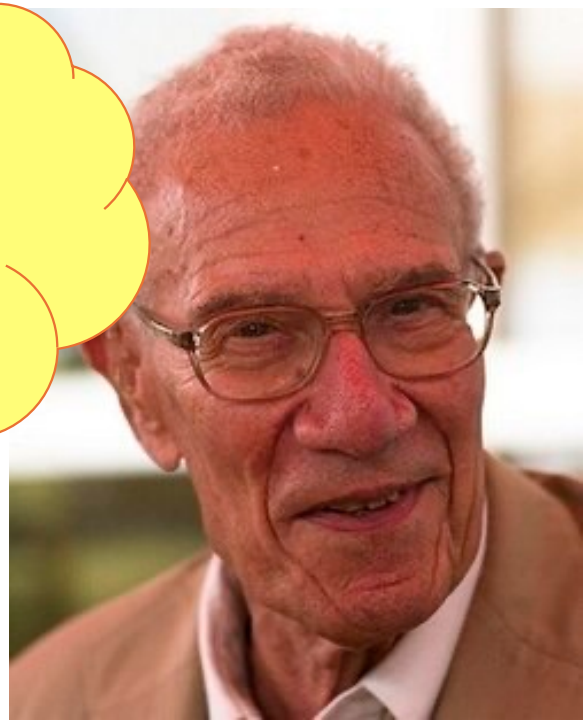
Lag between investment & paybac

Processes needed to change

Measurement of productivity

Qualitative improvement

Can we expect to see this with AI?



Electricity



Factories needed redesign

Processes needed changing



Factory image © Unknown - https://pin.it/qyb3sfi7uhhrwd

Technology Change

Stage #1 – Do the same things faster

Costs go down, consumption goes up #JevonsParadox

Stage #2 – Adopt new processes to increase benefit

Stage #3 – Innovation from process change

Repeat





1956
Ideal-X

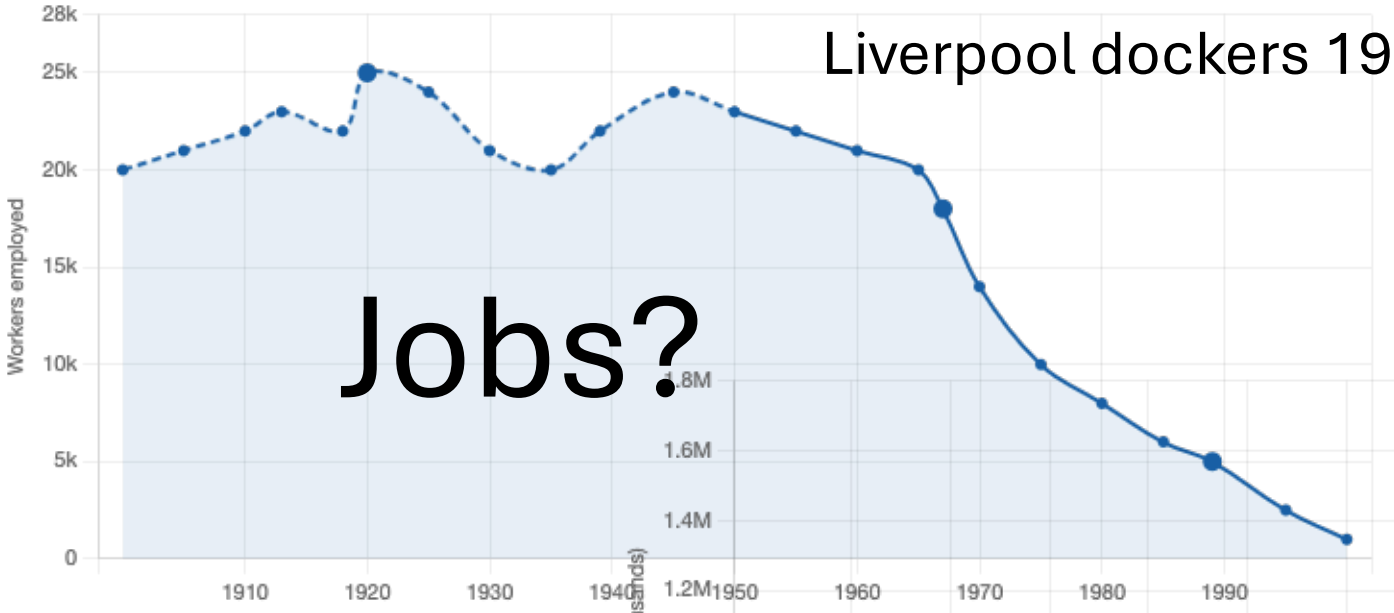
Greater efficiency

- Faster load/unload
- Less time in port
- Fewer dockers
- **Each worker has more power**



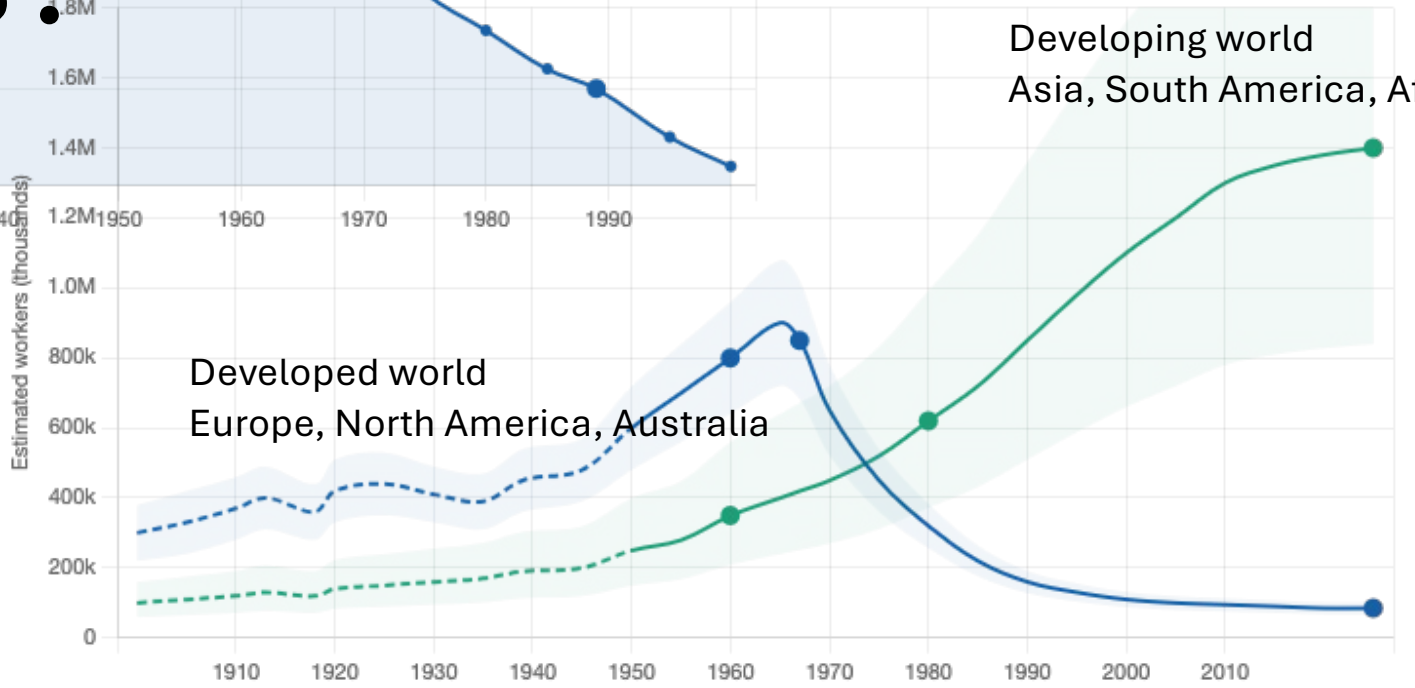
Globalisation

- Growth in economies
- Containers the real cause of growth in world trade



Jobs?

Dockers worldwide 1990-2025



Source Claude.ai

BTW… Entry level jobs…

Slow down in hiring junior positions is **not** AI

Slow down is Work From Home

John Lambert , London School of Economics
Yannick Schindler, University of Oxford

John Burn-Murdoch, FT, 29 May 2026,
What if remote working, not AI, is to blame for weak junior hiring?

Jevons paradox

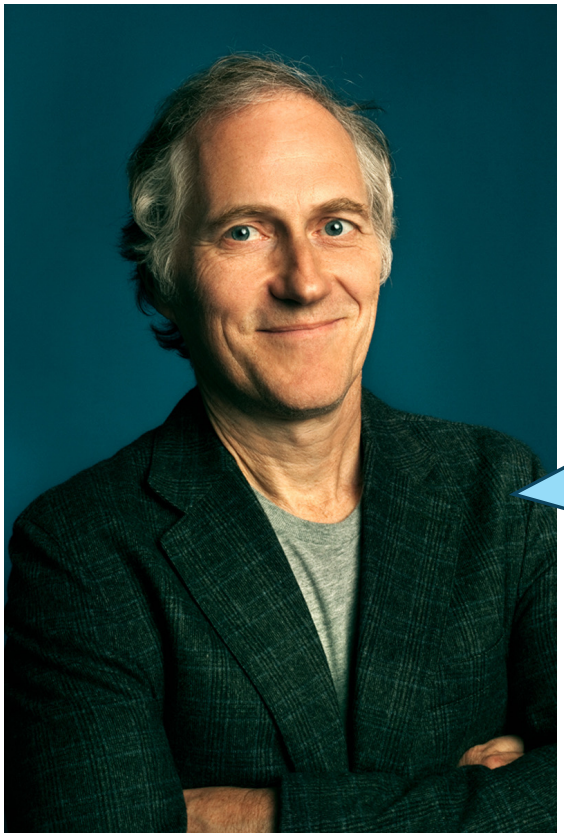
When technology improvements increase efficiency (lower price) more is used





Prediction: Reducing the cost of code means more will be created

- More to test
- More to maintain
- More cybersecurity
- More legacy
- More single user systems



a large part of the work of [Google, Amazon, Uber, etc.] … is performed by software programs and algorithms. **These programs are the workers, and the human software developers who create them are their managers.**

Tim O'Reilly
MIT Sloan Management Review,
March 2016

Technologist need to know business strategy, business need, constraints, profit/loss, accounts…

Despite a decade or more of restructuring and downsizing, many US companies are still unprepared to operate in the [redacted] ... rapidly changing technologies and ever-shorter product life cycles, product development proceeds at a glacial pace...

We should “reengineer” our businesses: use the power of modern IT to radically redesign our business processes in order to achieve dramatic improvements in performance.

“Reengineering Work: Don’t Automate, Obliterate”
Michael Hammer, Harvard Business Review, 1994

Business Process Reengineering, 1990-1999



Don’t Automate, Obliterate

Could AI be a remake of BPR?

BPR: delivering outcomes with technology

- Top-down change
- Technology solutions imposed
- Users sidelined (and fired)
- Technology driven
- Technology to replace people
- Processes remapping

Could AI be making the same mistake?



Ignored tacit knowledge: processes are more complex

Expensive, mostly failures

AI

How many of you spend your day writing documents?

Will documentation save us?

- Who reads a 500-page document?
- Average UK company report increased 31% (words) 2000-2024



AI is a solution in search of a problem

Today's AI killer apps

- Coding
- Better search
- Writing student assignments
- Military targeting
- ~~Medical image scanning~~
- Fraud detection
- Drug discovery?
- Taking minutes in meetings (which don't need minutes)

What should we be doing with AI?

- Marking student essays (not writing)
- Mass low-cost medical screening
- Military defence (not offence)
- Reducing GPU power consumption
- Low intensity LLM models

AI tools will allow solutions to a new range of problems (more difficult ones)

Competitive advantage?

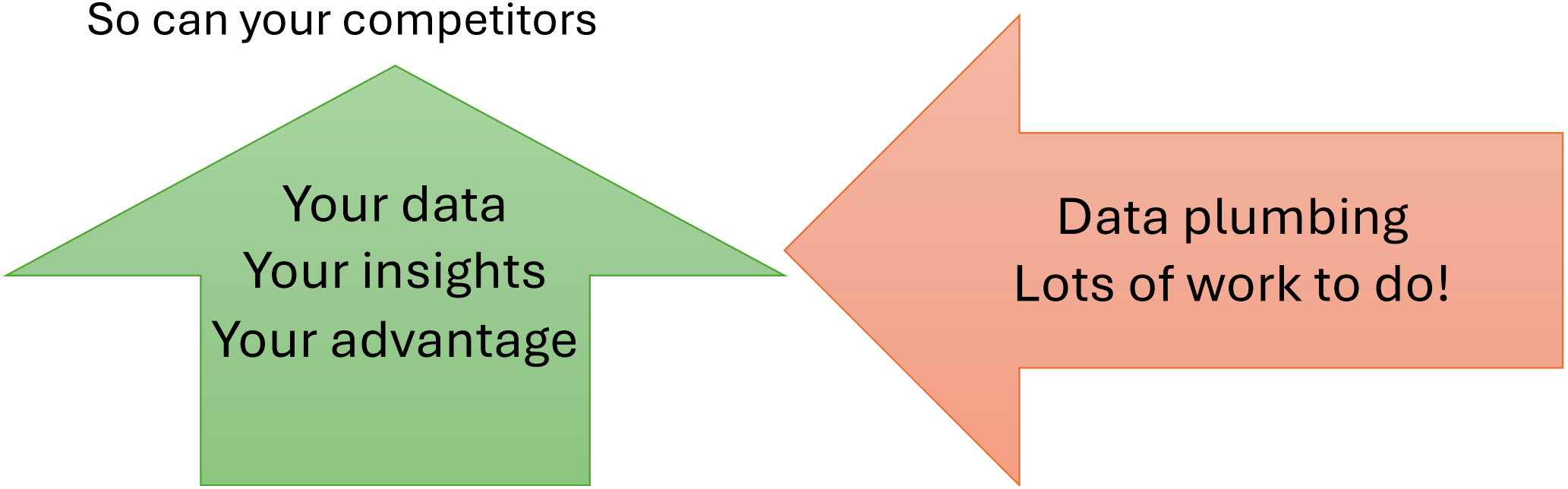
If you can ask an LLM what to build

And the LLM can build it for you

So can your competitors

If your competitor uses AI to reduce costs

So can you



Finally… In an AI economy…

Where do Governments & people get money?

Google, OpenAI, Anthropic, Oracle, MS - have all the money but don’t want to pay tax



Why not tax…

The new workers - GPUs & CPU

Tokens

- Discourage frivolous polluting use

Capital

Pollution from data centres

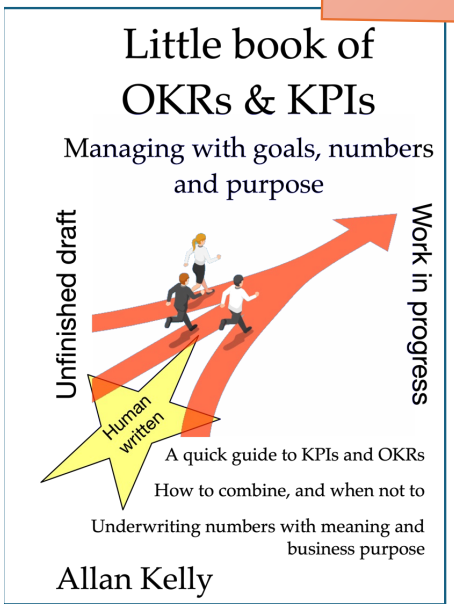
Electricity used by data centres

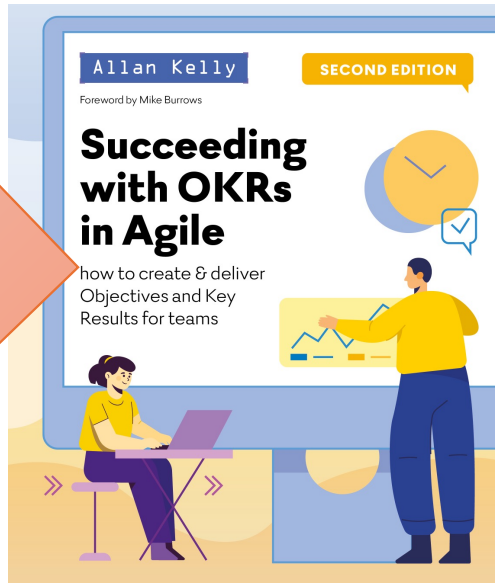
- Encourage efficiency



The end

Work in progress
https://leanpub.com/OkrsKpis







Allan Kelly

allan@allankelly.net

http://www.allankelly.net/blog

https://allankellynet.substack.com