GS1 Italy

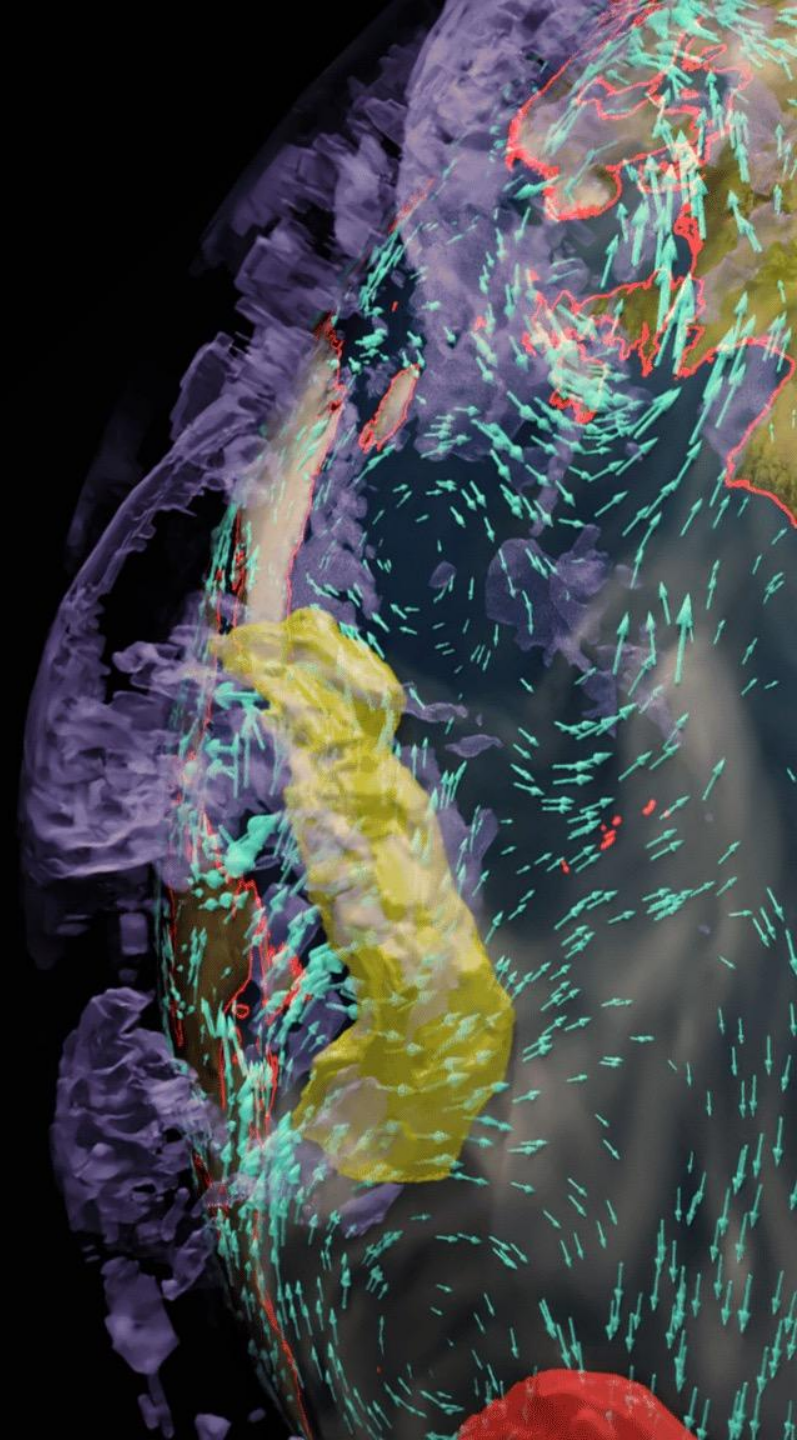
GS1 General Assembly 2024 | Rome

INDUSTRY PLENARY

THE ART OF TRANSFORMING TOMORROW:

A NEW RENAISSANCE

From Blue Marble to Earth-2: A New Terraforming



Cosimo Accoto
Tech Philosopher | Research Affiliate & Fellow (MIT) |
Adjunct Professor (UNIMORE) | Startup Advisor & Instructor

image: Nvidia

a philosopher surrounded by engineers

image: Gaël Gaborel - OrbisTerrae

a new renaissance is a new terraforming

we need a new cultural and strategical map

The (New) Fantastic 4

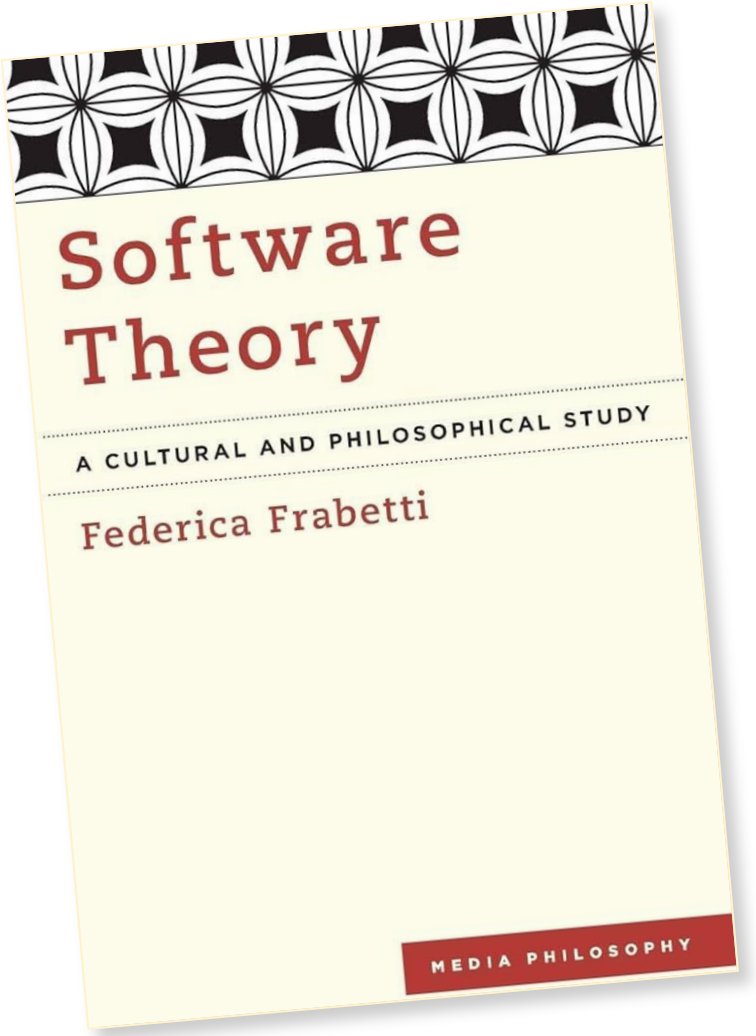
- Computation
- Automation
- Anticipation
- Simulation

Computation

software as a new world-building language

"Jeff's point was that Amazon was just as much a software company as Microsoft or Oracle or Adobe. It just happened that instead of being the product that we shipped to consumers, our software ran behind the scenes, allowing us to ship brown boxes with books or music or just about anything to someone's doorstep. *Our business is not what's in the brown boxes," he said. "It's the software that sends the brown boxes on their way".*

Jeff Lawson, *Ask Your Developer*



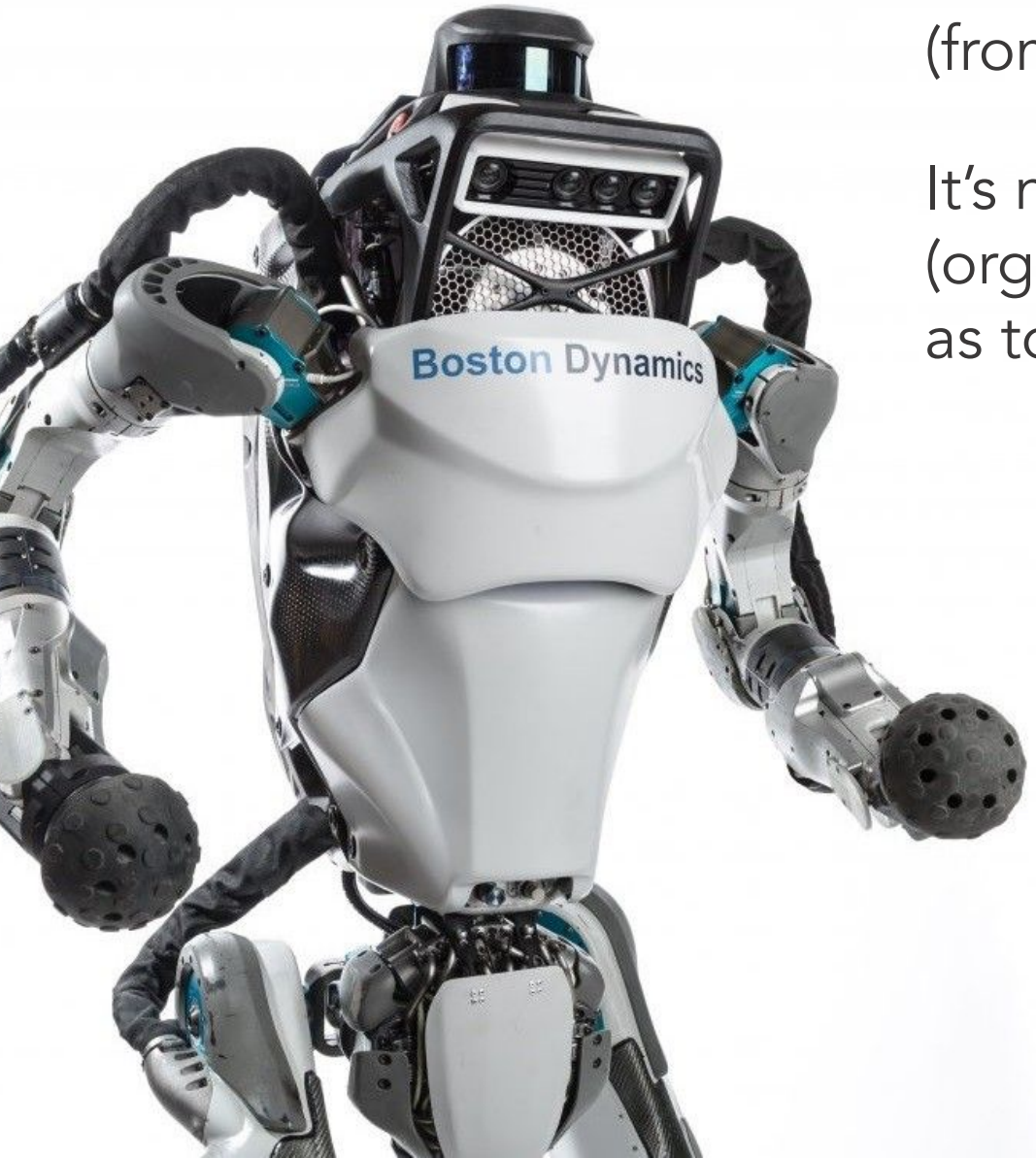
Software code designs, decides and deploys the conditions of possibilities of/on Earth-2

From media to money, software code is becoming the invisible engine of the existence, experience and intelligence of our digital planet

Automation

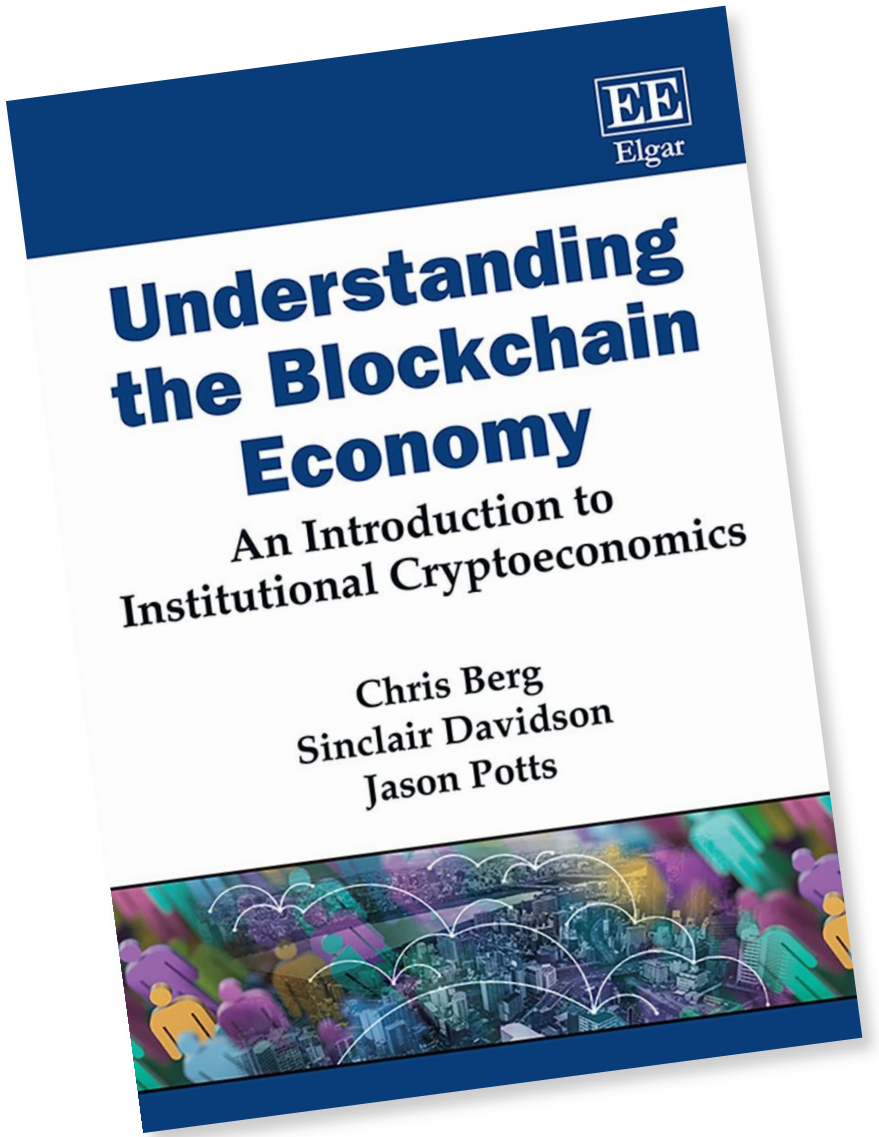
a new ecology of data, platforms, machines

software society + sensor society



Automation is a mindset, not a skillset. It's a strategy (from *autonomous agents* to *smart contracts*)

It's not only a machine (working), but a machinery (organizing). It refers to programs/algorithms as well as to protocols/platforms (dogs too)



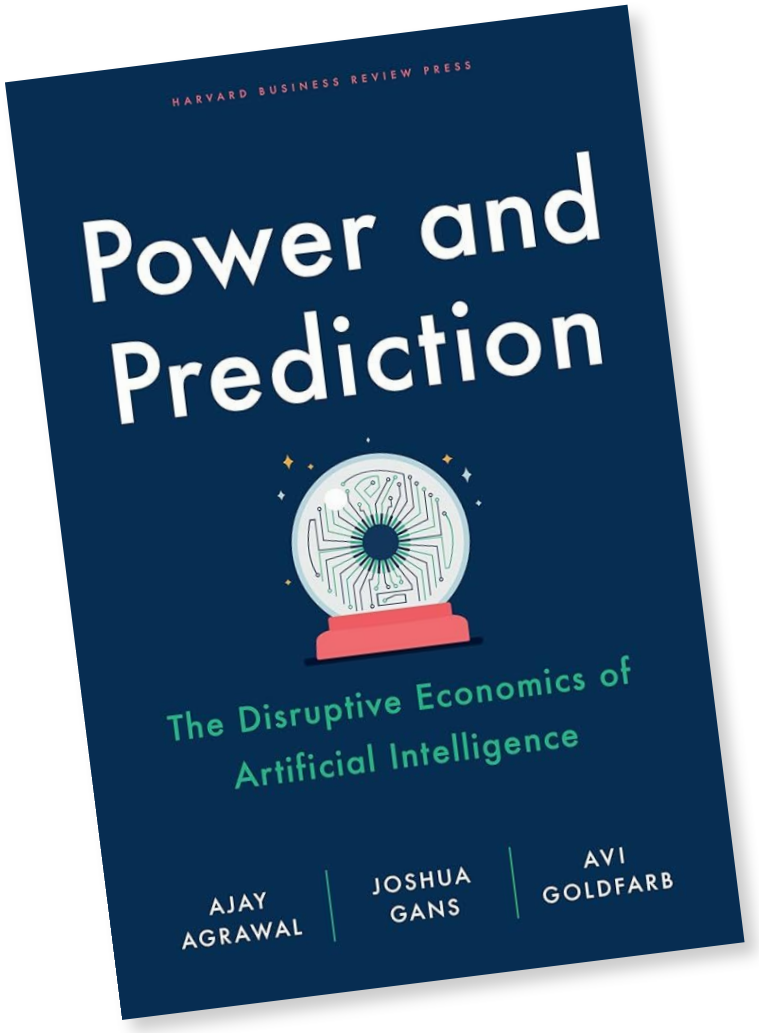
Blockchain-like technology is an institutional innovation, not just a technological innovation

It's more like the "division of labor" type of innovation (Adam Smith) than a new pure tech innovation

Anticipation

from the archival age to the oracular era

image: Minority Report



The production of prediction is the business of the future

Moving from *archive* (feedback economy) to *oracle* (feedforward economy)

oracles … oracles … everywhere
alertative mobility
predictive medicine
preventive maintenance
preemptive cybersecurity
anticipative writing
recommendative mediality

Simulation

generative artificial intelligence: words & worlds

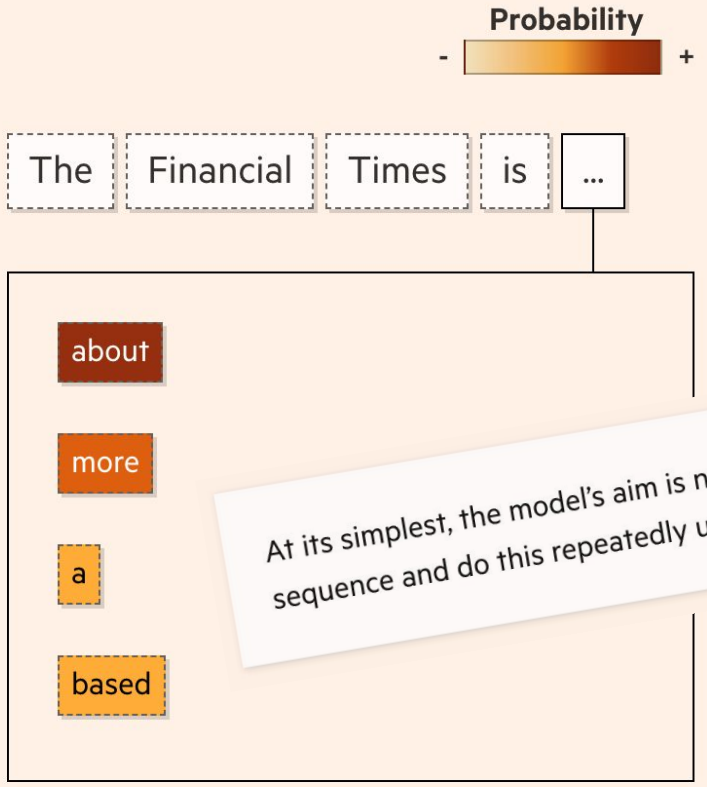
FINANCIAL TIMES

Artificial Intelligence

Generative AI exists because of the transformer

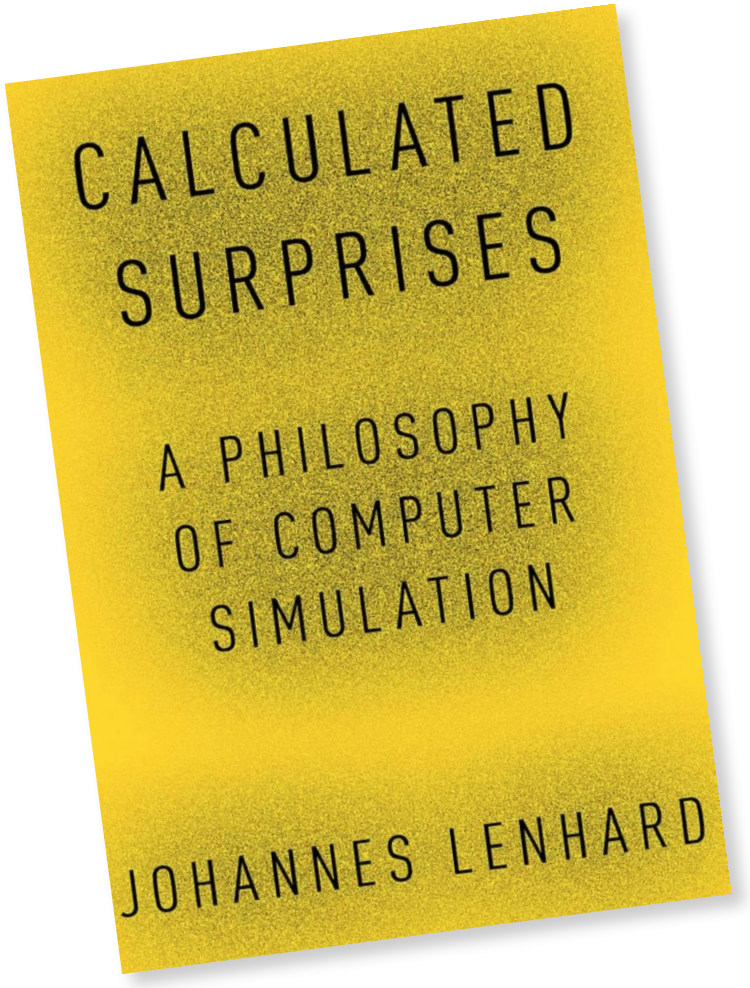
This is how it works

An LLM is a text predictor … a computational simulation of human language



At its simplest, the model's aim is now to predict the next word in a sequence and do this repeatedly until the output is complete.

To do this, the model gives a **probability score** to each token, which represents the likelihood of it being the next word in the sequence.

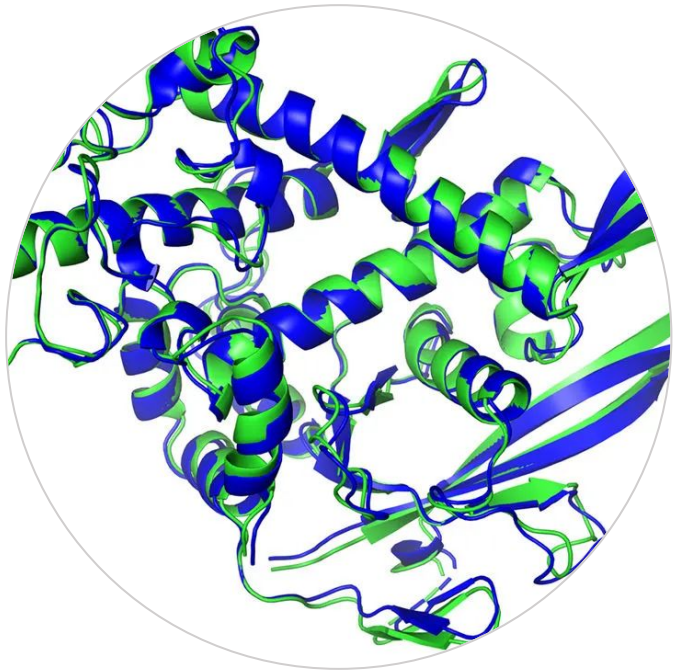


Computational simulation is an epistemological revolution

From automated languages to synthetic images, from digital twins to extended realities …

We live by simulations, now

Computational simulations: from words to worlds



protein folding

(micro)

planet twinning

(macro)

My Key Takeways

- ✔ Build (Your) Strategic Map for the Earth-2
- ✔ Embrace and Execute the (New) Fantastic 4
- ✔ With Great Power comes Great (Planetary) Responsibilities

thanks

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image: Nvidia