Harnessing data for smarter local government

18th March 2025

CHANGE NETWORK

SORT YOUR

****

OUT!

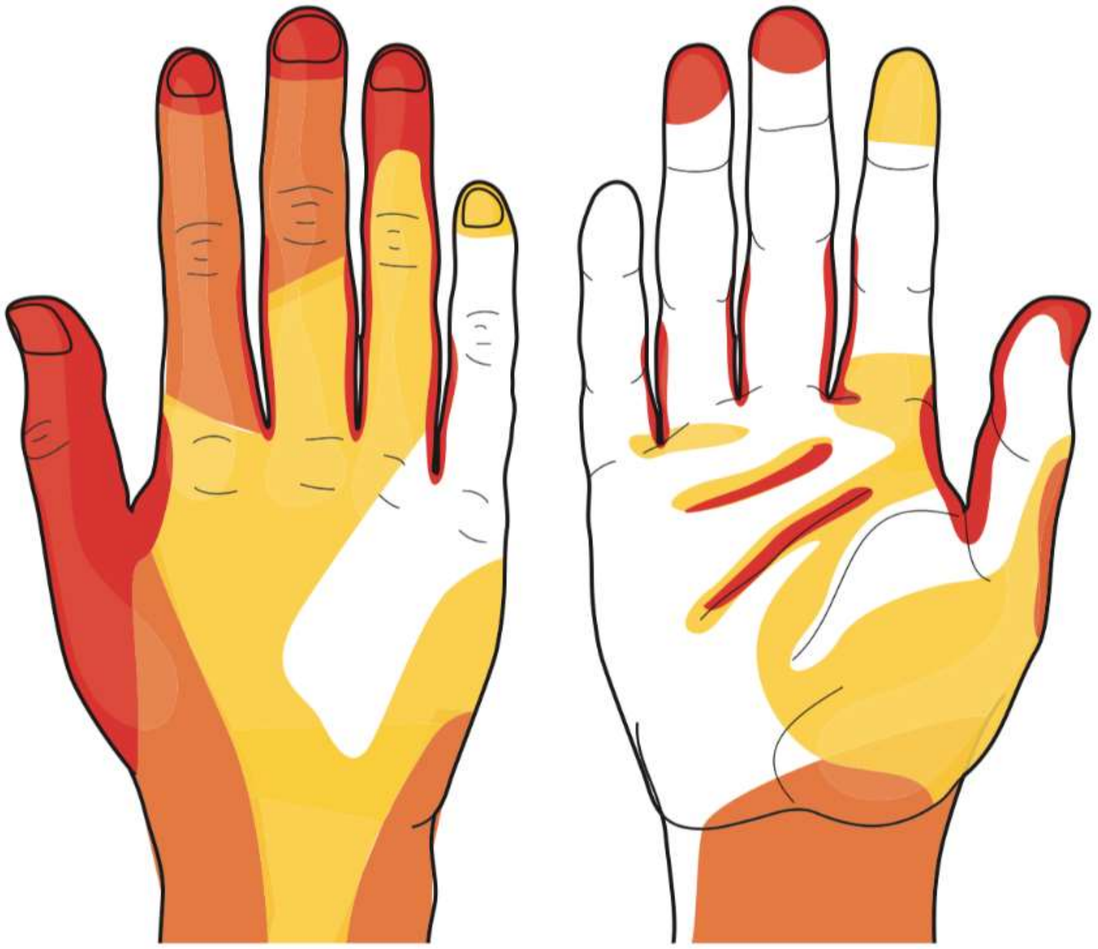
(Data btw!)

Everybody stand up!

Sit down if….

- Your council has an AI policy in place that is well embedded with all employees?
- Your council is using AI.
- You use your face to open your phone…
- You've ever watched something that Netflix recommended?
- You've ever used Google…

The importance of data



Reference: Taylor, L.J. An evaluation of handwashing techniques. *Nursing Times*. January 1978.

About 1.8 million children under the age of 5 die each year from diarrheal diseases and pneumonia.

Through data informed education, countries have:

- Reduced the number of people who get sick with diarrhea by 23 – 40%
- Reduced respiratory illnesses like colds by 16 – 21%

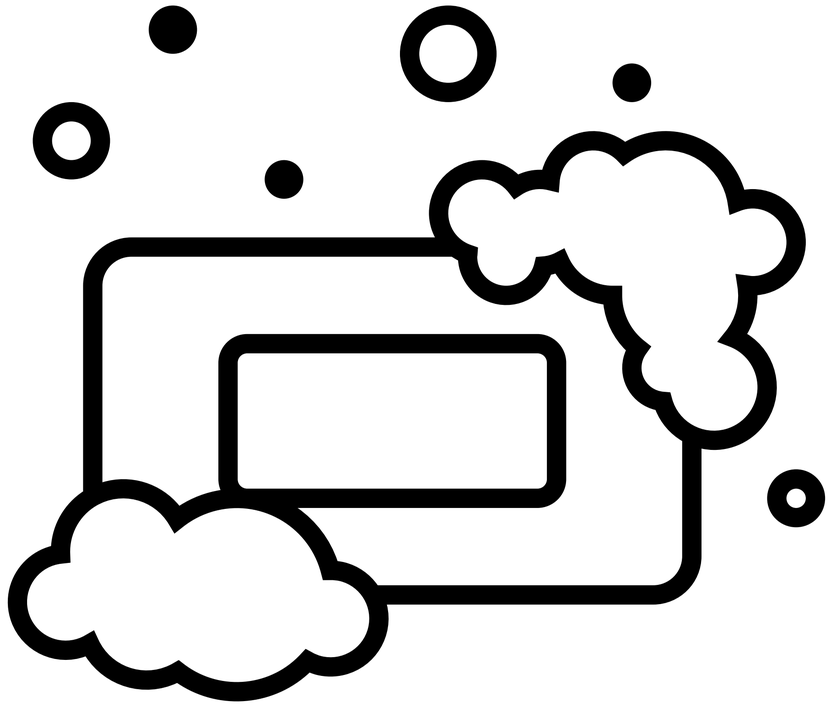
"Telling the story" with data is critical.

“Whoever wins in IT tends to win”

Sir Clive Woodward
Sept 2017

2003 World Cup winners

Tech on its own, is not enough…



"Often what happens is the longer you are in sports teams you drift into a rock.

My language of a rock is someone that is un-coachable, unteachable, a bit of a know it all."

"The secret is to try and keep every individual in your team as a sponge."

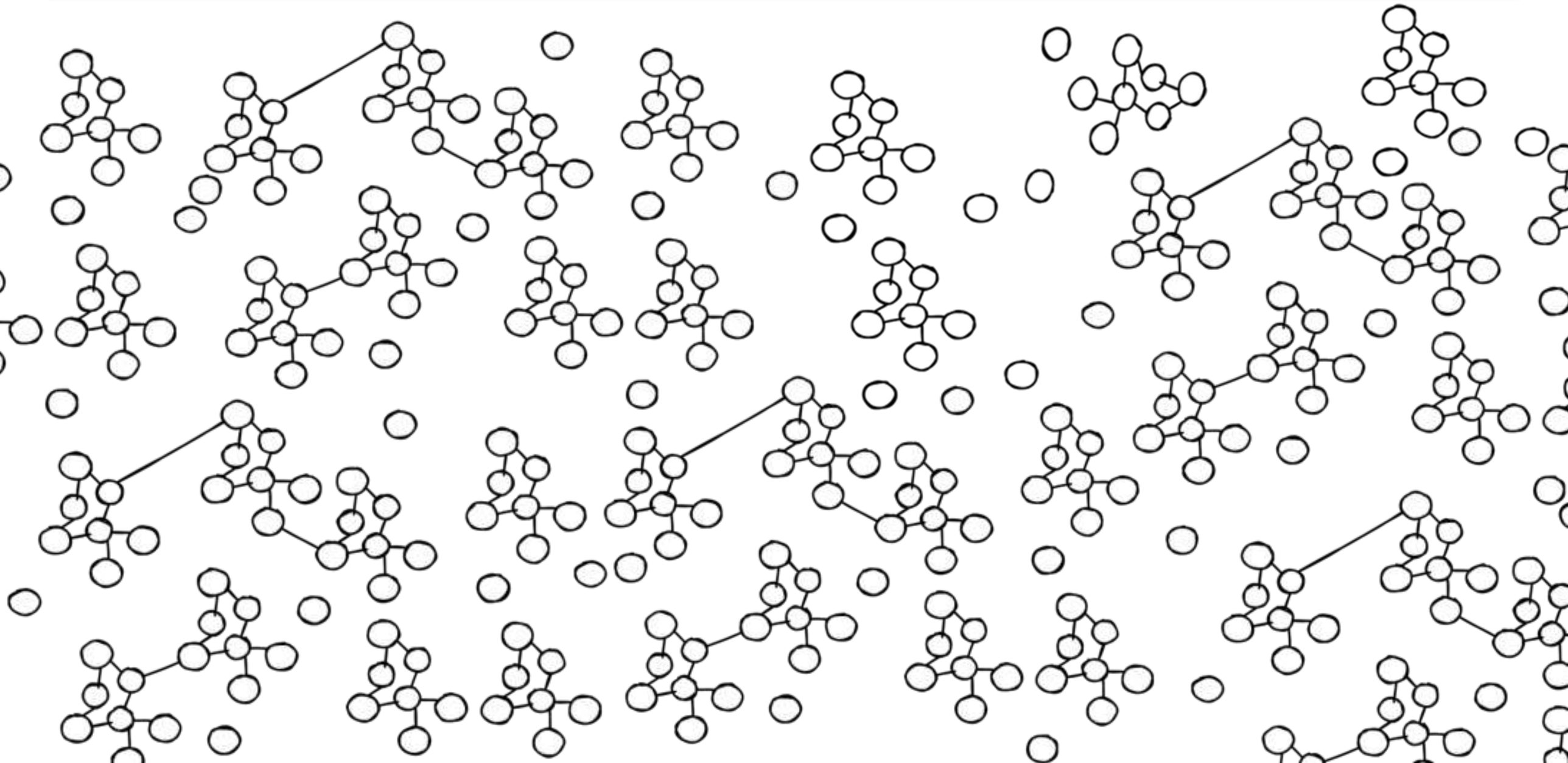
Sound familiar?

Changing the game…

- Vision
- Data
- Technology
- Mindset
- Continuous feedback and learning

= Success

The problem with data…



What if?

Forget **cloud first** or **digital first** – how much different would our outcomes be if we thought

‘data first’

Imagine if…

First name
Last name

Date of birth

Ethnicity

Address / location

Education level

Purchase history

Website interactions

Feedback given

Interests

Lifetime value

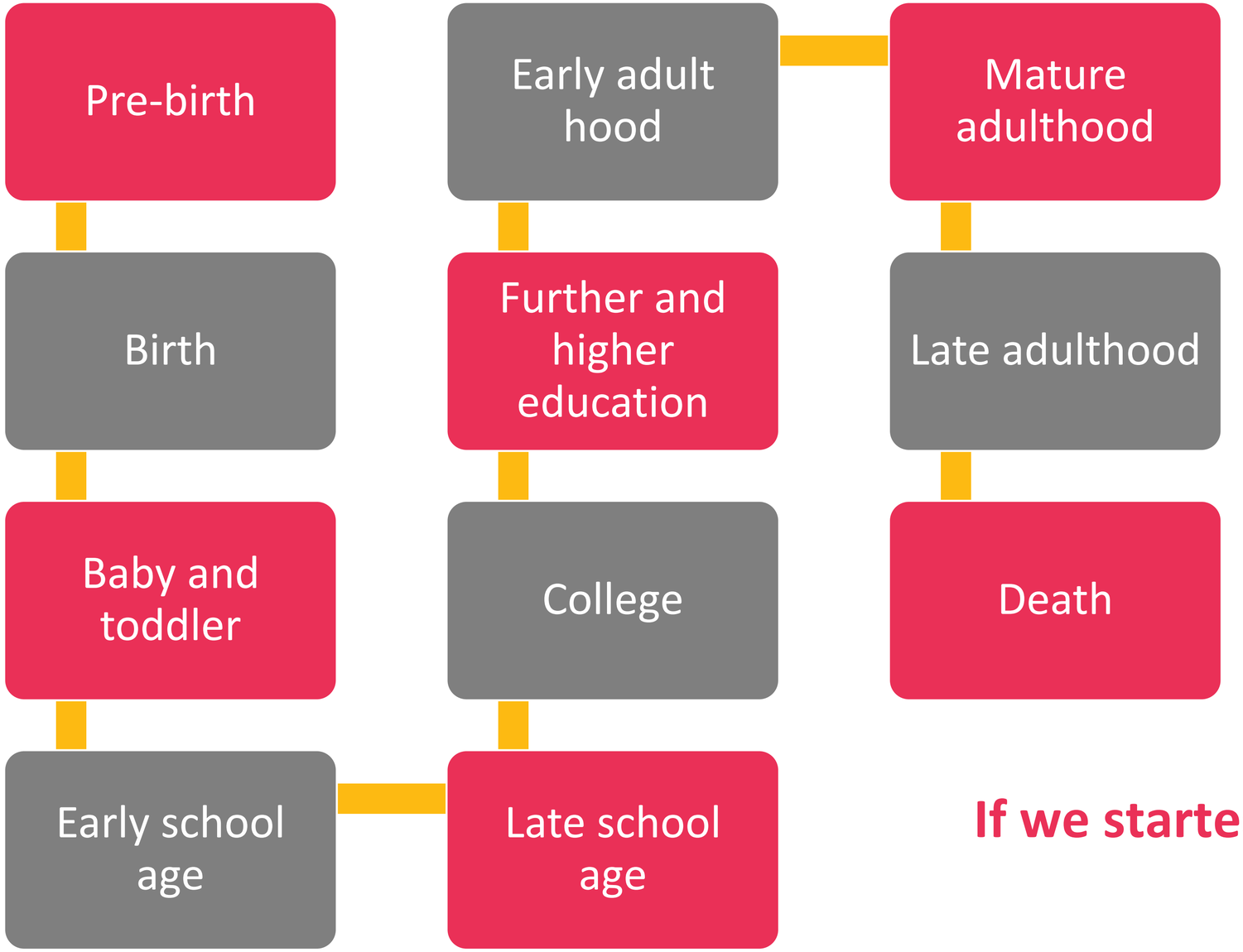
Resident = Entity

Information about them

=

Attributes

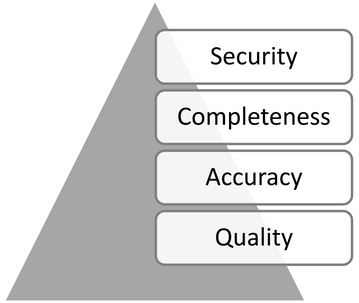
Imagine if…

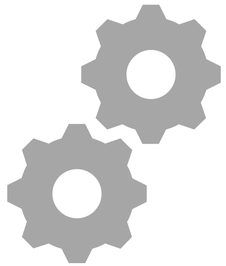


- What if all of this data was held / merged in one place?
- Securely accessible to everyone who needs to see it?
- Enabled patterns to be identified with individuals and across attribute types?
- Could be viewed by ‘household’ / ‘community’ etc.

If we started again, what might we do differently?

From sensible….to shiny (… that way round!)





Who needs it?

- As a…

Why

- Start with ‘I want to understand (insight)’….
- So that (outcome)…
.

What

- Data do I need?
- Data have I got?
- Systems is it in?
- Skills do I need?
- Constraints might I need to consider?

How

- Do I get it out?
- Ensure it’s clean?
- Bring it together?
- Make it usable?
- Do I ensure secure, legal and ethical use?

When

- Is it needed (and how regularly)?
- Do I improve?

End to end focus…

Producers

Enablers

Consumers

Data for good

“The world’s most important health research database.”

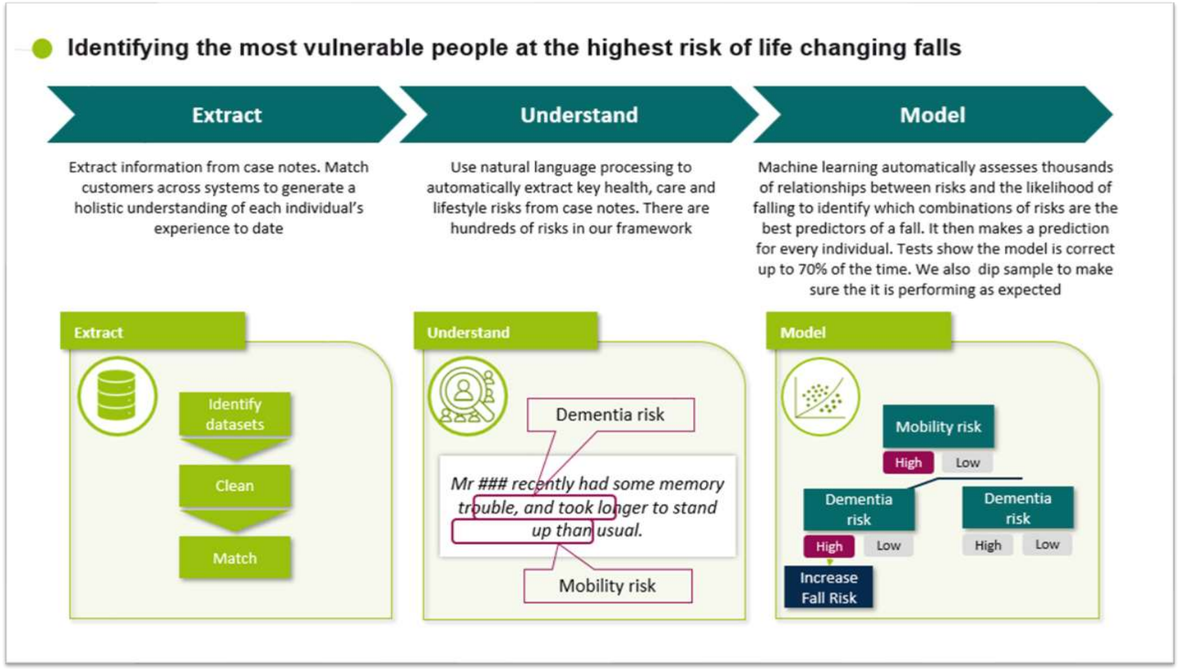
Predicting Parkinson’s disease earlier (Cardiff University)

- Data from motion monitors worn by participants.
- Used AI to detect early signs of the disease, such as slower movement, up to seven years prior to diagnosis.
- The research will lead to the development of valuable screening tools to detect Parkinson’s earlier, to enable therapies to be received sooner.

Impact of COVID-19 on the brain (Oxford University)

- MRI scans of UK Biobank participants.
- Identified changes to the brain following infection.
- Found brain tissue loss, damage in areas connected with smell, and reduced cognitive ability.
- Further research is required to understand if these effects persist over time, or if they can be reversed.

Data (and AI) for good



Predicting falls

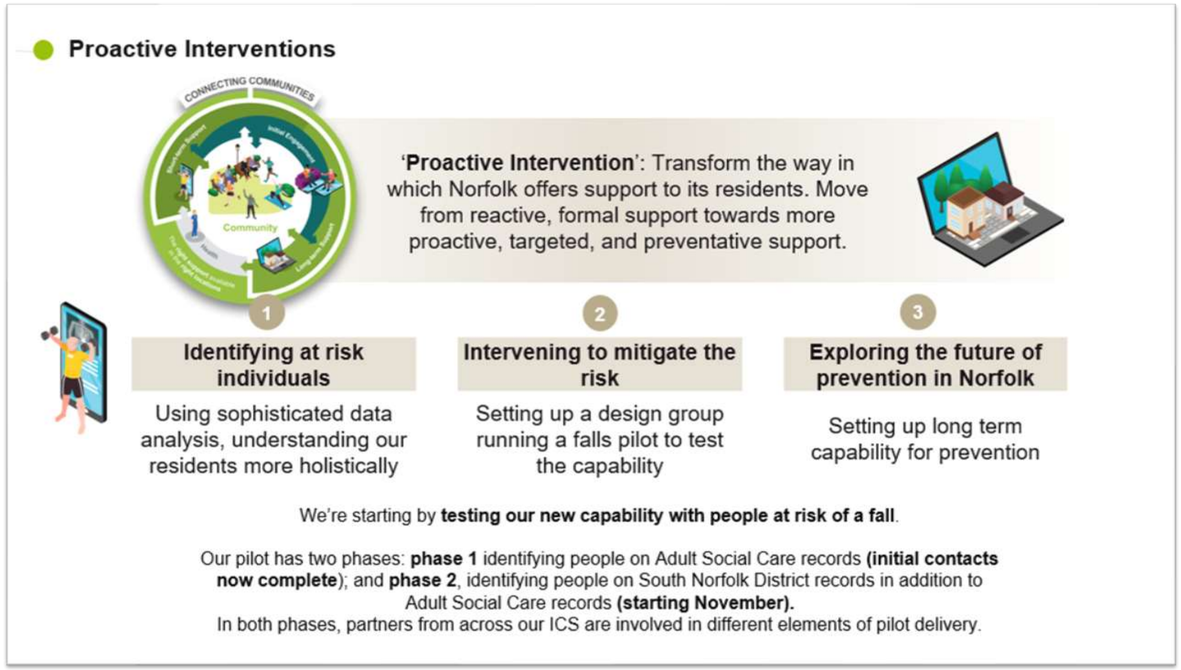
- Data from county and district case notes / contacts.
- Analysis of words used to define risk factors.
- Categorisation and prioritisation of risk factors.
- Early intervention to prevent future falls.

Outcomes

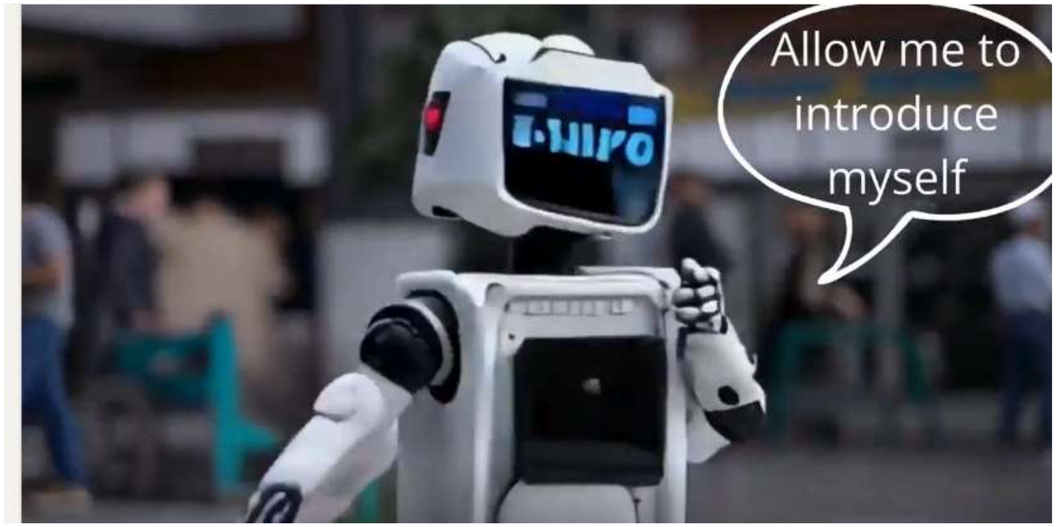
- Evidence of prevention, scaling from pilot.

The problem….high cost, reactive services

- £3358 pa increase in cost of care due to hospitalised falls.
- 1/3rd adults over 65 have one fall per year.
- 4150 admissions per year due to falls.
- 40% care home admissions due to falls
- Fall prevention known to reduce falls by 30 – 25%.
- Question was – how best to target this?



Data (and AI) for good

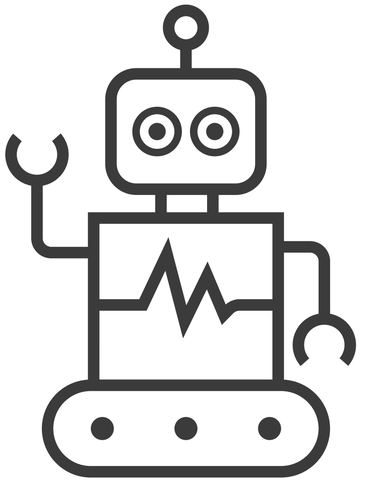


Benefits…

- Using the tool represents an overall time saving of 80 - 90% for the following “top tasks” including:
- Looking up information
- Creating documents and summaries
- Seeking guidance and best practices
- Clarifying eligibility and entitlements
- Requesting translations

The problem….unproductive information seeking and inconsistencies in policy application

- Policy Buddy ‘Polly’ is a bespoke Large Language Model (a bit like Chat GPT)
- Polly looks at national legislation and North Yorkshire’s policies and procedures to help children’s service worker to have policy advice when they need it.
- It has an over 90% accessibility score and the user is able to interact with it by type or by voice.
- It can also complete basic admin tasks to support workers.



But take care!

AI Camera mistakes bald head for soccer ball (October)

Scottish soccer team Inverness Caledonian Thistle deploys an AI camera to help the club film and stream their matches live for fans.

Unfortunately, in this case, the AI struggles to distinguish between one of the match official's bald head and the ball being used in the match. This renders the live stream of the game difficult to watch, with the commentator having to continuously apologize for the camera's propensity to drift towards the linesman's head.

- Lack of transparency (and GDPR requirements)
- Security
- Rubbish in = rubbish out
- Hallucinations
- Potential bias
- Data ethics
- AI / data for 'bad' – the new arms race?

Weaponisation of technology via AI?

In the past year, China has honed a new capability to automatically generate images it can use for influence operations meant to mimic U.S. voters across the political spectrum and create controversy along racial, economic, and ideological lines. This new capability is powered by artificial intelligence that attempts to create high-quality content that could go viral across social networks in the U.S. and other democracies. These images are most likely created by something called diffusion-powered image generators that use AI to not only create compelling images but also learn to improve them over time.

Clint Watts - General Manager, Microsoft Threat Analysis Center

Deepfake of British politician abusing staff goes viral

A clip of UK Labour Party leader Sir Keir Starmer that seems to catch the politician verbally abusing staff goes viral, but it later turns out that the audio clip is in fact a deep fake.

The clip – posted to Twitter during the first day of the Labour Party's annual conference by an account with less than 3,000 followers – is viewed millions of times before fact-checking organizations confirm that there is no evidence that suggests the clip is genuine.

"You cannot believe what you see anymore. The societal influences and consequences are terrifying – from influencing elections to directly impacting individual actions. We see it in our young people daily."

Your thoughts on AI and your own examples?

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Call for volunteers!

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Exercise – 15 minutes

- Each person in the room asks each volunteer two questions about themselves (e.g. What is your name? What was your first job? Where do you live? What do you like to eat? What would your dream job be?)

- For each person, write down the answer to the questions on two separate pieces of paper (without anyone seeing it), screw each one up and put it into any of the boxes in the middle of the room.

- Then sit down.

Real world challenges…

I’m now the CEO of a Council and imagine all of the data in the box is data about residents in the borough.

I want to know how many people are female, over the age of 50 and first worked in a McDonalds.

How easy or difficult is it to find that data?

What might the challenges be?

Human data warehouse – 15 minutes

Volunteers now need to pop their hats back on, or make it obvious who (and where) you are!

- Each other person now needs to take two crumpled up pieces of paper from the box and do some ‘data cleansing’ to try to find the person they relate to.

- When they find each person, give the paper to each person and sit down.

Our volunteers

Is the data correct?

Data presentation: Three facts

Think of the audience
(draw if you want to!)

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Reflections

- How difficult and time consuming was that?
- How non-value adding was the effort required?
- How might you have structured how you collect data better at the start if you knew he three facts you needed at the outset?
- How does this relate to how you manage data in your own Council (and to LGR?)

Thank you!

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