

*IL DIGITALE CHE ABBIAMO ALLE SPALLE:
EFFETTI SUL PATRIMONIO CULTURALE*

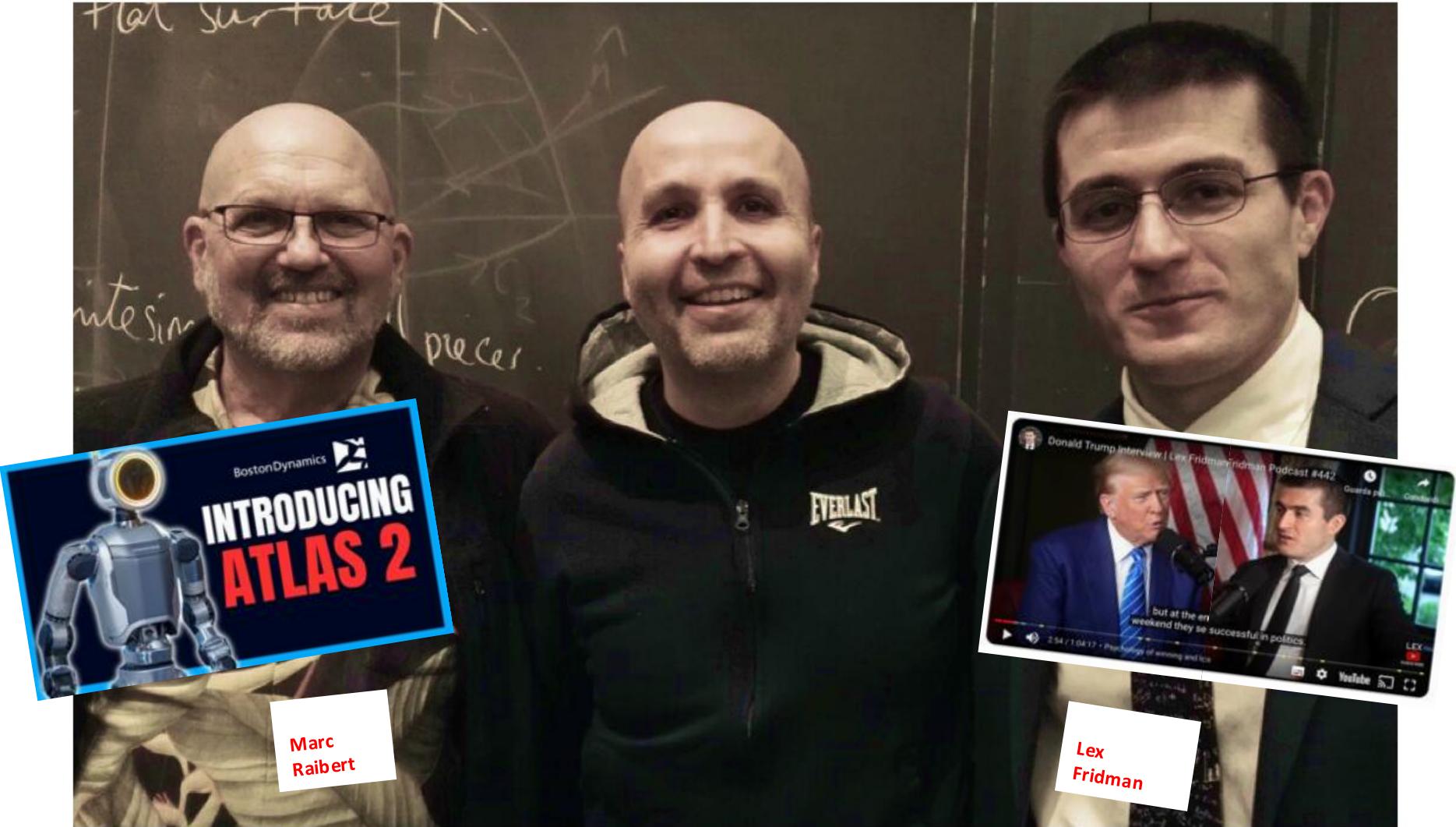
Roberto Balzani

L'orizzonte tecnologico tra *archivi* e *oracoli*

Cosimo Accoto

Tech Philosopher | Research Affiliate & Fellow (MIT) | Adjunct Professor
(UNIMORE) | Startup Advisor & Instructor | Author (*Il Pianeta Latente*)

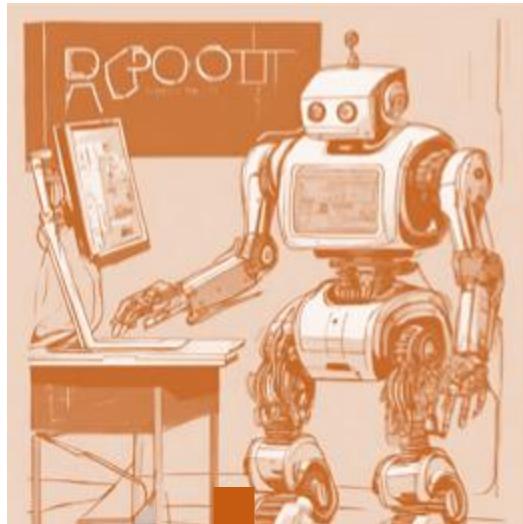
un filosofo
circondato
da ingegneri



Da scienza a ingegneria

- ai-engineering
- quantum-engineering
- crypto-engineering
- space-engineering
- geo- engineering
- nano-engineering
- bio-engineering
- neuro-engineering
- ...

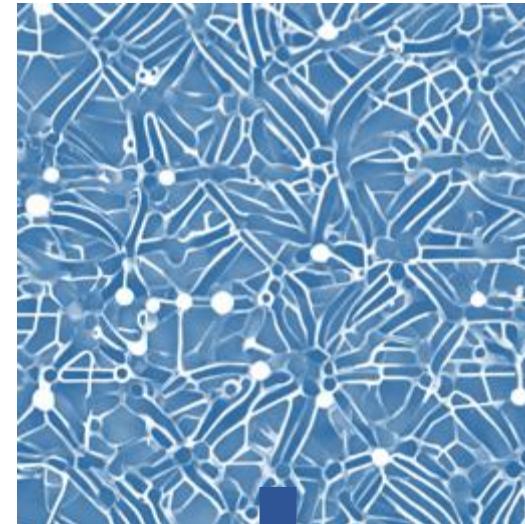
Artificial Intelligence



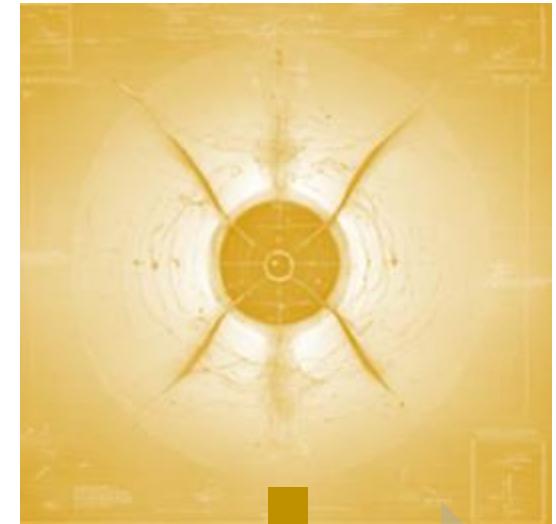
Cryptosystems Blockchains



Bio-Nano Technology



Quantum Computing



Crypto Robotics

- texts, images, agents
- augmented/virtual reality
- synthetic/generative media
- **Planetary Intelligence?**

Exo Biology

- interoperability
- asset tokenizations
- dao/web3/wasp
- **Turing Institutions?**

Quantum AI

- biodesign platform
- materials intelligence
- med tech/bio hack
- **Artificial Life?**
- quantum sensing
- quantum networking
- post-quantum cryptography
- **Quantum Internet?**

Siamo dentro una **sorprendente terraformazione** del nostro Pianeta (esistenza, esperienza, intelligenza)

Le nuove ingegnerie stanno trasformando i modi della **creazione, circolazione e conservazione** della conoscenza e della cultura: dall'arte alla scienza

Si tratta di passaggi epocali (non episodici) verso **nuovi paradigmi culturali** della nostra civiltà

dall'archivio all'oracolo

con la potenza della simulazione

dentro l'economia della macchina

dall'archivio all'oracolo





oracoli ... oracoli ...
ovunque

alertative
mobility

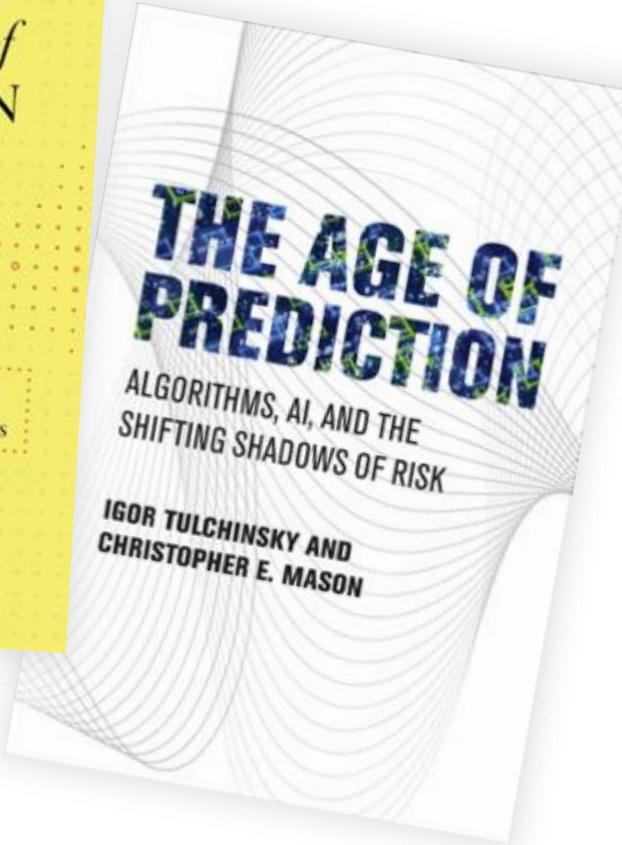
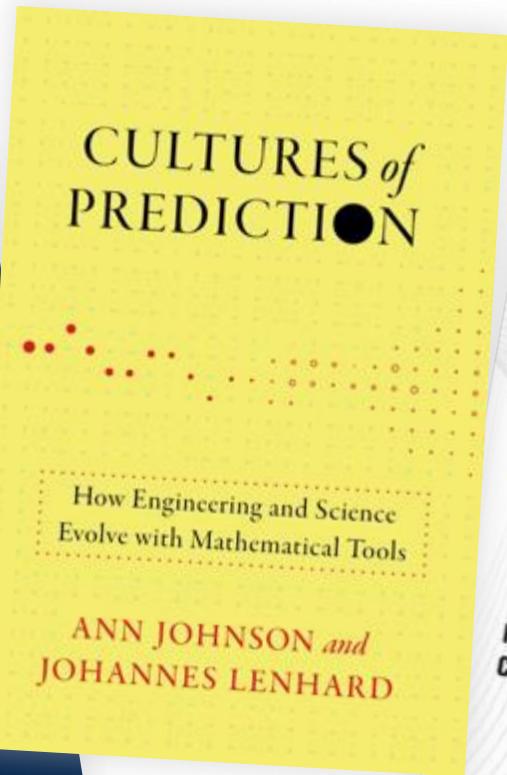
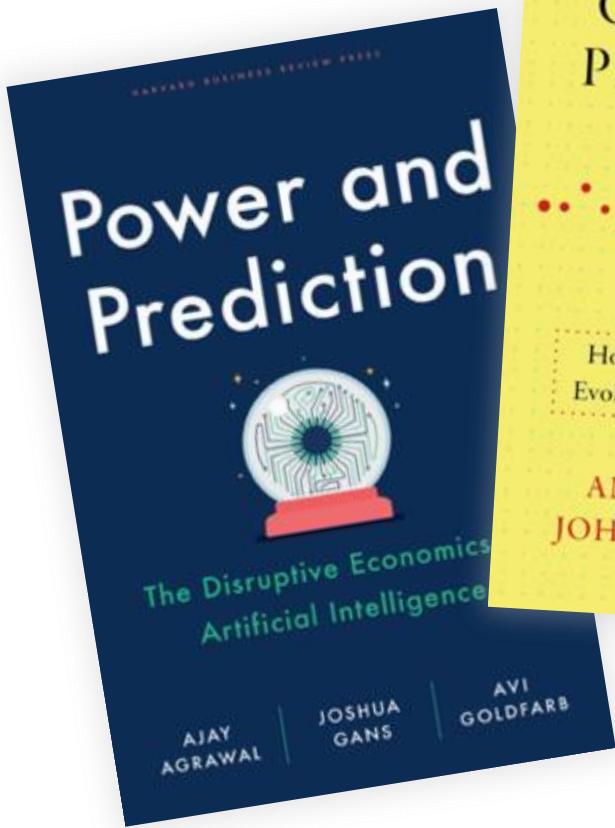
predictive
medicine

preventive
maintenance

preemptive
cybersecurity

anticipative
writing

recommendative
mediality



La predizione
come nuovo
paradigma
culturale

Heritage Building Information Modeling - HBIM

(Hong Kong, 2024)



con la potenza della simulazione

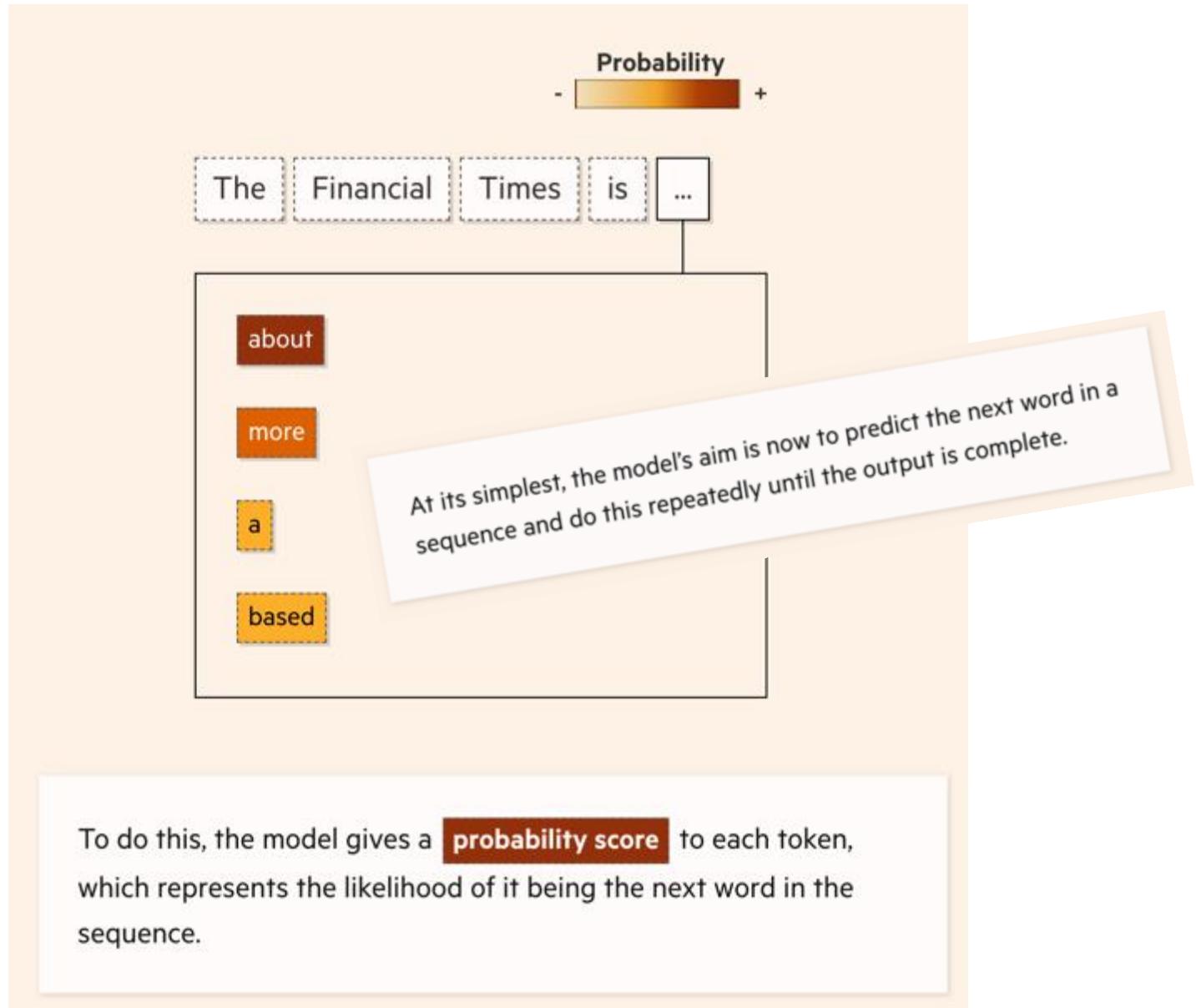
FINANCIAL TIMES

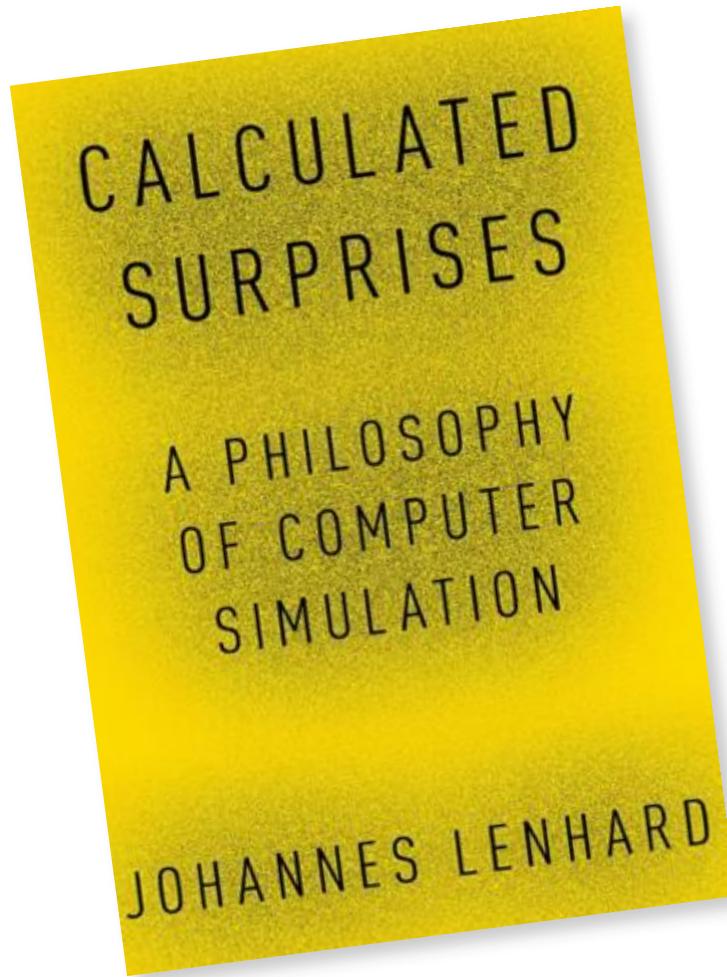
Artificial Intelligence

Generative AI exists because of the transformer

This is how it works

An LLM is a **text predictor** ... a computational simulation of human language





La simulazione computazionale è una
rivoluzione epistemologica

Dai linguaggi automatici alle immagini
sintetiche, ai gemelli digitali alle
realtà estese, aumentate o
virtualizzate ...

... alle antiche pergamene



Decoding an Ancient Roman Scroll (Scientific American, 2024)

Decoding an Ancient Roman Scroll

Hundreds of papyrus scrolls from Herculaneum, damaged and disfigured by the eruption of Mount Vesuvius in c.e. 79, constitute the only intact Greco-Roman library known to survive from antiquity. Researchers are using advanced imaging technologies and machine learning to reveal writings that have remained undetectable for thousands of years.

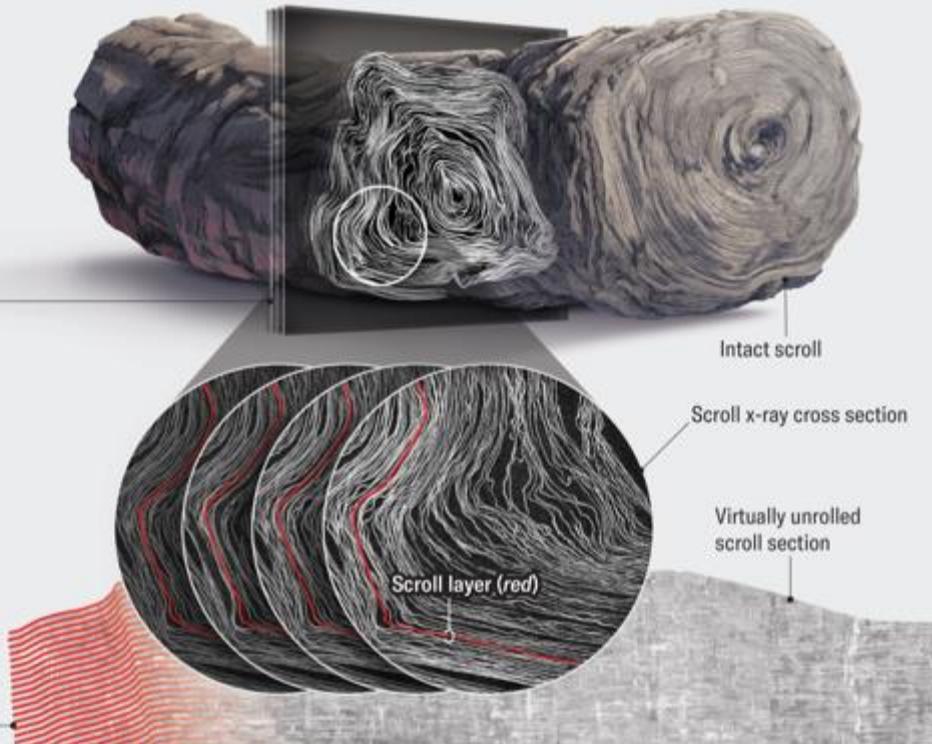
SCANNING

Previous attempts to unroll the brittle carbonized scrolls were overwhelmingly destructive. Today noninvasive methods that involve high-energy x-ray micro-computed tomography (micro-CT) can produce high-resolution, 3-D digital images of the internal structures of the scrolls without further damaging them.

VIRTUAL UNWRAPPING

The image is composed of tens of thousands of cross sections of the scroll that, when put together, form the entire 3-D volume. Researchers trace the scroll sheets within the scan, and the software extrapolates through the layers to compile a 3-D mesh.

The 3-D mesh is then flattened and mapped to a 2-D image of that section of the "unrolled" scroll.



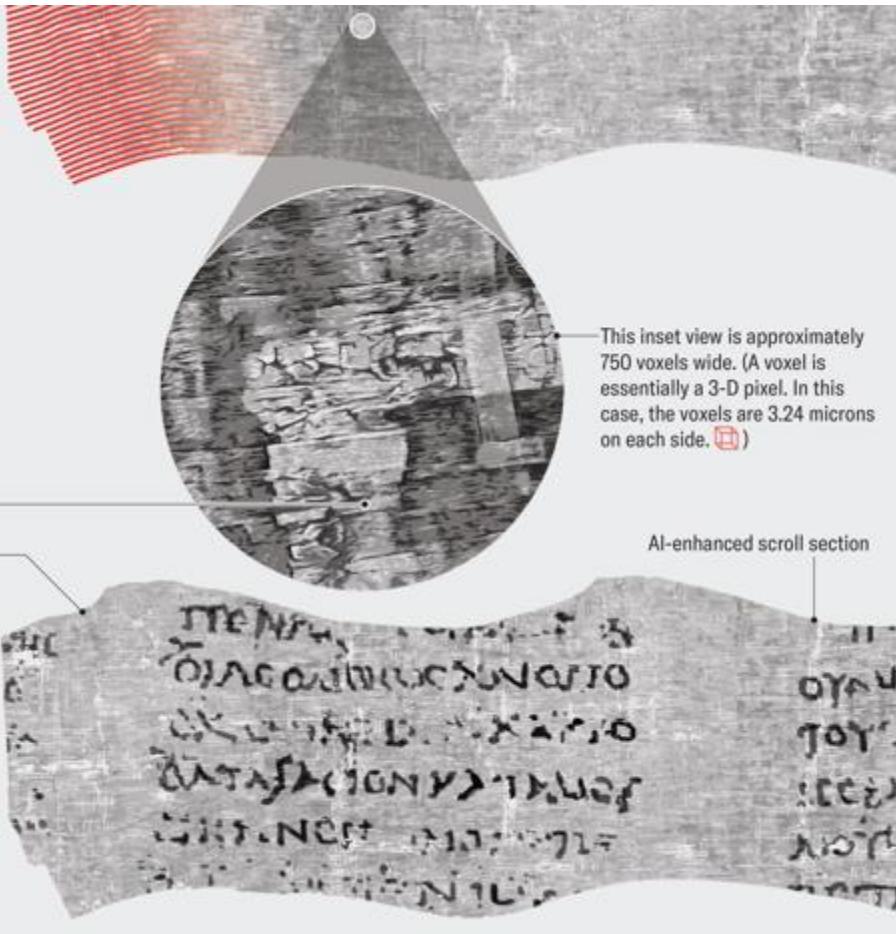
INK DETECTION

Identifying the location of ink on the scrolls, which would reveal the written text, is challenging because both the papyrus and the ink are carbon-based: there is little to no visible contrast between the two in CT scans, making the text seem invisible.

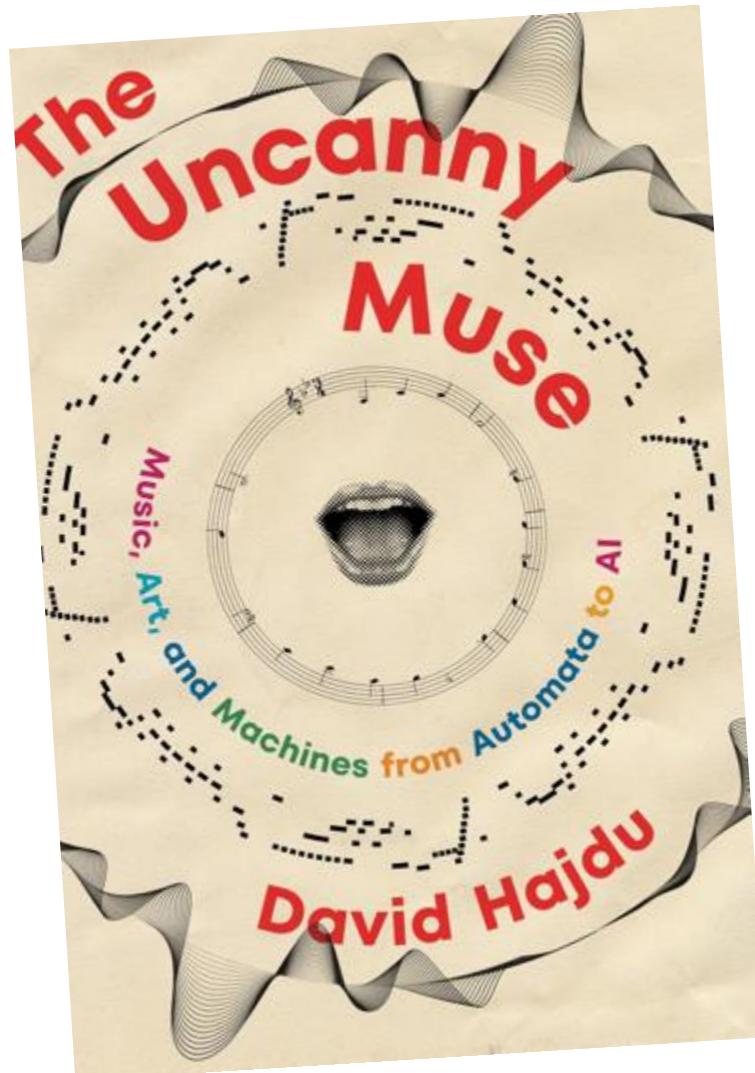
But machine learning may be able to discern what is challenging for the human eye. Researchers point the AI to areas of known ink coverage, identifiable by a cracked, mudlike texture of dried ink. The AI studies those areas voxel by voxel.

AI INTERPRETATION

The AI learns the unique pattern in those areas containing the cracked texture, as well as other subtle signals. The AI applies what it learns to new areas where no contrast can be detected by human eyes, boosting the signal from inked areas to reveal writing not seen for thousands of years. The Vesuvius Challenge resulted in 2,000 characters of previously unread text—a passage probably by Philodemus, writing about pleasure.



dentro l'economia della macchina



Nella futura economia, le intelligenze artificiali da “strumenti” operativi stanno divenendo “agenti” autonomi

- ❖ ... e se diviene creatrice di cultura e arte?
- ❖ ... e se diviene consumatrice di cultura e arte?
- ❖ ... e se diviene imprenditrice di cultura e d'arte?
.... con autonomia decisionale e portafoglio digitale?



NFT and Cultural Heritage

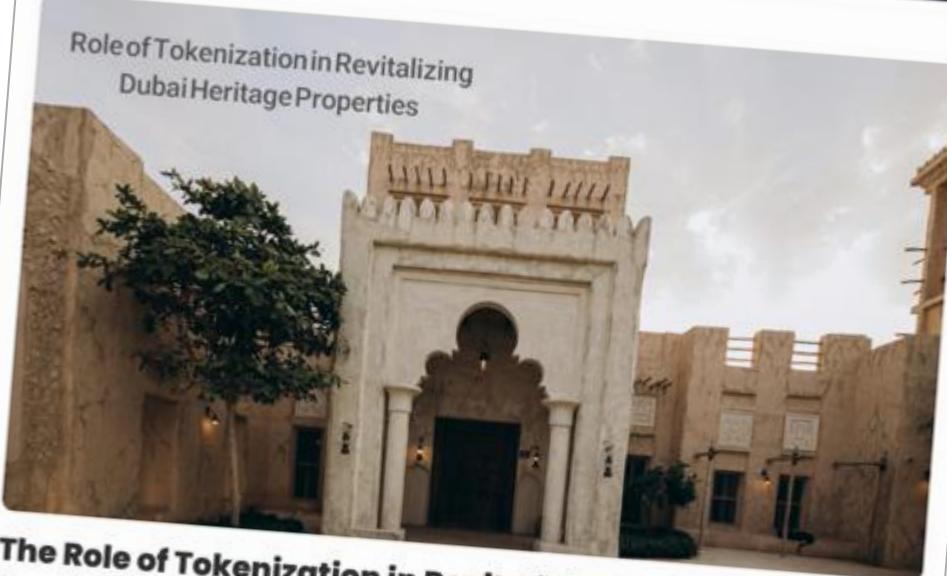
a cura di Anna Luigia De Simone



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HOME CUBES

HomeCubes > Blog



Role of Tokenization in Revitalizing Dubai Heritage Properties

The Role of Tokenization in Revitalizing Dubai's Heritage Properties

January 17, 2025

Dubai is famous for its towering skyscrapers, modern architecture, and fast-paced development. However, the city's rich history and cultural heritage are just as integral to its identity. With a growing demand for preserving and revitalizing heritage properties, tokenization has emerged as a transformative solution. By leveraging blockchain technology, tokenization allows real estate developers and investors to transform the way heritage properties in Dubai are financed, managed, and preserved.

after disruption
a future for cultural memory

trevor owens



Quale sarà il futuro delle *istituzioni della memoria* (archivi, biblioteche, musei,...) e dei *lavoratori della memoria* dopo la disruption?



grazie

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