Notes: Why the Future of Intelligence Is Already Here | Alex Wissner-Gross | TEDxBoston | FEB 2, 2026

https://www.youtube.com/watch?v=BYjt88zq4go

Artificial intelligence is no longer approaching a tipping point—it has crossed it. In this provocative talk, Alex Wissner-Gross argues that AI is already reshaping the world through exponential acceleration and a dramatic collapse in the cost of intelligence. Drawing on frontier research and global AI conferences, he explains why Moore's Law no longer applies and how AI now follows an experience curve that enables bulk problem-solving across math, science, engineering, and medicine. From humanoid robots to planetary-scale infrastructure, Alex explores what happens when intelligence becomes cheap, abundant, and everywhere—and whether humanity is ready for the speed and scale of change ahead. Dr. Alexander D. Wissner-Gross is a computer scientist, physicist, entrepreneur, and AI researcher focused on the nature and scaling of intelligence. He is the Founder and Managing Partner of Reified and has taught at Harvard University and MIT.

Alex earned his PhD in Physics from Harvard, where his research in machine learning and neuromorphic computing received the Hertz Foundation Doctoral Thesis Prize. A rare triple major at MIT in Physics, Electrical Engineering, and Mathematics, he has authored dozens of publications, holds numerous patents, and has founded, advised, or invested in over forty technology companies.

A widely recognized voice in artificial intelligence, Alex is a TED speaker, contributing author to This Idea Must Die and What to Think About Machines That Think, and has been featured in outlets including Wired, The Wall Street Journal, and CNN. His work explores how rapidly advancing AI reshapes science, industry, and society. This talk was given at a TEDx event using the TED conference format but independently organized by a local community. Learn more at https://www.ted.com/tedx

1. Takeaways having just returned from NeurIPS 2025. The Thirty-Ninth Annual *Conference* on *Neural Information Processing Systems*. San Diego, CA. Dec 2nd - 7th

- In the hallways the most spoken language heard was Mandarin.
    - The American frontier AI labs have largely gone dark at this point when it comes to publishing at the top AI academic conferences, leaving a power vacuum that the Chinese frontier labs are rushing in to fill.
    - Alibaba had 130 papers published including a best paper award at the conference.

- Capturing the zeitgeist of the conference, humanoid robots are now widely perceived as the next big thing after AI agents.
- There was a “solve everything” spirit to the conference.
    - The Jan Zuckerberg Initiative founded by the Zuckerbergs, now rebranded as Biohub, was very visible at the conference and their branding of using AI to cure all disease captured the spirit that AI is likely to solve all math, science, engineering, and medicine problems in the next few years.
        - Previously the initiative had the mandate to cure all diseases within the next century. Now it’s within the next few years.
- Timelines have sped up.
    - The perception we were heading toward the technological singularity was an illusion. We’re in it! At least the foothills of it.
    - At this point we’re drowning in AI and will be drowning in a lot more AI.
    - Sense of the conference: in the next two to three years, we’re going to see utter transformation of solving intelligence and using intelligence to solve everything else.

2. Can you walk us through Moore’s law?

- Original prediction founded by Gordon Moore was the density of transistors that fit on a chip would double every 18 months – 24 months.
- Moore’s law is now dead.
    - It plateaued with around 4-megahertz microprocessors in the 90s.
    - The same is true with its application to other technologies
- AI is on a different trajectory called an “Experience Curve,” a general term for things that look like Moore’s Law over time.
    - AI is on several different Experience Curves.
        - The median cost of AI over time is deflating approximately 40x per year.
        - Humanity has never seen 40x year over year deflation for anything.
        - Having the cost of intelligence reduce this much (more or less) sustainably, year after year, is something humanity has also never seen.
        - Right now, this takes a leap from chatbots we can converse with to reasoning models that actually give solutions to problems. But this intelligence that’s 40x year over year deflation will not remain

confined to data centers but will be pulled into the rest of the economy,

- manual labor (i.e., robots)
- math, science, engineering problems solved all at once
    - i.e., the protein folding problem of starting from the structure of a protein and predicting its final structure, which has many biological and medical applications, was once the topic of a 5 or 6 six-year PhD project. Then, thanks to Alpha Fold 3, essentially all protein structures got solved overnight. That's a large chunk of structural biology that was just swept away by A.I.
- This model, where A.I. bulk-solves fields overnight, we're going to see happen field by field by field over the next few years.
- Right now, the field being steamrolled is math.
- There are currently a set of curated unsolved math problems identified by Hungarian mathematician Paul Urdesh that are, one by one, being solved by A.I., literally day by day.

What does the future city look like in fifty years?

- Fifty years is past every event horizon at this point.
- Fifty years from now, in 2075, if we don't have cities of humans uploaded into data centers; if we don't have colonies throughout the solar system—if we don't have humans both in the Cloud and in the clouds—then something has horribly gone wrong.
- I would render the same prediction fifteen or twenty years from now.

What are some of the most shocking things you think will play out in the next 48 months?

- Expect a lot of ontological shocks from the areas of math, science, and engineering being solved.
- We don't have any precedent for entire domains getting solved at once.
- Expect grand discoveries, new technologies, that A.I. is going to solve overnight that will be surprising to the vast majority of humanity.
- We're accustomed to slow progress, to the smoothing of many singularities, when we go from not knowing to knowing something.

- There is no precedent for solving a lot of problems and making so many major discoveries at one. Unless we engineer our societal structures and governments appropriately, we're going to have a bit of "indigestion" as a human civilization.
- Imagine if the top 5,000 diseases get cured overnight: We don't have the governance to run 5,000 clinical trials for 99 percent guaranteed drug candidates to test these solutions.
- We're going to have to adjust our governance and ability as a species to metabolize to accommodate bulk discovery and bulk invention.

How would you grade today's top tech companies and what would you like to see them doing more of?

- If we grade, for example, by highest marginal impact from the future, it will be those that have the strongest A.I. models right now.
- Our society has what I call an "innermost loop." In computer science, when you're trying to optimize the performance of a computer program (because software code iterates in loops), if you want to make a program much faster, you should look at the inner most loop for optimization because that's the piece of code that will be utilized the most frequently.
- Applying this principle to human civilization and human economy, for the first time in history there is an "inner most loop" to human civilization.
    - That loop is robots building fabs > that are building chips > that go into A.I. data centers > that are being used to train models > that are being used to guide robots—the loop is complete.
    - The companies that are having the outsized impact are those that are in this innermost loop.
- I'm excited about companies making energy post-scarce.
    - We're talking a lot about nuclear fission, nuclear fusion, solar, and space-based solar for data centers that will make huge impacts.
    - There may be a time when it's more economically feasible to deploy A.I. data centers in space, and not just in Earth orbit but in solar orbit. And not just a few, but many.
        - So many that we would have to disassemble the rest of our solar system to build them.
            - This is the Dyson Swarm concept: taking apart Jupiter, for example, and using that matter to create a flying swarm of lots of orbiting computers.
            - Some scenario like this is looking increasingly likely.

        - There’s even serious talk of disassembling some of the Moon to create low Earth orbit data centers. This utilized mass that near, but not trapped down in the Earth’s gravitational well.
    - Companies thinking in these terms will have the most impact in the next five to ten years.