Ingegnerie della frontiera
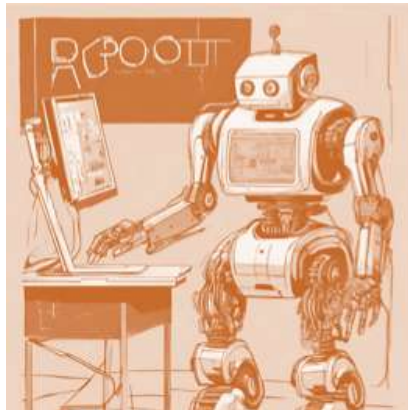## Culture | Modelli | Strategie

Cosimo Accoto

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

From science to engineering

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

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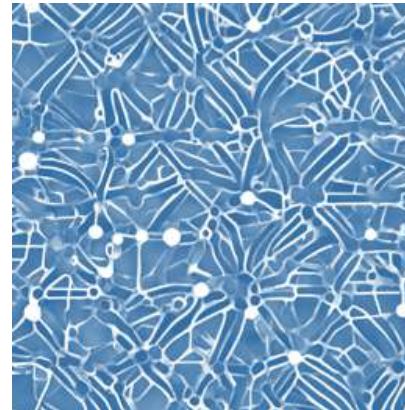| Artificial Intelligence	Cryptosystems Blockchains	Bio-Nano Technology	Quantum Computing

- texts, images, agents (GPTs)
- augmented/virtual/neuro realities
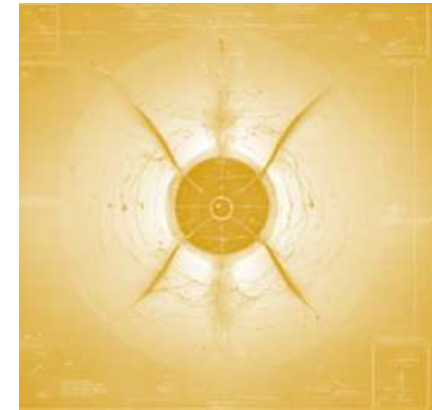- robotics: industrial to social
- **Planetary Intelligence**?

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

- biodesign platform
- materials intelligence
- nanoscale med/bio hack
- **Exoplanetary Life**?

- quantum sensing
- quantum networking
- post-quantum cryptography
- **Quantum Internet**?

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Chimerical Frontiers of Innovation

- Quantum Computing **+** Artificial Intelligence (Quantum AI)

- Swarm Robotics **+** Blockchains (Distributed Autonomous Machines)

- Blockchains **+** Quantum Networking (Quantum Internet)

- Material Intelligence **+** AI Simulations (Smart Nano-Materials)

- Spatial Computing (Cloud, Fog, Edge) **+** AR/VR **+** BCI (XR Design)

- Cryptography **+** Quantum Computation (Post-Quantum Cybersecurity)

- ...

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Swarm Robotics **+** Blockchains
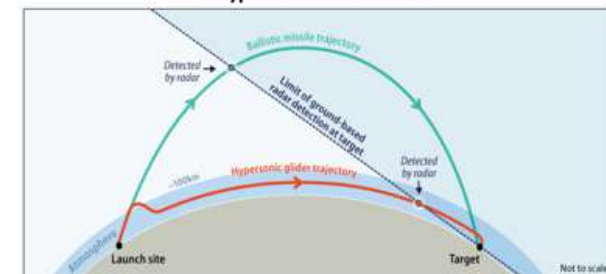
(Distributed Autonomous Machines)
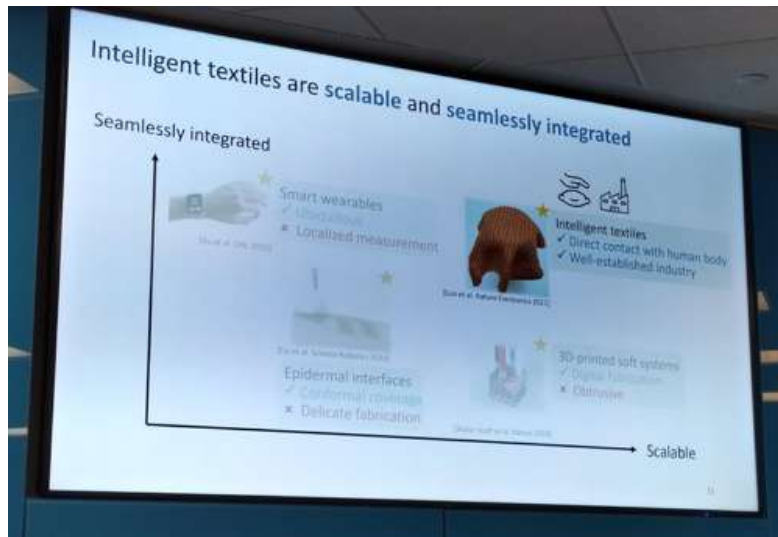
Hypersonic

Weapons Race

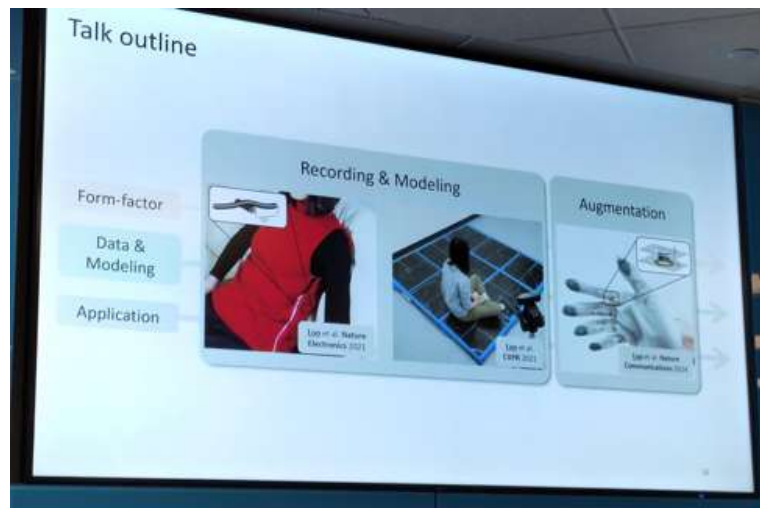Hypersonic Weapons: Background and Issues for Congress

Figure 1. Terrestrial-Based Detection of Ballistic Missiles vs. Hypersonic Glide Vehicles
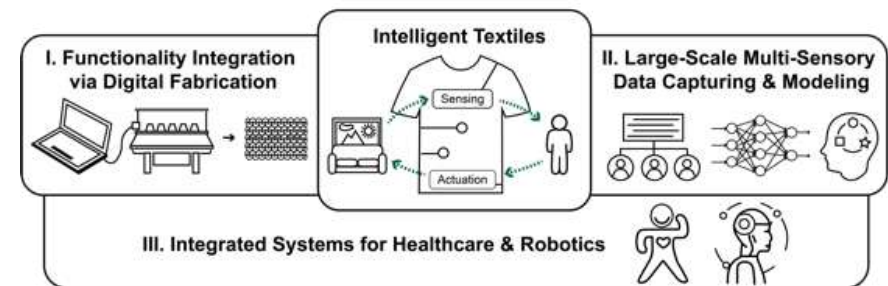
Source: CRS image based on an image in "Gliding missiles that fly faster than Mach 5 are coming," The Economist, April 6, 2019, https://www.economist.com/science-and-technology/2019/04/06/gliding-missiles-that-fly-faster-than-mach-5-are-coming.
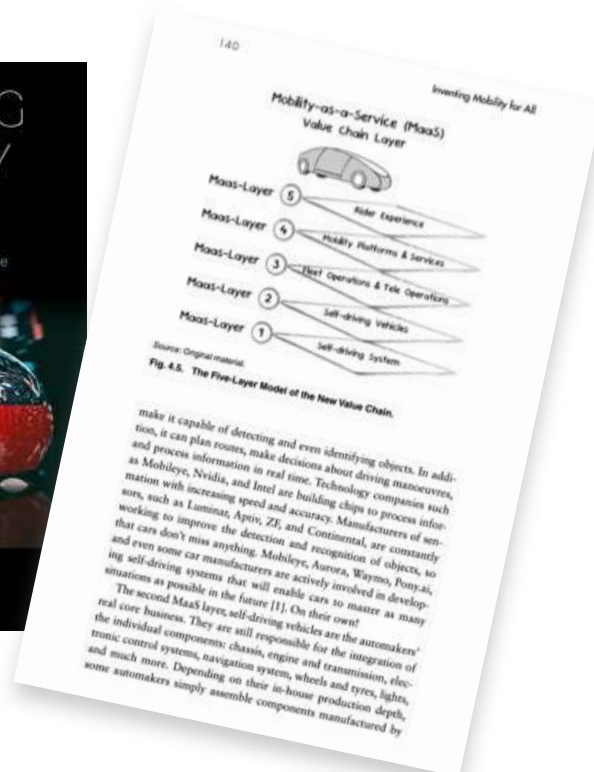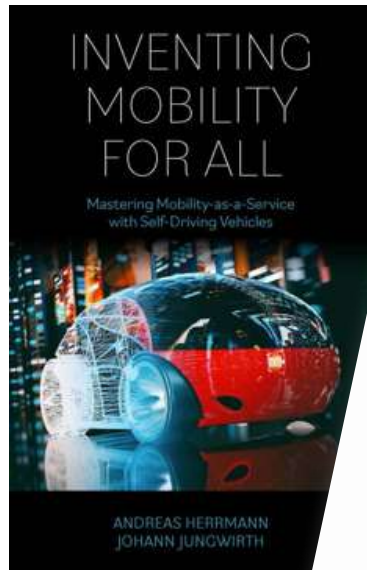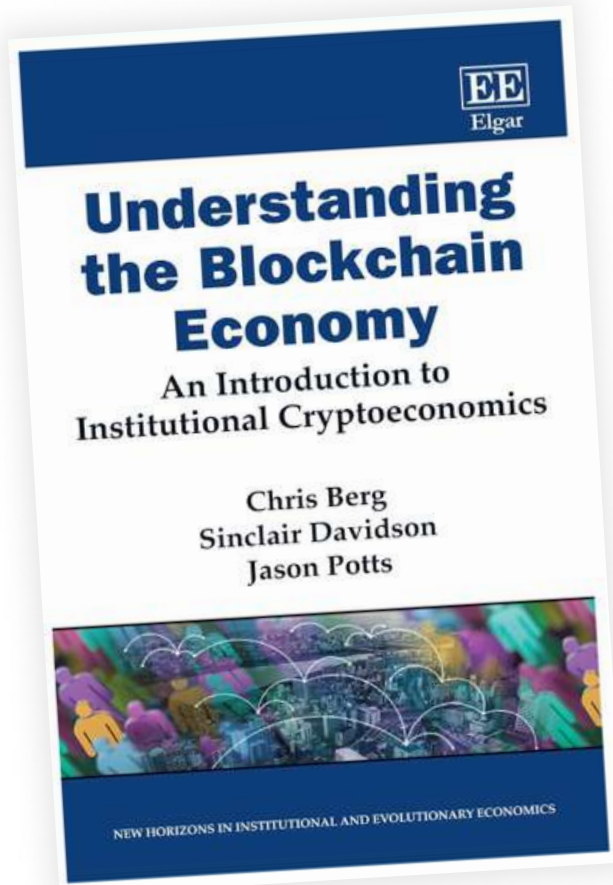
Intelligent textiles are scalable and seamlessly integrated

Seamlessly integrated

Smart wearables
- Localized measurement

Intelligent textiles
- Direct contact with human body
- Well-established industry

Epidermal interfaces
- Conformal coverage
- Delicate fabrication

3D printed soft systems
- Digital fabrication
- Obtrusive

Scalable

Talk outline

Form-factor

Data & Modeling

Application

Recording & Modeling

Augmentation

Yiyue Luo

Toward a _Wearable Intelligent Assistant_:
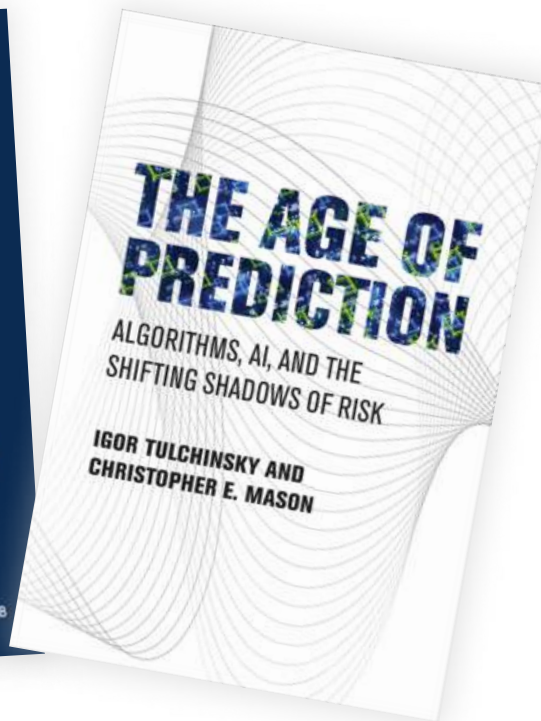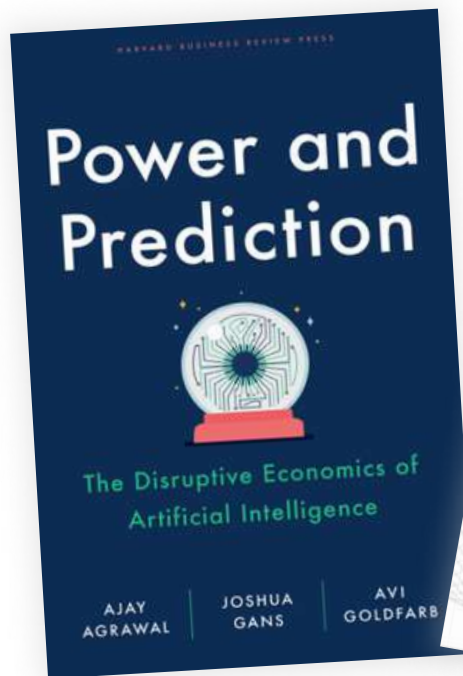Recording, Modeling, and Augmentation of Physical Interactions

I. Functionality Integration via Digital Fabrication

Intelligent Textiles
- Sensing
- Actuation

II. Large-Scale Multi-Sensory Data Capturing & Modeling

III. Integrated Systems for Healthcare & Robotics

Yiyue Luo

Business Models, Competitive Strategies, New Cultures

Cosimo Accoto

Blockchain: an *institutional* innovation (not just a *technological* innovation)

Cosimo Accoto

AI: the production of **prediction** is the business of the future

Cosimo Accoto

mobilità
allertativa

medicina
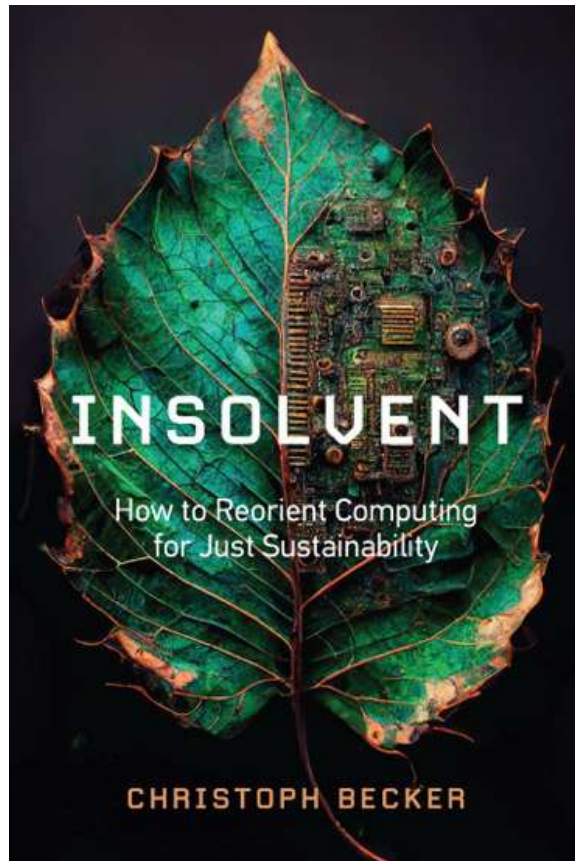predittiva

manutenzione
preventiva

cybersicurezza
adescativa

scrittura
anticipativa

medialità
raccomandativa

Reorienting Computational Intelligence for Sustainable Planetarity

Cosimo Accoto