wut dis?

DPAS

DATA HARMS & DATA HAZARDS
Rowenna Fielding
Director
Miss IG Geek Ltd
(starring Timmy the Cat)

Data Harms

y tho

- fairness
- proportionality
- impact to rights & freedoms of data subjects
- balance of interests

like it

INDIVIDUAL HARMS

Human, civil, consumer,
labour, contract, etc

Physical, emotional,
reputational,
financial, property

Burden of proof,
access to resources
harder

RIGHTS

DENIED

DAMAGE

UNWARRANTED

REDRESS

DENIED

dislike

UNFAIR

OUTCOMES

CHILLING

EFFECTS

Discrimination,
injustice,
disadvantage,
exploitation

Freedom of speech,
association,
expression,
conscience, etc

Uber Employees Used Data to Stalk Celebrities, Exes

'They Were Spying On Us': Amazon, Walmart, Use Surveillance Technology to Bust Unions

Revealed: how gambling industry targets poor people and ex-gamblers

Surveillance Chills Speech—As New Studies Show—And Free Association Suffers

Warwick Business School scraps 'discriminatory and ableist' exam surveillance software

GROUP HARMS

SYSTEMIC INJUSTICE

Particular groups of people are treated disproportionately less well than others

DISCRIMINATION

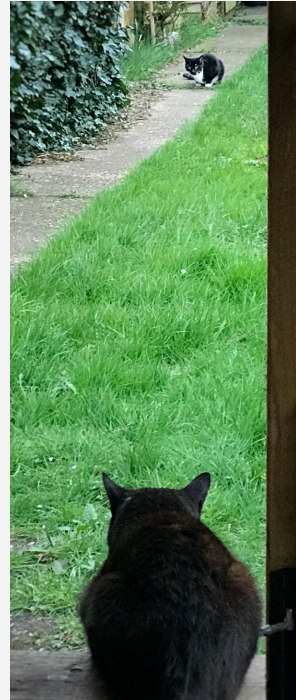Social prejudice creates structural bias against certain groups of people

ASSOCIATION

People are judged by the inherent traits they share with other group members, not as individuals

EXCLUSION

The needs of minorities and marginalised people are neglected in design and decision-making processes

off my lawn

How Opaque Personality Tests Can Stop Disabled People from Getting Hired

Facebook Engages in Housing Discrimination With Its Ad Practices, U.S. Says

92% Of Top Parental Control Apps Wrongly Block LGBTQ And Sex-Ed Sites

How Surveillance Harms Low-Income People and Workers

The Apple Card Didn't 'See' Gender—and That's the Problem

The way its algorithm determines credit lines makes the risk of bias more acute.

CHALLENGE

STOCHASTIC PROCESS

Outcomes are foreseeable
(what harms will result)

BUT

not predictable
(not when, where, to whom, how much)

WHERE TO LOOK

…when both likelihood and impact are **unquantifiable*** at either group or individual levels

(*can't be measured by counting things)

gotcha

HAZARD MODEL

01

CONDITIONS

Environmental factors which provide vectors for data harms to be caused

02

MATERIALS

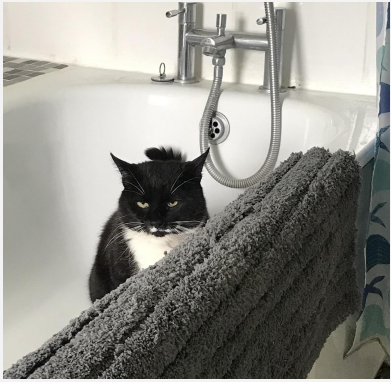Unsafety factors in the nature of data itself, and the tools used to process it

03

OPERATIONS

Processing activities and purposes which are inherently dangerous

yikes

CONDITIONS

POWER IMBALANCE

The data subject's choices and agency are limited compared to the power of the Controller(s)

BIZ MODEL

Extractive and/or exploitative practices are fundamental to the business model or industry

IMMATURITY

Organisation's data protection governance and infrastructure are weak, unreliable, arbitrary

COMPLEXITY

Long/complex /international supply chains involved

I WANT YOU BACK: GETTING MY PERSONAL DATA FROM AMAZON WAS WEEKS OF CONFUSION AND TEDIUM
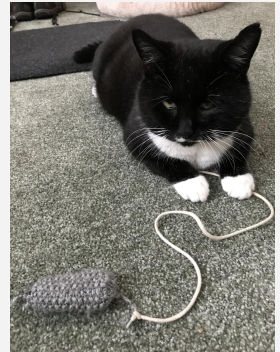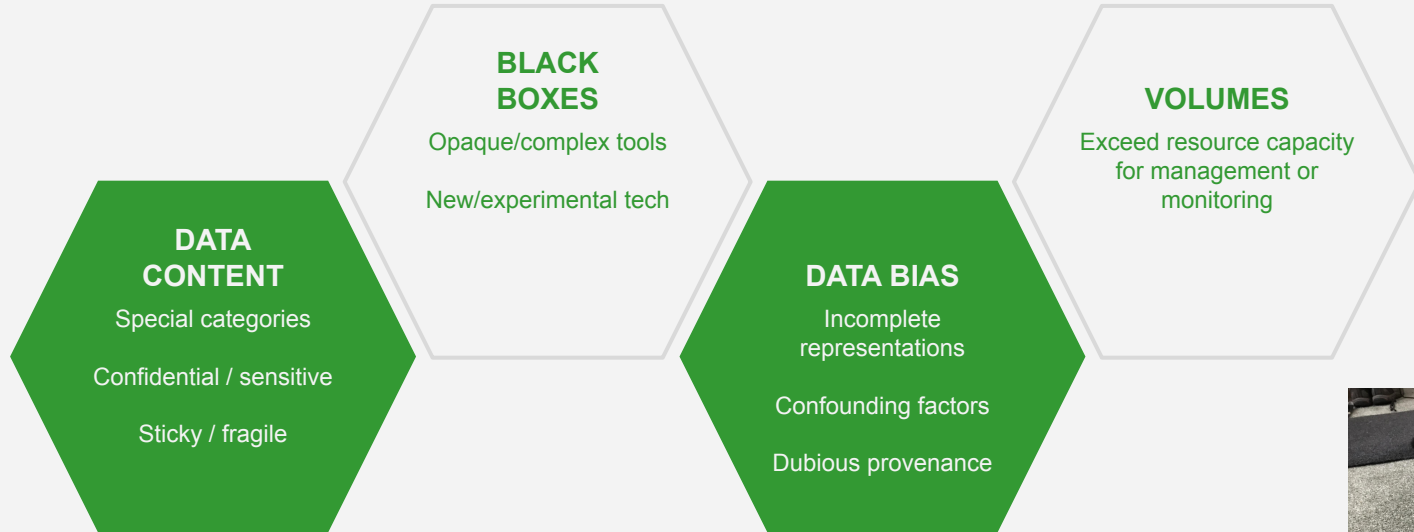
Former Uber security chief convicted of covering up data breach

The human cost of Australia's illegal 'robo' hunt for welfare cheats

'Grave concerns over the validity of EU status digital system' after Home Office benefits error

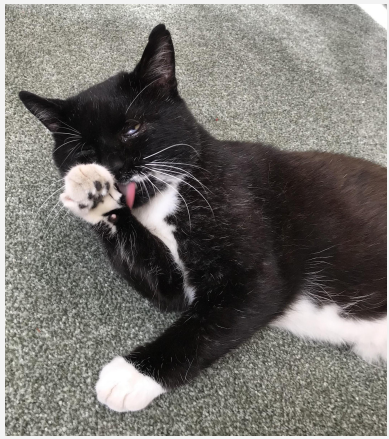Out-group animosity drives engagement on social media

MATERIALS

DATA CONTENT

Special categories

Confidential / sensitive

Sticky / fragile

BLACK BOXES

Opaque/complex tools

New/experimental tech

DATA BIAS

Incomplete representations

Confounding factors

Dubious provenance

VOLUMES

Exceed resource capacity for management or monitoring

Technology is Enabling Surveillance, Inequality During the Pandemic

Report finds COVID patients with learning disabilities given blanket DNRs
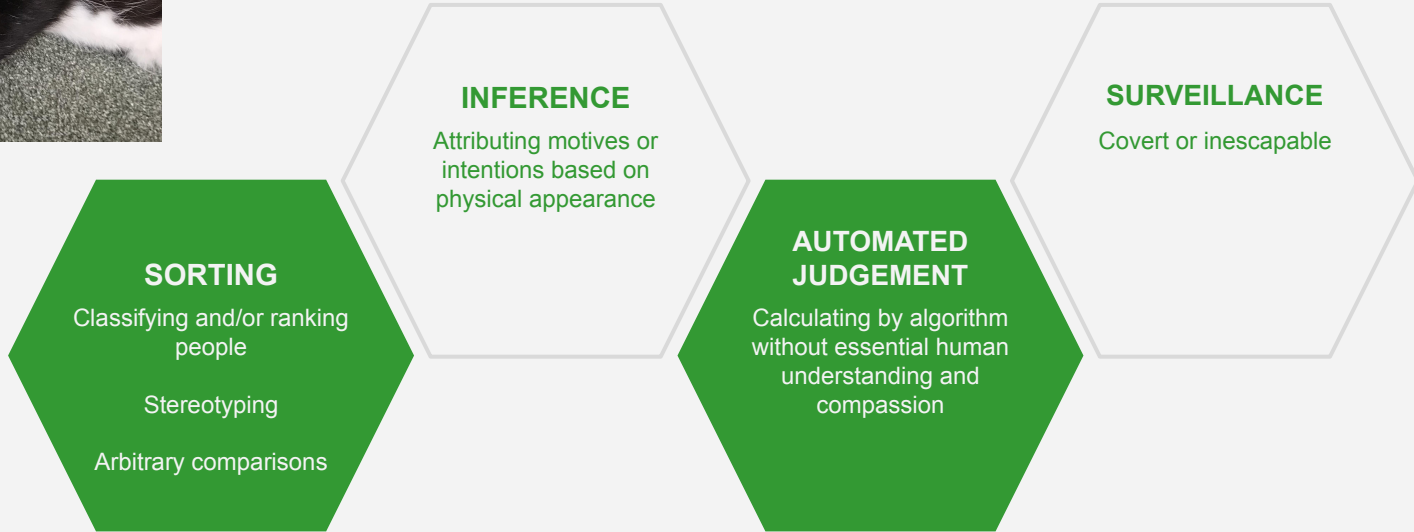
'No evidence' machine learning works well in children's social care, study finds

Ikea launches investigation after staff find CCTV cameras in toilets

Former Post Office worker says she was left homeless following false conviction

OPERATIONS

SORTING

Classifying and/or ranking people

Stereotyping

Arbitrary comparisons

INFERENCE

Attributing motives or intentions based on physical appearance

AUTOMATED JUDGEMENT

Calculating by algorithm without essential human understanding and compassion

SURVEILLANCE

Covert or inescapable

From Inherent Racial Bias to Incorrect Data—The Problems With Current Credit Scoring Models

DWP urged to reveal algorithm that 'targets' disabled for benefit fraud

Discrimination

TikTok curbed reach for people with disabilities

Your Smartphone Apps Are Filled With Trackers You Know Nothing About

Data

As AI Meets the Reputation Economy, We're All Being Silently Judged
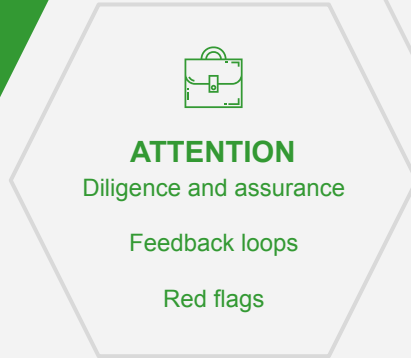
by Sophie Kleber

January 29, 2018

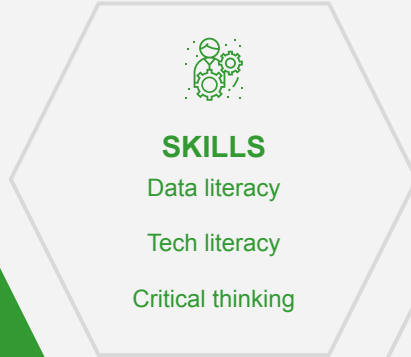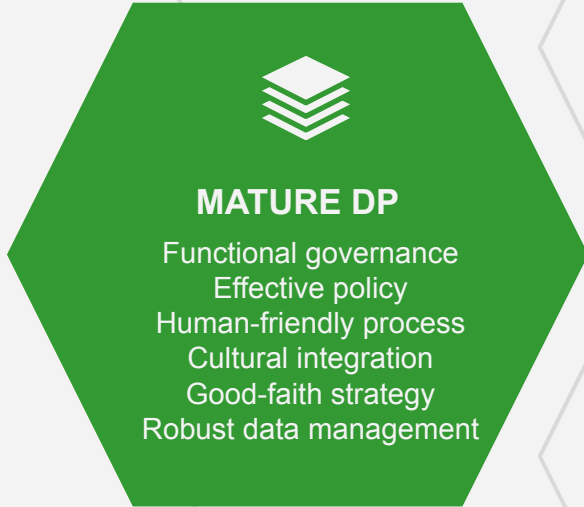Facebook's Ad Algorithm Discriminates Even When It's Not Told To, Study Finds

By Matt Stieb

ASSUME HARMS *WILL* OCCUR

UNLESS….

Protective safety measures are:
-in place
-effective
-sustainable
-maintained

SAFETY MEASURES

SKILLS

Data literacy

Tech literacy

Critical thinking

MATURE DP

Functional governance
Effective policy
Human-friendly process
Cultural integration
Good-faith strategy
Robust data management

CAPACITY

Enough time & space for thinking

Discussion: diverse contributors

ATTENTION

Diligence and assurance

Feedback loops

Red flags

FORGET 'RISK' SCORING

Impact to data subjects' rights and freedoms
cannot be described by a 5x5 matrix and wishful
thinking
Enumerate the hazards
Evaluate the safety meaasures
Build feedback loops
Keep an eye on news and research

RESILIENCE

RESOURCES

- https://datajusticelab.org/data-harm-record/
- https://www.theodi.org/article/the-data-ethics-canvas-2021/
- https://datahazards.com/contents/data-hazards.html
- https://www.urban.org/research/publication/do-no-harm-guide-additional-perspectives-data-equity
- https://commons.princeton.edu/invisible-violence/engagement/

Thanks
FOR LISTENING!