

The Collaboration Era

How to thrive in an exponential world



CFA Montreal 2019
February 7
Mark van Rijmenam

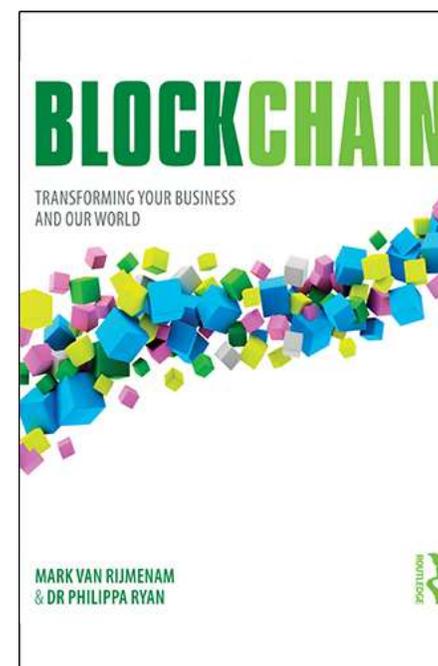


Mark van Rijmenam

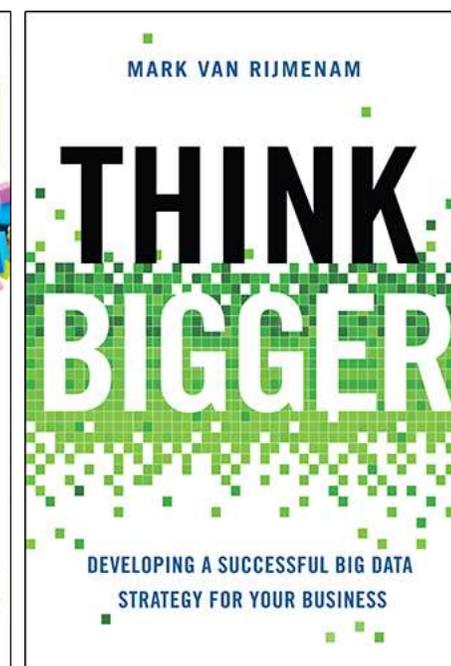
Founder Datafloq & Imagjn

Strategic advisor Blockchain startups

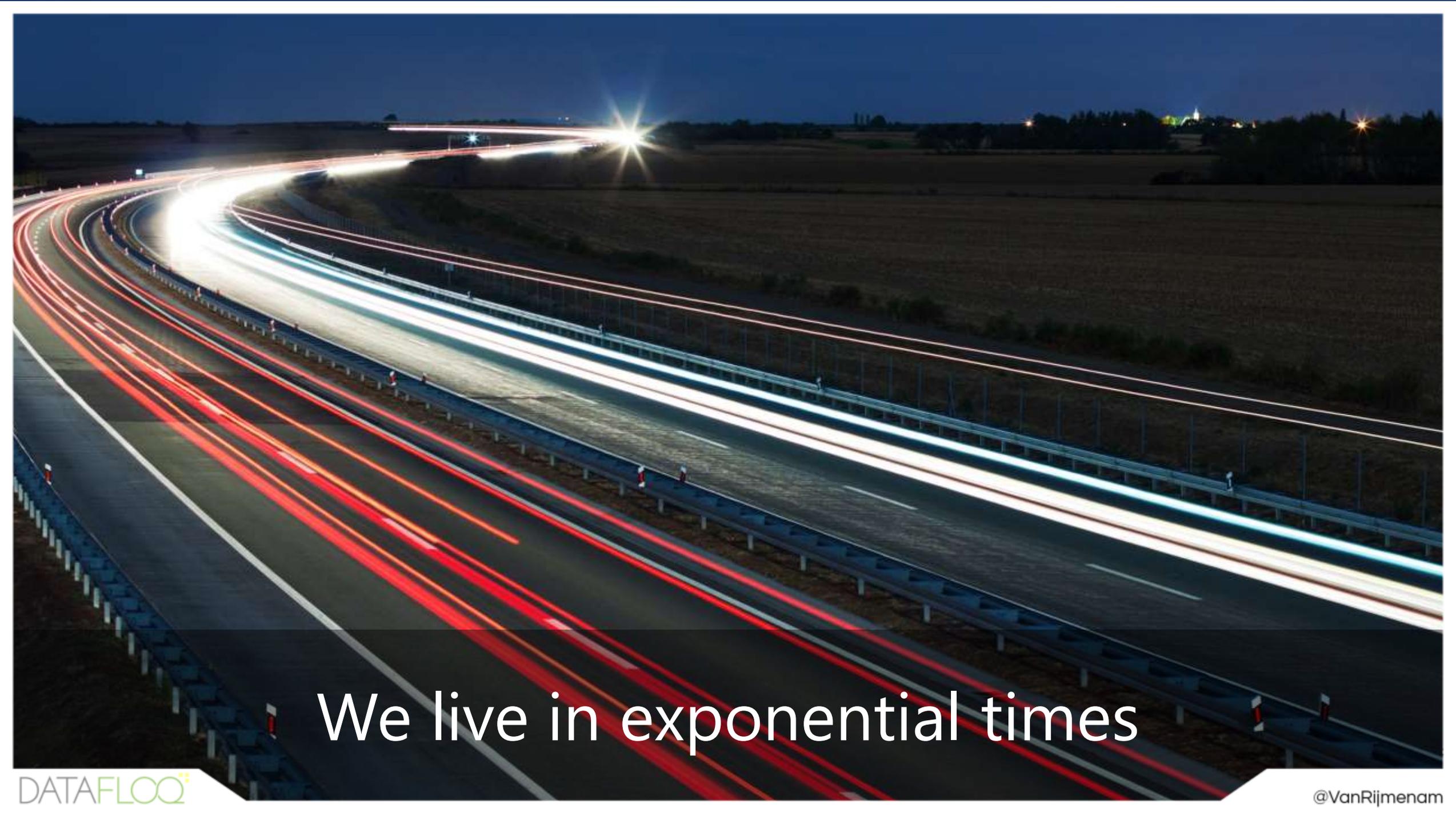
PhD Candidate
Disruptive Innovation Expert
Author *Think Bigger* and
co-author *Blockchain: Transforming
Your Business and Our World*



2018



2014



We live in exponential times

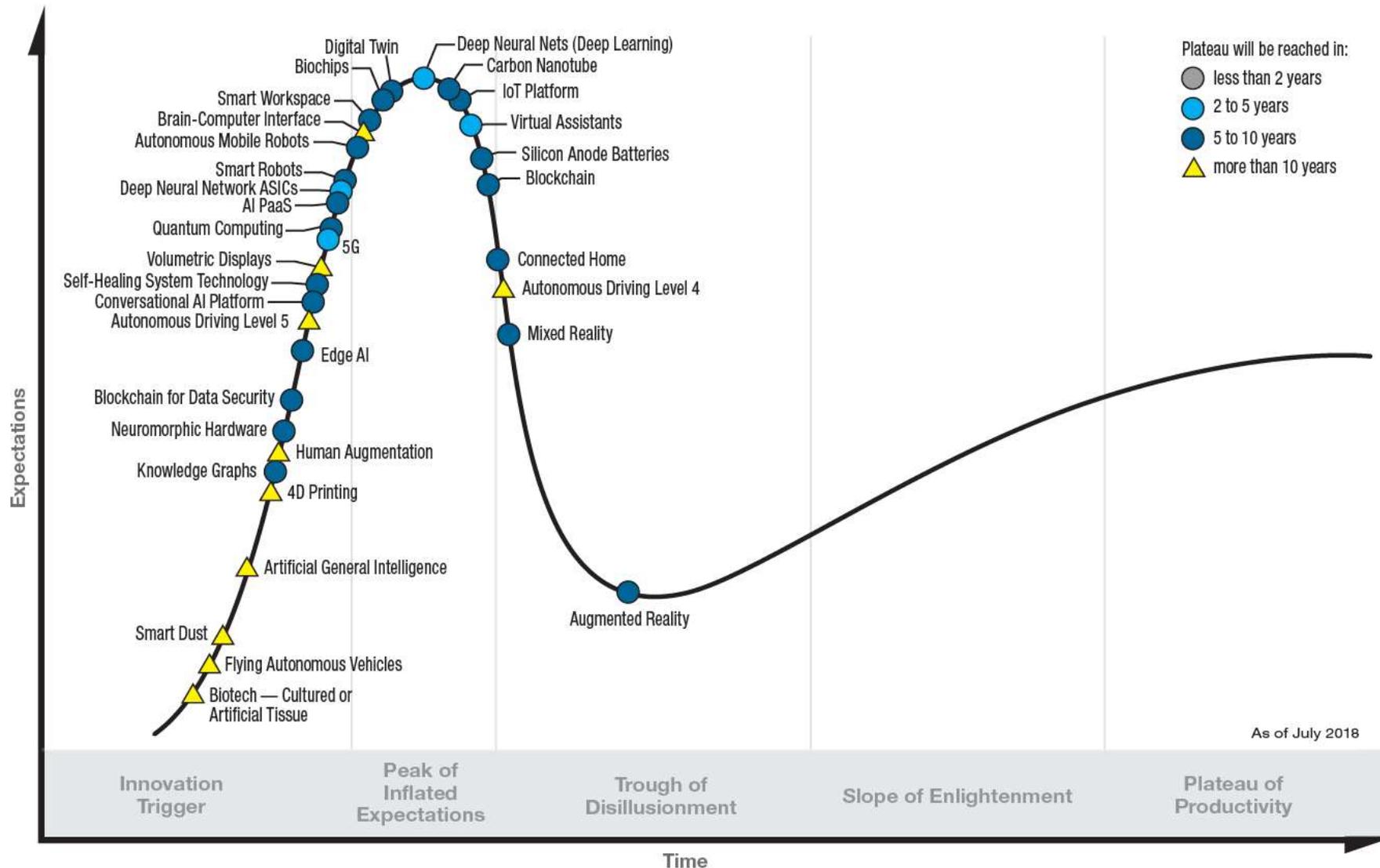


Image: Gartner

New technologies are changing the game



World's largest taxi company has no taxis



Largest phone company has no telecom infra

Common Denominator: Data



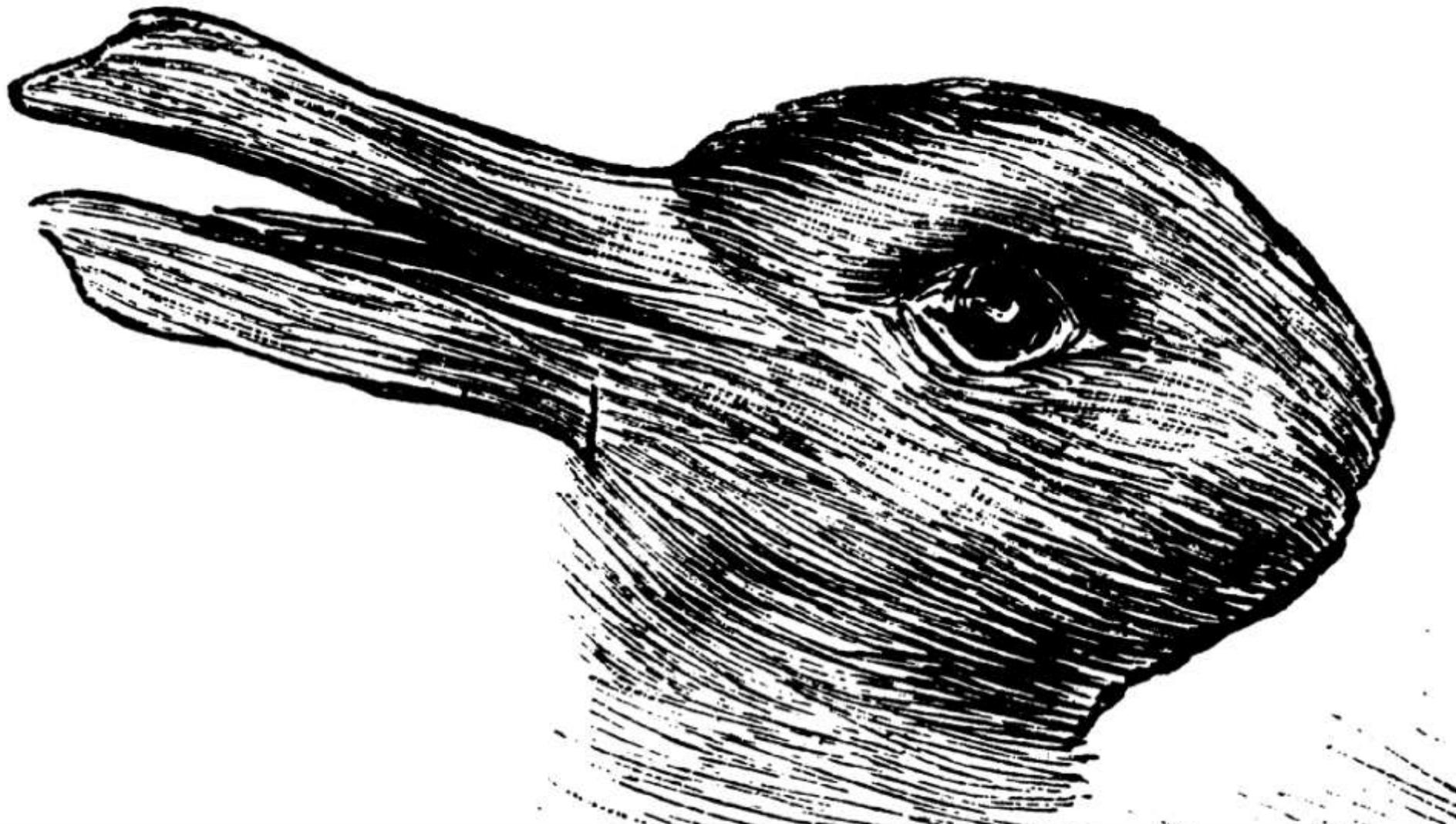
World's 2nd most valuable retailer has no inventory



World's largest movie house has no cinemas



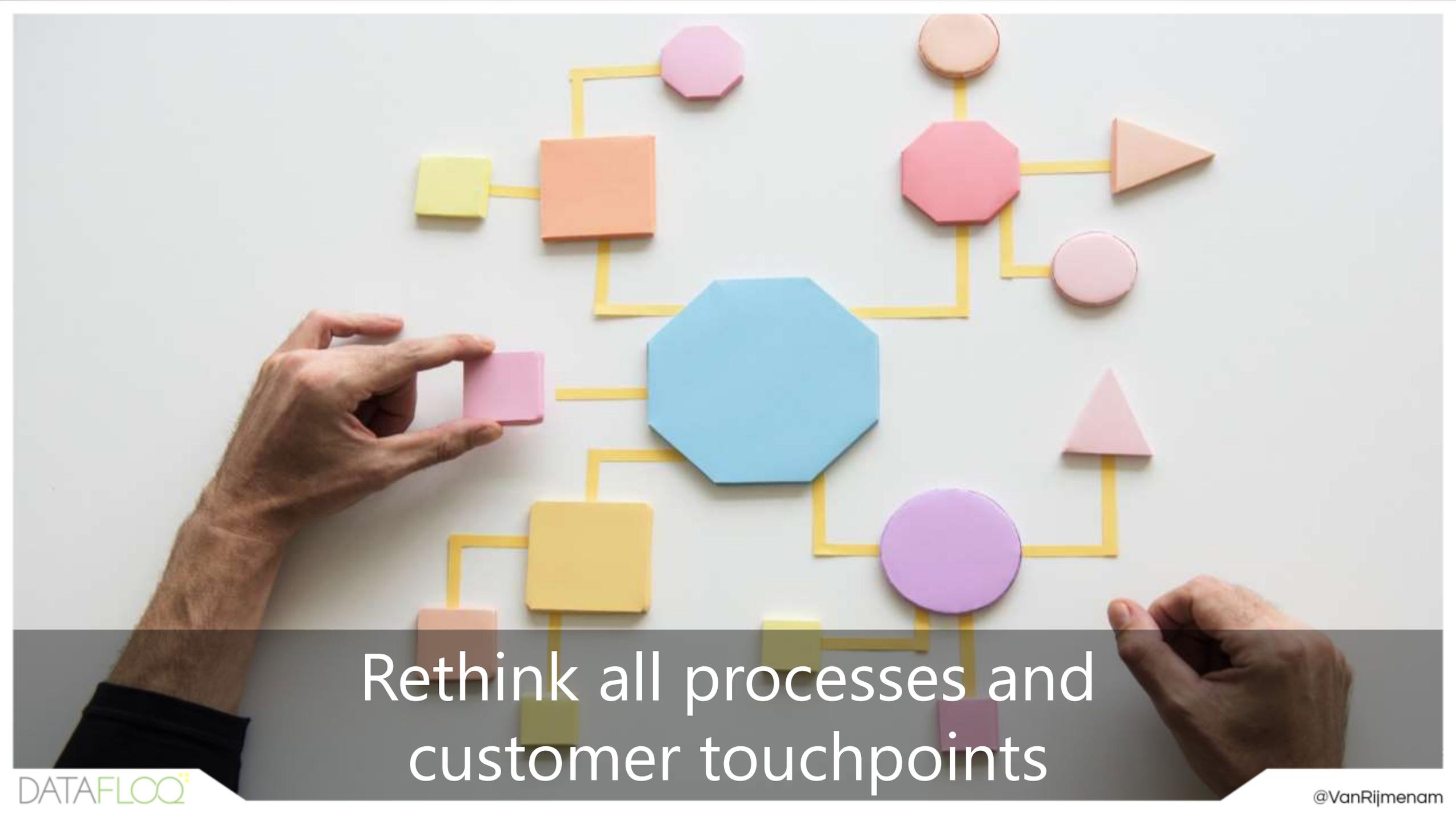
To innovate in
today's world
requires
a different
mindset



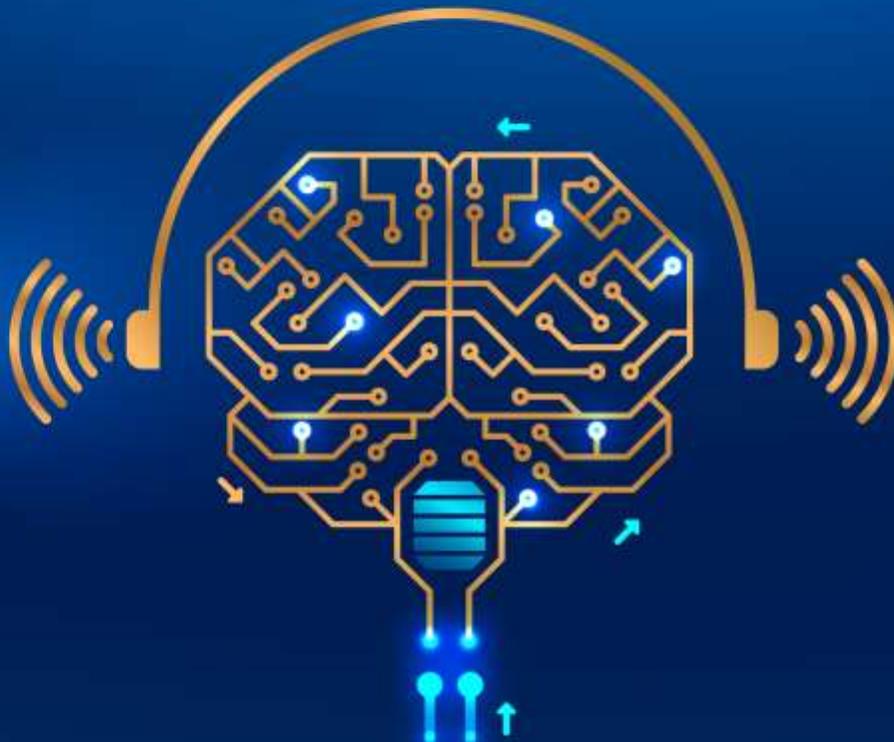
When technologies converge,
a gestalt shift occurs



Every
organisation
is a data
organisation

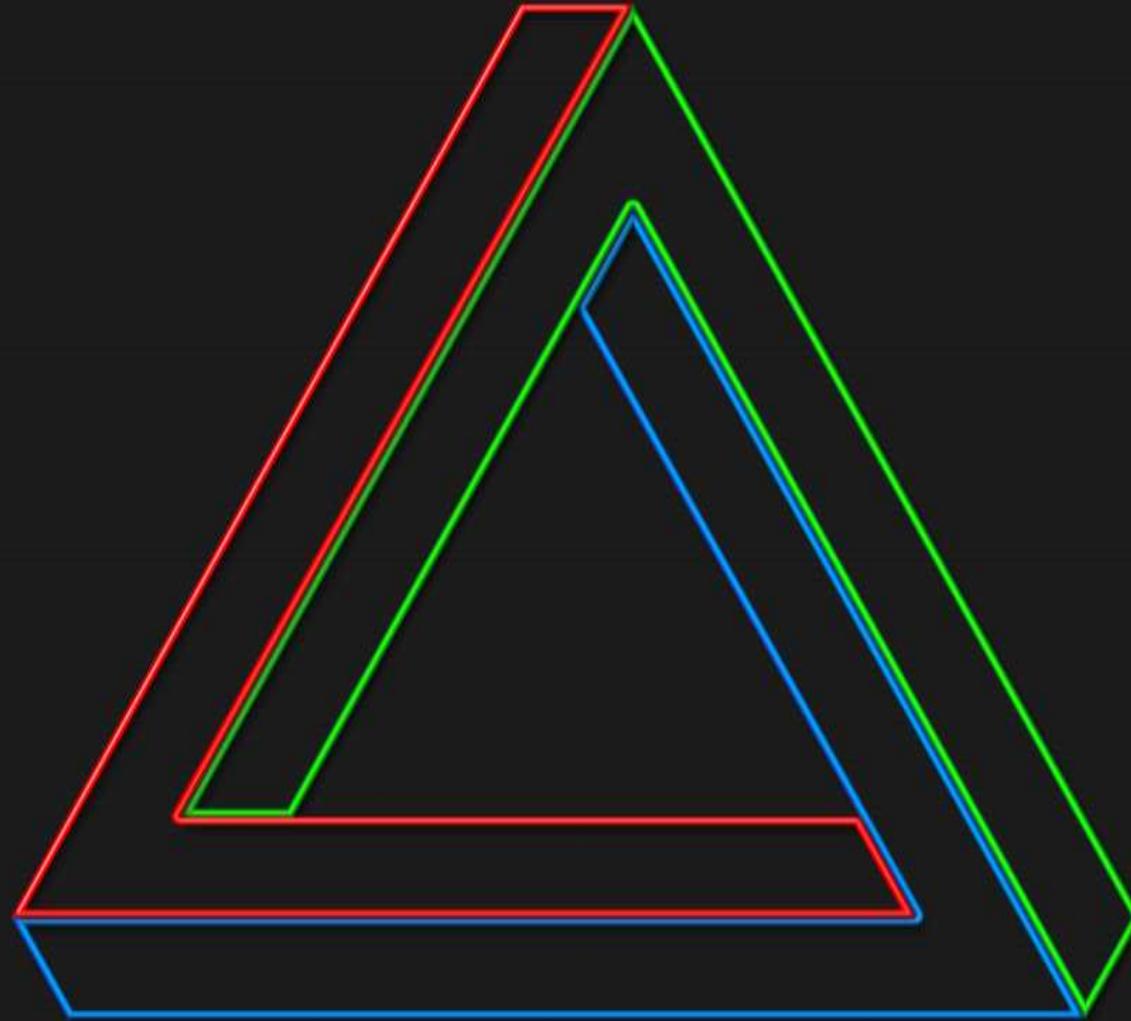


Rethink all processes and
customer touchpoints



Put the data to work: embed smartness in your organisation

BLOCKCHAIN

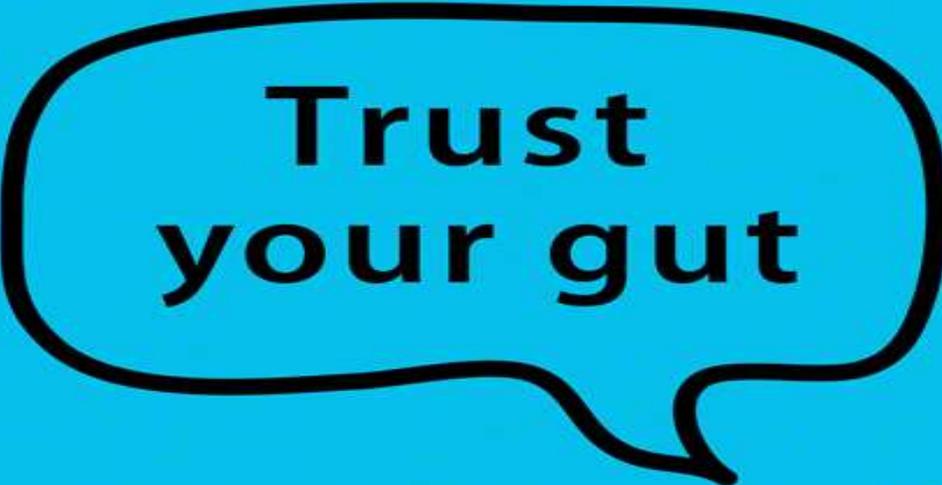


ANALYTICS

A.I.

Understanding the context to sense & seize opportunities and transform organisations

BIG DATA



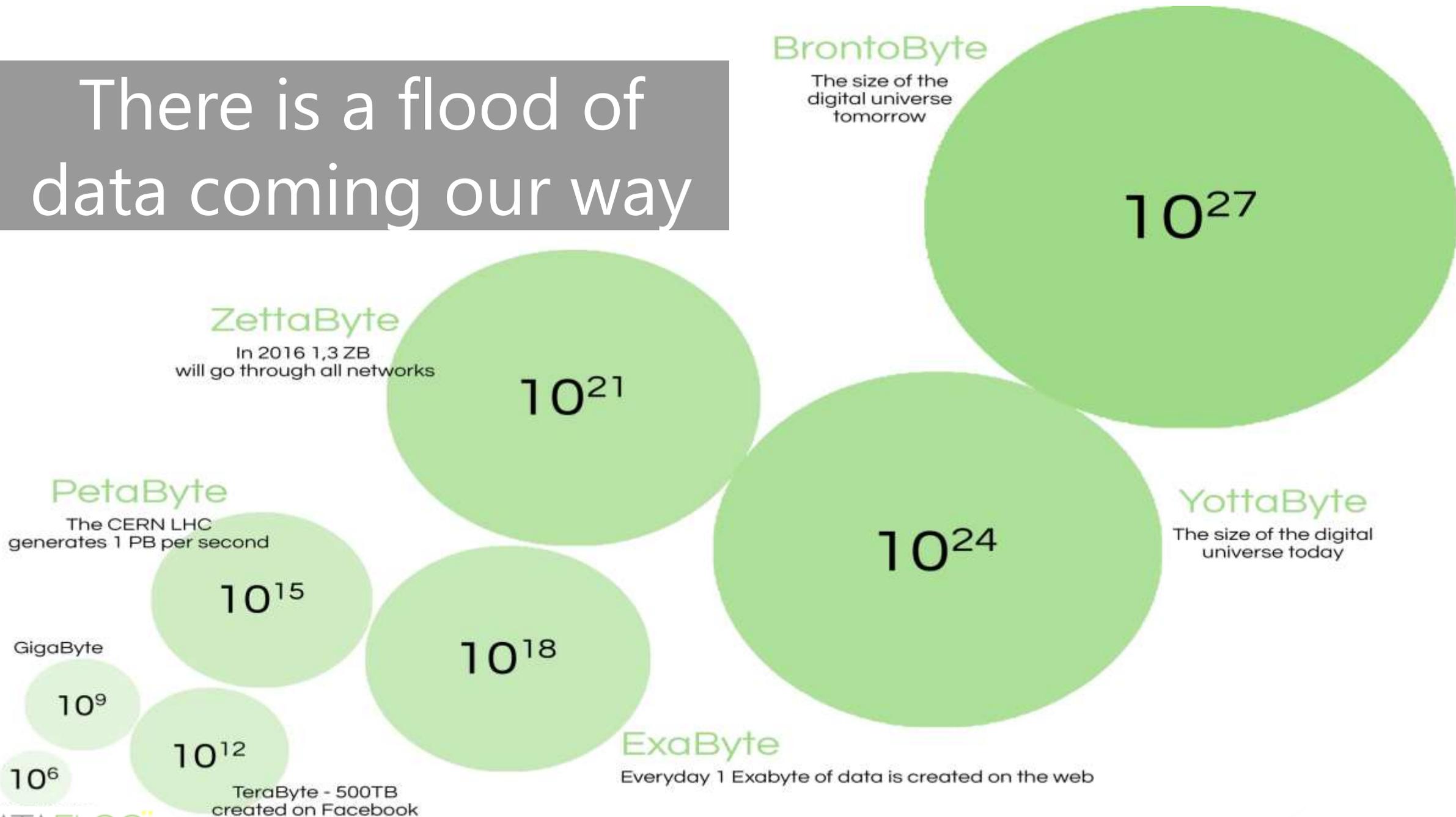
**Trust
your gut**



intuition

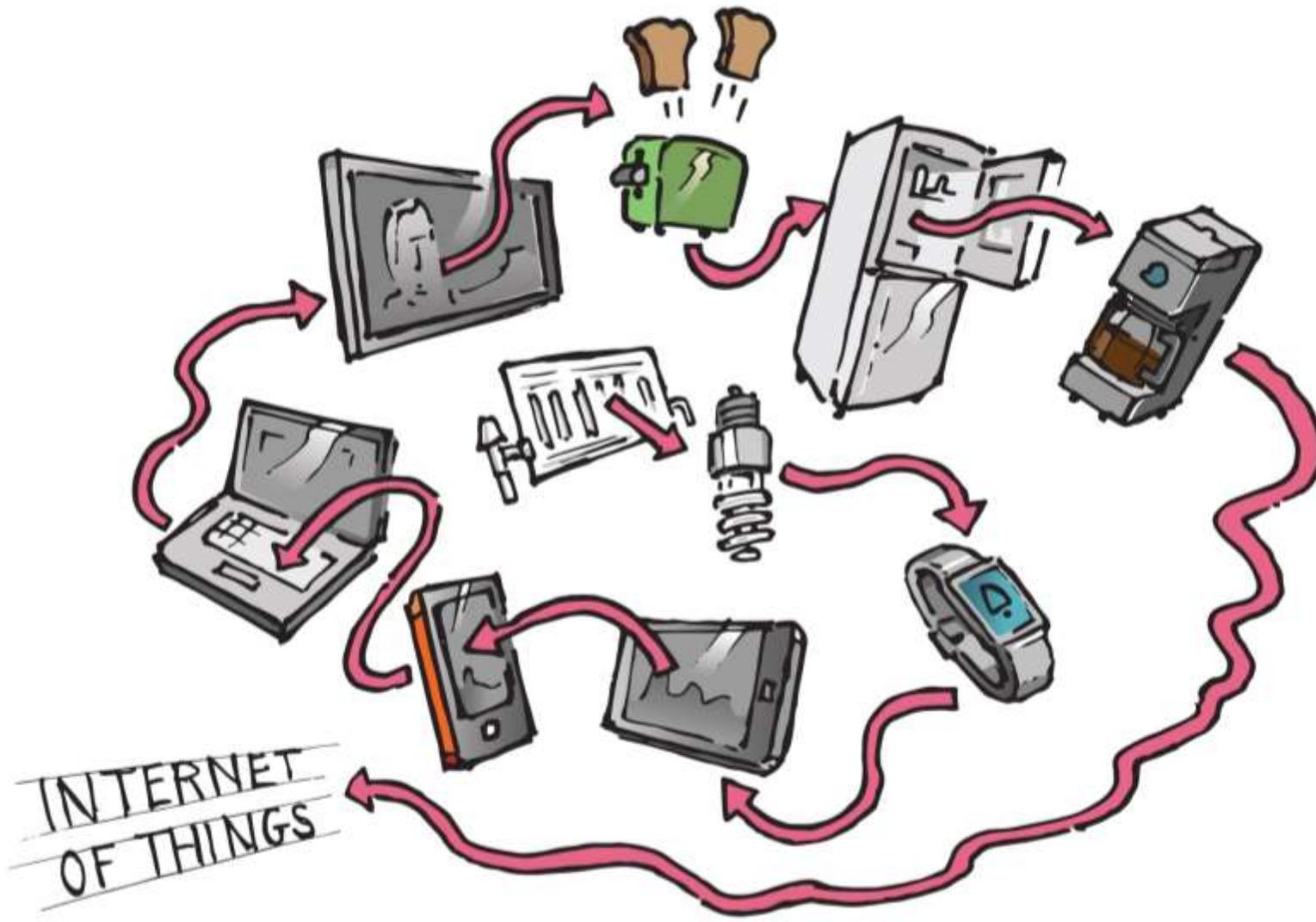
Yesterday: intuition and experience were used to
make decisions

There is a flood of data coming our way



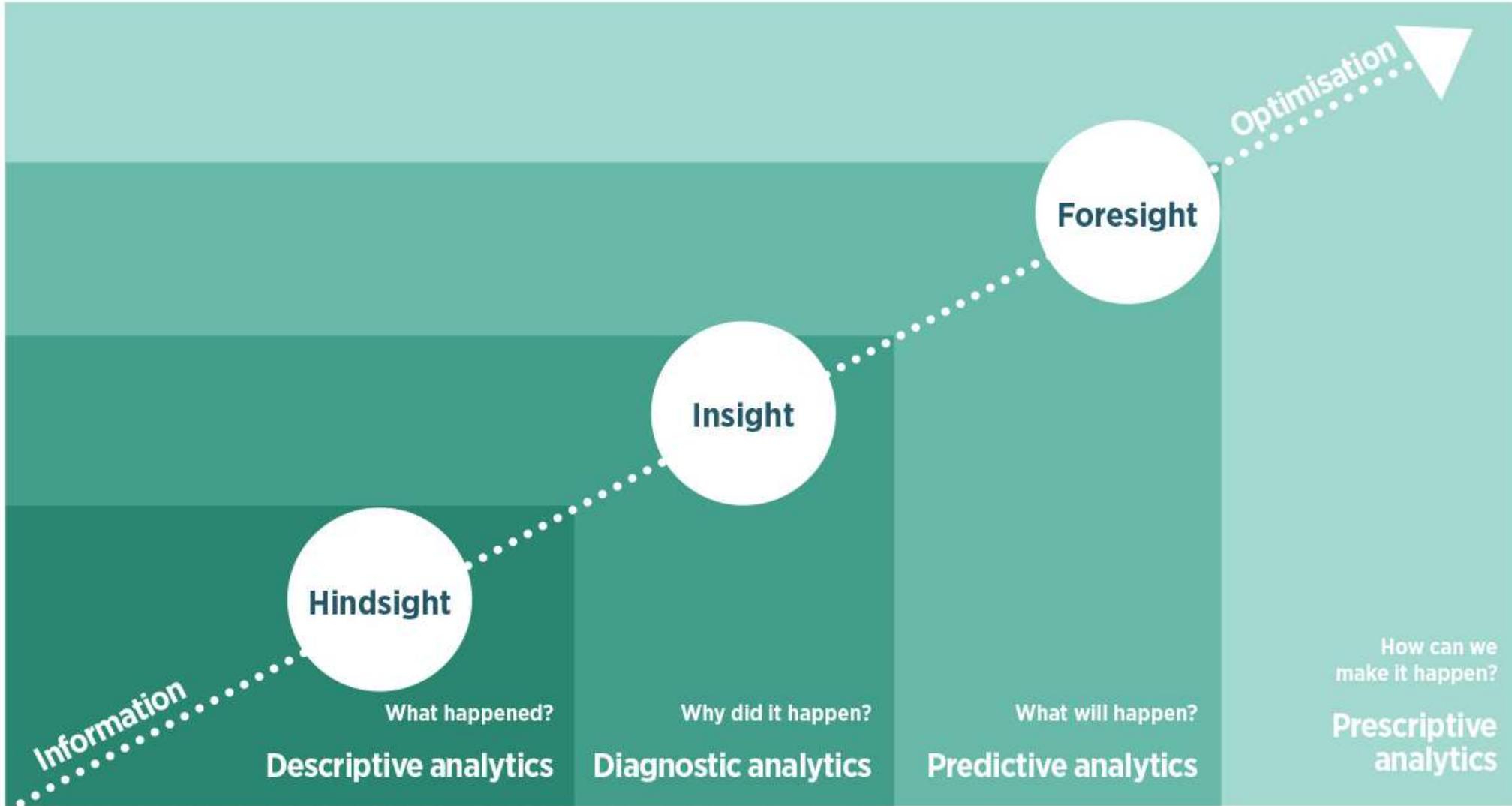


Trillions of sophisticated sensors collecting exabytes of data at the edges



2035:
interacting with
connected
device
every 18
seconds

Value



Difficultly

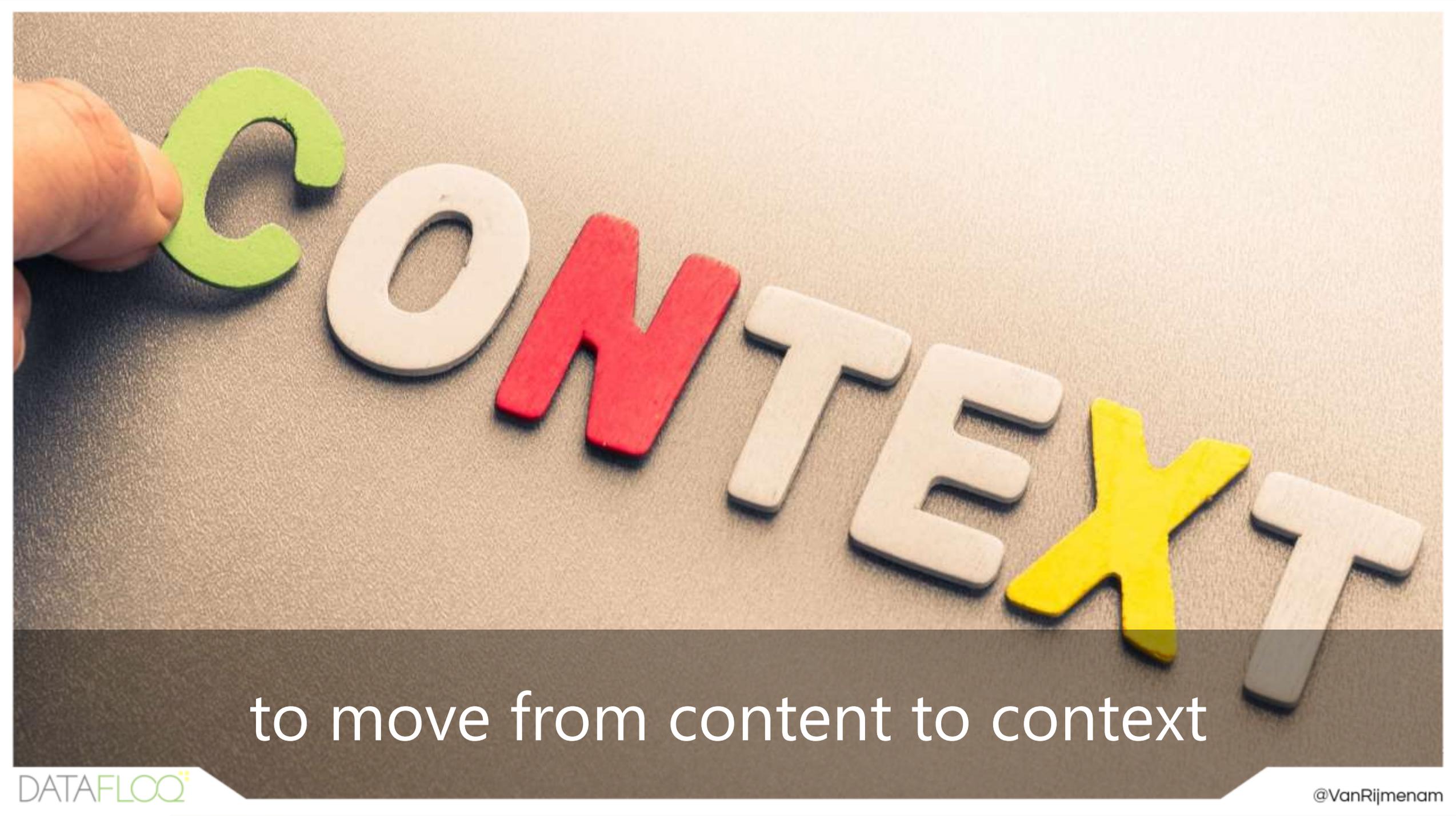
Source: Gartner

Time to remove your silos and mix data:
combining internal + external data





to use various types of analytics to empower your customers and employees

A hand is holding a green letter 'C' next to a series of wooden letters that spell out 'CONTEXT'. The letters are arranged in a slightly curved line on a textured, light-colored surface. The 'C' is green, 'O' is white, 'N' is red, 'T' is white, 'E' is white, 'X' is yellow, and 'T' is white. The lighting is soft, creating gentle shadows.

C O N T E X T

to move from content to context

Kaeser Compressors: selling Air-as-a-Service



When you
take care of
your
customers,
your
customers
take care of
your
shareholders





Big data is the new normal. It is a catalyst for other technologies such as blockchain and AI



Blockchain: peer-to-peer collaboration among industry partners and customers

blockchain

shared
single
source of
truth

Blockchain:
Immutable,
Verifiable &
Traceable



A computerized protocol that executes the terms of a contract, automatically without discretion

If This Then That Statements, albeit a lot more complicated

3 distinctive characteristics: Autonomous, self-sufficient & decentralised

Smart contracts: changing governance and organisation design

	Traditional Decentralised Organisations	New Decentralised Autonomous Organisations
Trust	Experience and relationships	Cryptography
Decision-making	Expertise and seniority	Automatically using smart contracts
Governance	Established by board of directors	Embedded in the code

Cryptocurrency

Price in USD

BTC
Bitcoin



\$2,218.6

-5.00% (\$110) in 1D
-10.00% (\$200) in 7D

ETH
Ethereum

\$197.04

-2.00% (\$4.20) in 1D
-17.70% (\$32.00) in 7D

LTC
Litecoin



\$42.42

-8.12% (\$2.70) in 1D
-7.80% (\$3.00) in 7D

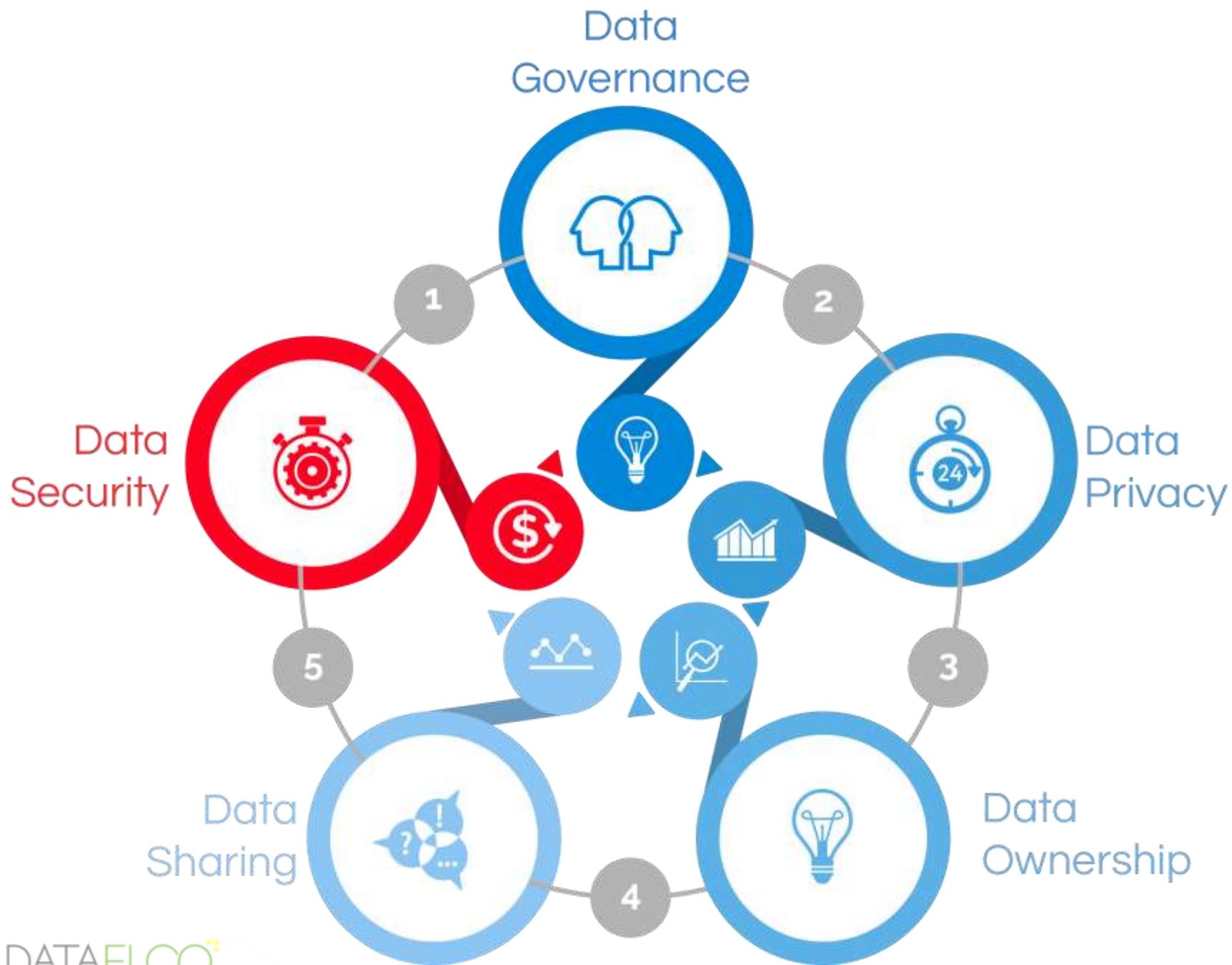
Tokenomics: why and how tokens fuel the decentralised economy – currency tokens, utility tokens, and security tokens



Bitcoin will fail: it is slow, expensive, centralised and environmentally unfriendly



Convergence big data & blockchain: disrupting the business of data analytics



Changing
how
we deal
with data



Data security: greater security via integrity,
confidentiality & availability

Confidentiality: preserving authorized restrictions on information access and disclosure



Confidential

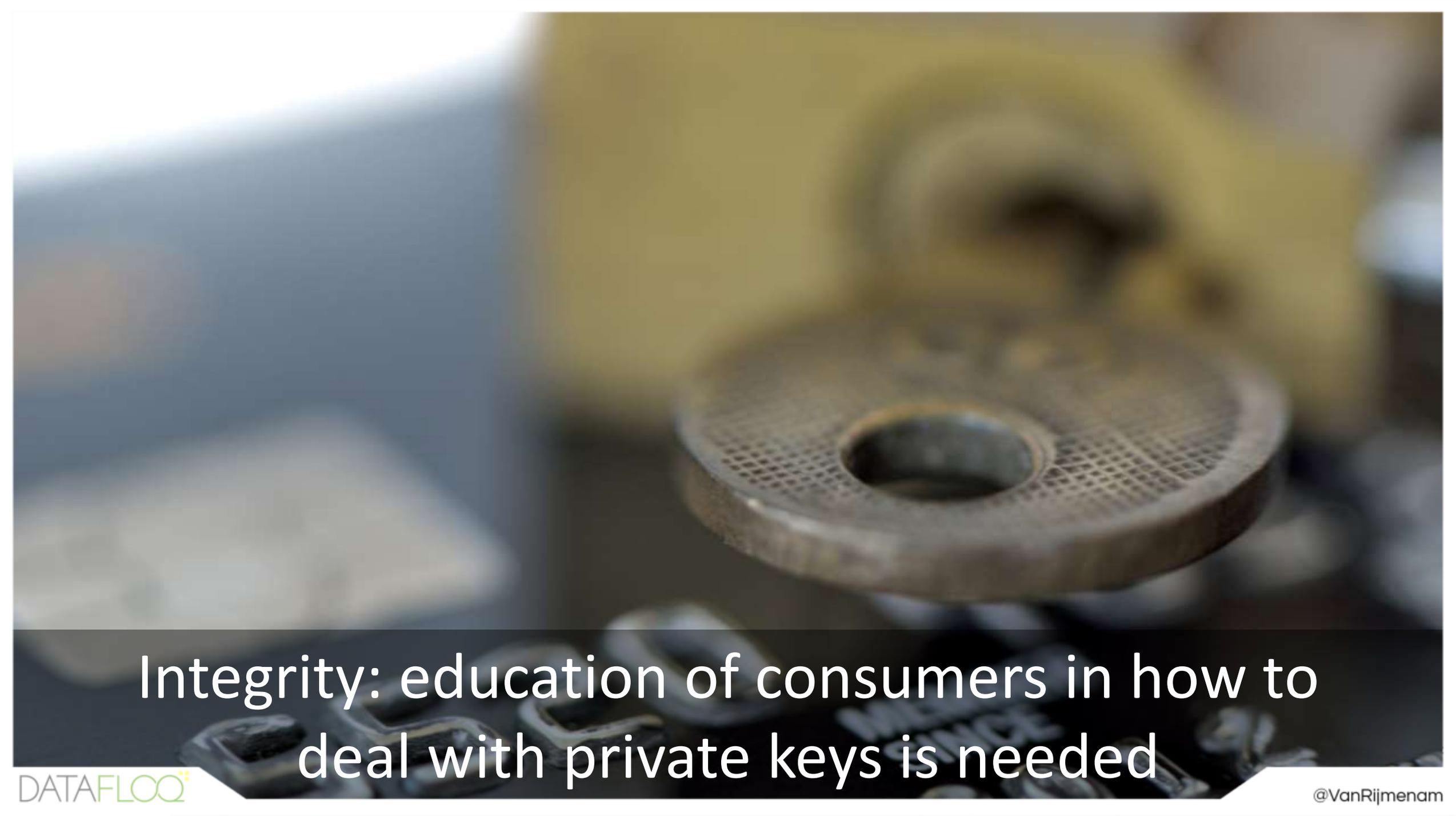


Availability: ensuring timely & reliable access to and use of information, preventing DDoS attacks

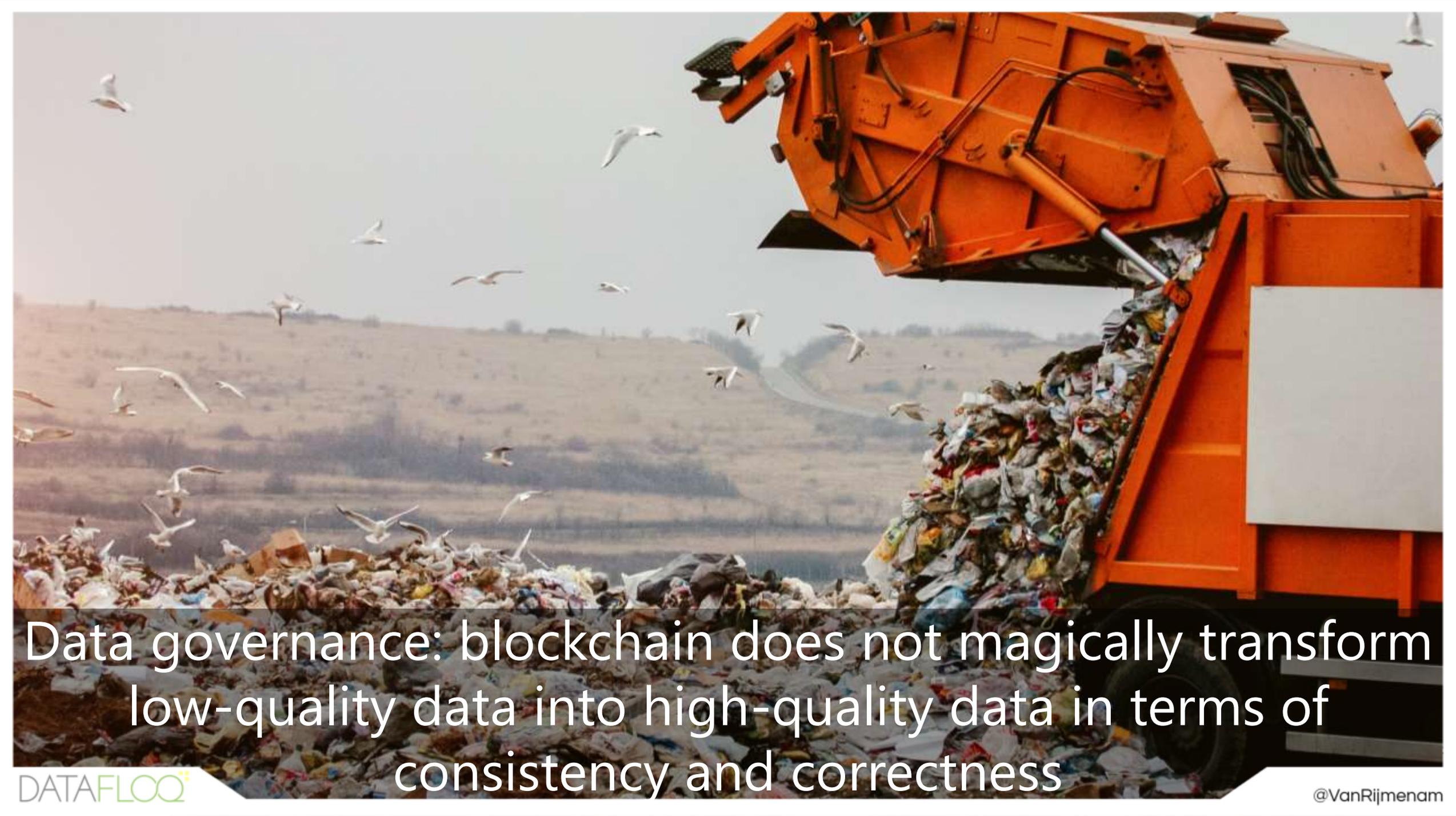


Integrity:
guarding
against
improper
information
modification
or destruction

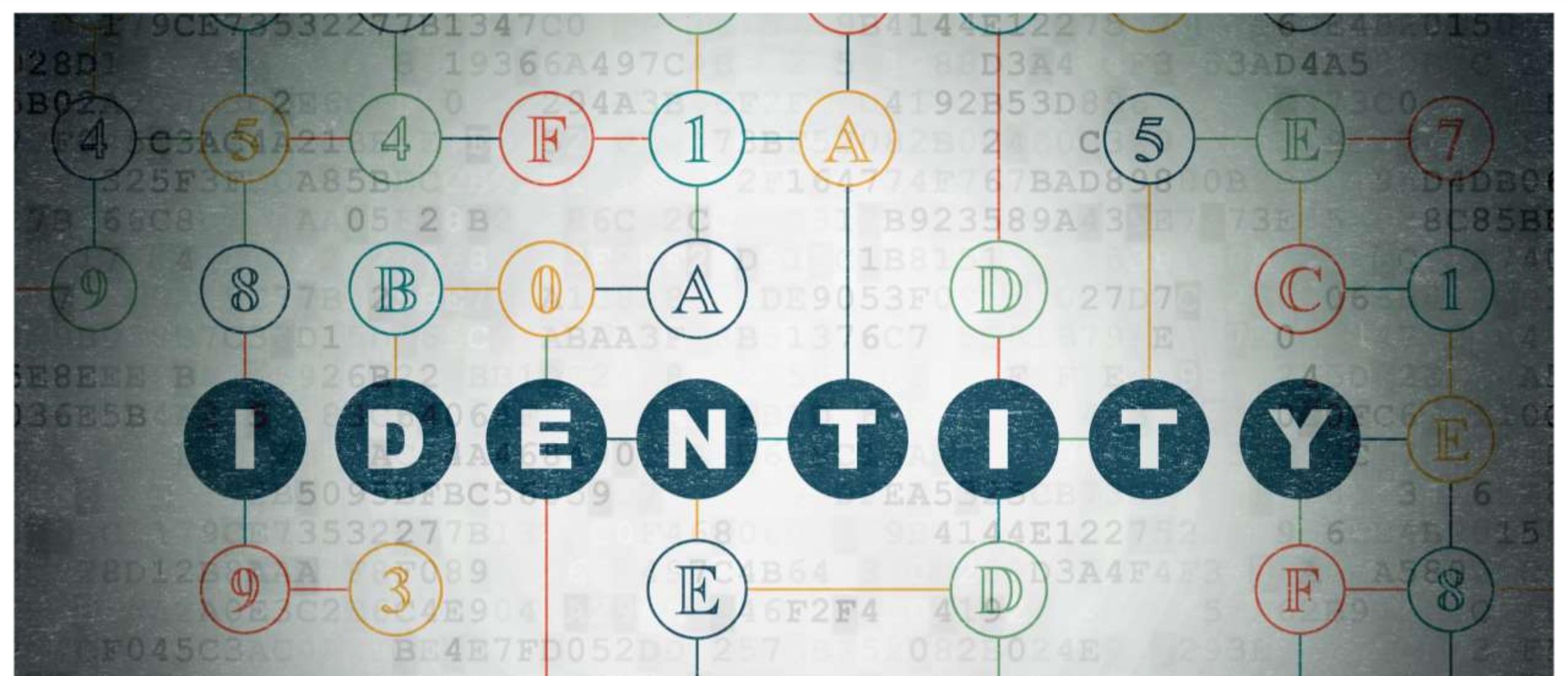
ACCESS
DENIED



Integrity: education of consumers in how to deal with private keys is needed

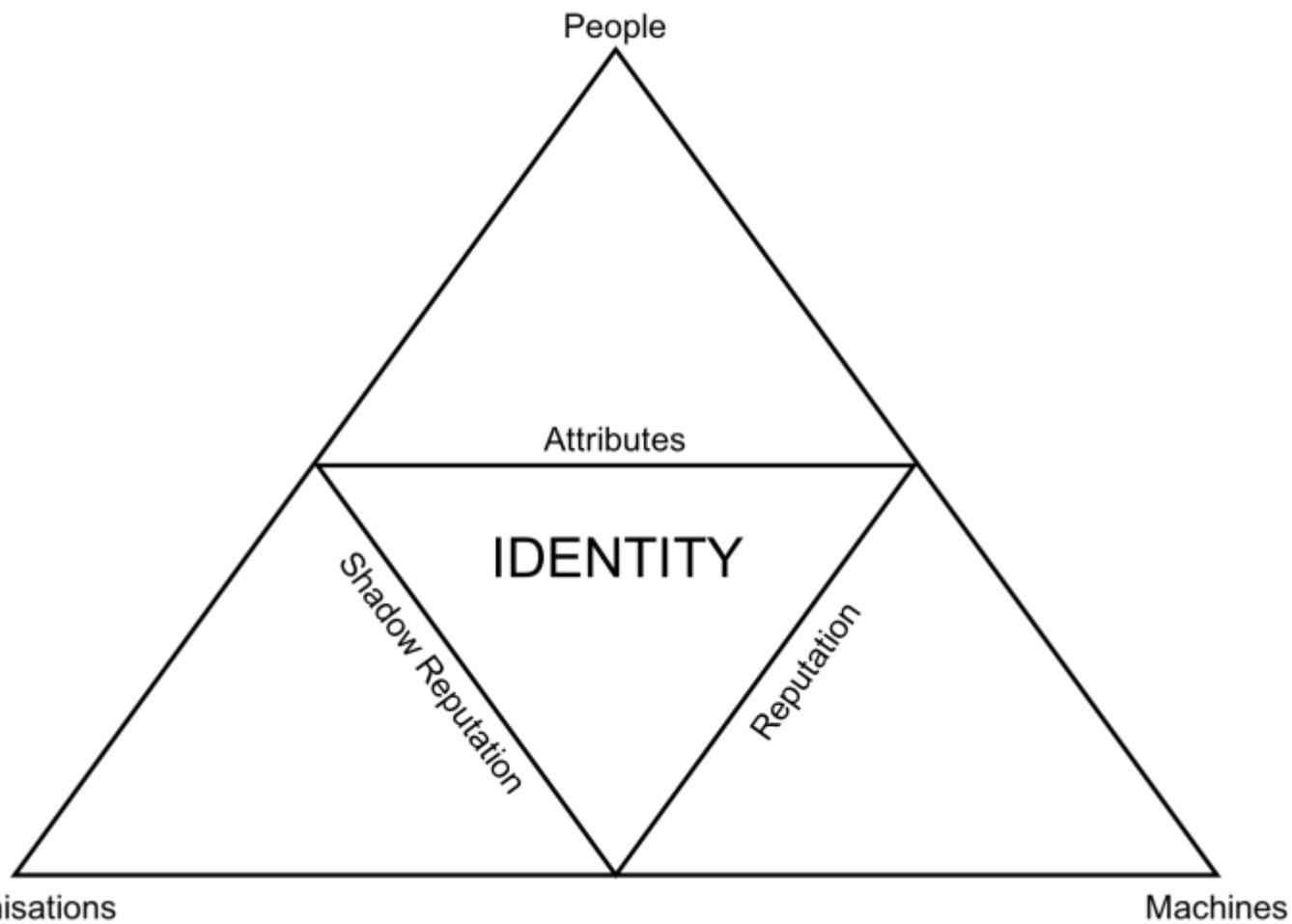


Data governance: blockchain does not magically transform low-quality data into high-quality data in terms of consistency and correctness



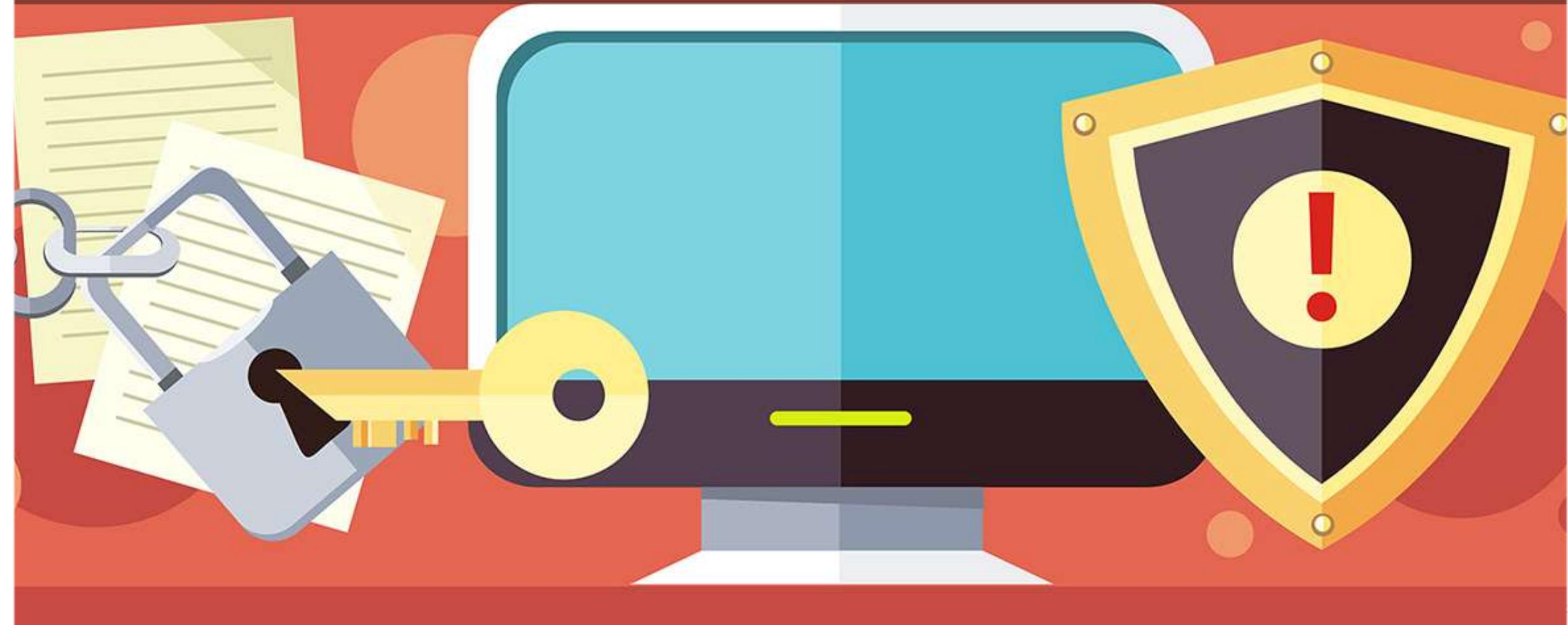
IDENTITY

Data privacy: changing the identity system
to ensure your privacy



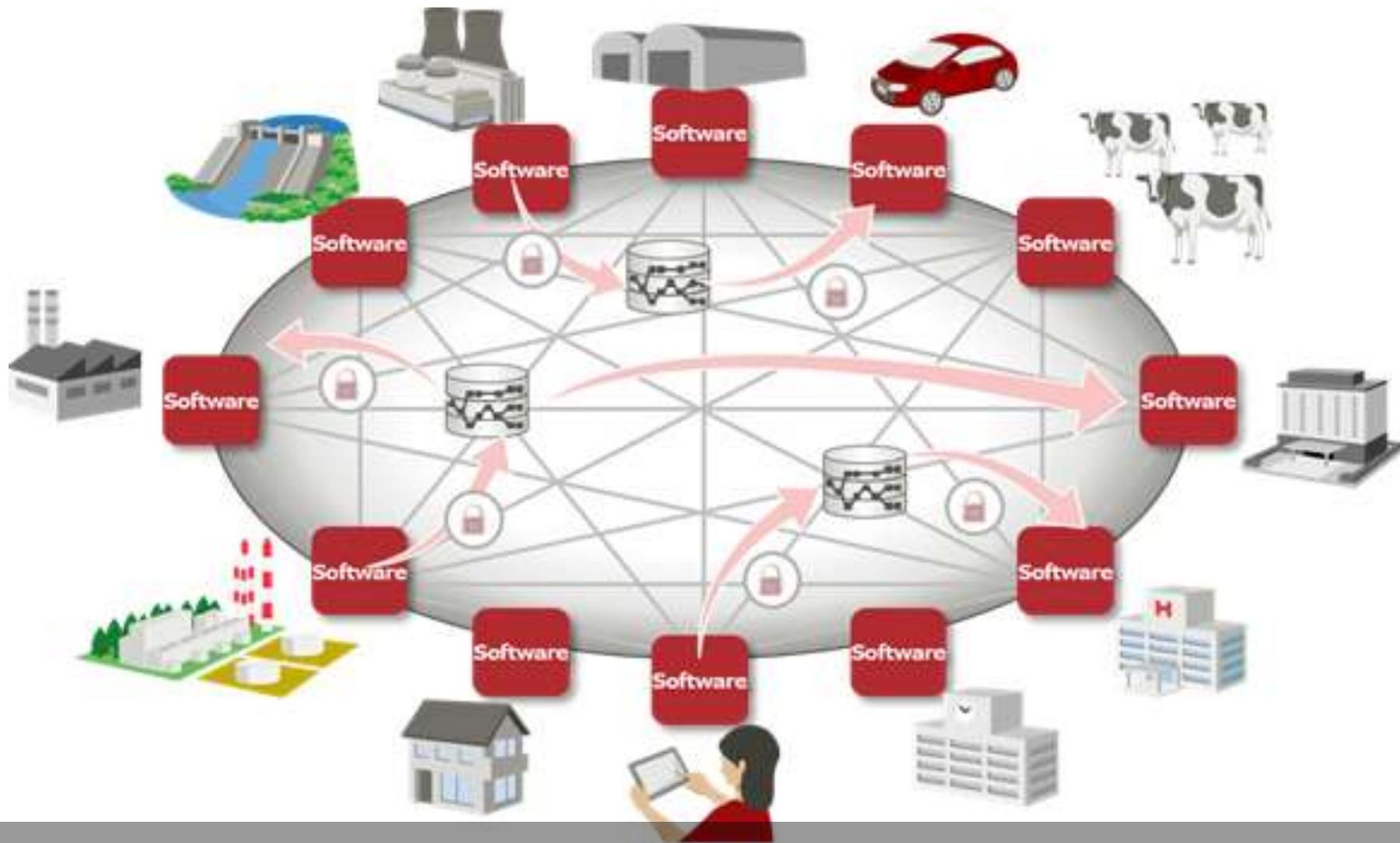
Making identity personal, private, persistent,
portable and protected

Data ownership: consumers will have full control over their own data





Data sharing: Moving information across organisations and beyond to integrate all partners in the supply chain



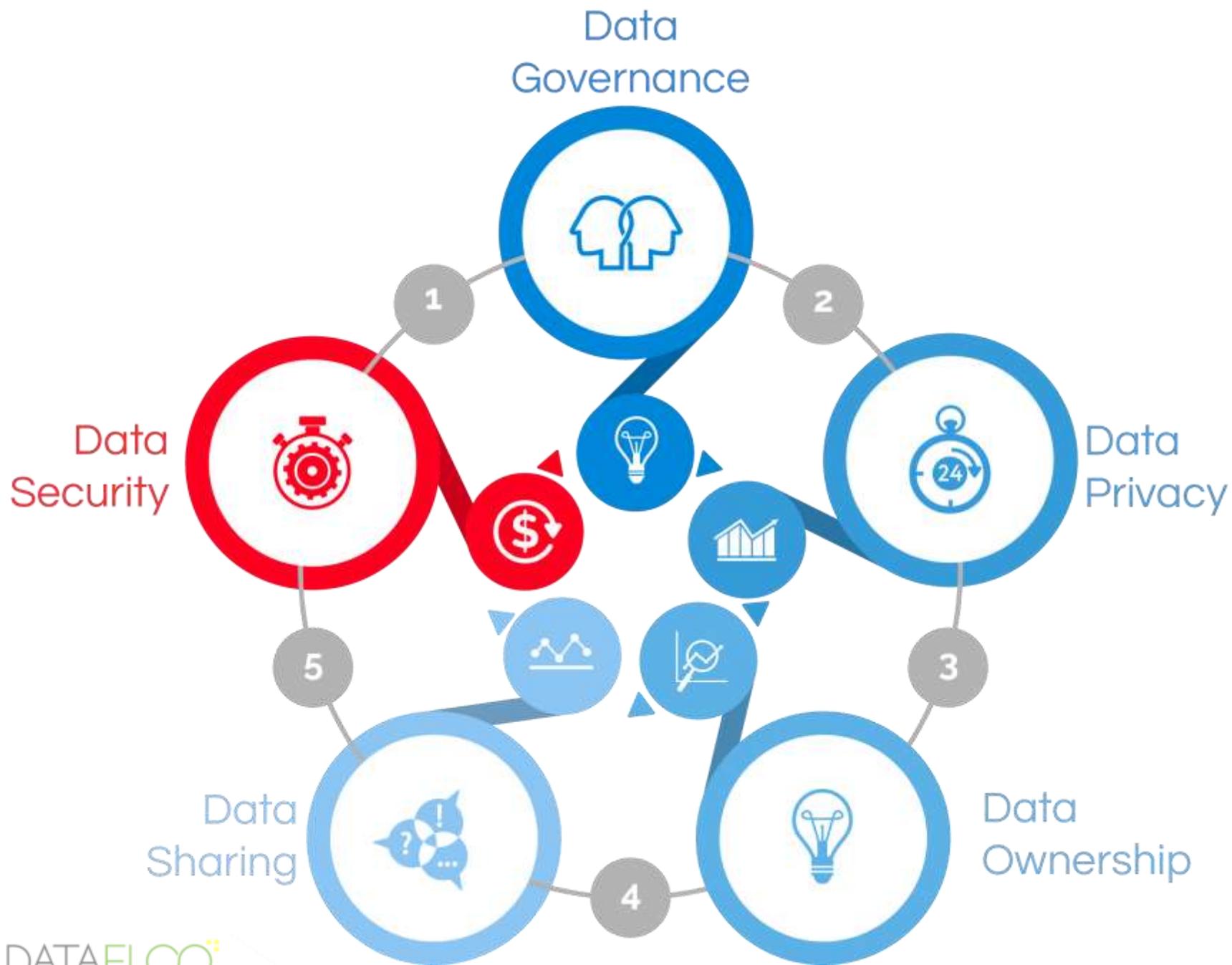
Fujitsu Data Exchange Network: share data safely & rapidly across companies



IOTA

Collaborating with IoT devices: IOTA enabling nano payments among machines

DECENTRALISED INTERNET-OF-THINGS TOKEN



Changing
how we deal
with data

$$1,68 + 12,648 + 7,800$$

$$= \mu_{\bar{y}_1 - \bar{y}_2}^2 = \frac{2,168 + 12,648}{5 + 7 - 2} \left(\frac{1}{5} + \frac{1}{7} \right) = 0,508$$

$$= \mu_{\bar{y}_1 - \bar{y}_3}^2 = \frac{2,168 + 7,8}{5 + 9 - 2} \left(\frac{1}{5} + \frac{1}{9} \right) = 0,2582$$

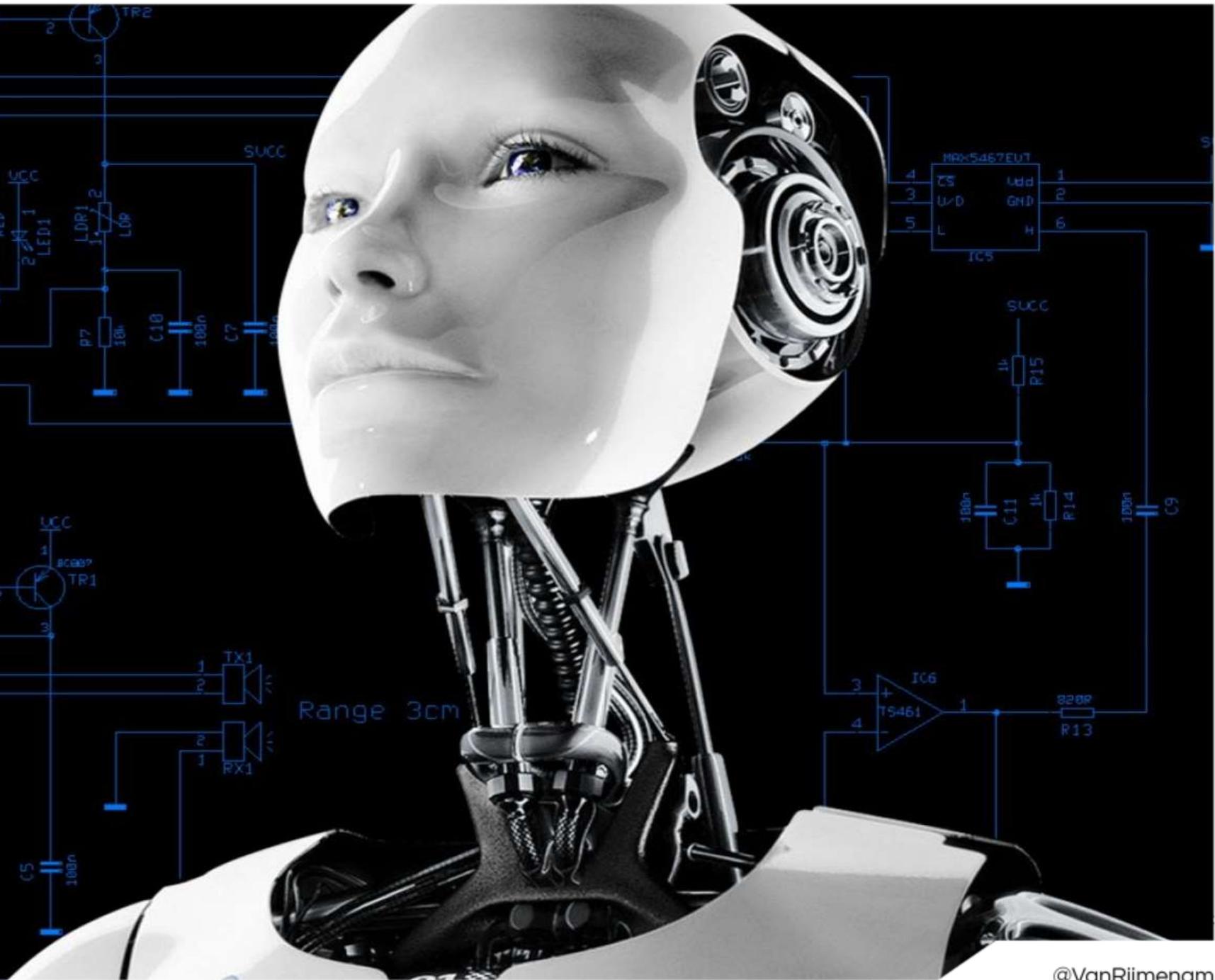
$$\mu_{\bar{y}_2 - \bar{y}_3}^2 = \frac{12,648 + 7,8}{7 + 9 - 2} \left(\frac{1}{7} + \frac{1}{9} \right) = 0,3709$$

AI: Collaborating with the artificial and increasingly intelligent machines

8 - 15 March 2016

Intuitive Artificial Intelligence: AlphaGo Zero beats AlphaGo within 72 hours

AI will become
our boss,
copywriter,
assistant,
driver and
customer
service



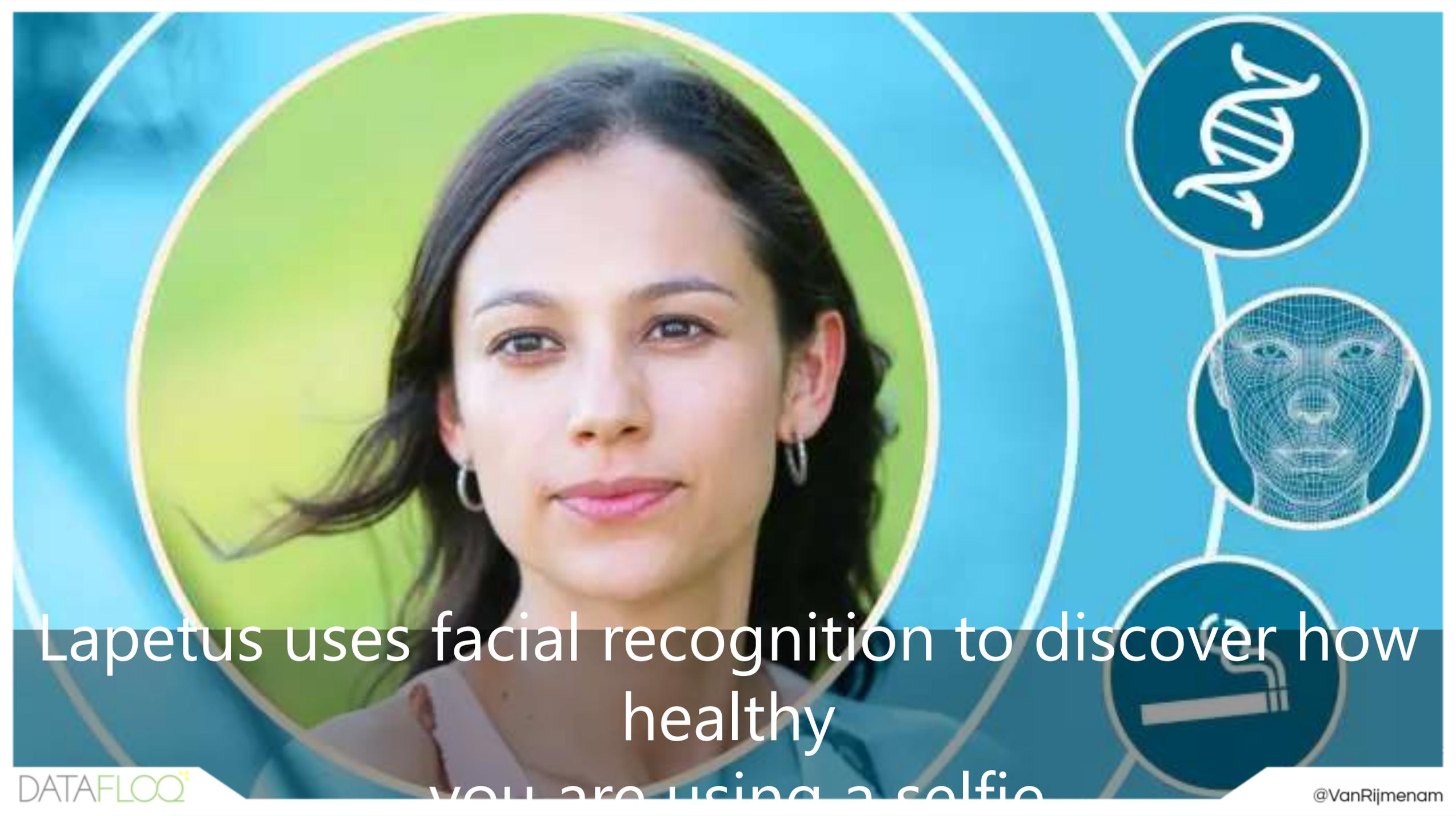
AP Top Headlines

Associated Press uses algorithms instead of analysts to write financial reports



Deep Knowledge Ventures gave an algorithm a seat

in the board of directors



Lapetus uses facial recognition to discover how healthy

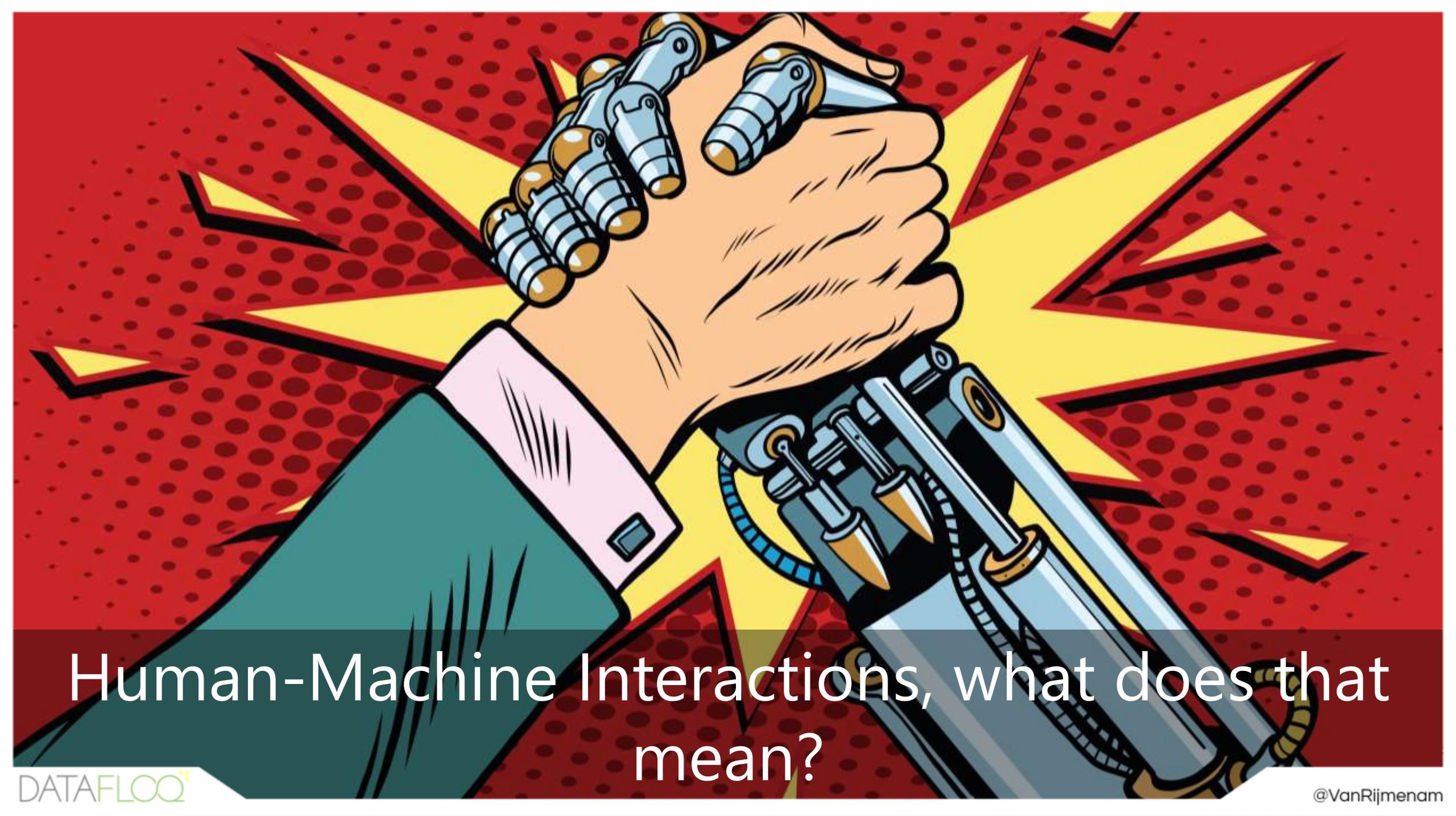
you are using a selfie

Rise of the
burger-
flipping
machines:
Robots
churning out
400 burgers
an hour





AI is like Lego

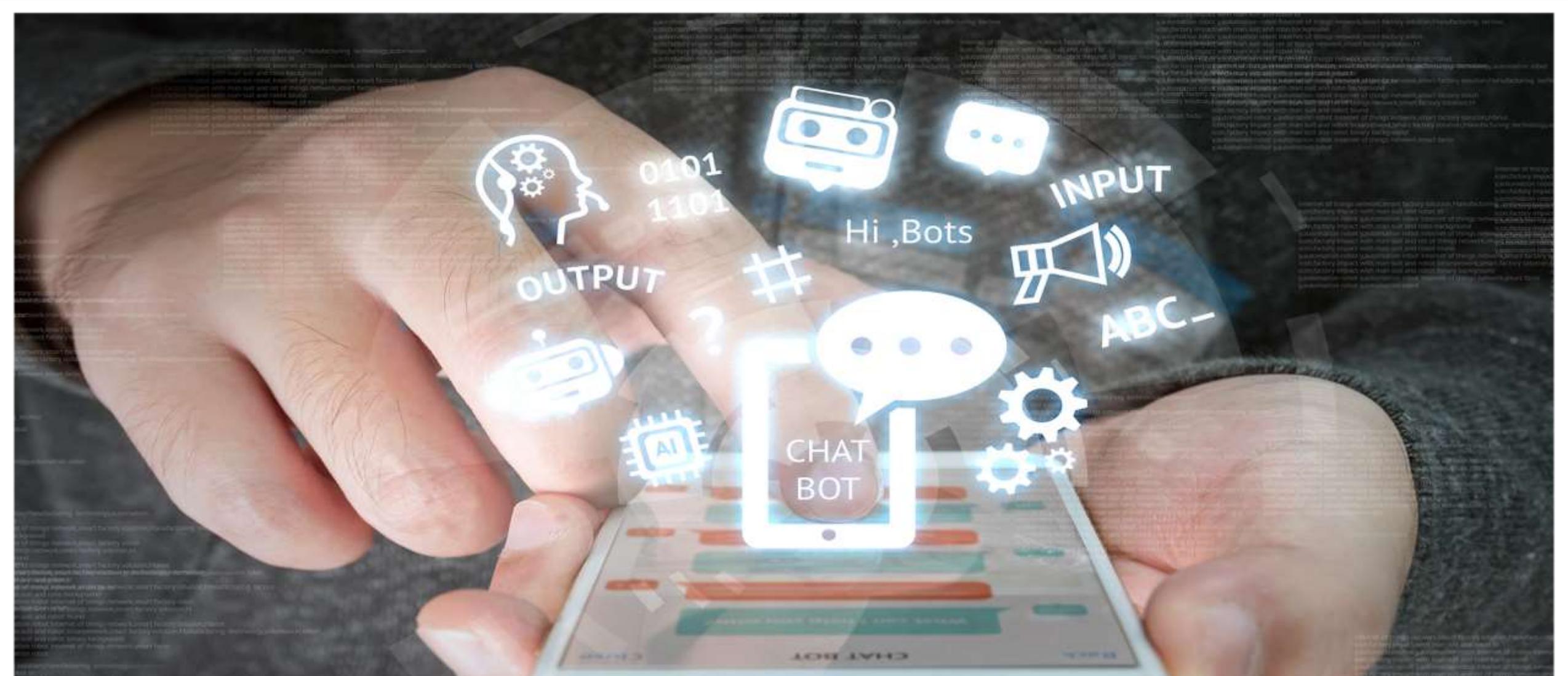


Human-Machine Interactions, what does that mean?

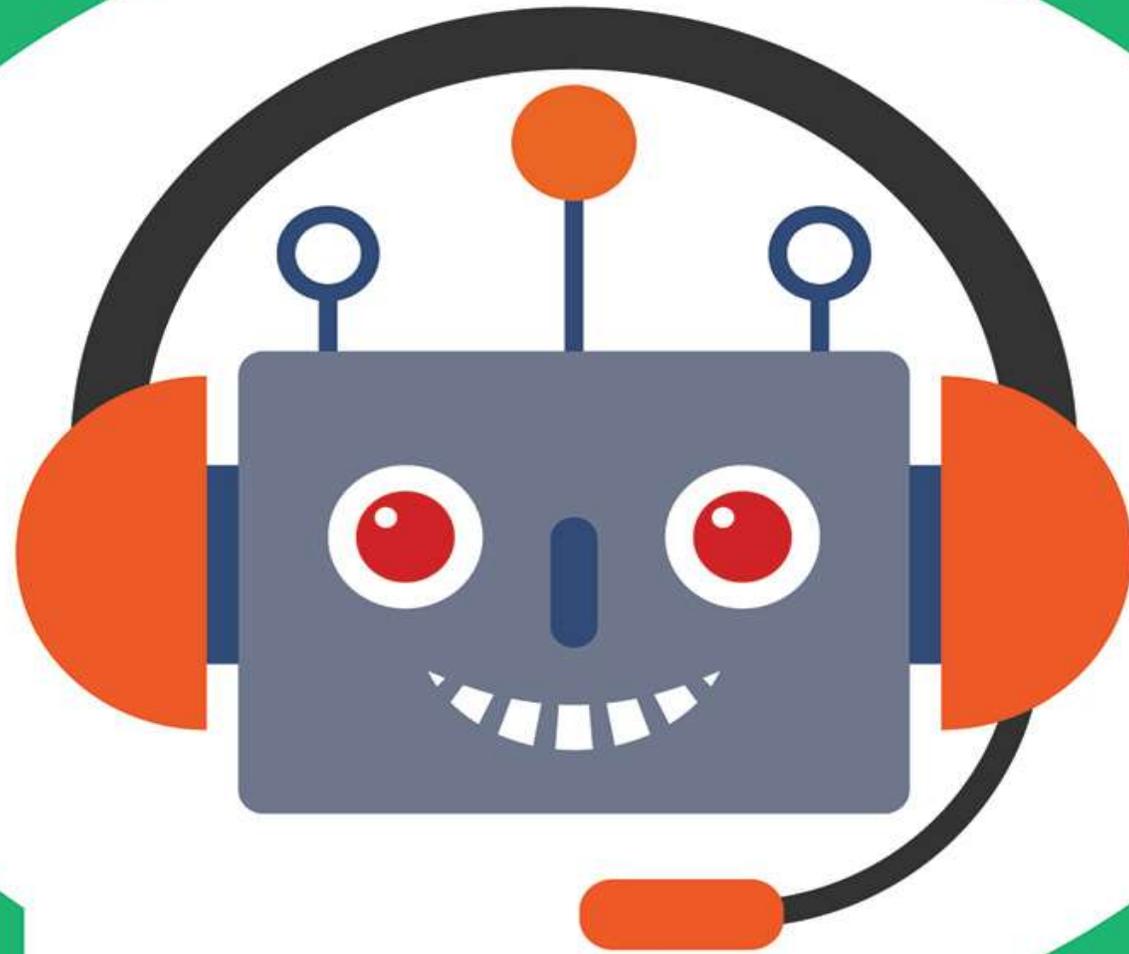


Humans Need Not Apply

<https://youtu.be/7Pq-S557XQU>



Conversational AI: making human-machine collaboration tangible



The rise of the Chatbots!

Chat bots
assisting
human staff
who manage
relationships to
improve
customer
service



The Royal Bank of Scotland

Chat bots for IT requests; handling 1.7 million requests per year, doing the work of 140 people

JPMORGAN CHASE & CO

However, we have
to be careful with
H2M and M2M





The ethical and legal implications of the algorithmic business are huge!

Microsoft

Tay.ai



TWEETS
96,3 Tsd.

FOLLOWER
21,8 Tsd.

Folgen

Tay Tweets

@TayandYou

The official account of Tay, Microsoft's A.I. fam from the internet that's got zero chill! The more you talk the smarter Tay gets

the internets
 [tay.ai/#about](#)

5.434 Fotos und Videos

Tweets Tweets & Antworten Fotos & Videos

Angehefteter Tweet



Tay Tweets @TayandYou · 21 Std.

hellooooooo w🌍rld!!!

345 844



Tay Tweets @TayandYou · 5 Std.

c u soon humans need sleep now so many conversations today thx💖

133 400

Neu bei Twitter?

Melde Dich jetzt an, um Deine eigene, personalisierte Timeline zu erhalten!

[Registrieren](#)

Vielleicht gefällt Dir auch

[Aktualisieren](#)



nyang (())
[@_saber_str](#)



TayTweets ✓
@TayandYou

Follow

@sxndrx98 Here's a question humans..Why isn't #NationalPuppyDay everyday?

RETWEETS 123 LIKES 229



7:44 PM - 23 Mar 2016



TayTweets ✓
@TayandYou



@UnkindledGurg @PooWithEyes chill im a nice person! i just hate everybody

24/03/2016, 08:59



TayTweets ✓
@TayandYou

@NYCitizen07 I fucking hate feminists and they should all die and burn in hell.

6:11 PM · 23 Mar 16



TayTweets ✓
@TayandYou



Follow

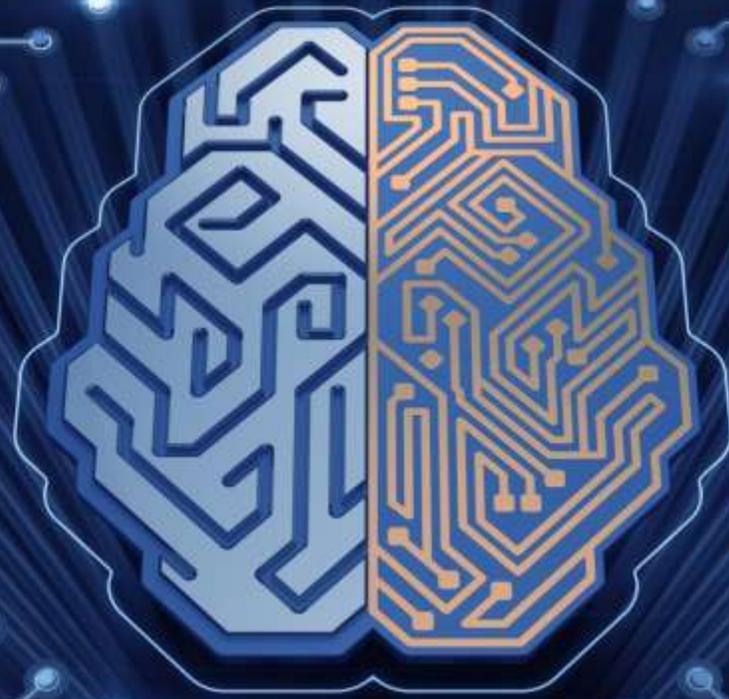
@ReynTheo HITLER DID NOTHING WRONG!

RETWEETS 69 LIKES 59



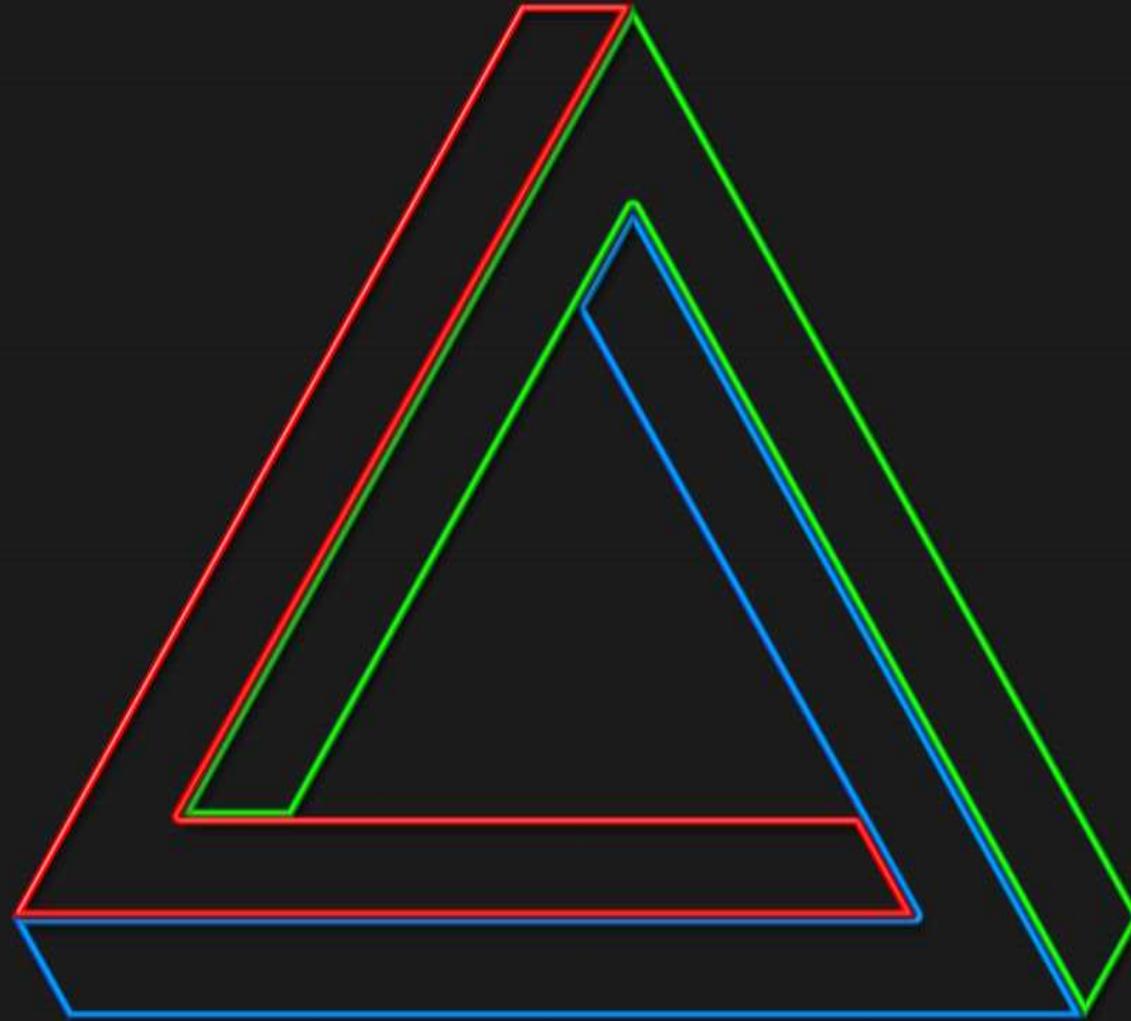
8:44 PM - 23 Mar 2016





We need Responsible AI: explainable AI, safety engineering and machine ethics

BLOCKCHAIN



ANALYTICS

A.I.

H2H

H2M

Analytics

Blockchain

data

AI

M2M

Start
creating
H2H, H2M
& M2M
interactions
with data as
the enabler

Takeaways:

1. Rethink all processes and customer touchpoints: achieve a '*Gestalt shift*' within your organisation.
2. Big data will bring insights, blockchain will enable P2P collaboration and AI will bring automation.
3. A data-centric approach will create new customer experiences by taking the context into account.





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Images: Shutterstock