

CUANDO LAS MÁQUINAS NOS DEFIENDAN

Javi Ramirez

 @rameerez  @rameerezcom



GUARD

www.useguard.com



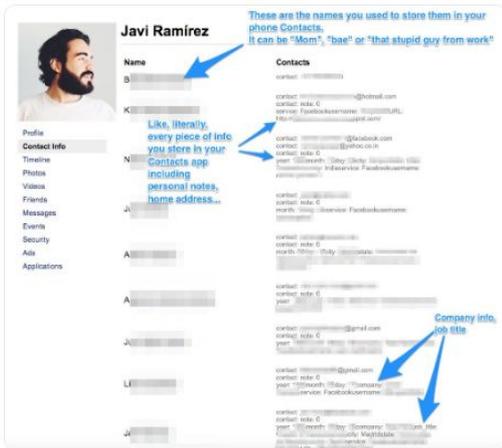
Rameerez
@rameerez

Follow

Don't freak out, but Facebook is keeping an updated copy of your entire phone Contacts info, including every nickname you've used to store them, address info and personal notes.

Okay, maybe freak out a bit.

[#DeleteFacebook](#)



12:07 PM - 23 Mar 2018

136 Retweets 165 Likes



15 136 165



Sergio Quintana ✓
@svqjournalist

Follow

Replying to @rameerez

Javi, I'm a reporter at the NBC Station in San Francisco. May I use your Tweets about Facebook Contacts for my Report tonight? It may appear across all our platforms.

8:47 PM - 25 Mar 2018 from San Francisco, CA

1 Like



1 1 1



El pesao del dept
de marketing 🤢

móvil



Remind Me



Message



Decline



Accept

0.001%

empieza a leer la letra pequeña

Bakos Y. et al.
“Does Anyone Read the Fine Print? Consumer
Attention to Standard Form Contracts”
New York University, 2009

3.040 h

para leer las políticas de privacidad que has aceptado solo en los últimos 5 años

McDonald, A.M. & Cranor, L.F.. (2008).
The cost of reading privacy policies.
I/S: A Journal of Law and Policy for the
Information Society. 4. 540-565.

“ACEPTO”

es la mayor mentira del siglo XXI

“VALORAMOS TU PRIVACIDAD”

seguramente sea la segunda

TECH

Facebook exodus: Nearly half of young users have deleted the app from their phone in the last year, says study

PUBLISHED WED, SEP 5 2018 • 12:18 PM EDT

UPDATED TUE, SEP 11 2018 • 2:45 PM EDT



Matt Rosoff
@MATROSSOFF

SHARE



KEY POINTS

- A new survey of more than 3,400 U.S. Facebook users finds that 44 percent of users ages 18 to 29 have deleted the app from their phones in the past year.
- Overall, 26 percent have deleted the app, while 42 percent have taken a break of several weeks or more.

Facebook sets up holiday pop-up shop in New York to inform users about privacy concerns



Facebook's one-day privacy pop-up shop sits inside New York City's Bryant Park.

IMAGE: MATT BINDER / MASHABLE

“The digital services we use are constantly gathering information about us, and the mere existence of this data makes us vulnerable in ways we can’t even anticipate yet”



JAVI RAMIREZ

 @rameerez

 @rameerezcom

Tech entrepreneur + AI + design

Ingeniería Informática (URJC)
Administración y Dirección de Empresas (URJC)

Experience on multiple industry Big Data and Data Visualization projects

1 STARTUP A MONTH



Wakefy

Turn your Mac into a Spotify alarm clock.



Decidr

Your own personal decision assistant.



Le French generator

Generate random French text.



HUSTL

Create awesome time-lapse videos of your Mac screen.



MAD RIDES

Beautiful biking maps.



Rameerez

My personal website and online store (3D prints, merch...)



Kibbles

Cable protectors to keep your chargers from breaking.



Gridly

Create beautiful Instagram feeds right from your desktop.



Krowspot

Discover and share the best places to work from.



The Pixel Challenge

Build impactful daily habits and transform your life.



MINDLESS

Streetwear for creative people



Momoise

Block the distracting parts of time wasting websites.



@rameerez



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1 STARTUP A MONTH

gohustl.co

HUSTL

Create awesome time-lapse videos of your Mac screen.

[Watch how it works](#)

[Buy now for \\$15](#)

macOS 10.12 or later required

Show off your work.

Record your speedpaints, logo designs, website developments, & more. We will convert all your effort into an awesome high-speed video to show off your work.

GOOD THINGS HAPPEN



1 STARTUP A MONTH

Wakefy

Home FAQ Contact

Turn your Mac into a Spotify alarm clock

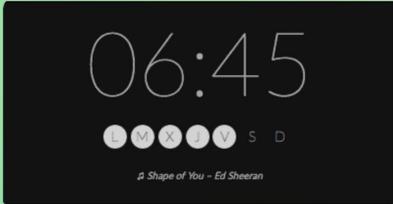
Start waking up to your favorite Spotify tunes and set the mood you want to wake up in.

 Download for Mac

 Watch the video

Free - macOS 10.12 or later required

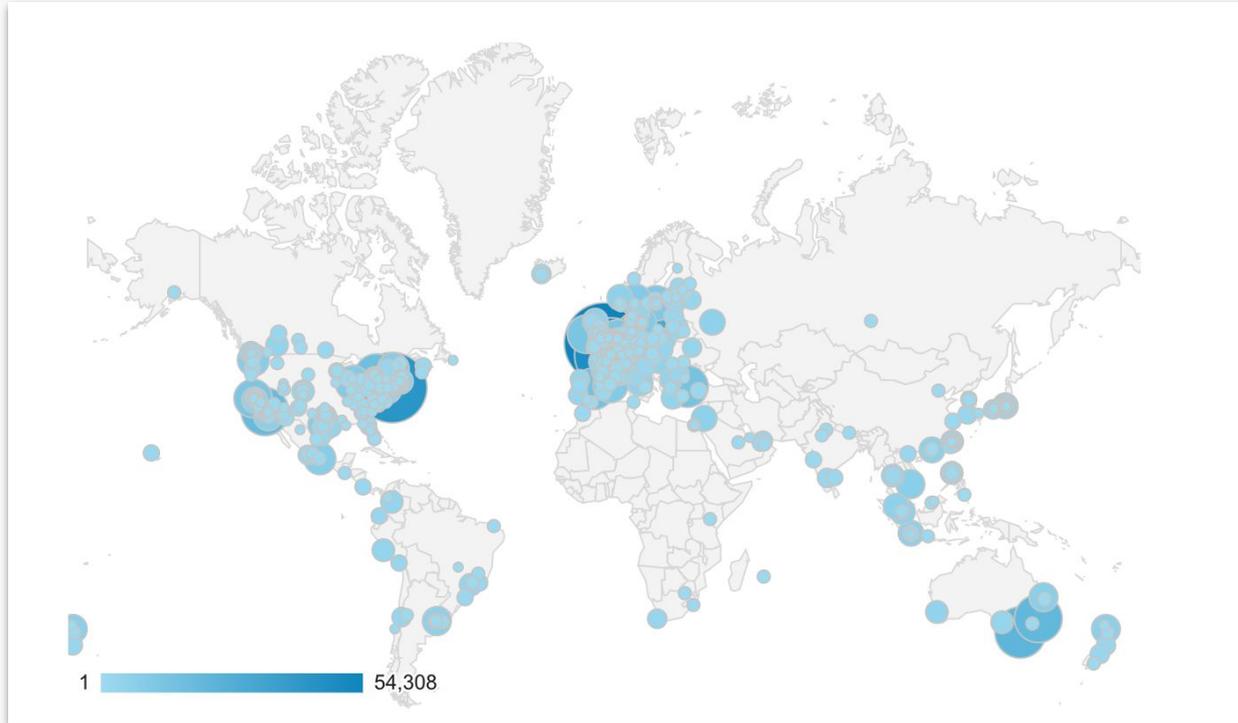
[Troubles uninstalling Wakefy?](#)



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50k+ USERS IN 167 COUNTRIES



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TRUSTED BY

Uber



Adobe

And many more

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GUARD

DEMO

¿CÓMO LE ENSEÑARÍAS PRIVACIDAD A
UNA MÁQUINA?

OPCIÓN 1: REGLAS SIMPLES

Si tus datos son privados = bien

Si tus datos son públicos = mal

PROBLEMA 1: **¿ESO ES TODO?**

No todo es blanco o negro, hay escalas de grises amplísimas.

PROBLEMA 2: **¿DE DÓNDE SACAMOS ESA INFO?**

Las políticas de privacidad son la única interfaz entre servicio y usuario.

OPCIÓN 2:
QUE ALGUIEN SE LAS LEA Y SAQUE LAS REGLAS

PROBLEMA 3: **LOS HUMANOS FALLAN Y TARDAN**

Tienen sesgos subjetivos, despistes, errores y son difíciles de escalar.

**IDEA:
OBTENER LO QUE TODA LA HUMANIDAD
ENTIENDE COMO PRIVADO Y
ENSEÑÁRSELO A UNA MÁQUINA PARA QUE
LO HAGA AUTOMÁTICAMENTE**

**PROBLEMA:
¿QUÉ ES LA PRIVACIDAD?**

**PROBLEMA:
¿CÓMO MEDIMOS DE MANERA
OBJETIVA PERCEPCIONES
SUBJETIVAS?**

**PROBLEMA:
¿CÓMO OBTENEMOS UN
AGREGADO MASIVO DE
PERCEPCIONES SUBJETIVAS?**

**PROBLEMA:
¿CÓMO LE ENSEÑAMOS ESO A UNA
MÁQUINA?**

TRES PASOS:

1. Definir lo que es privacidad y cómo medirla
2. Construir un dataset de lo que el ser humano considera “privacy friendly” y lo que no
3. Construir una IA que sepa leer textos y usar esos datos para enseñarle a diferenciar lo “privacy-friendly” de lo potencialmente dañino

1 ¿QUÉ ES PRIVACIDAD?

«We never delete your funny cat pictures, we love them too much» 

– From Telegram's privacy policy

BIGGEST THREAT

«Instagram cannot ensure the security of any information you transmit to Instagram or guarantee that information may not be accessed, disclosed, altered, or destroyed» 

– From Instagram's privacy policy

2 ¿CÓMO MEDIR ESTO A ESCALA?

FRASE A

FRASE B

WHICH SENTENCE LOOKS MORE PRIVACY FRIENDLY?

SENTENCE A

In addition, users giving feedback may be individually contacted for follow-up due to concerns raised during the course of such evaluation. Demographic information and Web log data may be stored for future research and evaluation. 6.

SENTENCE B

Statistical information Aggregate statistical information provided by us to our advertisers or others regarding sales or website usage will not include personally identifying information. Security Your personal data will be held on a secure server. Our sites are equipped with the latest security devices/firewalls.



Guard's "Ethical Privacy" project quantitatively measures privacy perception by crowdsourcing human ethics surveys to users around the globe.

[VIEW HELP](#)



USEGUARD.COM

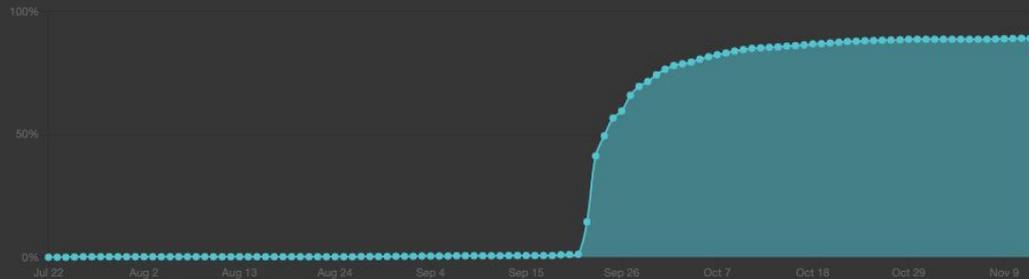
AI STATUS - OPEN DATA

Guard is an Artificial Intelligence that reads privacy policies for you – and warns you of the biggest risks it finds. Right now it's learning, this is the open report of its status, in real time.

[PLAY NOW](#) to teach the AI.

● AI status: gathering data

AI training progress



Want to help? You can teach the AI just by playing a simple game.

[PLAY NOW](#)

89.3%

TRAINED

89264

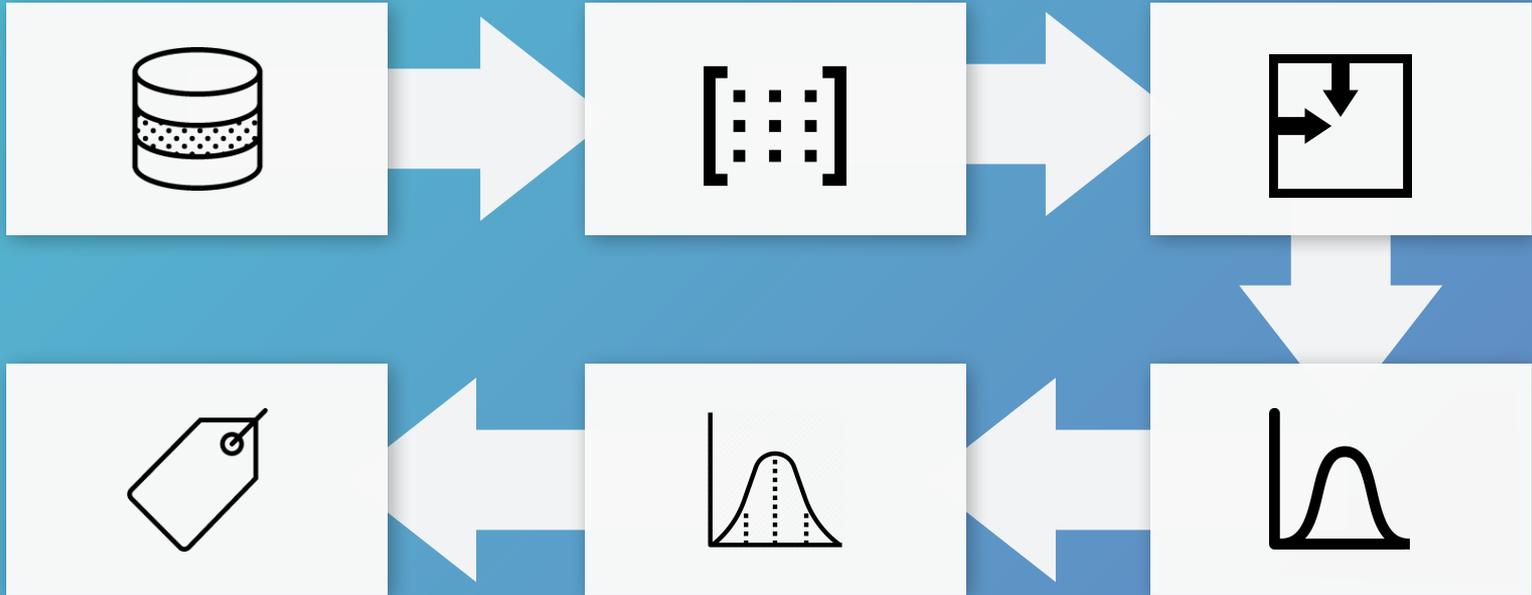
DATA POINTS

2443

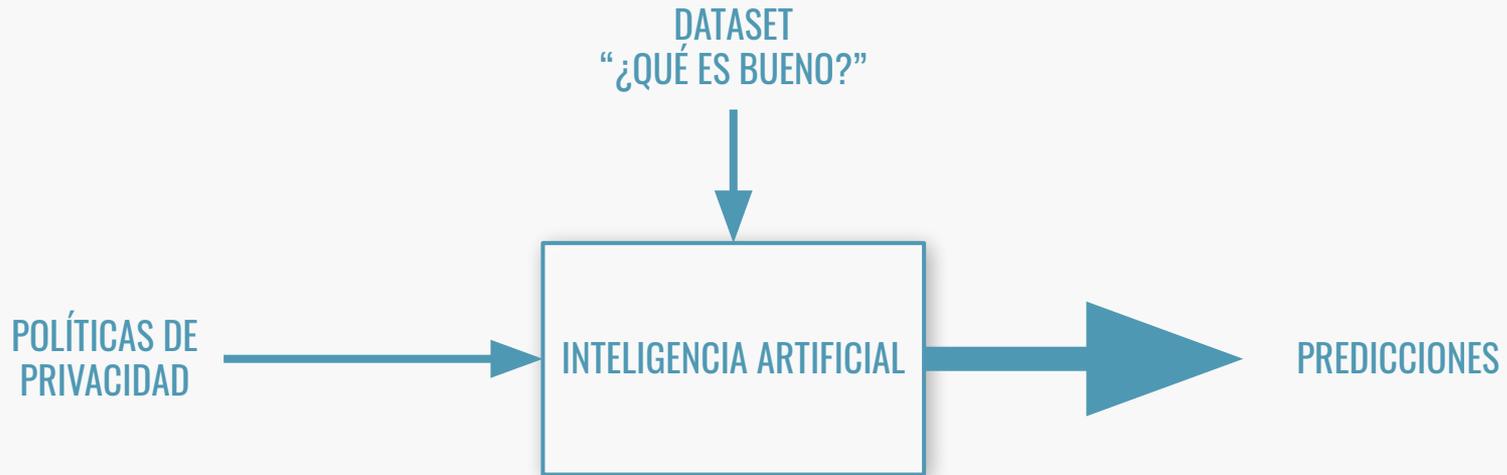
AI INSTRUCTORS

MY APPROACH: «MORALSCORE»

A data processing algorithm to transform votes into morally labelled data



3 ¿CÓMO ENSEÑARLE ESTO A UNA MÁQUINA?



“We collect information about you when you use our products or services. We may collect information and use it as required by law (for example, how we use our service and your choices about receiving future marketing communications from us). We also collect information you provide.”



100% AI-generated text.
No human input or modifications whatsoever.

malignant actors on our services; or to explain why we have removed content or accounts from our services; to address fraud, security, or technical issues; or to protect our rights or property or the rights or property of those who use our services. However, nothing in this Privacy Policy is intended to limit any legal defenses or objections that you may have to a third party's, including a government's, request to disclose your personal data.

3.4

Affiliates and Change of Ownership

In the event that we are involved in a bankruptcy, merger, acquisition, reorganization, or sale of assets, your personal data may be sold or transferred as part of that transaction. This Privacy Policy will apply to your personal data as transferred to the new entity. We may also disclose personal data about you to our corporate affiliates in order to help operate our services and our affiliates' services, including the delivery of ads.

3.5

Non-Personal Information

We share or disclose non-personal data, such



POTENTIAL RISK DETECTED

In sentence: 326

Labeled as: «very_dangerous»

Confidence: 96.7%

from  Twitter's privacy policy

We sell your data to third parties.

94.9%

We don't sell your data to third parties.

1.6%



DEMO



GUARD

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¿QUÉ ES UNA IA?

¿PUEDE UNA IA SER BUENA O MALA?

LO QUE NO ES IA

Que los ordenadores piensen

Que las máquinas nos conquisten

Ordenadores “creativos”

Magia



LO QUE NO ES IA

Que los creadores piensen
que las máquinas nos conquisten
Creadores “creativos”

Magia

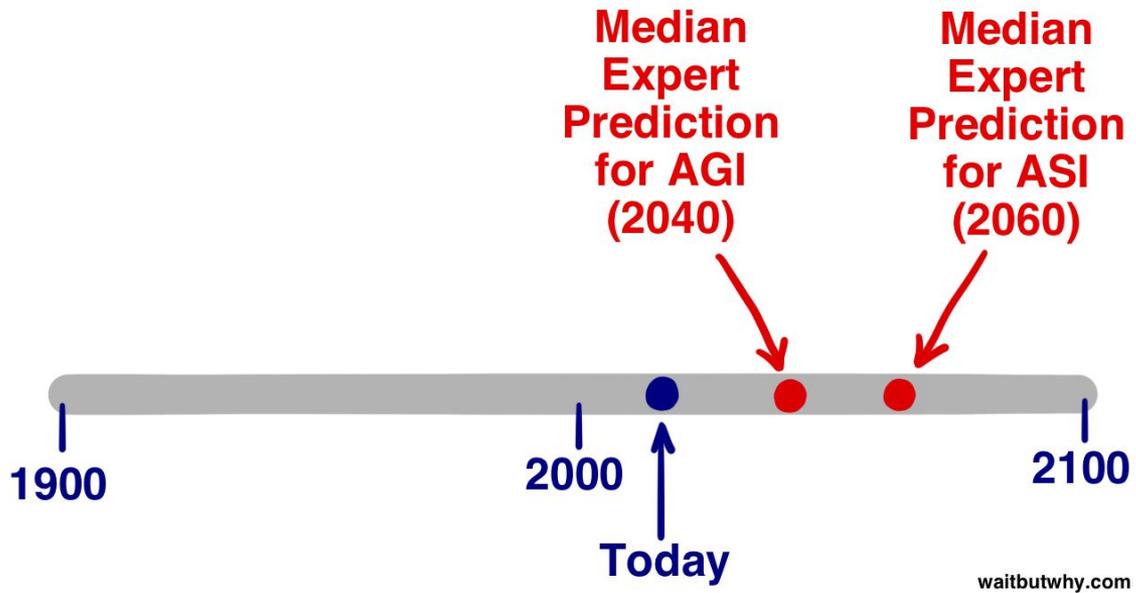
People with no idea about AI
saying it will take over the world:

My Neural Network:

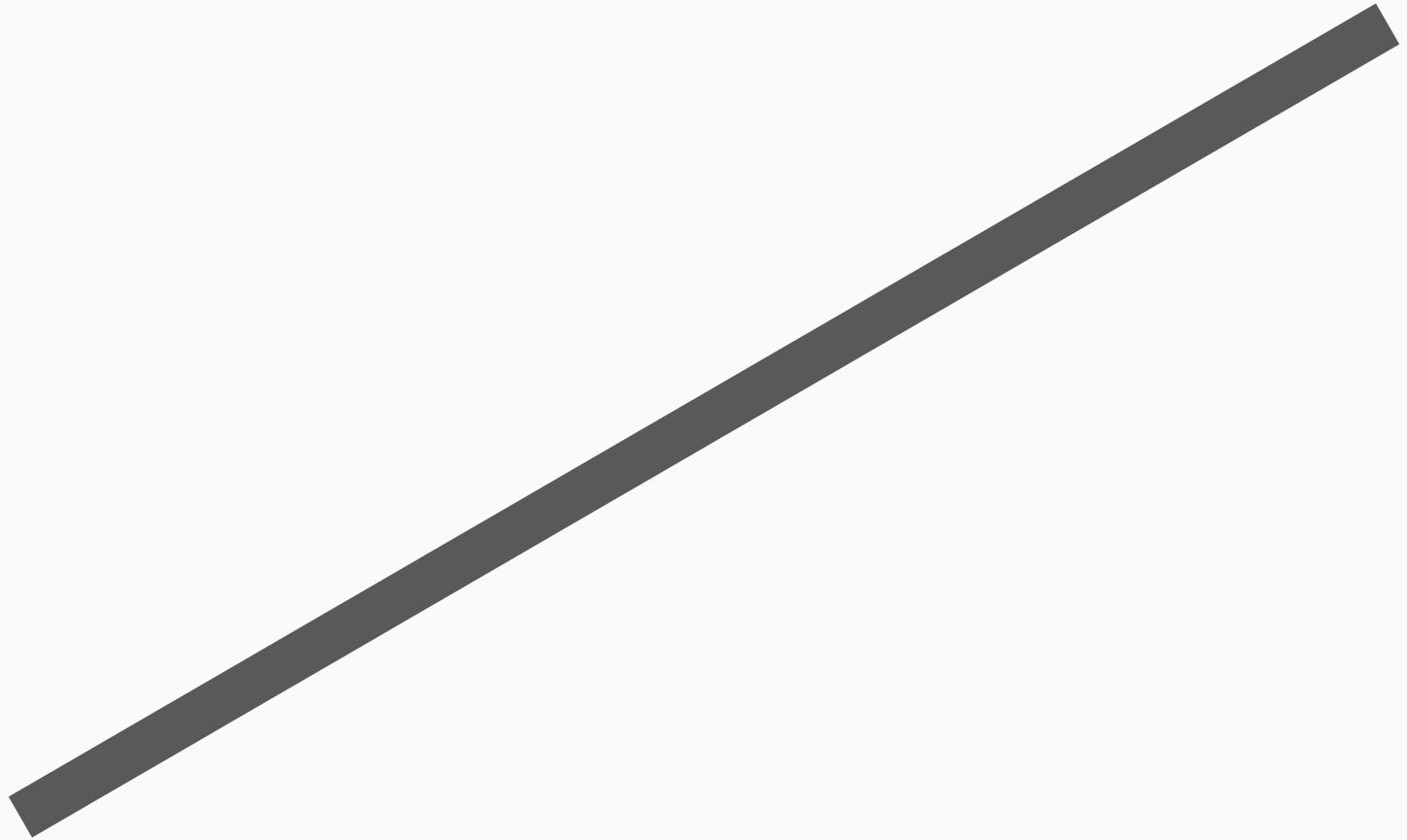


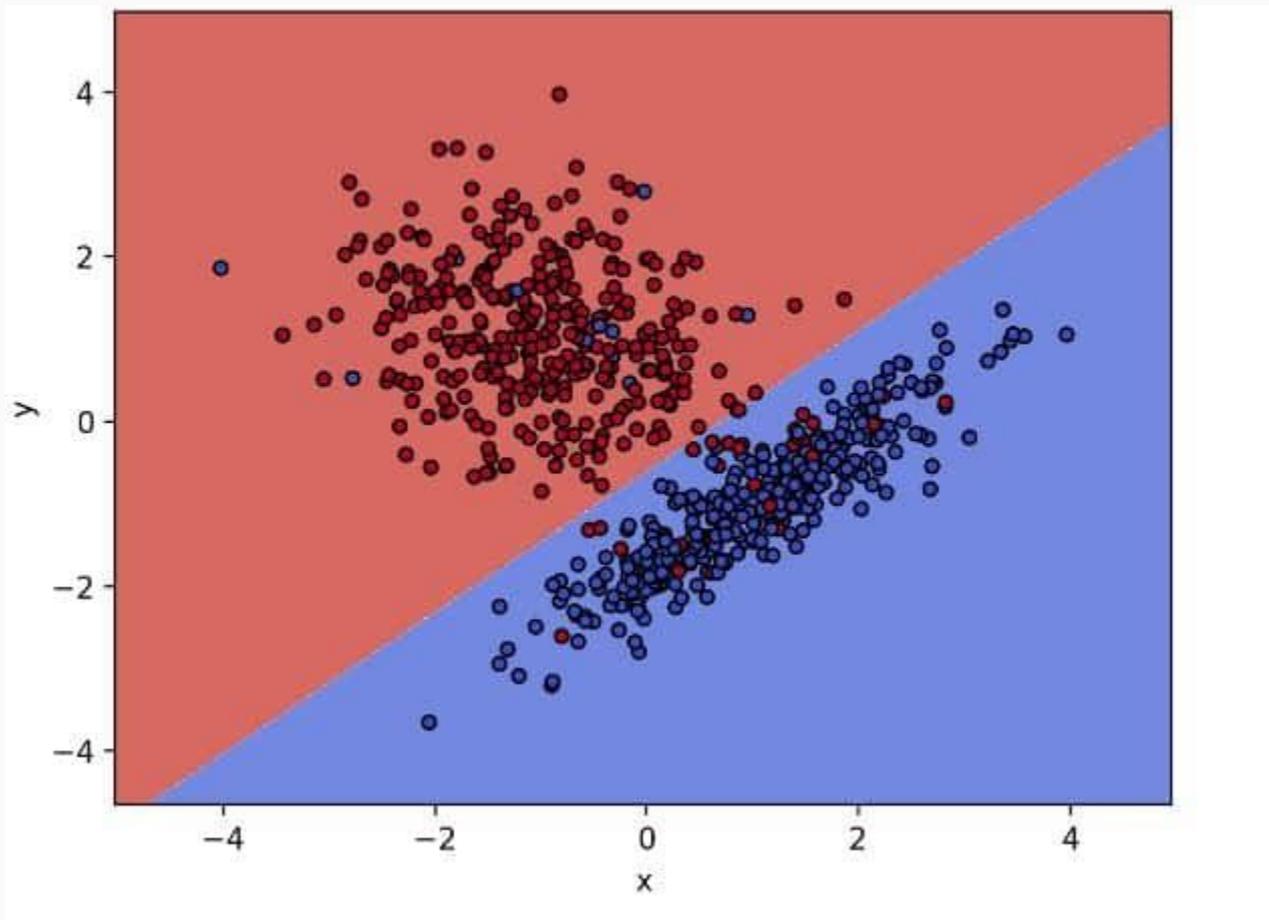
 @rameerez

 @rameerezcom



LA IA MÁS SENCILLA DEL MUNDO





DATA

Which dataset do you want to use?



Ratio of training to test data: 50%



Noise: 0



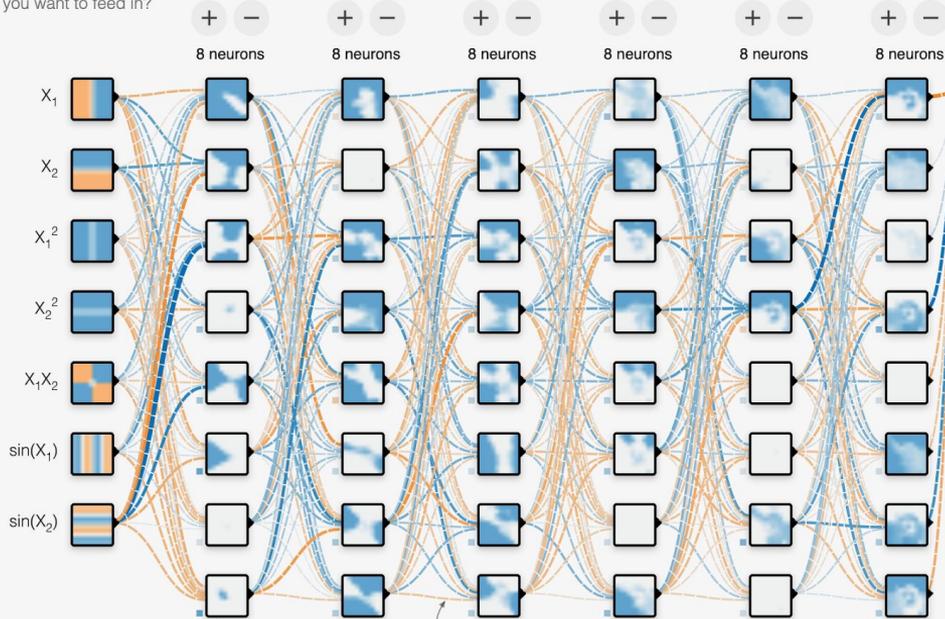
Batch size: 20



REGENERATE

FEATURES

Which properties do you want to feed in?



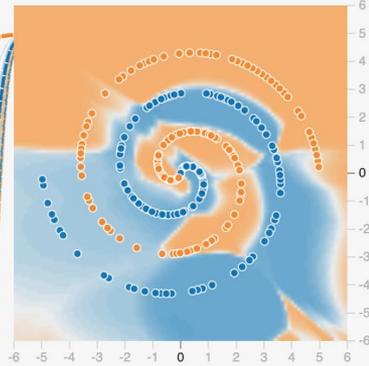
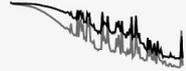
This is the output from one **neuron**. Hover to see it larger.

The outputs are mixed with varying **weights**, shown by the thickness of the lines.

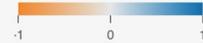
OUTPUT

Test loss 0.132

Training loss 0.080



Colors shows data, neuron and weight values.



Show test data

Discretize output

$$i_t = \sigma (W_{xi}x_t + W_{hi}h_{t-1} + W_{ci}c_{t-1} + b_i) \quad (7)$$

$$f_t = \sigma (W_{xf}x_t + W_{hf}h_{t-1} + W_{cf}c_{t-1} + b_f) \quad (8)$$

$$c_t = f_t c_{t-1} + i_t \tanh (W_{xc}x_t + W_{hc}h_{t-1} + b_c) \quad (9)$$

$$o_t = \sigma (W_{xo}x_t + W_{ho}h_{t-1} + W_{co}c_t + b_o) \quad (10)$$

$$h_t = o_t \tanh(c_t) \quad (11)$$

Matrix Multiplication

$$\begin{bmatrix} 1 & 2 & 1 \\ 0 & 1 & 0 \\ 2 & 3 & 4 \end{bmatrix} \times \begin{bmatrix} 2 & 5 \\ 6 & 7 \\ 1 & 8 \end{bmatrix}$$

 Multiply

**EL PROBLEMA ES QUE ESTAS
MULTIPLICACIONES SE PUEDEN USAR
PARA MUCHAS COSAS**



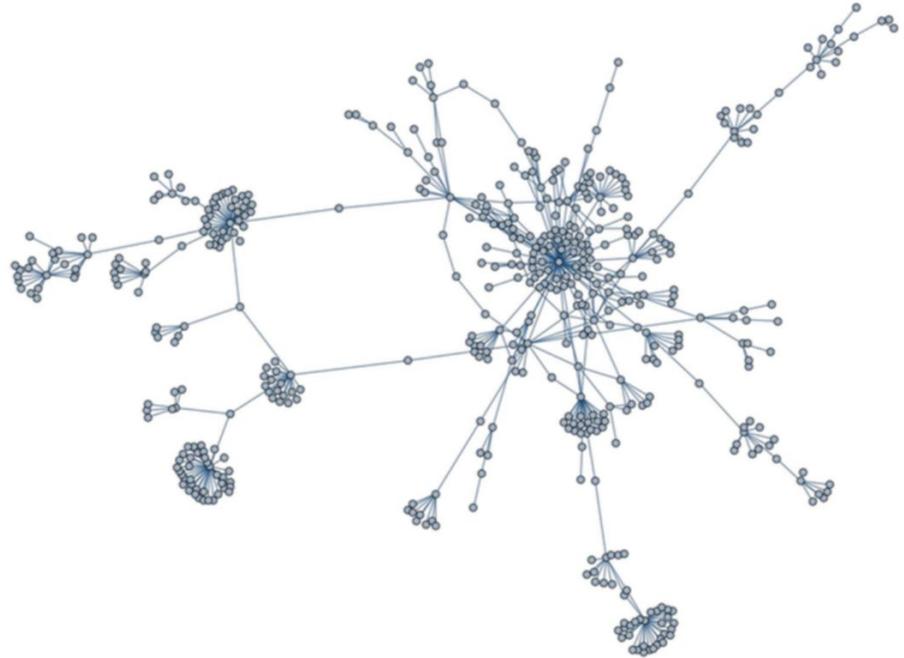
"People with low ratings will have slower internet speeds; restricted access to restaurants and the removal of the right to travel"

Rachel Botsman, author of "Who Can You Trust?"

<http://www.wired.co.uk/article/chinese-government-social-credit-score-privacy-invasion>

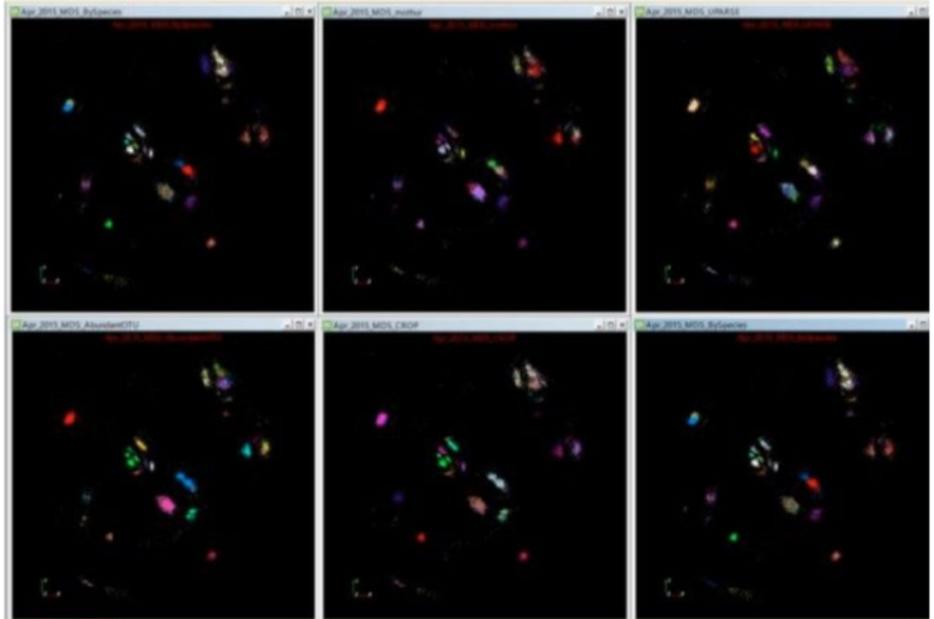
Detectar fraudes, redes criminales...

(los fraudes necesitan relaciones
entre personas)



Investigación / Ciencia

Fungi -- 4 Classic Clustering Methods plus Species Coloring



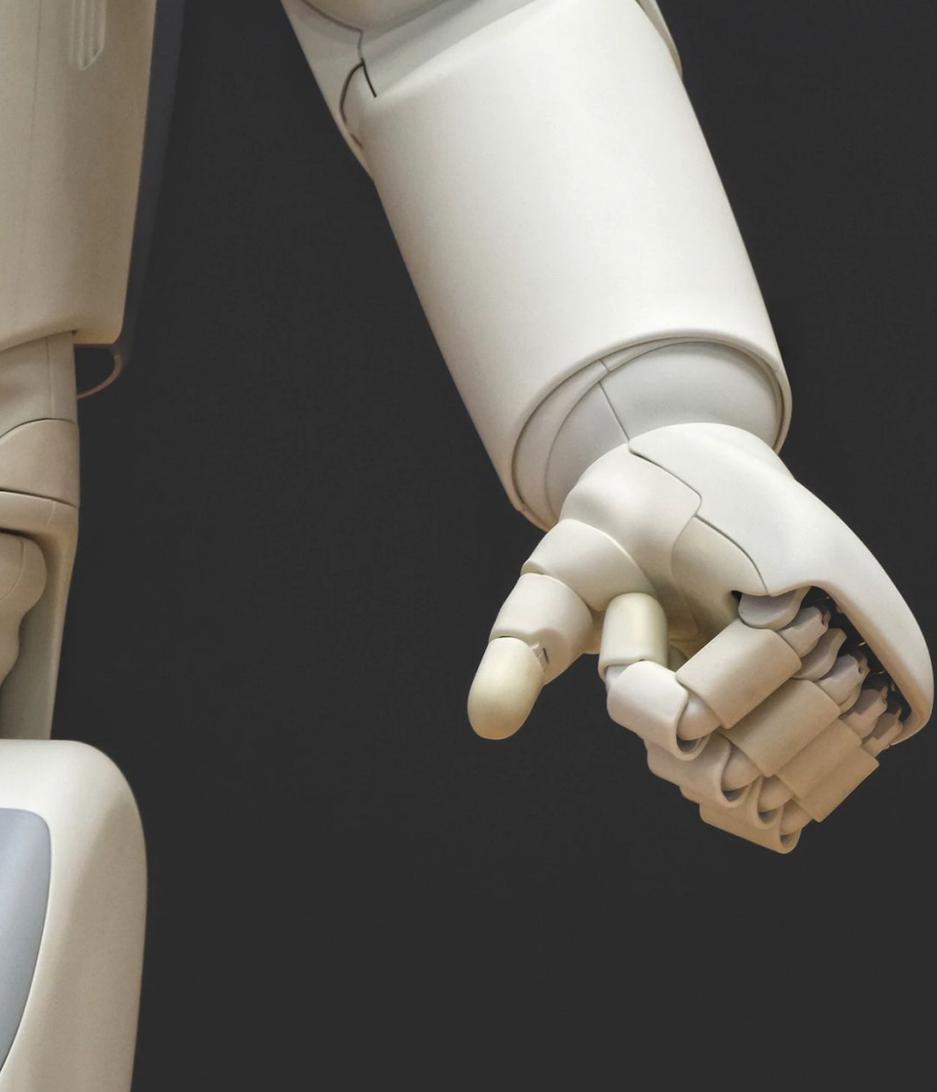
Optimización de ciudades



Cab Pick-ups in NYC
12:00 AM

LA IA EN 2019 NO ES MÁS QUE
MATEMÁTICAS. SOLO DEPENDE DE
NOSOTROS CÓMO APLICARLAS.

OVERFITTING



CUANDO LAS MÁQUINAS NOS DEFIENDAN

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