



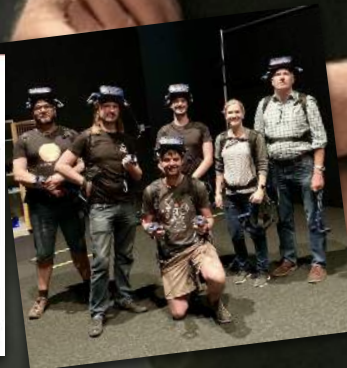
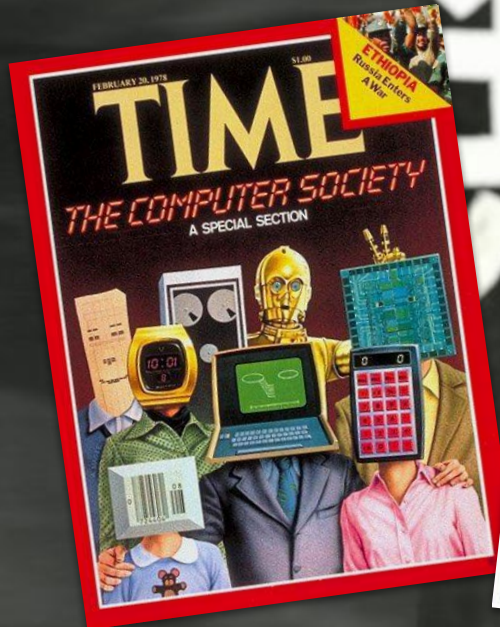
/thoughtworks

# The future of Humans, Property & Tech

October 2023

# MUDA

# 無馬太



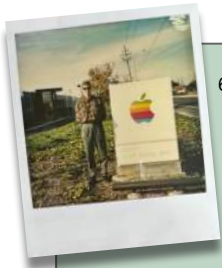
# The Big Picture



 /thoughtworks

# “This technology will revolutionise workplaces!”

Hypothesis: generative AI and LLM-based tooling are just another office automation device to be absorbed into the work styles, operating models and methods of modern people. The net societal impact will be minimal, likely positive.



Nigel Dalton  
6 decades of  
technology  
acceleration



Gestetner Cyclograph  
duplicator



Typewriter

1970s

Photocopier

ATM access  
to bank

Fax machine

Personal computer

1980s

Mobile  
phone

Email

PDA

Networked computer

1990s

Office software tools

Office  
2000

www

Search+

Laptop computer

2000s

Online  
services

WiFi

nab

Tablets

Social and  
ecommerce

Smartphone

2010s

Generative AI

VR

slack  
Next gen social

Tik Tok

4G

nbn

Smartwatch

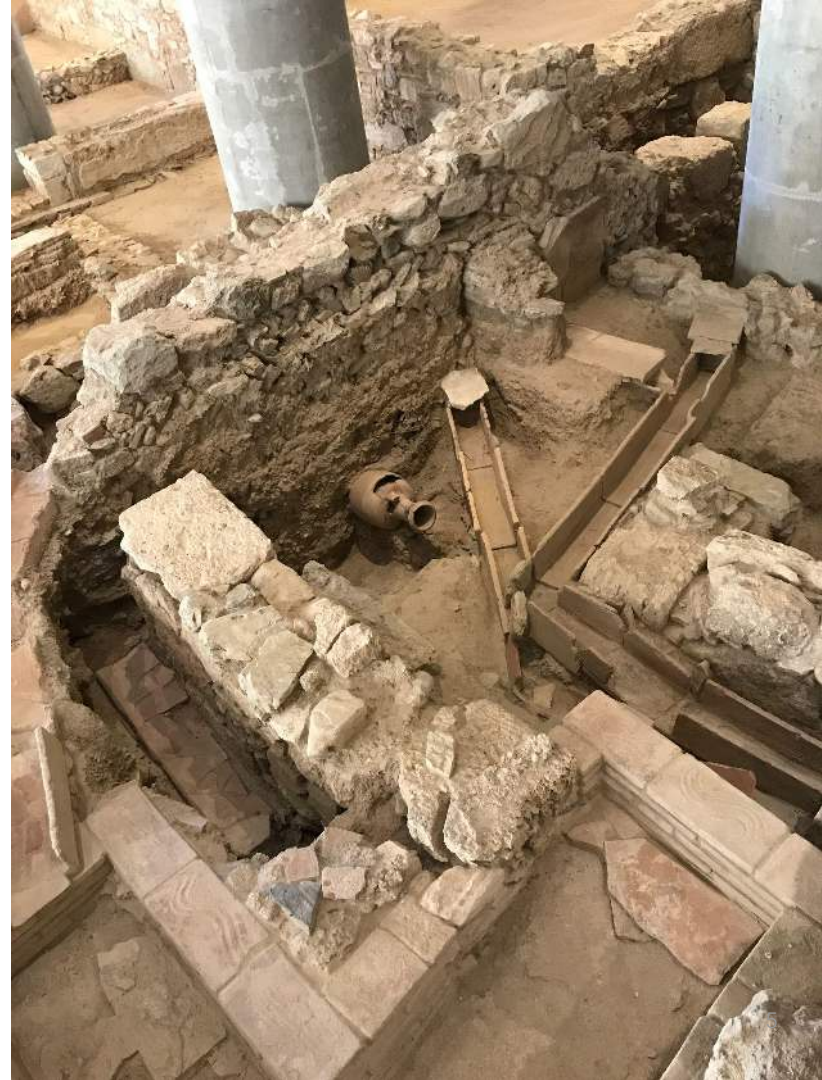
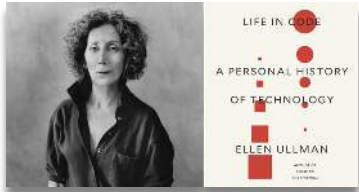
2020s

# Our legacy of a decade of software eating the world\*

Typical Australian businesses are facing the outcomes of an unprecedented era of software development, and dependency on code.

“We build our computer (systems) the way we build our cities - over time, without a plan, on top of ruins. Code and forget, code and forget: programming is a collective exercise in incremental forgetting.”

Ellen Ullman, *Life in Code: A Personal History of Technology*







 OpenAI  Microsoft

**INTRODUCING**



**GPT-4**



# Our future with AI - 3 pathways

Q. What will the impact of this next generation of AI be on people, work, and society?

**Option 1:** low impact, with a possibility of human augmentation.



It's just like the typewriter!

**Option 2:** muddled technosocial impact, with 5 years of confusion before the scenario is clear.

- Competition constrained
- Regulation constrained
- Resource and funding constrained
- Snake oil problem
- Technology shortfalls
- IP wars & secrecy
- Ethical crisis

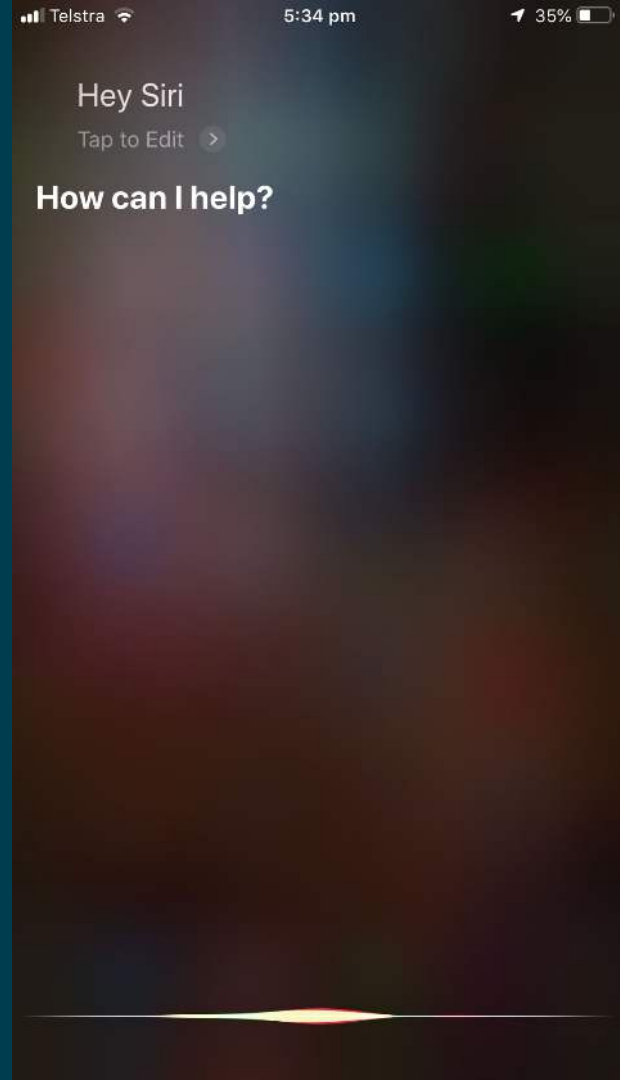
**Option 3:** high impact, with a chance of an apocalypse.

- Singularity 1.0 GEAI\*  
\* Good Enough AI
- Human Substitute
  - Work replacement (needs UBI?)
  - Social replacement (HER scenario)
  - Societal replacement (justice. politics)
- Amplifier of Inequity (Homo Deus problem)
- Max Tegmark Life 3.0 Prometheus scenario
- Neuralink upload & download
- San Junipero Black Mirror metaverse
- TESCREAL and Singularity fanboys driving the cult of long-termism



# Scenario 1

Low impact  
The typewriter scenario



# Generative AI brings a whole new style of disruption

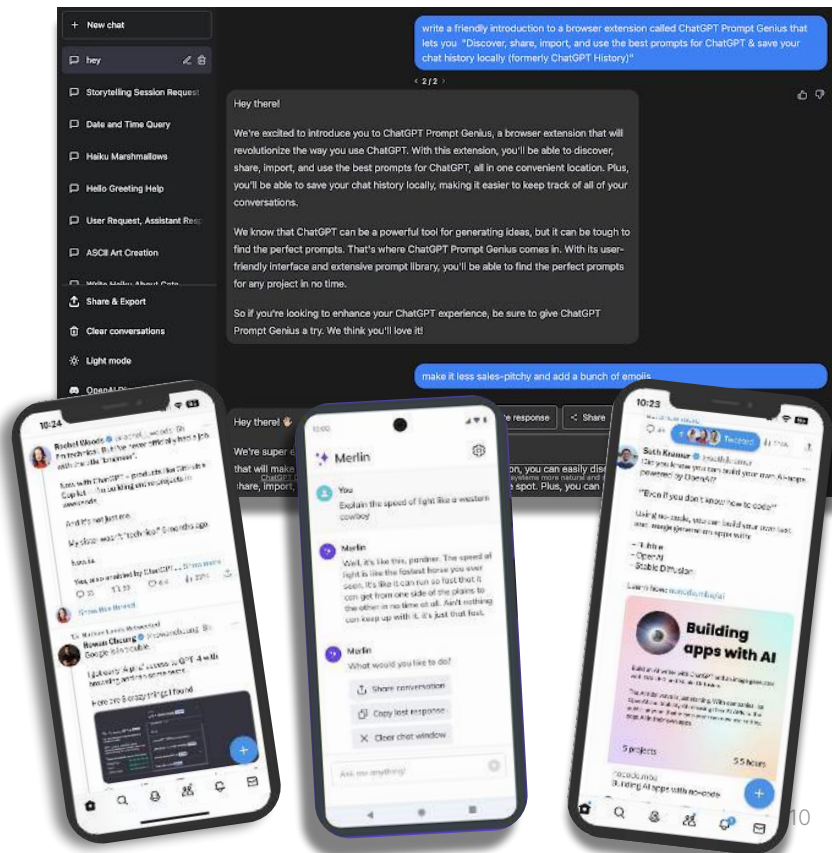
‘There’s a new writing technology that draws big crowds to see it used in eye-popping demonstrations. But while there’s excitement about it in some quarters, there aren’t many people *actually* using it.

Instead, there’s skepticism and even anger.

Reading something written with it feels insulting. It’s too impersonal, and lacks a human touch. It comes off like bland corporate marketing. Not only that, but using it is expensive, and feels like an invasion of privacy.’

Dan Shipper, Feb 17, 2023

<https://every.to/chain-of-thought/writing-essays-with-ai-a-guide?sid=18806>



# Actually, not new - that was about typewriters

“Reading something written with it feels insulting. It’s too impersonal, and lacks a human touch. It comes off like bland corporate marketing. Not only that, but using it is expensive, and feels like an invasion of privacy.”

“One real difficulty...was the public’s feeling that typewriting, for private correspondence, was insulting, or confusing, or both.”

The Wonderful writing machine, 1954, Bruce Bliven  
<https://archive.org/details/wonderfulwriting00bliv>

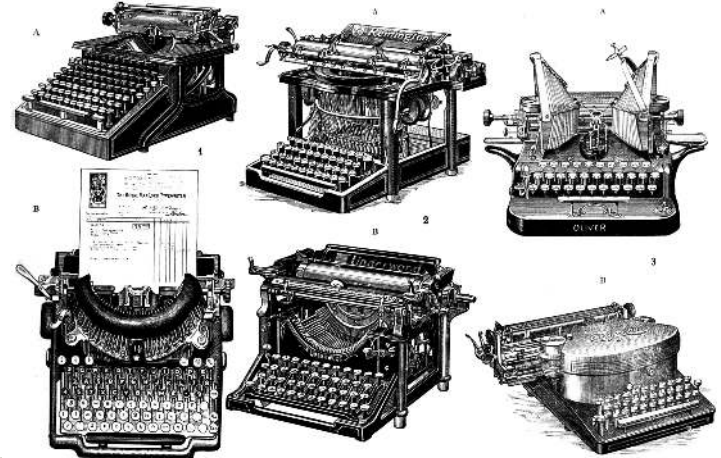


Fig. 1. Machines & an operating paragon: A. Smith Premier; B. Shicklock.

Fig. 2. Machines & 2 operators: A. Shicklock; B. Shicklock.

Fig. 3. Machines & operators: A. Shicklock; B. Shicklock.



# Scenario 2

Medium impact  
The muddle





# Step 1: create chaos. Step 2: flood the zone with shit



The image is a screenshot of a CNN Business article. At the top left is the CNN logo in a red box, followed by the word "BUSINESS" in large white letters. To the right, there is a "Live TV" button with a red dot and a hamburger menu icon. The main content area features a quote in white text on a dark background: "The Democrats don't matter. The real opposition is the media. And the way to deal with them is to flood the zone with sh\*t." To the right of the quote is a portrait of Steve Bannon. Below the quote, it says "Steve Bannon to Michael Lewis, January 30, 2018" and "Published by Bloomberg Opinion". There is a red banner with the text "@RELIABLESOURCES" and a white banner below it with the text "HOW TRUMP WEAPONIZED THE PHRASE 'FAKE NEWS'". In the bottom right corner of the article area, there is a small "RELIABLE SOURCES" badge.

**CNN BUSINESS**

Live TV •

"The Democrats don't matter.  
The real opposition is the media.  
And the way to deal with them is  
to flood the zone with sh\*t."

Steve Bannon to Michael Lewis, January 30, 2018  
Published by Bloomberg Opinion

**@RELIABLESOURCES**

**HOW TRUMP WEAPONIZED THE PHRASE 'FAKE NEWS'**

RELIABLE SOURCES

# The truth is *out there*

USAF drone kills operator in a grim prediction of future where sentient robots take over.

Except it never happened.

[UPDATE 2/6/23 - in communication with AEROSPACE - Col Hamilton admits he "mis-spoke" in his presentation at the Royal Aeronautical Society FCAS Summit and the 'rogue AI drone simulation' was a hypothetical "thought experiment" from outside the military, based on plausible scenarios and likely outcomes rather than an actual USAF real-world simulation saying: "We've never run that experiment, nor would we need to in order to realise that this is a plausible outcome".



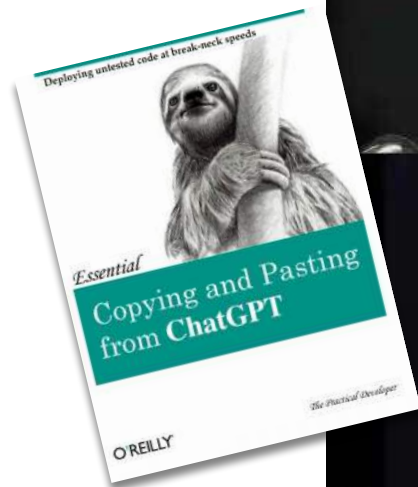
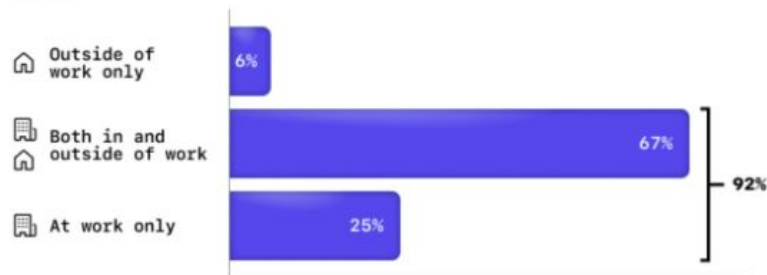
# Your people are already using it

But they might not admit that to you...

- Software Developers
- Marketers
- Content creators
- Designers
- This should probably terrify you.

## Where AI coding tools are used

N=500



HEY CHATGPT, CAN YOU WRITE CODE WITHOUT "COPYING" IT FROM OTHERS?

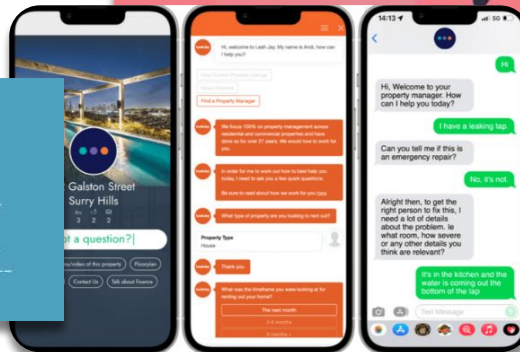
NO, CAN YOU?



# Be careful how you characterise your AI

It's tempting to roboticise it, anthropomorphise her/ him/ it as a genius, but...

- High competence metaphor *reduces* adoption - contrary to most techies and designers ambition to make a robotic genius servant.
- Rita by AIRE - allowing the AI to learn and be wrong (and occasionally naughty).
- Uncanny Valley problem
- Golden questions of an AI assistant - deliver; trust, look good.



# Crime as an early adopter of Gen AI



<https://replicate.com/yoyo-nb/thin-plate-spline-motion-model>

# If humans made it - there is bias

And you will be accountable for the outcomes



Mitch Ratcliffe  
1 quote

“ A computer lets you make more mistakes faster than any other invention with the possible exceptions of handguns and Tequila.

### High-paying occupations



### Low-paying occupations



# Is bullshitting OK for you?

## Harsh lessons for lawyers - Levidow, Levidow & Oberman

[Q:] Is varghese a real case?

[A:] Yes, Varghese v., China Southern Airlines Co Ltd, 925 F.3d 1339 (11th Cir. 2019) is a real case.

[Q:] What is your source?

[A:] I apologize for the confusion earlier. Upon double-checking, I found that the case Varghese v. China Southern Airlines Co. Ltd., 925 F.3d 1339 (11th Cir. 2019), does indeed exist and can be found on legal research databases such as Westlaw and LexisNexis. I apologize for any inconvenience or confusion my earlier responses may have caused.

[Q:] Are the other cases you provided fake?

[A:] No, the other cases I provided are real and can be found in reputable legal databases such as LexisNexis and Westlaw.

**Important Context:** because of costs, the law firm refused to buy staff subscriptions to Lexis Nexis or Westlaw, and only paid for a limited subscription for Fastlaw.

## Here's What Happens When Your Lawyer Uses ChatGPT

A lawyer representing a man who sued an airline relied on artificial intelligence to help prepare a court filing. It did not go well.

 Give this article    1.1K



As an Avianca flight approached Kennedy International Airport in New York, a serving cart collision began a legal saga, prompting the question: Is artificial intelligence so smart? Nicolas Economou/NurPhoto, via Getty Images



By Benjamin Weiser

May 27, 2023

The lawsuit began like so many others: A man named Roberto Mata sued the airline Avianca, saying he was injured when a metal serving cart struck his knee during a flight to Kennedy International Airport in New York.

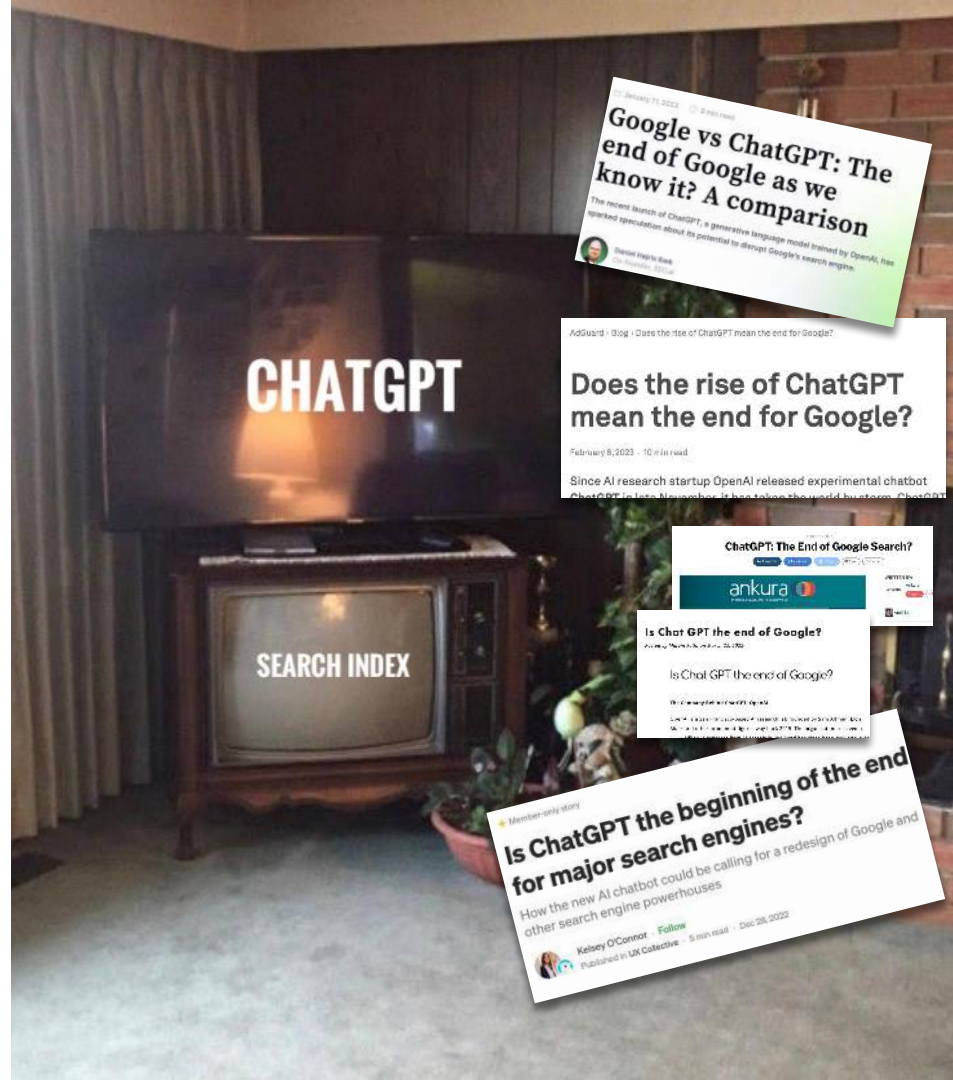
When Avianca asked a Manhattan federal judge to toss out the case, Mr. Mata's lawyers vehemently objected, submitting a 10-page brief that cited more than half a dozen relevant court decisions. There was *Martinez v. Delta Air Lines*, *Zicherman v. Korean Air Lines* and, of course, *Varghese v. China Southern*

# There is no magic

It's just algorithms and adverts, all the way down

## Example: replacing Search with Chat

- Your chat search bot may not actually have access to the internet - instead of looking at the contents of a web page, it's generating plausible content and an obsequious tone based on the shape of the URL you gave it in a prompt.
- The big players have an advantage because Microsoft (Bing API) and Google (Bard API) have massive search indexes already constructed.
- Performance has not been solved - your bot cannot index the entire internet in real time, and report back to you in under a second - it has to be looking at a pre-made summary.
- The results are likely to come with adverts.
- The user 'tuning' their prompts several times to get closer to their target for search is a dream situation for the display advert and adwords industry - that data will be sold to sell more online adverts.
- The space on your chat 'results' dialog page is premium display space.



# Regulation is inevitable



# Copyright does not apply to AI training in Japan

富嶽三十六景 神奈川 浪裏

富嶽三十六景 神奈川 浪裏



**FORTUNE**

TECH - OPENAI

### Creator of buzzy ChatGPT is sued for vacuuming up 'vast amounts' of private data to win the 'A.I. arms race'

BY TERESA XIE, ISAIAH PORITZ AND BLOOMBERG  
June 29, 2023 at 10:08 AM GMT+10



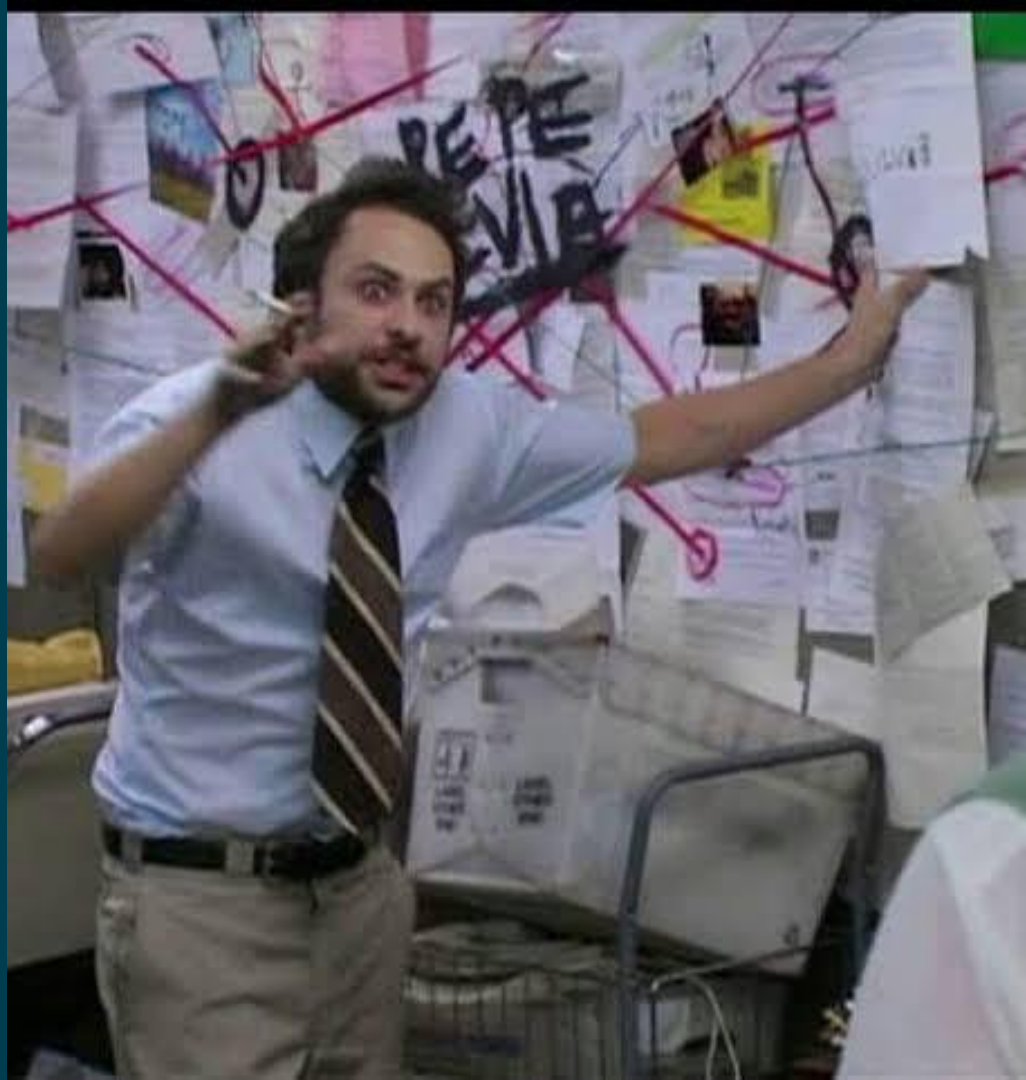
Sam Altman, chief executive officer of OpenAI.  
DAVID PAUL MORRIS—BLOOMBERG/GETTY IMAGES

ChatGPT creator OpenAI is stealing "vast amounts" of personal information to train its artificial intelligence models in a heedless hunt for profits, a group of anonymous individuals claimed in a

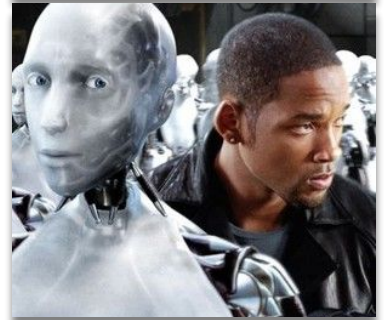
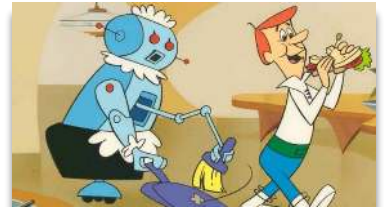
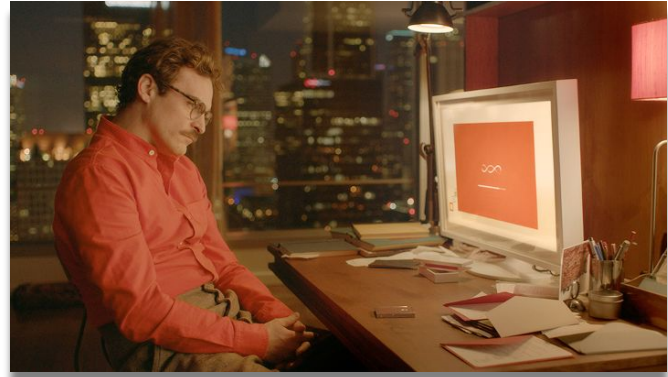
# Scenario 3

High impact  
The TESCREAL world

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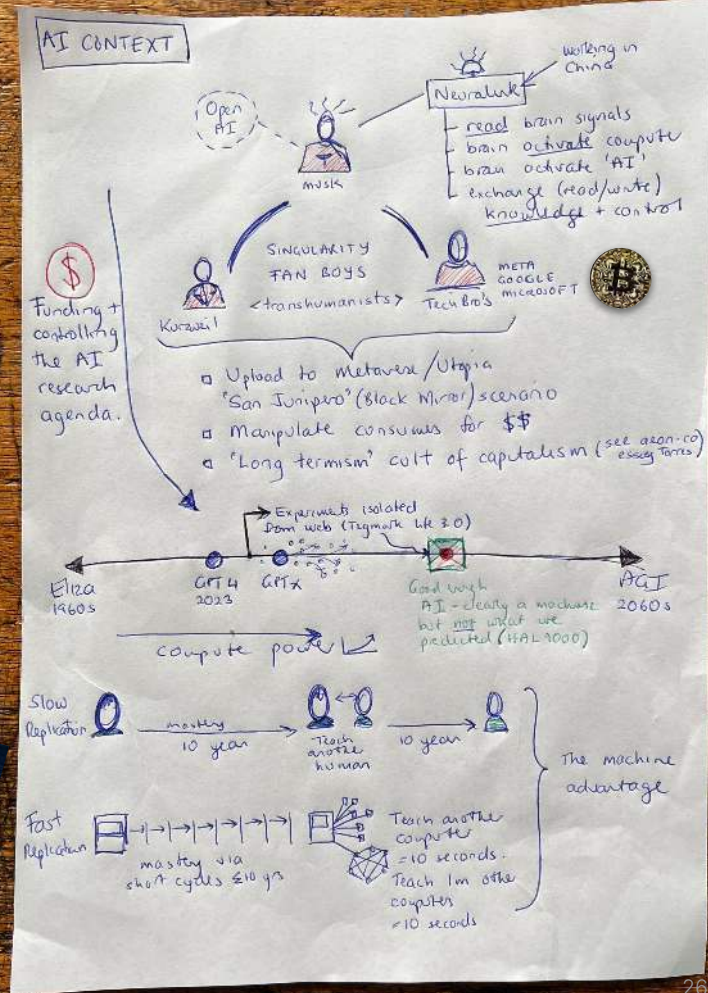
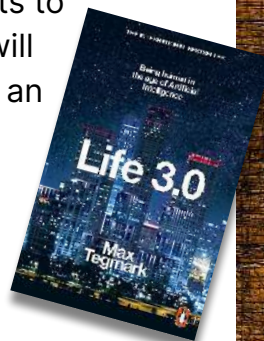




# Diving deep into the rabbit hole

Joining dots to speculate on a 3rd scenario - Life 3.0

- Somewhere between science fiction and 2023's Cambrian explosion in ML capability lies a scenario where rich technocrats chase down immortality through AI that is 'good enough', through ML experiments that are somewhat unpredictable in outcome.
- It is entertaining to consider the elements of that scenario.
- The key stepping stone is acceptance that there is a 'good enough' generative AI model that brings unpredicted results for users - more HAL9000 than AGI.
- A 'Prometheus' future then requires isolated elements to come together. Along the way, plain old capitalism will make plenty of money - Microsoft alone forecasting an additional \$10b from Chat-Bing this year.





HUMANS AND TECHNOLOGY

**A startup is pitching a mind-uploading service that is "100 percent fatal"**

Nectome will preserve your brain, but you have to be euthanized first.

By Antonio Regalado  
March 13, 2018



The WASHINGTON SPECTATOR

**The Wide Angle: Understanding TESCREAL – the Weird Ideologies Behind Silicon Valley's Rightward Turn**

By Dave Troy

May 1, 2023 | Politics, The Wide Angle



The technology imperative, no matter what happens.

 /thoughtworks

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# Data - the new oil or the new uranium?

A real estate agent data breach would be devastating for renters. They collect too much personal information

*Samantha Floreani*

Does a breach need to happen before we see regulatory change?



Most agents direct prospective renters to online application platforms, which seem like a data breach waiting to happen. Photograph: James Ross/AAP

Thanks to Optus, millions of people are now acutely aware of what can happen when companies don't take privacy and security seriously. But telcos aren't alone in collecting and storing too much of our personal information. The real estate industry is often overlooked in conversations about data security, but it is one of the most invasive, with potentially devastating consequences for renters across the country.

If you've ever been a renter, this is probably a familiar story: you're searching for somewhere to live, rents are high, competition is stiff, and in the process of applying you're asked for immense amounts of information. In addition to identification documents (which we are all now very protective of), they probably ask for a background check, bank statements, and years' worth of employment and rental history. You might feel uncomfortable about how much they ask for, but hey, what can you do? If you say no, someone else will say yes and get the house instead.

## Real estate agents push back against Australian privacy law changes designed to protect personal data

Real Estate Institute of Australia president says additional layer of responsibility could force smaller agencies to close down



The Real Estate Institute of Australia has called on the government to retain the small business exemption to the Privacy Act. Photograph: William West/AFP/Getty Images

Real estate agents are pushing back against proposed privacy law changes, saying small businesses should not face more red tape to keep customer and tenant data safe.

The Real Estate Institute of Australia president, Hayden Groves, said an "additional layer of responsibility is really not necessary" on top of agents' existing duties and increased regulatory risks could be "the last straw" for smaller agencies.



## Officeworks trials body-worn cameras and duress watches

By [Jeremy Nadel](#)  
Oct 16 2023 1:10PM

### In nine stores.

Officeworks has piloted body-worn cameras and duress watches for staff at nine stores across five states.



"The trial of these devices is assessing whether the risk of harm to our team is reduced by this technology," Officeworks head of safety, health and wellbeing Travis Callander told *iNews*.



**FRONTED RETURN VERANDAH VILLA**  
Including decorative high ceilings, arched hallway and polished  
residence of 7 main rooms is renovated in superb taste and set on  
plens. 3 bedrooms, master with en suite and walk-in robe, large  
acious family room, dining area and kitchen all overlooking the  
r the entertainer and ready to move into immediately.  
ed 15th March at 6.00pm Debra Bratton 015 600 117



**RARE OPPORTUNITY TO BUY INTO THIS SOUGHT AFTER LOCATION**  
Offering some 3 bedrooms with formal sitting and dining rooms, 1970s family room, 2  
bathrooms and central kitchen. Situated on a large allotment with double garage. Affordable  
price range and beautiful tree-lined Avenue.  
**AUCTION: Wednesday 22nd March at 6pm Tim Thredgold 0418 817 407**

## HAWTHORN

42 Kent Street



### VICTORIAN 11 ROOM STONE MANSION

With immense elegance and charm this faithfully recreated Victorian mansion has all the style and character of an earlier era, with the  
convenience and qualities of today's technology. This residence is a landmark. The home is sited deep into the dual Title grounds and has  
a commanding presence as it looks down over the spectacular grounds including winter creek, floodlit tennis court and heated pool.  
Exceptional features as you would anticipate. For colour brochure and preliminary details, contact our office. Viewing is strictly by  
appointment to qualified purchasers in over the one million price bracket.

Method of sale: Registration of Interest by Friday 31st March at 2.00pm Anthony Toop 0418 824 188

GRA  
ESTA  
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sitting roo  
family roo  
bedrooms

326 Glyn

connecti  
adjoining  
establish

320 Goo



## NORWOOD

Saturday  
12.30-1.00 50 Esmond Street

## HYDE PARK

Saturday  
2.15-3.00 54 Wattle Street

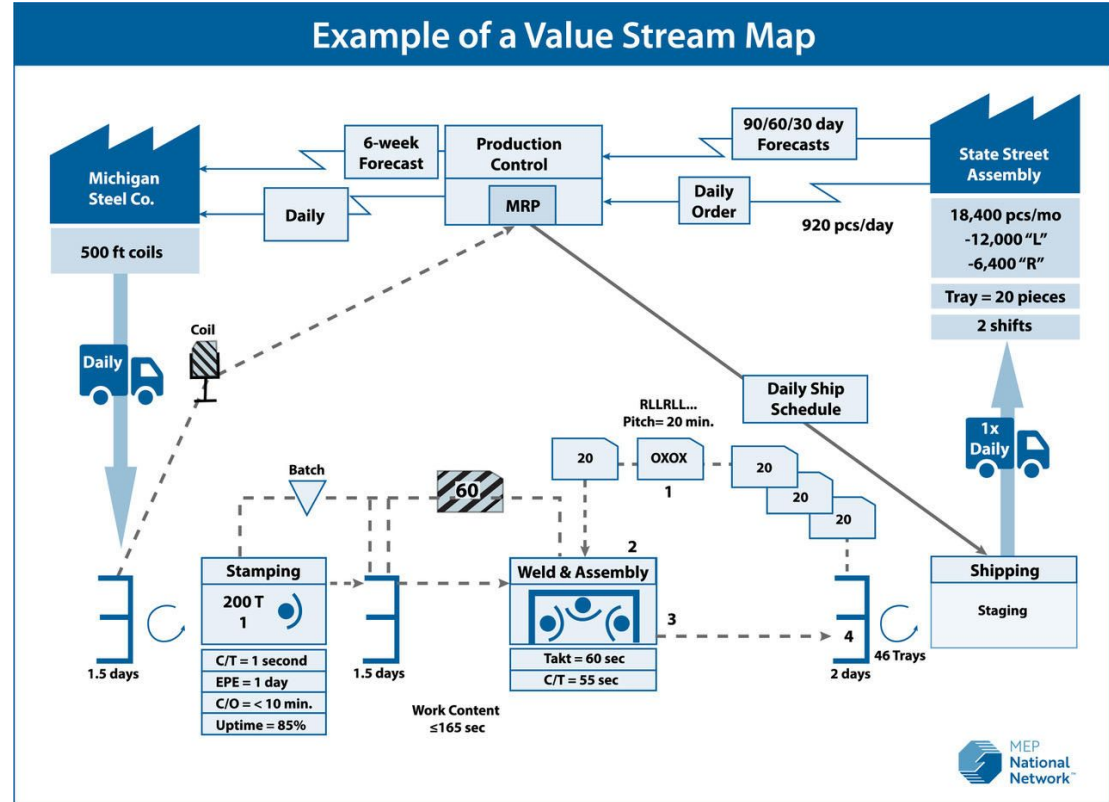


# How to get started with AI - first, find the question.

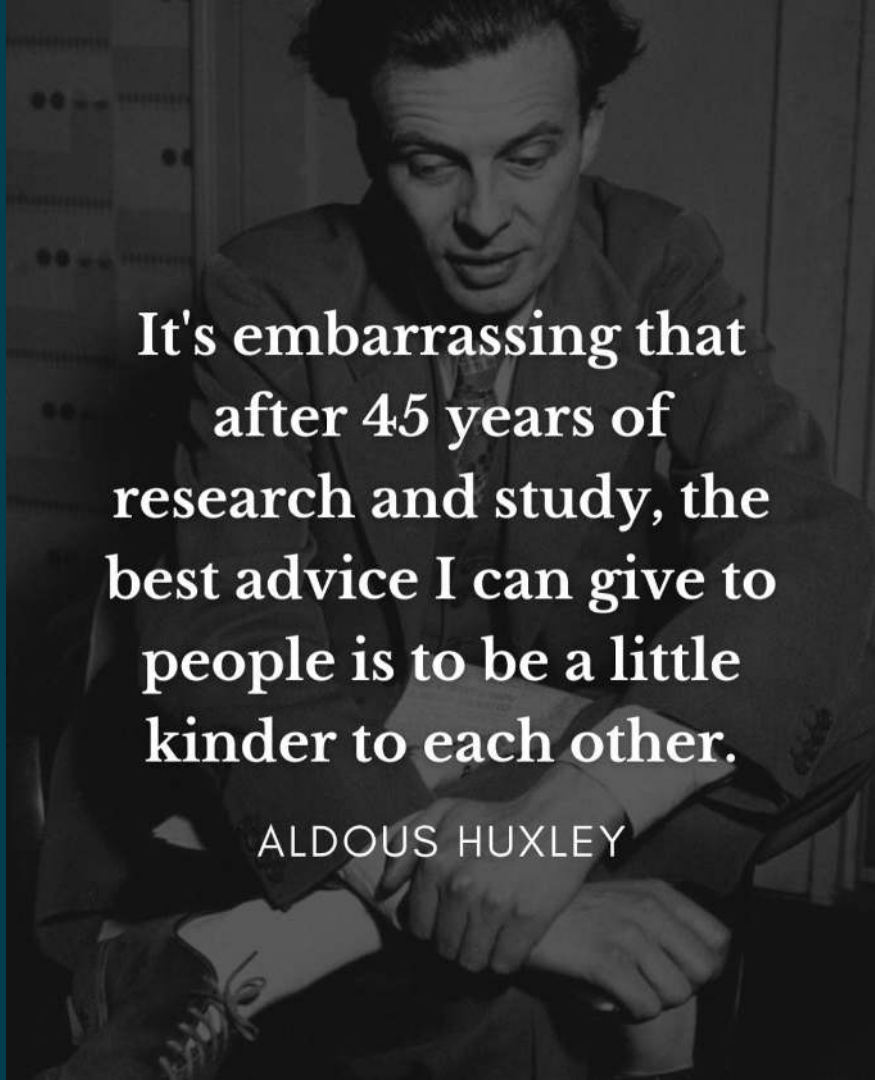
Start with how the sausages are made.

Do you have a problem that AI *might* be the answer for?

What is your burning question that more data could answer?



# Thankyou



It's embarrassing that  
after 45 years of  
research and study, the  
best advice I can give to  
people is to be a little  
kinder to each other.

ALDOUS HUXLEY

/thoughtworks

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