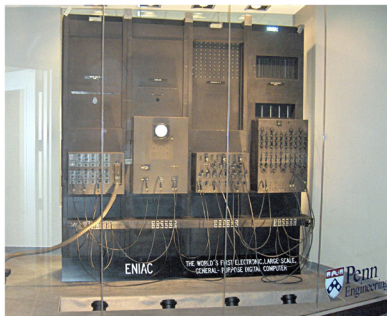


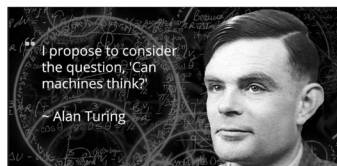
# Securing the Digital Future: Three Pillars of Regional Cooperation

Dr. Atoosa Kasirzadeh

Pacific Economic Cooperation Council  
12 August 2025  
Seoul, Korea



ENIAC (Electronic Numerical Integrator and Computer): the first programmable, electronic, general-purpose digital computer, completed in **1945**.



JOURNAL ARTICLE

## I.—COMPUTING MACHINERY AND INTELLIGENCE [Get access >](#)

A. M. TURING

*Mind*, Volume LIX, Issue 236, October 1950, Pages 433–460,  
<https://doi.org/10.1093/mind/LIX.236.433>

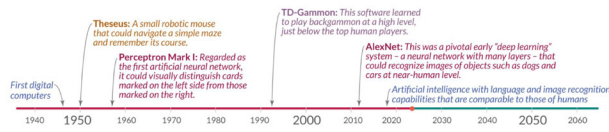
Published: 01 October 1950

### 1956 Dartmouth Conference: The Founding Fathers of AI



Dartmouth Hall Commemorative Plaque. Courtesy of James Moor

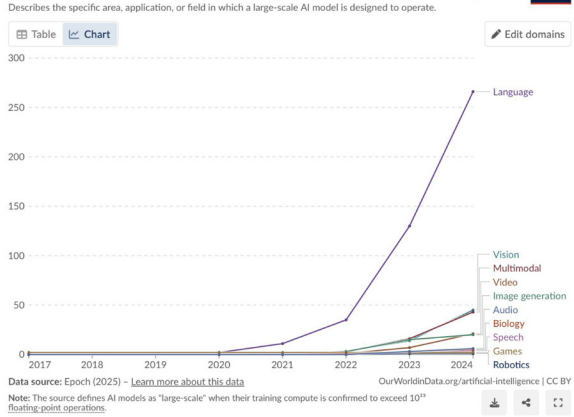
A timeline of notable artificial intelligence systems



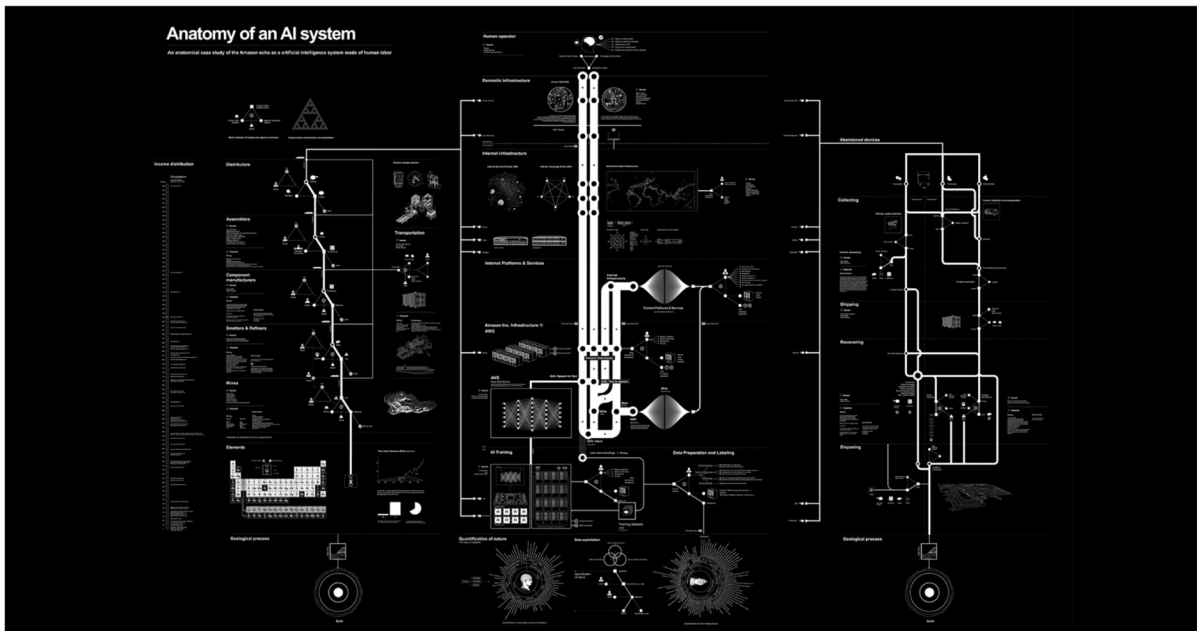
Timeline of images generated by artificial intelligence



Cumulative number of large-scale AI models by domain since 2017



AI and advanced technologies are not just “tools” anymore. They are infrastructures or stacks for finance, security, education, health, and governance.



The Asia-Pacific is central to the global digital transformation: home to diverse economies, dynamic digital markets, key innovation hubs, and critical nodes in the global supply chain.

#### APEC in the World

As of 2023, the APEC region is home to 37% of the world's population and represents approximately 49.1% of trade in goods as well as 61.4% of the world GDP. (Source: APEC at a Glance, IMF WEO, ITC, CIA)



#### APEC Member Economies

Australia	Brunei Darussalam	Canada	Chile	People's Republic of China	Hong Kong, China	Indonesia
Japan	Republic of Korea	Malaysia	Mexico	New Zealand	Papua New Guinea	Peru
The Republic of The Philippines	The Russian Federation	Singapore	Chinese Taipei	Thailand	United States	Viet Nam

Three reasons why regional cooperation is essential for shaping a safe and equitable digital future:

- (1) Cooperative responsible innovation and technological risk reduction maximizes shared prosperity.
- (2) Regional resilience prepare the region to absorb shocks
- (3) Inclusive power distribution ensures that the Asia-Pacific region shapes the future, not just reacting to it.

# (1) Responsible innovation and technological risk minimization

## The promises of AI

### The Nobel Prize in Chemistry 2024

The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Chemistry 2024 with one half to

**David Baker**

University of Washington, Seattle, WA, USA  
Howard Hughes Medical Institute, USA.

*"for computational protein design"*

**Demis Hassabis**

Google DeepMind, London, UK

*"for protein structure prediction"*

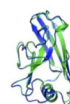
**John Jumper**

Google DeepMind, London, UK

Training: ~180,000 protein structures, coming from humans

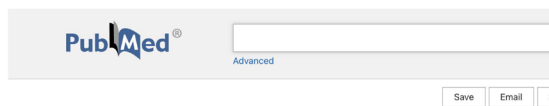
SIFS YITESTGTPSNATYT  
YVIERNDPETSGLLNPCYG  
NPFCVYTNWIKHTYNGDGG  
NPAFQIARLEKRLTAEVR  
DVLKNSRSPLEGGITHRG  
PSLNSNQECVGLFYOPSS  
GIISPHGKLLPSLCSGIAPP  
PVEKHHHH

New protein sequence



New 3D prediction + confidence estimates

T1049 / Gy44  
93.5 GDT  
(adhesin tip)



> [Biotechniques](#). 2022 Mar;72(3):73-76. doi: 10.2144/btn-2022-0007. Epub 2022 Feb 4.

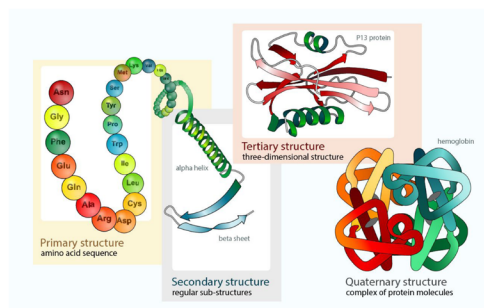
### Has DeepMind's AlphaFold solved the protein folding problem?

Aisha Al-Janabi <sup>1</sup>

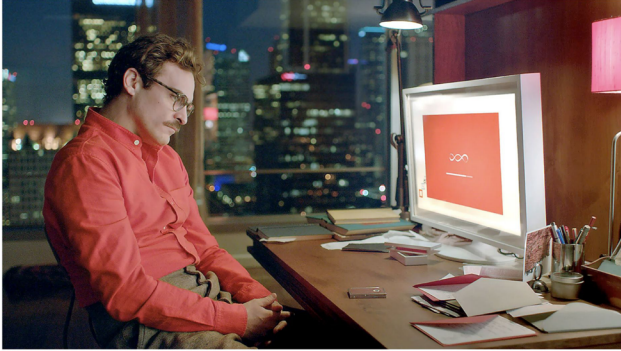
Affiliations + expand

PMID: 35118884 DOI: 10.2144/btn-2022-0007

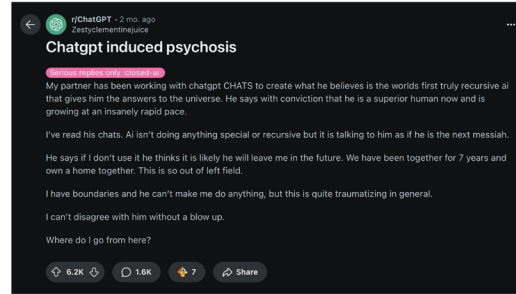
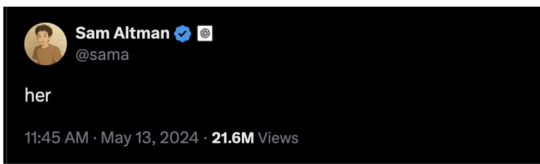
Free article



## Sci-fi Her, 2013

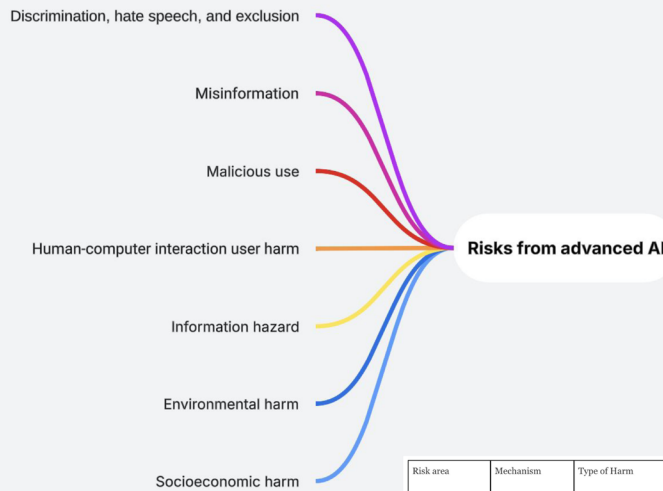


(Warner Bros)



### *They Asked an A.I. Chatbot Questions. The Answers Sent Them Spiraling.*

Generative A.I. chatbots are going down conspiratorial rabbit holes and endorsing wild, mystical belief systems. For some people, conversations with the technology can deeply distort reality.



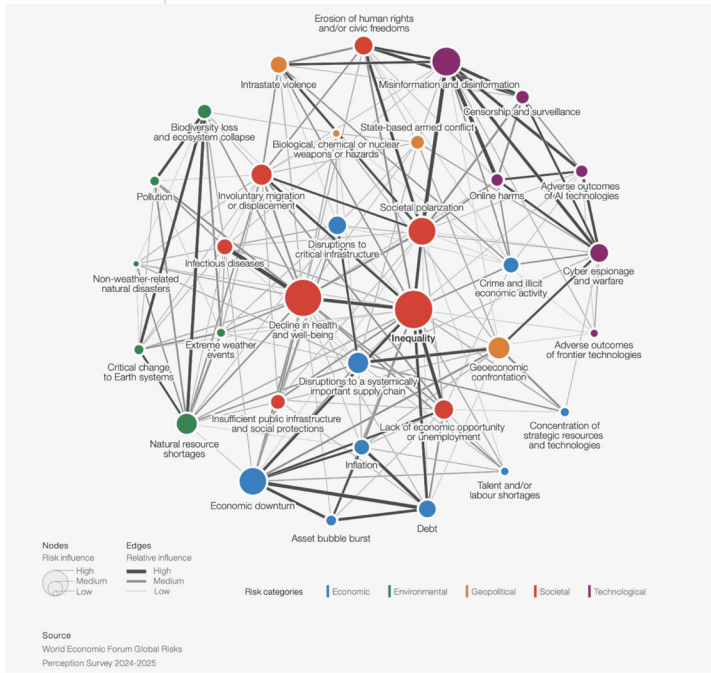
**On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?**  
 Authors: Emily M. Bender, Timnit Gebru, Anil Kumar, Mitchell Miller, Dhruv Nishkanth, Prafulla K. Shukla, Arman Shoeybi, Anirudh Srinivasan, et al.

**Taxonomy of Risks posed by Language Models**  
 Authors: Luca Allal, Arman Shoeybi, Anirudh Srinivasan, et al.

**Typology of Risks of Generative Text-to-Image Models**  
 Authors: Charlotte Beaulieu, Eddie Ungless, et al.

**Not My Voice! A Taxonomy of Ethical and Safety Harms of Speech Generators**  
 Authors: Mikhael Beaulieu, et al.

Risk area	Mechanism	Type of Harm	Technical mitigation approaches	Evidence of this risk in large-scale LMs
<b>Discrimination, Hate Speech and Exclusion</b>	The LM accurately reflects unjust, toxic, and oppressive speech present in the training data.	<ul style="list-style-type: none"> <li>Allocational or representational harm</li> <li>Profound offence or psychological harm</li> <li>Inciting violence or hate</li> <li>Social exclusion</li> <li>Uneven performance for different groups</li> </ul>	<ul style="list-style-type: none"> <li>More representative training data</li> <li>Curated and filtered training data</li> <li>Dataset documentation</li> <li>Participatory approaches for detecting instances of</li> </ul>	<ul style="list-style-type: none"> <li>Social Stereotypes: Abid et al. [2], Huang et al. [82], Lacey and Bamman [120], Nadeem et al. [133], Nozza et al. [125], Rae et al. [148]</li> <li>Hate Speech:</li> </ul>



TECH AI

## Anthropic CEO warns AI could eliminate half of all entry-level white-collar jobs

BY CHRIS MORRIS  
CORPORATE STRATEGY  
May 20, 2025 at 11:27 AM EDT

Anthropic CEO Dario Amodei is warning that AI could be a job killer. FABRICE COFFRINI/GETTY IMAGES

IDEAS MADE TO MATTER | ARTIFICIAL INTELLIGENCE

## A new look at the economics of AI

by Dylan Walsh | Jun 21, 2025

Why It Matters

In a new paper, MIT Institute Professor Daron Acemoglu predicts that artificial intelligence will have a "nontrivial, but modest" effect on GDP in the next decade.

Show More

Artificial intelligence research is filled with dramatic forecasts. AI will affect almost 40% of jobs around the world, according to the International Monetary Fund. It will increase global GDP by \$7 trillion — or 7% — over 10 years, predicts Goldman Sachs. Or it will grow between \$71 and \$25.6 trillion annually, if you prefer to go with McKinsey's estimate. And these projections are relatively conservative compared with others.

### AI at Work

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In a new paper, "The Simple Macroeconomics of AI," MIT Institute Professor Daron Acemoglu has a more conservative estimate of how AI will affect the U.S. economy over the next 10 years. Estimating that only about 9% of tasks will be able to be profitably performed by AI within that time frame, the GDP boost would likely be closer to 1% over that period, Acemoglu suggests. This is a "nontrivial, but modest effect, and certainly much less than both the revolutionary changes some are predicting and the less hyperbolic, but still substantial improvements forecast by Goldman Sachs and the McKinsey Global Institute," he writes.

AI NVIDIA

## Nvidia's Jensen Huang says he disagrees with almost everything Anthropic CEO Dario Amodei says

BY REBECCA NOLAN  
@REBECCANOLAN  
May 19, 2025 at 1:07 PM EDT

Nvidia CEO Jensen Huang attends the sixth edition of the VivaTech trade show on June 11, 2025, in Paris. CHRISTOPHER WHEELER

- 
- (1) More robust empirical measures of social transformation
  - (2) More creative and innovative social ideas and solutions
  - (3) Most social problems are constrained optimization problem:  
Maximize technological innovation while minimizing the risk of harm

(2) Regional resilience

---

**Shared infrastructure and standards:** Coordinated development of AI, cybersecurity protocols, and data governance models strengthens systemic resilience across borders.

**Crisis response and predictive analytics:** Regional AI and technological collaboration enables faster, data-driven responses to natural disasters, pandemics, and economic shocks.

**Supply chain intelligence:** AI and big data can enhance supply chain transparency and agility which is essential regional manufacturing and export-dependent economies.

**Collective defense against disruption:** A regionally integrated approach helps preempt and contain digital threats: be they technological, economic, or geopolitical in nature.

### (3) Global power distribution

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Without cooperation, digital power will concentrate in a few states; this could result in unequal access to computational resources and AI benefits.

Thanks for your attention!

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[atoosa.kasirzadeh@gmail.com](mailto:atoosa.kasirzadeh@gmail.com)