What AI in the public administration and for whom?

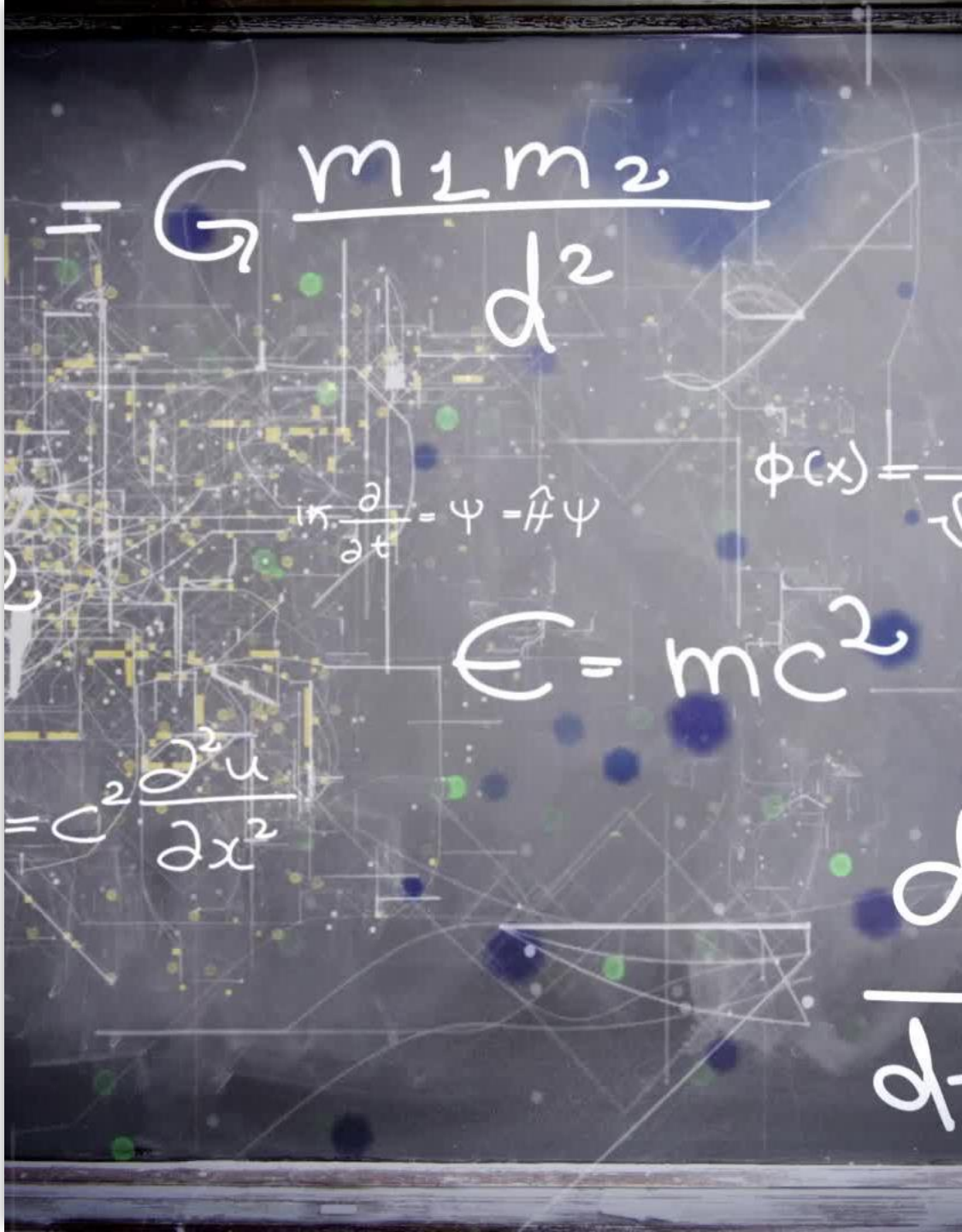
Dr. Cecilia Rikap

UCL's Institute for Innovation and Public Purpose; CONICET; COSTECH, Université de Technologie de Compiègne

c.rikap@ucl.ac.uk @CeciliaRikap

Outline

1) Intellectual Monopoly Capitalism
2) The AI value chain or stack
3) Focus on the peripheries
4) Is there an alternative?



Intellectual Monopoly Capitalism

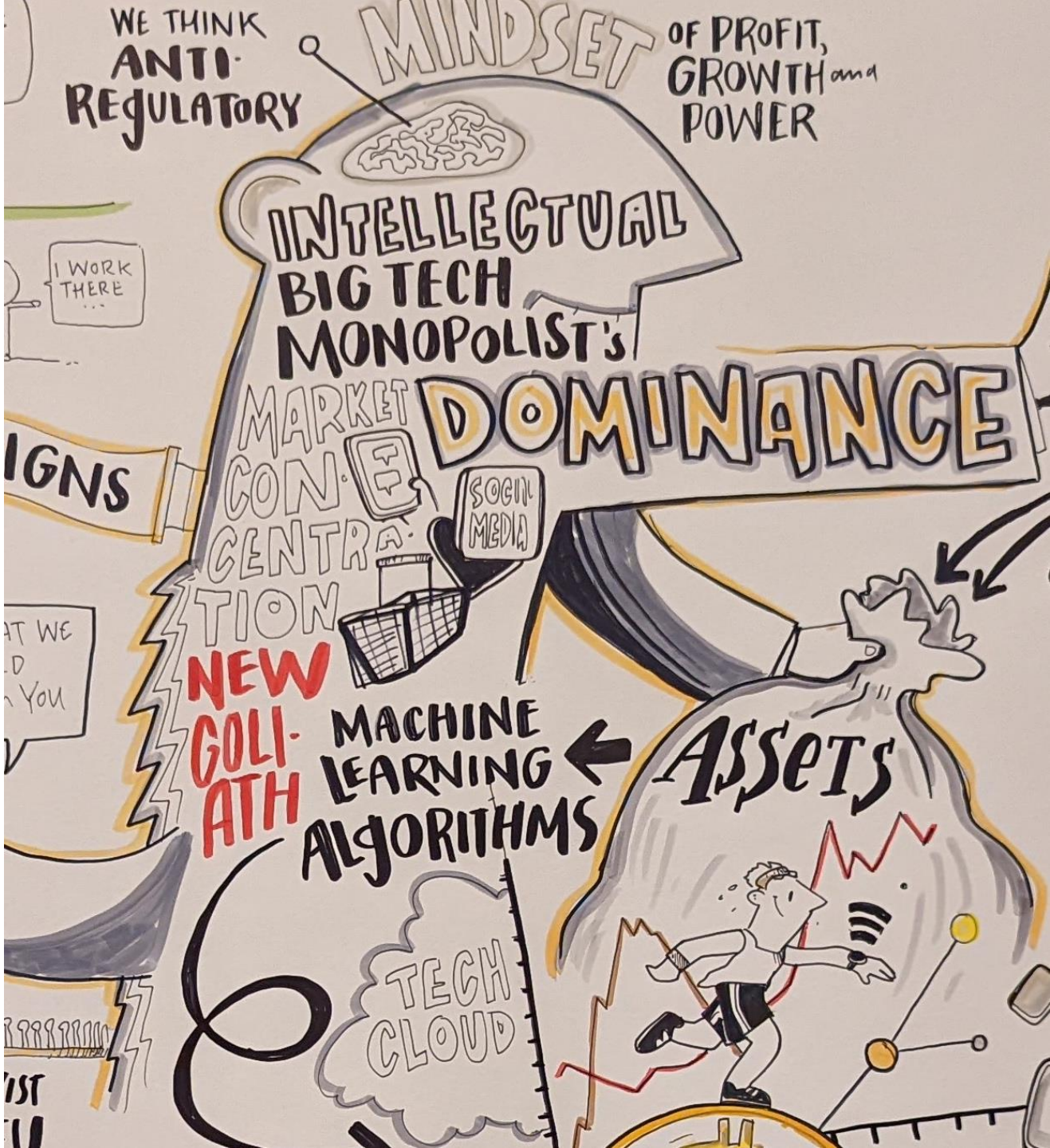
Continuous monopoly over intangibles
- knowledge & information appropriation
- transformed into assets

From a temporary to a sustained advantage

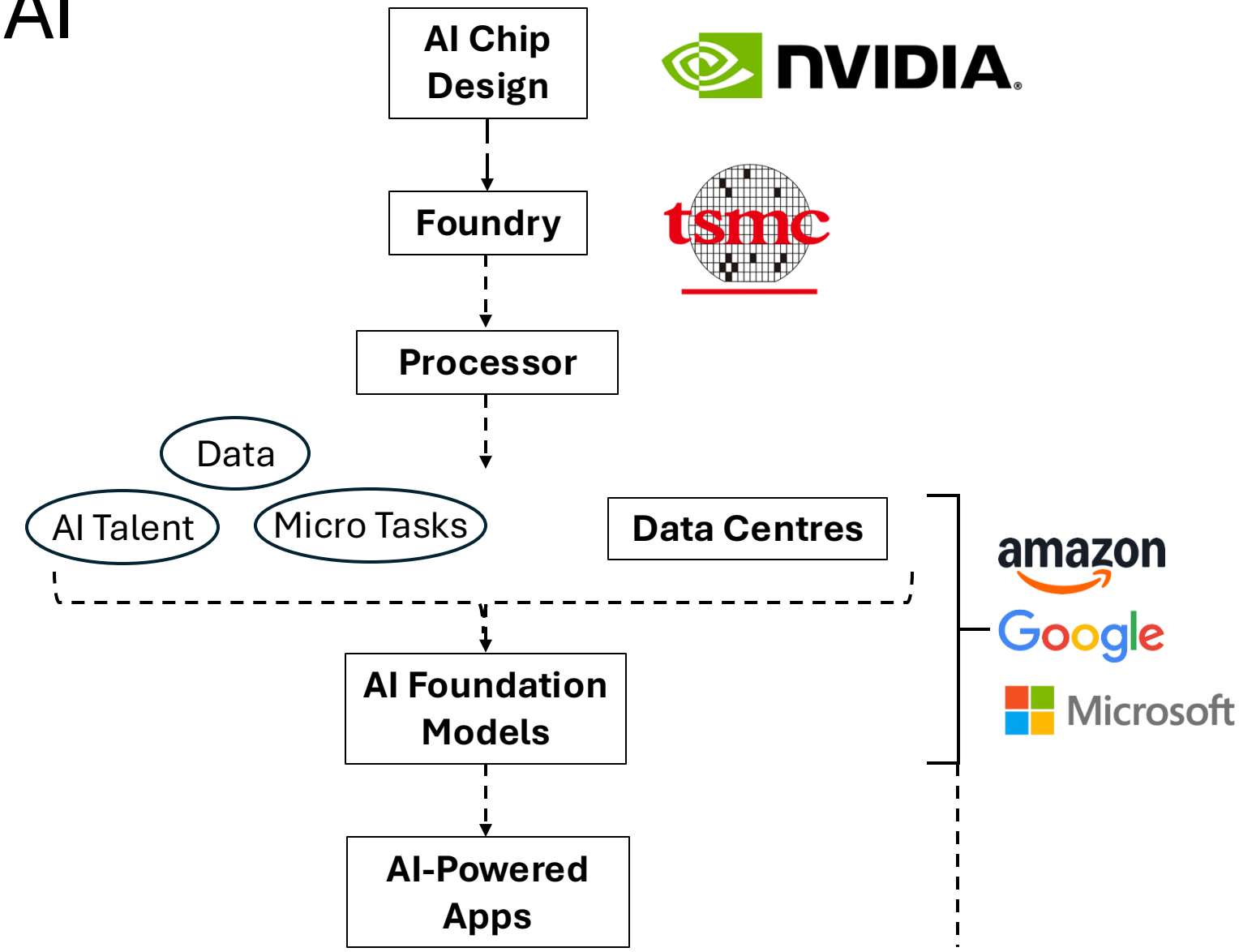
Capital concentration (breadth & depth)
- stable core w/turbulent periphery

Planning spheres of control:
- GVCs/Platforms/Franchising
- Corporate Innovation Systems

What happens with artificial intelligence?

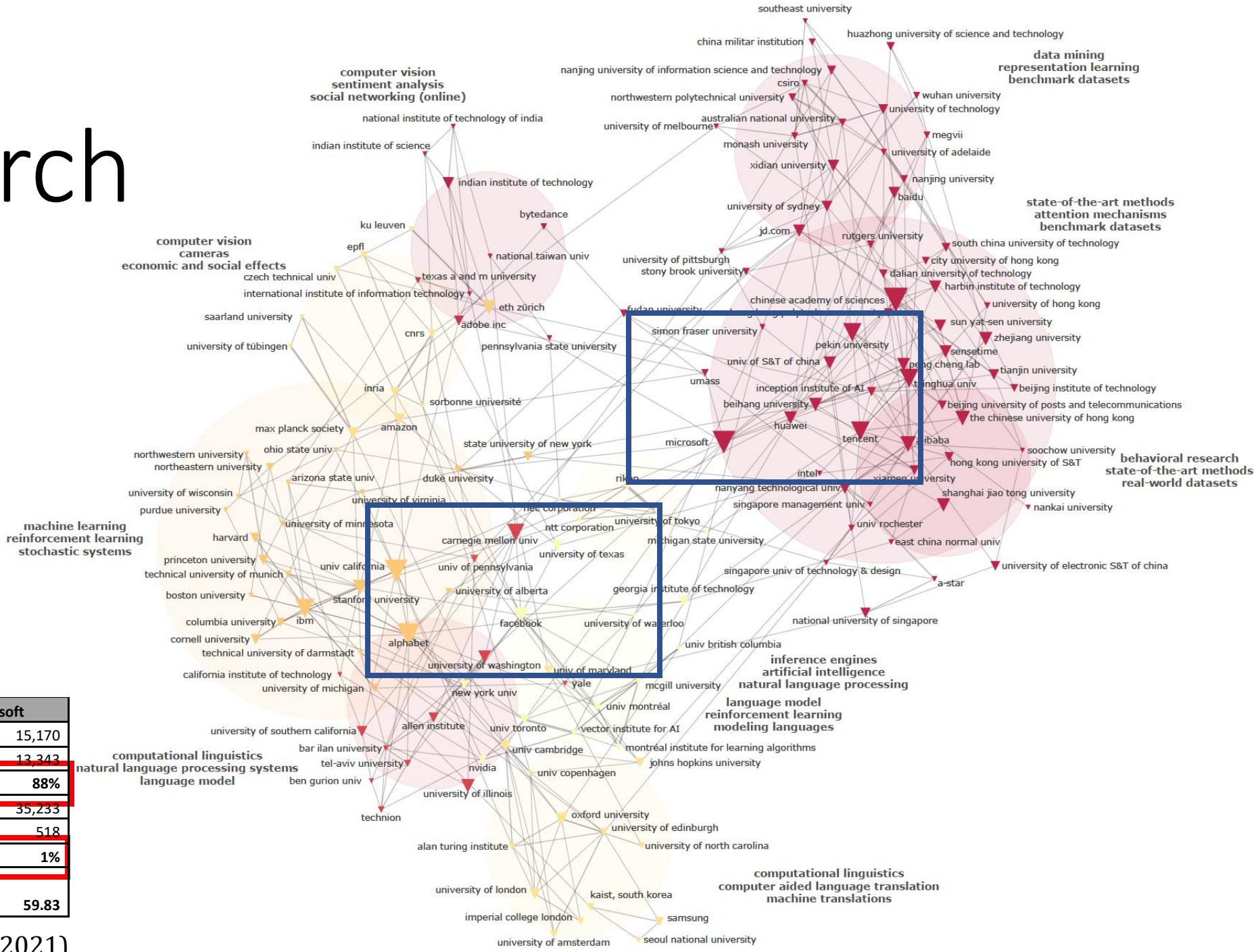


Simplified AI Stack



AI Research

Top 14 AI Conferences
(2018-2020)
Source: Rikap (2023a) – Scopus

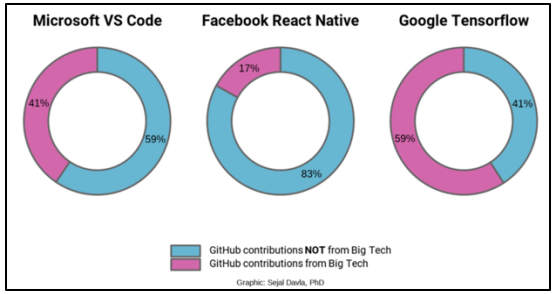


	Microsoft
Total scientific publications	15,170
Co-authored publications	13,343
Share of co-autored publications	**88%**
Total Patents	35,233
Co-owned patents	518
Shared of co-owned patents	**1%**
Knowledge appropriation indicator (share of co-authorship over share of co-ownership)	**59.83**

Rikap (2023b) - Web of Science (2012-2021)

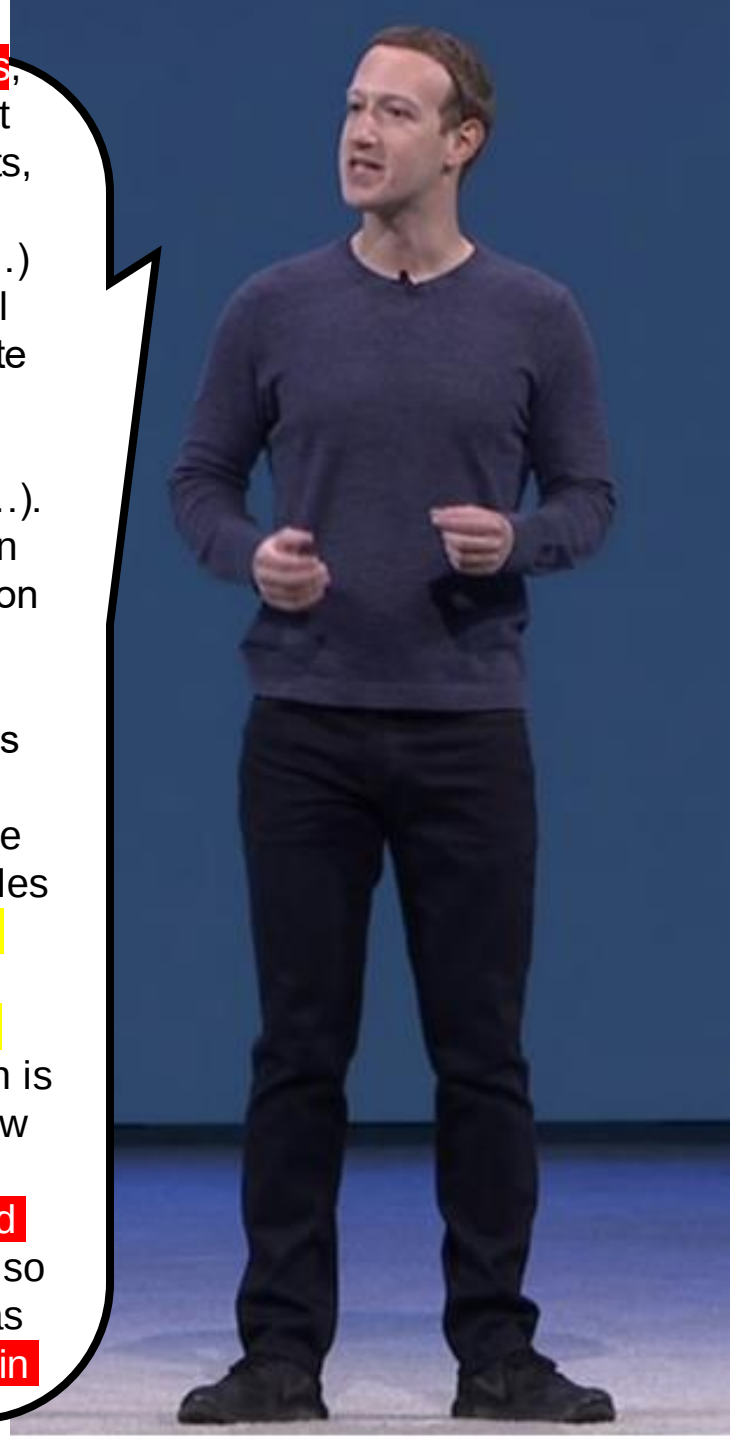
Controlling Open Source

1) Keep employees happy
2) Access reusable code for private software
3) Get users' feedback in advance
4) Profit from developers' free work



5) Offer adjacent or complementary services
6) Create and control an ecosystem
7) Become the norm and standards

open sourcing improves our models, and because there's still significant work to turn our models into products, because there will be other open source models available anyway, (…) more specifically, there are several strategic benefits. (…) more compute efficient to operate due to all the ongoing feedback, scrutiny, and development from the community. (…). Second, open source software often becomes an industry standard, (…) on building with our stack, that then becomes easier to integrate new innovations into our products. That's subtle, but the ability to learn and improve quickly is a huge advantage and being an industry standard enables that. Third, open source is hugely popular with developers and researchers. (…) so this helps us recruit the best people at Meta, which is a very big deal for leading in any new technology area. And again, we typically have unique data and build unique product integrations anyway, so providing infrastructure like Llama as open source doesn't reduce our main advantages.



Controlling
(AI) start-ups

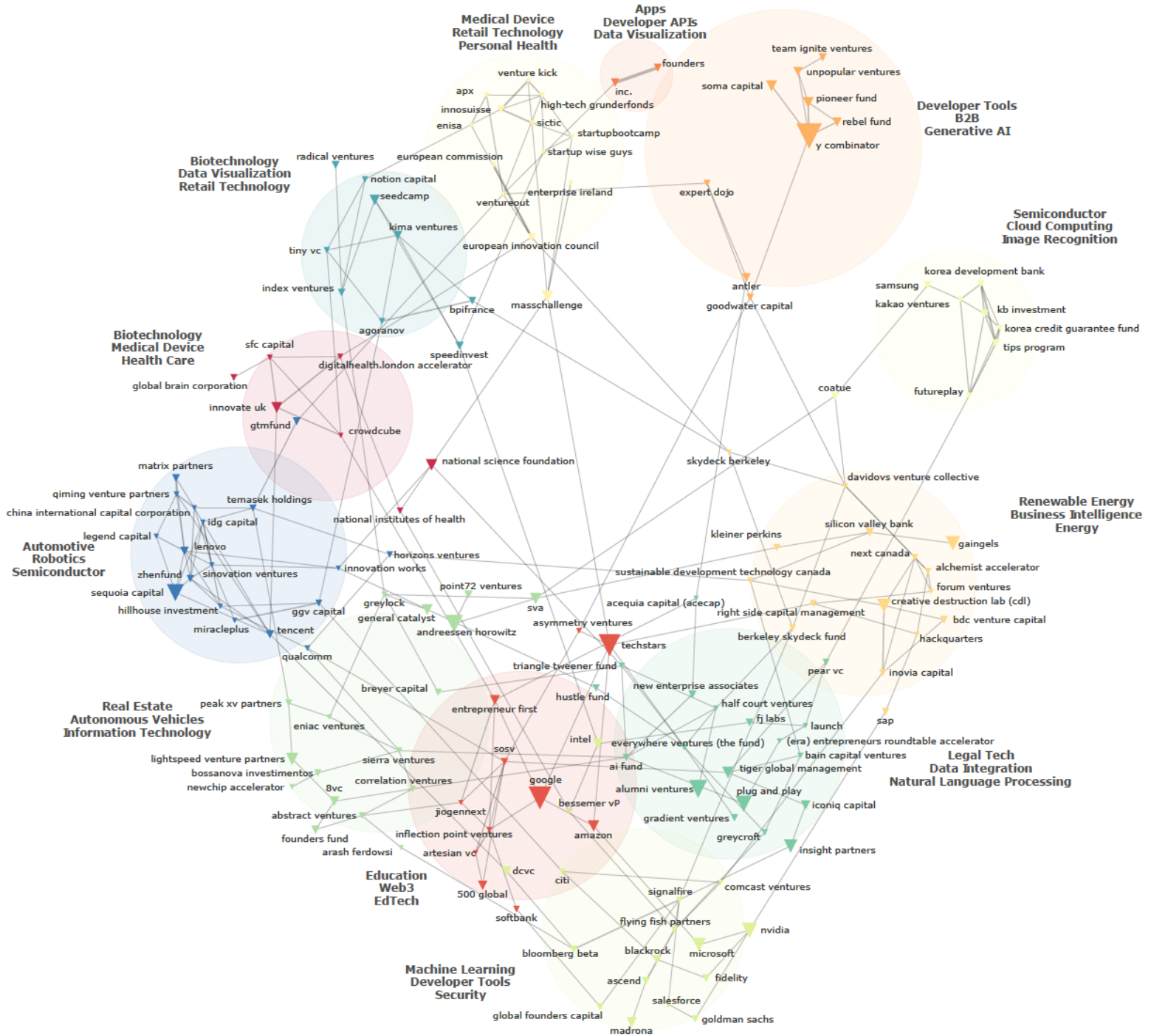
Double dip: Direct line to the CEO + technological lock-in → OpenAI

Cloud Credits: “compute vouchers”

AWS Cloud Credit for Research program
387 credit grants to 216 organizations)

Corporation	Number of top investments	Share of US firms funded over total	Share of same country firms in total funding
Google	2445	44%	44%
Intel	1028	66%	66%
Microsoft	823	27%	27%
Tencent	511	18%	52%
Samsung	390	47%	21%
Alibaba	330	6%	66%
SAP	280	59%	11%
Amazon	268	59%	59%
Nvidia	88	68%	68%
Meta	49	39%	39%
Apple	16	88%	88%

Source: Crunchbase February 2024



Control without ownership:the "*public*" Cloud

Computing services' supermarket

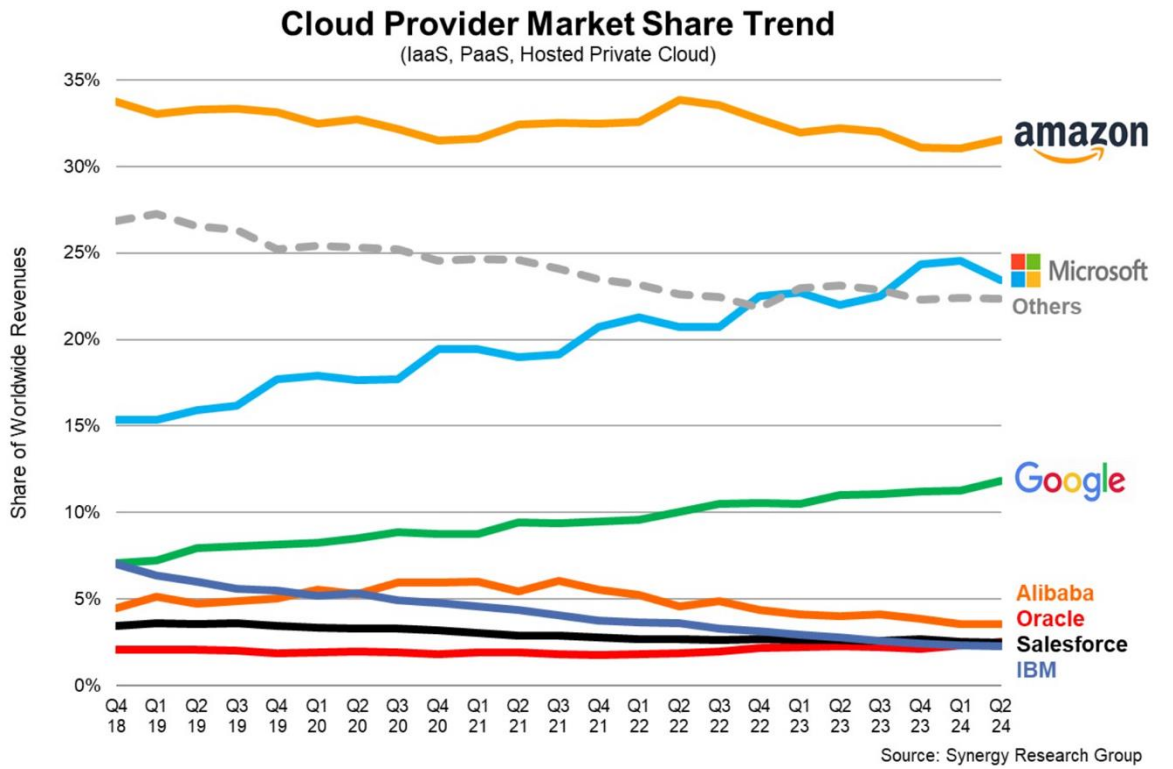
> "Partners" follow detailed rules and protocols (AWS 6783 partners, Jan 2023)

Black-boxes: using without accessing

Power relation producer & user of a technology

AI is developed AND offered on the(ir) Cloud

… and what is this Big Tech controlled AI ultimately doing?



Metrics & ruling

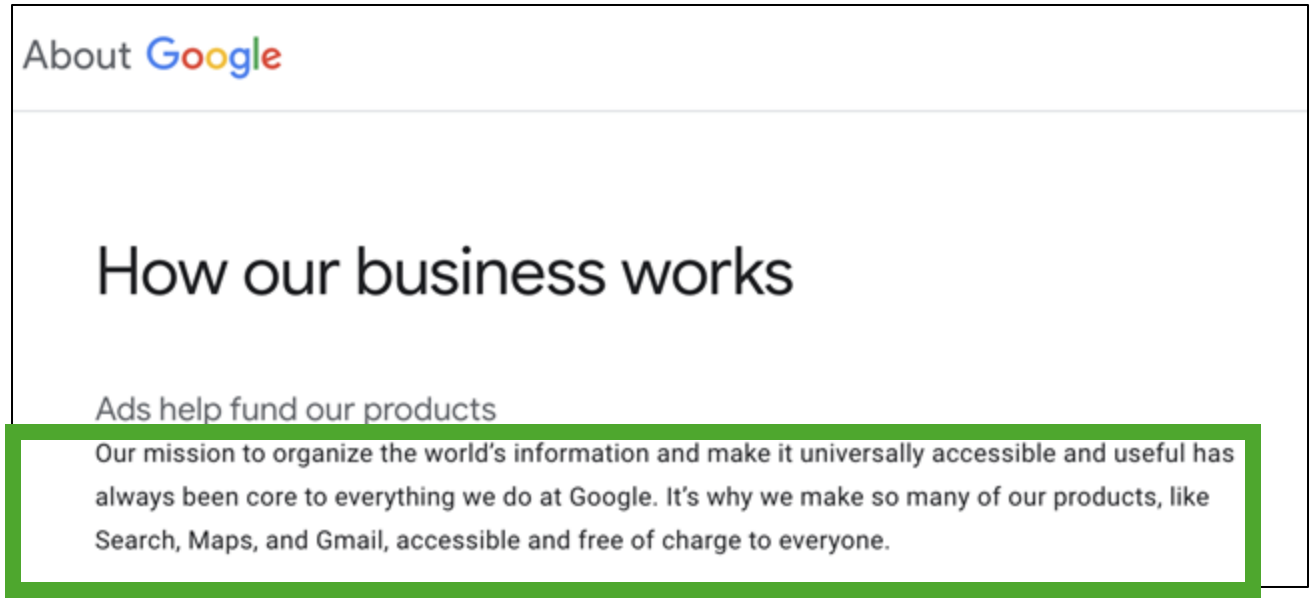
What is measured is what counts

The ruler measures those under its control

And for that it requires data (information about its subjects)

Answering ”who measures” tells who rules

Even other leading corporations become dependent on Big Tech AI & cloud



In the end of the day, it is just about predictions, inferences, so the whole point of supply chain management is about forecasting, how many units of an item will be demanded, how much data you can use and how much of the accuracy game it gives you. Machine Learning is in a big part used for forecasting. (Amazon, research director)

You see your business; you have data from everywhere and even on paper. How you rationalize all the data is what makes Microsoft stay at the top of the trend and function efficiently with AI. (Microsoft operations manager).

mercado libre

Regional firms' using marketplace and e-payment

Debtors (Mercado Crédito)

Distribution subcontractors

Knowledge extractivism: S&T from the peripheries monetized in core countries.

Data extractivism: a new layer in the IDL: net raw data providers that pay for digital intelligence and data-driven IM.

Knowledge extractivism

Public S&T knowledge appropriation

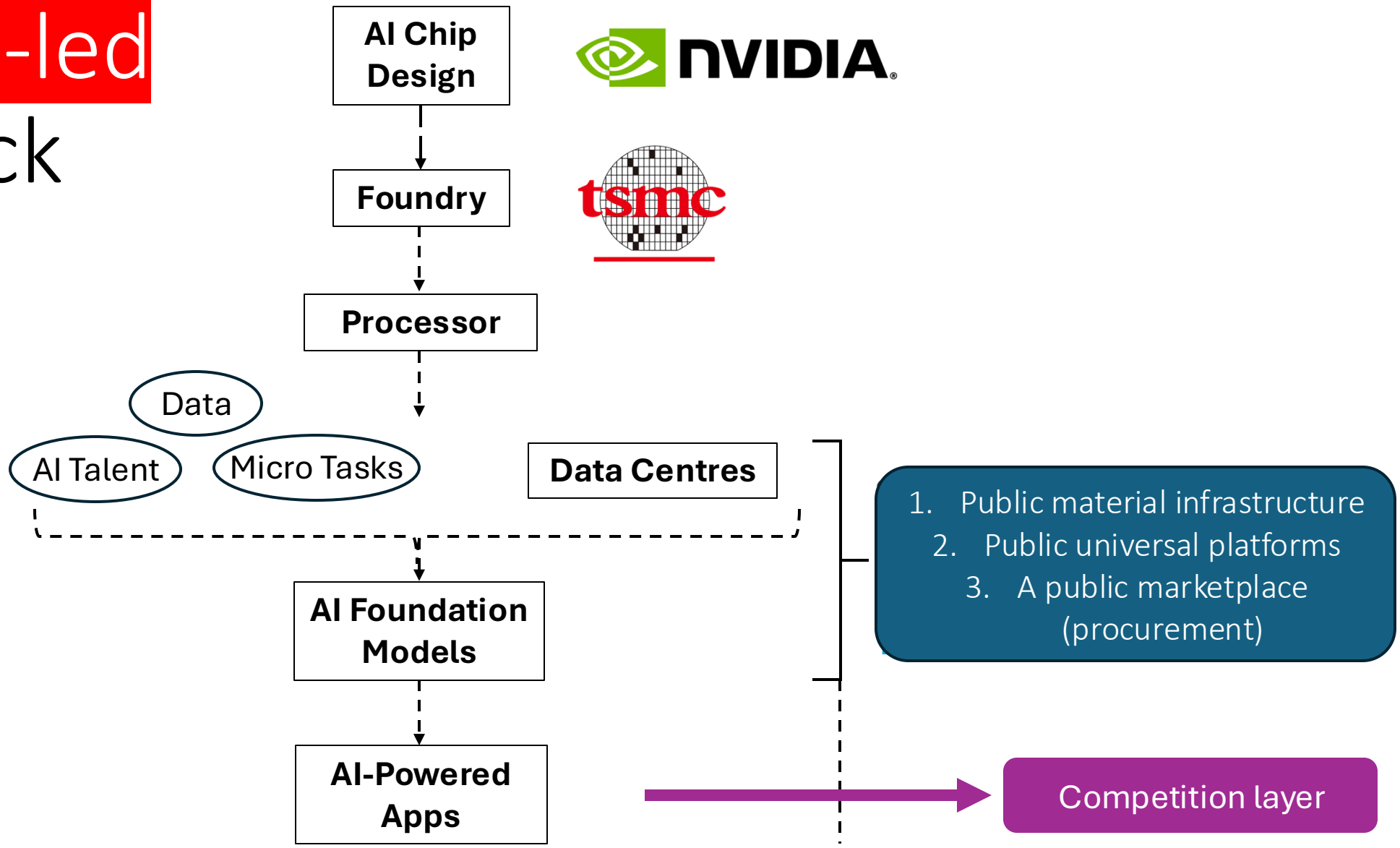
Start-ups acquisitions (or imitation) and VC

Brain drain

Open-source free labour

→ Twin extractivism

A public-led AI Stack

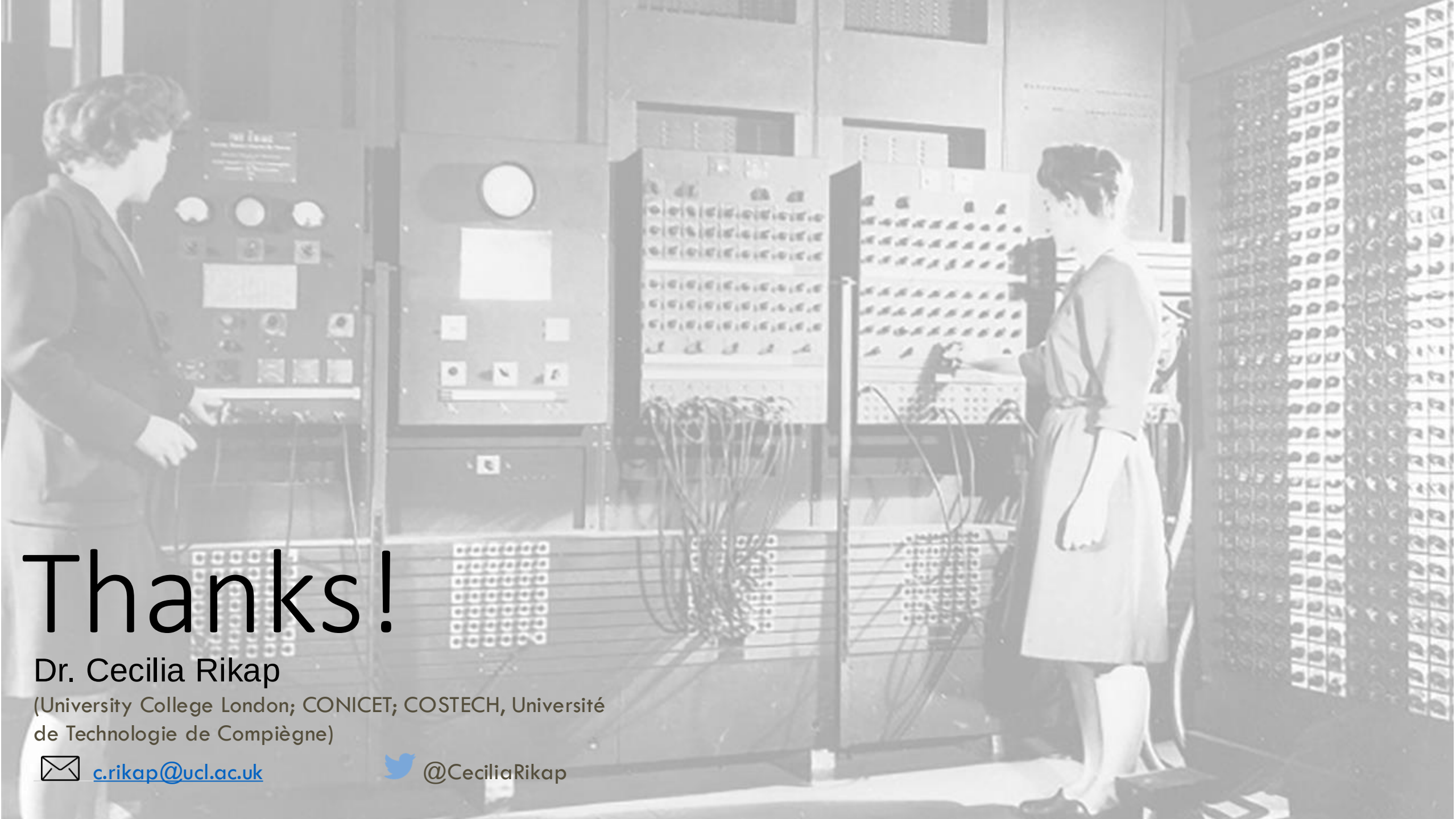


A bold but feasible digital alternative

1) A public-led international & green stack
   - Material infrastructure in a public consortia
   - Universal public platforms
   - A state-led marketplace for digital service
   - State procurement from that markeplace

2) AI (digital tech) for people & the planet
   - Bring Talent Back (5 Ps): purpose, public datasets, processing power, pay, peers.
   - Kill the hype: a needs-driven research agenda
   - New research institution for digital (CERN)

3) Building solidarity: data, knowledge, value



Thanks!

Dr. Cecilia Rikap

(University College London; CONICET; COSTECH, Université de Technologie de Compiègne)

c.rikap@ucl.ac.uk @CeciliaRikap