



# Blossoming of the AI Civilization

## *Challenges and Responses*

October 2023

Live Tweeting?

I'm @PeterDiamandis



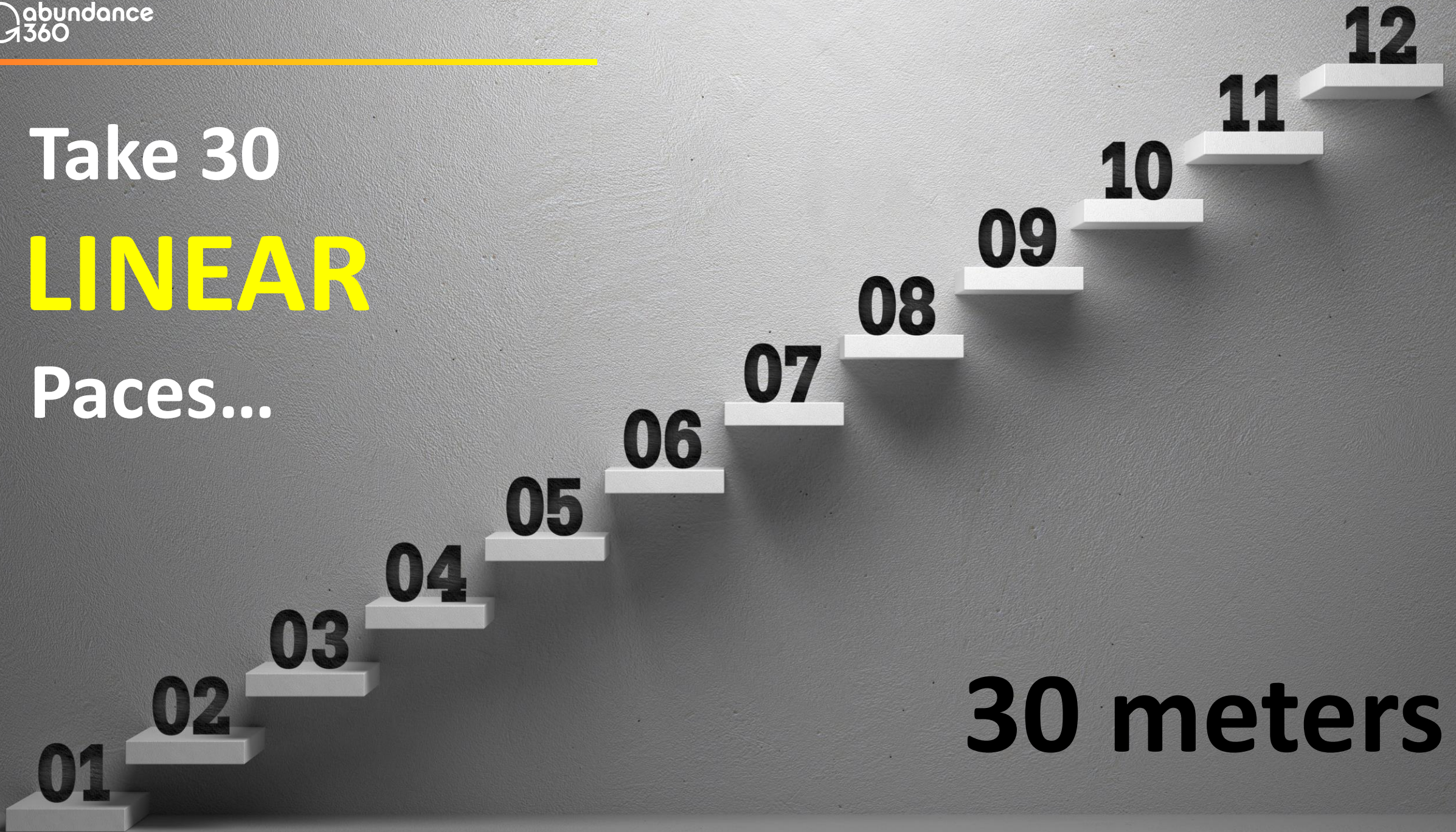
Peter H. Diamandis, MD



What does  
**EXPONENTIAL**  
growth feel like?



Take 30  
**LINEAR**  
Paces...



30 meters



# Take 30 **EXPONENTIAL** Steps...

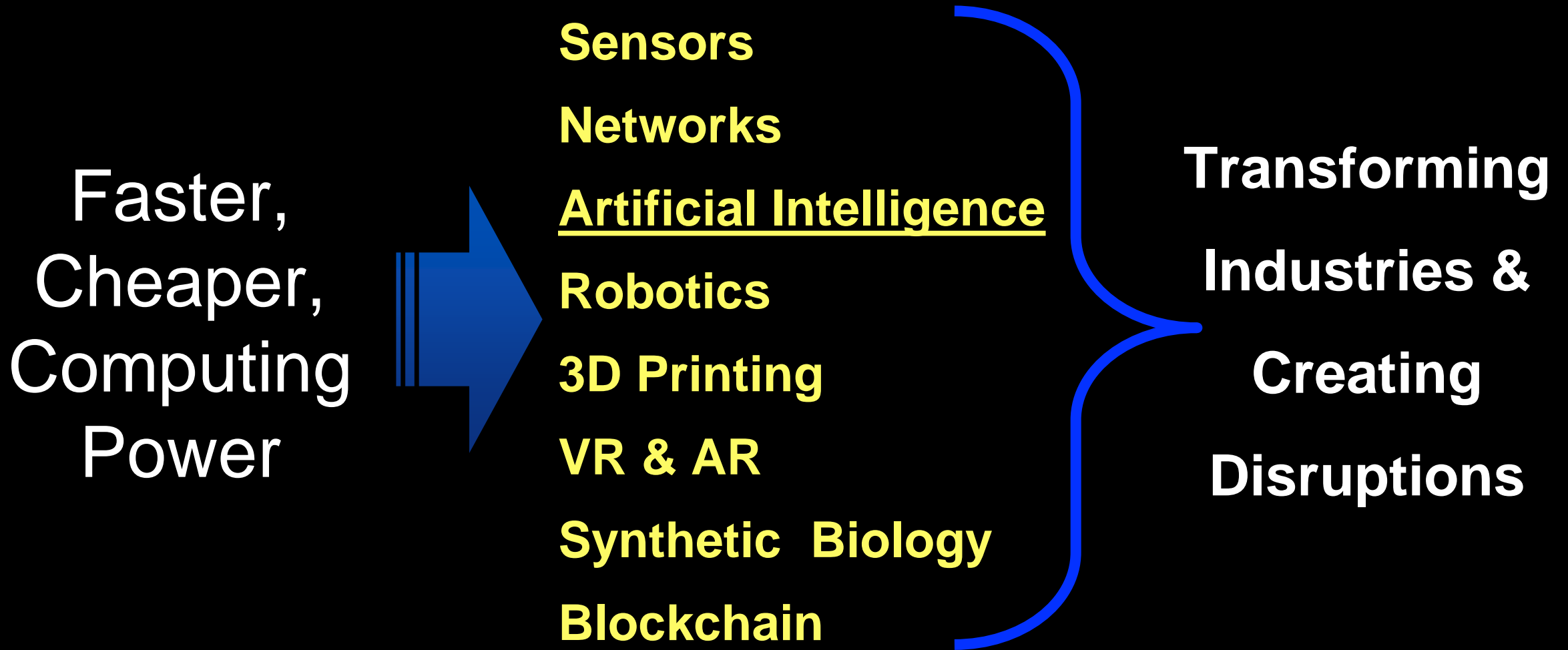
01 02 04 08 16 32 64 128 256

**1,073,741,824 meters!**

**26X**  
around the Earth!



# CONVERGING EXPONENTIAL TECH



**“The Day Before Something is a Breakthrough, it’s a Crazy Idea!”**

**“In the next 10 years, we will experience as much change as we did in the past century.”**



# **Artificial Intelligence**

## ***The Promise, Peril & Response***

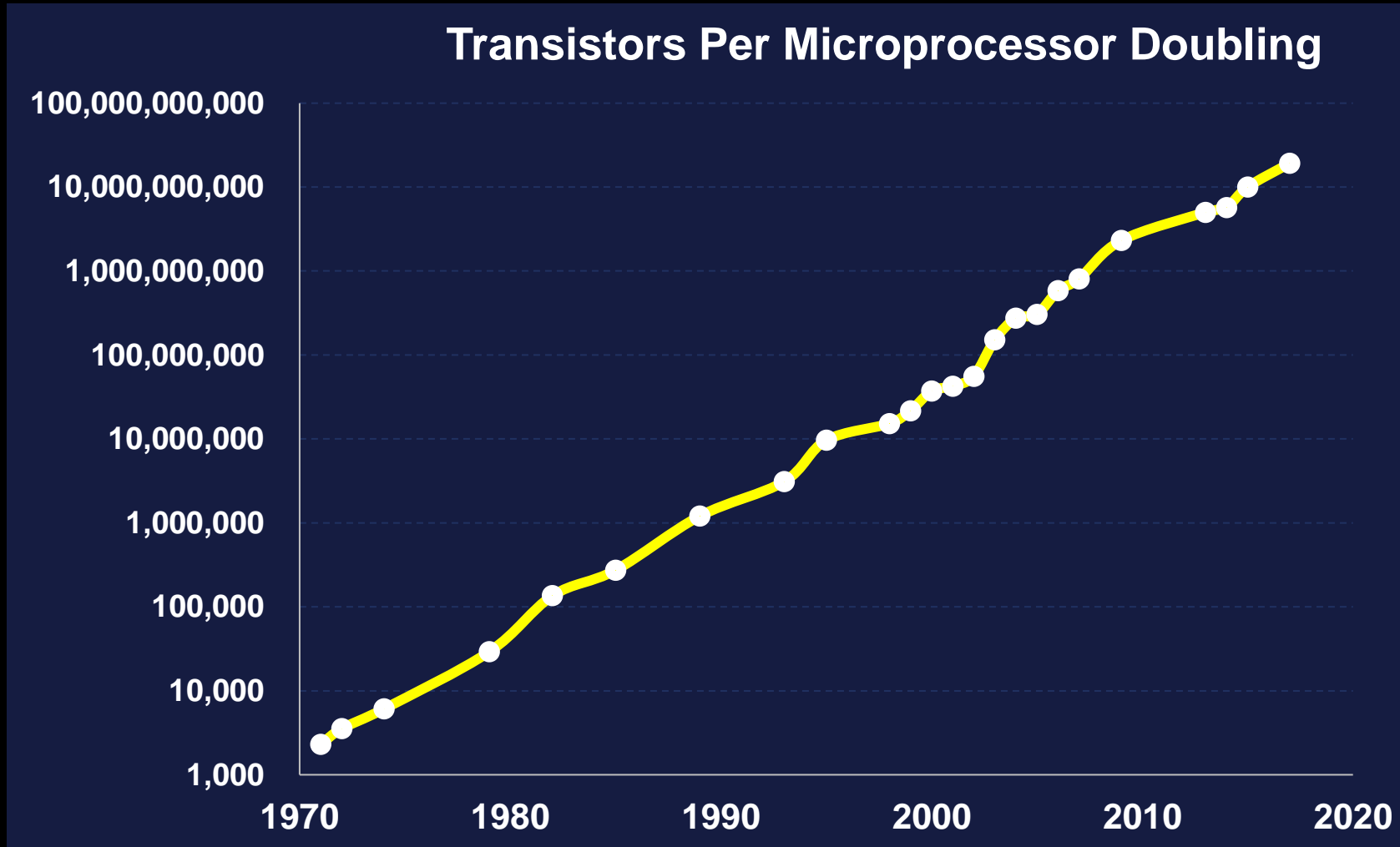
# AI IS 67 YEARS OLD... WHY NOW?

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- 1956 AI Dartmouth Conference (67 years ago)
- So why is AI Exploding Now?
- (4 Reasons)

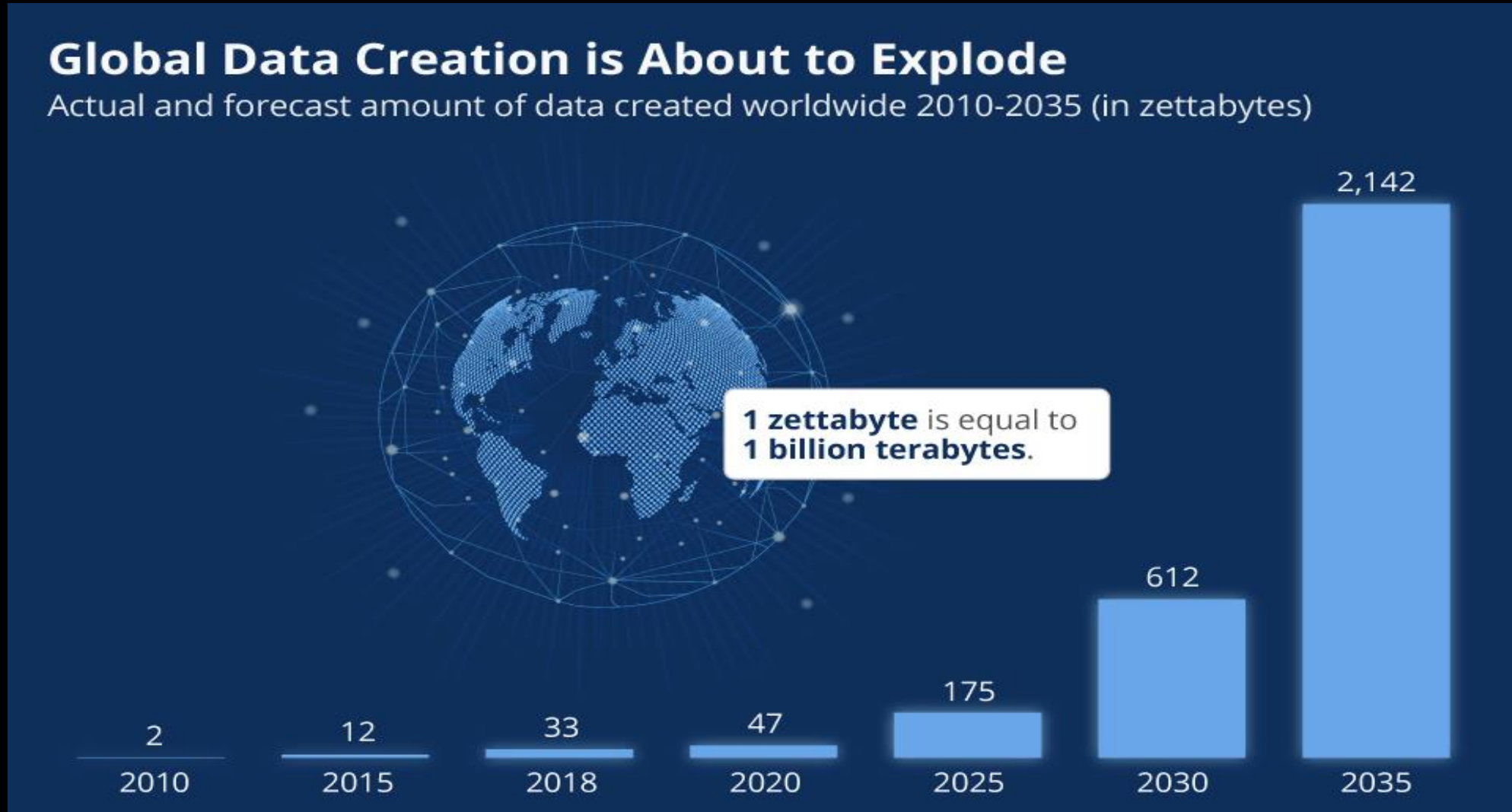


# REASON #1: **COMPUTATION DOUBLING** EVERY 2 YEARS (50+ Yrs) THROUGH 2022+



Source: Our World In Data

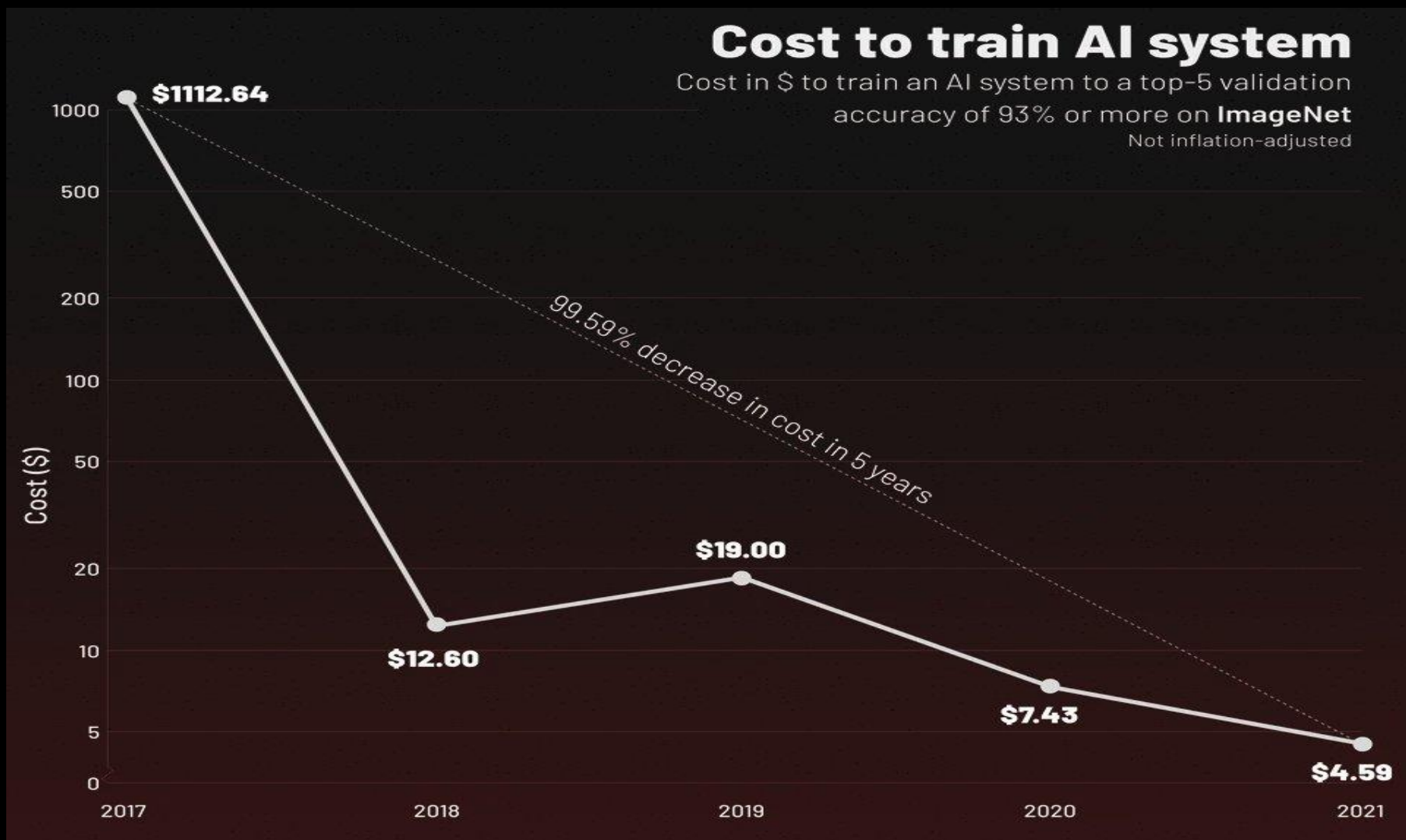
# REASON #2: GLOBAL DATA DOUBLING ~2 YEARS!



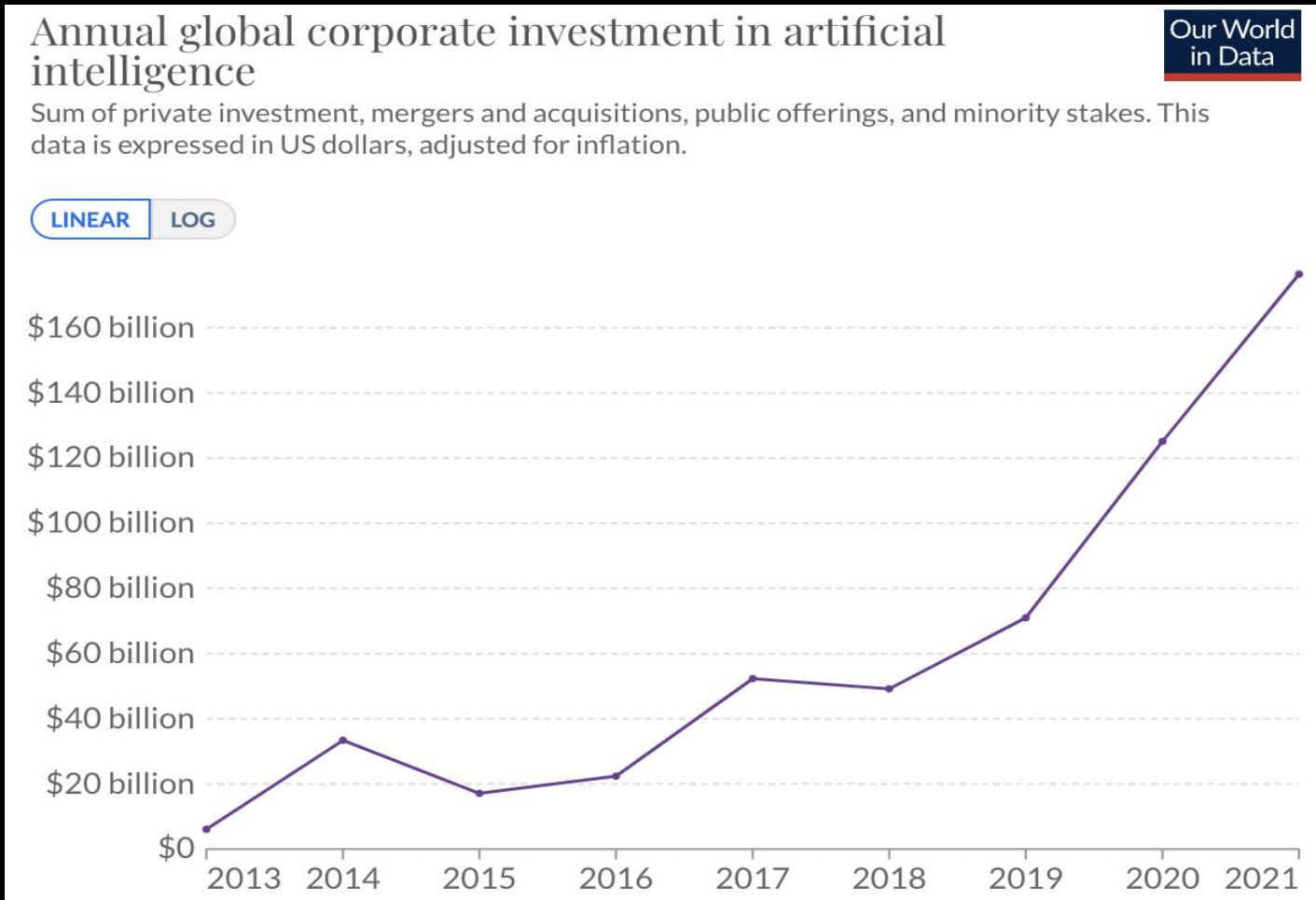
**In 2025: 175 Zettabytes / = 175 Billion-Million-Megabytes**



# REASON #3: COST TO TRAIN AI SYSTEMS HAS GONE DOWN 99.5% IN THE LAST 5 YEARS



# REASON #4: CAPITAL! \$160 BILLION ANNUAL GLOBAL CORPORATE AI INVESTMENTS (2021)



The global (AI) market size **\$1.6 trillion by 2030.**



“Artificial intelligence could have more profound implications for humanity than electricity or fire.”

- *Sundar Pichai, CEO, Alphabet*



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## *MY THOUGHTS....*

**“There will be two kinds of companies at the end of this decade....**

**... “those who are fully utilizing AI.”**

**... “and those who are out of business.”**



# AI WILL REACH & EXCEED HUMAN-LEVEL AI



**RAY KURZWEIL**  
**2029**

**“2029 is the date I predicted  
when AI will achieve human  
levels of intelligence”**



**ELON MUSK**  
**2028**

**“(AI will be) Vastly smarter  
than any human and would  
overtake us..”**

# CHATGPT “BREAKS THE INTERNET” FASTEST GROWTH EVER (TIME TO 1M USERS)



**100 Million Users in 2 months!**



# Recent AI Headlines

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1. **ChatGPT passes U.S. Medical Licensing Exam**
2. **ChatGPT passes the U.S. Bar Exam**
3. **ChatGPT passes Wharton MBA Final Exam**
4. **Microsoft Invests \$10B into OpenAI**
5. **GPT-4 get's 100% on all MIT EECS exams**
6. **ChatGPT can now “See” and “Speak”**
7. **2023 estimated AI Investment is now \$154 Billion**
8. **GPT-5 (OpenAI) and Gemini (Alphabet) by end of 2023**

Moonshots  
Mindsets (●●)

#16

**EMAD  
MOSTAQUE**

**“Google and Microsoft are going *all-in* with generative AI as core to their future.**

**“There is no ‘we are still early’ here; trillion-dollar companies are shifting their whole strategy and focus.”**

*- Emad Mostaque, CEO, Stability AI*





By the end of this decade, there will be two kinds of companies: Those that are fully utilizing AI and those that are out of business.



# PROMISE & PERIL

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## THE PROMISE:

- By 2030, the AI market is projected to reach US \$1.8Trillion
- Demonetize & Democratize access to health & education
- Transition from an “Information” to a “Knowledge” Society, and are democratizing “Knowledge” *at the edge for everyone*
- Uplifting everyone, creating true “Abundance”

# Evidence of the “Promise”



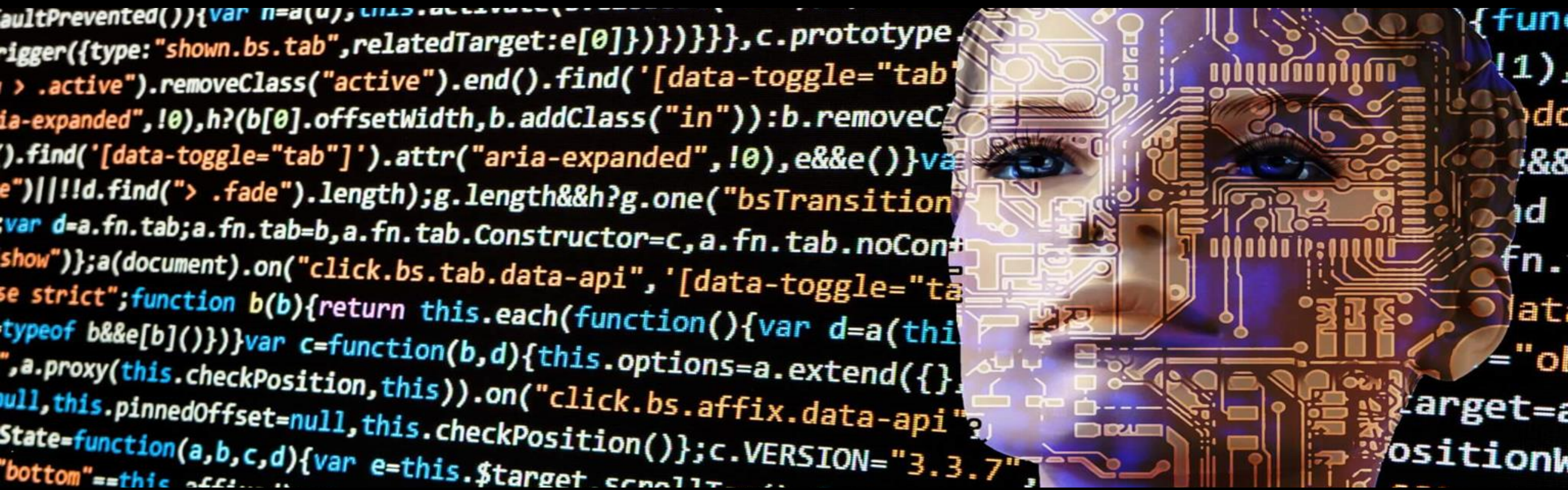
# AI SYSTEM DEFEATS TOP DOCTORS (CHINA) IN TUMOR DIAGNOSIS COMPETITION



AI correctly diagnosed **85% of cases in 18 minutes.**  
Neurologists achieved **64% accuracy in 50 minutes.**



# CHATGPT OUTPERFORMS DOCTORS IN GIVING 'EMPATHETIC ADVICE'



ChatGPT's responses were **4X more likely to be ranked 'good'** and **10X more likely to be 'empathetic'** than real doctors. (JAMA April'23).



# DEEPMIND'S ALPHACODE OUTPERFORMS 45% OF EXPERT HUMAN CODERS

When pitted against over **5,000 human participants**, the **AI outperformed ~45%** of expert programmers.

This will enable anyone/everyone to Code within 5 years time...



# AI MODEL CAN NOW DETECT DEMENTIA USING SPEECH PATTERNS

The AI model can currently diagnose Alzheimer's,  
and other forms of dementia, with **70-75% accuracy**.



# 10 SECOND AI VOICE TEST ACCURATELY DETECTS TYPE-2 DIABETES-OFFERS ALTERNATIVE TO BLOOD TEST

**Type 2 Diabetes** was accurately predicted **nearly 90% of time**  
amongst diabetic & non-diabetic surveyed individuals  
(N=267).



# AI POWERED BRAIN IMPLANT CAN TURN THOUGHTS INTO TEXT @ 62 WORDS / MINUTE



**Humans** speak at ~160 words / minute. A brain implant, **T12**, enables speech at 62 words / minute, **3X** the speed of previous records.



# SCIENTISTS DEVELOP NEW AI SYSTEM TO ALERT US OF NEXT PANDEMIC

EWAD, an AI from Scripps and Northwestern, **identified virus variants weeks before WHO's official recognition.**



**TESLA JUST REPLACED 300,000 LINES OF C++ WITH  
NEURAL NETWORK TRAINED TO OPERATE SELF-  
DRIVING CARS**



**Neural Networks likely to enable full  
self-driving in near future.**

# FUTURE OF EDUCATION: AI + VR



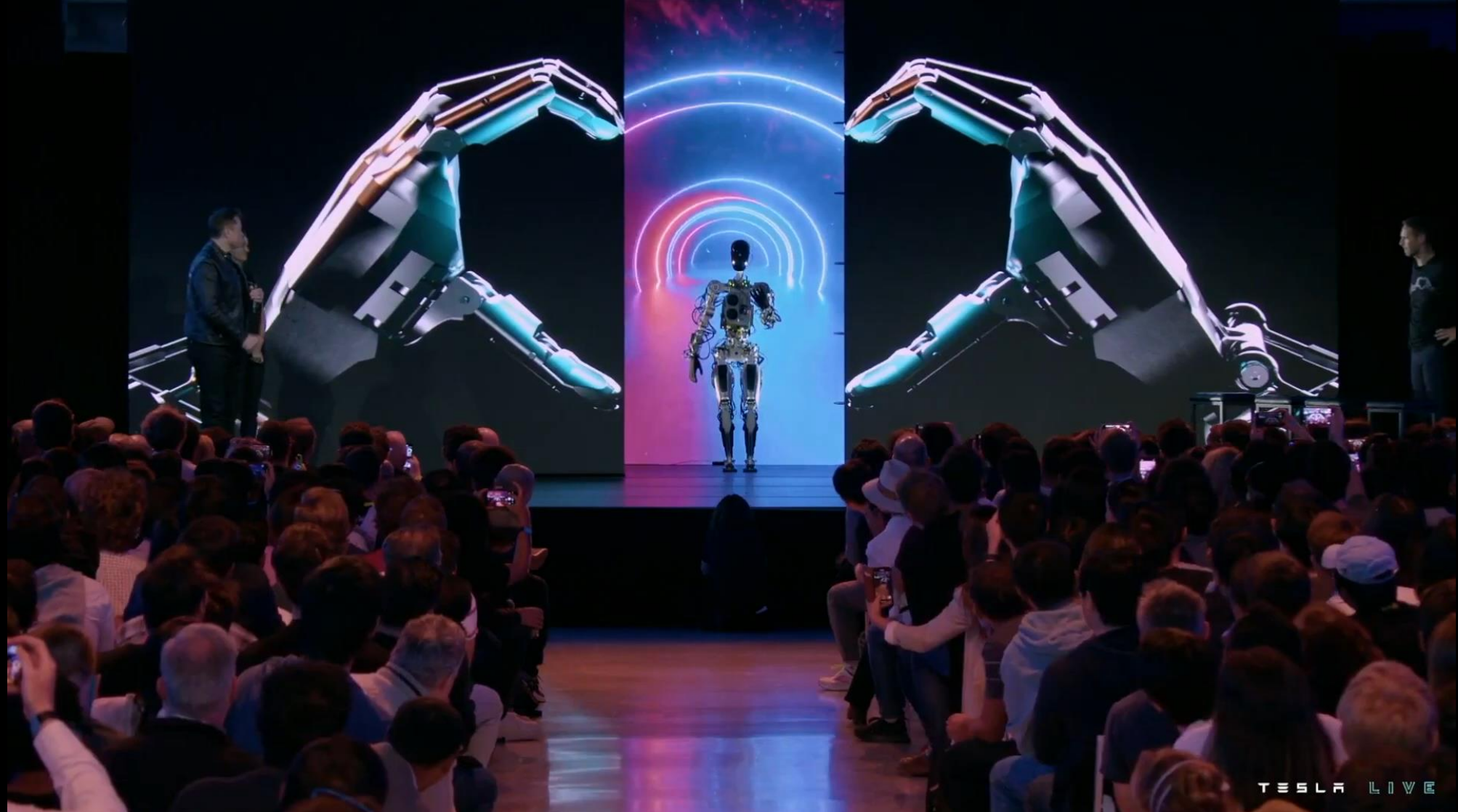


**MCKINSEY “GENERATIVE AI TO BOOST  
GLOBAL ECONOMY BY \$4.4T ANNUALLY**



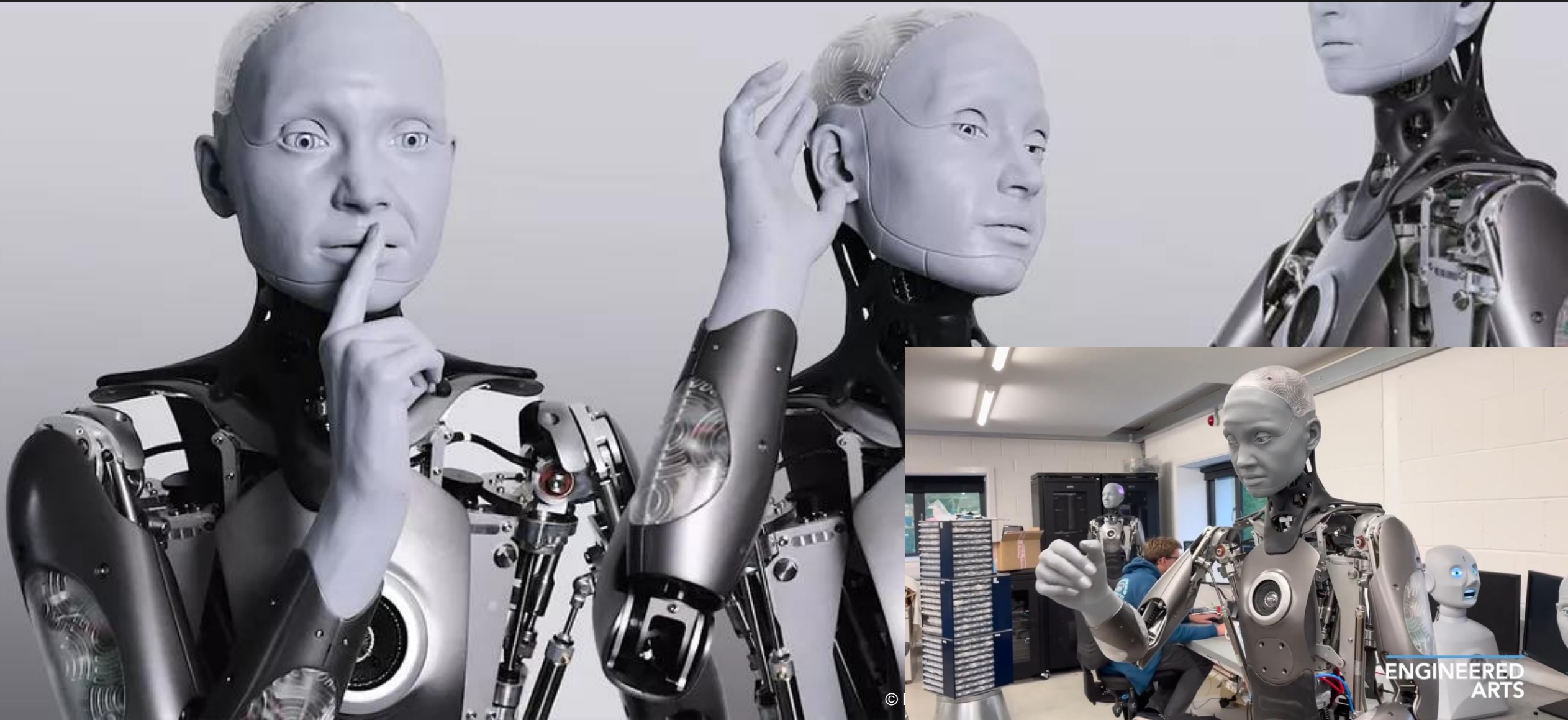
**AI powered  
Humanoid Robots  
are coming**

# ELON MUSK ANNOUNCES OPTIMUS

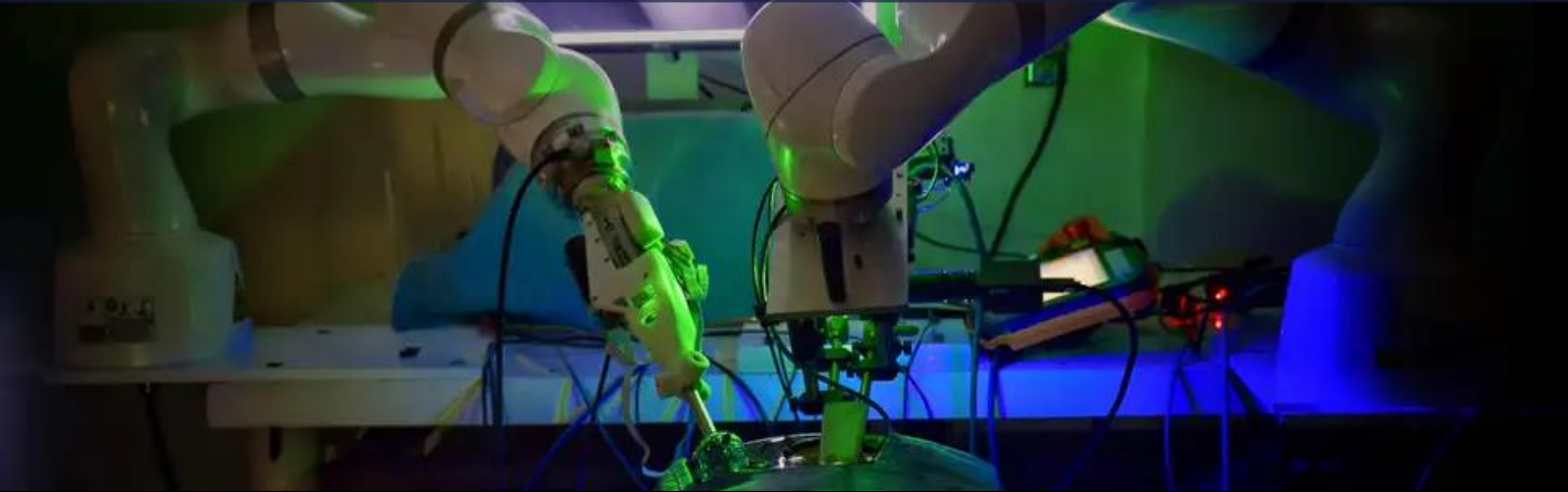




# AMECA, THE MOST LIFELIKE ROBOT YET, NOW POWERED BY GPT-4



# ROBOT SURGEONS CAN NOW PERFORM AN OPERATION WITHOUT HUMAN GUIDANCE



Johns Hopkins Univ. STAR Robot performed surgery on pigs, *better than human surgeons.*



# PROMISE & PERIL

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## THE PERIL (Near-Term / 0 to 4 years):

- Use of AI for disinformation/misinformation causing Loss of Trust
- Potential for cyber-attacks, political and financial disruption, or the creation of bioweapons.
- Loss of jobs causing social unrest in youth already impacted by COVID

## THE PERIL (Medium-Term / 4 years + ):

- Artificial General Intelligence (AGI) by 2029.
- Digital Super Intelligence, shortly thereafter.
- Misalignment with humanity, could create existential risks.

# PRO-ACTIVE RESPONSE TO THE PERILS:

**FII-7 SUMMIT  
AI RESOLUTIONS  
25 October 2023**



President Yoon Suk Yeol & Crown Prince MBS at FII-7 Summit (Riyadh)

***Leveraging wisdom & collaboration to  
effectively respond to challenges***



# RESOLUTION #1 (Recommendation to Governments): “Promote AI Alignment”

1. Require all AI companies to document and disclose how they are implementing AI alignment strategies.
2. Work collaboratively with industry and national leadership to develop the prerequisites for the release of AI models and support an early warning systems that can track, evaluate, and report on the risks of those models once deployed.

## RESOLUTION #1 (Recommendation to Governments): “Promote AI Alignment” (Cont.)

3. Require AI developers to run comprehensive model assessments prior to release and make the assessments results publicly available. Provide full transparency on their AI Models, and how they are being trained.
4. Work with private industry to develop training datasets considered safe and pro-alignment.
5. Increase funding for AI alignment research at the highest level.



## RESOLUTION #2 (Recommendation to Governments):

### “Prepare For The Transition Today”

Actively invest in upskilling and reskilling programs and social safety nets to ensure a just transition for workers displaced by AI.

## RESOLUTION #3 (Recom. to Private & Investment Sector): “Foster Transparency & Accountability”

1. Commit to AI alignment and create alignment plans detailing the strategies and processes;
2. Ensure new models come with publicly available detection mechanisms that enable people to know whether a particular content is AI generated;
3. Report failures or risks when identified and share best practices on how to address them.

## RESOLUTION #5 (Recom. to Private & Investment Sector):

### “Actively Reduce AI Risks”

1. Collaborate with governments to develop adequate global response capacity to the known global risks caused by existing AI models;
2. Adopt a safety-level based approach to development of future AI, defining development procedures commensurate with the safety-levels and engaging in conditional slowdown when necessary;
3. Ensure the security of State-of-the-Art AI facilities and systems



## RESOLUTION #6 (Recom. to Private & Investment Sector): “Investment Practices”

The Investment Community (VC, PE, Family Offices, R&D funding), as well as government funding, should commit to only providing AI financing to AI-related companies that have proven AI-Alignment policies in place.

# Closing Thoughts

**We are truly living during the most extraordinary time ever.**

**The best way to predict the future, is to create it yourself**

FOR A COPY OF THESE SLIDES...

*(and my weekly TechBlog)*

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[www.A360.com](http://www.A360.com)

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