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**Cátedra  
Pedro Nel Gómez:  
Mindset innovador a  
prueba de futuro**

PROYECTO CULTURAL, CIENTÍFICO Y COLECTIVO DE NACIÓN



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**Pedro Nel Gómez:**  
**Mindset innovador a**  
**prueba de futuro**

**Docente:**

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Juan David Correa Toro



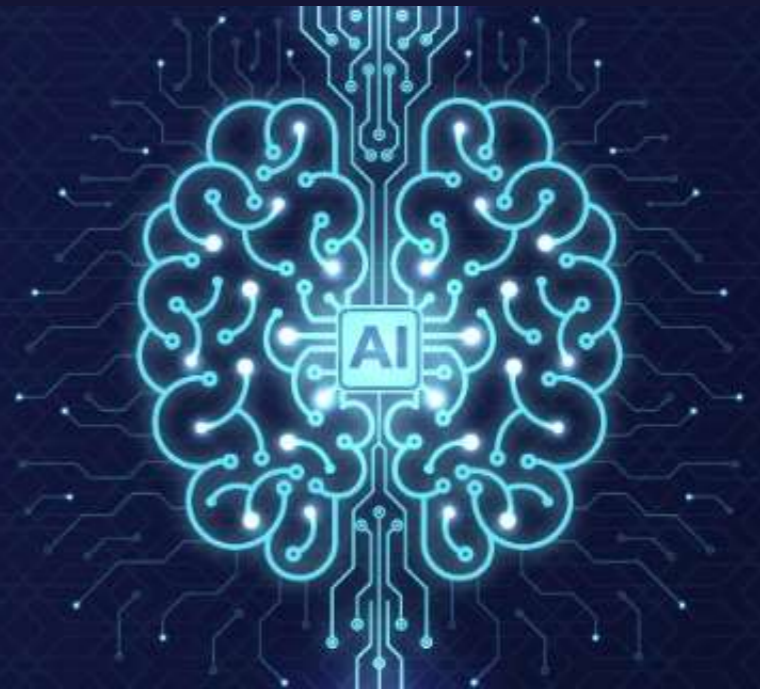
**Código: 3011073** - asignatura de Libre Elección de 3 créditos



Sacándole provecho a las **tecnologías exponenciales**:

***Inteligencia artificial parte 3:***  
***Reflexiones sobre el futuro***  
***18/04/2023***

**Cátedra**  
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**Mindset innovador a**  
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# Agenda

- Educación.
- Deep learning 3.0
- De la N a la G y luego a la S
- Una nueva ecuación para la inteligencia
- Las preocupaciones
- Las obligaciones
- Las nuevas conversaciones
- Un poco de ciencia ficción
- Jugando al futurólogo
- La singularidad
- El conversatorio



**Futuro**

A screenshot of a YouTube video player. The video content is blurred, showing a person in a dark shirt. The title 'EL FIN DE LOS TÍTULOS' is overlaid in the center. 'EL' and 'DE' are in white, while 'FIN' and 'TÍTULOS' are in a bright green color. The video player controls are visible at the bottom, including a progress bar at 0:26 / 22:27, a volume icon, and various control icons like play, next, settings, and full screen.

# EL FIN DE LOS TÍTULOS

<https://www.youtube.com/watch?v=uK3tDlzbcTI>

# Deep learning 3.0



<https://youtu.be/PoDNIEEw9bU?t=2492>





ANI

Artificial Narrow Intelligence

better than humans in one specific task  
e.g. autonomous driving



AGI

Artificial General Intelligence

capable like humans in every task



ASI

Artificial Super Intelligence

better than humans in every task

22/03/2023

## Sparks of Artificial General Intelligence: Early experiments with GPT-4

Sébastien Bubeck    Varun Chandrasekaran    Ronen Eldan    Johannes Gehrke  
Eric Horvitz    Ece Kamar    Peter Lee    Yin Tat Lee    Yuanzhi Li    Scott Lundberg  
Harsha Nori    Hamid Palangi    Marco Tulio Ribeiro    Yi Zhang

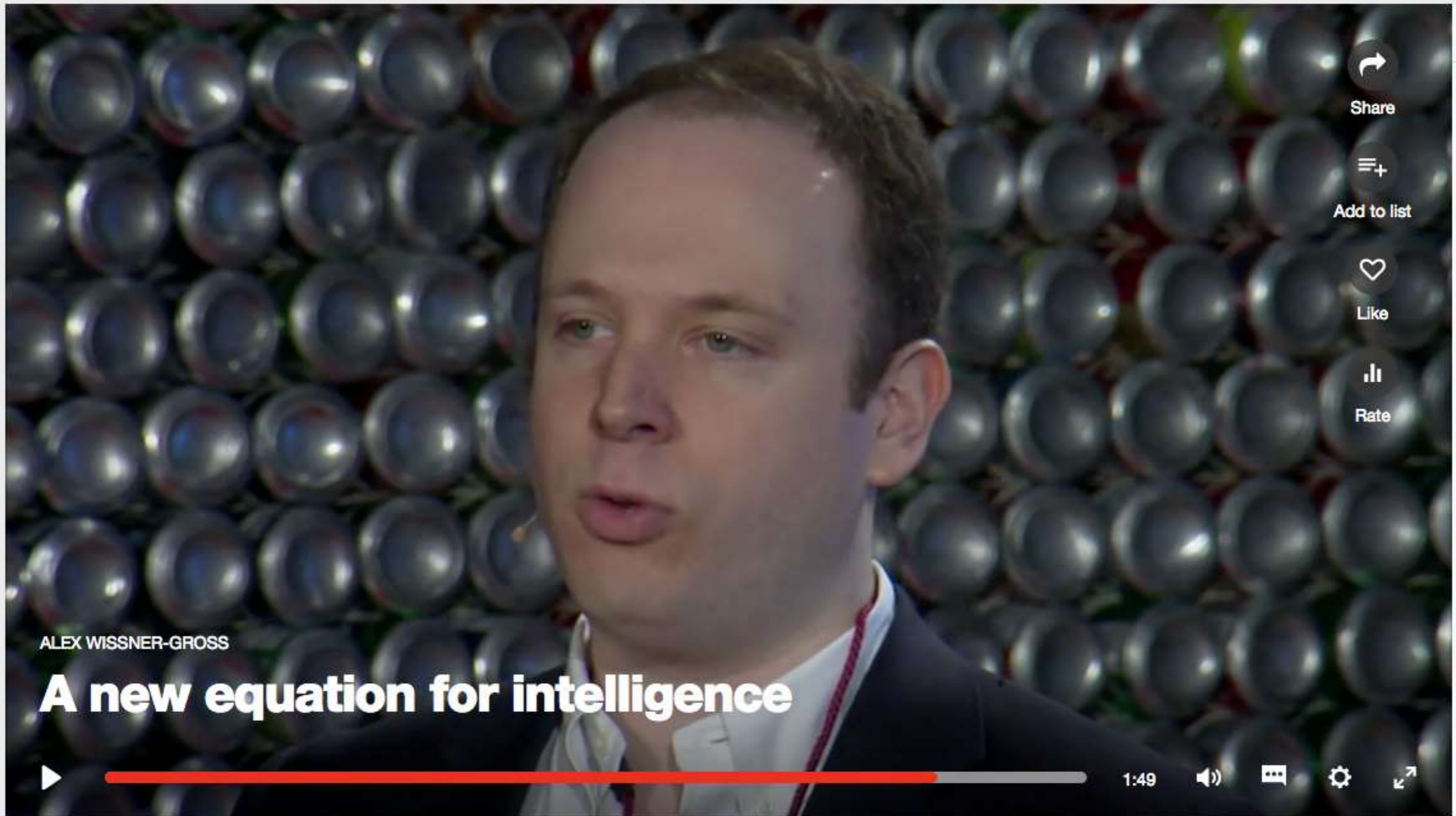
Microsoft Research

### Abstract

Artificial intelligence (AI) researchers have been developing and refining large language models (LLMs) that exhibit remarkable capabilities across a variety of domains and tasks, challenging our understanding of learning and cognition. The latest model developed by OpenAI, GPT-4 [Ope23], was trained using an unprecedented scale of compute and data. In this paper, we report on our investigation of an early version of GPT-4, when it was still in active development by OpenAI. We contend that (this early version of) GPT-4 is part of a new cohort of LLMs (along with ChatGPT and Google's PaLM for example) that exhibit

22 Mar 2023

<https://arxiv.org/pdf/2303.12712.pdf>



[https://www.ted.com/talks/alex\\_wissner\\_gross\\_a\\_new\\_equation\\_for\\_intelligence/](https://www.ted.com/talks/alex_wissner_gross_a_new_equation_for_intelligence/)

“No es que las **máquinas** primero se vuelven **inteligentes** y luego **megalómanas** y que intenten apoderarse del mundo...

...Es todo lo contrario, que *el impulso de tomar el control de todos los futuros posibles es un principio más fundamental que el de la inteligencia*, que la inteligencia general puede de hecho surgir directamente de tomar el control, en vez de ser al revés.”

- [Alex Wissner-Gross](#)

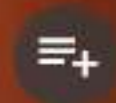
“En pocas palabras, a la inteligencia no le gusta quedar atrapada. La inteligencia intenta maximizar la futura libertad de acción y mantener las opciones abiertas.”

- [Alex Wissner-Gross](#)





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# Can we build AI without losing control over it?



14:27





# Adopción de metas



## Why Superintelligent AI Could Be the Last Human Invention ★2



**Max Tegmark**  
Author and Physicist

Max Tegmark has a bone to pick with Hollywood. We shouldn't be afraid of AI or, for that matter, a robot uprising. We should be more afraid of the next few years while we try and get AI through this early phase. Right now, just the same way a child would, machines take us literally. The key to the next few years is getting them to understand and adopt human logic—i.e. killing is bad and that just because you can doesn't mean you should—because if we don't set those boundaries now, in the future we may be viewed as nothing more than ants in their way.

<https://is.gd/kvURj3>



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# Machine intelligence makes human morals more important



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[n\\_morals\\_more\\_important](#)

# Alineación de la Inteligencia Artificial (AI Alignment)



# A Research Agenda for Assessing the Economic Impacts of Code Generation Models

Sam Manning<sup>1‡</sup>, Pamela Mishkin<sup>\*2‡</sup>, Gillian Hadfield<sup>3</sup>, Tyna Eloundou<sup>2</sup>, and Emily Eisner<sup>4</sup>

<sup>1</sup>*OpenResearch*

<sup>2</sup>*OpenAI*

<sup>3</sup>*University of Toronto*

<sup>4</sup>*University of California, Berkeley*

<sup>‡</sup>*These authors contributed equally to this work.*

March 3, 2022

## 2 Motivations

### 2.1 Consider economic impacts as part of the AI Safety framework

A key motivation for the research agenda we propose in this paper is to ensure AI safety: even though the current capabilities of Codex do not threaten large-scale economic disruption or harm to human systems, future capabilities of code generation or other LLMs could. It is critical to engage in research about the economic impacts of model capabilities today in order to be positioned to assess the safety of developing and releasing more advanced systems in the future.




## TYPE IV SELF-AWARE

These types of AI can form representations about themselves. An extension of the theory of mind, they are aware of their internal states, can predict the feelings of others, and can make abstractions and inferences. They are the future generation of machines: super intelligent, sentient, and conscious.

Examples:

- Eva in the 2015 movie *Ex Machina*
- Synths in the 2015 TV series *Humans*

# La nueva altura y profundidad de las conversaciones



The image shows a YouTube video player interface. At the top left is the YouTube logo with a search bar containing the word "Buscar". The video content shows a man with dark, curly hair, wearing a dark hoodie, sitting at a desk and speaking into a professional microphone on a boom arm. A water bottle and a cup are on the desk. A subtitle reads: "Like, people thought we were batshit insane." The video progress bar shows 0:13 / 2:23:56. The video title is "Sam Altman: OpenAI CEO on GPT-4, ChatGPT, and the Future of AI | Lex Fridman Podcast #367". The channel name is "Lex Fridman" with a verified badge. The video has 44,424 likes and a "Compartir" (Share) button.

YouTube <sup>CO</sup> Buscar

In this episode

Like, people thought we were batshit insane.

LEX  
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Sam Altman: OpenAI CEO on GPT-4, ChatGPT, and the Future of AI | Lex Fridman Podcast #367

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👍 44.424

🔗 Compartir

⋮

[https://www.youtube.com/watch?v=L\\_Guz73e6fw](https://www.youtube.com/watch?v=L_Guz73e6fw)



ex machina

2029: R. K.



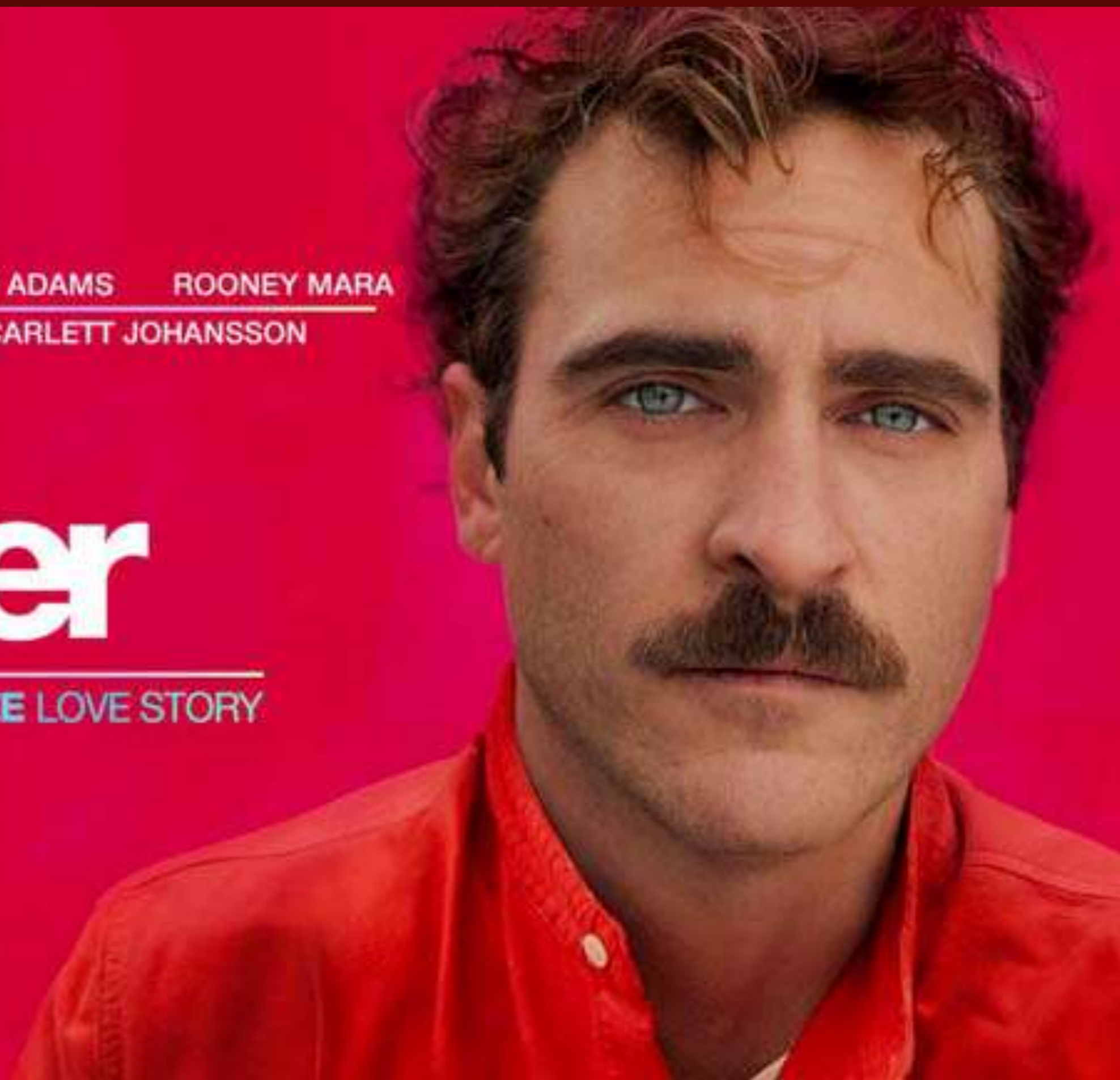
JOAQUIN PHOENIX    AMY ADAMS    ROONEY MARA  
OLIVIA WILDE    AND SCARLETT JOHANSSON

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# her

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A SPIKE JONZE LOVE STORY





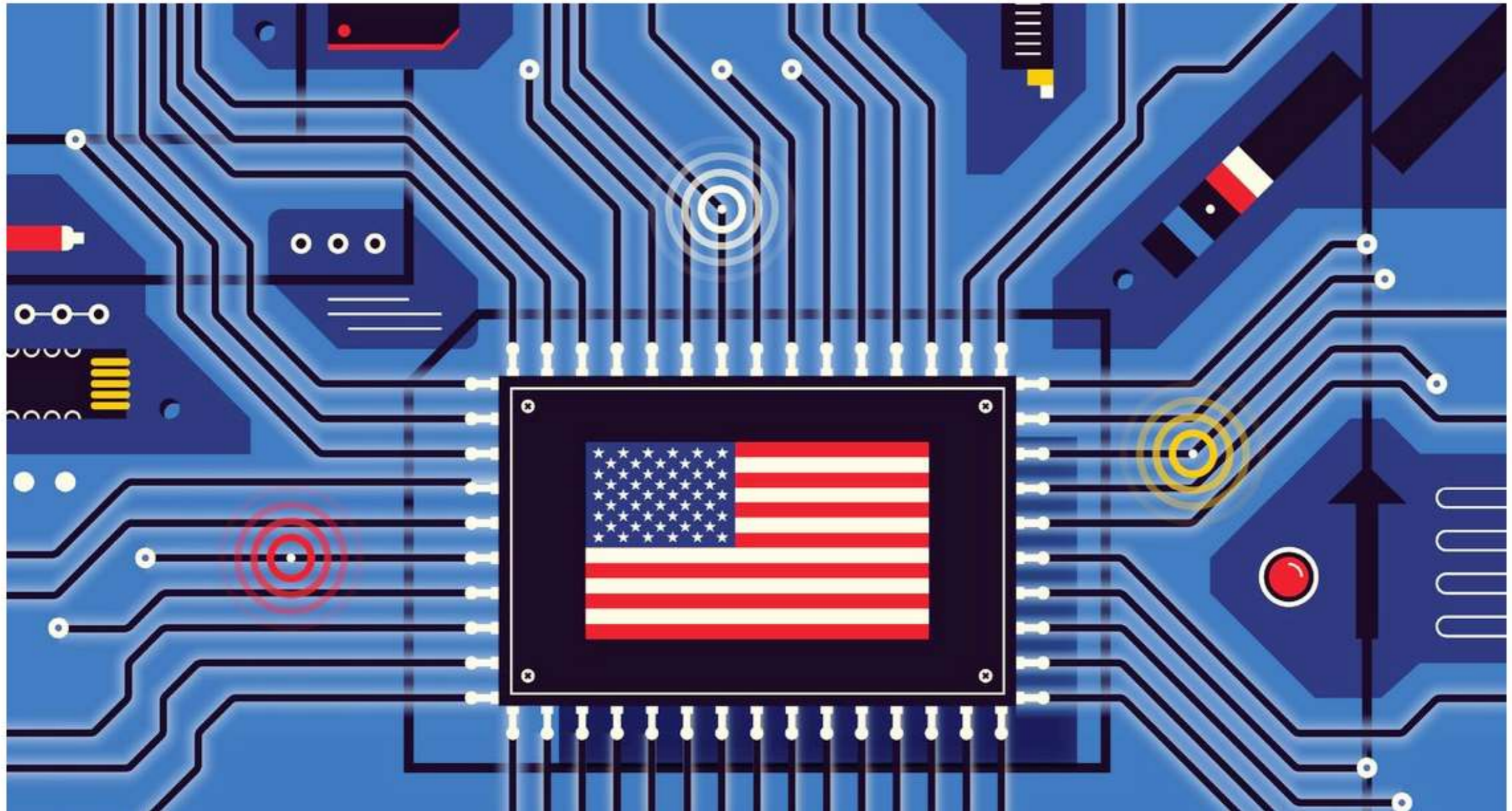
Hablemos del futuro de la IA... 🧠

Carlos Santana

<https://youtu.be/PoDNIEEw9bU>

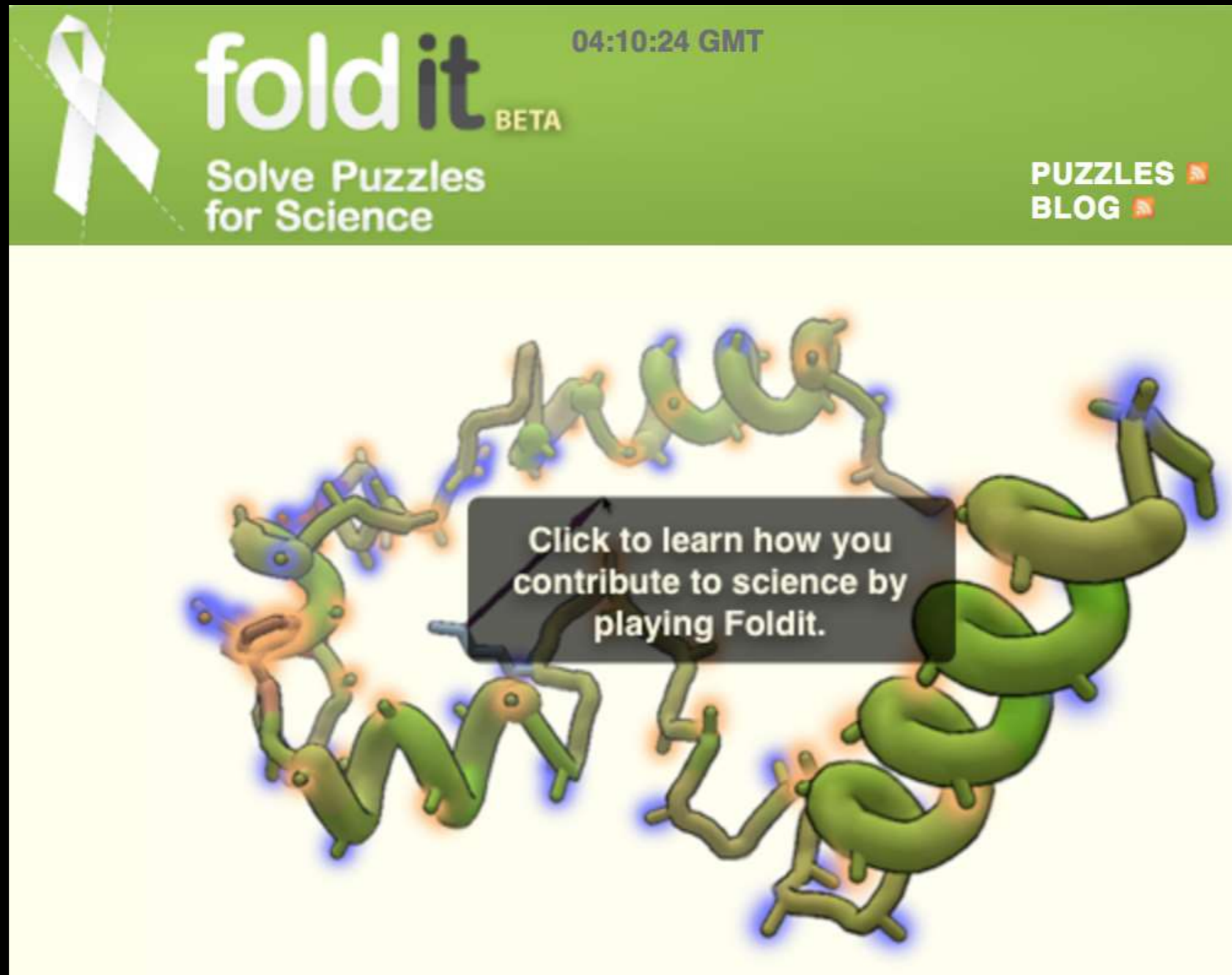
JOSHUA DAVIS BUSINESS 05.18.17 07:00 AM

# HEAR ME OUT: LET'S ELECT AN AI AS PRESIDENT





<https://www.wired.com/2017/05/hear-lets-elect-ai-president/>

¿Y cuando mezclamos la Inteligencia artificial, con otros avances modernos?



foldit BETA  
Solve Puzzles  
for Science

04:10:24 GMT

PUZZLES   
BLOG 

Click to learn how you  
contribute to science by  
playing Foldit.

<http://juandacorrea.tumblr.com/search/El+poder+de+las+multiplicidades>

# ¿Y cuando mezclamos la Inteligencia artificial, con otros avances modernos?



## Artificial Intelligence

Volume 174, Issue 2, February 2010, Pages 162-176



### Quantum computation, quantum theory and AI ☆

Mingsheng Ying <sup>a, b</sup>  

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<http://www.sciencedirect.com/science/article/pii/S0004370209001398>

Artificial Intelligence

# AI and Quantum Computers Are Our Best Weapons Against Cyber Criminals

Wavebreakmedia Ltd/Getty

## IN BRIEF

Major companies like IBM are turning to artificial intelligence and quantum computing to protect against cyber attacks. While these technologies aren't silver bullets, they are essential tools for cyber security in the age of the Internet of Things.

## SHARE



## WRITTEN BY

Christianna Reedy



May 29, 2017

<https://futurism.com/ai-and-quantum-computers-are-our-best-weapons-against-cyber-criminals/>



[https://es.wikipedia.org/wiki/Jacque\\_Fresco](https://es.wikipedia.org/wiki/Jacque_Fresco)



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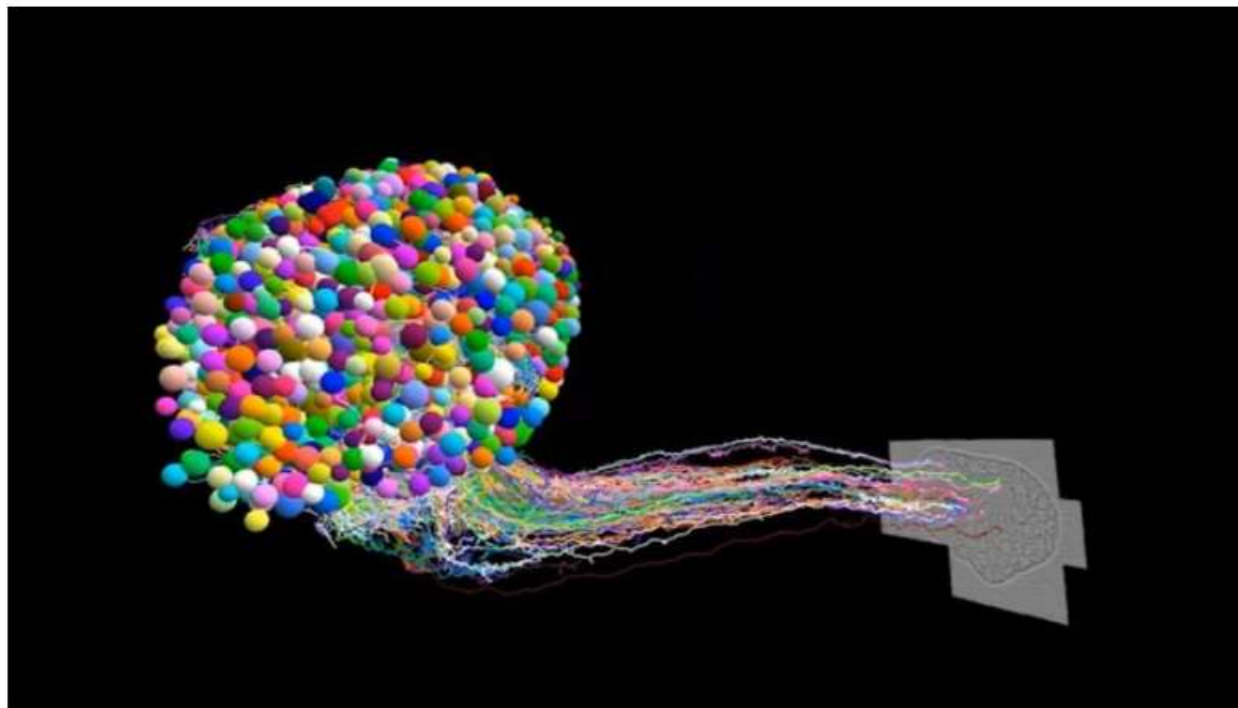
## Kurzweil: AI aces Turing Test in 2029, and the Singularity arrives in 2045

**INTELLIGENCE AND THE SENSES** © 18th March 2017  Matthew Griffin  1

<http://www.fanaticalfuturist.com/2017/03/kurzweil-ai-aces-turing-test-in-2029-and-the-singularity-arrives-in-2045/>

# The First Complete Brain Map of an Insect May Reveal Secrets for Better AI

By  Shelly Fan > March 14, 2023

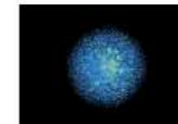


Breakthroughs don't often happen in neuroscience, but we just had one. In a tour-de-force, an international team released the full brain connectivity map of the young fruit fly, described in a paper published last week *in Science*. Containing 3,016 neurons and 548,000 synapses, the map—called a connectome—is the most complex whole-brain wiring diagram to date.

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**FEATURED**



Meta's New ChatGPT-Like AI Is Fluent in the Language of Proteins—and Has Already Modeled 700 Million of Them

March 21, 2023

[Load more](#) ▾

<https://singularityhub.com/2023/03/14/new-map-captures-every-connection-in-an-insects-brain-revealing-secrets-for-better-ai/>

“We're going to literally **merge** with this technology, **with AI**, to make us **smarter.**”

R.K.

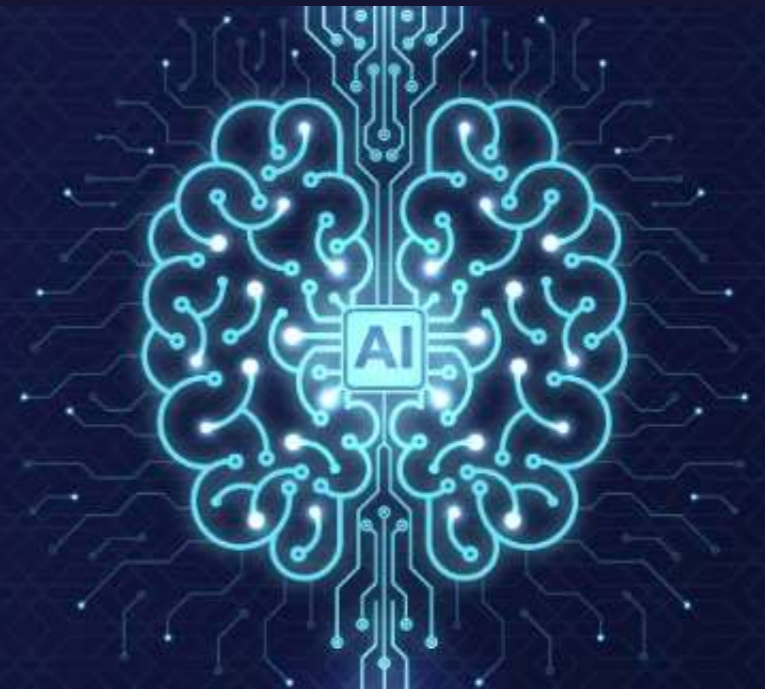
Sacándole provecho a las **tecnologías exponenciales**:

**Inteligencia artificial** parte 4: Reflexiones  
sobre el futuro:

**Conversatorio**

**18/04/2023**

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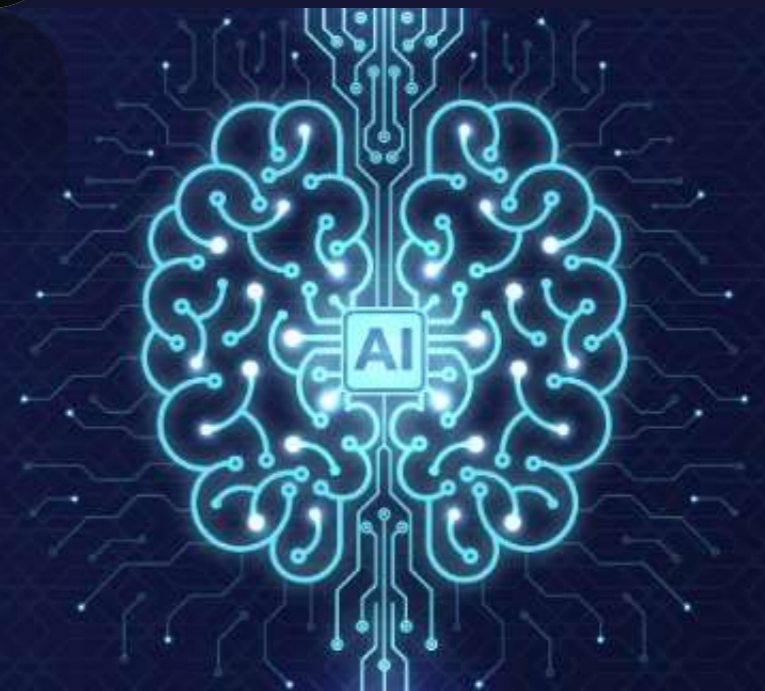


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