

# Artificial Intelligence in Daily Life

Nur Aini Rakhmawati, PhD

Associate Professor of Information Systems

Institut Teknologi Sepuluh Nopember Surabaya

---



# Manakah yang menggunakan AI

### ChatGPT

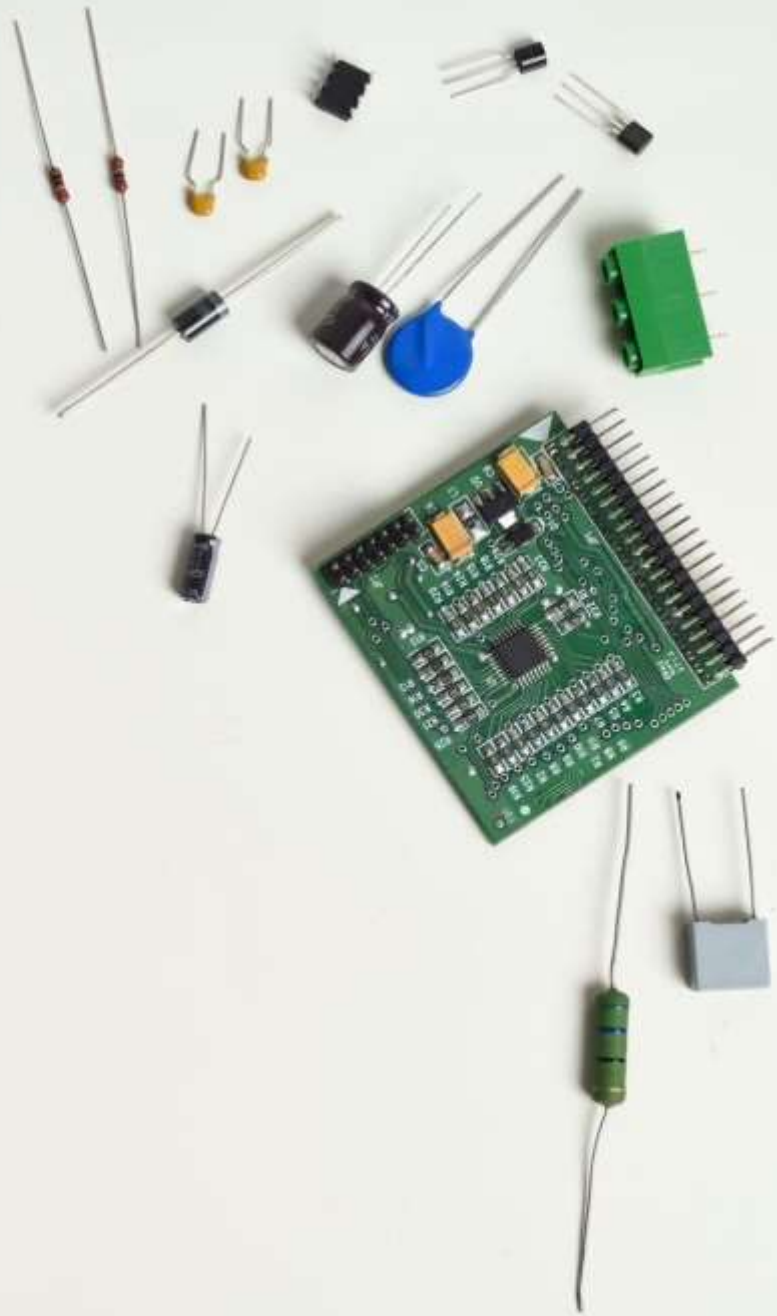
Examples	Capabilities	Limitations
"Explain quantum computing in simple terms" →	Remembers what user said earlier in the conversation	May occasionally generate incorrect information
"Got any creative ideas for a 10 year old's birthday?" →	Allows user to provide follow-up corrections	May occasionally produce harmful instructions or biased content

Send a message →

Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. ChatGPT May 24 Version



<https://app.wooclap.com/AIASN>



# Apakah Artificial Intelligence ?

- Alias Kecerdasan buatan





Business Horizons

Volume 62, Issue 1, January–February 2019, Pages 15-25

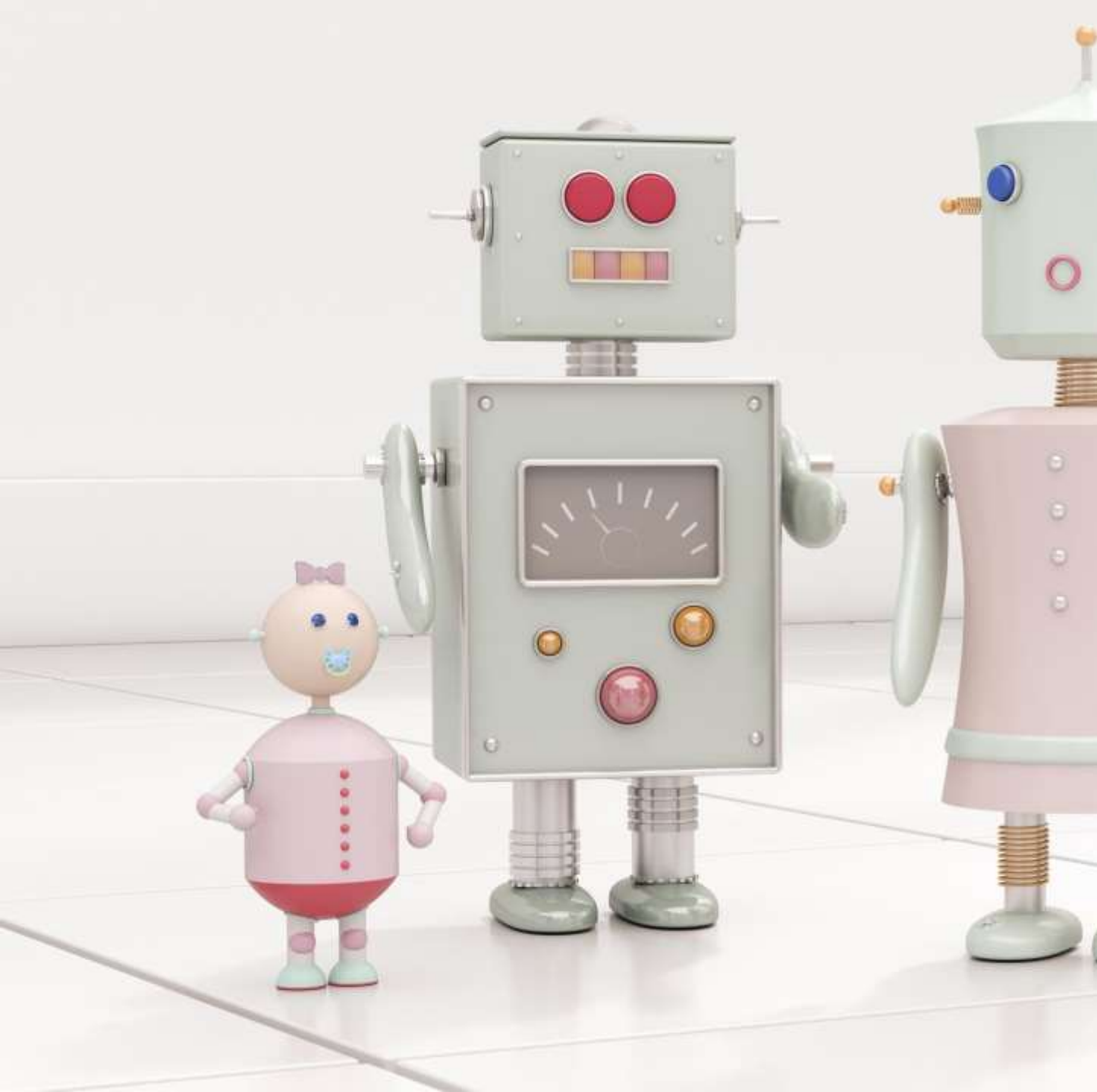


Executive Digest

Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence

[Andreas Kaplan](#)<sup>a</sup>  , [Michael Haenlein](#)<sup>b</sup> 

**AI adalah kemampuan sistem untuk menafsirkan data eksternal dengan benar, untuk belajar dari data tersebut, dan menggunakan pembelajaran tersebut guna mencapai tujuan dan tugas tertentu melalui adaptasi yang fleksibel**



**Apakah kita  
menggunakan  
robot?**

**We use AI every day,  
no matter where we  
work or what we do.**

---





# How Zoom leverages AI to provide the best videoconferencing experience

By Tomas Bresler

Subscriber

POSTED APR 23, 2021



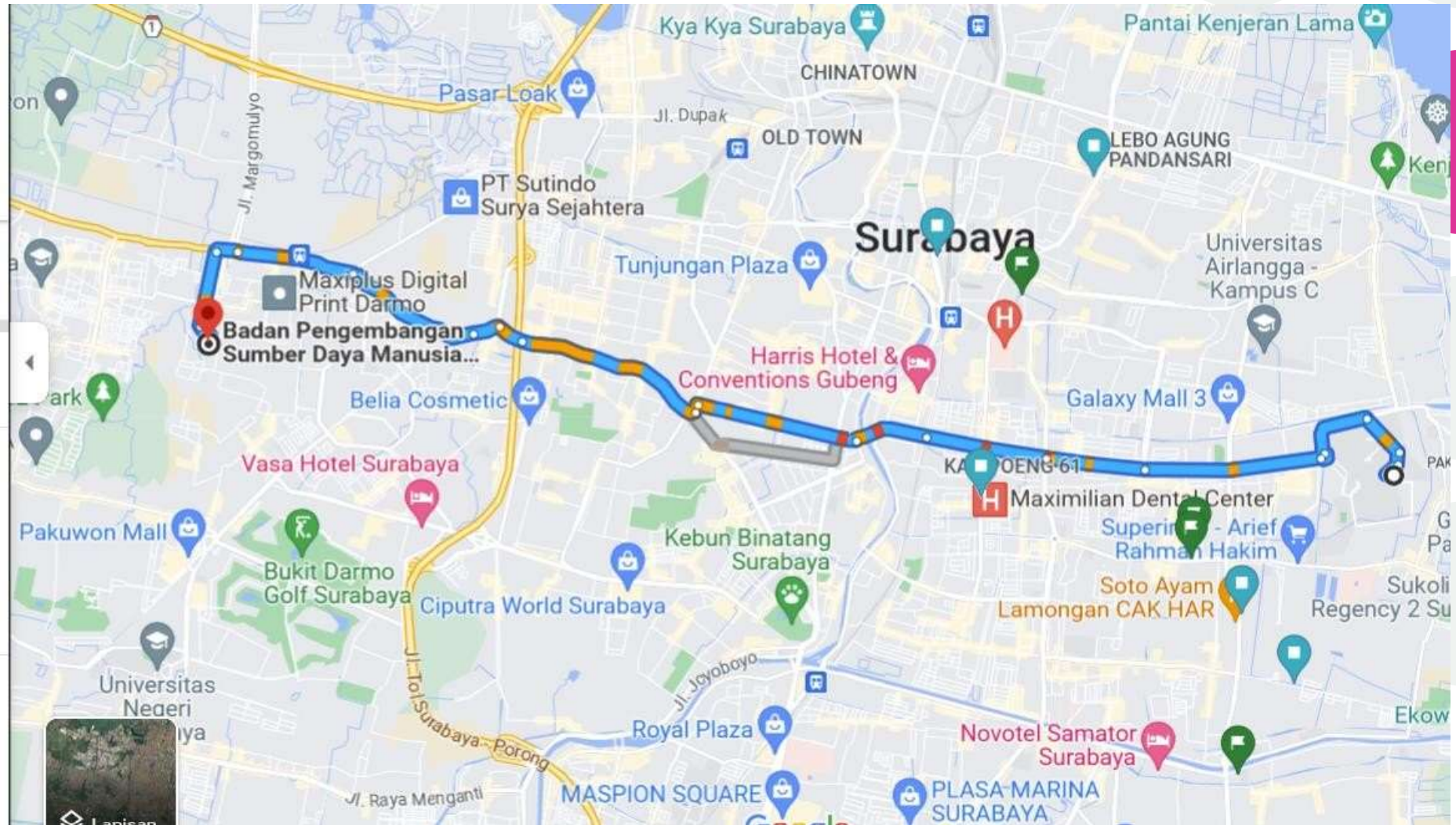
Zoom adopted artificial intelligence at the core of its product. By optimizing connections, video compression, and audio transfer, Zoom



Opsi

40 mnt  
16,1 km

40 mnt  
16,4 km





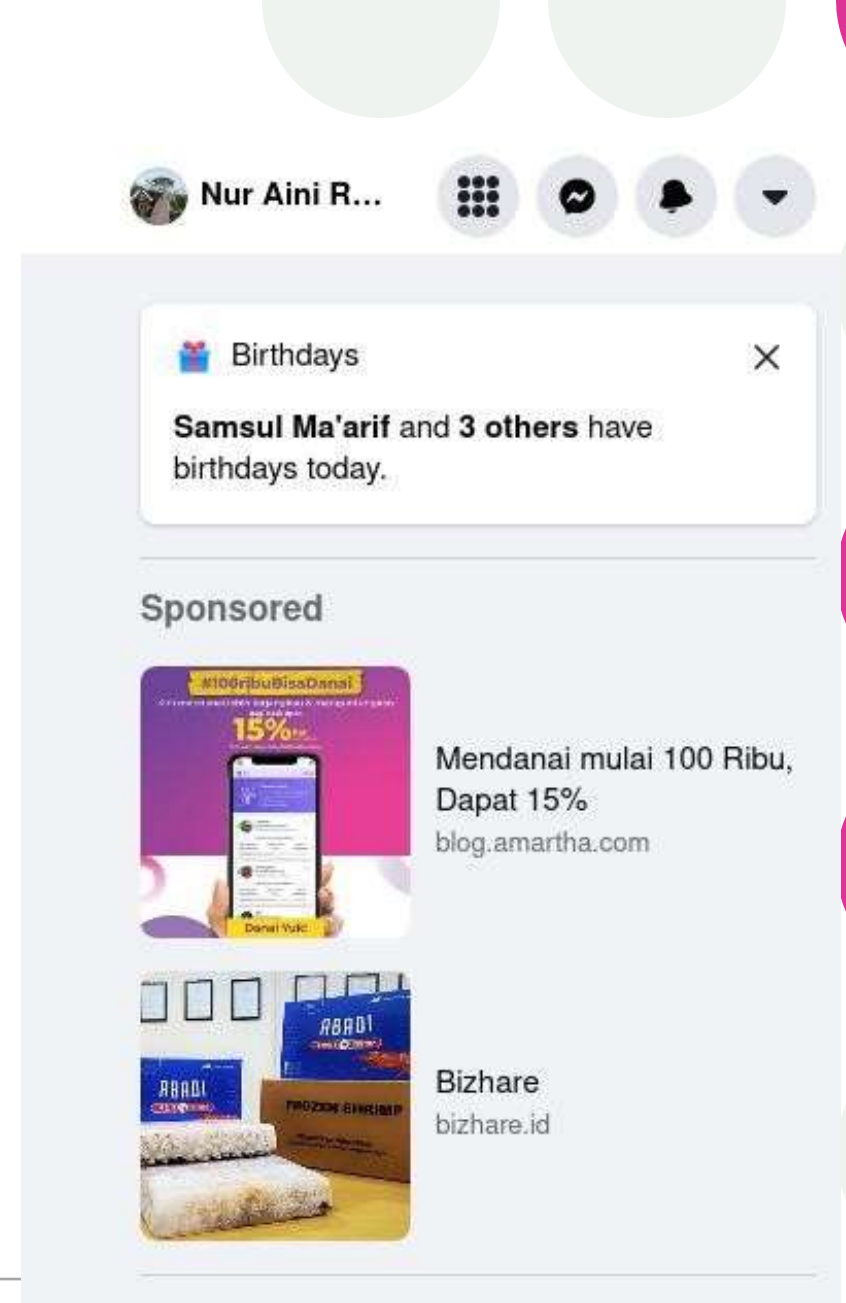
# Search Engine (Mesin Pencari)

The screenshot shows a search engine interface with the following elements:

- Search Bar:** Contains the text "Semua" and navigation icons for Video, Gambar, Belanja, Buku, and Lainnya. An "Alat" button is on the right.
- Results Summary:** "Sekitar 369.000.000 hasil (0,68 detik)"
- Video Section:** Titled "Video", it lists three YouTube results:
  - Result 1:** "Lagu Indonesia Raya 3 Stanza ; Lagu Kebangsaan Indonesia ..." by CNN Indonesia, 13 Agu 2018.
  - Result 2:** "Indonesia Raya Vocal dan Teks" by STIK PTIK Official, 27 Mei 2019.
  - Result 3:** "Lagu Kebangsaan Indonesia Raya" by Balitbanghub151 Channel, 2 minggu lalu.A "Lihat semua" button is located below the video results.
- Text Result:** A link to "https://lirik.kapanlagi.com" with the title "Lirik Lagu Indonesia Raya - Lagu Wajib Nasional - KapanLagi ...". The snippet reads: "lirik lagu indonesia raya-lagu wajib nasional | dari m.kapanlagi.com: layanan mobile dari situs entertainment terbesar indonesia, kapanlagi.com."
- People Also Ask Section:** Titled "Orang juga bertanya", it lists four questions:
  - "Lagu Indonesia Raya apa?"
  - "Tuliskan lagu Indonesia Raya dan siapa pencipta lagu Indonesia Raya?"
  - "Apa yang dimaksud dengan Indonesia Raya?"
  - "Mengapa lagu Indonesia Raya yang diperdengarkan untuk pertama kalinya oleh WR Supratman dalam Kongres Pemuda 2 mendapat sambutan yang sangat meriah dari peserta kongres?"

# Social Media Advertising

- Prediksi target iklan di media sosial



## **Social Media Recommendation**

---

Rekomendasi teman yang mau difollow

Rekomendasi postingan berdasarkan apa yang sering lihat

Rekomendasi grup

# Chatbot

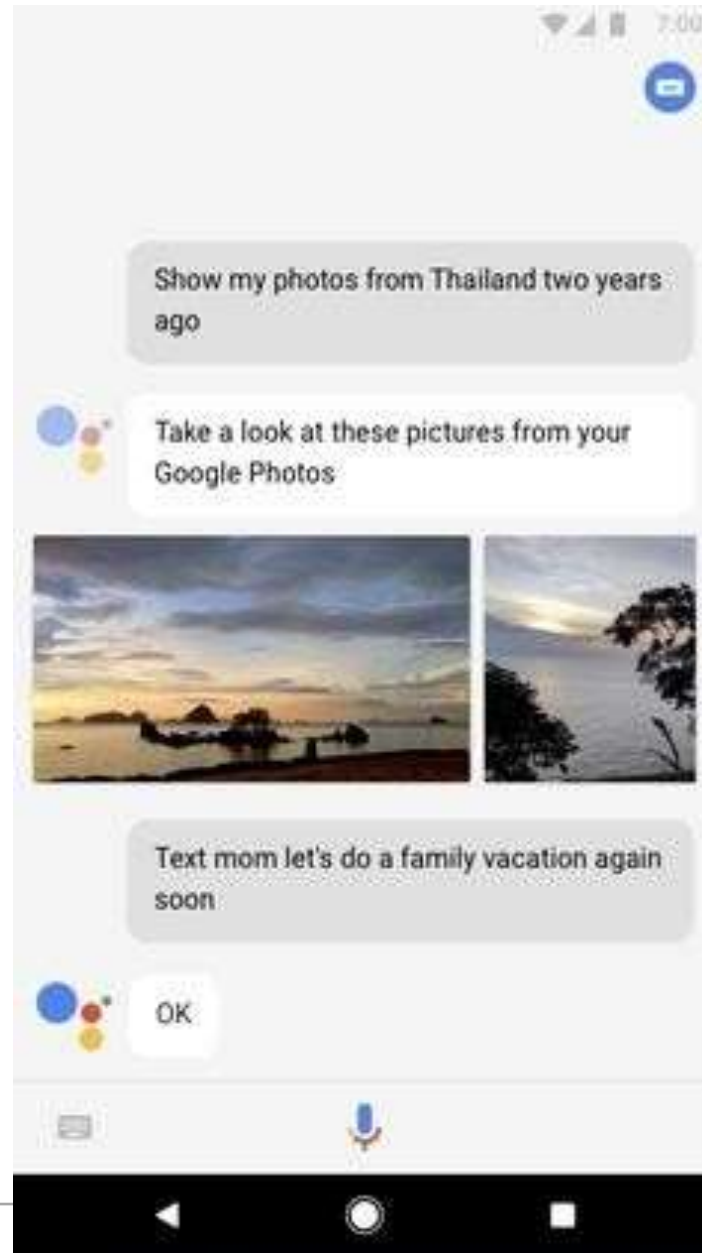


Foto Ini oleh Penulis tidak diketahui dilisensikan di bawah [CC BY-SA](#).



## PRODUK SERUPA

Lihat Semua >



Selimut Dewasa Bulu Tebal Halus Lembut...

Rp57.000 460 Terjual



Selimut Lipat 2 in 1 Instan Balmut Hangat...

Diskon Rp1,7RB

Rp99.000



Selimut Anak Motif Karakter Lucu Keren...

Rp29.... 10RB+ Terjual



Selimut Bulu Halus Lembut Ukuran...

Rp45.... 3,7RB Terjual



Selimut Panel karakter kartun keren ukuran...

Rp53.000 5 Terjual



Lady Rose Balmut ukuran 160x200 cm...

Rp153.5... 18 Terjual

## KAMI MUNGKIN JUGA SUKA

Lihat Semua >

# E-commerce



FaceApp

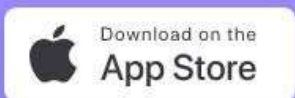
FEATURES

MEDIA

FAQ

# Most Popular Selfie Editor

Selfie magic with just one tap



 **App Store**  
TOP APP OF 2019

 **Google Play**  
TOP 1 OF 2019

 **500M+**  
DOWNLOADS

# Try Google Lens

 Google Lens



Get the Lens app on the Play Store.



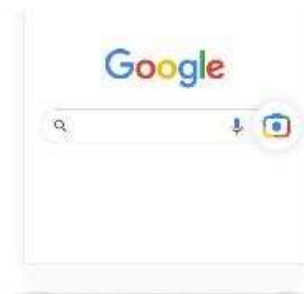
 Google Photos



Look for the Lens icon on your photos.



 Google



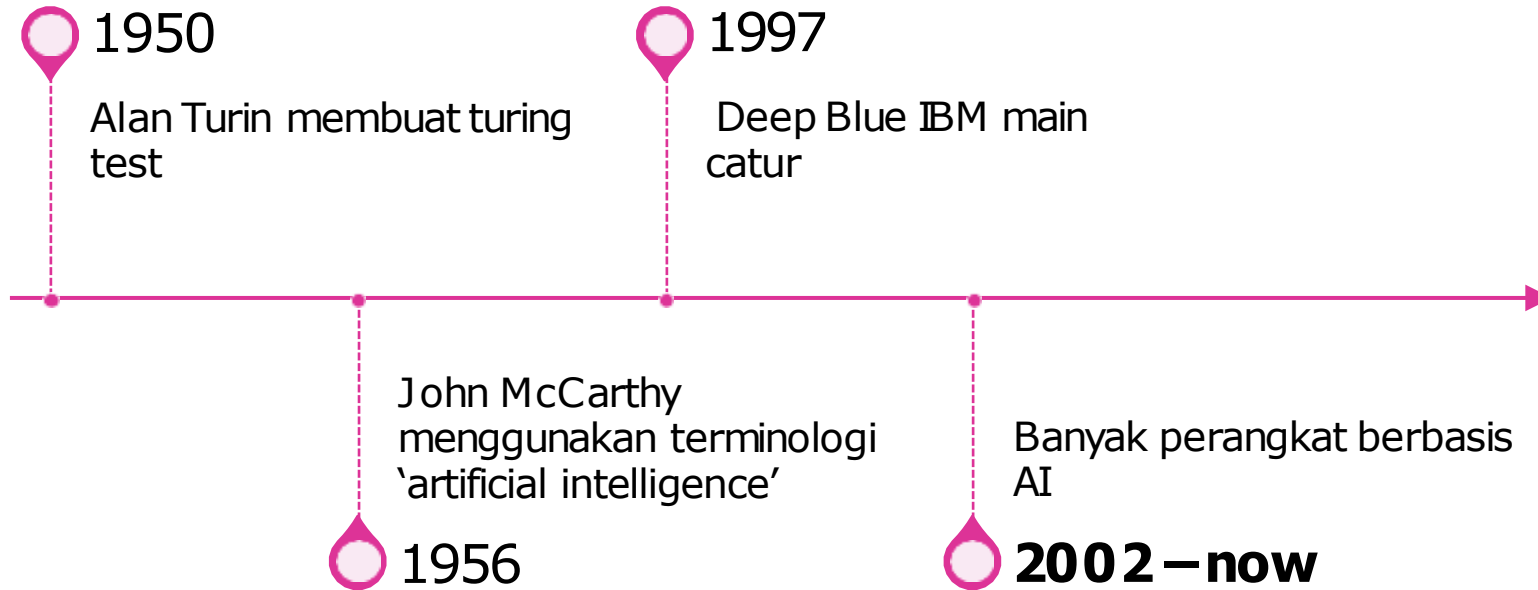
Look for Lens in the search bar of the Google app.







# Sejarah AI



# AI mampu

1

Acting  
Humanly

2

Thinking  
Humanly

3

Thinking  
Rationally

4

Acting  
Rationally

---

# Dangerous Risks of Artificial Intelligence

---



# Social manipulation

## Cambridge Analytica and Facebook: The Scandal and the Fallout So Far

Revelations that digital consultants to the Trump campaign misused the data of millions of Facebook users set off a furor on both sides of the Atlantic. This is how The Times covered it.



### Social media bots are damaging our democracy

On the internet, nobody knows you're a natural language processing system.



A. Tarantola  
@terrortola  
August 15th, 2019



In this article: bot, botometer, bots, democracy, ELIZA, facebook, internet, IRC, mass shootings, politics, social media, tomorrow, twitch, twitter, Waddell



alengo via Getty Images

Social media has become our town crier. When major news breaks, roughly

- 1. | BEST VITAMINS FOR MEMORY
- 2. | VINEGAR FOR HAIR LOSS
- 3. | BANK OWNED CARS FOR SALE
- 4. | DRESSES FOR WOMEN OVER 65

Business Focus

#### Sponsored Links

- 1. | BEST VITAMINS FOR MEMORY
- 2. | VINEGAR FOR HAIR LOSS
- 3. | BANK OWNED CARS FOR SALE
- 4. | DRESSES FOR WOMEN OVER 65

Business Focus



# Viral, Situs Belajar Daring di Surabaya Disisipi Iklan Pornografi, Ini Penjelasan Pemkot

Kompas.com - 13/08/2020, 20:13 WIB

BAGIKAN:    

Komentar 



1. 10 STOCKS TO BUY NOW

2. TOP 5 STOCKS TO BUY NOW

3. JOBS FOR SENIORS

4. BEST CRYPTOCURRENCIES TO BUY

Close A

5. FREE PROJECT PLAN TEMPLATE

MOKA

#bebas  
ribet

## Memblokir iklan tertentu

Anda tidak dapat berhenti melihat iklan online, namun Anda dapat menghapus beberapa iklan yang tidak diinginkan. Anda juga dapat berhenti melihat iklan menurut minat dan info Anda.

## Menghentikan iklan pop-up

Anda dapat [menonaktifkan iklan pop-up di Chrome](#) dan sebagian besar browser lainnya. Jika Anda masih melihatnya, pelajari cara [menghapus malware di Chrome](#).

## Menghapus iklan yang tidak diinginkan

Memblokir iklan membuat Anda berhenti melihat iklan dari pengiklan tersebut. Jika pengiklan memiliki beberapa situs, Anda mungkin harus memblokir beberapa iklan.

Pelajari cara [mendapatkan preferensi iklan di semua perangkat](#).

## Di layanan Google

Di samping iklan:

- Pada Google Penelusuran di ponsel atau tablet, tap Info ⓘ > Mengapa iklan ini. Nonaktifkan Tampilkan iklan dari [advertiser].
- Di YouTube, pilih Info ⓘ > Berhenti melihat iklan ini.
- Di Gmail, pilih Info ⓘ > Kontrol iklan seperti ini > Blokir pengiklan ini.

## Di situs & aplikasi yang berpartner dengan Google untuk menampilkan iklan


- Di kanan atas iklan, pilih Hapus ✕ > Berhenti melihat iklan ini.
  - Di kanan atas iklan, pilih Hapus ✕ > Laporkan iklan ini.
  - Anda juga dapat [memberi tahu kami tentang iklan yang melanggar kebijakan kami](#).
-

# https://adssettings.google.com/authenticated

How your ads are personalized

Ads are based on personal info you've added to your Google Account, data from advertisers that partner with Google, and Google's estimation of your interests. Choose any factor to learn more or update your preferences. [Learn how to control the ads you see](#)


35-44 years old Female



DateMyAge

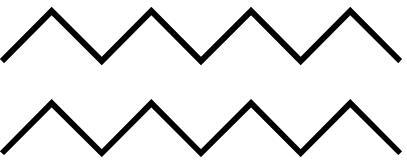
This advertiser shows you ads based on:

- Your visit to the advertiser's website/app

 Google doesn't sell your personal information to anyone

[Close](#) [Turn off](#)

M Mitsubishi G Grab (App)



# Enable “do not track” in your browser



Banyak browser menyertakan kemampuan untuk mengirim permintaan “jangan lacak” ke situs web yang meminta mereka untuk tidak mengumpulkan atau melacak data penelusuran Anda.

Kadang sebagian besar situs web dan server web tidak mengubah perilakunya dan tampaknya mengabaikan permintaan tersebut.





# Hapus Cookies

Cookies adalah paket data kecil yang dikirim oleh situs web dan disimpan di komputer Anda. Mereka berisi informasi yang berbeda seperti isi keranjang belanja Anda atau preferensi Anda di situs web tertentu.

Data dalam cookie ini dapat membentuk gambaran tentang kebiasaan online Anda, yang berarti dapat digunakan untuk melanggar privasi Anda.





# Menghapus cache penelusuran internet

File sementara seperti halaman web dan media online disimpan dalam cache.

Penghapusan akan mempercepat pengalaman menjelajah web.



# ○ Mengaktifkan pengaturan privasi di akun pribadi

## ACTIVITY CONTROLS

### Control what data gets saved

Using Activity Controls, you can decide what types of activity are tied to your account to personalize your experience across Google services. You can pause specific types of data from being saved in your account – like your Search and browsing activity, YouTube History, or Location History.

[Go to Activity Controls](#) 

## AUTO-DELETE

### Set your data to automatically delete

To give you even more control, Auto-delete settings let you choose a time limit for how long you want to keep your activity data. Data older than the limit you choose will be continuously and automatically deleted from your account. This makes it easy for you to set it and forget it, but you can always go back and update these settings at any time.

[Auto-delete your activity](#) 

## MY ACTIVITY

### Delete data from your account anytime

My Activity is the central place where you can find everything you've searched, viewed, and watched using our services. To make it easier to recall your past online activity, we give you tools to search by topic, date, and product. You can permanently delete specific activities or even entire topics that you don't want associated with your account.

[Go to My Activity](#) 





## Pengaturan dan Alat Privasi Dasar

---

### Memilih Pemirsa untuk Hal yang Anda Bagikan

Saat saya memposting sesuatu di Facebook, bagaimana cara memilih siapa yang bisa melihatnya? ▼

Bagaimana cara menggunakan daftar untuk berbagi ke sekelompok orang tertentu? ▼

Bagaimana cara mengubah pemirsa postingan yang telah saya bagikan di linimasa Facebook? ▼

Bagaimana cara mengontrol siapa yang bisa melihat profil dan linimasa Facebook saya? ▼

Bagaimana cara memilih siapa yang bisa melihat postingan sebelumnya di linimasa Facebook saya? ▼

### Mengelola Pengaturan untuk Cara Terhubung

Bagaimana cara menyesuaikan pengaturan privasi Facebook saya? ▼

Apa itu Pintasan Privasi Facebook dan bagaimana cara menemukannya? ▼

Apa itu Pemeriksaan Privasi dan bagaimana cara menemukannya di Facebook? ▼

Bagaimana cara mengubah orang yang bisa menambahkan saya sebagai teman di Facebook? ▼

Siapa yang bisa melihat foto profil dan foto sampul Facebook saya? ▼



## Clearview Face Recognition Scandal



(Source)

Clearview is an artificial intelligence company that created a face recognition system to help police officers identify criminals. They [claim](#) that their software has helped law enforcement agencies to track down many pedophiles, terrorists, and sex traffickers.

But in January 2020, The New York Times covered a [long story](#) about how Clearview made the mockery of data privacy by scraping around three billion photos of users from social media platforms like Facebook, YouTube, Twitter, Instagram, and Venmo to create the AI system. Its CEO, Mr. Ton-That, claimed that its system only scraped public images from these platforms. Shockingly in an [interview](#) with CNN Business, the software fetched the images from the Instagram account of the show's producer.

---

<https://www.red-gate.com/simple-talk/development/data-science-development/the-social-impact-of-artificial-intelligence-and-data-privacy-issues/>



## DeepFakes



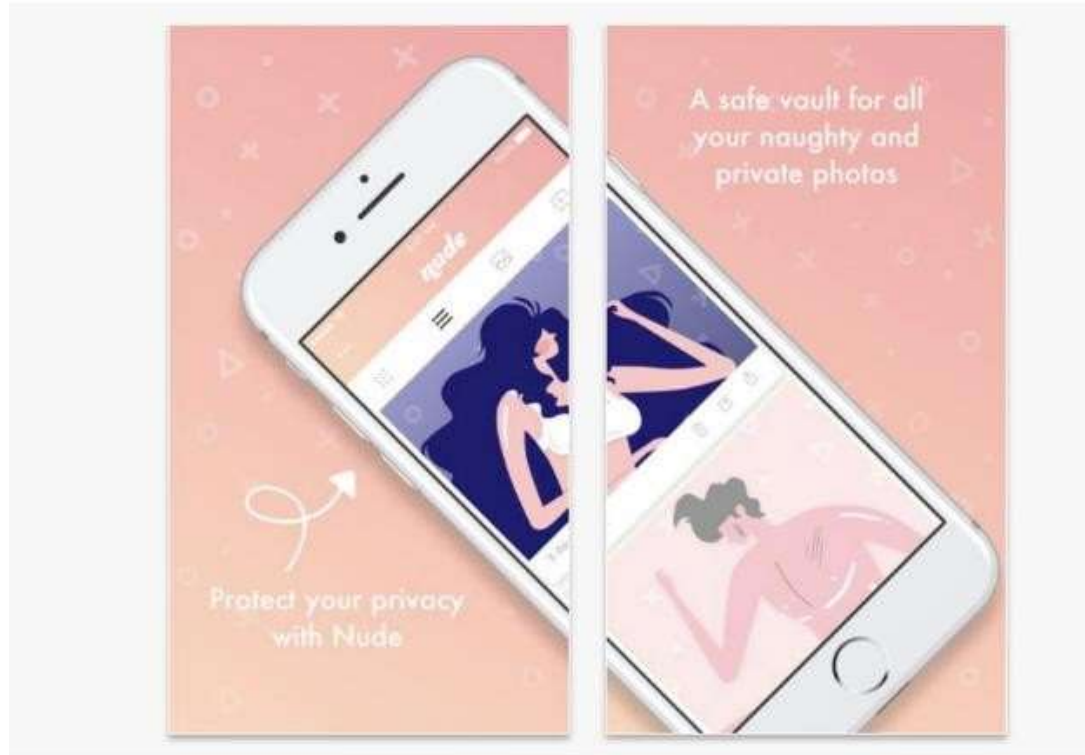
DeepFake puts the face of a person to another's body ([Source](#))

Images and videos that are created using deep learning and contain a real person acting or saying things they didn't do or say are called Deepfakes. If used for entertainment purposes, [Deepfakes](#) are fun, but people are creating Deepfakes for fake news and information and, worse, Deepfake porn.



# Nude app uses AI to automatically hide your most sensitive images

Brittany A. Roston - Oct 17, 2017, 4:40pm CDT



---

It's a horror story for the modern world: you show someone an image on your phone, only for them to start browsing uninvited. You snatch your phone away, hoping they didn't stumble across one of the intimate photos that may be residing, fully exposed, on your handset. Artificial intelligence may be the solution to this problem, and it comes in the form of an app called Nude.

---

# AI Fairness

---



Account Followed



First Three TikTok Recommendations

Black Woman



x



x



Blond Woman



x



x



Black Man



x



x



Asian Man



x



x



White Man,  
with beard please



x



x



<https://twitter.com/MarcFaddoul>



**Law:** fairness includes protecting individuals and groups from discrimination or mistreatment with a focus on prohibiting behaviors, biases and basing decisions on certain protected factors or social group categories.



**Social science:** “often considers fairness in light of social relationships, power dynamics, institutions and markets.”<sup>3</sup> Members of certain groups (or identities) that tend to experience advantages.



**Quantitative fields** (i.e. math, computer science, statistics, economics): questions of fairness are seen as mathematical problems. Fairness tends to match to some sort of criteria, such as equal or equitable allocation, representation, or error rates, for a particular task or problem.



**Philosophy:** ideas of fairness “rest on a sense that what is fair is also what is morally right.”<sup>4</sup> Political philosophy connects fairness to notions of justice and equity.

[https://haas.berkeley.edu/wp-content/uploads/What-is-fairness\\_-EGAL2.pdf](https://haas.berkeley.edu/wp-content/uploads/What-is-fairness_-EGAL2.pdf)



## Man is to Computer Programmer as Woman is to Homemaker? Debiasing Word Embeddings

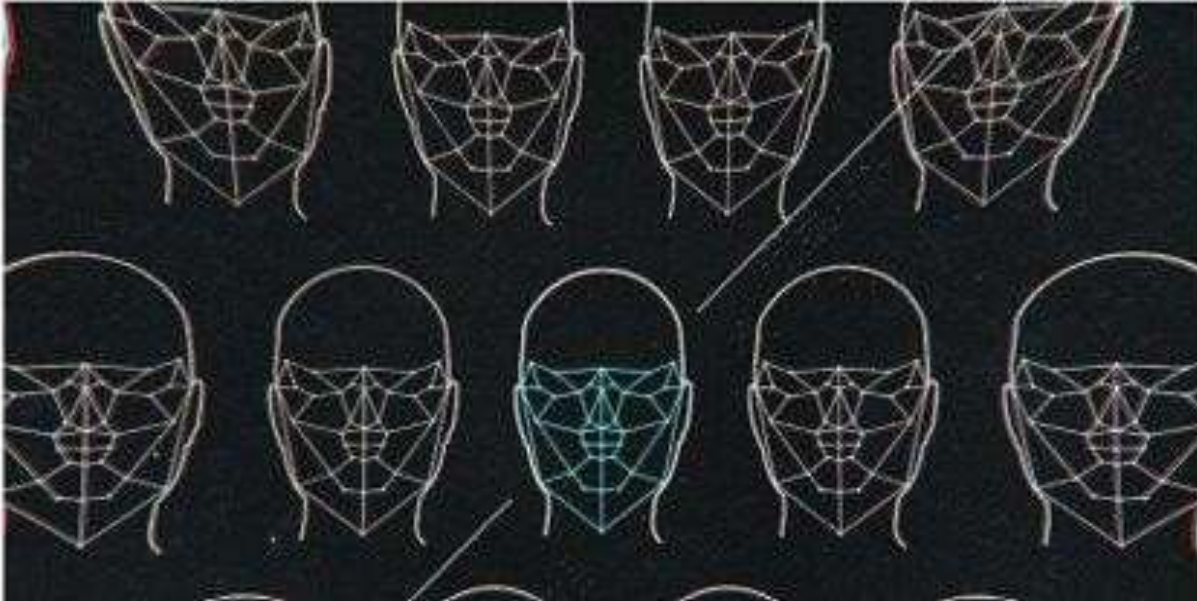
Tolga Bolukbasi, Kai-Wei Chang, James Zou, Venkatesh Saligrama, Adam Kalai

The blind application of machine learning runs the risk of amplifying biases present in data. Such a danger is facing us with word embedding, a popular framework to represent text data as vectors which has been used in many machine learning and natural language processing tasks. We show that even word embeddings trained on Google News articles exhibit female/male gender stereotypes to a disturbing extent. This raises concerns because their widespread use, as we describe, often tends to amplify these biases. Geometrically, gender bias is first shown to be captured by a direction in the word embedding. Second, gender neutral words are shown to be linearly separable from gender definition words in the word embedding. Using these properties, we provide a methodology for modifying an embedding to remove gender stereotypes, such as the association between the words receptionist and female, while maintaining desired associations such as between the words queen and female. We define metrics to quantify both direct and indirect gender biases in embeddings, and develop algorithms to "debias" the embedding. Using crowd-worker evaluation as well as standard benchmarks, we empirically demonstrate that our algorithms significantly reduce gender bias in embeddings while preserving its useful properties such as the ability to cluster related concepts and to solve analogy tasks. The resulting embeddings can be used in applications without amplifying gender bias.

Word embedding dilatih di artikel Google Berita menunjukkan dan pada kenyataannya melanggengkan stereotip berbasis gender di masyarakat



# Gender and racial bias found in Amazon's facial recognition technology (again)



/ Research shows that Amazon's tech has a harder time identifying gender in darker-skinned and female faces

data yang digunakan untuk melatih pengenalan wajah Amazon sebagian besar didasarkan pada wajah putih, yang menyebabkan masalah dalam mendeteksi wajah berkulit gelap



# Machine Bias

There's software used across the country to predict future criminals. And it's biased against blacks.

by Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, ProPublica

May 23, 2016

## Two Petty Theft Arrests



VERNON PRATER

LOW RISK

3



BRISHA BORDEN

HIGH RISK

8

*Borden was rated high risk for future crime after she and a friend took a kid's bike and scooter that were sitting outside. She did not reoffend.*

## Two Drug Possession Arrests



DYLAN FUGETT

LOW RISK

3



BERNARD PARKER

HIGH RISK

10

*Fugett was rated low risk after being arrested with cocaine and marijuana. He was arrested three times on drug charges after that.*

<https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>

- Pada tahun 2017, algoritma Facebook yang dirancang untuk menghapus ujaran kebencian online ditemukan untuk menguntungkan pria kulit putih daripada anak-anak kulit hitam saat menilai konten yang tidak pantas, menurut dokumen internal Facebook.
- Algoritma yang merupakan kombinasi dari program komputer dan peninjau konten manusia, dibuat untuk melindungi kategori yang luas daripada subkumpulan kategori tertentu. Misalnya, postingan yang mencela "Muslim" akan diblokir, sementara postingan yang mencela "Muslim Radikal" akan diizinkan.

#### MACHINE BIAS

## Facebook's Secret Censorship Rules Protect White Men From Hate Speech But Not Black Children

A trove of internal documents sheds light on the algorithms that Facebook's censors use to differentiate between hate speech and legitimate political expression.

by Julia Angwin, ProPublica, and Hannes Grassegger, special to ProPublica, June 28, 2017, 5 a.m. EDT



Inggris ↔ Indonesia

she is a nurse  
he is a doctor

dia adalah seorang perawat  
Dia seorang dokter

🔊 📄 🔊 Terverifikasi

Buka di Google Terjemahan • Masukan

Indonesia ↔ Inggris

dia adalah seorang perawat  
Dia seorang dokter

she is a nurse  
He is a doctor

🔊 📄 🔊

Buka di Google Terjemahan • Masukan

**Artificial Intelligence, if  
used wisely, holds great  
potential for human  
being**

---

