

=exact

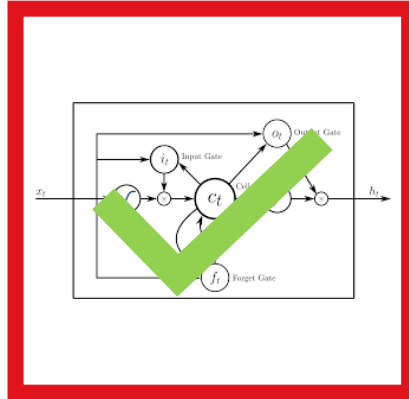
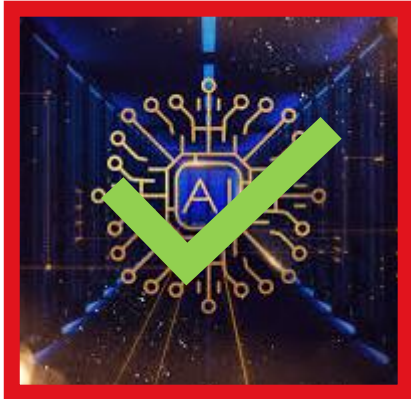
Artificial Intelligence for Accounting and Auditing

Creating artificial intelligence together

Judith Redi, Head of Data Science



This talk



=exact

What is Artificial Intelligence?

“The science and engineering of making intelligent machines”

What is Artificial Intelligence?

“AI attempt to understand intelligent entities. But unlike philosophy and psychology [...] AI strives to build intelligent entities as well as understand them”

What is *Artificial Intelligence*?

=exact

What is Artificial Intelligence?

“The ability to learn, understand, and make judgments or have opinions that are based on reason”

- Cambridge Dictionary

“The Ability to adapt oneself adequately to relatively new situations in life”

- R. Pinter

“The capacity to learn or to profit by experience”

- W. F. Dearborn

“A very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience”

- Gottfredson, 1997, as cited by Schut, 2007



Machines that display intelligent behaviour: the Turing test (1950)

VOL. LIX. No. 236.]

[October, 1950

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—COMPUTING MACHINERY AND
INTELLIGENCE

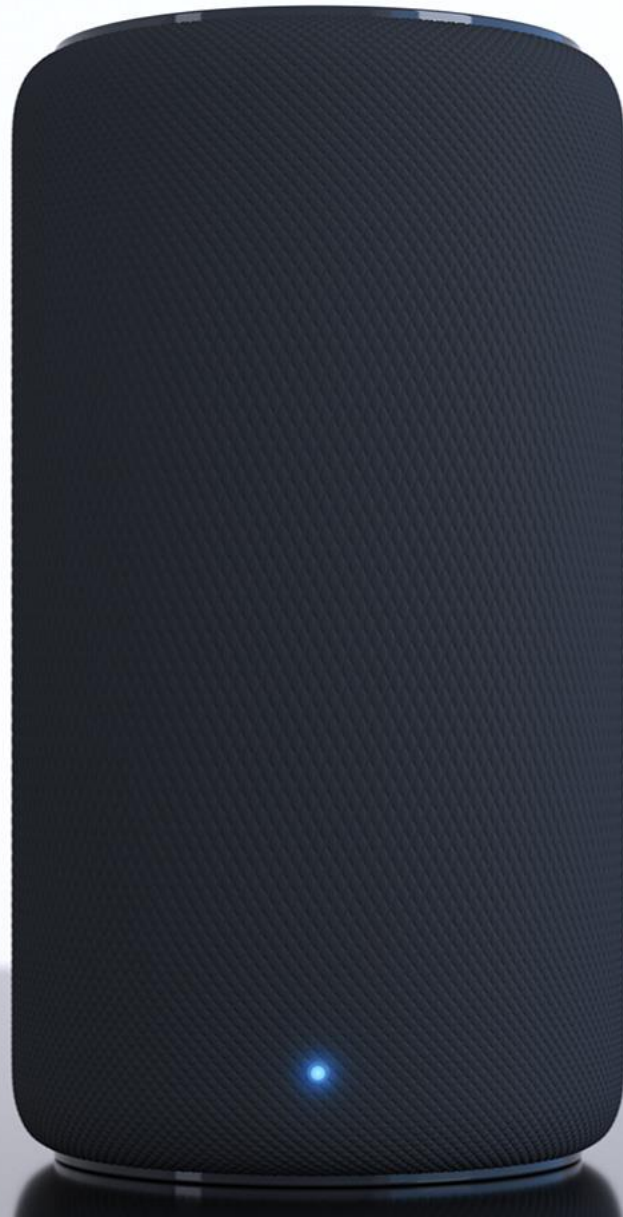
By A. M. TURING

1. *The Imitation Game.*

We now ask the question, 'What will happen when a machine takes the part of A in this game?' Will the interrogator decide wrongly as often when the game is played like this as he does when the game is played between a man and a woman? These questions replace our original, 'Can machines think?'

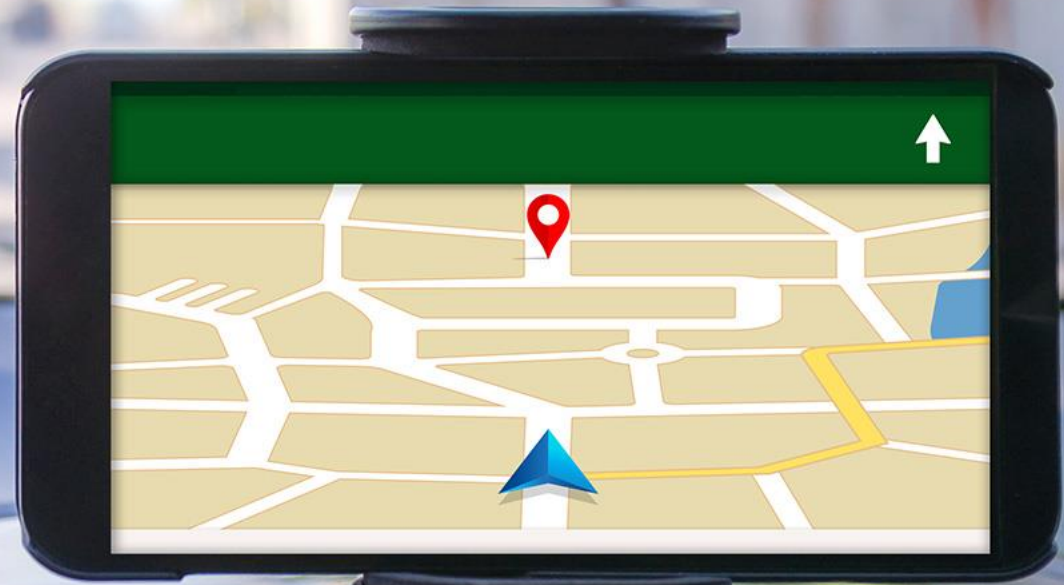
absurd. Instead of attempting such a definition I shall replace the question by another, which is closely related to it and is expressed in relatively unambiguous words.

AI everyday



=exact

AI everyday



=exact

AI everyday



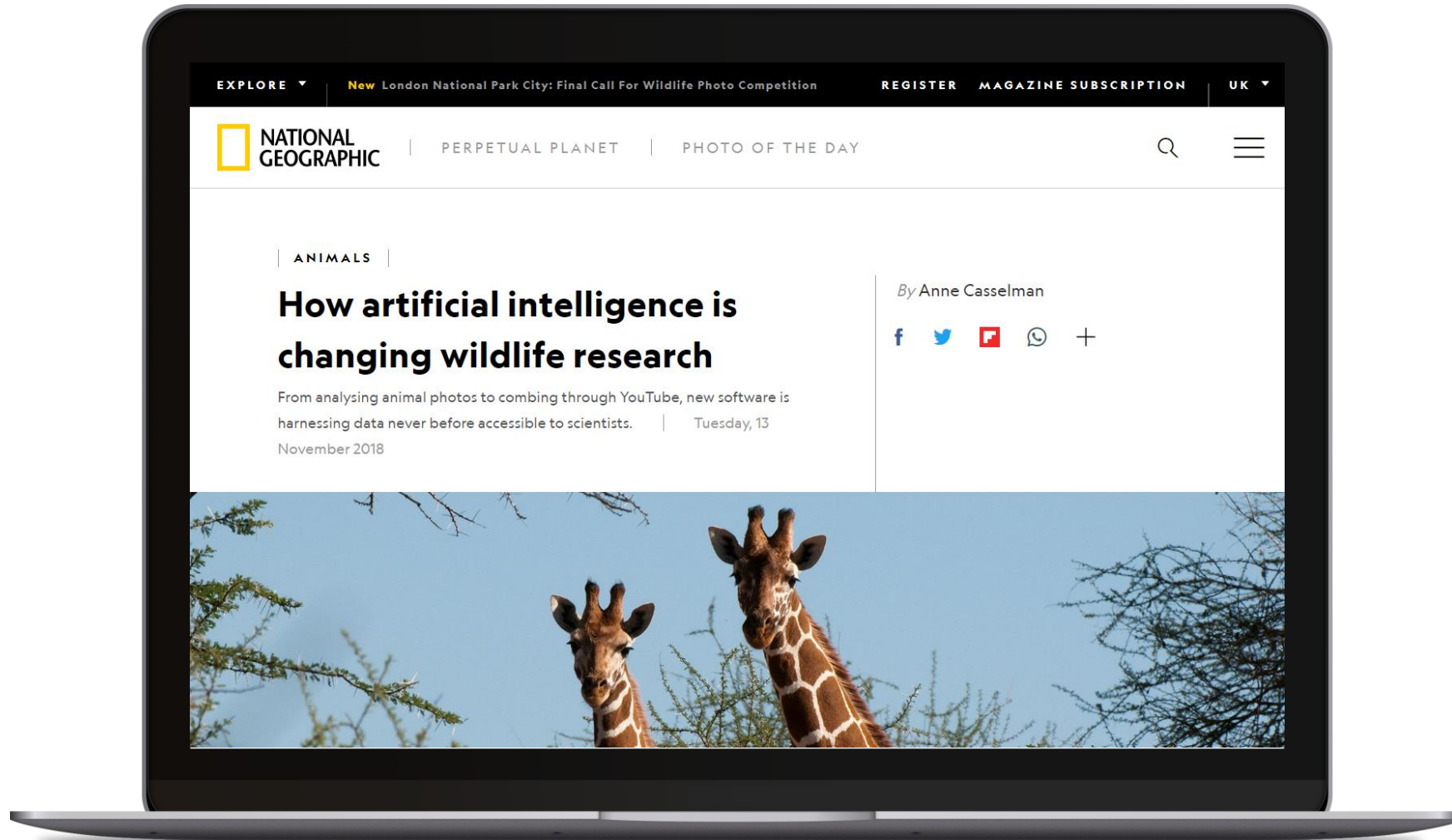
=exact

AI for good

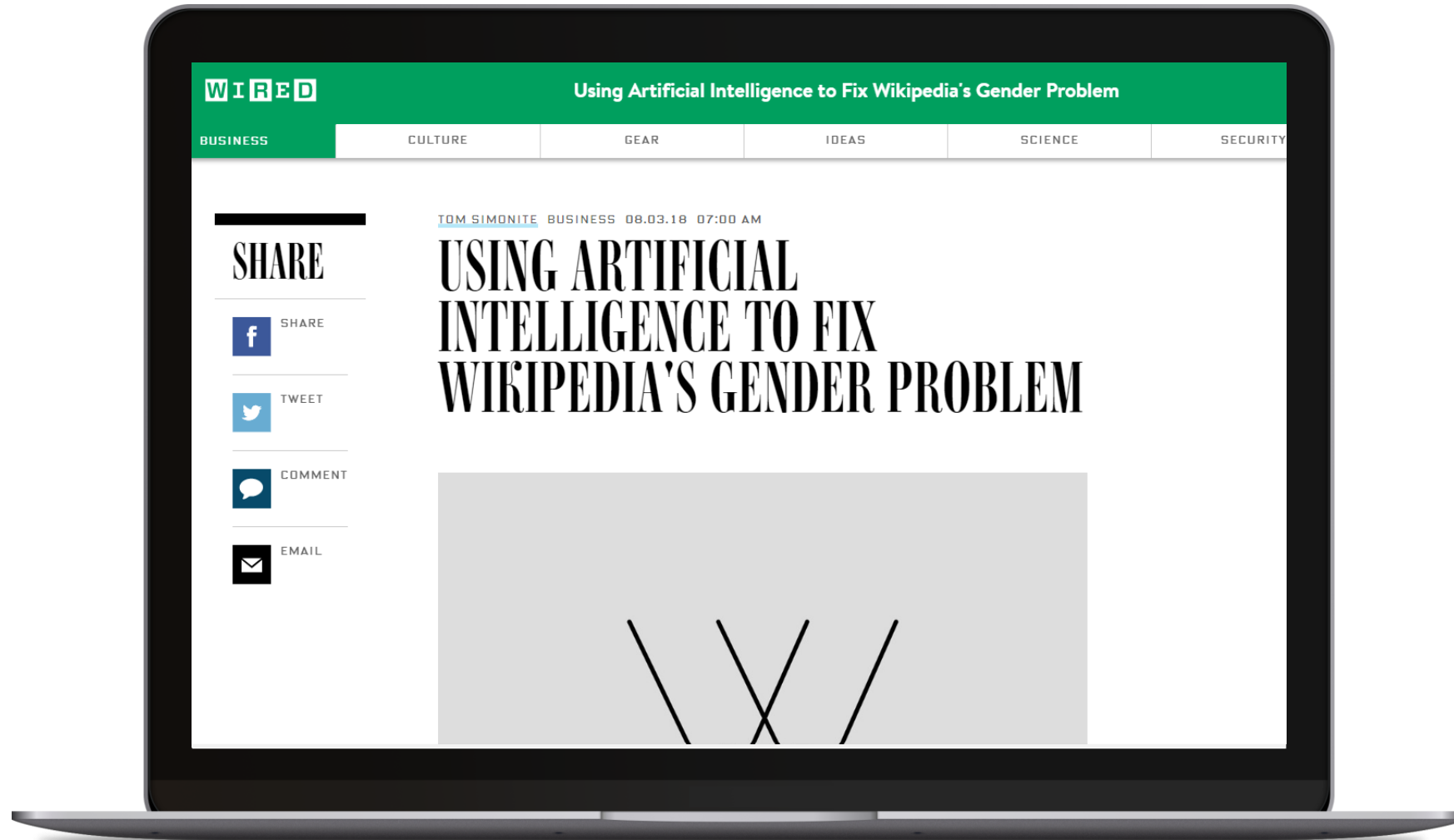


=exact

AI for good



AI for good

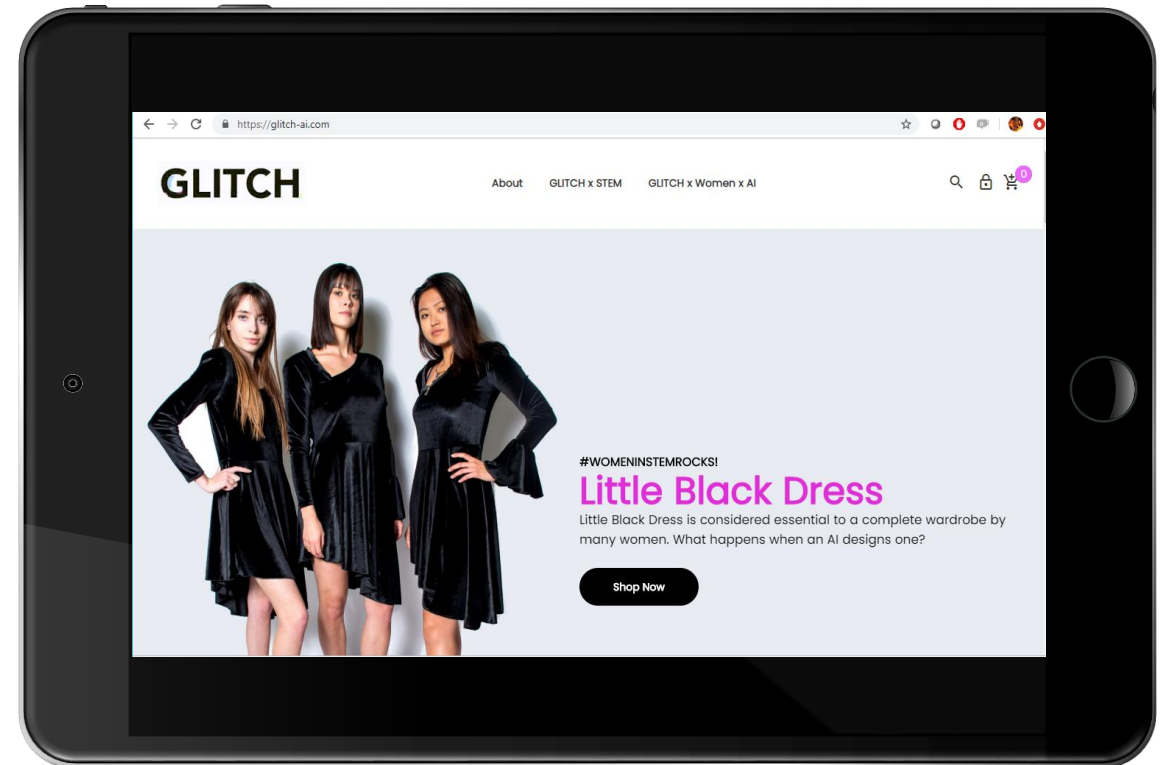


=exact

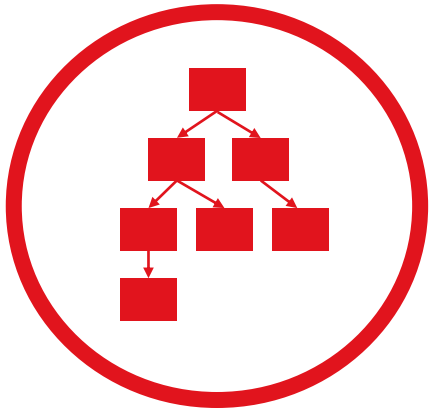
AI fronteers

Zakharov, E., et al., "Few-Shot Adversarial Learning of Realistic Neural Talking Head Models." arXiv preprint arXiv:1905.08233 (2019).

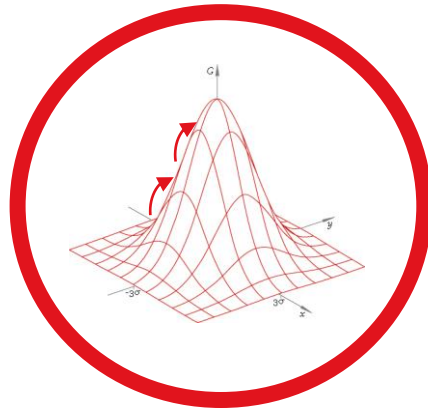
=exact



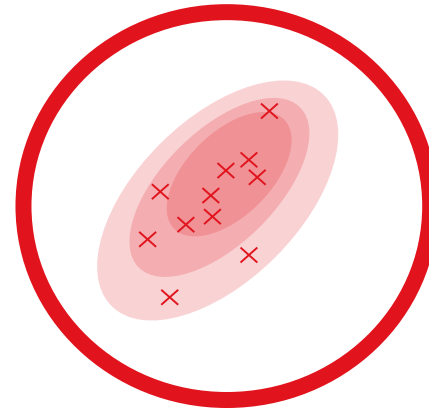
Under the hood: nothing really new.



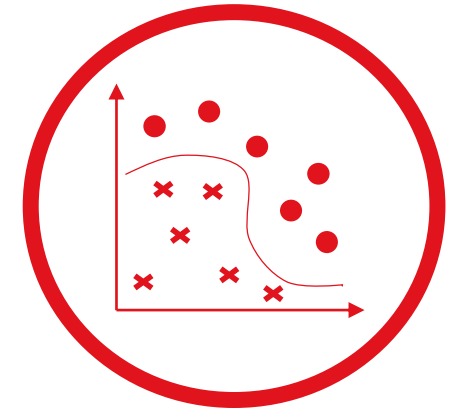
Logic and reasoning



Optimization and search



Probabilistic methods



Machine Learning

=exact

Hype?



=exact

So what changed?



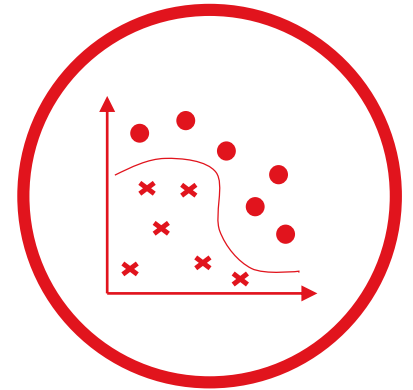
Compute



**Connectivity
and cloud**



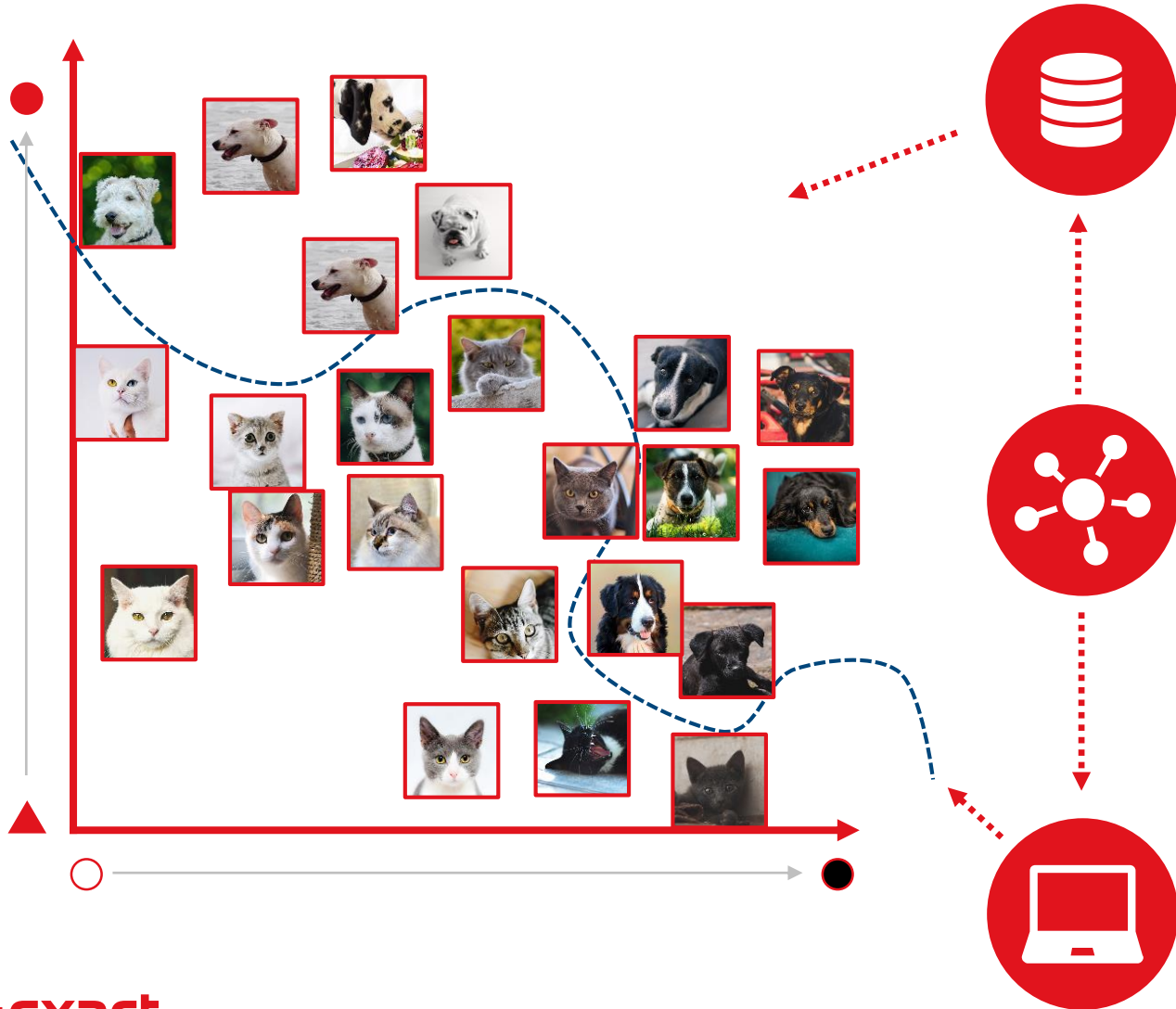
Data



**Machine
Learning**

=exact

Machine learning



= ϵ exact

AI for Accountancy and Auditing Automation



Exact's Numbers

#1

Financial and ERP software
for SMEs and Accountants
in the Benelux



90%
Customers on
the Exact cloud



6,500
Accountants

700
3rd party apps

275
Resellers



1,400
Employees

400
Software Engineers

300
Customer success
staff

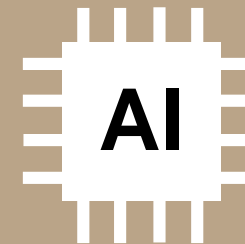


400,000+

Companies in

100+

Countries rely on Exact



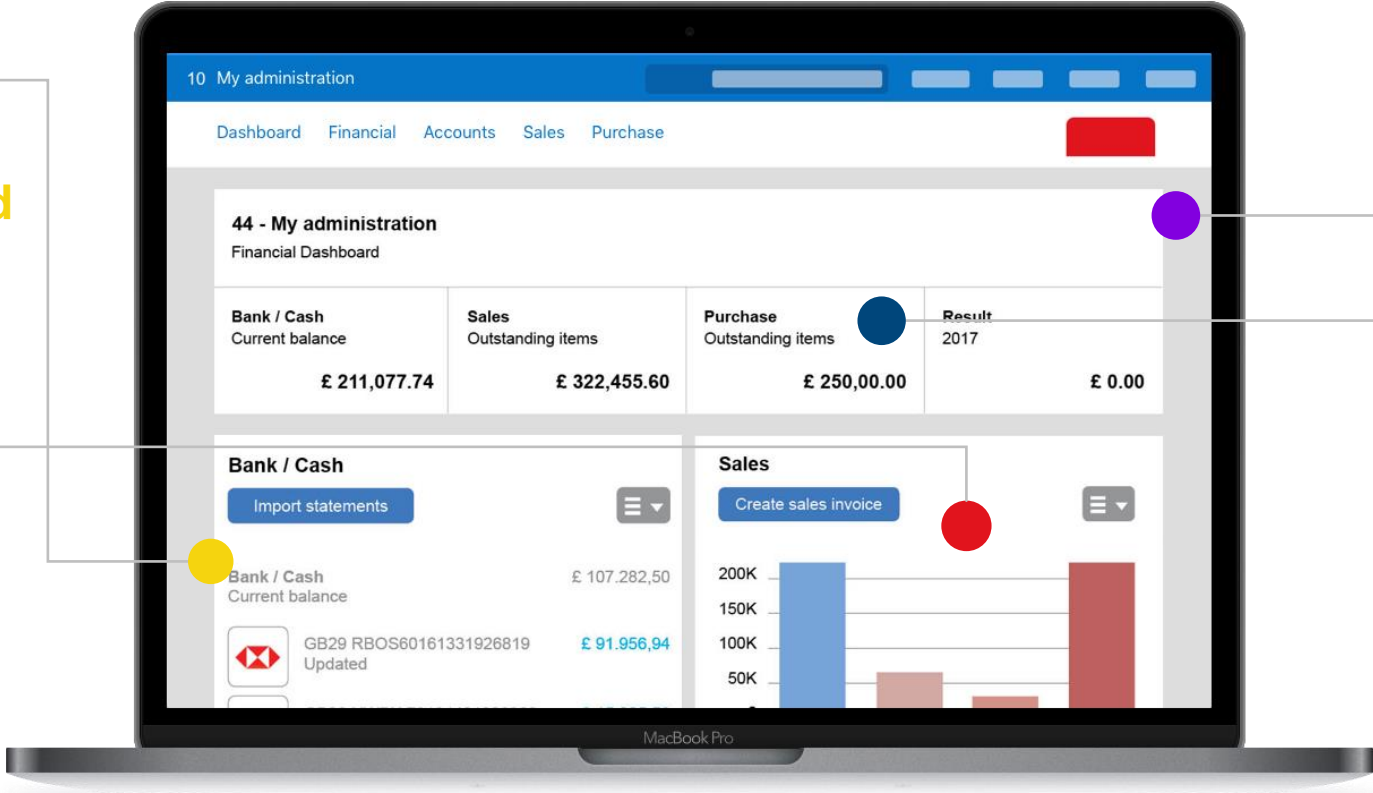
89% Time saved on
Bank Import Entry


93% Time saved on
Invoice Entry

Automation: no-hands accounting


Seamlessly synced banking


Up-to-date Insights

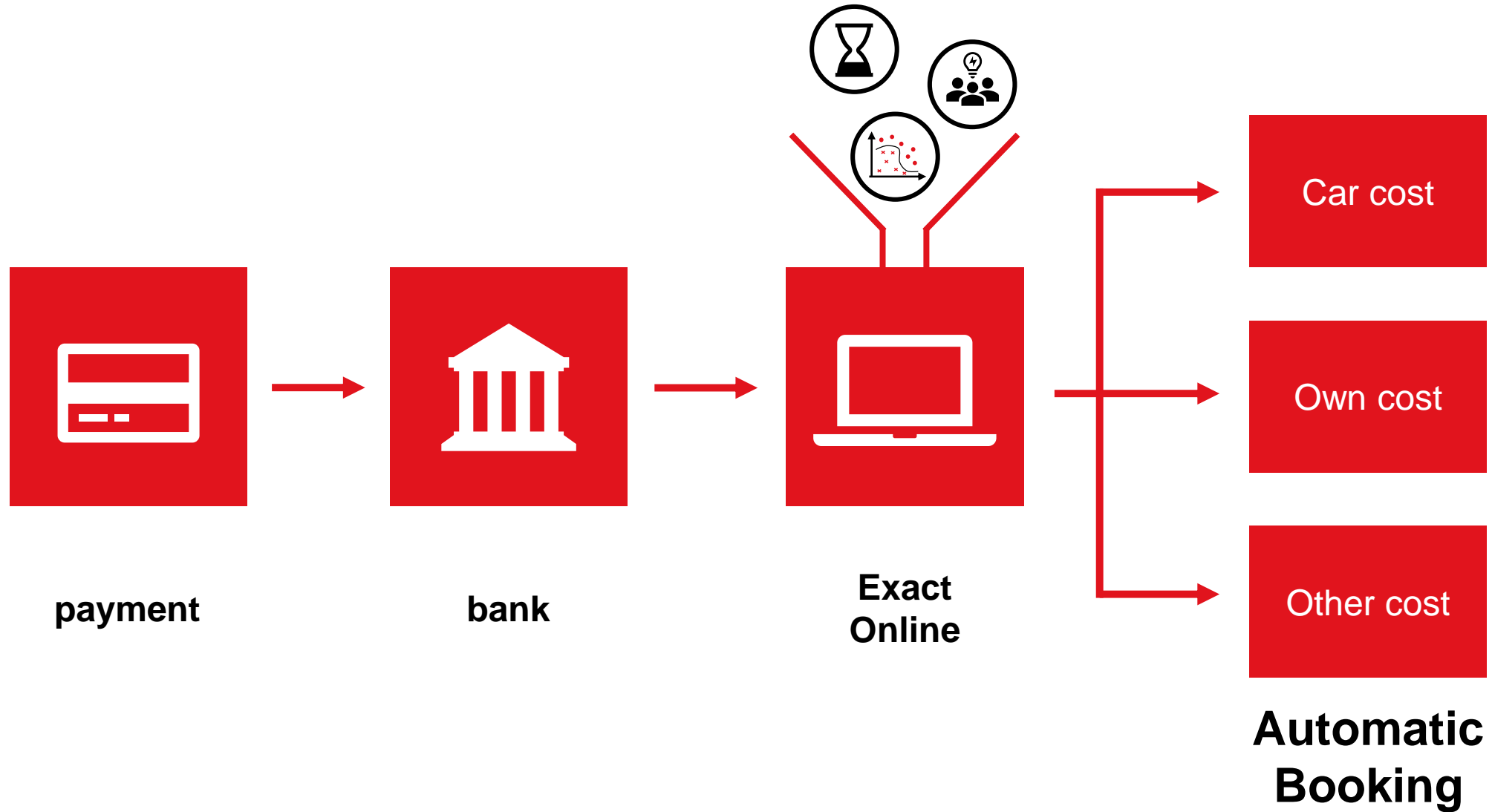



Trusted instant invoices


Fully automated administration

=Exact

Automation



=Exact

Automation frees up your time

Results based on a lab with 13 accountancy firms

1.3 millions

Booking suggestions used in a month

15.20s

Time needed to book a transaction without booking suggestions

6.96s

Time needed to book a transaction with booking suggestions

2975 hours

Potential time saving per month

<1 second

1 click booking

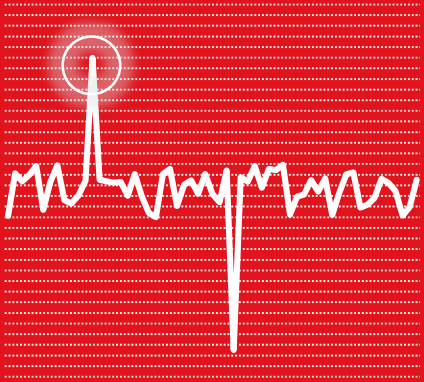
=Exact

A photograph of a modern office environment. In the foreground, a woman in a light grey blazer and a man in a light blue shirt are sitting at a white table, looking at a laptop. The man is pointing at the screen. In the background, another man in a grey sweater and a woman in a white top are standing and talking. The office has large windows and a bright, airy atmosphere.

AI for Accountancy and Auditing Insights

=exact

Anomaly Detection



Sifting through millions of transactions to facilitate and improve auditing

Standardization



Normalizing administrations to allow easy comparison and insights

Forecast



Learning from historical and external data how financial performance will evolve in the future

Advice



Learning from success stories across businesses the best course of action for your customers

So... AI won't take anyone's job, any time soon.
But it may provide you with a bunch of new
artificial colleagues.

**Can we define a Turing test
for the accounting and auditing domain?**

=exact

Thank you.
judith.redi@exact.com

=exact