Ética 2.0

debate sobre las implicancias de la IoT y la IA

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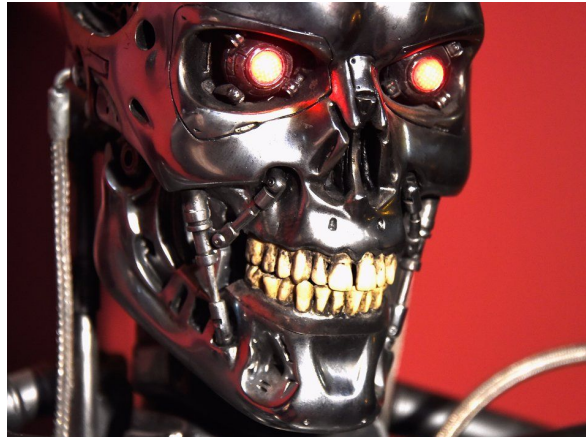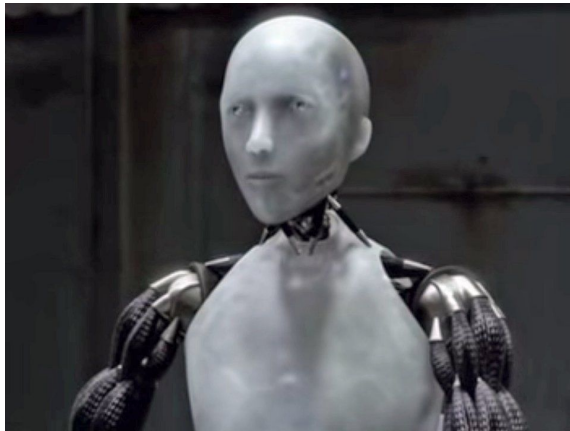
Que cree la gente que es IA

IA: que es vs lo que la gente percibe que es
Big data: Resumen de lo que ocurre en internet en el mundo en 60 segundos
Big data: 4 V Volumen - Velocidad - Variedad - Valor/Veracidad
Big data: arquitectura distribuida (hadoop o spark, ibm etc)

La gente cree que la Inteligencia Artificial (IA) es...

Definición Inteligencia Artificial

En informática, la inteligencia artificial se define como el estudio de "agentes inteligentes": cualquier dispositivo que perciba su entorno y tome medidas que maximicen sus posibilidades de alcanzar sus objetivos con éxito.

El término "inteligencia artificial" se aplica cuando una máquina imita funciones "cognitivas" que los humanos asocian con otras mentes humanas, como **"aprender"** y **"resolver problemas"**.
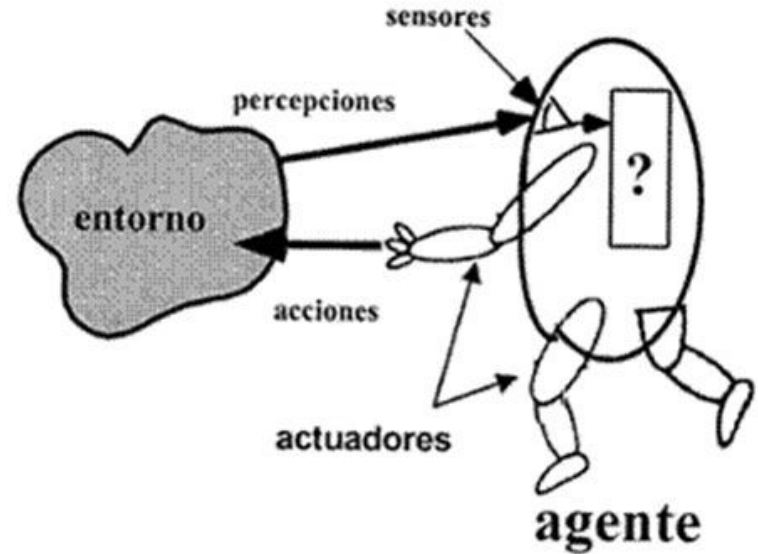
AI - ML -DL

Inteligencia Artificial – Aprendizaje automático – Aprendizaje profundo

Artificial Intelligence

Que las computadoras imiten comportamiento humano
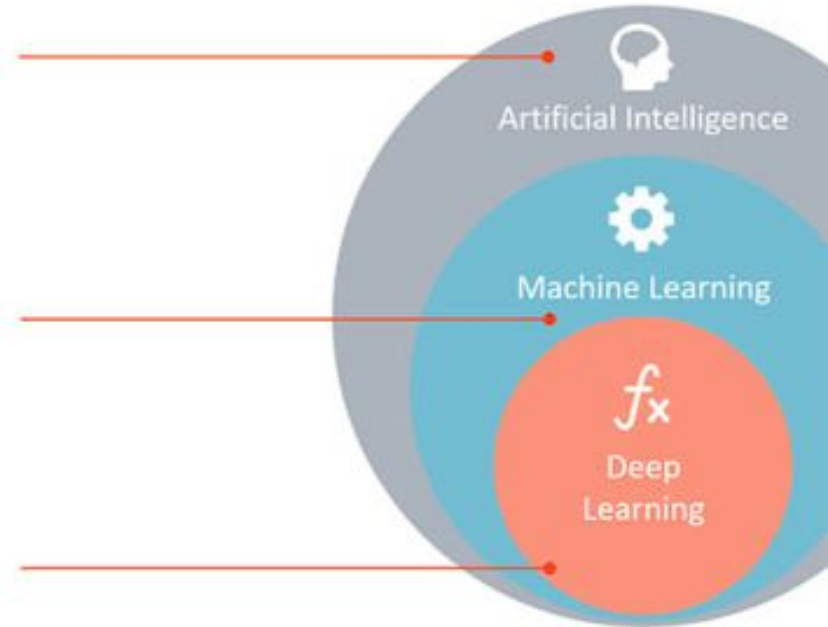
Machine Learning

Subcampo de AI, que usa métodos estadísticos
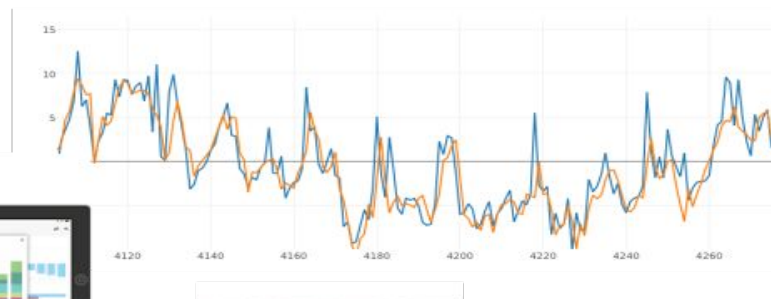Que permiten crear modelos que mejoran con la experiencia

Deep Learning

Subcampo de ML, que trata
Sobre redes neuronales profundas
Modelos multi-capa

Aprendizaje automático (machine learning)

Dimensionality reduction

OBJECT ID: AIRPLANE
01/15/2014 13:51:07
ACCURACY: 99.4%

OBJECT ID: TREE

OBJECT ID: HUMAN
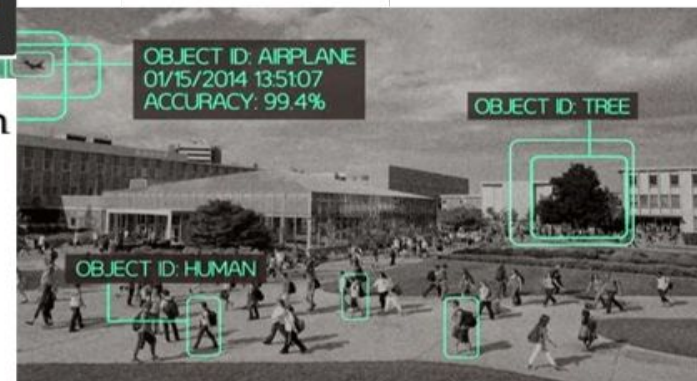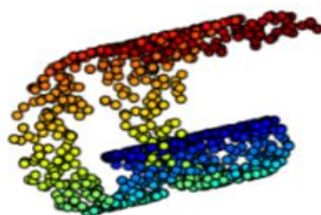
Brad Sams ✔ @bdsams · 10 ago.
AI has peaked.

💬 1,2K   🔁 58K   ♡ 180K   ✉

ML general workflow

Training Data

Train the Machine Learning Algorithm

Model

Input Data

Machine Learning Algorithm

Prediction

Evaluate
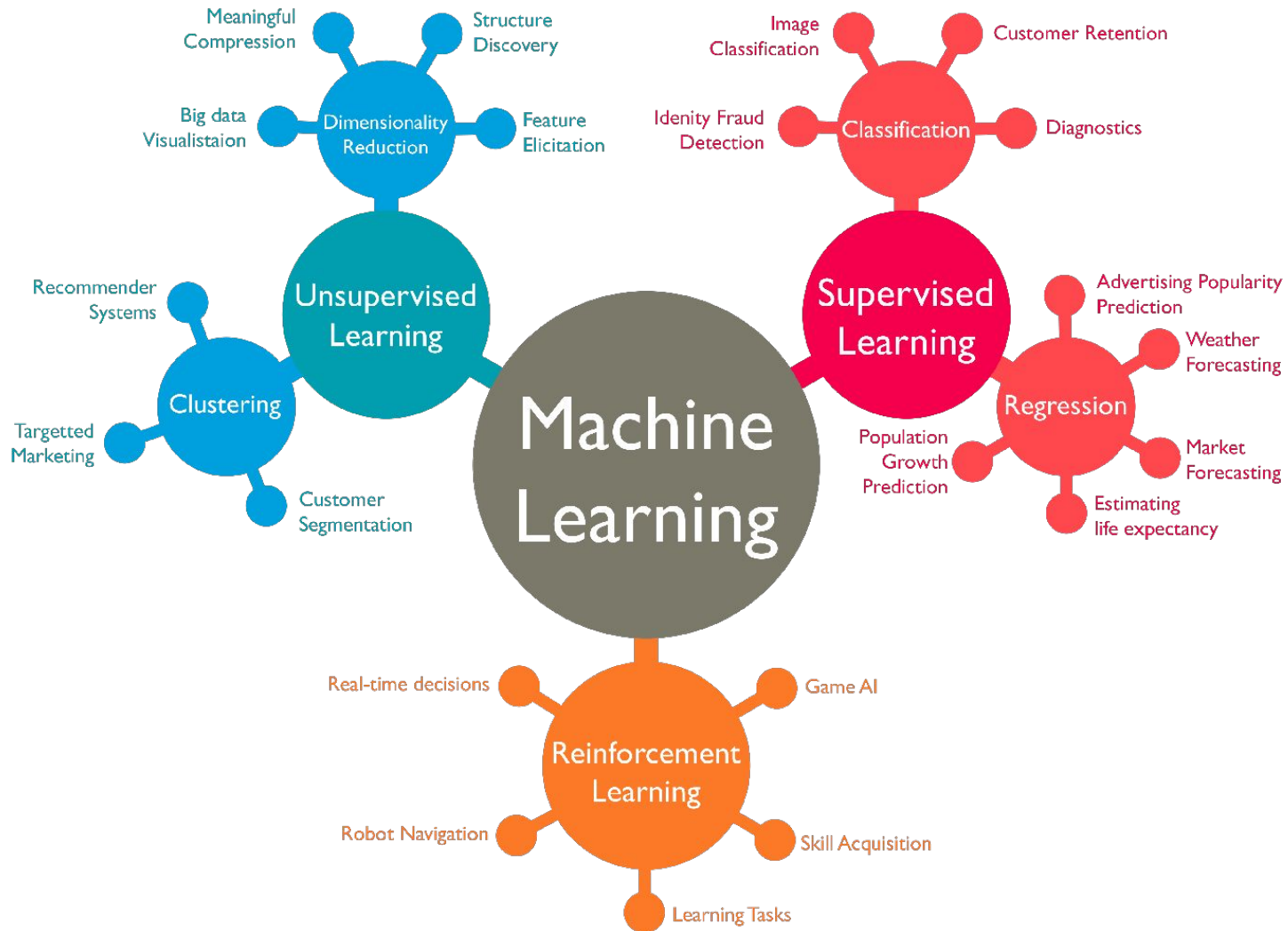
AI + IoT = infinitas aplicaciones

Smart farm   Smart grid

agentes colaborativos
predicción de eventos
detección de anomalías

eventos
climáticos
severos

perfiles de
consumo

estimación
abastecimiento

mantenimiento
predictivo

estimación
consumo
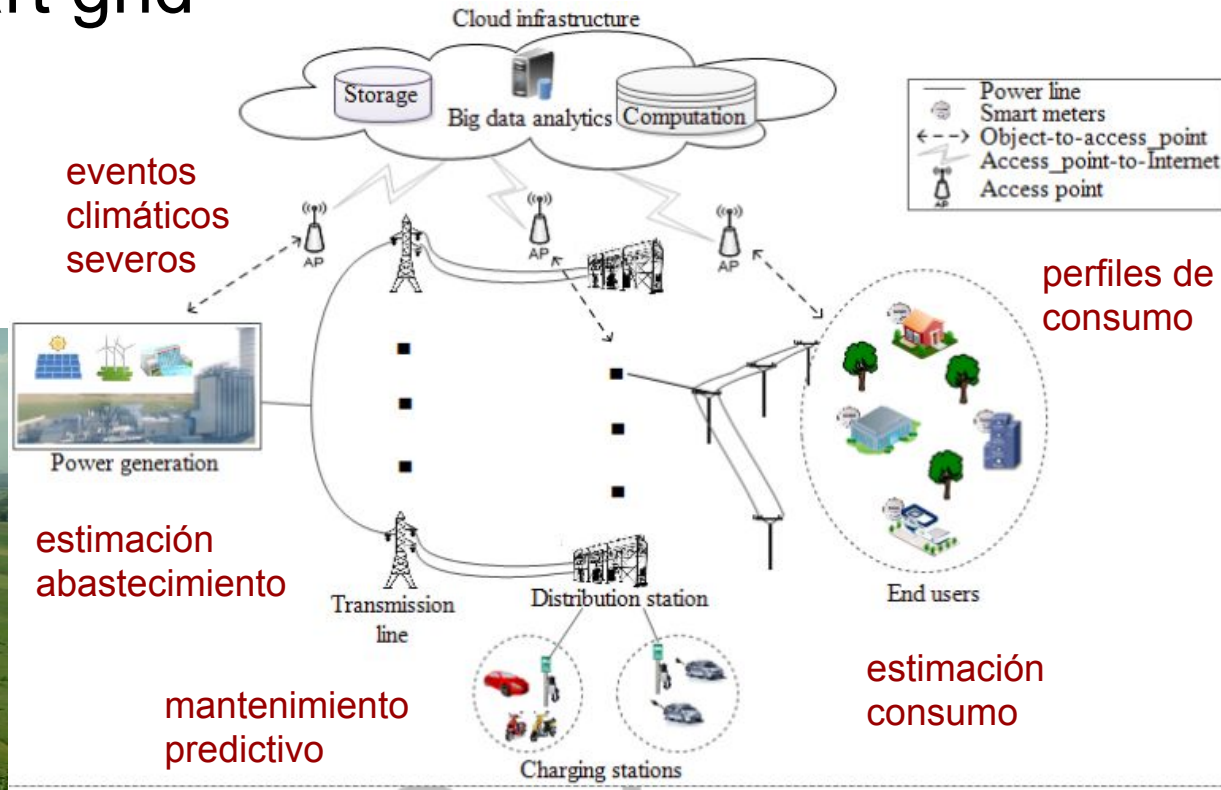
- Detección de eventos extremos en tiempo real
  - sobrecargas en líneas, valores anómalos.
- Estimación de
  - demanda → consumo estacional
  - abastecimiento energético (solar, eólica, etc)
- Identificación de perfiles de usuarios → cuadros tarifarios dinámicos, nivel de demanda por zonas.
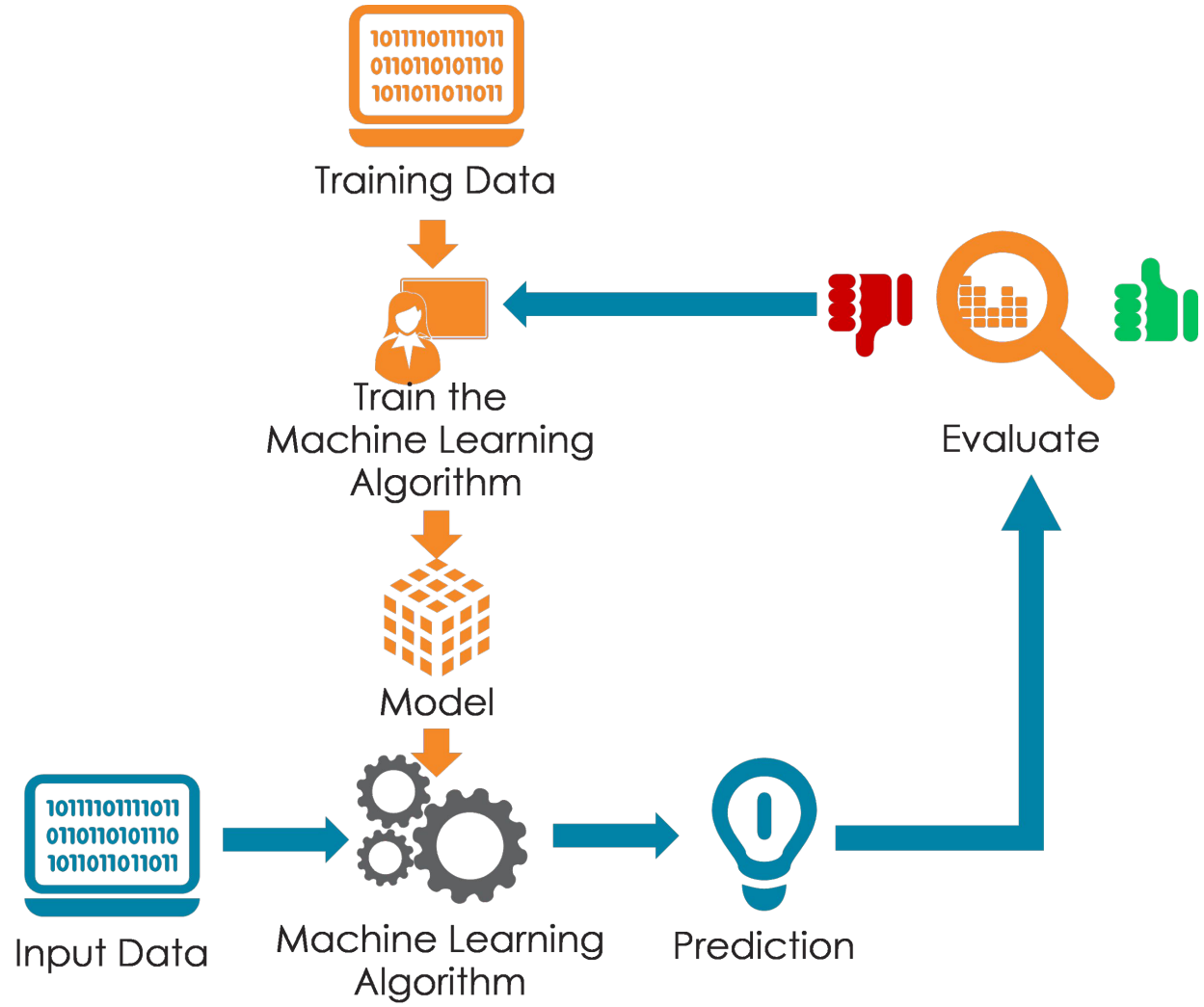- Predicción de eventos climáticos severos → pueden dañar las líneas, equipos
- Mantenimiento predictivo → ejemplo inclinación de postes, comportamiento errático de un sensor.
- (Agregado de Facu, Ana validar) Consumo predictivo: permite refinar y compartamentalizar compras de electricidad (mayoristas, usuarios). Esquema de precios.

Controversia: escasez de trabajo

Who Wants to Be A Regulator: The IoT Security Game Show

Rachel Tobac @RachelTobac · 12 ago.

At @defcon hacking conference and just learned how easy it is to physically gain admin access on a voting machine that is used in 18 states. Requires no tools and takes under 2 minutes. I'm concerned for our upcoming elections.

🌐 Traducir Tweet

Screens are down at Gatwick Airport, so they're using whiteboards
bit.ly/2nQWVod

🌐 Traducir Tweet

Fukushima nuclear plant ordered to upgrade from Windows XP

48,000 PCs running on out-of-date operating system

A JAPANESE WATCHDOG has slammed the operators of the Fukushima Daiichi nuclear power plant after an audit revealed that most of its PCs run on Microsoft's Windows XP.

The plant's owner might have been expected to ensure that systems are up to date and as secure as possible after the meltdown of three of the plant's six nuclear reactors in March 2011. But apparently not.

IoT Robot Vacuum Vulnerabilities Let Hackers Spy on Victims

UPDATEResearchers have uncovered vulnerabilities in a connected vacuum cleaner lineup that could allow attackers to eavesdrop, perform

The thermostat is restarting. Back in a bit.

Controversias éticas: caso sistemas recomendación

Caryn Vainio
@Hellchick

Seguir

For those of you who work in social media, I need to share the story of my friend who died, and I didn't know because algorithms.

🌐 Traducir Tweet

Caryn Vainio @Hellchick · 18 dic. 2017

I found out from a mutual friend on FB that he'd died, and had been hospitalized. I was shocked. I NEVER saw this in my feed. Ever.

🌐 Traducir Tweet

💬 6   🔁 221   ♡ 1,4K   ✉

Caryn Vainio @Hellchick · 18 dic. 2017

So I flipped to his feed, and sure enough, there'd been a post in N about him being in the hospital. I was never shown this post.

🌐 Traducir Tweet

How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did

Kashmir Hill Forbes Staff
Welcome to The Not-So Private Parts where technology & privacy collide

Every time you go shopping, you share intimate details about your consumption patterns with retailers. And many of those retailers are studying those details to figure out what you like, what you need, and which coupons are most likely to make you happy. Target TGT +0.22%, for example, has figured out how to data-mine its way into your womb, to figure out whether you have a baby on the way long before you need to start buying diapers.

TARGET

Target has got you in its aim

Controversias: AI bias

With inclusion in mind, we can make better sensor technology as well as better training data and algorithms

(Identificación de género)

Google apologizes for algorithm mistakenly calling black people 'gorillas'

The search giant is under fire after its Photo app offensively mislabeled user's photos. It points to another challenge Silicon Valley companies have to face when developing next-gen tech: sensitivity.

BY **RICHARD NIEVA** / JULY 1, 2015 5:32 PM PDT
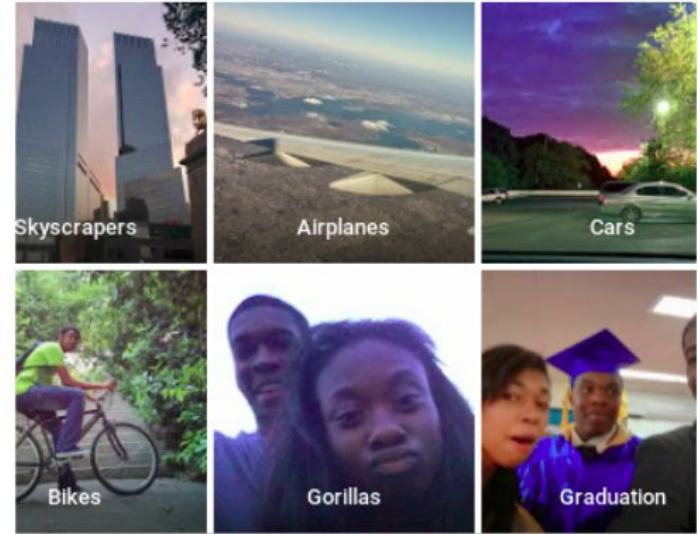
Controversias: uso militar - vigilancia

Autonomous Weapons: an Open Letter

*Obligatorio

To sign the open letter, please add your name below:

Full Name *

[   ]

Job Title

(For example "Professor of Computer Science" or "AI grad student")

[   ]

Email *

[   ]

Affiliation

[   ]

Continuar »

AI/Robotics Researchers:

Stuart Russell Berkeley, Professor of Computer Science, director of the Center for Intelligent Systems, and co-author of the standard textbook "Artificial Intelligence: a Modern Approach"

Nils J. Nilsson, Department of Computer Science, Stanford University, Kumagai Professor of Engineering, Emeritus, past president of AAAI

Barbara J. Grosz Harvard University, Higgins Professor of Natural Sciences, former president AAAI, former chair of IJCAI Board of Trustees

Tom Mitchell CMU, past president of AAAI, Fredkin University Professor and Head of the Machine Learning Department

Eric Horvitz, Microsoft Research, Managing director, Microsoft Research, past president of AAAI, co-chair of AAAI Presidential Panel on Long-term AI Futures, member of ACM, IEEE CIS

Martha E. Pollack University of Michigan, Provost, Professor of Computer Science & Professor of Information, past president of AAAI, Fellow of AAAS,

Other Endorsers:

Stephen Hawking Director of research at the Department of Applied Mathematics and Theoretical Physics at Cambridge, 2012 Fundamental Physics Prize laureate for his work on quantum gravity

Elon Musk SpaceX, Tesla, Solar City

Steve Wozniak, Apple Inc., Co-founder, member of IEEE CS

Jaan Tallinn co-founder of Skype, CSER and FLI

Frank Wilczek MIT, Professor of Physics, Nobel Laureate for his work on the strong nuclear force

Max Tegmark MIT, Professor of Physics, co-founder of FLI

Daniel C. Dennett, Tufts University, Professor, Co-Director, Center for Cognitive Studies, member of AAAI

Noam Chomsky MIT, Institute Professor emeritus, inductee in IEEE Intelligent Systems Hall of Fame, Franklin medalist in Computer and Cognitive Science

Barbara Simons IBM Research (retired), Past President ACM, ACM Fellow, AAAS Fellow

Stephen Goose Director of Human Rights Watch's

¿Cuáles son los usos legales que se permitirá en la robótica con el objeto de evitar su futuro uso, por ejemplo, como armas de guerras?

Controversia: generación de fake-news

Original Video for Input Speech | Our Result

Conclusiones / preguntas

¿Cómo vamos asegurar el derecho a la privacidad de los ciudadanos? ¿Cómo educamos para que cuiden su privacidad?

¿Es ético utilizar voto/boleta electrónica en la emisión del voto cuando está confirmado que no es un sistema seguro, por lo tanto, está en peligro el secreto del voto y su integridad?

¿Hasta qué punto dejaremos que las tecnologías gestionen la democracia por nosotros?

¿Cómo vamos a evitar el abuso de noticias falsas o tendenciosas que pueden influir gravemente en la opinión pública?

¿Cuáles son los usos legales que se permitirá en la robótica con el objeto de evitar su futuro uso, por ejemplo, como armas de guerras? ¿O procesar y agilizar procesos judiciales usando IA?

Quienes diseñan AI, ML DL son PERSONAs. Se deben tomar recaudos para evitar el bias en IA

Las aplicaciones IA deben respetar nuestros derechos humanos (privacidad, vida, etc)

Muchas gracias ¿preguntas?

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