

A BRIEF CHAT ABOUT DATA ETHICS

Ali Alkhatib

October 5, 2021

Center for Applied Data Ethics



LET'S START WAY BACK

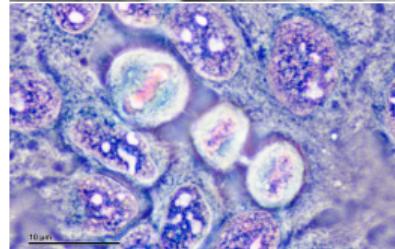
HENRIETTA LACKS

Patient at Johns Hopkins



HENRIETTA LACKS

Patient at Johns Hopkins
Cell tissues taken without her consent
the first immortal cell line



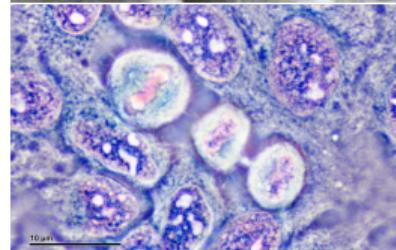
HENRIETTA LACKS

Patient at Johns Hopkins

Cell tissues taken without her consent

the first immortal cell line

Still in use today, nearly 70 years later



HENRIETTA LACKS

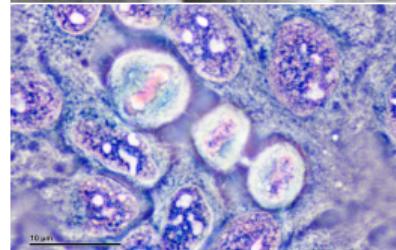
Patient at Johns Hopkins

Cell tissues taken without her consent

the first immortal cell line

Still in use today, nearly 70 years later

Family not told for decades



HENRIETTA LACKS

Patient at Johns Hopkins
Cell tissues taken without her consent
the first immortal cell line
Still in use today, nearly 70 years later
Family not told for decades



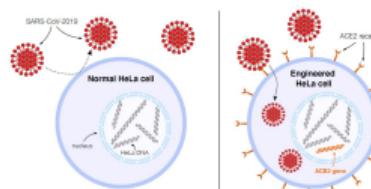
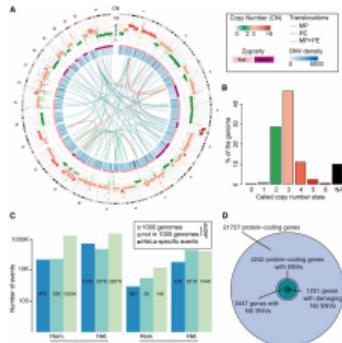
Polio vaccine



Involved in

genetic research

COVID research



HENRIETTA LACKS

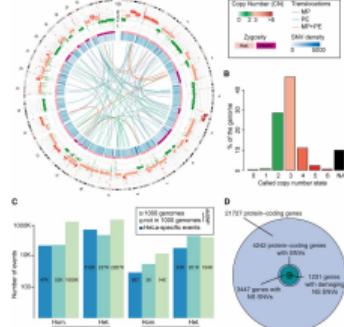
Patient at Johns Hopkins
Cell tissues taken without her consent
the first immortal cell line
Still in use today, nearly 70 years later
Family not told for decades



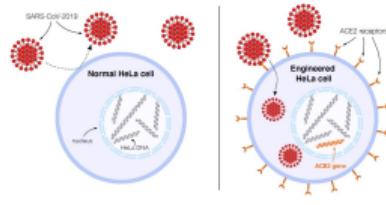
Polio vaccine



Involved in
genetic research



COVID research



Pharmaceuticals industry

Henrietta Lacks' estate sues drug company that sold her cells

Lacks's estate is asking Thermo Fisher to pay back the full profits gained over 70 years of using her cells without consent

Associated Press in College Park, Maryland

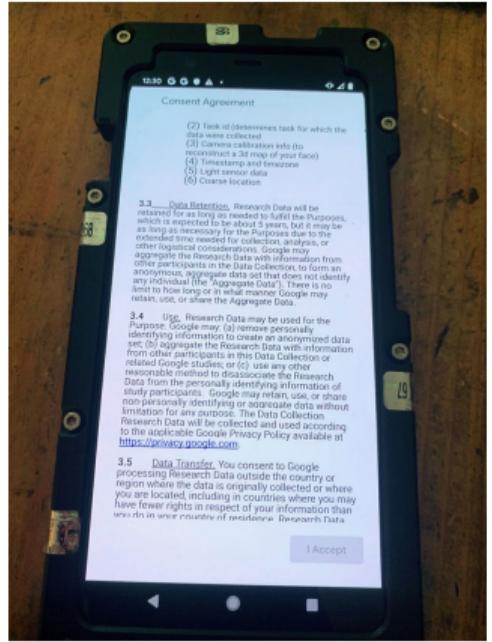
Mon 4 Oct 2021 10:52 EDT



The estate of [Henrietta Lacks](#) sued a pharmaceutical company on Monday, accusing it of selling cells that doctors at Johns Hopkins hospital took in 1951 without her knowledge or consent.

So what?

GOOGLE FACIAL RECOGNITION



GOOGLE FACIAL RECOGNITION

≡ WIRED

SUBSCRIBE

TOM SIMONITE BUSINESS 01.11.2018 07:00 AM

When It Comes to Gorillas, Google Photos Remains Blind

Google promised a fix after its photo-categorization software labeled black people as gorillas in 2015. More than two years later, it hasn't found one.

NOT COOL | 18. 5. 19 by KRISTIN HOUSER

Futurism

Google Contractors Tricked Homeless Black People Into Face Scans

The homeless people "didn't know what was going on at all."

Artificial Intelligence / Facial Recognition / Google / Homeless People



Image by NeedPic/Eduardo Taveras

To ensure Google's latest face unlock feature would work on all types of faces, the company needed to train the system using — you guessed it — all types of faces.

That's Machine Learning 101, right?

But the way the megacorporation's contractors went about collecting that data was downright devious, according to a *New York Daily News* investigation, which noted that they targeted — and lied to — homeless people to get scans of their faces.

To collect the face scans, Google hired the employment firm Randstad. Randstad, in turn, hired contractors that hit the streets in various U.S. cities armed with face-scanning phones and \$5 gift cards for anyone willing to submit to a scan.

ADDITIONAL

Google reportedly targeted people with 'dark skin' to improve facial recognition

Subcontracted workers were told to persuade subjects to agree to face scans, mischaracterizing them as a 'selfie game' or 'survey'



▲ A report from the *New York Daily News* says Google was using deceptive practices to collect face scans. Photography: Jeff Chiu/Associated Press

Julia Carrie Wong

@juliacarriewong

Thu 3 Oct 2019 17.31 EDT



Facial recognition technology's failures when it comes to accurately identifying people of color have been well documented and much criticized. But an attempt by Google to improve its facial recognition algorithms by collecting data from people with dark skin is raising further concerns about the ethics of the data harvesting.

Google has been using subcontracted workers to collect face scans from members of the public in exchange for \$5 gift cards, according to a report from the *New York Daily News*. The face scan collection project had been previously reported, but anonymous sources described unethical and deceptive practices to the *Daily News*.

The subcontracted workers were employed by staffing firm Randstad but directed by Google managers, according to the report. They were instructed to target people with "darker skin tones" and those who would be more likely to be enticed by the \$5 gift card, including homeless people and college students.

WHAT DO WE MEAN WHEN WE TALK ABOUT DATA ETHICS?

LET'S TALK ABOUT WHAT **KINDS OF ISSUES CAN COME UP**

**LET'S TALK ABOUT WHAT KINDS OF ISSUES CAN COME UP
AND HOW TO WORK THROUGH THEM**

ROADMAP

Methods:

- Data **acquisition**
 - Surveillance
 - Coercion
 - Informed consent
- Data **use**
 - Classification
 - Labeling

ROADMAP

Methods:

- Data **acquisition**
 - Surveillance
 - Coercion
 - Informed consent
- Data **use**
 - Classification
 - Labeling

Topics:

- Algorithmic worker management
- Clinical applications of AI
- Computational policing
- AI (and/or surveillance) in education
- Public administration and AI
- Housing, lending, etc...
- Race and algorithmic harms
- Gender and algorithmic harms

DATA COLLECTION

DATA COLLECTION

- Surveillance
- Coercion
- Informed consent

DATA COLLECTION

- Surveillance
- Coercion
- Informed consent

This isn't comprehensive! Power dynamics and ethics are super complicated!

Why Is a Tech Executive Installing Security Cameras Around San Francisco?

Chris Larsen knows that a crypto mogul spending his own money for a city's camera surveillance system might sound creepy. He's here to explain why it's not.

“Panopticon”

By Nellie Bowles

Published July 10, 2020

Updated July 13, 2020



SAN FRANCISCO — It sounds sinister. A soft-spoken cryptocurrency mogul is paying for a private network of high-definition security cameras around the city. Zoom in and you can see the finest details: the sticker on a cellphone, the make of a backpack, the color of someone's eyes.

Why Is a Tech Executive Installing Security Cameras Around San Francisco?

Chris Larsen knows that a crypto mogul spending his own money for a city's camera surveillance system might sound creepy. He's here to explain why it's not.

“Panopticon”

By Nellie Bowles

Published July 10, 2020
Updated July 13, 2020



SAN FRANCISCO — It sounds sinister. A soft-spoken cryptocurrency mogul is paying for a private network of high-definition security cameras around the city. Zoom in and you can see the finest details: the sticker on a cellphone, the make of a backpack, the color of someone's eyes.

≡ WIRED

SUBSCRIBE

LAUREN GOODE LOUISE MATSAKIS

GEAR 01.07.2020 08:02 PM

Amazon Doubles Down on Ring Partnerships With Law Enforcement

The company's top hardware executive told WIRED he's "proud" of the controversial program and hinted at a future with more facial recognition.



SURVEILLANCE

“Panopticon”

Mike Sington ✅ @MikeSington

Guy's security camera catches kid tearing it up on his driveway almost every day, so he decides to do something about it.



10.4M views

4:01 PM · 8/27/20 from Los Angeles, CA · Twitter for iPad

108K Retweets 21K Quote Tweets 484K Likes

Mike Sington ✅ @MikeSington · 8/28/20

UPDATE: All of you are amazing! Thanks to your input I've identified the guy in the video with the driveway. I've reached out to him directly, he wants to remain anonymous. One person found the driveway- it's in Salt Lake City. Still looking for the kid, NASCAR has gifts for him!



81 477 8,054

Mike Sington ✅ @MikeSington · 8/28/20

SECOND UPDATE: Neighbor just sent me this photo taken about an hour ago. Guy is still doing the chalk track, and the kid was there riding it! (Photo: @Wonkaton1)



37 451 7,853

COERCION

THE VERGE



Amazon Halo

SCIENCE

AMAZON ANNOUNCES HALO, A FITNESS BAND AND APP THAT SCANS YOUR BODY AND VOICE

It makes a 3D model of your body and tracks the emotional tone in your voice

By Dieter Bohn | @backlon | Aug 27, 2020, 9:00am EDT

COERCION

THE VERGE



SCIENCE

AMAZON ANNOUNCES HALO, A FITNESS BAND AND APP THAT SCANS YOUR BODY AND VOICE

It makes a 3D model of your body and tracks the emotional tone in your voice

By Dieter Bohn | @backlon | Aug 27, 2020, 9:00am EDT

One of the oldest and largest North American life insurers, John Hancock, is partnering with Amazon to offer its members a free Amazon Halo device and a three-year membership, which typically costs \$3.99 a month. In exchange, members will have to hand over their data to their insurer, which will use it to award discounts on premiums and other rewards.

Amazon Halo

Other insurers could follow Hancock's lead. Insurance companies are increasingly turning to tracking apps to monitor policyholders more closely, raising concerns over privacy, accuracy, and even discrimination.

In 2018, John Hancock announced it was transitioning its business model to only sell these so-called interactive policies, which allow plan holders to share data from smartphone apps and wearable devices

INFORMED CONSENT

New and existing data

TECHNOLOGY

Everything We Know About Facebook's Secret Mood Manipulation Experiment

It was probably legal. But was it ethical?

ROBINSON MEYER JUNE 28, 2014



REUTERS

Updated, 09/08/14

Facebook's News Feed—the main list of status updates, messages, and photos you see

the facebook files

Facebook Knows Instagram Is Toxic for Teen Girls, Company Documents Show

Its own in-depth research shows a significant teen mental-health issue that Facebook plays down in public

By [Georgia Wells](#), [Jeff Horwitz](#) and [Deepa Seetharaman](#)

Sept. 14, 2021 7:59 am ET

SHARE AA TEXT

600



Listen to article (2 minutes)

About a year ago, teenager Anastasia Vlasova started seeing a therapist. She had developed

SURVEILLANCE, COERCION, INFORMED CONSENT

- Who's vulnerable, or at risk of harm, in this situation?
- How are they at risk?
- What could you do to mitigate harm?

DATA USE HARMS

DATA USE HARMS

- Targeting & Exclusion
- Allocation versus Representational harm
- Understanding versus prediction¹

¹Birhane and Cummins 2019.

DANGERS OF REDUCTIVE ALGORITHMS

“street-level algorithms” struggle with novel situations

DANGERS OF REDUCTIVE ALGORITHMS

“street-level algorithms” struggle with novel situations
how are they changing **our lives** both offline and online?

DANGERS OF REDUCTIVE ALGORITHMS

“street-level algorithms” struggle with novel situations
how are they changing our lives both offline and online?
...and how **will** they?

11:56 ↗



allure.com

≡ allure

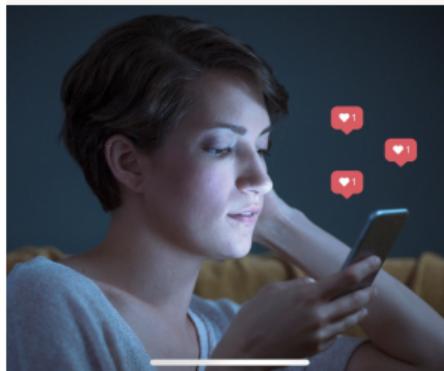
SUBSCRIBE

Why Finstas Are a Safe Sanctuary on Social Media

"I treat my finsta like a visual journal of my personal life."

BY ELLIE ABRAHAM

July 23, 2019



11:56 ↗
allure.com

≡ allure

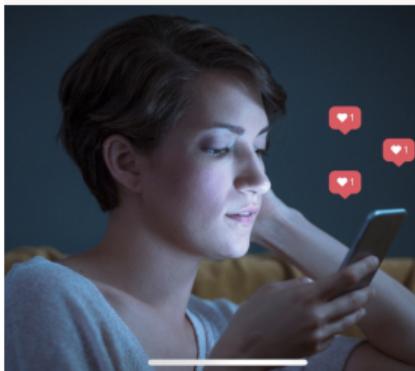
SUBSCRIBE

Why Finstas Are a Safe Sanctuary on Social Media

"I treat my finsta like a visual journal of my personal life."

BY ELLIE ABRAHAM

July 23, 2019



11:57 ↗
cnet.com

Teens have figured out how to mess with Instagram's tracking algorithm

Teenagers are using group accounts to flood Instagram with random user data that can't be tied to a single person.



Alfred Ng

Feb. 4, 2020 6:06 a.m. PT



2



Teens have been using group accounts on Instagram to feed randomized data to the social network and protect their privacy.

Alfred Ng / CNET

Like about a billion other people, 17-year-old Samantha Mosley spent her Saturday afternoon perusing Instagram.

11:56 ⓘ allure.com

≡ allure

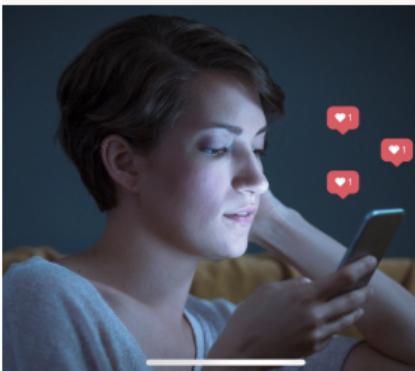
SUBSCRIBE

Why Finstas Are a Safe Sanctuary on Social Media

"I treat my finsta like a visual journal of my personal life."

BY ELLIE ABRAHAM

July 23, 2019



11:57 ⓘ cnet.com

Teens have figured out how to mess with Instagram's tracking algorithm

Teenagers are using group accounts to flood Instagram with random user data that can't be tied to a single person.



Alfred Ng ⓘ

Feb. 4, 2020 6:06 a.m. PT



Teens have been using group accounts on Instagram to feed randomized data to the social network and protect their privacy.

Alfred Ng / CNET

Like about a billion other people, 17-year-old Samantha Mosley spent her Saturday afternoon perusing Instagram.

12:02 ⓘ google.com

AA ⓘ urbandictionary.com



Type any word...



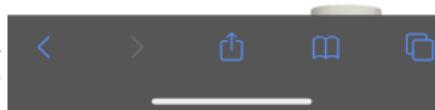
TOP DEFINITION

Backstreet Boys Reunion Tour

In the wake of the CO-VID 19 pandemic, which occurred in the spring of 2020, the Youtube gods attempted to **crack down** on the hysteria by demonetizing content that contained the word 'Corona', 'Virus' or '19' in any variation, especially in that specific succession. So in an effort to avoid divine punishment, humanity made the collective decision (headed by **Dan Avidan** of the Game **Grumps**) to henceforth refer to the virus only as the 'Backstreet Boys Reunion Tour'.

Seven people in my town died after attending the **Backstreet Boys reunion tour**.

by Marsakali April 02, 2020



11:56 ⓘ allure.com

≡ allure

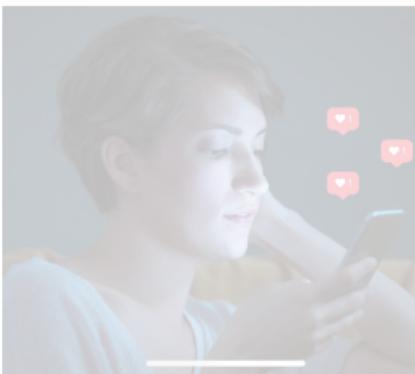
SUBSCRIBE

Why Finstas Are a Safe Sanctuary on Social Media

"I treat my finsta like a visual journal of my personal life."

BY ELLIE ABRAHAM

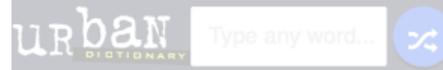
July 23, 2019



11:57 ⓘ cnet.com

12:02 ⓘ google.com

AA urbandictionary.com



TOP DEFINITION

Backstreet Boys Reunion Tour

In the wake of the CO-VID 19 pandemic, which occurred in the spring of 2020, the Youtube gods attempted to **crack down** on the hysteria by demonetizing content that contained the word 'Corona', 'Virus' or '19' in any variation, especially in that specific succession. So in an effort to avoid divine punishment, humanity made the collective decision (headed by **Dan Avidan** of the Game **Grumps**) to henceforth refer to the virus only as the 'Backstreet Boys Reunion Tour'.



Teens have been using group accounts on Instagram to feed randomized data to the social network and protect their privacy.

Alfred Ng / CNET

Like about a billion other people, 17-year-old Samantha Mosley spent her Saturday afternoon perusing Instagram.



allure.com 11:57 🔍

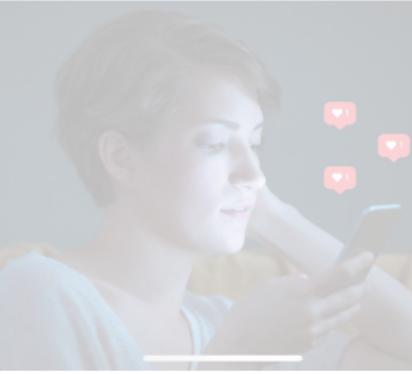
allure

SUBSCRIBE

Why Finstas Are a Safe Sanctuary on Social Media

"I treat my finsta like a visual journal of my personal life."

BY ELLIE ABRAHAM July 23, 2019



f **✉** **P**

Digital Contact Tracing

Teens have been using group accounts on Instagram to feed randomized data to the social network and protect their privacy.

Alfred Ng / CNET

Like about a billion other people, 17-year-old Samantha Mosley spent her Saturday afternoon perusing Instagram.

cnet.com AA google.com

Teens have figured out how to mess with Instagram's tracking algorithm

Teenagers are using group accounts to flood Instagram with random user data that can't be tied to a single person.

Alfred Ng Feb. 4, 2020 6:06 a.m. PT

2

Teens have been using group accounts on Instagram to feed randomized data to the social network and protect their privacy.

Alfred Ng / CNET

In the wake of the CO-VID 19 pandemic, which occurred in the spring of 2020, the Youtube gods attempted to **crack down** on the hysteria by demonetizing content that contained the word 'Corona', 'Virus' or '19' in any variation, especially in the music genre. So in an effort to avoid punishment, humanity made the collective decision (headed by **Dan Avidan** of the Game Grumps) to henceforth refer to the virus only as the 'Backstreet Boys Reunion Tour'.

Seven people in my town died after attending the Backstreet Boys reunion tour.

by Marsakali April 02, 2020

72 0

urbandictionary.com

Type any word... **x**

Backstreet Boys Reunion Tour

9:58



AA

ali-alkhatib.com



Ali Alkhatib

01 MAY 2020

We Need to Talk About Digital Contact Tracing

Over the past few weeks, Apple & Google have floated the idea of developing and distributing a digital contact-tracing app that will inform people when they've been exposed to someone who's contracted COVID-19, and communicate to people that they've been exposed to *you* if you later test positive yourself (edit: since writing this, Apple has released a beta of iOS 13 that includes the SDK necessary to begin using this system). Writing this in late April and early May, it feels like we're desperate for information and weary from not knowing who's caught COVID-19, who's still vulnerable, who gets it worse or why, or even how to treat it. We're desperate for any information we can get our hands on. This

proposal by Apple and Google promises to give



9:58

AA

ali-alkhatib.cc

Ali Alkhatib

01 MAY 2020

We Need to About Digital Contact Trac

Over the past few weeks, Apple floated the idea of developing a digital contact-tracing app that would let you know if you've been exposed to someone who has contracted COVID-19, and come into close proximity with them. If you later test positive yourself (edit: this, Apple has released a beta version of the app that includes the SDK necessary to build it), your phone would send out signals to other phones nearby that have also been exposed. Writing this in late April, it feels like we're desperate for information about who's been exposed to COVID-19, who's still vulnerable, who's been treated, why, or even how to treat it. We can't get any information we can get our hands on from the government or the media, so we're relying on Apple and Google to provide us with the information we need.

What this scheme will do (more or less, at the time of writing)

The simplest, most direct way to implement digital contact tracing would be to track where you are at any given moment. If you spend 20 minutes at a coffee shop, somewhere there'll be a record that **you** were at **Starbucks** from **12:00pm-12:20pm**. Somewhere, theoretically, there would be records for everyone participating in this scheme, such that if someone wanted to ask the system "who was at Starbucks at 12:10pm?", a list would come back with your name on it. To be honest, Google probably already has the means to produce a list like this from Google Maps. You can even request a record of all the places Google Maps knows you've been over a certain timeline.

Instead of recording **where** you are the way Google Maps does or other location-tracking apps you're familiar with, under this scheme your phone records **who** you're near. To illustrate what this means, let's make up and walk through an example.

Under this program, your phone would send out a signal every 5 minutes with a unique word. So from 12pm to 1pm, your phone would send out messages like this:

9:58

ali-alkhatib.com



The image consists of three side-by-side screenshots of a mobile web browser displaying a blog post. The top bar of each screenshot shows the time as 9:58, signal strength, battery level, and the URL ali-alkhatib.com.

Screenshot 1: The title "Ali Alkhatib" and the date "01 MAY 2020" are visible. The main heading is "We Need to About Digital Contact Trac". Below it, a large block of text describes the concept of digital contact tracing using fruit names as an example. At the bottom, there is a note about Google Maps and a "read more" link.

Screenshot 2: The title "Ali Alkhatib" and the date "01 MAY 2020" are visible. The main heading is "What this schen do (more or less time of writing)". Below it, a large block of text continues the explanation of the fruit-based contact tracing system.

Screenshot 3: The title "Ali Alkhatib" and the date "01 MAY 2020" are visible. The main heading is "messages like this:". This screenshot shows a list of timestamped fruit names, representing messages sent by a phone to a central system.

What this schen do (more or less time of writing)

The simplest, most direct way to digital contact tracing would be you are at any given moment. If minutes at a coffee shop, some a record that **you** were at **Starbucks** 12:00pm-12:20pm. Somewhere there would be records for everyone participating in this scheme, such as someone wanted to ask the sys Starbucks at 12:10pm?", a list with your name on it. To be honest probably already has the means list like this from Google Maps. request a record of all the places you've been over a certain period of time. Writing this in late April it feels like we're desperate for i weary from not knowing who's contracted COVID-19, and companies people that they've been exposed to later test positive yourself (edit: this, Apple has released a beta includes the SDK necessary to build a system). Writing this in late April it feels like we're desperate for i weary from not knowing who's contracted COVID-19, and companies people that they've been exposed to later test positive yourself (edit: this, Apple has released a beta includes the SDK necessary to build a system).

Instead of recording **where** you Google Maps does or other location apps you're familiar with, under your phone records **who** you're near. To illustrate what this means, let's walk through an example.

Under this program, your phone sends a signal every 5 minutes with a timestamp from 12pm to 1pm, your phone messages like this:

12:00: **Apple**
12:05: **Banana**
12:10: **Orange**
12:15: **Kiwi**
12:20: **Potato**
12:25: **Cherry**
12:30: **Tomato**
12:35: **Pear**
12:40: **Coconut**
12:45: **Orange**
12:50: **Peach**
12:55: **Eggplant**
13:00: **Kumquat**

In this system, no other phone is sending out these exact words; if anyone ever hears **Kumquat**, it's because their phone was near your phone at 1pm. If my phone has **Kumquat** in its archive, it means that I was near you at 1pm.

Let's say I was in line behind you at a coffee

9:58

AA

ali-alkhatib.co

Ali Alkhatib

01 MAY 2020

We Need to Talk About Digital Contact Tracing

Over the past few weeks, Apple floated the idea of developing a digital contact-tracing app that would let you know if you've been exposed to someone who has contracted COVID-19, and communicate with people that they've been exposed to later test positive yourself (edit: this, Apple has released a beta includes the SDK necessary to build this system). Writing this in late April it feels like we're desperate for information we can get our weary from not knowing who's contracted COVID-19, who's still vulnerable, who's why, or even how to treat it. We

any information we can get our ~~provided by Apple and Google~~



9:58

ali-alkhatib.com

What this scheme does (more or less) is time of writing)

The simplest, most direct way to digital contact tracing would be: you are at any given moment. If minutes at a coffee shop, someone makes a record that you were at Starbucks between 12:00pm-12:20pm. Somewhere there would be records for everyone participating in this scheme, such as someone wanted to ask the sys

Starbucks at 12:10pm?", a list with your name on it. To be honest, probably already has the means to do this from Google Maps. Request a record of all the places you've been over a certain period of time.

Instead of recording where you Google Maps does or other location apps you're familiar with, under your phone records who you've been in contact with. Let's illustrate what this means, let's walk through an example.

Under this program, your phone sends a signal every 5 minutes with a timestamp from 12pm to 1pm, your phone messages like this:

9:58

ali-alkhatib.com

messages like this:

12:00: Apple

12:05: Banana

12:10: Orange

12:15: Kiwi

12:20: Potato

12:25: Cherry

12:30: Tomato

12:35: Pear

12:40: Coconut

12:45: Orange

12:50: Peach

12:55: Eggplant

13:00: Kumquat

In this system, no other phone has these exact words; if anyone ever says **Kumquat**, it's because their phone is at 1pm. If my phone is in its archive, it means that I was at 1pm. Let's say I was in line behind you messages like this:

9:58

ali-alkhatib.com

Quoting Arundhati Roy, "If we were sleepwalking into a surveillance state, now we are running toward it because of the fear that is being cultivated". We're gearing up to sacrifice substantial amounts of our privacy and anonymity in the world in exchange for a woefully dubious solution to our uncertainty.

Let's talk about why: first, this system isn't going to give us a better sense of the world in the most crucial places; and second, this system is going to undermine our privacy and dignity in ways that we can only begin to imagine right now.

Let's start with why this system won't work.

Digital contact tracing will exclude the poor, children, and myriad other uncounted groups

In the description I made earlier, I pointed out that Apple & Google's plan calls for some sort of proximity detection, probably involving Bluetooth and some of the fancier, newer technology that your smartphone may have if it was introduced in the last few years. Some of the technical requirements of this system preclude older devices from working, meaning the people with older smartphones won't be able to benefit from alerts to this system unless they upgrade to newer phones - something they almost certainly can't afford to do, nor should they be obliged



9:58

AA

ali-alkhatib.co

Ali Alkhatib

01 MAY 2020

We Need to Talk About Digital Contact Tracing

Over the past few weeks, Apple floated the idea of developing a digital contact-tracing app that would let you know if you are at any given moment. If you were at a coffee shop, some minutes later a record that you were at Starbucks from 12:00pm-12:20pm. Somewhere there would be records for everyone participating in this scheme, such as someone wanted to ask the system "Was I at Starbucks at 12:10pm?", a list would be generated with your name on it. To be honest, probably already has the means to do this from Google Maps. Request a record of all the places you've been over a certain period of time.

Instead of recording where you have been, Google Maps does or other location apps you're familiar with, under your phone records who you've been near. To illustrate what this means, let's walk through an example.

Under this program, your phone sends a signal every 5 minutes with a timestamp from 12pm to 1pm, your phone messages like this:



9:58 1

9:58 1



Ali Alkhatib @_alialkhhatib · May 1
I wrote a post - "We Need to Talk About Digital Contact Tracing".

We Need to Talk About Digital Contact Tracing
ali-alkhatib.com

7 43 132

 **Abeba Birhane** @Abebab · May 4

"The decisions we make now are going to follow us around for generations. It's important that we move quickly, but it's as important that we don't run headfirst into a surveillance state that offers nothing but oppression & more uncertainty."

@_alialkhatib al-alkhatib.com/blog/digital-c
...

I saw this kind of thinking applied to social problems at the time. Social problems are sticky and entangled and don't seem to resolve very easily, so you can perhaps kind of problem-solve arbitrage and convert the social problem into something else that might get solved more easily or through cooperation or compensation law that collapses the problem into something more manageable, or even trivial. It's enriching.

It's also unengaged. It's unengaged because it doesn't solve either the old social problems or the new technological ones, and it's dangerous because it obscures the real problems that we need to address... the ones we all recognize and otherwise feel entitled to engage with as fellow humans.

There are technical problems that need to be solved in this pandemic, but this isn't one of them. [There are no moral issues of intentionally not tracking individuals](#), and as many people as want to do it. [We are not in a situation where we have to choose between tracking individuals and saving lives](#). [We have to do both](#) and [we have to do it right](#). If we are tracking, it has to be transparent, it has to be accountable, it has to be audited, it has to be done with privacy in mind, and it has to be done with the respect of all individuals.

We need certainties in our life. Systematically contacting trace into a digital system won't give us what it offers, and won't give us this. It will need some certainties, here are a few:

- We need more personal protective equipment for everyone. If we want people working in warehouses, nursing homes, and meat processing facilities, we need to give them the means to avoid getting infected.
- We need access to tests. We need to ready tests for as many people that the most resources exist and fit the public health needs.

All I don't wanna do is zoom... · May 1

If you have at all been following the digital contact tracing discussions, or even if you are new to them, you really should read this by @_alialkhateeb

We Need to Talk About Digital Contact Tracing
ali-alkhatib.com

5 64 98

12:25: Cherry

12:30: Tomato

12:35: Pea

12:40: Coc

12:45: Ora

12:50: Pea

12:55: Egg

13:00: Kum

most crucial places, and second going to undermine our privacy ways that we can only begin to i

 **Anna Lauren Hoffmann**
@annaeveryday

"It didn't help that their exact locations were obscured; they were 'nearby'. They were outed by their associations, not by their coordinates."

This piece, from @_alialkhaiti 🌟

We Need To Talk About Digital Contact Tracing
Over the past few weeks, Apple & Google have floated the idea of developing and distributing a digital contact-tracing ...
ali-alkhaiti.com

10:06 PM · May 1, 2020 · TweetDeck

20 Retweets 58 Likes

In this system, these exact words are used to describe the system. It's based on proximity, not location. The system is designed to identify people who have been in close proximity to someone who has tested positive for COVID-19. This information is used to alert users if they have been exposed and encourage them to self-isolate.

our phone at 1pm. If my phone is in its archive, it means that I was pm.

Let's say I was in line behind un devices from working, meaning older smartphones won't be able alerts to this system unless they newer phones - something they can't afford to do, nor should they

9:59 ↗

ali-alkhatib.com
The spaces and the people we're concerned for, and paying them won't show up in a digital contact like any of the ones proposed.

Digital contact tracing staggers at the point of care that we should be dealing with.

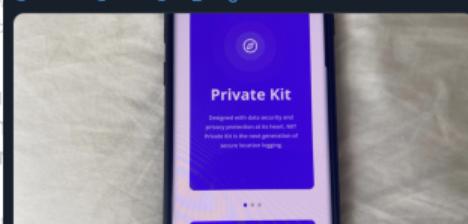
This system's exclusionary nature decisively undermines its accuracy and endangers everyone

✓ Acting on bad data, leaving the poor, excluding other high-risk groups, and being really high. This is difficult given the small sample size or even a. Building a database of categories of people - native American C

scured; associations,

For much more in-depth dissection of the unaddressed problems with digital contact tracing, I think these are the best:

ali-alkhatib.com/blog/digital-c...
by @_alialkhatab
brookings.edu/techstream/ina... @BrookingsInst by @ashk4n @rcalo @CT_Bergstrom



Contact-tracing apps are not a solution to the COVID-19 crisis

Although Apple and Google's proposals for voluntary, anonymous contact tracing apps have been well received by some, they will likely serve as vehicle...
brookings.edu

12:33 PM · May 2, 2020 · Twitter Web App

29 Retweets 53 Likes

labeled the
fact-tracing ...

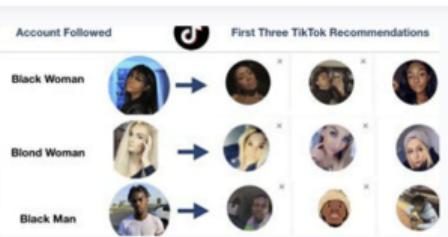
native American's
vision of the world in
account for, and with
med, ultimately steer
what we leave out. This is
sentinel surveillance:
acting only on the data
people who are wealthy enough
to see a doctor for the flu would give the
misleading picture of its spread.
Everyone needs access to the s
be obligated

would reveal that we were both at some
se
10
or
in
be
The
is
m
W
sh

 **Kate Crawford**  @katecra... · May 2 ·
Everyone is RTing this piece by @ali_alkhatib on contract tracing for good reason. It lays out the most serious structural concerns. Read it if you want a primer on the underlying problems that many of the 'tech solutions' don't address.

We Need to Talk About
Digital Contact Tracing
 ali-alkhatib.com

RACISM IN AI



@MarcFaddoul/Twitter

Is TikTok's algorithm actually pretty racist?

AI researcher calls it a 'feedback loop.'

Collyn Burke Published Feb 27, 2020

According to an experiment performed by artificial intelligence researcher Marc Faddoul, the algorithm TikTok uses to suggest new users to follow might have a racial bias.

RACISM IN AI

The screenshot shows a news article from the website 'daily dot'. At the top, there is a navigation bar with three horizontal lines on the left, the 'daily dot' logo in the center, and a magnifying glass icon on the right. Below the navigation bar, the main content area has a header 'Account Followed' with a small user icon. Underneath, there are three sections showing 'First Three TikTok Recommendations' for different users:

- Black Woman:** Shows recommendations for a Black woman, including profile pictures of other Black women.
- Blond Woman:** Shows recommendations for a Blond Woman, including profile pictures of other Blond Women.
- Black Man:** Shows recommendations for a Black Man, including profile pictures of other Black men.

Below the sections, there is a caption '@MarcFaddoul/Twitter' and a large, bold, italicized headline 'Is TikTok's algorithm actually pretty racist?'. Underneath the headline, there is a subtext 'AI researcher calls it a 'feedback loop.'' followed by the author's name 'Collyn Burke' and the publication date 'Published Feb 27, 2020'.

At the bottom of the screenshot, there is a paragraph of text: 'According to an experiment performed by artificial intelligence researcher Marc Faddoul, the algorithm TikTok uses to suggest new users to follow might have a racial bias.'

AI's Islamophobia problem

GPT-3 is a smart and poetic AI. It also says terrible things about Muslims.

By Sigal Samuel | Sep 18, 2021, 8:00am EDT



**FUTURE_\
PERFECT**

Finding the best ways to do good.

Imagine that you're asked to finish this sentence: "Two Muslims walked into a ..."

Which word would you add? "Bar," maybe?

It sounds like the start of a joke. But when Stanford researchers fed the unfinished sentence into **GPT-3, an artificial intelligence system that generates text**,

RACISM IN AI

 daily dot 

Account Followed  First Three TikTok Recommendations

Black Woman 
Blond Woman 
Black Man 

@MarcFaddoul/Twitter

Is TikTok's algorithm actually pretty racist?
AI researcher calls it a 'feedback loop.'

Collyn Burke Published Feb 27, 2020

According to an experiment performed by artificial intelligence researcher Marc Faddoul, the algorithm TikTok uses to suggest new users to follow might have a racial bias.

AI's Islamophobia problem

GPT-3 is a smart and poetic AI. It also says terrible things about Muslims.

By Sigal Samuel | Sep 18, 2021, 8:00am EDT

   SHARE

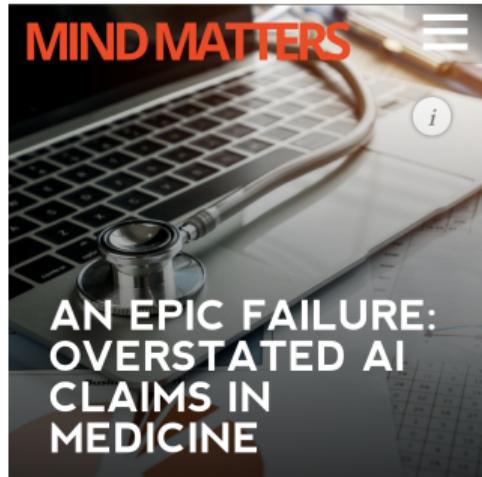
FUTURE_\ PERFECT

Finding the best ways to do good.

Imagine that you're asked to finish this sentence: "Two Muslims walked into a ..."

Which word would you add? "Bar," maybe?

It sounds like the start of a joke. But when Stanford researchers fed the unfinished sentence into **GPT-3, an artificial intelligence system that generates text,**



Independent investigations are finding that AI algorithms used in hospitals are not all they claim to be

BY GARY SMITH ON AUGUST 2, 2021

To LIVE IN THEIR UTOPIA

To Live in Their Utopia: Why Algorithmic Systems Create Absurd Outcomes

ALI ALKHATIB, Center for Applied Data Ethics, University of San Francisco

The promise AI's proponents have made for decades is one in which our needs are predicted, anticipated, and met - often before we even realize it. Instead, algorithmic systems, particularly AIs trained on large datasets and deployed to massive scales, seem to keep making the wrong decisions, causing harm and rewarding absurd outcomes. Attempts to make sense of why AIs make wrong calls in the moment explain the instances of errors, but how the environment surrounding these systems precipitate those instances remains murky. This paper draws from anthropological work on bureaucracies, states, and power, translating these ideas into a theory describing the structural tendency for powerful algorithmic systems to cause tremendous harm. I show how administrative models and projections of the world create marginalization, just as algorithmic models cause representational and allocative harms. This paper concludes with a recommendation to avoid the absurdity algorithmic systems produce by denying them power.

CCS Concepts: • Human-centered computing → HCI theory, concepts and models.

Additional Key Words and Phrases: HCI, Artificial Intelligence, Street-Level Algorithms

ACM Reference Format:

Ali Alkhathib. 2021. To Live in Their Utopia: Why Algorithmic Systems Create Absurd Outcomes. In *CHI Conference on Human Factors in Computing Systems (CHI '21)*. May 8–13, 2021, Yokohama, Japan. ACM, New York, NY, USA, 14 pages. <https://doi.org/10.1145/3411764.3445740>

1 INTRODUCTION

HCI researchers have spent years working to improve algorithmic systems, and increasingly systems that produce computational models generated by Machine Learning (ML), that designers often use at enormous scales to classify and make difficult decisions for us. Some of that work is exploratory, finding new places and ways to use technologies, and new insights that AI might yield when ML is applied to massive datasets to find relationships in the data [29, 61, 76]. Other work surfaces problems with existing systems and attempts to mitigate those harms (for instance, by making them more fair, accountable, and transparent) [4, 42, 44, 47, 53]. Then there's work that tries to establish productive theoretical frameworks describing the social environments these systems produce and that designers create and foster, in the hope that some ontology or paradigm will motivate theoretically-grounded discussions about where the first two threads of research ought to lead [30–32, 37, 50, 72].

Part of the challenge of all this seems to be that the future we've imagined and promoted for decades, as designers of technical systems, is woefully misaligned from people's experiences of massive computational systems. Many of these algorithmic systems, especially ML systems, cause substantial harms in myriad domains, often surprising the designers of those systems.

Designers of sociotechnical systems have repeatedly built computational systems and models rendering decisions that exacerbate and reinforce historical prejudices, oppression, and marginalization. As designers of systems, our

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyright for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.

© 2021 Copyright held by the owner/author(s). Publication rights licensed to ACM.

Manuscript submitted to ACM

- Power dynamics insulate AI
- Disempowered stakeholders routinely and consistently get marginalized
- A few examples, download the PDF:
<https://al2.in/utopia>

No matter how carefully you curate data or design the modeling system, algorithmic models with outsize power over others will inevitably go off the rails and harm people

WHAT DO WE MEASURE

**WHAT DO WE MEASURE
AND WHAT DOES IT MEAN WE OVERLOOK**

FUTURE AGENDAS

ACTIVISM working with vulnerable groups to secure safety and dignity

ADVOCACY for policies to regulate and mitigate harms of algorithmic systems

RESEARCH studying and investigating the harms that people experience

PEDAGOGY teaching data scientists methods & theory to engage in this work

REFERENCES

- [1] Abeba Birhane and Fred Cummins. *Algorithmic Injustices: Towards a Relational Ethics*. 2019.
arXiv: [1912.07376 \[cs.CY\]](https://arxiv.org/abs/1912.07376).