

Governments and Companies Confront the AI Wavefront

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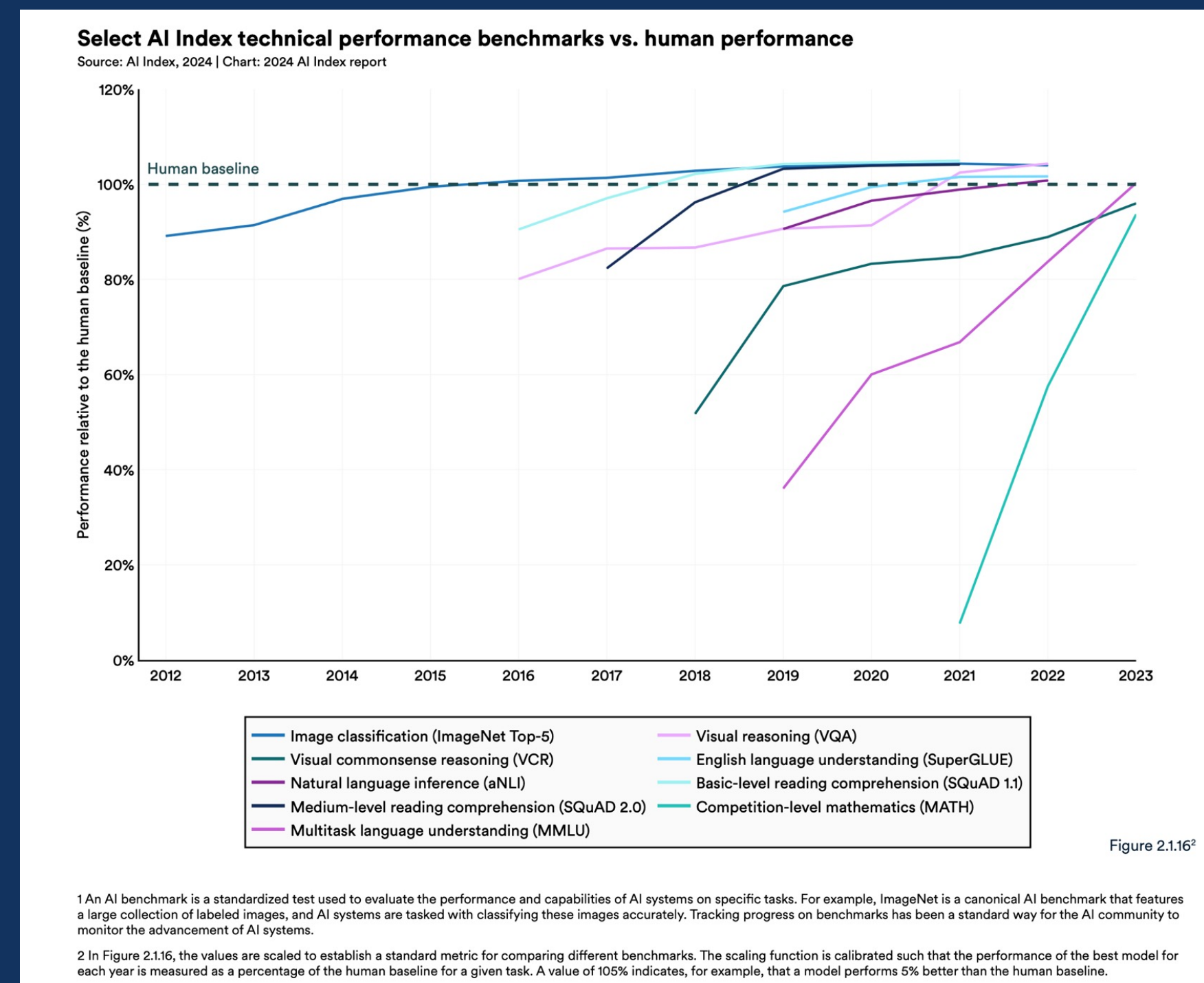
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Conflicts disclosure: I have several investments in startups & VC firms operating in the areas that I will be discussing here.

We're all here because we know that AI is now a profoundly transformative technology

This year, for the first time, AI is reaching or exceeding human capability in a wide range of important functions



But there are a few little problems...

Namely: A totally unprecedented number of regulatory & policy challenges

...amidst the start of a new cold war

Government Policy Challenges

Here's just a list:

Safety guardrails

Employment effects

Accuracy / hallucination / attribution / reliability

Role of defense R&D

A new arms race, but with open source models?

Export controls, ITAR, investment controls / CFIUS

Foreign dependency

Disinformation

Criminal use of deepfakes

Copyright – conventional rules obsolete

Patents – conventional rules obsolete (what happens when LLMs invent something?)

Plagiarism

Legal liability

Security / hacking / attacks

Privacy – thought to text, thought to video, emotion recognition

Antitrust

“Gun control” – consumer level AI weapons

Criminal & terrorist use (drones, autonomous bombs)

Sabotage, ransomware attacks

Bias

Human-out-of-the-loop in (a) business (b) health care (c) driving (d) robotics (e) weapons

Management of the Federal government / civil service

Education / testing

Sharp Increase in Federal Policy Intervention is Inevitable

But this isn't necessarily a bad thing for the AI Industry – quite the contrary

The industry is just starting to understand that it needs an assertive, competent Federal government to counter China

Government can function as R&D supporter & collective bargaining agent against China – extremely important

Imperfect but very high overlap between commercial & national security goals

Very unwise of ASML, Nvidia etc. to oppose strict controls: “We shall all hang together, or we will assuredly hang separately”

But the Federal government still badly needs, and lacks, a coherent grand strategy including both economic and national security goals

Cold War in the Age of China, Russia and AI

The U.S., EU, ANZUS, & Asia versus China, Russia, Iran & North Korea

This will last AT LEAST until Putin & Xi leave power

Major Ramp-up of Both Support and Controls Necessary & Likely

Urgent need to modernize many Federal agencies (DoD, NSF, Commerce, etc.)

Even more urgent need to modernize / disrupt the defense industry

The defense primes are a big problem: slow, expensive, technically behind

A new grand strategy for defense needed – R&D, supply base, procurement, secrecy / classification, ITAR, dependencies, immigration, sanctions...

Companies (I): The Technology Oligopoly

Amazon & Microsoft will be fine

Google will be dented, but not fatally

Google will lose a lot of search advertising, but not everything else

Phones & PCs – huge supercycle opportunity for Apple, Samsung &/or Intel

Every new phone will be running a model within 2 years

But is Apple moving fast enough?

Risk of China catching up?

And will we see new AI phone startups?

Semiconductors

Race for architectural control between Intel / Nvidia / Qualcomm / AMD / ARM

But now also startups: Etched, Groq, Rivos, Rebellions, others

Companies (II): The AI Industry Itself

Enormous Potential for Generational Franchises Based on Data Rather Than APIs

Slow moving incumbents & fragmented industries make very attractive targets

AI companies can centralize data collection, model training, inference, control, and service delivery; also, a major opportunity for selling data

Potentially similar to how Microsoft & Intel took all the money in PCs

Data moat monopolies sell services to competing commodity implementers

Optimal Conditions for Creation of Specialized AI Platform Franchises

A disaggregated or incompetent industry that needs, but is unable to create and maintain, data pools and LLMs

The AI Industry, continued

Possibly contrarian claim: general purpose LLMs will NOT rule the world

General purpose LLM providers will dominate only in very general areas

Conversely, specialized startups and smart large companies will roll their own

Current public LLMs trained on 1-20T tokens

But

Any Fortune 100 company generates 100B-10T tokens *per day* internally

Amazon and Foxconn generate more robotic training data every day than all AI robotics startups combined will generate this year

Microsoft probably generates more tokens every day than OpenAI has ever seen

The U.S. intelligence community generates at least 10T tokens per day

So do China's government surveillance systems

Companies (III): Candidates for Disruption

Advertising

Cars, trucks, and/or driving

Robotics & robot operation

Software engineering

Wealth / asset management

Entertainment

The defense industry

Many other specialized areas

Food for Thought, I Hope

Thank You