

HOW TO CREATE AGI AND NOT DIE

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

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WHAT IS AGI?

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- AGI: Artificial General Intelligence
- Defined as AI with average human ability in any cognitive area

IS AGI DANGEROUS?



“More dangerous than
nuclear weapons... by a lot.”

-- Elon Musk



AI doomism is quickly becoming indistinguishable from an apocalyptic religion.

Complete with prophecies of imminent fire and brimstone caused by an omnipotent entity that doesn't actually exist.

9:42 AM · Apr 1, 2023



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-- Elon Musk

“AI doomism is quickly becoming indistinguishable from an apocalyptic religion.” -- Yann LeCun

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Mitigating the risk of extinction from AI should be a global priority alongside other societal-scale risks such as pandemics and nuclear war.

Signatories:

[AI Scientists](#)[Other Notable Figures](#)**Geoffrey Hinton**

Emeritus Professor of Computer Science, University of Toronto

Yoshua Bengio

Professor of Computer Science, U. Montreal / Mila

Demis Hassabis

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Sam Altman

CEO, OpenAI

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CEO, Anthropic

Dawn Song

Professor of Computer Science, UC Berkeley

Ted Lieu

Congressman, US House of Representatives

Bill Gates

Gates Ventures

Ya-Qin Zhang

Professor and Dean, AIR, Tsinghua University

Ilya Sutskever

NO PAUSE IN SIGHT



Max Tegmark, MIT & Future of Life Institute

Letter

We call on all AI labs to immediately pause for at least 6 months the training of AI systems more powerful than GPT-4.

Signatures

33711

Add your
signature

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AI systems with human-competitive intelligence can pose profound risks to society and humanity, as shown by extensive research^[1] and acknowledged by top AI labs.^[2] As stated in the widely-endorsed [Asilomar AI Principles](#), *Advanced AI could represent a profound change in the history of life on Earth, and should be planned for and managed with commensurate care and resources.* Unfortunately, this level of planning and management is not happening, even though

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- Usually, safer implies slower
- Companies/countries fear competitors won't slow down
- Result: a race to the bottom – Tegmark's "suicide race"

CHALLENGE #1: ALIGN SAFETY WITH PROFITS

WHAT IF:

- The fastest path to AGI was also the safest path?

CHALLENGE #2: ERROR PREVENTION NOT DETECTION

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- An ounce of prevention is worth a pound of cure
- Lack of transparency → Error detection via testing / RLHF
- Scale of testing problem → Constitutional AI / auto-testing
- Root causes:
 - We don't know how LLMs really work / represent info
 - We don't know how to design transparent, safe AGI

CHALLENGE #2: ERROR PREVENTION NOT DETECTION

WHAT IF:

- We could **design** transparent and safe AGI?
- We designed safety into AGI and used testing (e.g. RLHF) only for verification?

WHAT IS THE FASTEST PATH?

1) Online Network of Humans

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- 2) Add Customized AI (“Agents”)
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- 4) Collective Intelligence of **Human and AI Agents** → **AGI**

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- Values could (and should) come from many humans working with AI agents in a collective AGI system

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- Scalable safety checks / mechanisms can be built into cognitive architecture
- “Humans in the loop” maximizes opportunity to align AGI system with human values
- Include methods to dynamically update and resolve conflicts between values of entities

SUMMARY

- Challenges are: 1) Align safety and profits; 2) Design safety in
- Collective intelligence of humans and customized AI agents using transparent cognitive architecture could meet both challenges
- May be other approaches...collective intelligence of many researchers will be needed to create safe, transparent AGI

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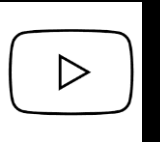


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