Image credit : Vincent Callebaut

Data Enabled
26th March 2019

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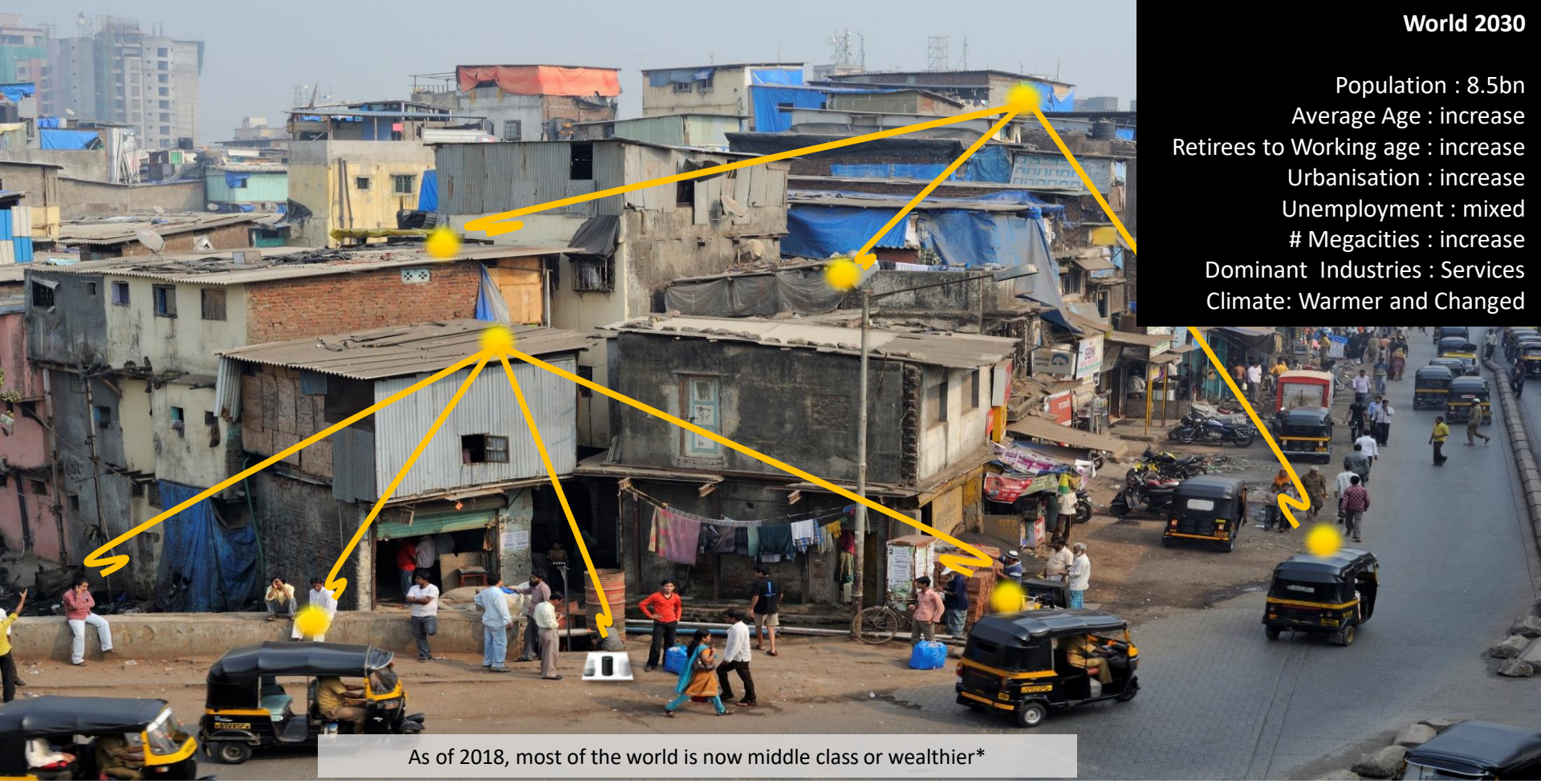
World 2030
Population : 8.5bn

Technology Trends
Driverless cars : increase
Tele-work : increase
Tele-education : increase
Tele-health : increase
Smart grids : ubiquitous
Smart factories : ubiquitous

Supertrees, giant man-made structures housing vertical gardens at Singapore's Gardens by the Bay.
The Straits Times (March 2019)



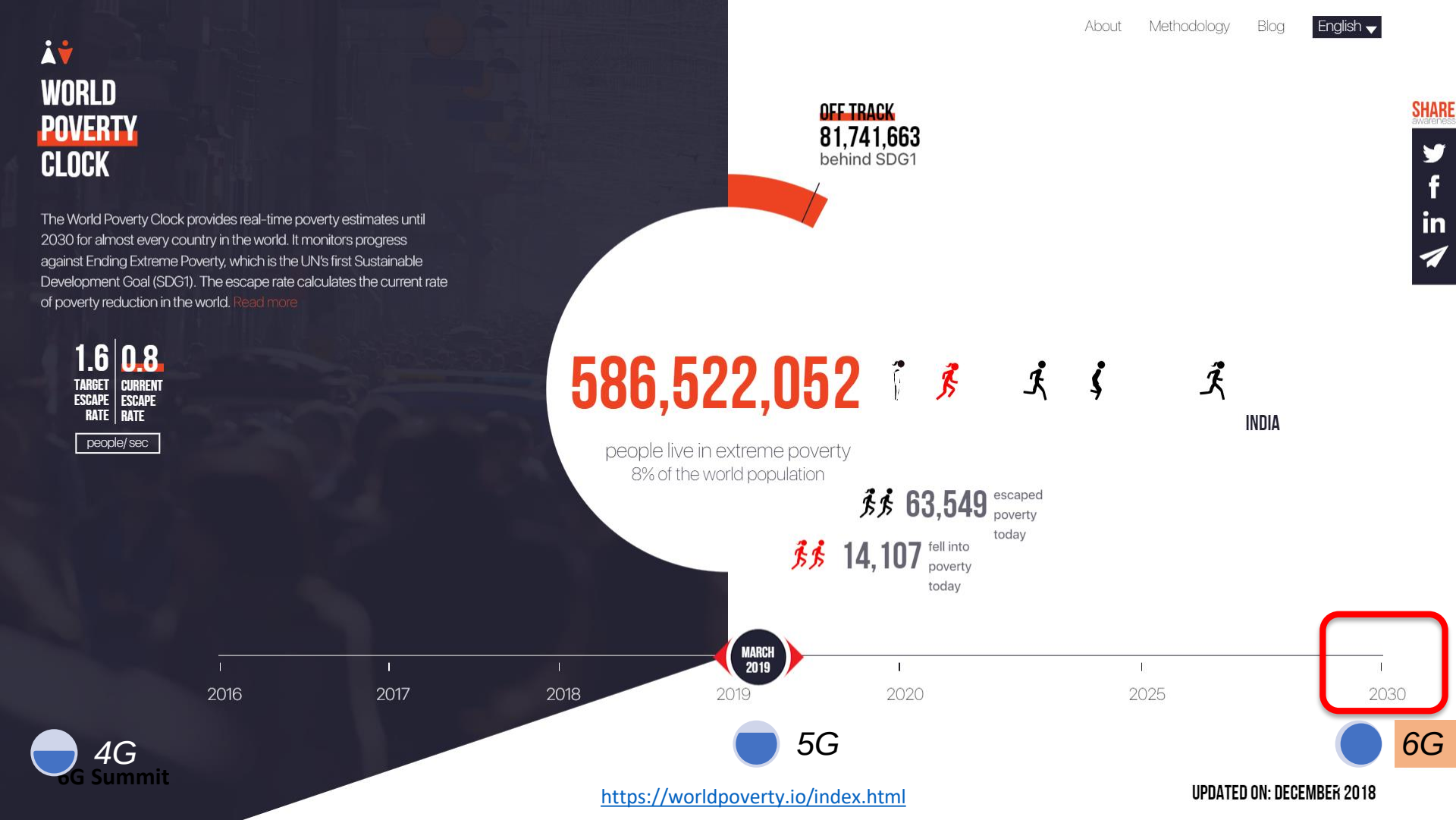
World 2030

Population : 8.5bn
Average Age : increase
Retirees to Working age : increase
Urbanisation : increase
Unemployment : mixed
Megacities : increase
Dominant Industries : Services
Climate: Warmer and Changed

As of 2018, most of the world is now middle class or wealthier*

*households spending $11-110 per day per person in 2011 purchasing power parity
https://www.brookings.edu/blog/future-development/2018/09/27/a-global-tipping-point-half-the-world-is-now-middle-class-or-wealthier/

A global market need


About
Methodology
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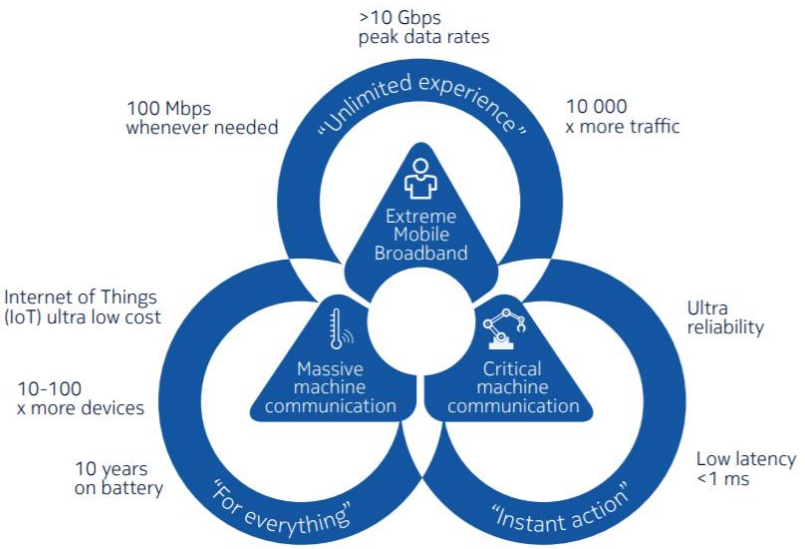
English
WORLD POVERTY CLOCK
The World Poverty Clock provides real-time poverty estimates until 2030 for almost every country in the world. It monitors progress against Ending Extreme Poverty, which is the UN's first Sustainable Development Goal (SDG1). The escape rate calculates the current rate of poverty reduction in the world. Read more
1.6 TARGET ESCAPE RATE
0.8 CURRENT ESCAPE RATE
people/sec
OFF TRACK
81,741,663
behind SDG1
SHARE
awareness
586,522,052
INDIA
people live in extreme poverty
8% of the world population
63,549 escaped poverty today
14,107 fell into poverty today
MARCH 2019
2016
2017
2018
2019
2020
2025
2030
4G
5G
6G
6G Summit
https://worldpoverty.io/index.html
UPDATED ON: DECEMBER 2018



Source: Nokia 5G Whitepaper

Source: CWC 6Genesis

Device centric
Data rates
Latency
Reliability
Smart
Tech centric

5G Engineering to 6G Humanity

GSM 3G 4G 5G 6G

Naked
Green
Trustworthy
Seamless
Self Aware
Guaranteed

Connected Smart Home

Quite Cool
Highly Personalised
Can be more efficient for individual and service provider

but what if

… your shirt is now a “device” and a “hop” in the network
… local network optimisation is based on your viewing preferences
… services offered are based on your food preferences and hunger
… your shirt, fridge and toilet monitor your health and wellbeing
… your location forms part of a distributed decryption algorithm

What do we now mean by …

- Personal information
- Cyber security
- Data Sharing
- Consent

Autonomous Vehicles

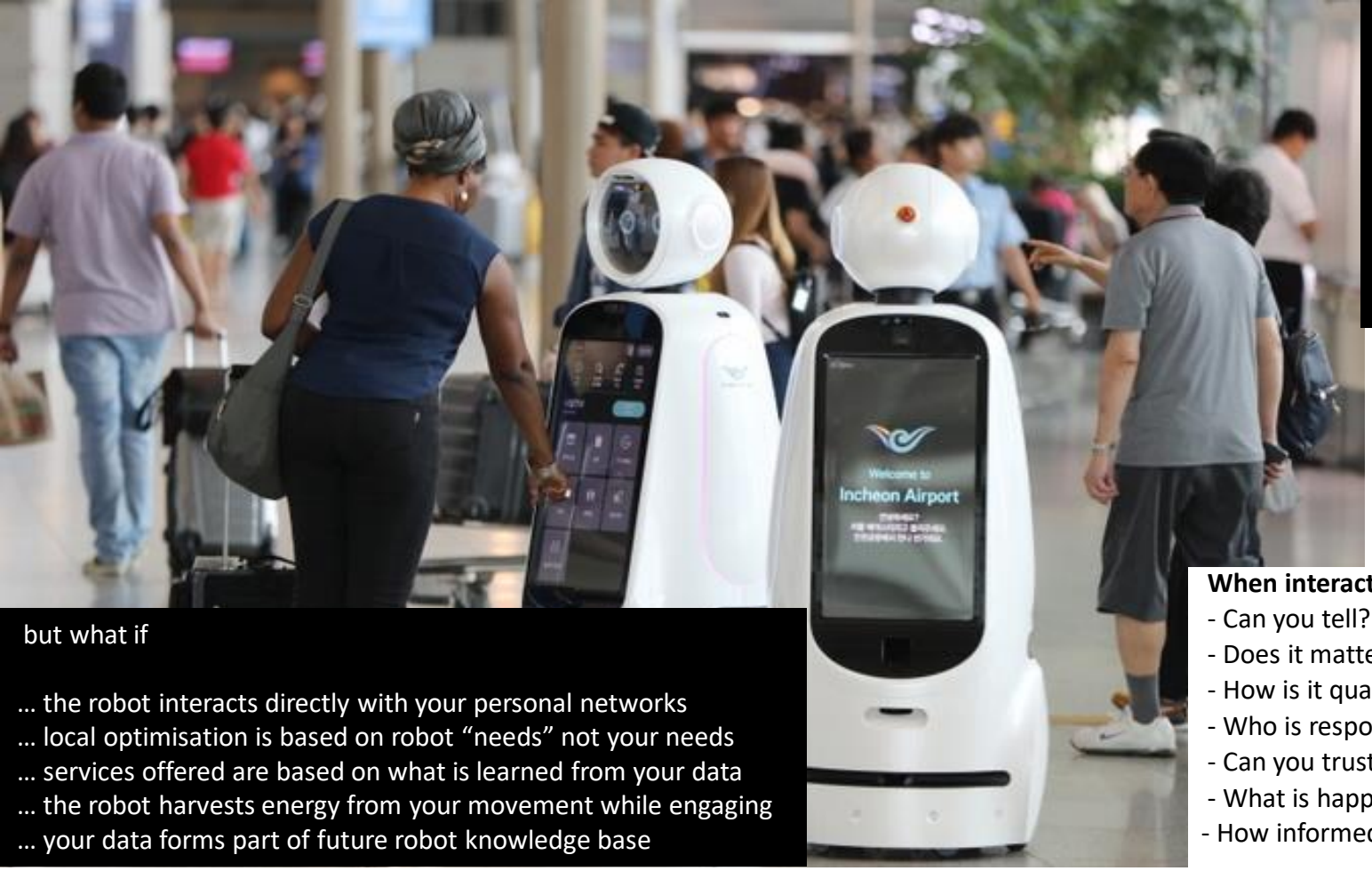
Quite Cool
Safer
More efficient
Sharable

but what if

… your car is now a “hop” in the broader network
… local network optimisation is based on traffic congestion
… services offered are based on your trip reason and gaze direction
… your car monitors your health and wellbeing
… your breath alcohol level is part of a decryption algorithm

What do we now mean by..

- Appropriate behaviour?
- Personal information
- Cyber security
- Data Sharing
- Consent



Artificially Intelligent Autonomous Devices

Quite Cool
Can augment humans
Can be more efficient
Uses in manufacturing, agriculture, hospitality

but what if

… the robot interacts directly with your personal networks
… local optimisation is based on robot “needs” not your needs
… services offered are based on what is learned from your data
… the robot harvests energy from your movement while engaging
… your data forms part of future robot knowledge base

When interacting with an AI

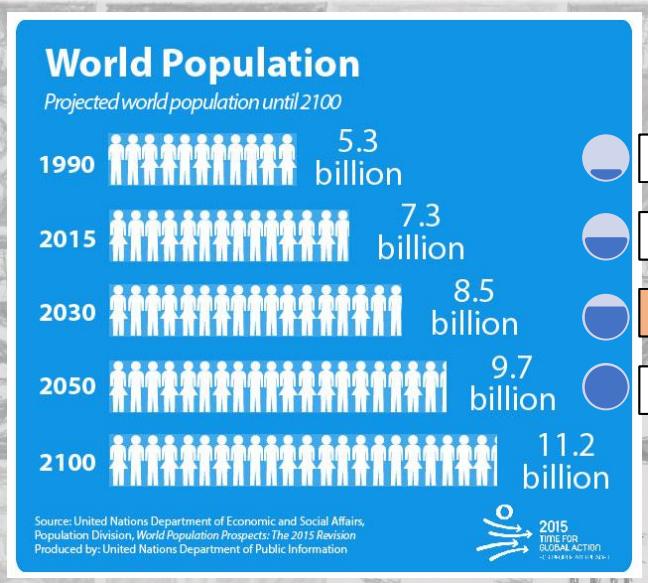
- Can you tell?
- Does it matter?
- How is it qualified?
- Who is responsible?
- Can you trust it?
- What is happening to my data?
- How informed is your consent?

Shudu
Lil Miquela
Alexa
Siri

Can you tell?
Does it matter?
How is it qualified?
Who is responsible?
Can you trust it?
What is happening to my data?
How informed is your consent?

Image Source: Instragram

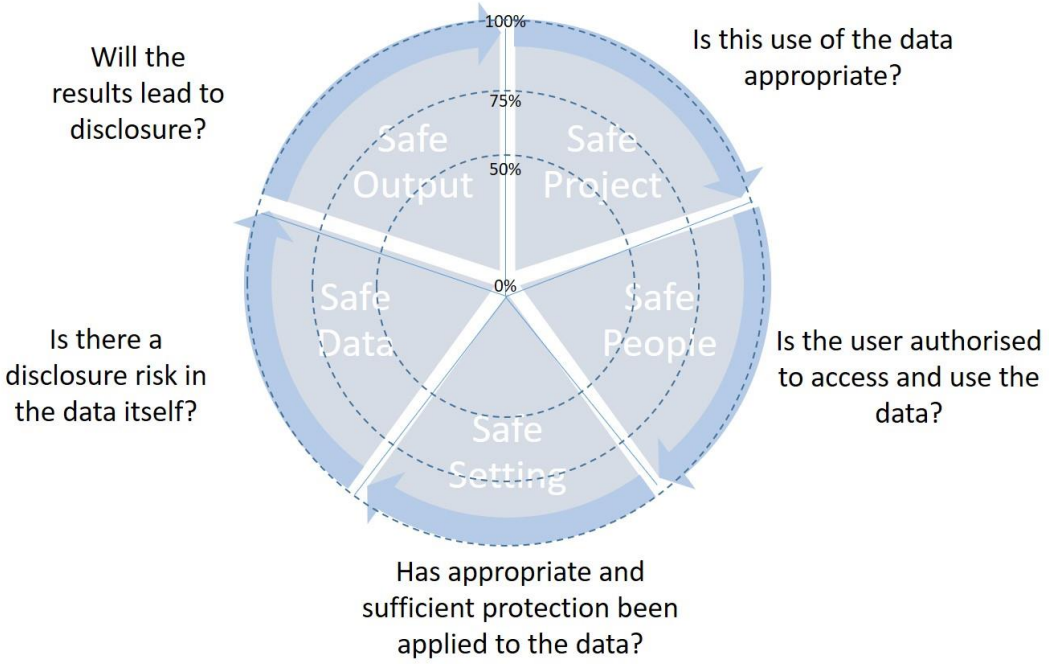

Trustworthy
Green
Privacy Preserving
Guarenteed
Seamless
Self Aware


World Population
Projected world population until 2100
1990
5.3 billion
2015
7.3 billion
2030
8.5 billion
2050
9.7 billion
2100
11.2 billion
Source: United Nations Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2015 Revision
Produced by: United Nations Department of Public Information
2015 TIME FOR GLOBAL ACTION
GSM
4G
6G
8G


GDPR

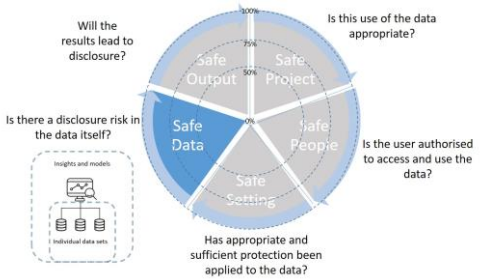
Privacy Preserving Data Sharing

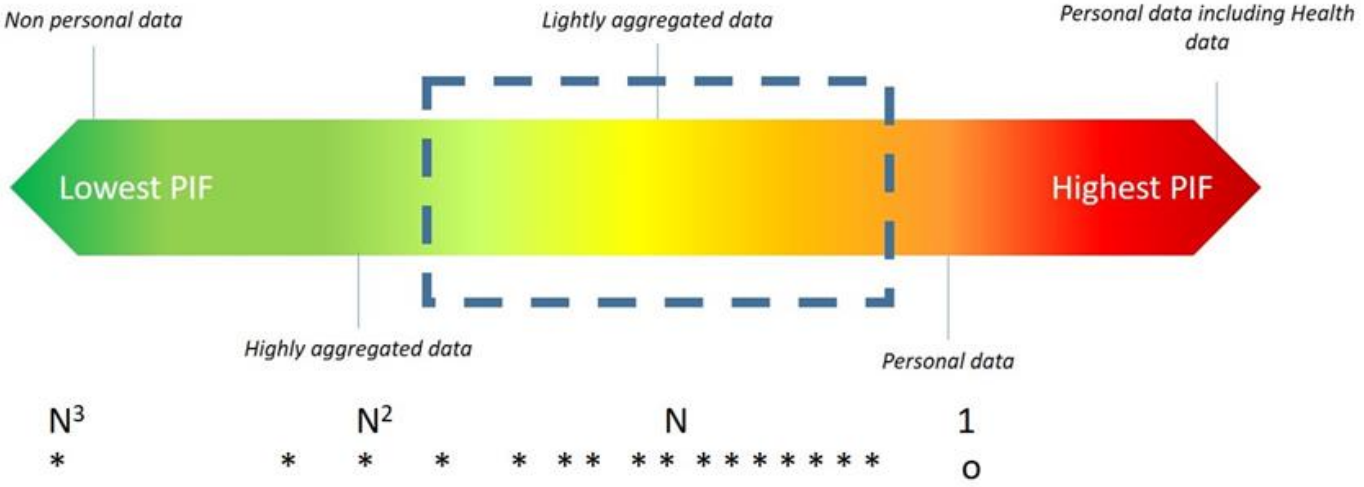
Quantified “Fives Safes”



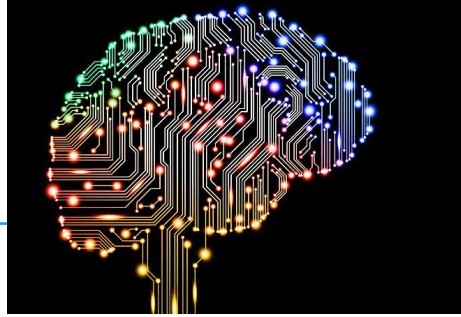
https://www.acs.org.au/insightsandpublications/publications.html

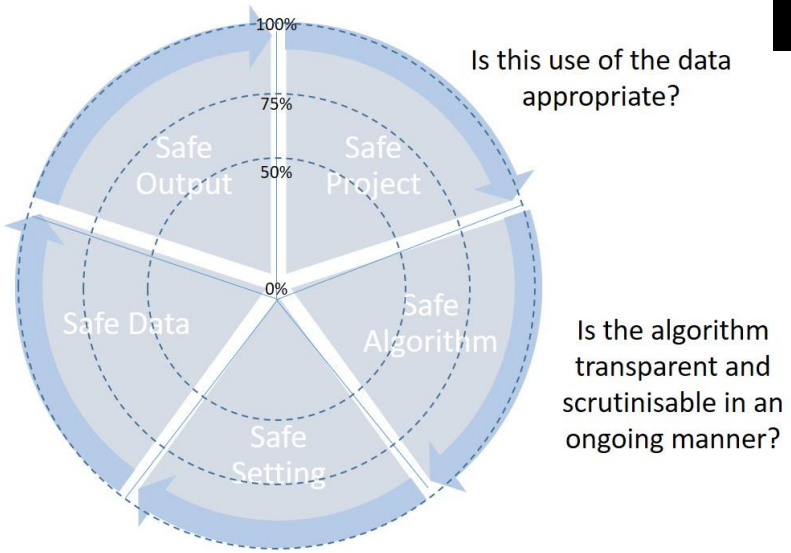
Safe Data: Personal Information Factor





What happens when “People” are Algorithms?





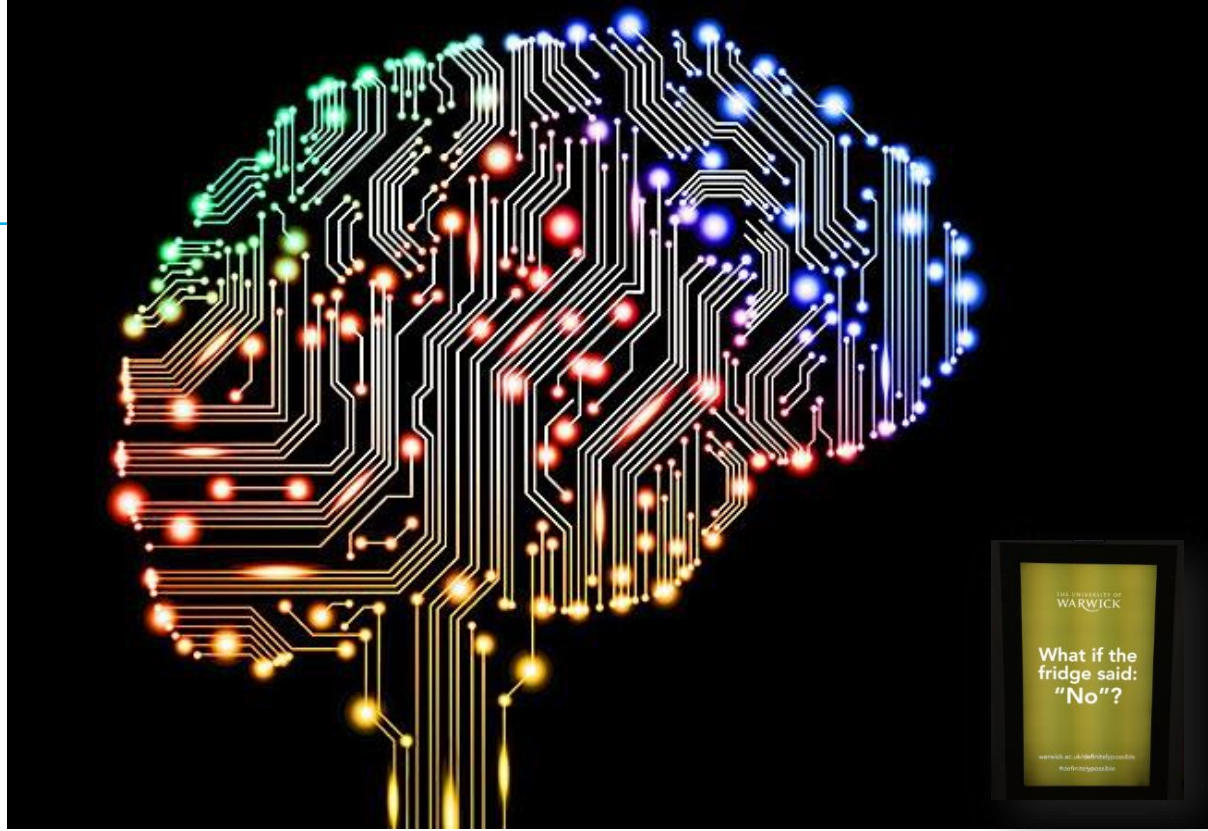
Will the results lead to disclosure?

Is this use of the data appropriate?

Is the Personal Information Factor less than 1.0?

Is the algorithm transparent and scrutinisable in an ongoing manner?

Has appropriate and sufficient protection been applied to the data?



Innovation Needed

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6G Summit