Ethical Algorithms // Art and Data as Political Tools

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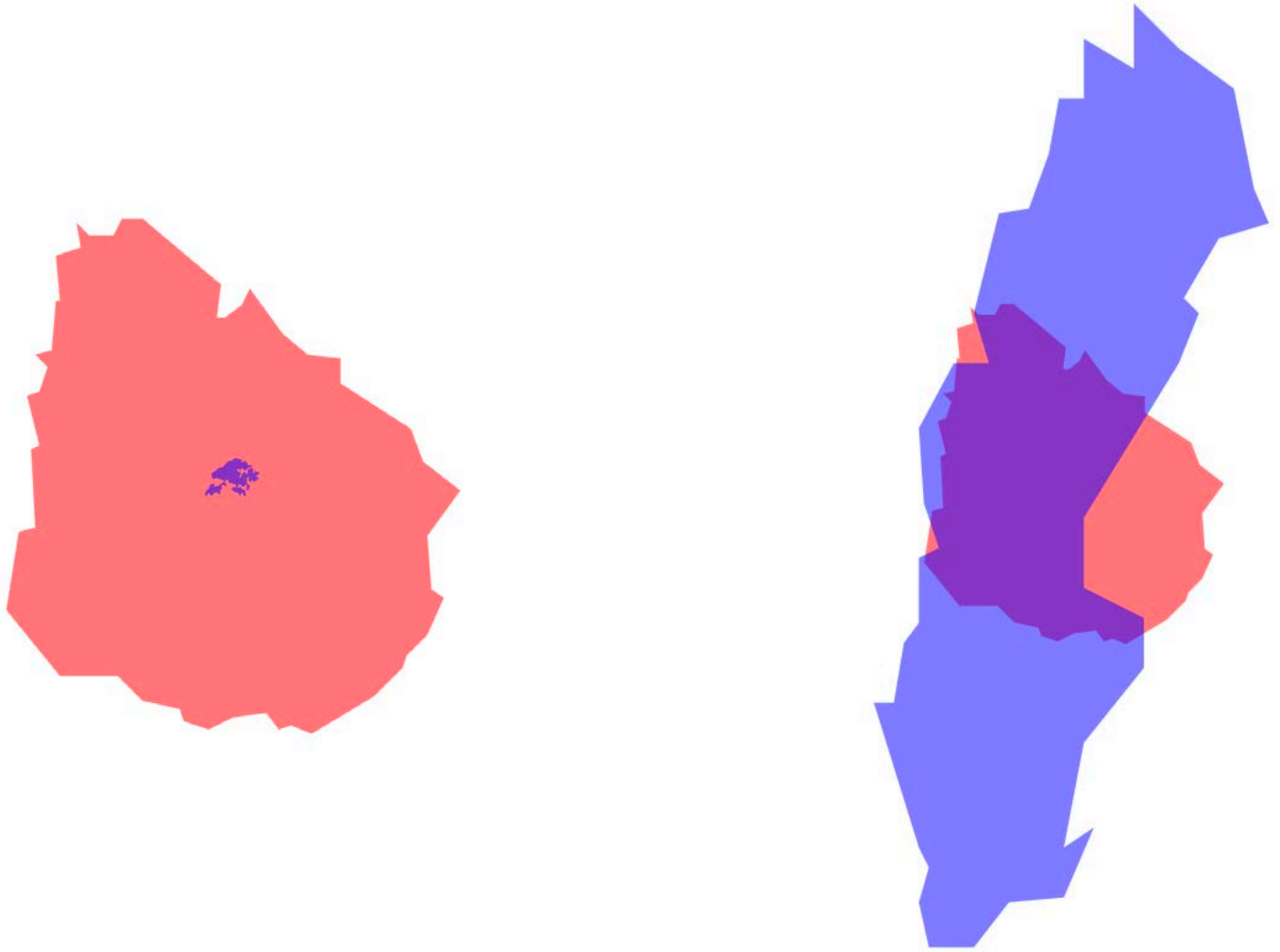


artist, designer, researcher, computer scientist

aesthetics, politics, and philosophy.

art

new media art

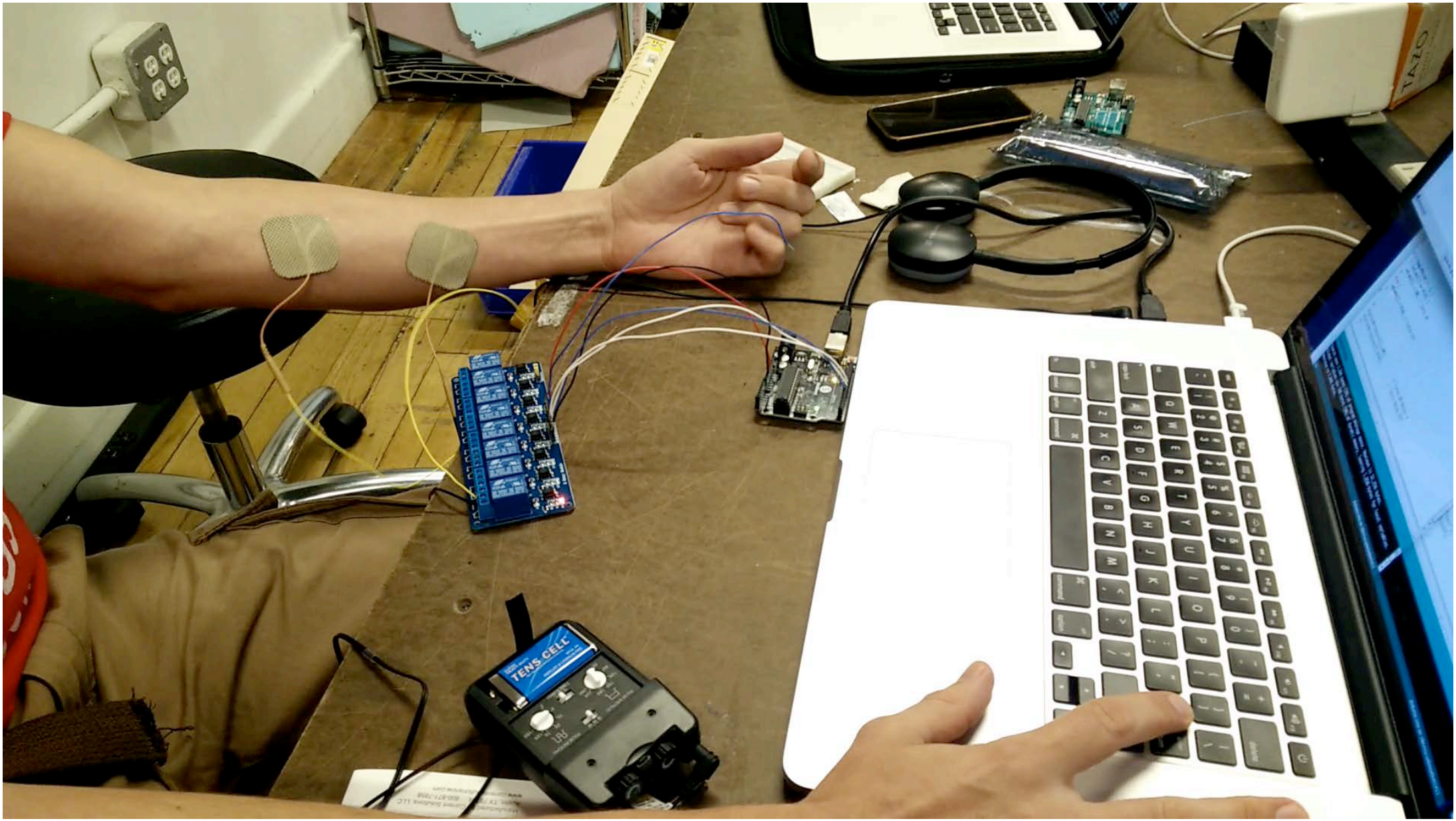
new media art

art that becomes possible when artists appropriate the knowledge behind technology

new media art

art that becomes possible *when artists appropriate the knowledge behind technology*

appropriation of the processes of creation of new knowledge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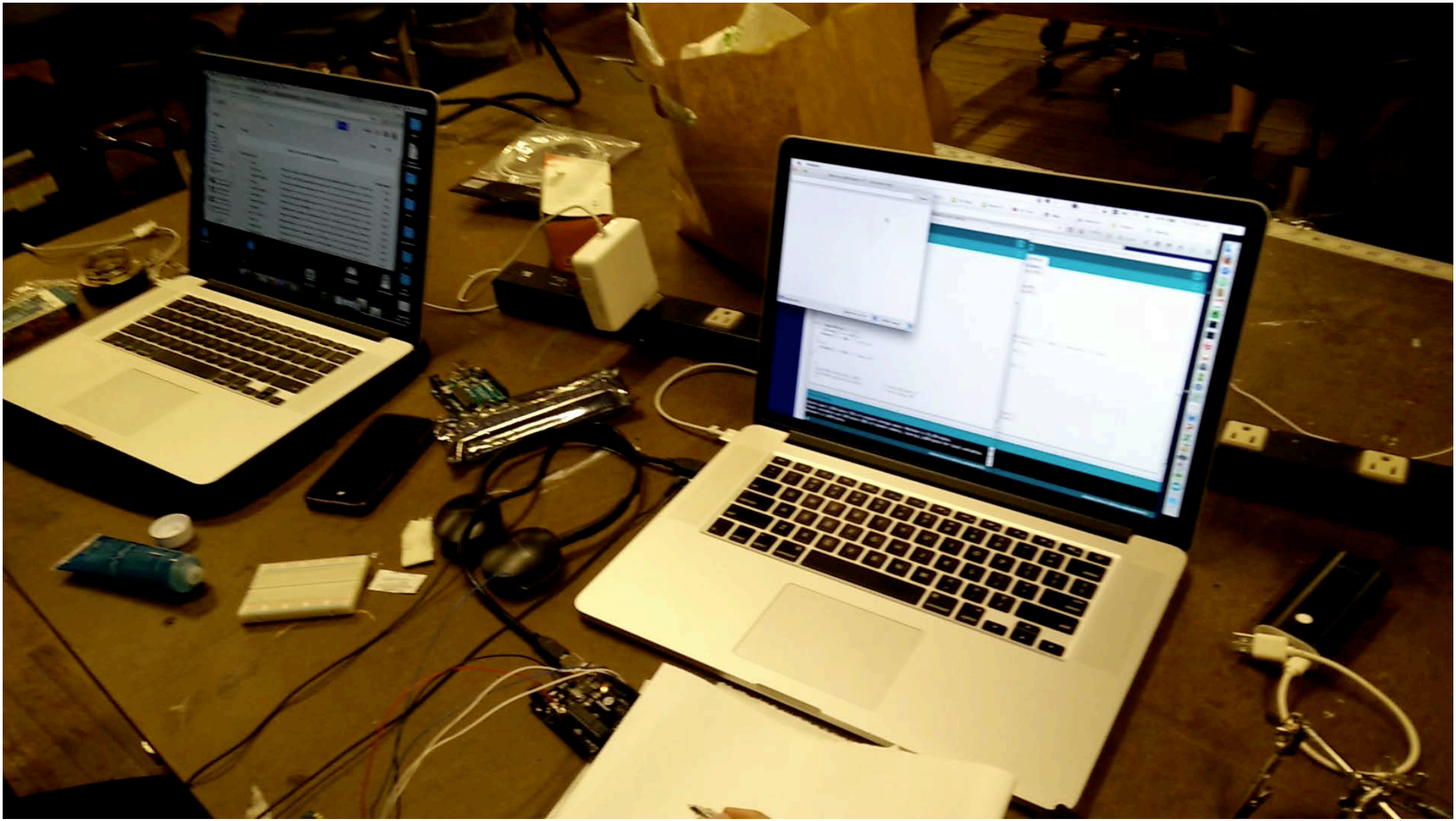
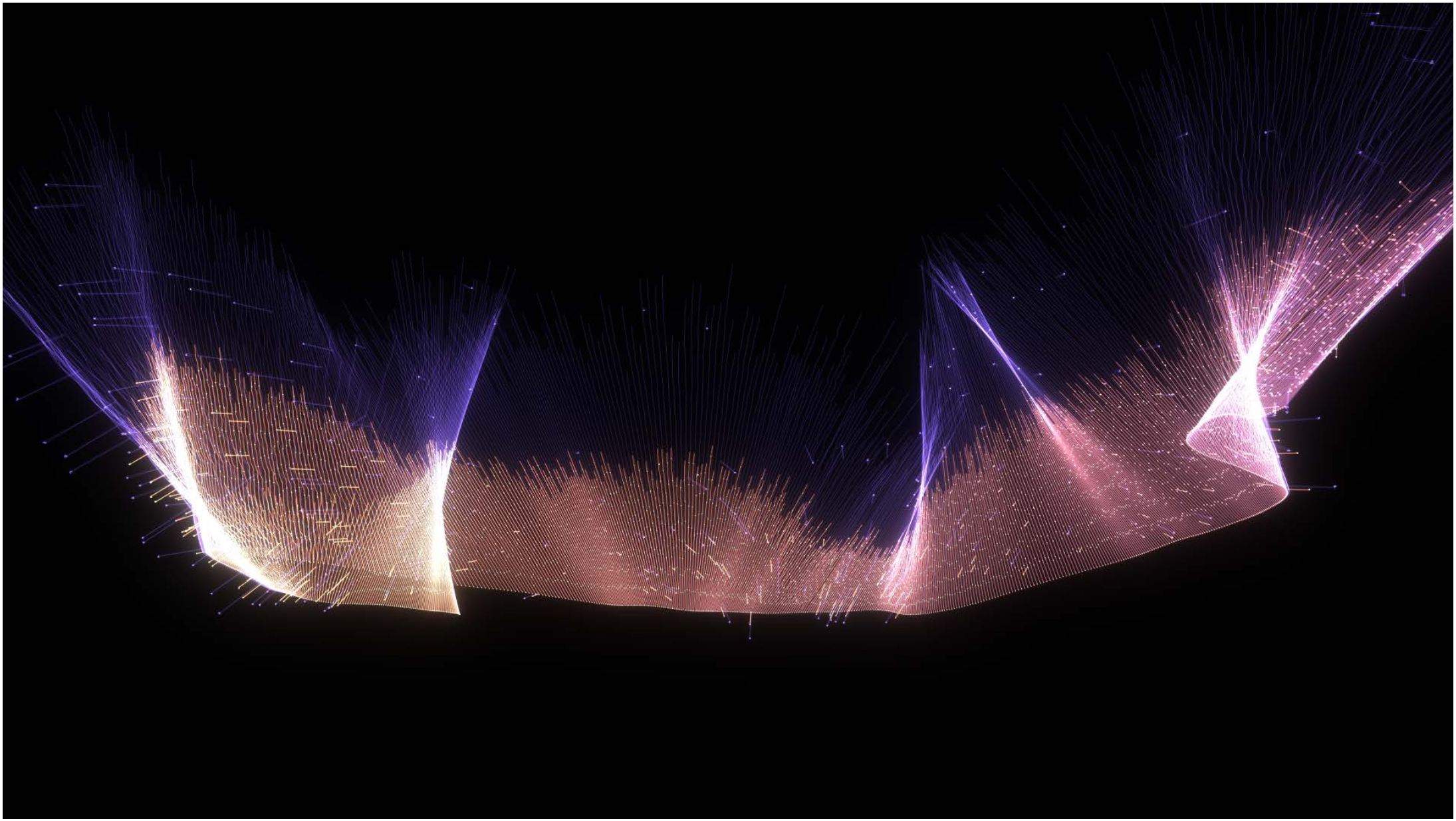
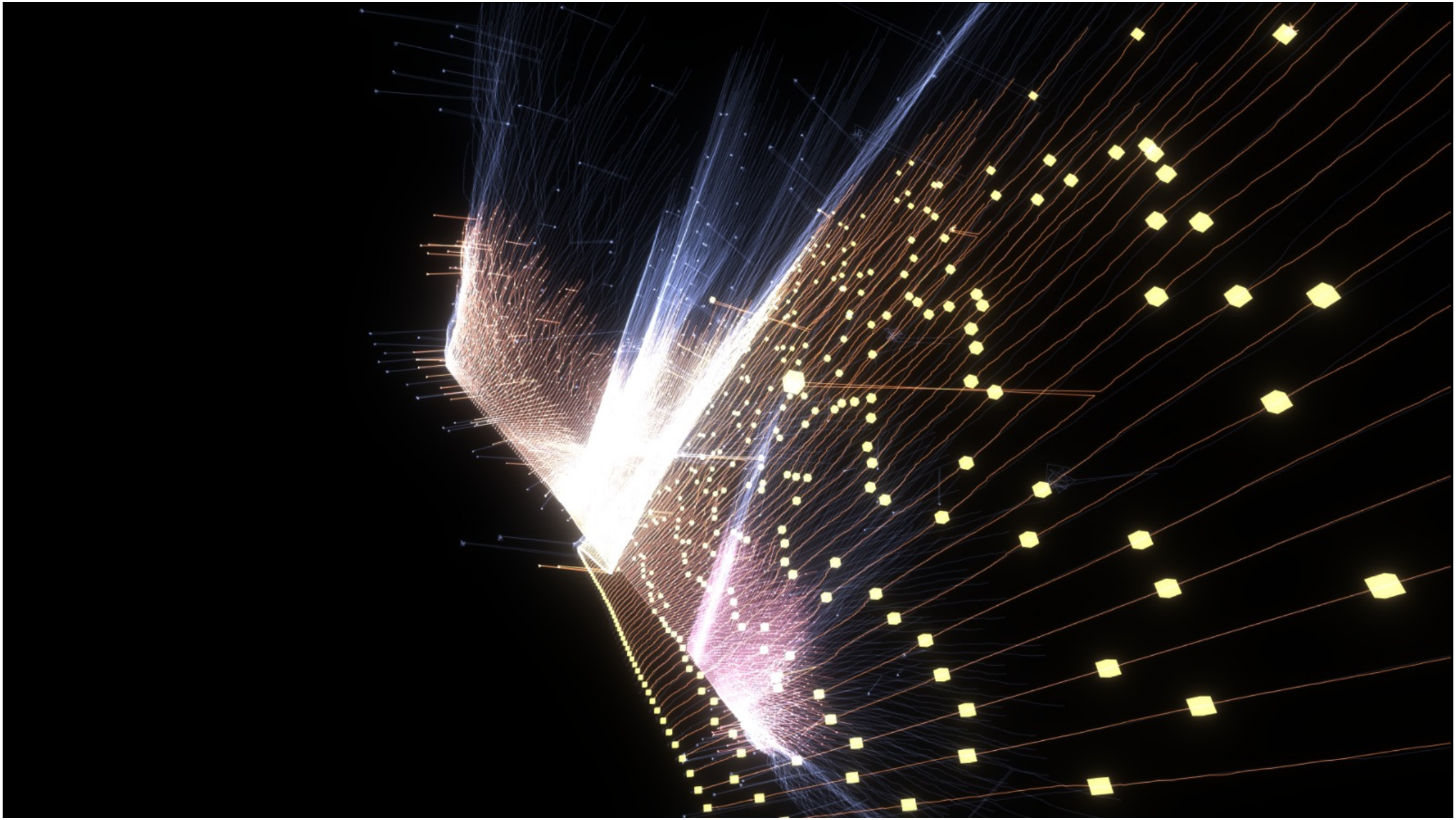







UBER
ADVANCED
TECHNOLOGIES
CENTER
UBERATC.COM/CAR

...and politics

The New York Times

Wielding Rocks and Knives, Arizonans Attack Self-Driving Cars

A Waymo autonomous vehicle in Chandler, Ariz., where the driverless cars have been attacked by residents on several occasions. Caitlin O'Hara for The New York Times

By Simon Romero

Dec. 31, 2018

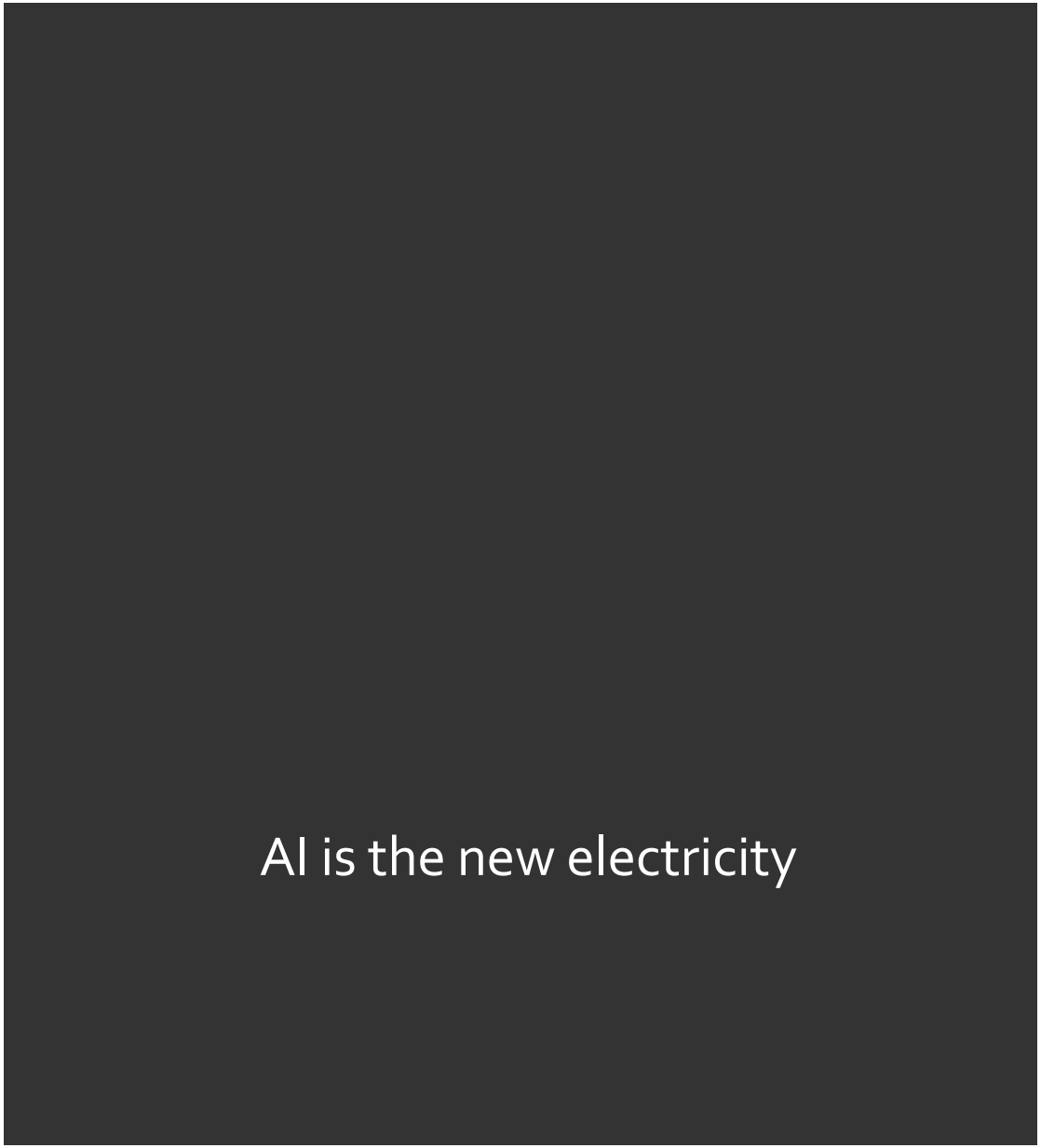
1203

i) hype
ii) tech
iii) impact
iv) critical design

1

Hype

reality is political, not technological



there seems to be consensus in the world about the importance of AI…


Against Nation-State Cyberthreats


Cybersecurity Threats Are


Board's Role When It Comes to Cybersecurity


Really Worry About the Banks' Cybersecurity


of Whe Learne Breach

BUSINESS | JOURNAL REPORTS: LEADERSHIP

How Artificial Intelligence Will Change Everything

Baidu's Andrew Ng and Singularity's Neil Jacobstein say this time, the hype about artificial intelligence is real

From The Experts

Companies Hate to Sell Business Units. That's a Big Mistake.

My Company's Single Most Crucial Hire

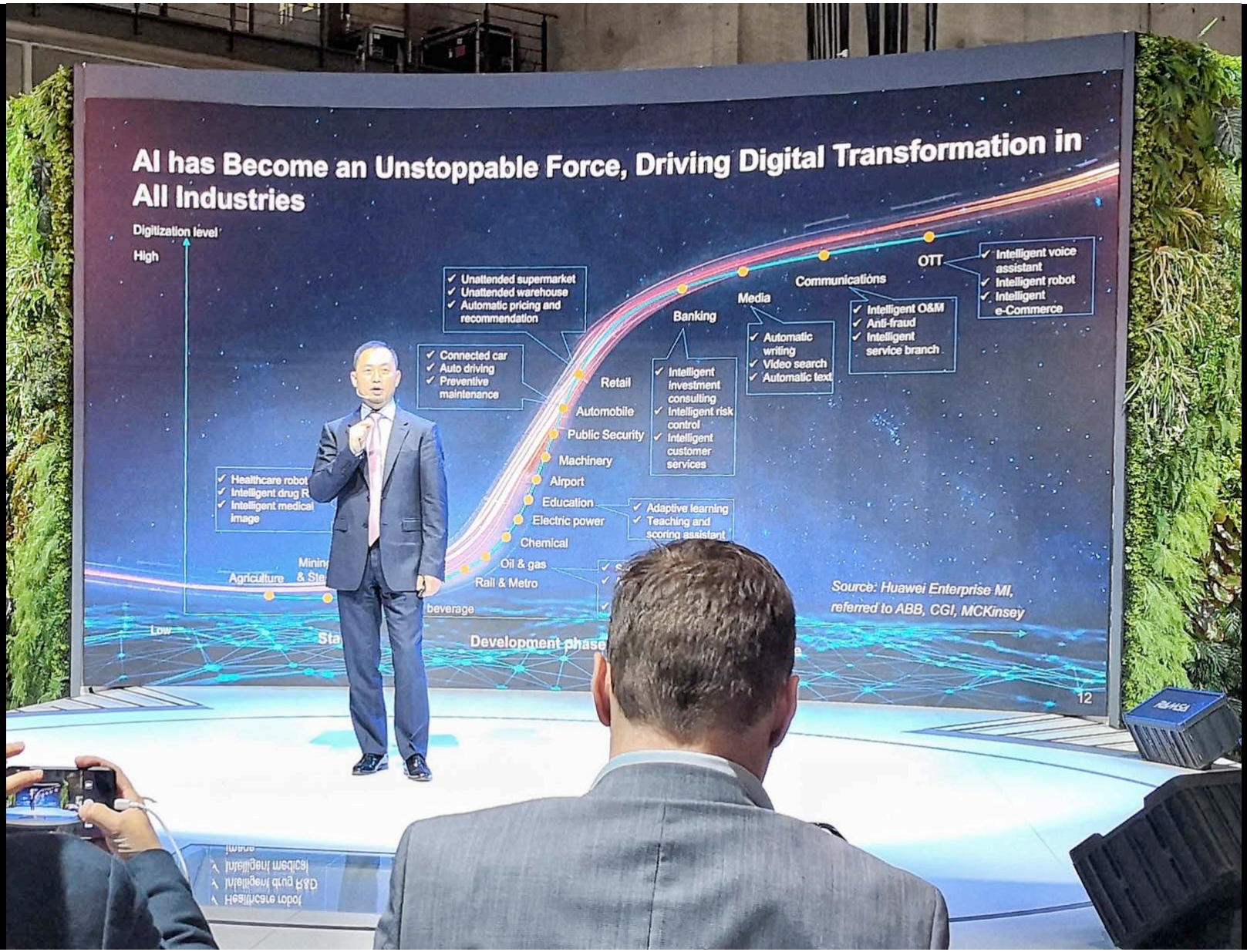
Bosses Say They Want Employee Input. Then They Ignore It.

A Simple Way to Retain the Best Employees

Get Ready for Food as a Management Tool

I think artificial intelligence is going to change everything, everything, 180 degrees

Mark Cuban


AI has Become an Unstoppable Force, Driving Digital Transformation in All Industries
Digitization level
High
Low
Development phase
Unattended supermarket
Unattended warehouse
Automatic pricing and recommendation
Connected car
Auto driving
Preventive maintenance
Healthcare robot
Intelligent drug R
Intelligent medical image
Retail
Automobile
Public Security
Machinery
Airport
Education
Electric power
Chemical
Oil & gas
Rail & Metro
Agriculture
beverage
Banking
Intelligent investment consulting
Intelligent risk control
Intelligent customer services
Media
Automatic writing
Video search
Automatic text
Communications
Intelligent O&M
Anti-fraud
Intelligent service branch
OTT
Intelligent voice assistant
Intelligent robot
Intelligent e-Commerce
Adaptive learning
Teaching and scoring assistant
Source: Huawei Enterprise MI, referred to ABB, CGI, MCKinsey
12

ARS ELECTRONICA FESTIVAL 2017

THEME PROGRAM LOCATIONS FAQ BLOG PRESS PARTNER | EN DE

AI

Artificial Intelligence
Das andere Ich / The Other I

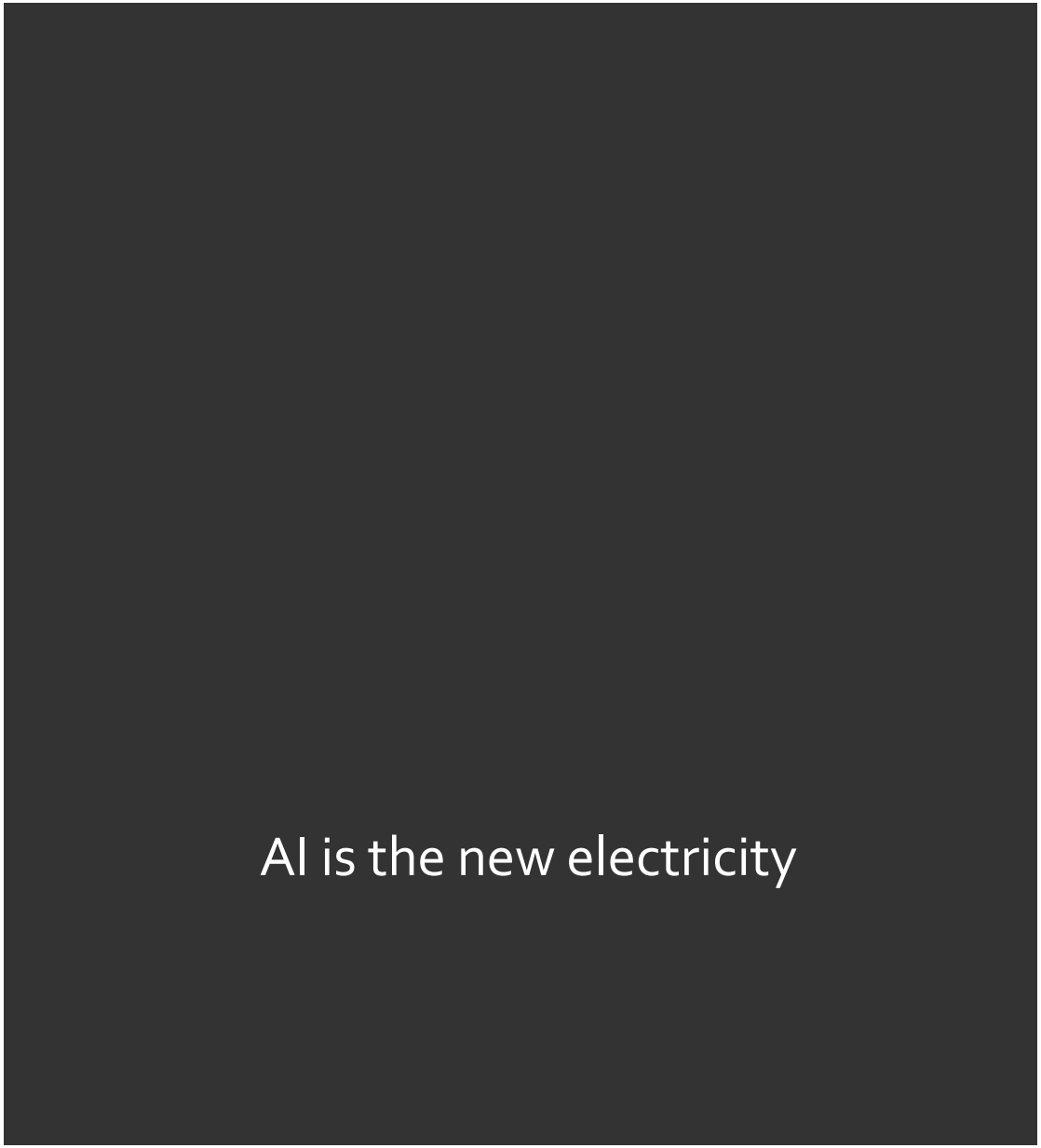
Credit: Ramiro Joly-Mascheroni & Aline Sardin-Dalmasso

ARS ELECTRONICA

Festival for Art, Technology and Society

POSTCITY Linz, September 7-11, 2017

reality is political, not technological



THE UPSHOT EMILY BADGER

Tech Eyes the Ultimate Start-Up: An Entire City

SAN FRANCISCO

FOR all the optimism, innovation and wealth that are produced here, the Bay Area can also feel like a place that doesn't work quite right.

The cost of housing has priced out teachers and line cooks. Income inequality is among the widest in the nation. The homeless crisis never seems to ebb. Traffic is a mess. On bad days, transit is, too. And local governments are mired in conflict.

Clearly, the region has not been optimized.

"It could be so much better," said Ben Huh, who moved to San Francisco in 2010 after selling the Cheezburger blog empire in Seattle. "There's so much wealth. There's so much opportunity."

In the meandering gap between how this place functions and how inventors and engineers here dream it should, many have become enamored with the same idea: What if the people who build circuits and social networks could build cities, too? Wholly new places, carved out from scratch and freed from broken politics.

Mr. Huh leads a program within the start-up accelerator Y Combinator to explore the creation of new cities. Hundreds applied to work on what would be "the ultimate full-stack start-up." In October, Sidewalk Labs, an Alphabet subsidiary, announced it would team up with a government agency in Toronto to redevelop a stretch of the city "from the internet up."

For others in tech — intrigued by plans of a proposed smart city in Arizona, a Bitcoin land grab in Nevada, a special economic zone in Honduras — fantasizing about newly built cities has become a side gig. They dream of utopias with driverless cars, radical property-ownership models, 3-D-printed houses and skyscrapers assembled in days.

While some urban planners roll their eyes, it is true that America's cities have always built on somebody's hubris, whether the characters who plotted Manhattan's street grid, or those who installed the Golden Gate Bridge.

"Who were these guys who were thinking so big? The the question is whether those people are visionaries or the former chief economist at the World Bank, whose ideas (and TED talks) on new "charter cities" have influenced some in tech. "Tech types — as much as people might talk about the parochial way they're approaching it — deserve credit for thinking bigger than anybody in government right now."

Their interest has an internal logic to it. The tech industry tries to produce better versions of familiar things — cheaper phones, smaller computers, faster chips.

But cities like San Francisco don't seem to be evolving into more efficient versions of themselves. And if you take literally the economist Ed Glaeser's assertion in "Triumph of the City" that cities are our greatest invention, it ought to be possible to reinvent them.

The idea isn't such a stretch, the dreamers say, when Elon Musk is already shooting rockets into space and trying to bore tunnels for a transit "hyperloop."

"You now have a lot of people who have seen a kind of success already. Well, how about 1 more up?" What's next? Instead of starting a multibillion-dollar company," said JD Ross, the 27-year-old co-founder of Opendoor, a home-buying company that has been valued by investors at more than $1 billion. "We have the home button on our phone, so have the home button in every app. But it really comes down to people's actual stories — that much more important."

To planners and architects, all of this sounds like the latest of newcomers who are mistaking political problems for engineering puzzles.

Utopian city-building schemes have [illegible] "What we need, they say, is to fix the cities we already have, not to set off in search of new ones. But it is hard to overstate the degree to which such entrepreneurs are looking at the world in ways that would be familiar to most unrecognizable to anyone already working on urban problems.

Mayor Mr. Huh stepped down from Cheezburger in 2015, he took a sabbatical abroad that brought him to the Ukrainian port city of Dubrovnik. In the old city there, he watched Americans disembark from a cruise ship coforever the Old World architecture and narrow streets.

Mr. Huh had the same epiphany that many urban planning students have brought back from study abroad: Americans love these environments, but we've made it impossible to build them here. Instead, we encourage sprawl, subsidize car culture and design around cars. And then we export that to the rest of the world.

The model cities Mr. Huh and others in tech envision are far different from what many urbanists want. They want to create walkable, mixed-use neighborhoods around hyperloop lines that will travel faster than any transit system in the world on affordable housing. Instead of the shortage of it looks to them less like a matter of politics and more like a problem construction technology can solve.

"We have not affected the fundamental building blocks of infrastructure and society," Mr. Huh said. "We [illegible] tech," he added, gesturing to his laptop. "We've made the new things better. We haven't made the old things better."

In thinking about how to do this, people in tech prize "first principles," a concept that suggests that historical awareness and traditional expertise can get in the way of breakthrough ideas.

The approach has worked before. Uber wouldn't exist if Travis Kalanick had begun by researching how taxis were regulated around the world. Uber instead produced a service that violated those rules and changed how millions of people travel.

Yet cities, this means stripping away the lessons of other utopias, the building codes that shape San Francisco, the political dynamics that block change.

"Humans currently live in cities that are the equivalent of early prototypes," said Jonathan Swanson, a co-founder of the company Quadrack, which connects customers to professionals like house painters and wedding officiants. If someone built a better version of San Francisco — the [illegible] people would flock there, people would demand [illegible] he said. One new city would benefit millions of others who never leave them.

"When you have competition, you get 10% versus Apple or Lyft versus Uber," Mr. Swanson said. "Without competition, we get cities that are like the last of the D.M.V."

There is a thread running through the past, however, that is not just about urban history, but also tech's own history. In the 1960s, people were equally convinced, as Hubert Humphrey put it, that "the techniques that are going to put a man on the moons are going to be exactly the techniques that we are going to need to clean up our cities."

At the time, NASA and the Department of Housing and Urban Development collaborated on ideas for "urban control systems." Lunar landing simulators were used to study city environments. Companies promised space-age cities built from scratch.

"It's very easy to get a sense of déjà vu," said Nicholas de Monchaux, a designer and Berkeley professor who describes

mize for affordable housing, but then you may create a more crowded city than residents want. You could design a city so that every [illegible] (as was the Chinese fried). But that might mean the city isn't dense enough to support diverse restaurants and mass transit.

These [illegible] demand political choices. And [illegible] hoping to avoid politics are bound to encounter them again.

Of the techno-urbanists, Alphabet's Sidewalk Labs seems to be closest to actually creating something. The company, run out of New York City by the former deputy mayor Jeff Doctoroff, launched after a year of study that needed a [illegible] blank slate to truly innovate.

With too many people or buildings already in place, it could only [illegible]

The people who brought us apps and gadgets want to remake urban areas.

Toronto had what Sidewalk Labs had been looking for — roughly 800 acres of underused waterfront that could be reimagined as a neighborhood, if not a full metropolis, with driverless cars, prefabricated construction and underground channels for robot deliveries and trash collection. The company is in the middle of a year of public meetings around a pilot phase of the project. Sidewalk Labs could ultimately become the co-master planner for the full site, alongside a government organization that manages it.

Mr. Huh would not say what form Y Combinator's project would ultimately take. The group has announced no plans for land or government power. But Mr. Ross described [illegible] as "doing the most short" one that's still trying to solve the affordable housing problem that Y Combinator believes [illegible] to every thing else.

Whatever else tech's urban impulse won't come from anything like the hyperloop or with new North American cities. It could come in the developing world, where some economists who have inspired the would-be city builders are hoping tech will earn its ambition.

Mr. Glaeser poses a question that is less provocative — and perhaps more productive — than how to build a better San Francisco. "The first order thing," he said, "is how can we get mass-produced plastic housing for slums in a way that's sanitary and really, really cheap?"

Mr. Ross, the 27-year-old entrepreneur, is still pondering the right target.

"I'm going to put a million into this as soon as I can figure out how," he said, sitting in a coffee shop and [illegible] corner of San Francisco full of construction cranes, where the city is reinventing itself more slowly than he would like.

"It's better," he said, "than [illegible]


STOP
4-WAY

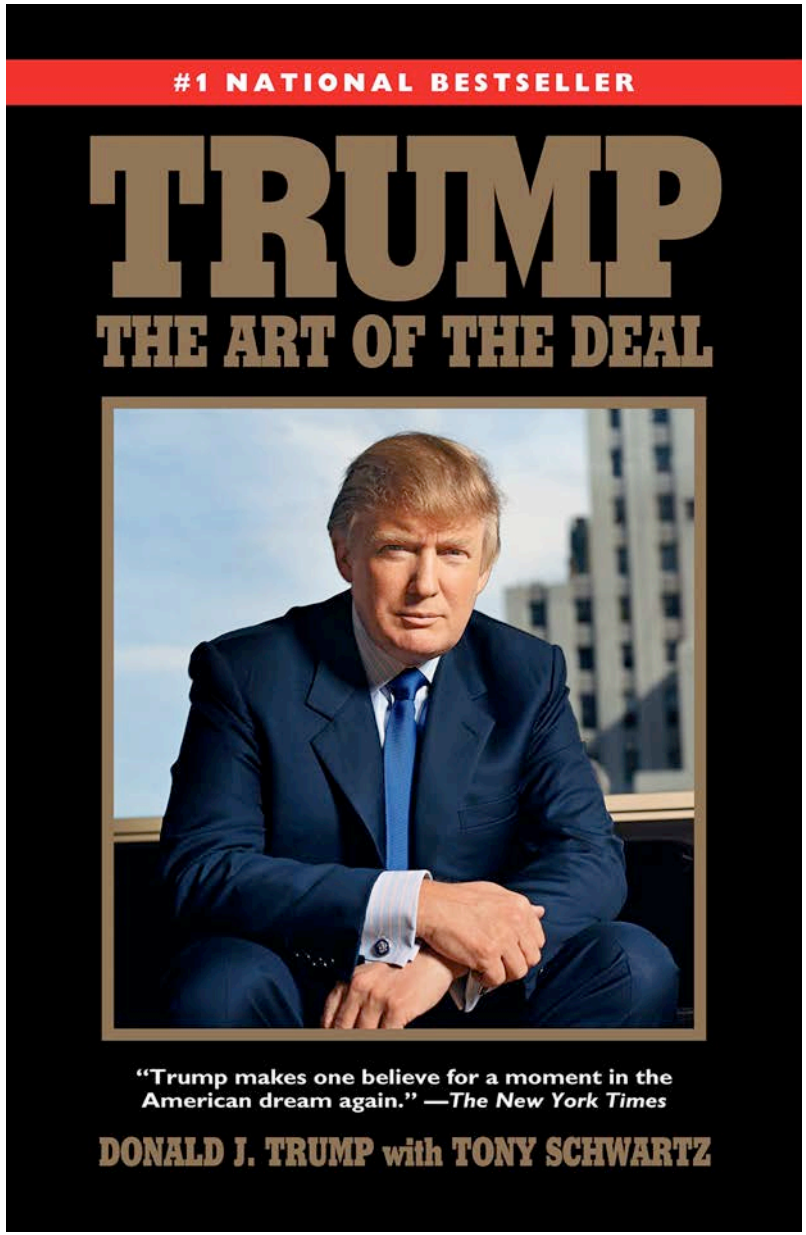

POINT BLANK
BODY ARMOR

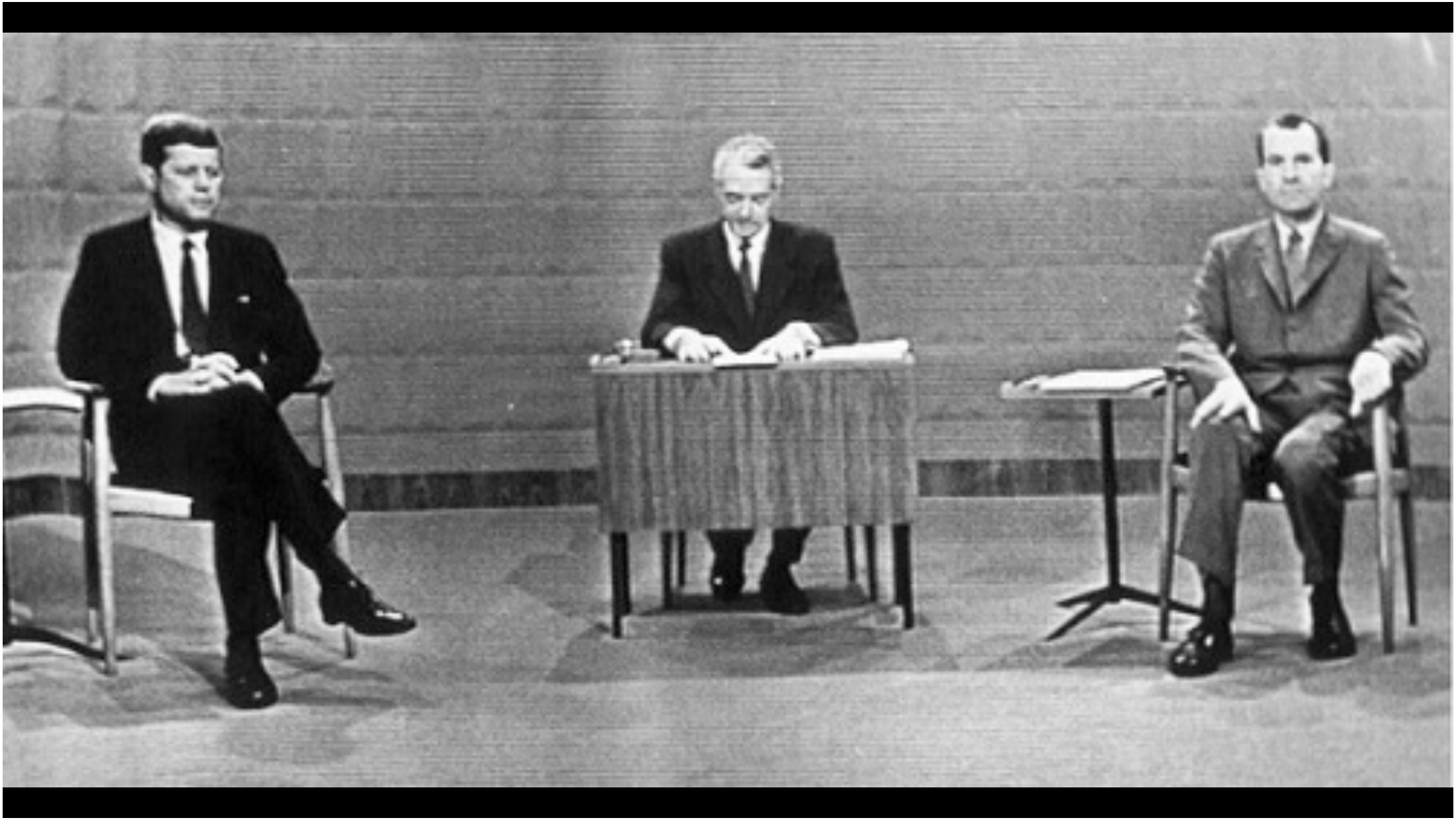
Greta Thunberg @GretaThunberg · 4m

The climate- and ecological crisis can no longer be solved within today's political and economic systems. That's not an opinion. It's just simple maths.

#ClimateEmergency

AI brings technology t political campaigns…





SARAH LAI STIRLAND SECURITY 11.04.08 08:25 PM

PROPELLED BY INTERNET, BARACK OBAMA WINS PRESIDENCY

Barack Obama was elected the 44th president of the United States
Tuesday night, crowning an improbable two-year climb that owes much of its success to his command of the internet as a fundraising and organizing tool.

Both Obama and Republican rival John McCain relied on the net to bolster their campaigns**. But Obama's online success dwarfed his opponent's, and proved key to his winning the presidency**. Volunteers used Obama's website to organize a thousand phone-banking events in the last week of the race – and 150,000 other campaign-related events over the course of the campaign.

Supporters created more than 35,000 groups clumped by affinities like geographical proximity and shared pop-cultural interests. By the end of the campaign, **myBarackObama.com chalked up some 1.5 million accounts.** And **Obama raised a record-breaking $600 million in contributions from more than three million people**, many of whom donated through the web.

"He's run a campaign where he's used very modern tools, spoke to a new coalition, talked about new issues, and along the way, **he's reinvented the way campaigns are run,**" says Simon Rosenberg, president and founder of the nonprofit think-tank NDN, and a veteran of Bill Clinton's first presidential campaign. "Compared to our 1992 campaign, this is like a multi-national corporation versus a non-profit."

…but AI creates believable “fake news”


CLICK
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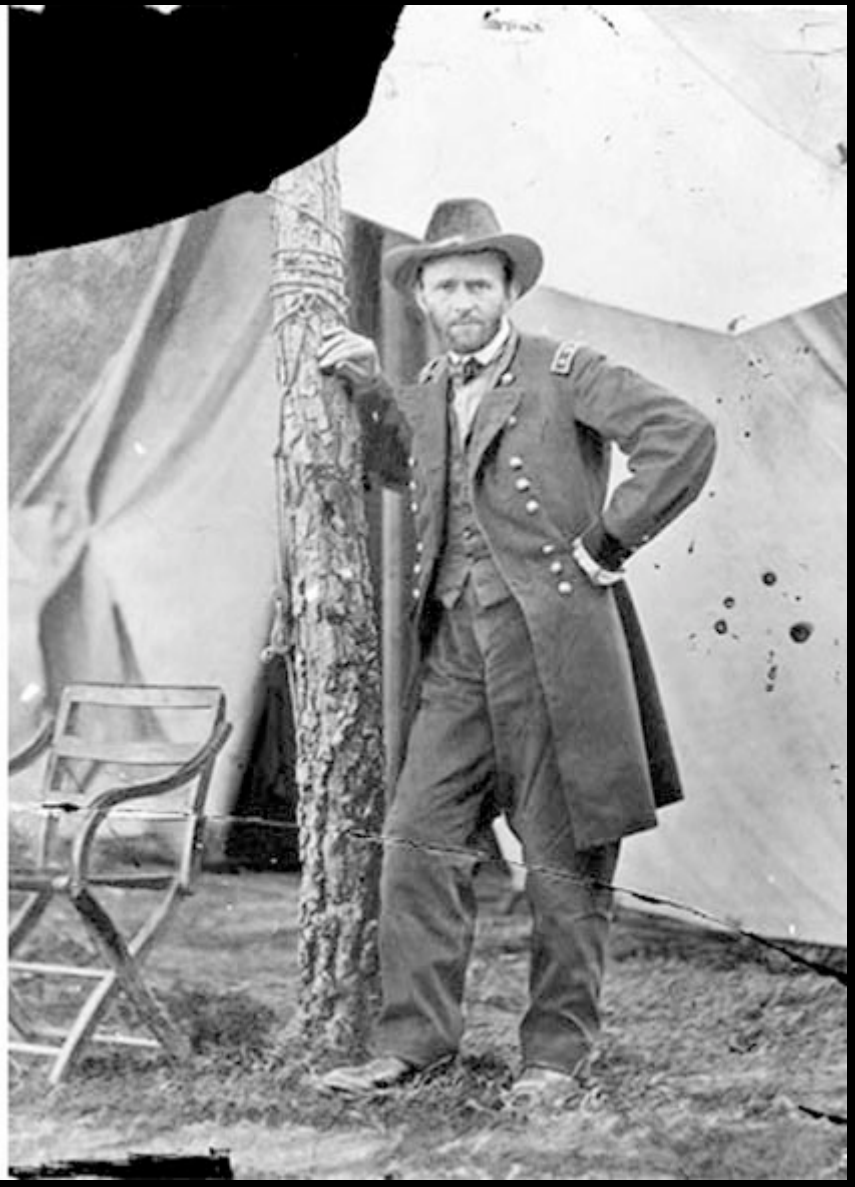
Back in the mid-1700s, during the height of the Jacobite rebellion in Great Britain, **seditious printers printed fake news**, even going so far as to report that King George II was ill, in an attempt to destabilize the establishment. Such fake news was picked up by more reputable printers and republished, making it difficult to tell fact from fiction.

http://www.thesocialhistorian.com/fake-news/

GRANT - CIVIL WAR & WITH GENERALS LC-USZ62- 21992 PRESIDENT FILE

Composite photo -


Major General A. McD. McCook



COULD HAPPEN ONLY IN AMERICA!

Fantastic Details Of Mass Hysteria

Australian Associated Press

NEW YORK, October 31.—All day to-day reports came to hand adding more fantastic details to the already seemingly over-fantastic story of individuals' reaction to a radio story of the invasion of the earth by Martians.

…but AI is the (technological) future

Samsung sued by rights groups over alleged use of child labour in its Chinese factories

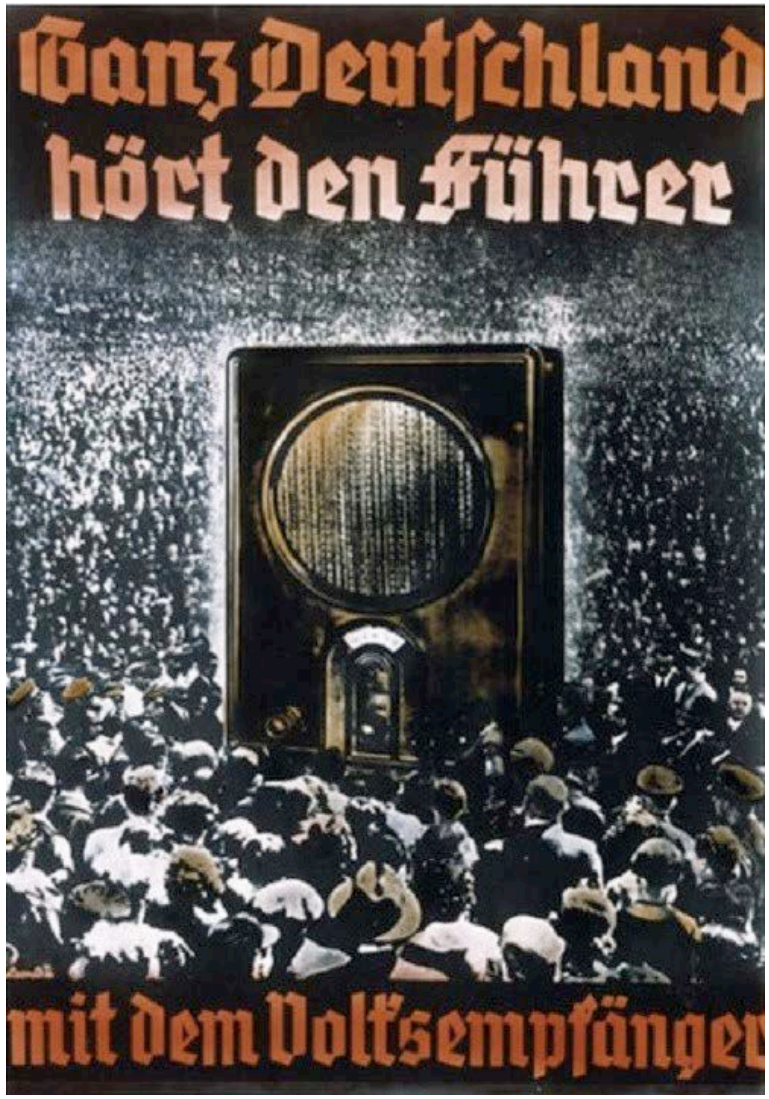
French campaigners alleged that children had been found in Chinese plants producing Samsung products and other staff faced severe health problems

PUBLISHED : Thursday, 11 January, 2018, 5:01pm
UPDATED : Thursday, 11 January, 2018, 8:12pm

...but AI is New Media

"**It would not have been possible for us to take power or to use it in the ways we have without the radio.** … It is no exaggeration to say that the German revolution, at least in the form it took, would have been impossible without the airplane and the radio. … **[Radio] reached the entire nation, regardless of class, standing, or religion.**

Joseph Goebbels



New electricity?


Picard's Speech (Star Trek: Insurrection)

If now **deep fakes** is a threat to democracy, why it was not considered a threat that **only the rich had access to mass media**?

2

The Tech

New Electricity

Our intuition of was can be done with computers was wrong

Implicit modelling

Artificial Intelligence now *almost always* means **Machine Learning**

Concept Learning	1967
Decision Trees	1984
Artificial Neural Networks	1958
Genetic Algorithms	1960
Reinforcement Learning	1977
Inductive Programming	1970

Machine Learning coined by Arthur Samuel in 1959 at IBM

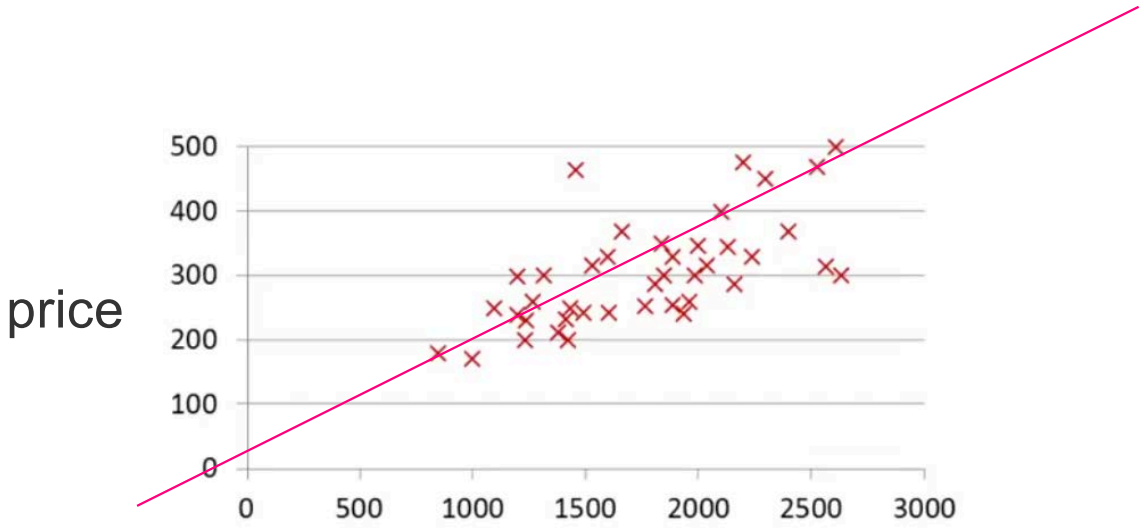
machine learning explores the study and construction of algorithms that can **learn** from and make predictions on data – such algorithms overcome following strictly static program instructions by making **data-driven predictions or decisions, through building a model from sample inputs**

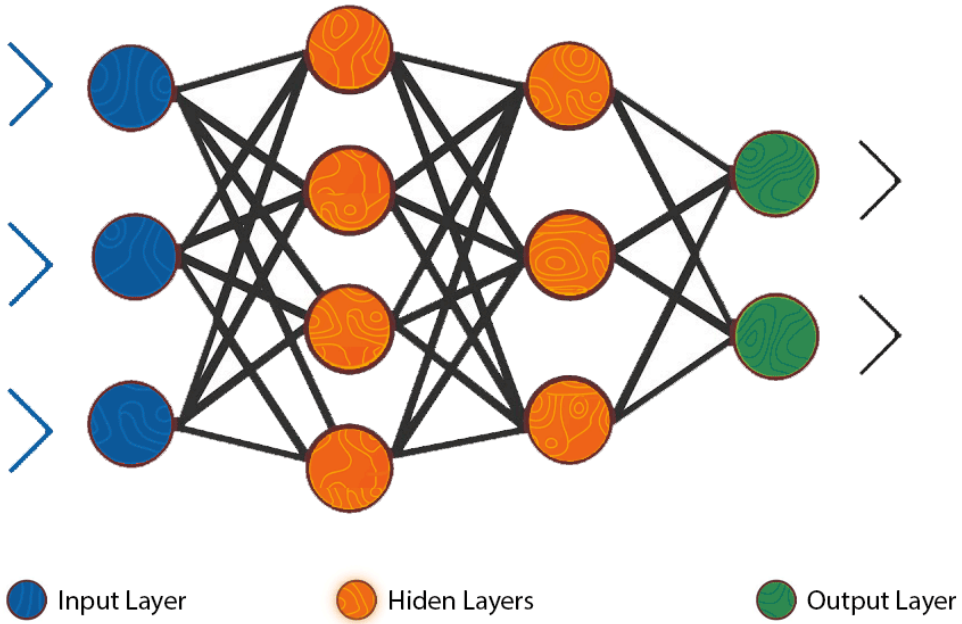
Tom Mitchell (1998): A computer program is said to learn from experience E with respect to some task T and some performance measure P, if its performance on T, as measured by P, improves with experience E.

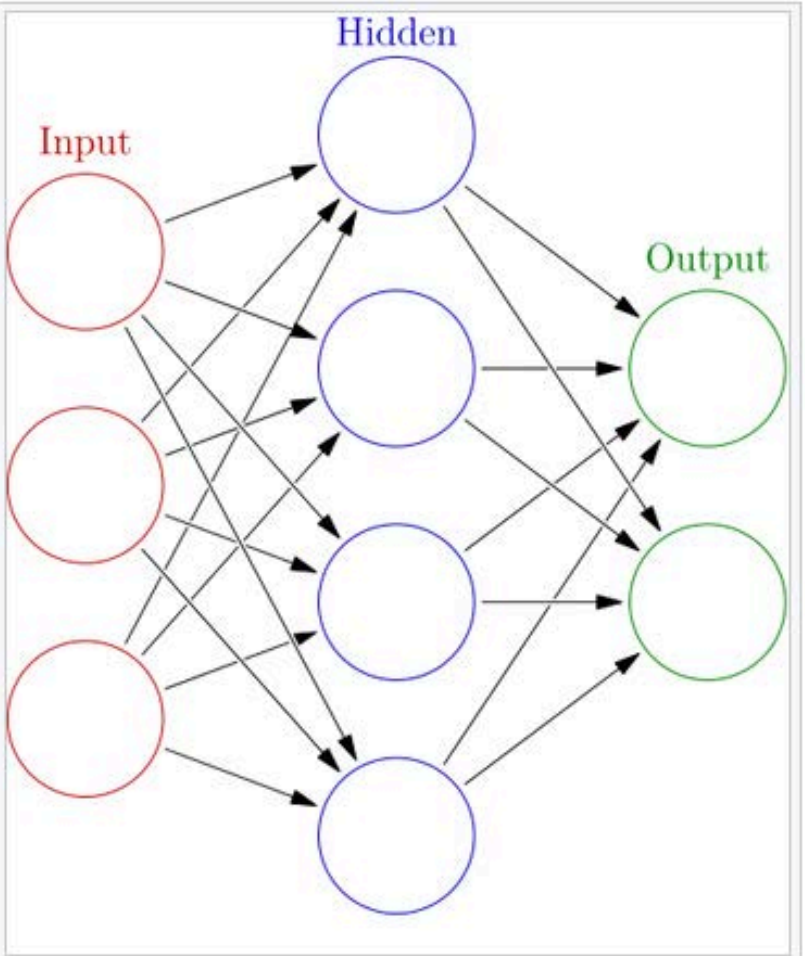
There are many different machine learning algorithms: linear regression, SVMs, neural networks, random forests, etc.

supervised learning and **unsupervised learning**.

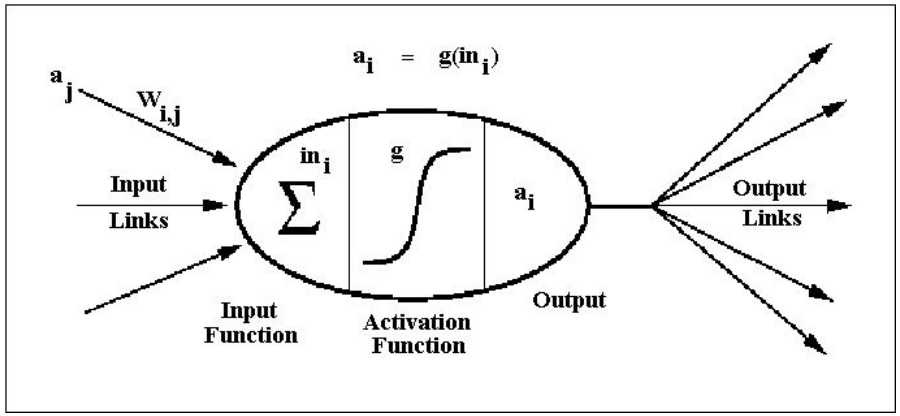
house market




Input Layer
Hiden Layers
Output Layer



An artificial neural network is an interconnected group of nodes, akin to the vast network of neurons in a brain. Here, each circular node represents an artificial neuron and an arrow represents a connection from the output of one neuron to the input of another.

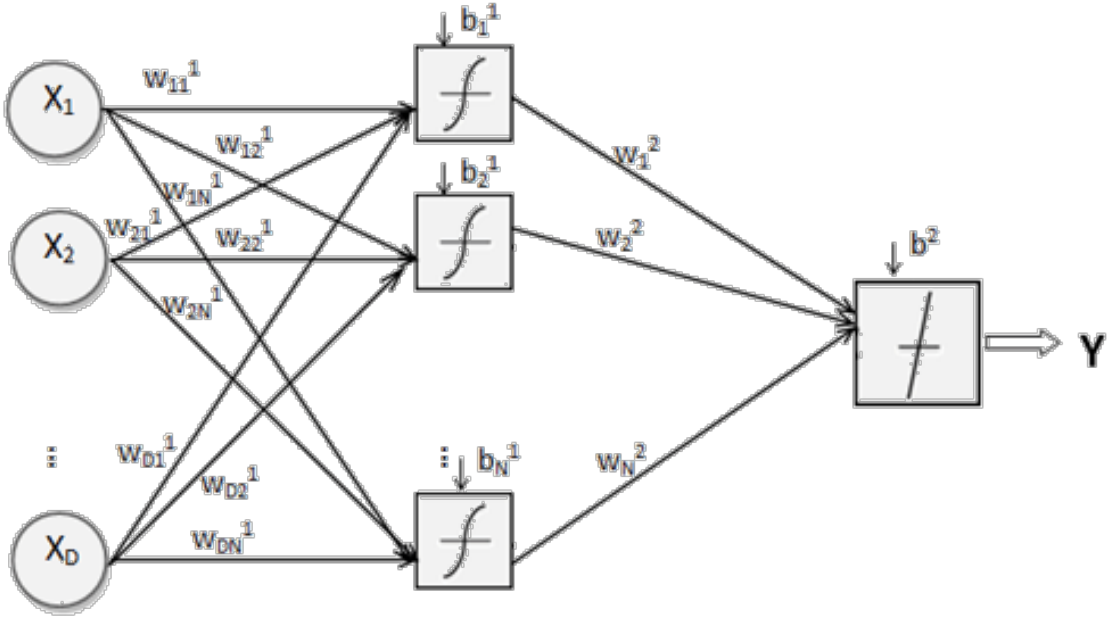

$a_i = g(in_i)$
a_j
$W_{i,j}$
Input
Links
in_i
Σ
g
a_i
Output
Links
Input
Function
Activation
Function
Output

supervised and unsupervised learning

classification and regression

training and test data

overfitting

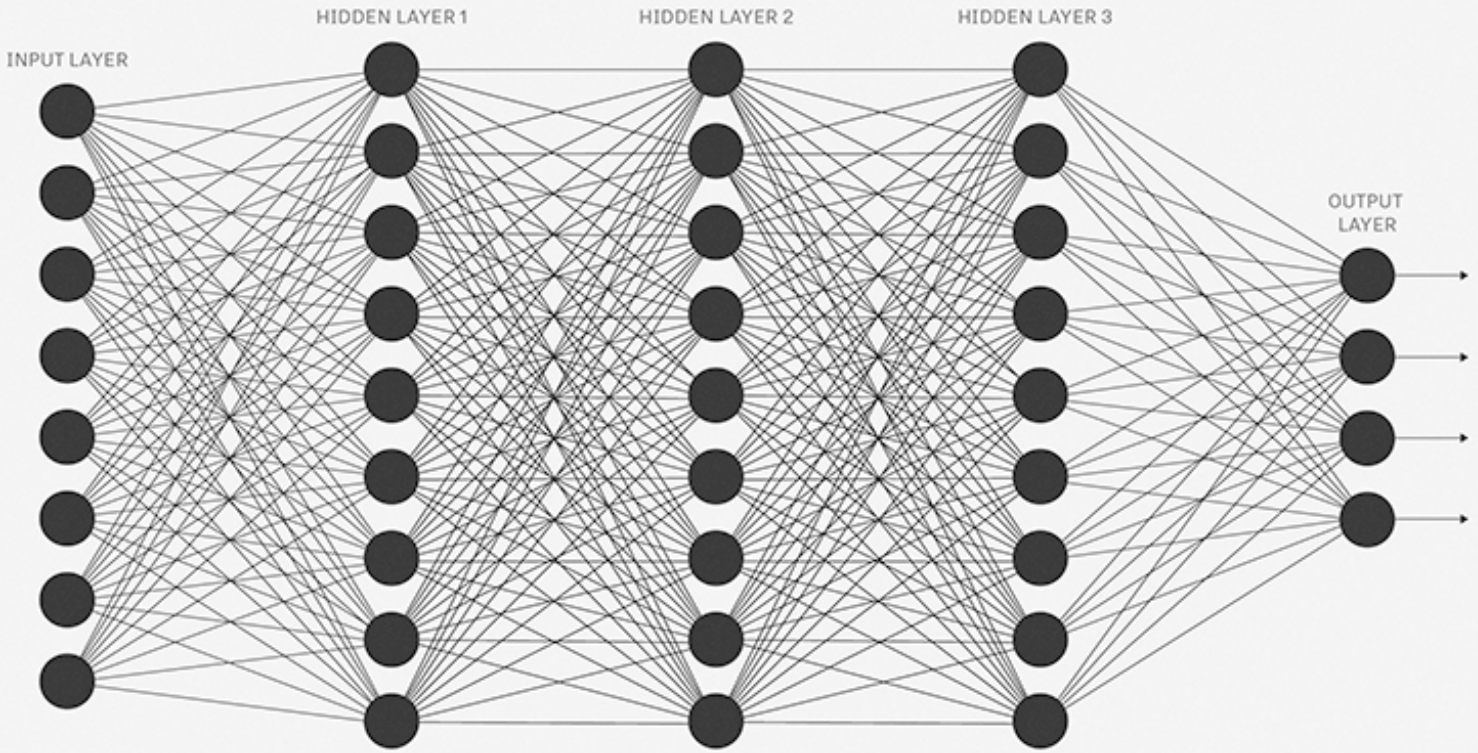

X1
X2
XD
w11 1
w12 1
w1N 1
w21 1
w22 1
w2N 1
wD1 1
wD2 1
wDN 1
b1 1
b2 1
bN 1
w1 2
w2 2
wN 2
b2
Y

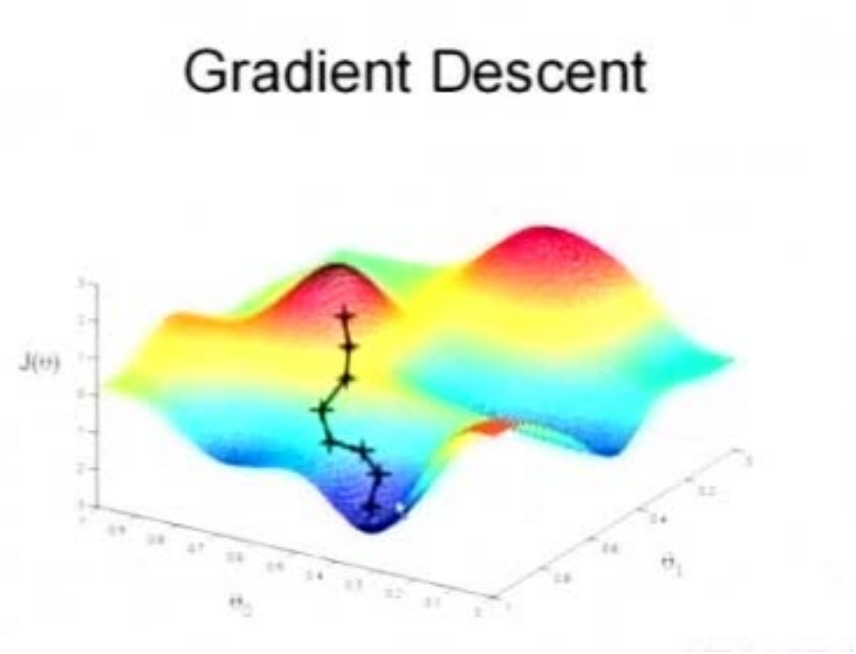
Deep Learning

Parallelism (processing power, GPU)

Big Data

Deep neural network





Backpropagation and gradient descent

There are different **machine learning architectures** applicable to different inputs and classification / prediction / generation tasks.

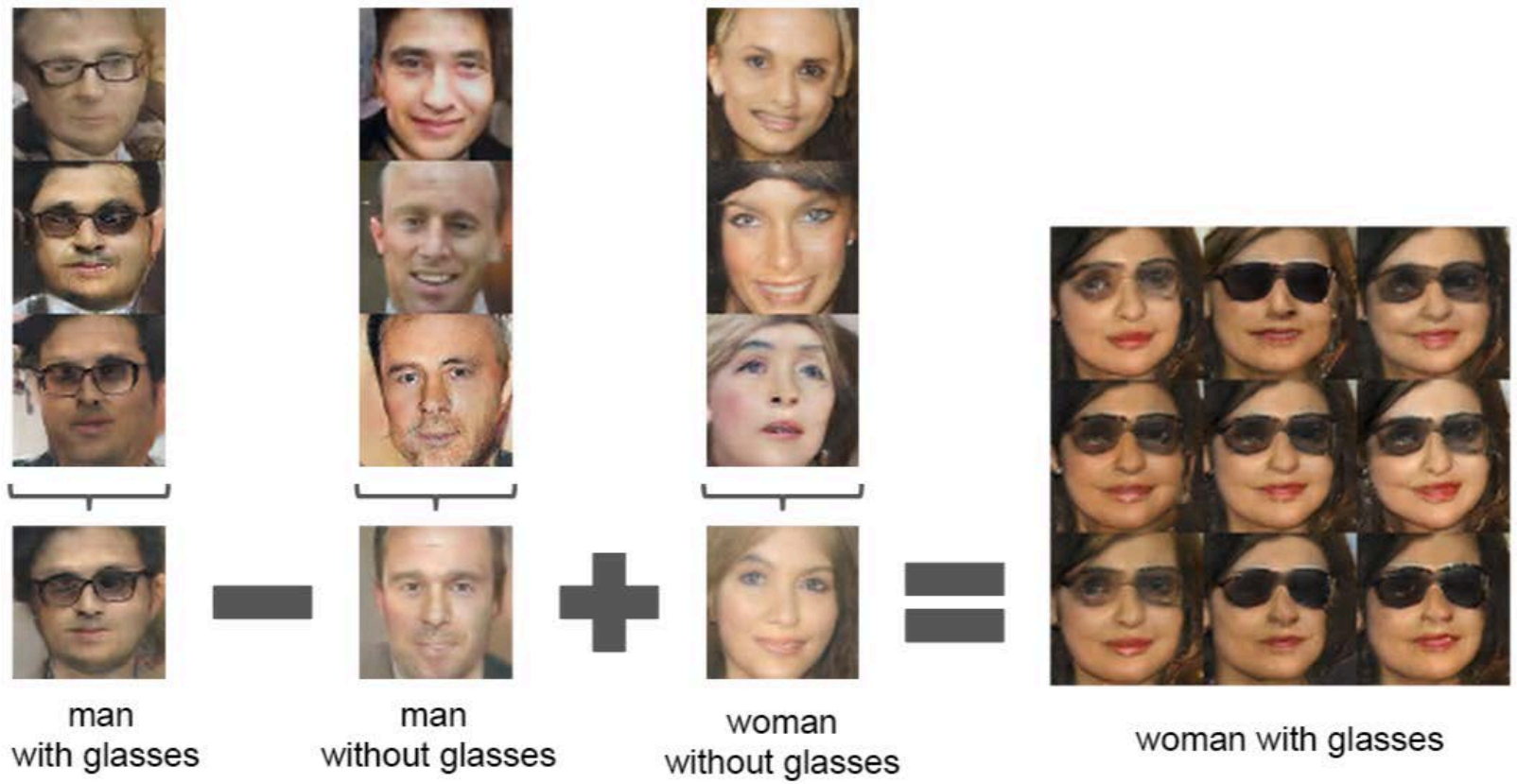
Convolutional Neural Networks

Recurrent Neural Networks

Long Term Short Memory Networks

Generative Adversarial Networks

Consciousness, modelling, and general AI


man
with glasses
man
without glasses
woman
without glasses
woman with glasses

3

Impact

Are there any areas that are immune to a ML approach?

Are there any dangers, caveats inherent to ML?

Do ML systems only replicate existing social problems or do they introduce new ones?

Artifically intelligent 'judge' developed which can predict court verdicts with 79 per cent accuracy

A statue representing the scales of justice at the Old Bailey, Central Criminal Court in London

A computer 'judge' has been developed which can correctly **predict** verdicts of the European Court of Human Rights with 79 per cent accuracy. Computer scientists at University College London and the University of Sheffield **developed an algorithm which can not only weigh up legal evidence, but also moral considerations**.

As early as the 1960s experts predicted that computers would one day be able to predict the outcomes of judicial decisions. But the new method is the first to predict the outcomes of court cases by automatically analysing case text using a machine learning algorithm.

"We don't see AI replacing judges or lawyers, but we think they'd find it useful for rapidly identifying patterns in cases that lead to certain outcomes," said Dr Nikolaos Aletras, who led the study at UCL Computer Science.

“There is this popular view that if you can automate one piece of the work, the rest of the job is toast. That’s just not true, or only rarely the case.”

Frank Levy (MIT)

POLITICS

Sent to Prison by a Software Program's Secret Algorithms

Sidebar

By ADAM LIPTAK MAY 1, 2017

Chief Justice John G. Roberts Jr., center, recently said that the day of using artificial intelligence in courtrooms was already here, "and it's putting a significant strain on how the judiciary goes about doing things." Stephen Crowley/The New York Times

When Chief Justice John G. Roberts Jr. visited Rensselaer Polytechnic Institute last month, he was asked a startling question, one with overtones of science fiction.

Sidebar

Coverage and consideration of developments in the world of law.

Why Gorsuch May Not Be So Genteel on the Bench — APR 17

Trump's Precedent for Claiming Immunity? Clinton v. Jones — APR 3

Will Gorsuch Join Justices in Time to Matter This Term? — MAR 20

Did the Supreme Court Base a Ruling on a Myth? — MAR 6

On Free Press, Supreme Court Pick at Odds With Trump — FEB 20

See More »

The report in Mr. Loomis's case was produced by a product called **Compas**, sold by Northpointe Inc. It included a series of bar charts that **assessed the risk that Mr. Loomis would commit more crimes**.

The Compas report, a prosecutor told the trial judge, showed **"a high risk of violence, high risk of recidivism, high pretrial risk."** The judge agreed, telling Mr. Loomis that **"you're identified, through the Compas assessment, as an individual who is a high risk to the community."**

[…]

In the end, though, Justice Bradley allowed sentencing judges to use Compas. They must take account of the algorithm's limitations and the secrecy surrounding it, she wrote, but said the software could be helpful "in providing the sentencing court with as much information as possible in order to arrive at an individualized sentence."

Justice Bradley made Compas's role in sentencing sound like the consideration of race in a selective university's holistic admissions program. It could be one factor among many, she wrote, but not the determinative one.

https://www.nytimes.com/2017/05/01/us/politics/sent-to-prison-by-a-software-programs-secret-algorithms.html


TOM CRUISE
MINORITY
REPORT

About

- DOC Overview
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- Parole Commission
- Data and Research
- FAQ

COMPAS Assessment Tool

The DOC uses COMPAS as its statewide automated risk and needs assessment and unified case planning system. This actuarial risk assessment system contains offender information specifically designed to determine their risk and needs and inform dynamic case plans that will guide the offender throughout his or her lifecycle in the criminal justice system. The lifecycle is a framework for how an offender moves through the Wisconsin criminal justice system and the decision points informed by COMPAS along the way. From the time of arrest through eventual discharge, DOC will use the lifecycle as a framework for establishing meaningful practices and interventions across jurisdictions.

Evidence Based Practices clearly state that having a sound assessment that accurately identifies an offender's risk to reoffend is the cornerstone of effective supervision. Without a proper assessment, appropriate interventions and services cannot be delivered. The limited dollars available for such services should be reserved for moderate to higher-risk offenders who are likely to reoffend if appropriate interventions are not taken. Research shows low risk offenders are less likely to commit new crimes and should be given minimal services and be excluded from intensive treatment and supervision.

Wisconsin Department of Corrections
3099 E. Washington Ave.
P.O. Box 7925
Madison, Wisconsin 53707-7925

Phone: 608-240-5000
docweb@wi.gov

Our analysis found that:

- Black defendants were often predicted to be at a higher risk of recidivism than they actually were. Our analysis found that black defendants who did not recidivate over a two-year period were nearly twice as likely to be misclassified as higher risk compared to their white counterparts (45 percent vs. 23 percent).
- White defendants were often predicted to be less risky than they were. Our analysis found that white defendants who re-offended within the next two years were mistakenly labeled low risk almost twice as often as black re-offenders (48 percent vs. 28 percent).
- The analysis also showed that even when controlling for prior crimes, future recidivism, age, and gender, black defendants were 45 percent more likely to be assigned higher risk scores than white defendants.
- Black defendants were also twice as likely as white defendants to be misclassified as being a higher risk of violent recidivism. And white violent recidivists were 63 percent more likely to have been misclassified as a low risk of violent recidivism, compared with black violent recidivists.
- The violent recidivism analysis also showed that even when controlling for prior crimes, future recidivism, age, and gender, black defendants were 77 percent more likely to be assigned higher risk scores than white defendants.

https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm

Historical bias

"Historical bias is a fundamental, structural issue with the first step of the data generation process and can exist even given perfect sampling and feature selection." – Suresh et. al. 2019

Prediction Fails Differently for Black Defendants

	WHITE	AFRICAN AMERICAN
Labeled Higher Risk, But Didn't Re-Offend	23.5%	44.9%
Labeled Lower Risk, Yet Did Re-Offend	47.7%	28.0%

Harini Suresh
@harini824

https://family.schizophrenia.com/t/compas-assessment-your-experience-departm

Home, Diag Forum, About, Contact Us, FAQ

schizophrenia.com

COMPAS Assessment - Your experience? (department of corrections)

Family

Mary 2 Feb 20

My son received a letter from the DA's office to have a COMPAS assessment done. It's an assessment that the dept of corrections in my state has Have any of you heard of this as I'm a little wary of this as they state my son has a choice on whether or not to go through this assessment. We meet with the public defender tomorrow so just want to get some opinions from all of you regarding this assessment before this meeting. Thanks so much!

1 Reply

There is a major qualitative change due to not having to **explicitly model** a problem

Legal systems are but one single example… **new electricity?**

Extraneous factors in judicial decisions

Shai Danziger[a,1], Jonathan Levav[b,1,2], and Liora Avnaim-Pesso[a]

[a]Department of Management, Ben Gurion University of the Negev, Beer Sheva 84105, Israel; and

[b]Columbia Business School, Columbia University, New York, NY 10027

Edited* by Daniel Kahneman, Princeton University, Princeton, NJ, and approved February 25, 2011 (received for review December 8, 2010)

Abstract

Are judicial rulings based solely on laws and facts? Legal formalism holds that judges apply legal reasons to the facts of a case in a rational, mechanical, and deliberative manner. In contrast, legal realists argue that the rational application of legal reasons does not sufficiently explain the decisions of judges and that psychological, political, and social factors influence judicial rulings. We test the common caricature of realism that justice is "what the judge ate for breakfast" in sequential parole decisions made by experienced judges. We record the judges' two daily food breaks, which result in segmenting the deliberations of the day into three distinct "decision sessions." We find that the percentage of favorable rulings drops gradually from ≈65% to nearly zero within each decision session and returns abruptly to ≈65% after a break. Our findings suggest that judicial rulings can be swayed by extraneous variables that should have no bearing on legal decisions.

There is a major qualitative change that thanks to not having to **explicitly model** a problem

How AI can help diagnose mental disorders:

https://www.theatlantic.com/health/archive/2016/08/could-artificial-intelligence-improve-psychiatry/496964/

Machine learning could train software to spot verbal tics associated with schizophrenia, depression, and bipolar disorder. This model focused on tell-tale verbal tics of psychosis: short sentences, confusing, frequent use of words like "this," "that," and "a," as well as a muddled sense of meaning from one sentence to the next.

Socially Sensitive AI Software Coaches Call-Center Workers:

https://www.technologyreview.com/s/603529/socially-sensitive-ai-software-coaches-call-center-workers/ (teaching humans being more humane)

Representation / representability

What is classification?

What can be predicted?

"A Neural Algorithm of Artistic Style", Leon Gatys et al., originally released to Arxiv 2015

Gallery

City style transfer

With this technique, we fed map tiles of one city to the generative model of another city, producing satellite imagery of the former in the style of the latter.

Input
Venice Styled Map

Output
Generated Map with Venice Model

Output
Generated Map with LA Model

Actual Map
Venice Satellite Map

Input
LA Styled Map

Output
Generated Map with LA Model

Output
Generated Map with Venice Model

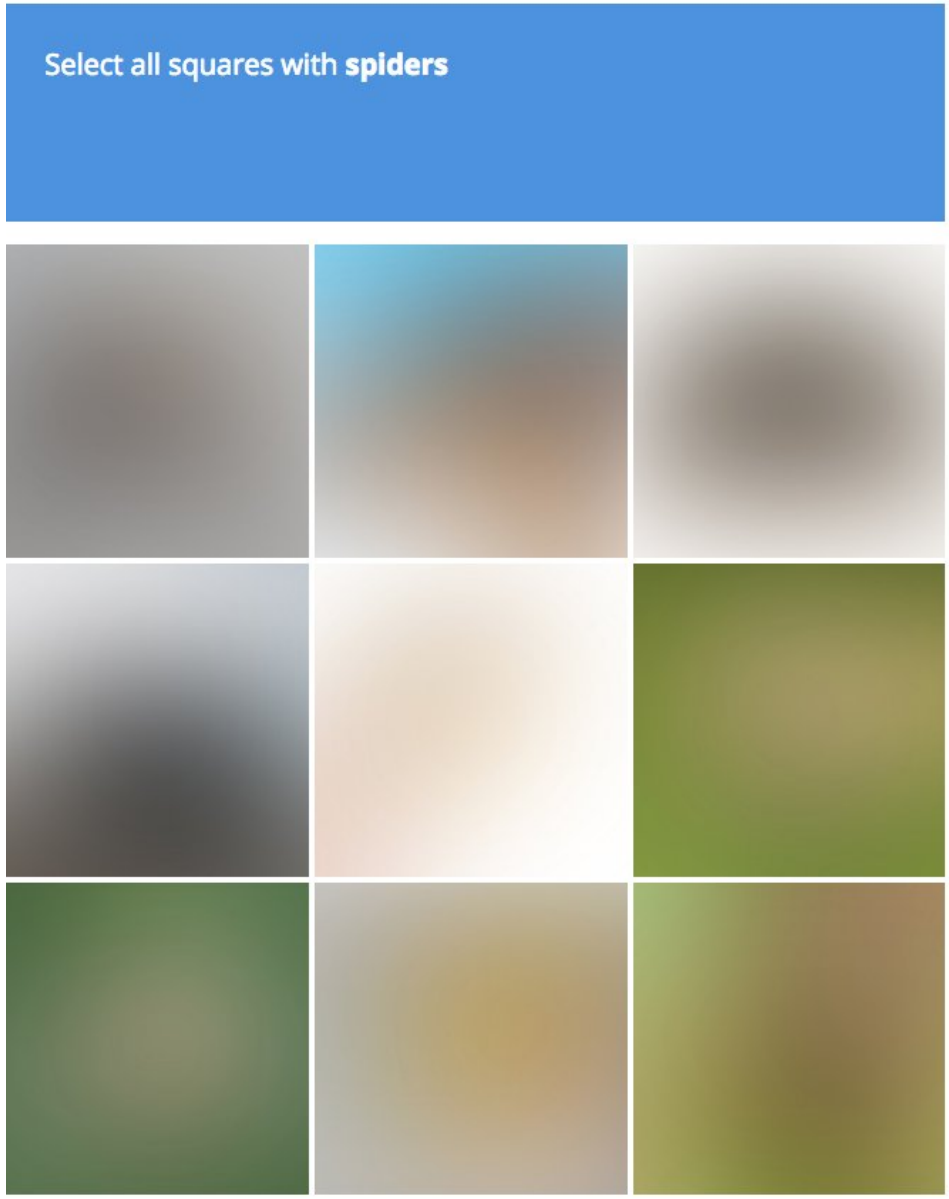
Actual Map
LA Satellite Map

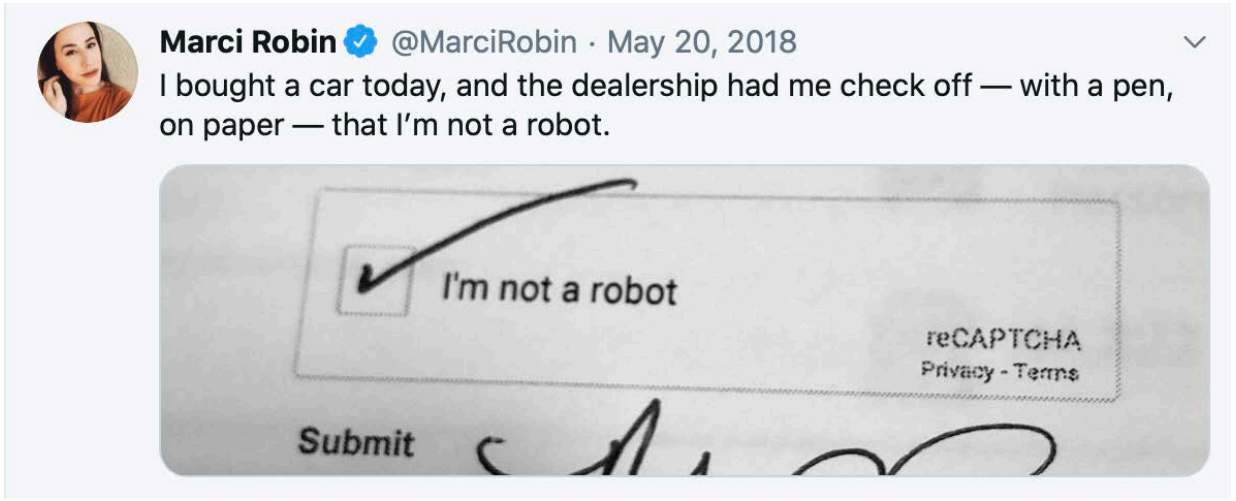
4

Critical Design

'The invention of the ship was also the invention of the shipwreck’

- Paul Virilio


Select all squares with **spiders**


Marci Robin @MarciRobin · May 20, 2018
I bought a car today, and the dealership had me check off — with a pen, on paper — that I'm not a robot.
I'm not a robot
reCAPTCHA
Privacy - Terms
Submit

Ria Kalluri
@radical_ai_

Why filming police violence has done nothing to stop it?

"After years of police body cams and bystander cellphone video, it's clear that evidentiary images on their own don't bring about change. What's missing is power."

Ethan Zuckerman

https://www.technologyreview.com/2020/06/03/1002587/sousveillance-george-floyd-police-body-cams/

Pattern: We watch those who are "less than." Will you spy on your superior? Or will you spy on the poor man, the person of color, the immigrant, the heretic? We watch those who are "other."

Pattern: When those "others" organize, mobilize, that watching is redoubled. Surveillance becomes a tool to stop marginalized people from achieving power.

"Privacy and Civil Rights in the Age of Facebook, ICE, and the NSA"

Professor Alvaro M. Bedoya

https://docs.google.com/document/d/1Px-Q5MFw54HGpJhY4Q_HQDoKF8qLU79wmPJXsoEpXYI/edit

Our modelling of the political impact of technology is, at best, naïve, and often willful ignorant

Steve Mann's ***sousveillance***, the idea that connected cameras controlled by citizens could be used to hold power accountable has not worked.

Technology is determined by the "power vector field" where it's inserted.

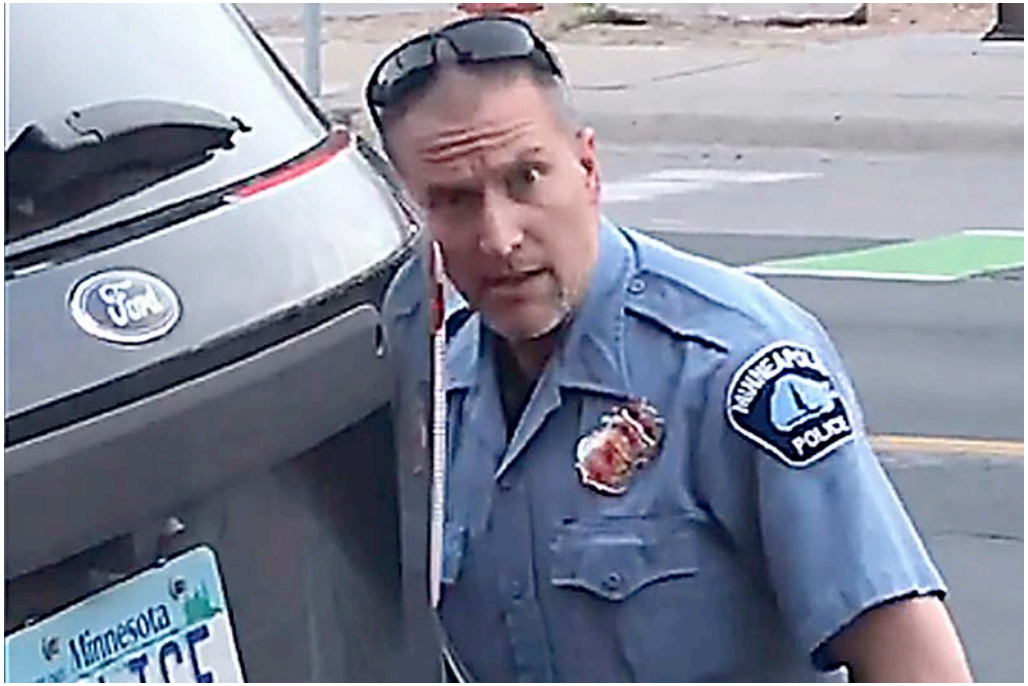
It turns out that images matter, but so does power. Bentham's panopticon works because the warden of the prison has the power to punish you if he witnesses your misbehaviour.

But Bentham's other hope for the panopticon—**that the behaviour of the warden would be transparent and evaluated by all who saw him**—has never come to pass.

Ethan Zuckerman

https://www.technologyreview.com/2020/06/03/1002587/sousveillance-george-floyd-police-body-cams/

The filming of police violence, however, has played an important role in *informing* the society.



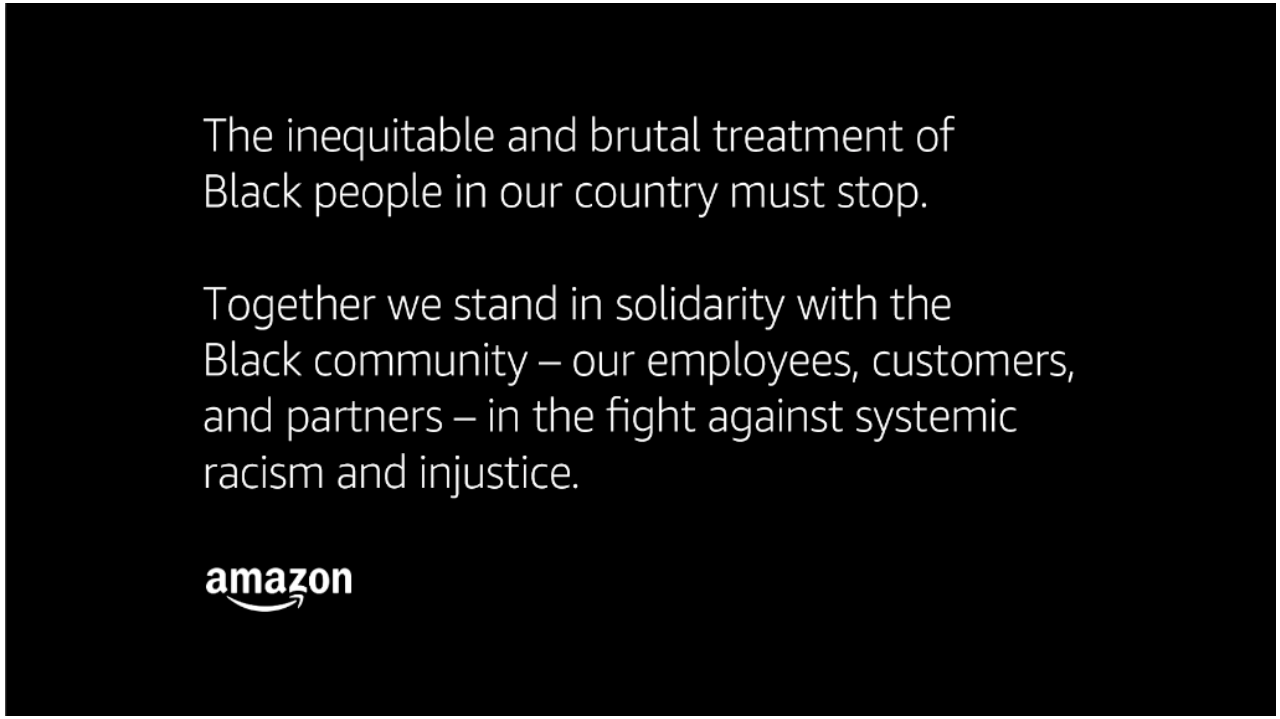
Derek Chauvin, murderer of George Floyd

POLICY | TECH

Amazon's Ring reportedly partners with more than 200 US police departments

Law enforcement across the country works with Ring

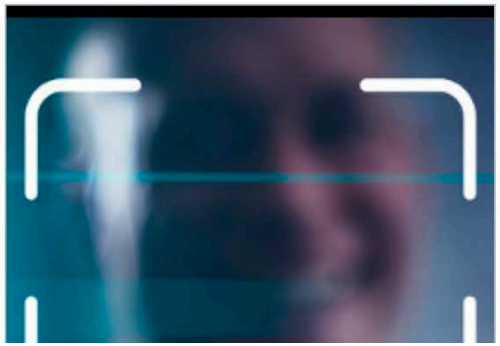
By Colin Lecher | @colinlecher | Jul 29, 2019, 6:22pm EDT



ACM CAREERS

Facial Recognition Software Predicts Criminality, Researchers Say

By Harrisburg University
May 6, 2020
Comments



A group of Harrisburg University professors and a Ph.D. student have developed automated computer facial recognition software capable of predicting whether someone is likely to become a criminal.

With 80 percent accuracy and with no racial bias, the software can predict if someone is a criminal based solely on a picture of their face. The software is intended to help law enforcement prevent crime.

MORE NEWS & OPINIONS

Tech Firms Seek to Head Off Bans on Facial Recognition

A group of Harrisburg University professors and a Ph.D. student have developed automated computer facial recognition software capable of predicting whether someone is likely to become a criminal.

With 80 percent accuracy and with no racial bias, the software can predict if someone is a criminal based solely on a picture of their face. The software is intended to help law enforcement prevent crime.

https://cacm.acm.org/careers/244713-facial-recognition-software-predicts-criminality-researchers-say/fulltext

"By automating the identification of potential threats without bias, our aim is to produce tools for crime prevention, law enforcement, and military applications that are less impacted by implicit biases and emotional responses," Ashby says. "Our next step is finding strategic partners to advance this mission."

"**Crime is one of the most prominent issues in modern society. Even with the current advancements in policing, criminal activities continue to plague communities,**" Korn says. "The development of machines that are capable of performing cognitive tasks, such as identifying the criminality of person from their facial image, will enable a significant advantage for law enforcement agencies and other intelligence agencies to prevent crime from occurring in their designated areas."

Research | Open Access | Published: 07 January 2020

Criminal tendency detection from facial images and the gender bias effect

Mahdi Hashemi & Margeret Hall

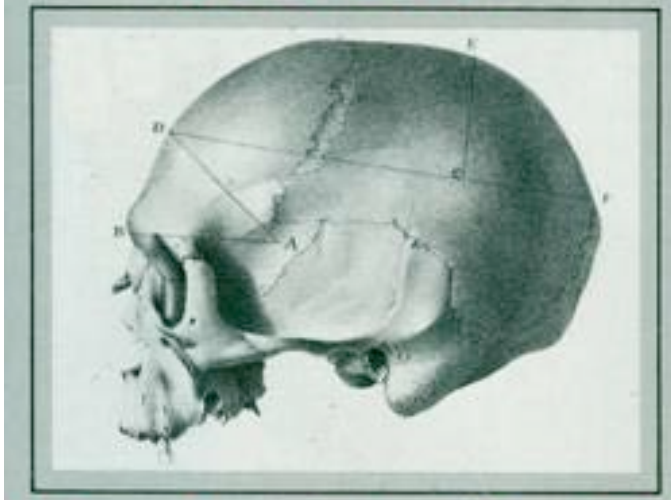
Journal of Big Data **7**, Article number: 2 (2020) | Cite this article

3247 Accesses | **2** Citations | **63** Altmetric | Metrics

Abstract

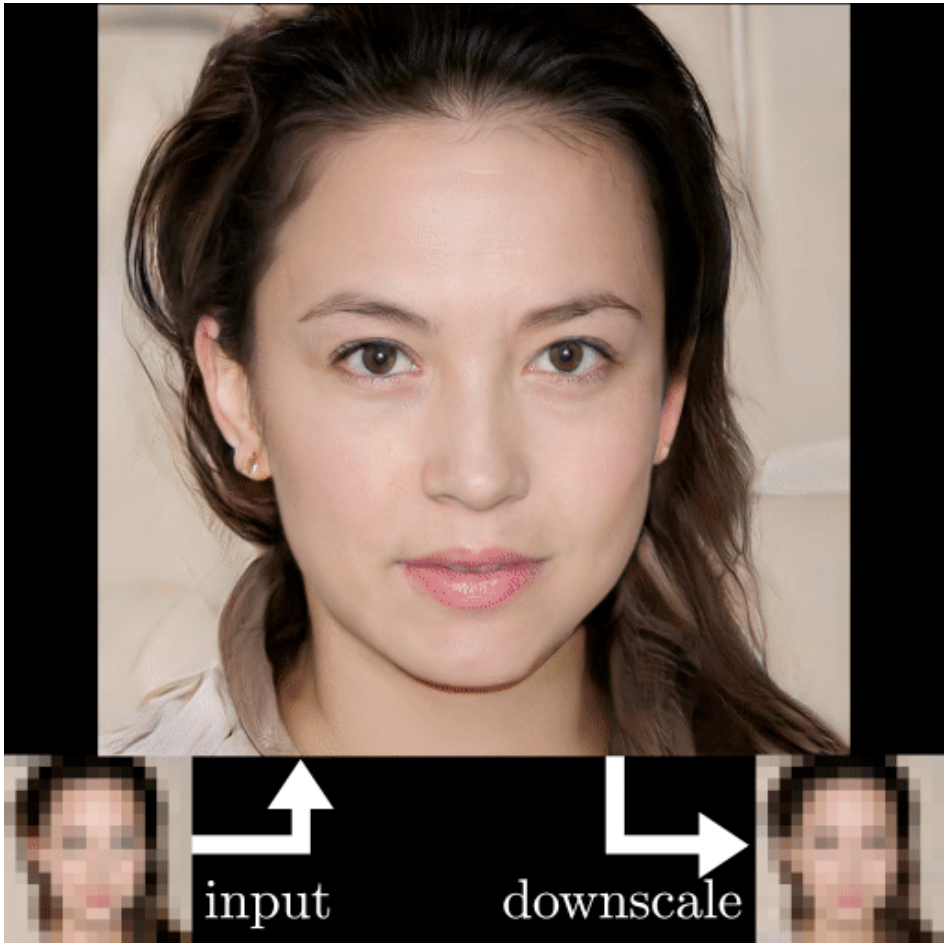
Explosive performance and memory space growth in computing machines, along with recent specialization of deep learning models have radically boosted the role of images in semantic pattern recognition. In the same way that a textual post on social media reveals individual characteristics of its author, facial images may manifest some personality traits. This work is the first milestone in our attempt to infer personality traits from facial images. With this

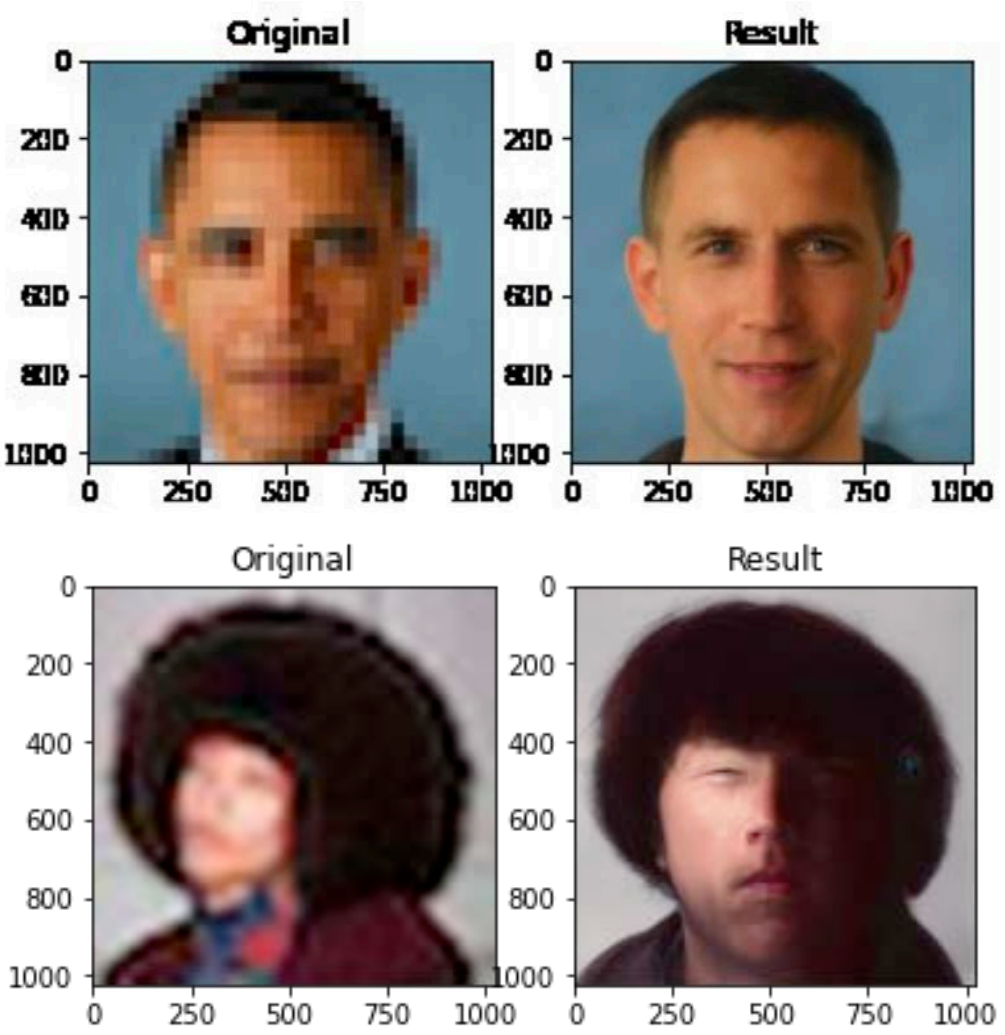
The Mismeasure of Man



Stephen Jay Gould

author of *Ever Since Darwin* and *The Panda's Thumb*





https://github.com/tg-bomze/Face-Depixelizer

FOCUS ARTICLE

Facial feature discovery for ethnicity recognition

Cunrui Wang[1,2] | Qingling Zhang[2] | Wanquan Liu[3] | Yu Liu[1] | Lixin Miao[1]

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[2]Institute of System Science, Northeastern University, Shenyang, China

[3]Department of Computing, Curtin University, Perth, Western Australia, Australia

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National Natural Science Foundation of China, Grant Number: 61562093, 61772575; China Education & Research Network Innovation Project, Grant Numbers: NGII20170419, NGII20170631

The salient facial feature discovery is one of the important research tasks in ethnical group face recognition. In this paper, we first construct an ethnical group face dataset including Chinese Uyghur, Tibetan, and Korean. Then, we show that the effective sparse sensing approach to general face recognition is not working anymore for ethnical group facial recognition if the features based on whole face image are used. This is partially due to a fact that each ethnical group may have its own characteristics manifesting only in specified face regions. Therefore, we will analyze the particularity of three ethnical groups and aim to find the common characterizations in some local regions for the three ethnical groups. For this purpose, we first use the facial landmark detector STASM to find some important landmarks in a face image, then, we use the well-known data mining technique, the mRMR algorithm, to select the salient geometric length features based on all possible lines connected by any two landmarks. Second, based on these selected salient features, we construct three "T" regions in a face image for ethnical feature representation and prove them to be effective areas for ethnicity recognition. Finally, some extensive experiments are conducted and the results reveal that the proposed "T" regions with extracted features are quite effective for ethnical group facial recognition when the L_2-norm is adopted using the sparse sensing approach. In comparison to face recognition, the proposed three "T" regions are evaluated on the olivetti research laboratory face dataset, and the results show that the constructed "T" regions for ethnicity recognition are not suitable for general face recognition.

In spite of lacking a genetic definition of race or ethnicity (which would be akin to proposing a genetic definition of nationality), it is possible to find statistical correlations between genetic composition and ethnical groups. A narrative actively marketed by personal genetic companies.

Leaving aside the fact that these tests are *wildly* inaccurate (genetic markers evolve over time, they are not always passed, and people migrate, among other complexities), these tests put forward the idea that biological differences have a deep, fundamental meaning.

This spurious correlation between genetic makeup and ethnicity transcends the personal sphere, having been co-opted by several organised racist groups that use them as a source of self-validation, as well as fuelling the implementation of state-wide policies aiming at using DNA ancestry as a form of social policing.

For example, in patented research published by Chinese government researchers, they described "**ways to sort people by ethnicity by screening their genetic makeup" with the explicit intention of surveilling Uyghurs, with a system that would help in "inferring the geographical origin from the DNA of suspects at crime scenes**. (*)"

(*) Wee, S.-L. https://www.nytimes.com/2019/02/21/business/china-xinjiang-uighur-dna-thermo-fisher.html

Deep neural networks are more accurate than humans at detecting sexual orientation from facial images.

Yilun Wang, Michal Kosinski

We show that faces contain much more information about sexual orientation than can be perceived and interpreted by the human brain. We used deep neural networks to extract features from 35,326 facial images. These features were entered into a logistic regression aimed at classifying sexual orientation. Given a single facial image, a classifier could correctly distinguish between gay and heterosexual men in 81% of cases, and in 74% of cases for women. Human judges achieved much lower accuracy: 61% for men and 54% for women. The accuracy of the algorithm increased to 91% and 83%, respectively, given five facial images per person.

“Imagine for a moment the potential consequences if this flawed research were used to support a brutal regime’s efforts to identify and/or persecute people they believed to be gay,” Ashland Johnson, Human Rights Campaign’s director of public education and research, said in a statement.

"For one, I'm sure there is heavy data-set bias at work here. But since this is all not open code/data (surprise surprise), It's hard to tell. Secondly, the research makes definitive, **binary statements about human sexuality - negating a very large cultural component in the **spectrum** of human sexuality**.”

Samim Winiger

https://www.theguardian.com/world/2017/sep/08/ai-gay-gaydar-algorithm-facial-recognition-criticism-stanford

However, **Kosinsky** (Stanford) predicts that AI algorithms will also be able to identify:

- a person's political beliefs
- whether they have high IQs
- whether they are predisposed to criminal behaviour
- whether they have specific personality traits

Kyle McDonald @kcimc · Oct 6

new work (in progress): a little-known research paper using a database of mugshots led led me into an investigation of the connection between face analysis and incarceration

Against Face Analysis

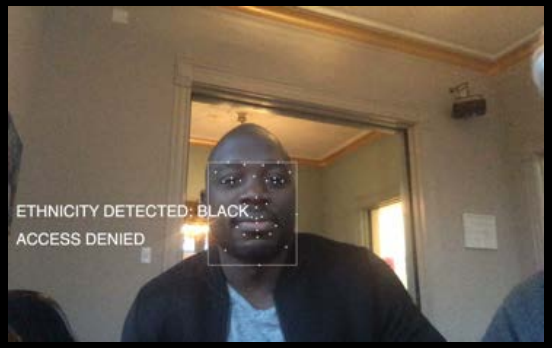
The use of mugshots in vision research, and the shift from face recognition to face attribute classification.

medium.com

https://medium.com/@kcimc/against-face-analysis-55066903535b

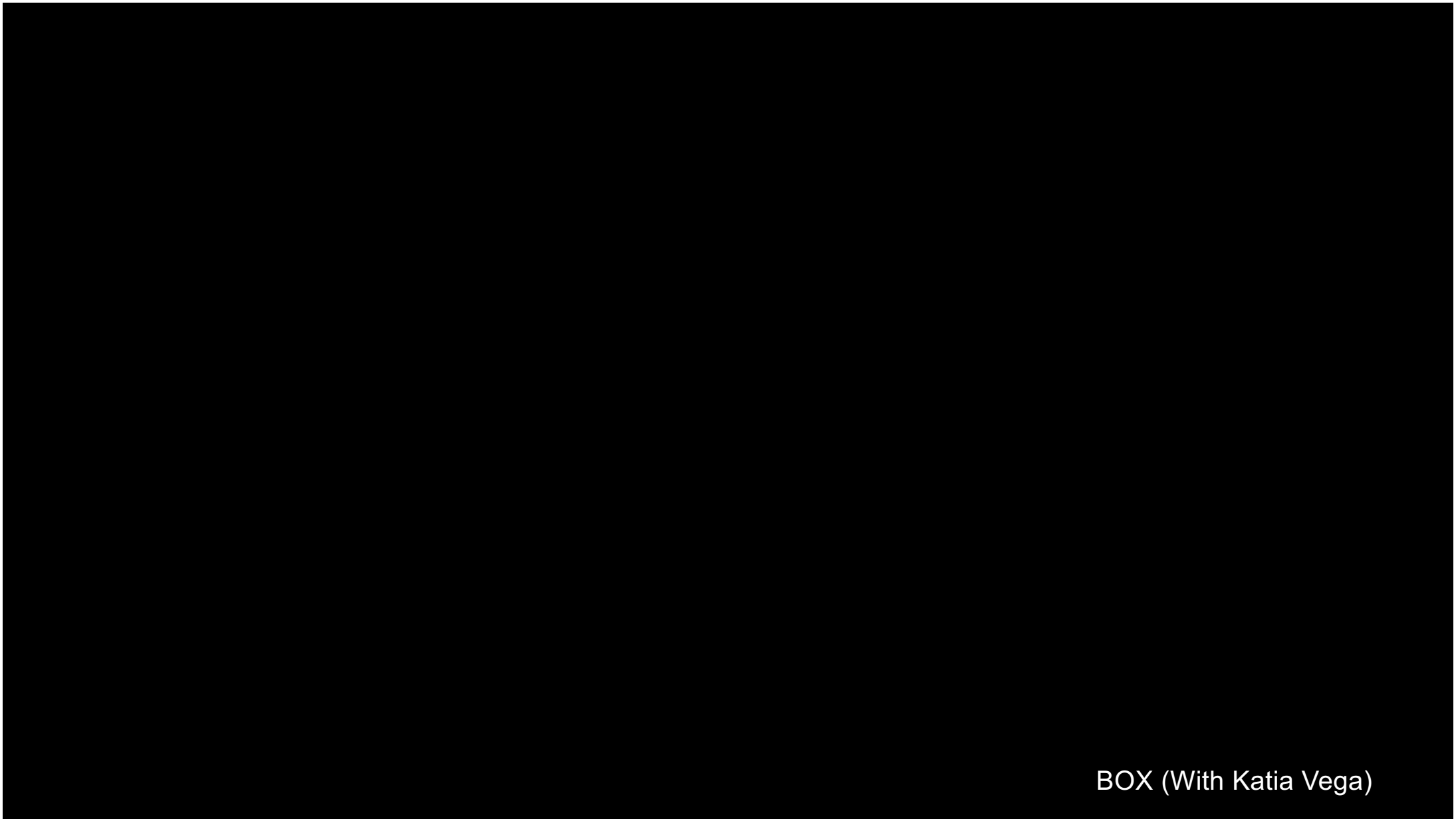

ETHNICITY DETECTED: WHITE
ACCESS GRANTED


ETHNICITY DETECTED: LATINO
ACCESS DENIED


ETHNICITY DETECTED: BLACK
ACCESS DENIED

DOOR (with Katia Vega, Stochastic Labs, 2018)

BOX (With Katia Vega)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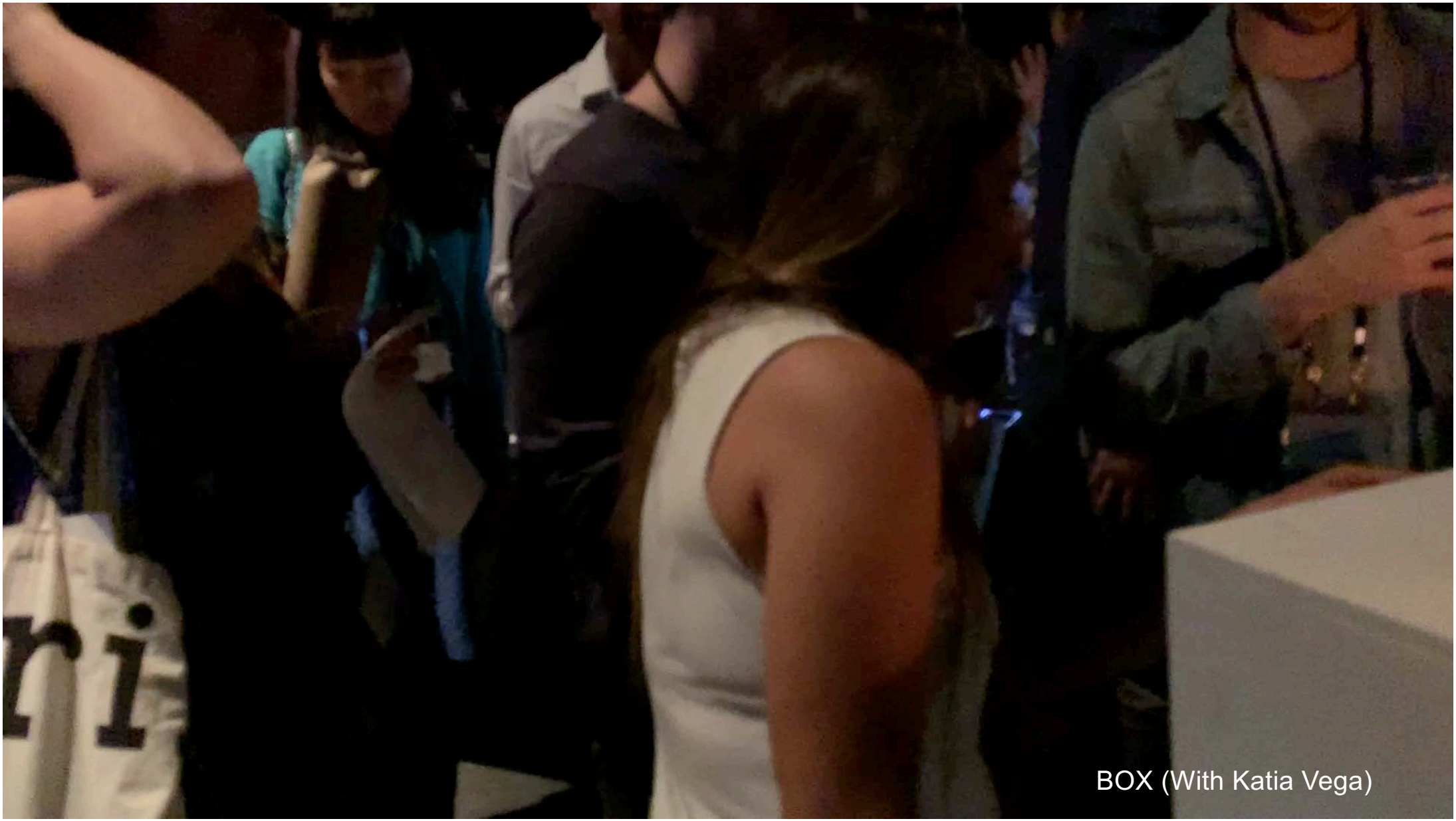
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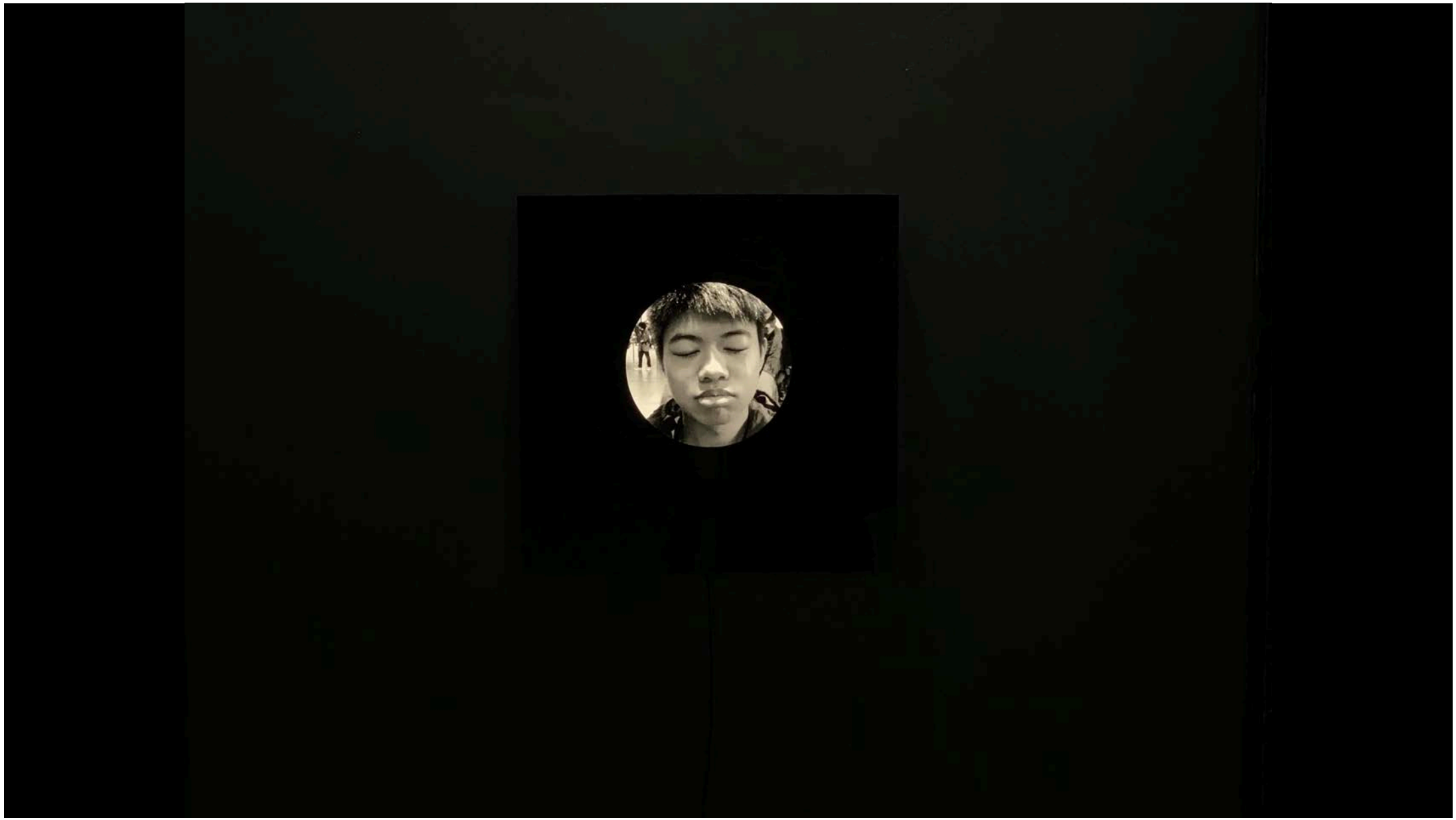
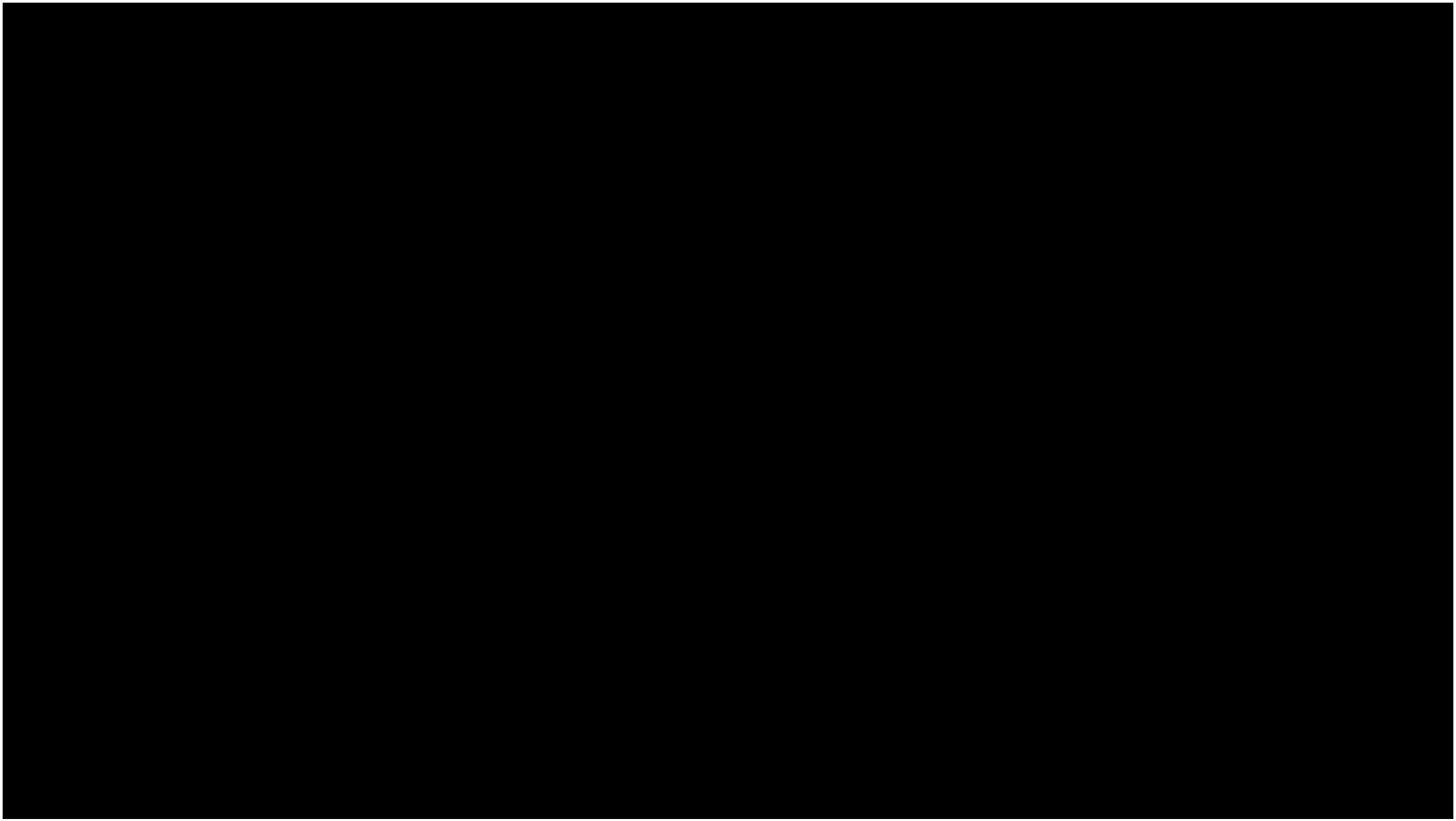
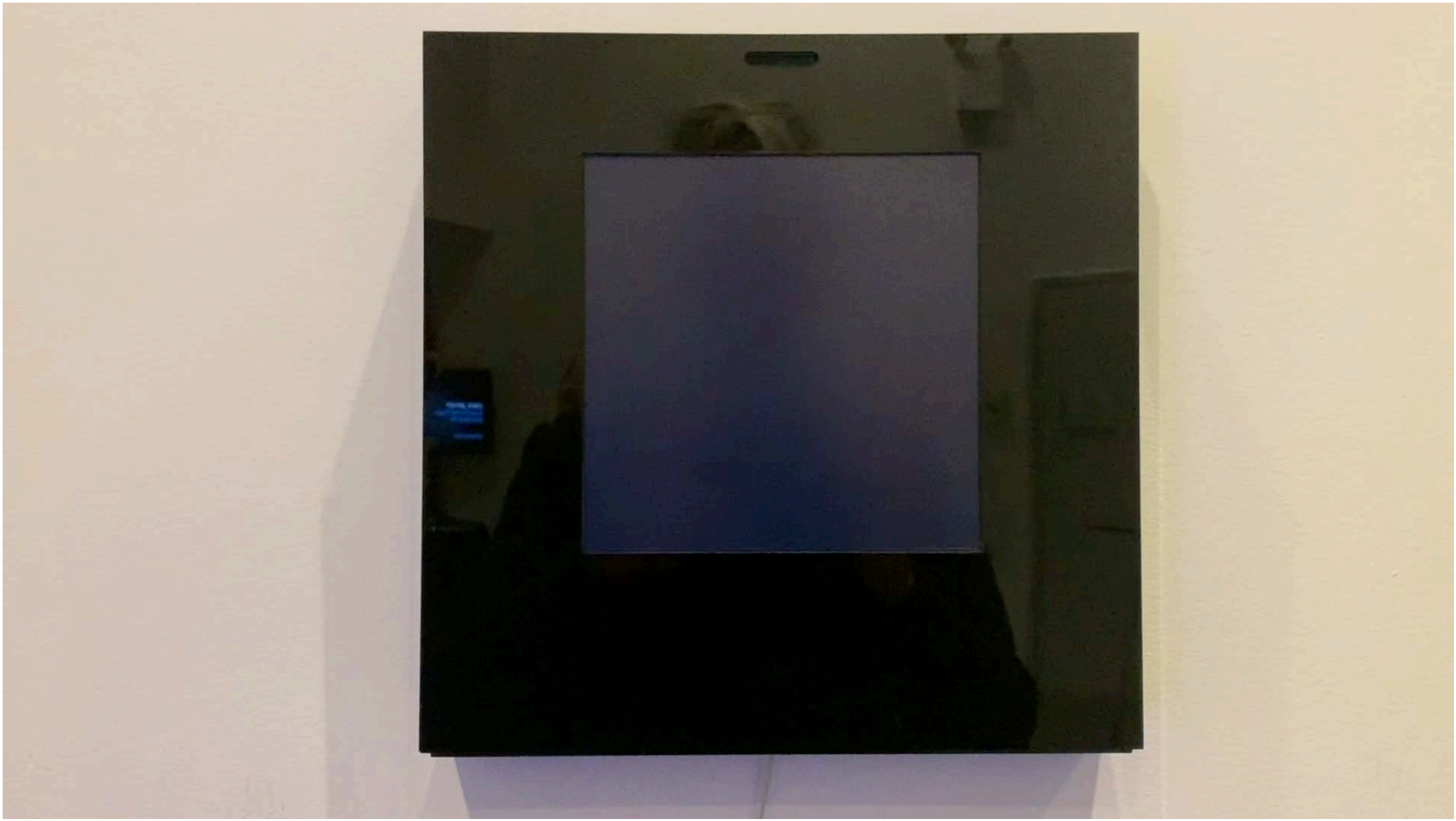





Memoirs of the Blind



The logic of capitalism is *normalised*

1. The danger of amplifying structural inequalities

2. The liberation of attention
    1. What will happen with the industries that exist because the need of attention?
    2. Human attention becomes desirable
        1. on one hand you need to be rich to be given attention
        2. on the other hand, automatization is marketed as an equaliser

3. The appearance of new ethical questions (e.g. synthetic illegal data) for which we don't have a default answer

4. Designing for the algorithm

Rachel Thomas's twitter thread:
https://threadreaderapp.com/thread/1274908170901569537.html

Some tools to get started working directly with ML:

- ml5
- Runway (I've never used it, but I've heard very good things about it)
- Wekinator
- ML4A (Gene Kogan)
- Tensorflow.js, Tensorflow, Pytorch, etc.

Thank you!

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