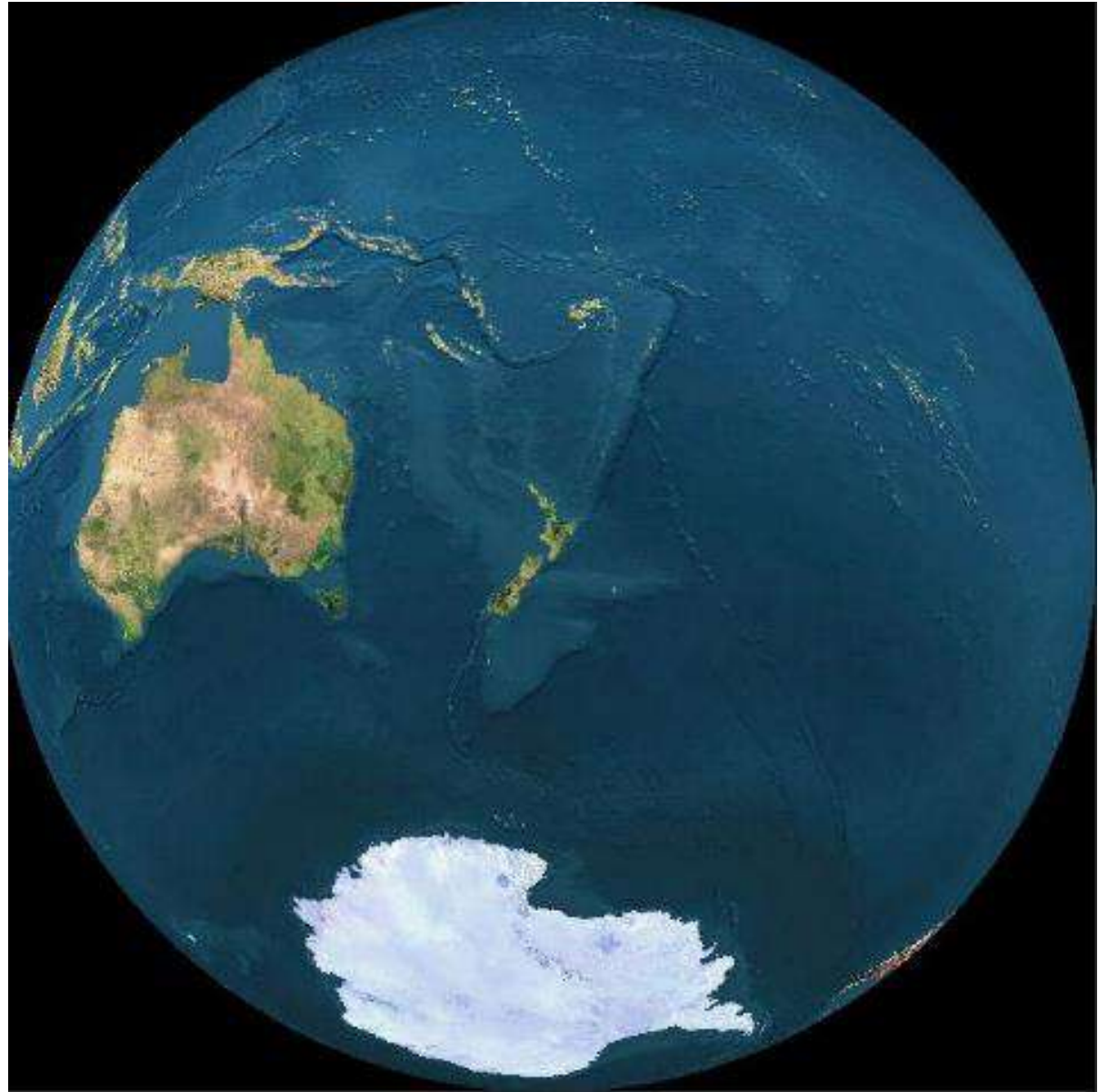


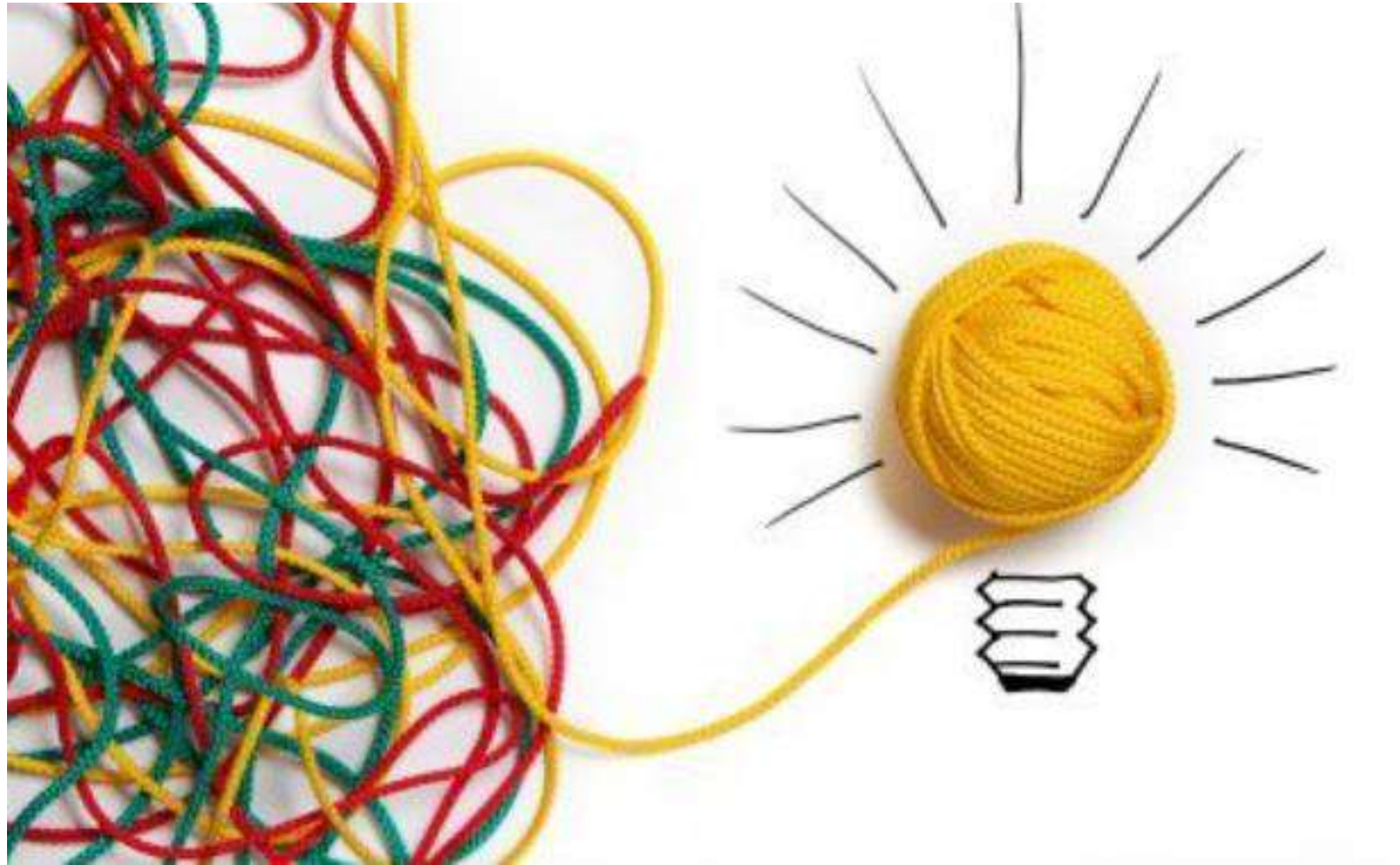
Jan Sheppard

*Data, a remarkable resource that can
build new worlds.*

What you can
expect from
me...



...what I hope you
will take away



Data is what we can see

Income statement

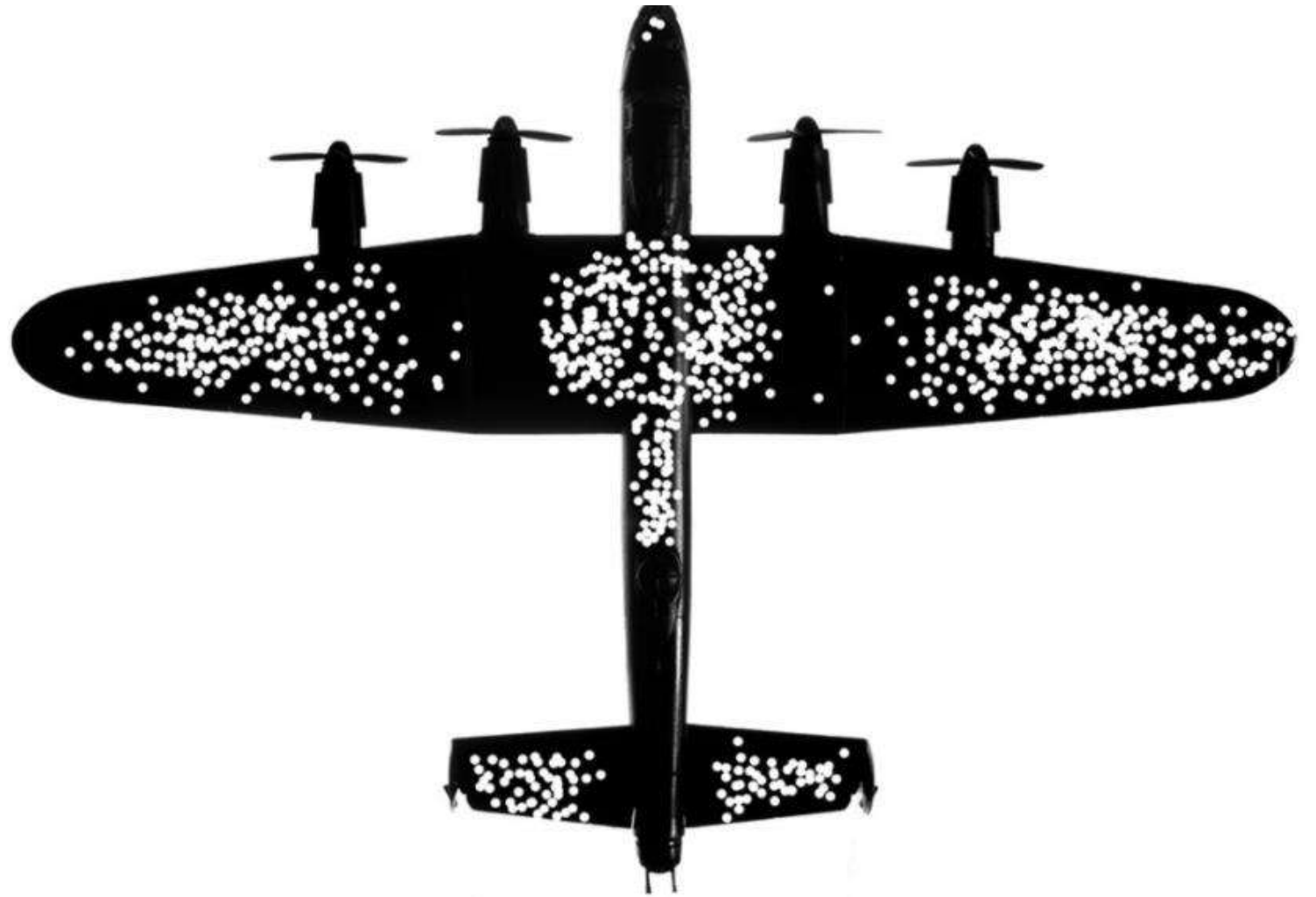
Electronic Inc.
Profit after tax in kEUR
 2014 PL, AC

Year

2014

	PY		ΔPY	ΔPY%	AC		ΔPPL	ΔPPL%	PL
Software revenue	265M		+13M	+5	278M	①	+5M	+2	273M
Support revenue	87M		+3M	+3	90M		+3M	+3	87M
Consulting revenue	121M		+7M	+6	128M		+6M	+5	122M
= Revenue	473M		+23M	+5	496M		+14M	+3	482M
- COGS	122M		+8M	+5	128M		+24M	+23	104M
= Gross profit	351M		+17M	+5	368M		-10M	-3	378M
- Research and development expenses	78M		+13M	+17	91M		-7M	-7	98M
- Selling and general administrative expenses	97M		+5M	+5	102M		+13M	+15	89M
- Other operating expenses	11M		-1,000K	-9	10M		-4M	-29	14M
Other financial income, net	34M		-4M	-12	30M		+2M	+7	28M
Other operating income	33M		-6M	-18	27M		+17M	+170	10M
= Income from continuing operations before tax	232M		-10M	-4	222M		+7M	+3	215M
- Income tax expenses	23M		+4M	+17	27M		4M	-13	31M
= Income from continuing operations	209M		-14M	-7	195M		+11M	+6	184M
Income from discontinued operations	6M		+19M	+317	25M		+5M	+25	20M
= Net income	215M		+5M	+2	220M		+16M	+8	204M

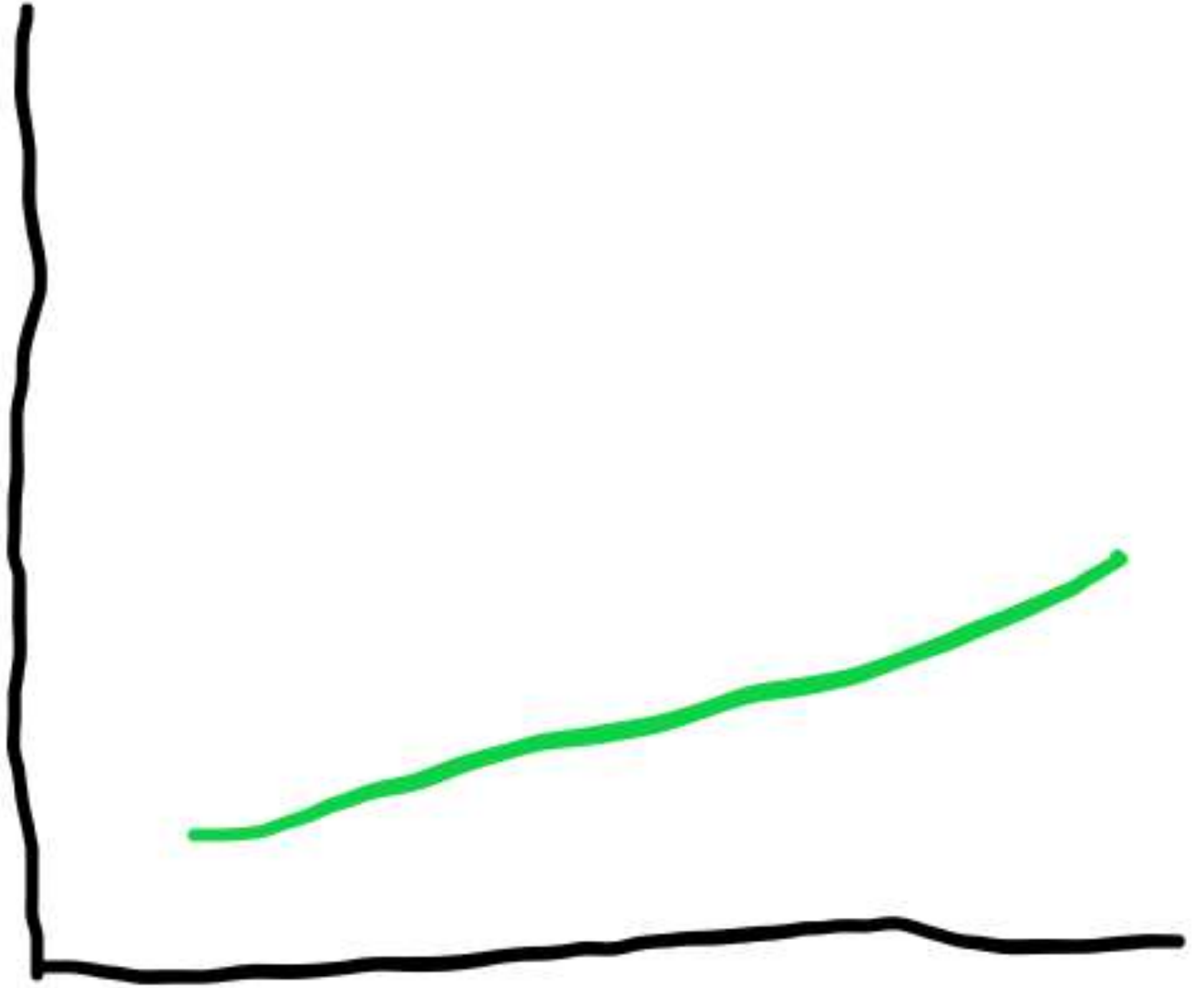
Data is also what
we cannot see



Business intelligence

- Collect data
- Blend data
- Visualise data
- Share visualisations
- Gain insights
- Make new decisions
- Measure impact of decisions

Change achieved
over time with BI



The world is
digitising



Growth in data

- Over 90% of the world's data was created in the last two years
- An estimated 1.7 megabytes of new data is created every second for every human on the planet
- It is predicted data will grow from 44 zettabytes now to 175 zettabytes by 2025
- Only 0.5% of data is analysed

Where does this
data come
from?

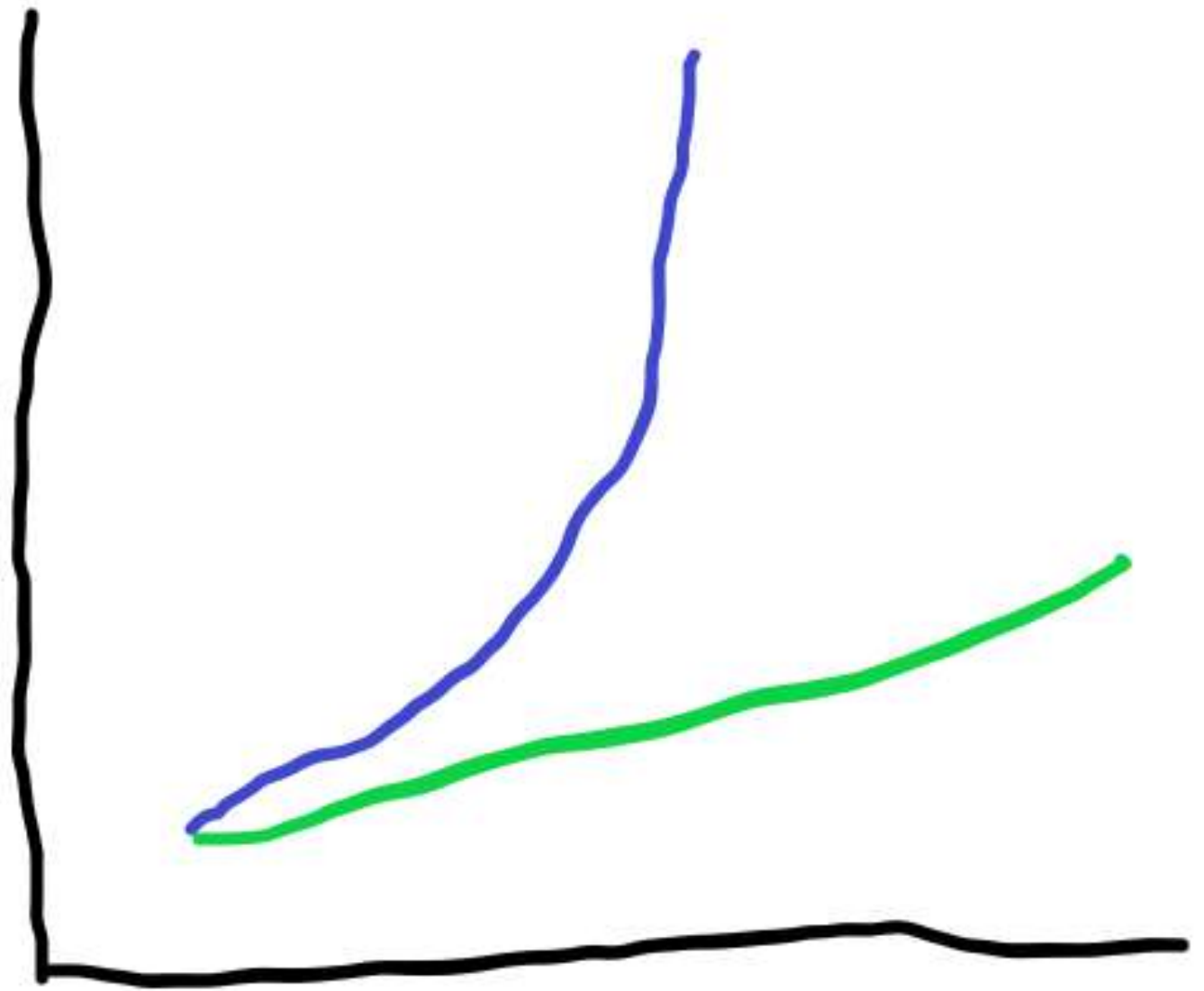


Rate of change
in our
environment

**If the rate of change on the
outside exceeds the rate on
the inside, the end is in sight.**

Jack Welch – CEO General Electric

Change over time
driven by
technology



Data Science - the science of data



Change achieved
over time with
data science



AI creates new
worlds using data



How AI benefits us now

- **Time saving** – traffic flow is optimised
- **Retail** – our needs and wants are predicted and solutions offered to us
- **Safety** – weather forecasts are predicted with higher accuracy. And people no longer have to conduct dangerous tasks
- **Jobs** – repetitive jobs that are a burden on people are overtaken and new higher value jobs created
- **Agriculture** – water use is optimised, and yields increased
- **Energy efficiency** – homes are smart and energy use optimised
- **Healthcare** – drug effectiveness is better understood without so much testing

How AI could benefit us

- **Sustainability of the planet** – efficient use of resources, particularly in energy and food production. Prevention of further global warming
- **Reduction of inequalities** – everyone has the ability to be free from the constraints of disease and ill health
- **Augmentation of ourselves** – we are able to achieve greater heights than thought possible

But what if we
get it wrong?



How AI could be harmful



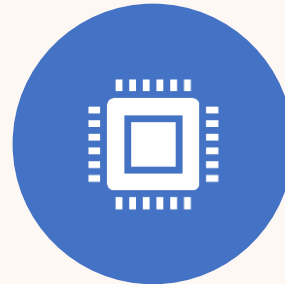
Profiling – individuals or groups of people are profiled in a way that constrains diversity and the ability to change



Cause harm – decisions are made that have unintended detrimental outcomes



Removing what it is to be human – decisions that shape lives are made by logic alone



The algorithm deems humans to be the problem – the answer the algorithm determines is humans are the cause of the problem

How we stop it going wrong

- Ask the right questions
- Algorithm charters
- Indigenous data sovereignty
- Connectedness
- Maintain the role of decision maker
 - don't let the data stand alone

The role we play
in ensuring we
realise the right
future

As data practitioners:

- *Ethics*
- *Transparency*
- *Social licence*

As humans:

- *Personal and collective accountability*
- *Care*

Thank you

Questions?

Jan Sheppard

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