

The dangers of tech-determinism: Demystifying AI and reclaiming the future

Barbara Giovanelli
Policy Officer, Digital Ethics
European Data Protection Supervisor



Privacy is essential for upholding human dignity in the digital age.

AI & GDPR

Lawfulness, fairness and transparency of processing

Purpose limitation

Data minimisation

Storage limitation

Controllership and accountability

Right to be informed

Right not to be subject to a decision based solely on automated processing

...

personal data: “any information relating to an identified or identifiable natural person”

“Not everything that is legally compliant and technically feasible is morally sustainable.”

Giovanni Buttarelli, European Data Protection Supervisor,
at ICDPPC 2018

For what purposes, by whom and for the benefit of whom?

The myth of an alleged “artificial intelligence”
leads us to ignore the limitations of big data analytics.

“The result produced by the machine, using more and more sophisticated software ... has an apparently objective and incontrovertible character to which a human decision-maker may attach too much weight, thus abdicating his own responsibilities.”

European Commission, Amended proposal for Data Protection Directive 1992

“AI” fixes social categories rather than developing them.

DIAGNOSTIC
AND
STATISTICAL
MANUAL OF

MENTAL
DISORDERS



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SECOND EDITION (DSM-II)

AMERICAN PSYCHIATRIC ASSOCIATION

Artificial intelligence (AI)

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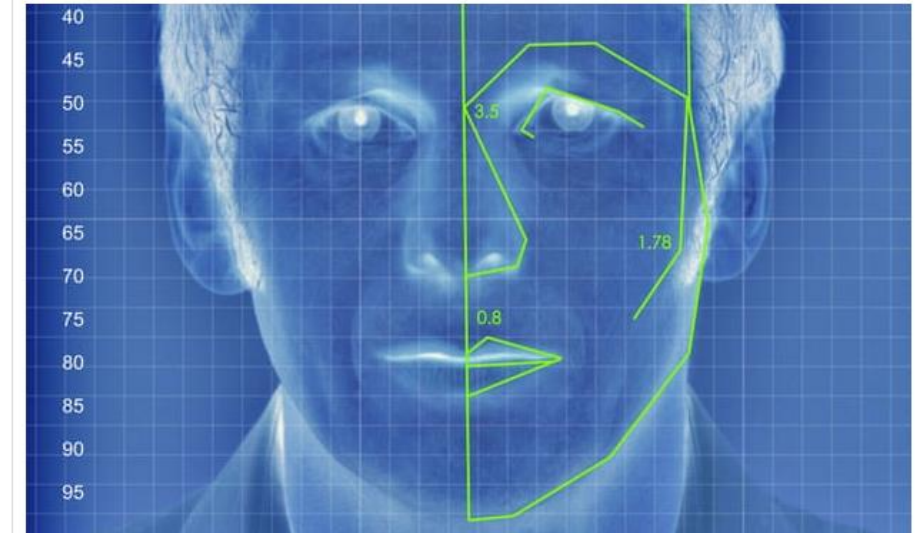


61,261

This article is over 1 year old

New AI can guess whether you're gay or straight from a photograph

An algorithm deduced the sexuality of people on a dating site with up to 91% accuracy, raising tricky ethical questions



▲ An illustrated depiction of facial analysis technology similar to that used in the experiment. Illustration: Alamy

Artificial intelligence can accurately guess whether people are gay or straight based on photos of their faces, according to new research that suggests machines can have significantly better “gaydar” than humans.

The [study](#) from Stanford University - which found that a computer algorithm could correctly distinguish between gay and straight men 81% of the time, and 74% for women - has raised questions about the biological origins of sexual orientation, the ethics of facial-detection technology, and the

sexuality of people on a dating site with tricky ethical questions

Do algorithms reveal sexual orientation or just expose our stereotypes?



Blaise Agüera y Arcas [Follow](#)

Jan 11, 2018 · 15 min read

by Blaise Agüera y Arcas, [Alexander Todorov](#) and [Margaret Mitchell](#)

A [study](#) claiming that artificial intelligence can infer sexual orientation from facial images caused a [media uproar](#) in the Fall of 2017. The Economist featured this work on the cover of their [September 9th](#) magazine; on the other hand two major LGBTQ organizations, The Human Rights Campaign and GLAAD, immediately labeled it “[junk science](#)”. Michal Kosinski, who co-authored the study with fellow researcher Yilun Wang, initially expressed surprise, calling the critiques “knee-jerk” reactions. However, he then proceeded to make even [bolder claims](#): that such AI algorithms will soon be able to measure the intelligence, political orientation, and criminal inclinations of people from their facial images alone.

Kosinski’s controversial claims are nothing new. Last year, two computer scientists from China posted a non-peer-reviewed paper online in which they argued that their AI algorithm correctly categorizes “criminals” with nearly



...sis technology similar to that used in the experiment. Illustration: Alamy

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“COMPAS is an algorithm widely used in the US to guide sentencing by predicting the likelihood of a criminal reoffending. In perhaps the most notorious case of AI prejudice, in May 2016 the US news organisation ProPublica reported that COMPAS is racially biased. According to the analysis, the system predicts that black defendants pose a higher risk of recidivism than they do, and the reverse for white defendants. Equivant, the company that developed the software, disputes that.

It is hard to discern the truth, or where any bias might come from, because the algorithm is proprietary and so not open to scrutiny. But in any case, if a study published in January this year is anything to go by, when it comes to accurately predicting who is likely to reoffend, it is no better than random, untrained people on the internet.”

New Scientist, April 2018

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New Scientist, April 2018

February 19, 2019

Predictive policing in DOJ-cited jurisdictions is bad policy, AI Now says

The NYU-based research group studied 13 law enforcement agencies and found that nine used data collected during periods of unreliable policing

Written by Beryl Lipton

Edited by Miranda Spivack

The AI Now Institute is calling for checks on the datasets used by predictive policing systems because of concerns that the technology can perpetuate, rather than address, “dirty” policing practices.

Recognising the limitations of machines
can help us take ethical decisions on their use.

“Let's face it, technological determinism is terrible politics.”

Matthew Taylor, December 2018, Wired

“When individuals are treated not as persons but as mere temporary aggregates of data processed at an industrial scale, they are arguably, not fully respected, neither in their dignity nor in their humanity.”

EDPS Ethics Advisory Group, 2018



Ethics Advisory Group

REPORT
2018



“Ethics is not supposed to be easy. Ethics is not there to be convenient. Ethics is there to challenge your views and notions and convictions on a daily basis. Ethics is nothing static, it needs to be agile because as a society we are constantly changing.”

Sandra Wachter, EDPS #DebatingEthics Podcast

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Google has launched an AI ethics board—but is already taking flak

The search giant hopes that a team of philosophers, engineers, and policy experts will help it navigate the moral hazards presented by AI—and steer clear of controversy, [reports Will Knight](#).

The news: Kent Walker, Google's senior vice president for global affairs and chief legal officer, announced the creation of the new independent body at MIT Technology Review's [EmTech Digital](#) yesterday. The Advanced Technology External Advisory Council (ATEAC) will help determine if the company's projects contravene its own AI principles. The council will not have a set agenda and it will not have the power to veto projects itself. But Walker said the group's reports "will help keep us honest."

The members: The first ATEAC will feature a philosopher, an economist, a public policy expert, and several researchers on data science, machine learning, and robotics.

Backlash: The announcement has already provoked a backlash from some AI experts. Some question the inclusion of Dyan Gibbens, CEO of a drone company, and Kay Coles James, president of the Heritage Foundation, a controversial conservative think tank. Read the full story [here](#).

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The search giant hopes that a team of philosophers, engineers, and policy experts will help it navigate the more controversial, [reports Will Knight](#)

The news: Kent Walker, Google's legal officer, announced the Technology Review's [EmTe](#) Advisory Council (ATEAC) and its own AI principles. The company has the power to veto projects itself. "I want to be honest."

The members: The first ATAC member is a policy expert, and several are from the robotics field.

Backlash: The announcement has drawn criticism from experts. Some question the council's independence, and Kay Coles James, president of the conservative think tank. [Read more](#)

TECHNOLOGY

The City of the Future Is a Data-Collection Machine

In Toronto, Alphabet, Google's parent company, hopes to create the sensor-filled metropolis of tomorrow.

SIDNEY FUSSELL NOV 21, 2018

In Silicon Valley, to make a device “smart” means to add internet connectivity, allowing it to collect, send, and receive data, often while learning and adapting to user preferences. The technology industry has invested wholesale in the idea that “smart” means better, and so we have [smart speakers](#), [smart thermometers](#), [smart baby monitors](#), [smart window shades](#), and [smart sex toys](#), all perpetually collecting rich user data to send back to company servers.

Under which conditions can ethics committees be influential?

Good AI to be competitive in the global marketplace,
or good AI for the sake of good AI?

Europe's silver bullet in global AI battle: Ethics

EU experts hope 'trust' will prove to be the bloc's competitive edge.

By JANOSCH DELCKER | 3/17/19, 6:00 PM CET | Updated 3/20/19, 7:52 AM CET

Critics like the ITIF's Castro remain doubtful.

“This idea of ethics-by-design, it undercuts the idea that at the end of the day, this is still a market-based economy,” he said. “You have to create something of ... more value than your competitors.”

“Privacy is the legal recognition of the resistance or reticence to behaviour steered or induced by power. From this point of view, privacy in a constitutional democratic state represents a legal weapon against the development of absolute balances of power, again proving privacy's essential role in such a state.”

Serge Gutwirth & Paul De Hert, 2006

Big Data Analytics & GDPR

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What is our vision and how can we use tech to get there, and not let tech drive it?

Thank you!

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