

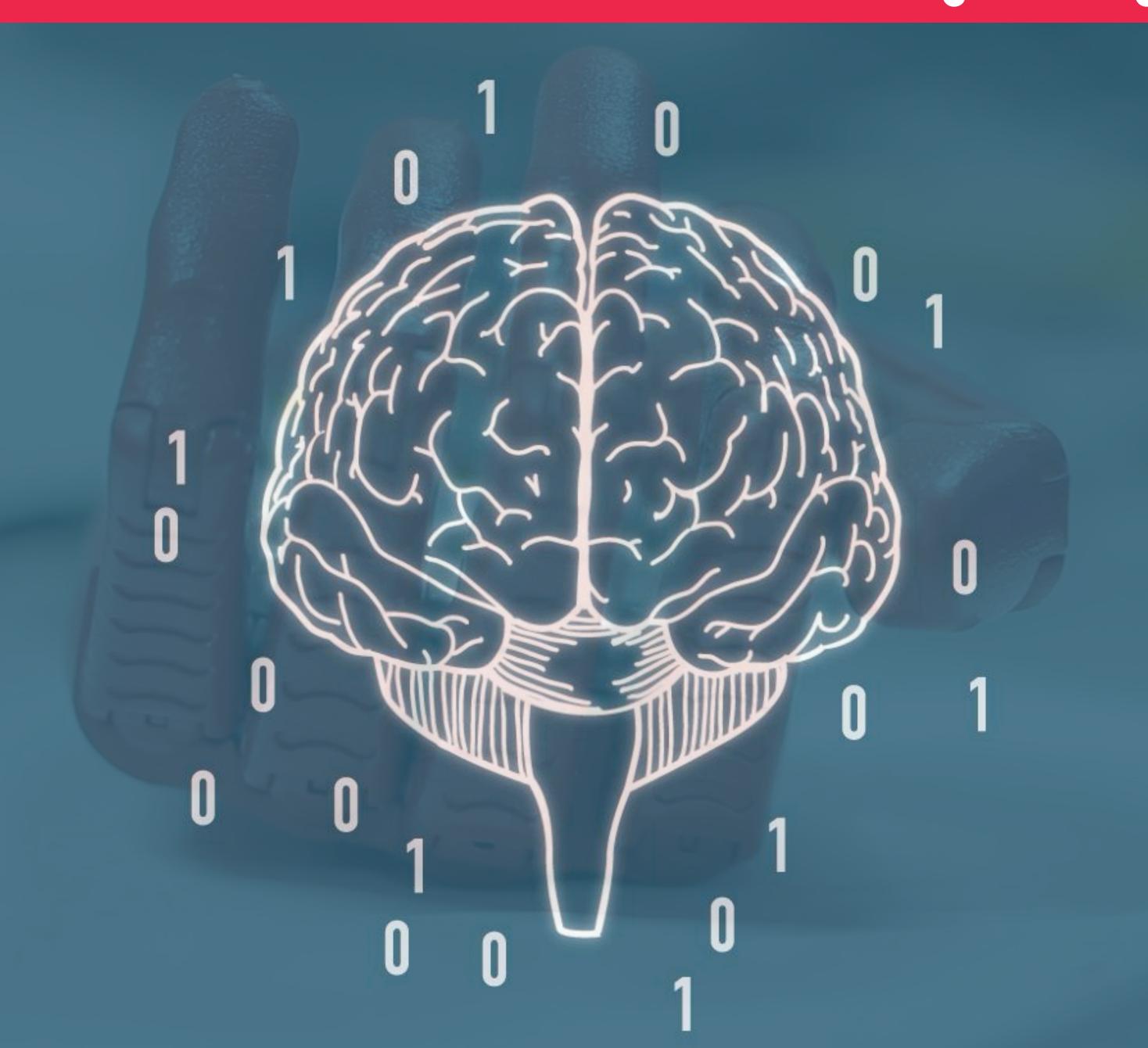
# Our world will change more in the next 10 years than in the previous 100 years



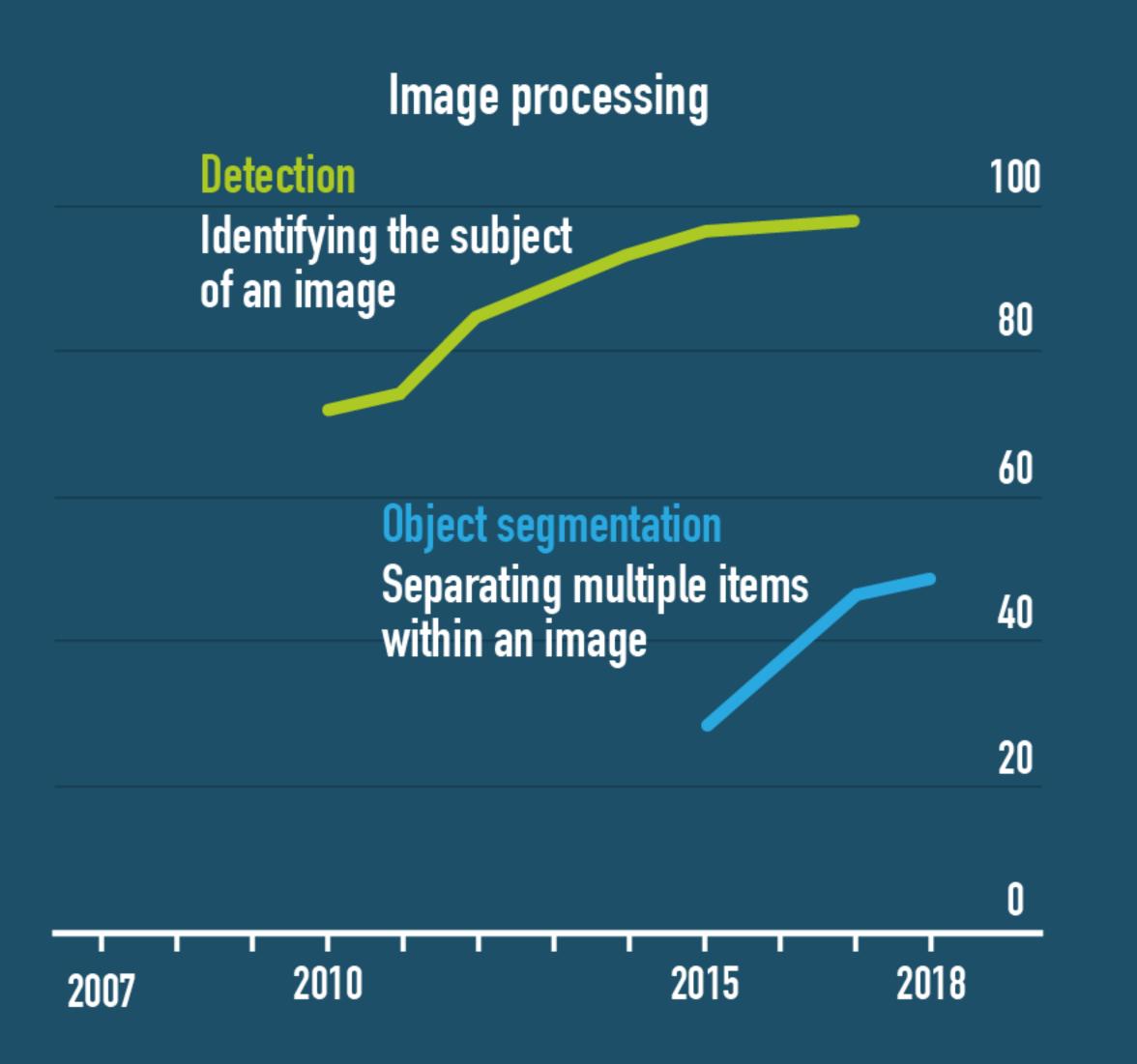
# First, we augmented human MUSCLES

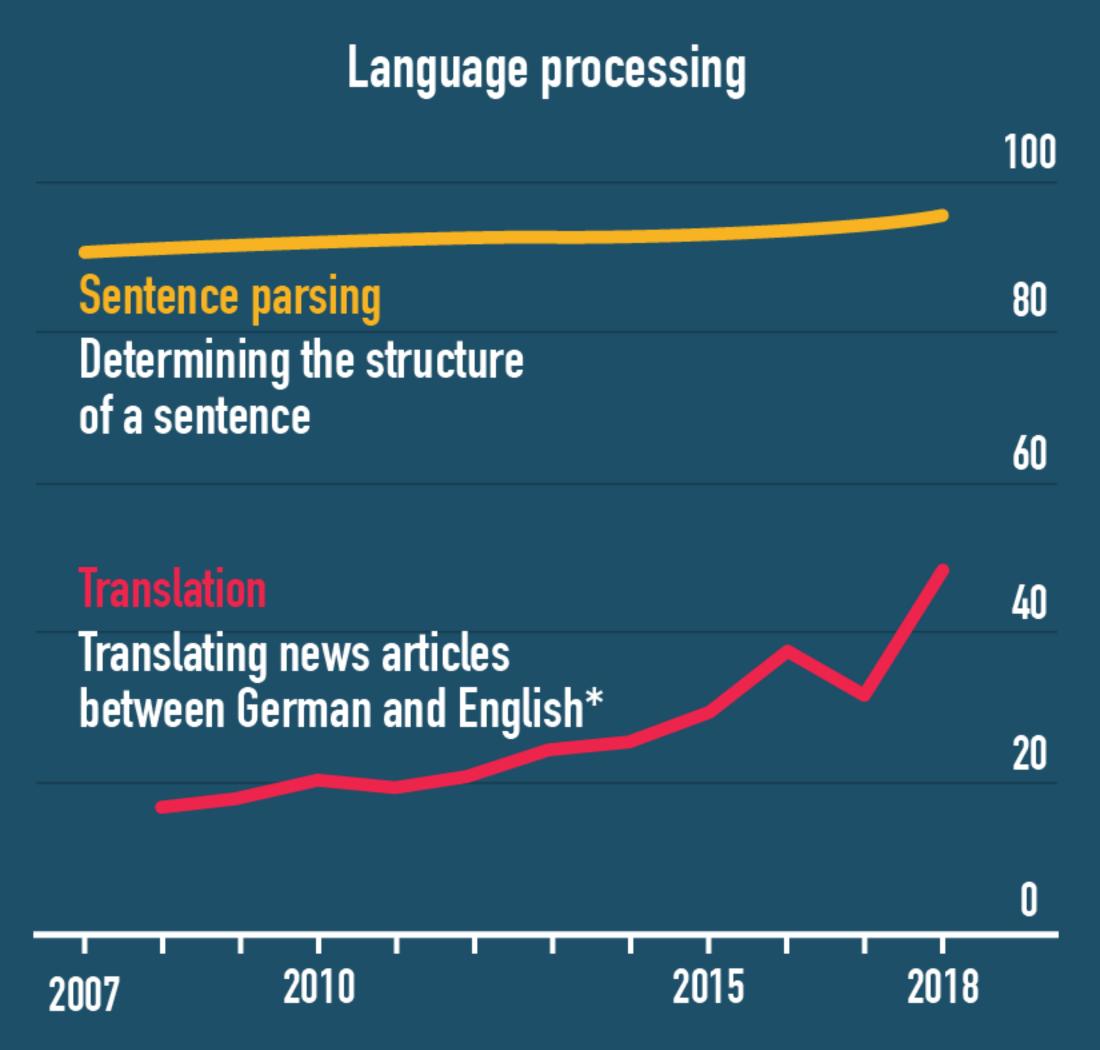


## First, we augmented human MUSCLES... now we are augmenting human THINKING



# LEARNING CURVES SUCCESS RATE OF BEST AVAILABLE AI SYSTEM, %



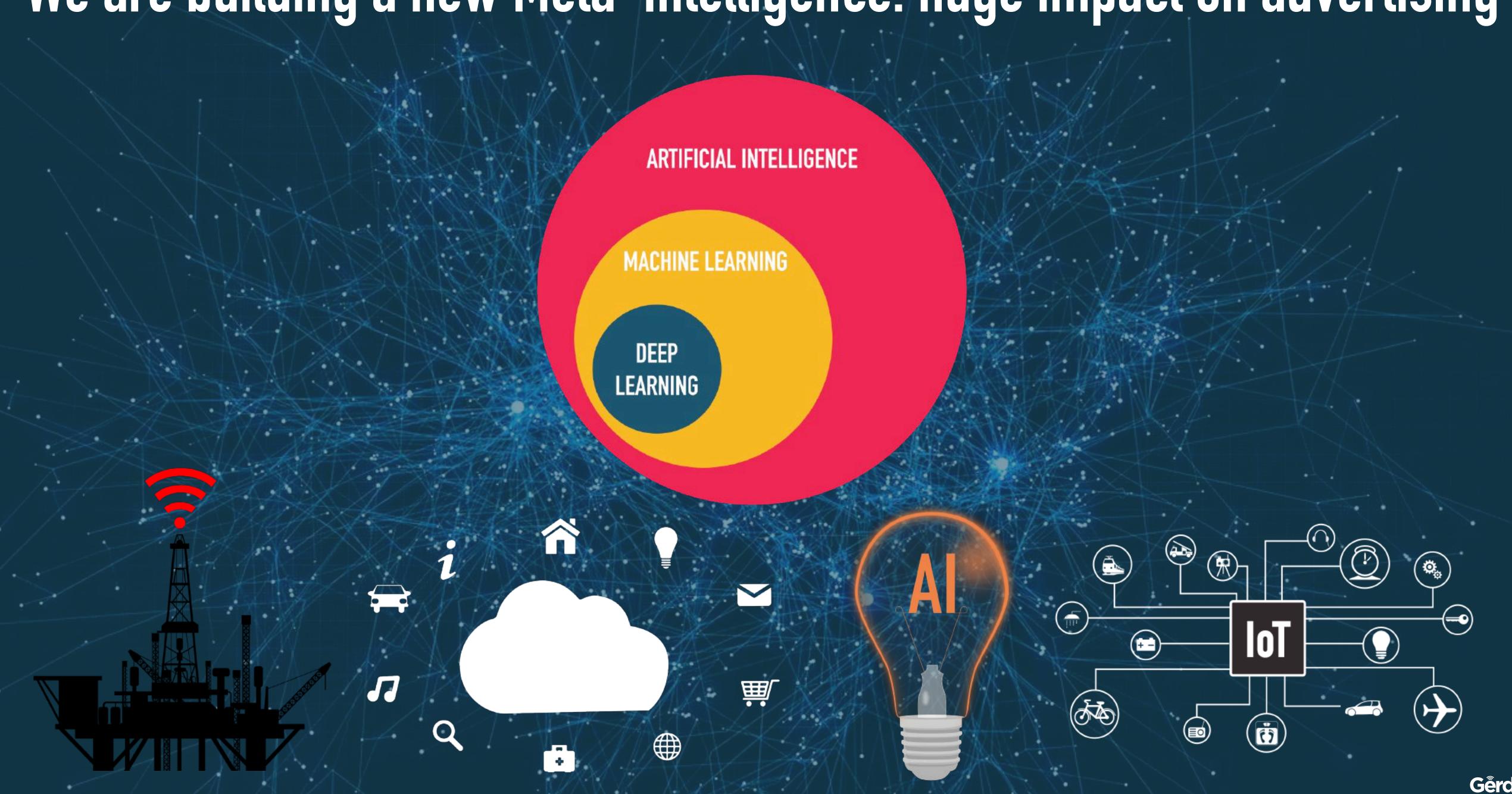


# **EVERYTHING** in the cloud. VOICE INTERFACES. Invisible Computing. Al-inside all.





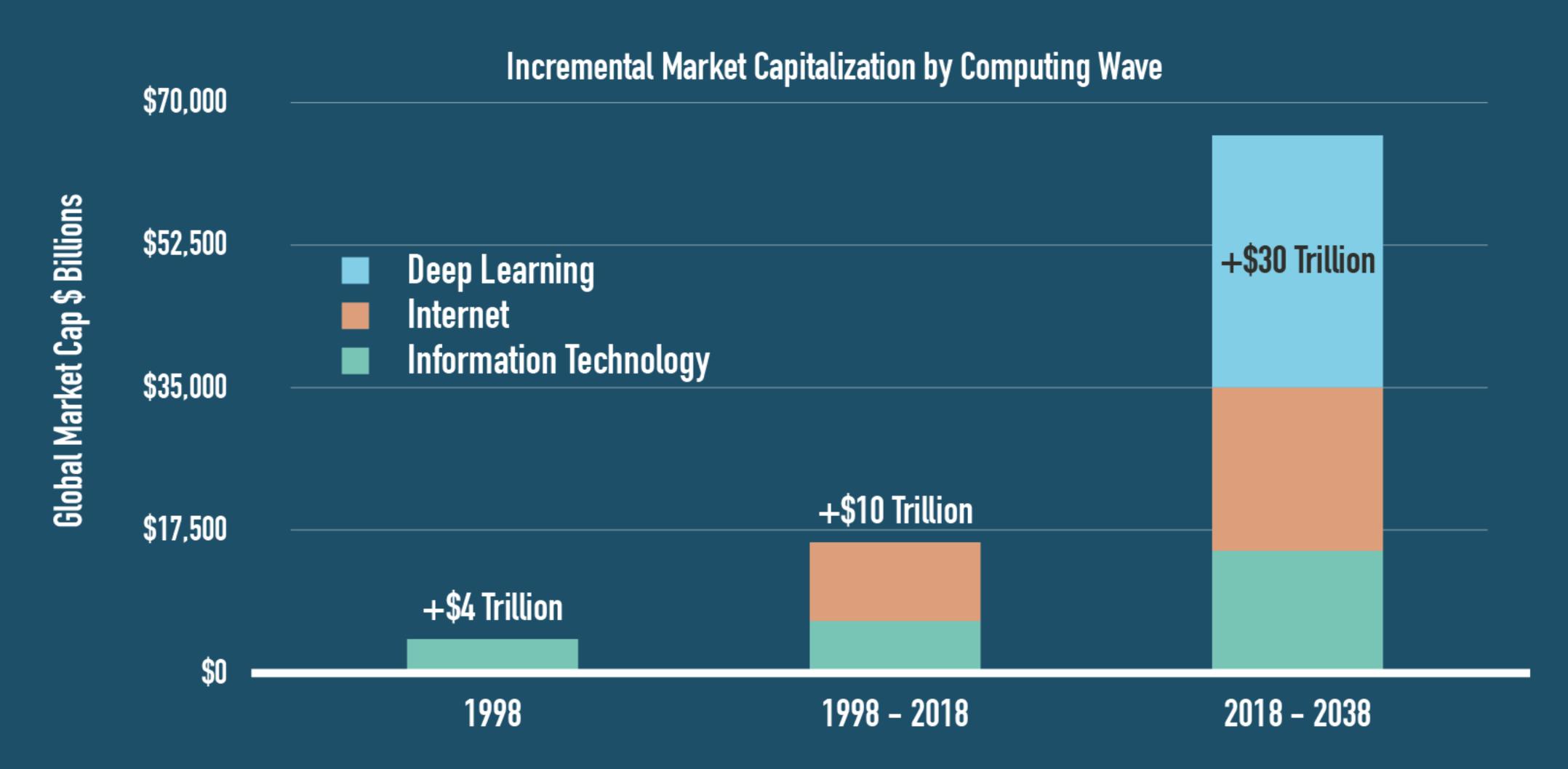
# We are building a new Meta-Intelligence: huge impact on advertising



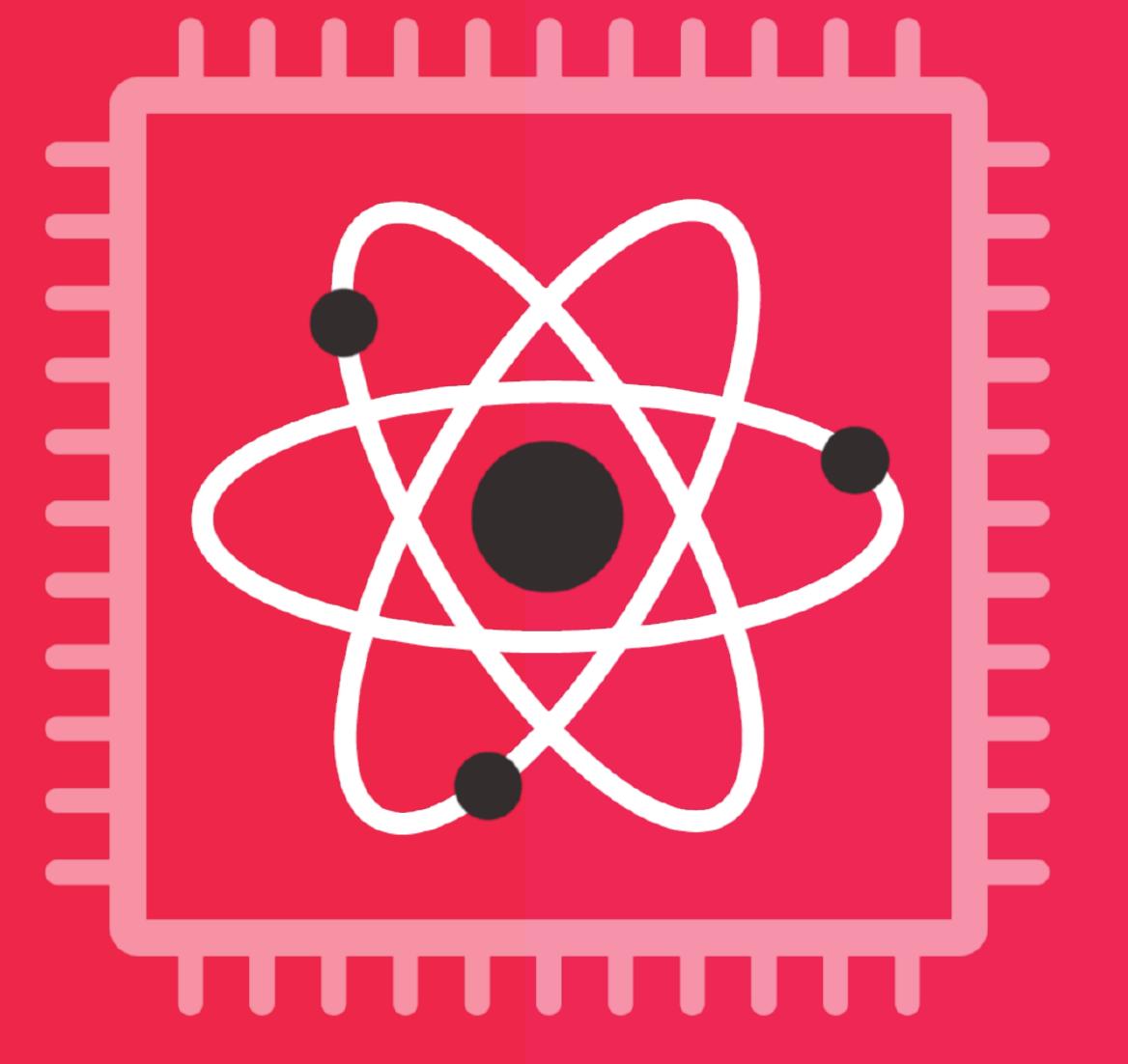
Machine learning: the science of giving computers the ability to learn and find insights without explicitly programming them

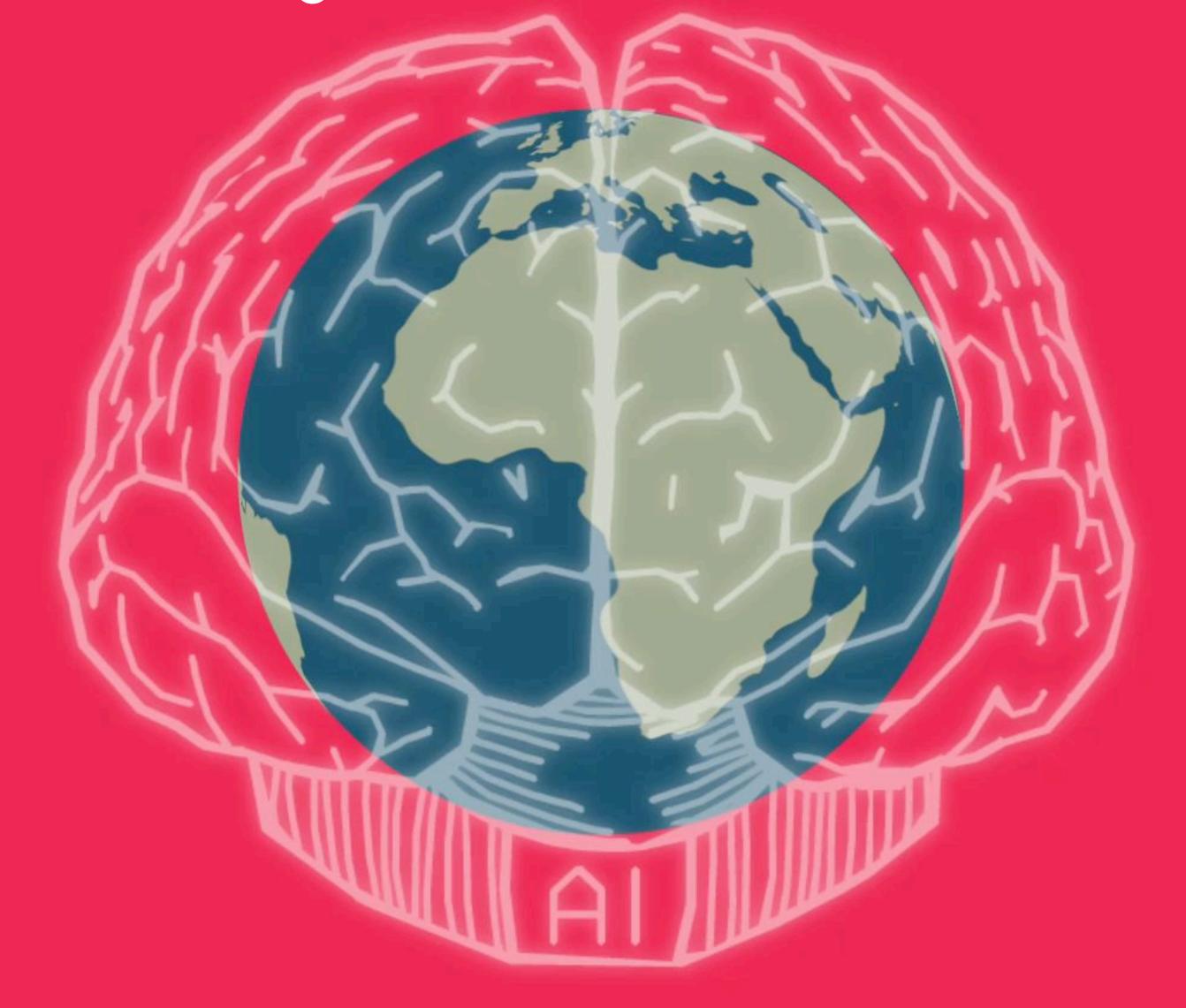
Deep Learning: an Al function that imitates the workings of the human brain in processing data, creating patterns for use in decision making

#### DEEP LEARNING COULD CREATE 3x THE VALUE OF THE INTERNET



# Science Fiction is becoming Science Fact





Super/Quantum Computing

The Global Brain

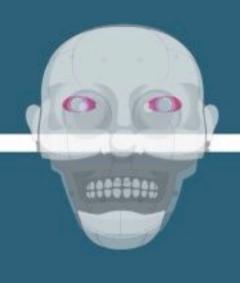
# The question is no longer what we CAN do but what we WANT to do

**ASSISTED INTELLIGENCE** 

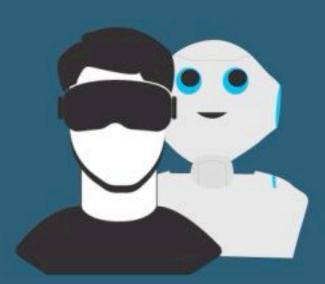






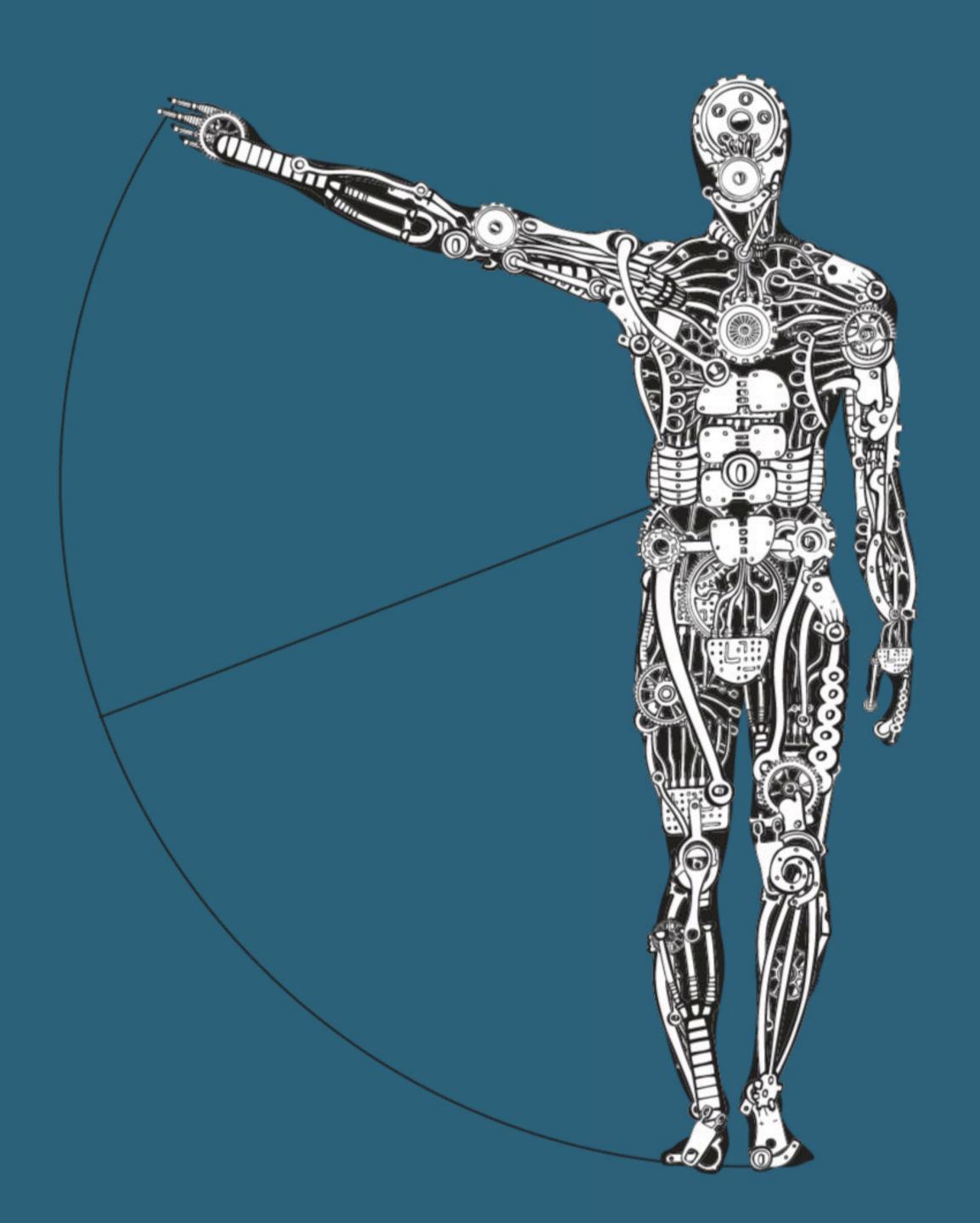


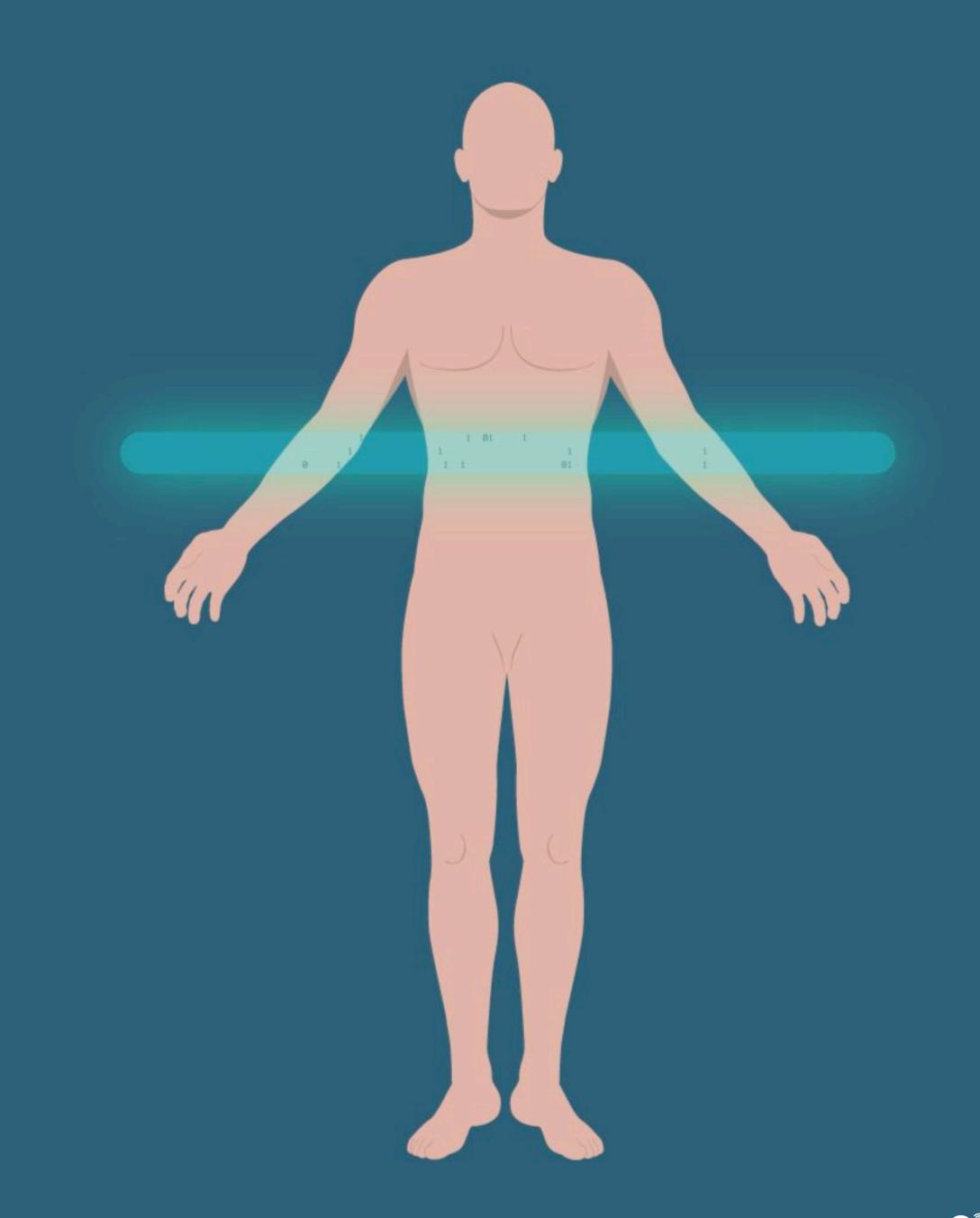
**AUGMENTED INTELLIGENCE** 



**AUTONOMOUS INTELLIGENCE** 







Algorithms

"When it comes to really important decisions data trumps intuition every time"

Androrithms

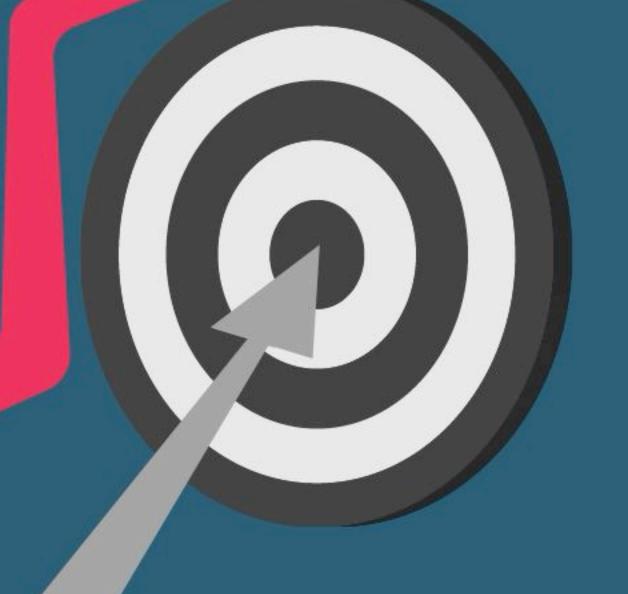
"All of my best decisions in business and life have been made with heart, intuition, guts... not analysis"

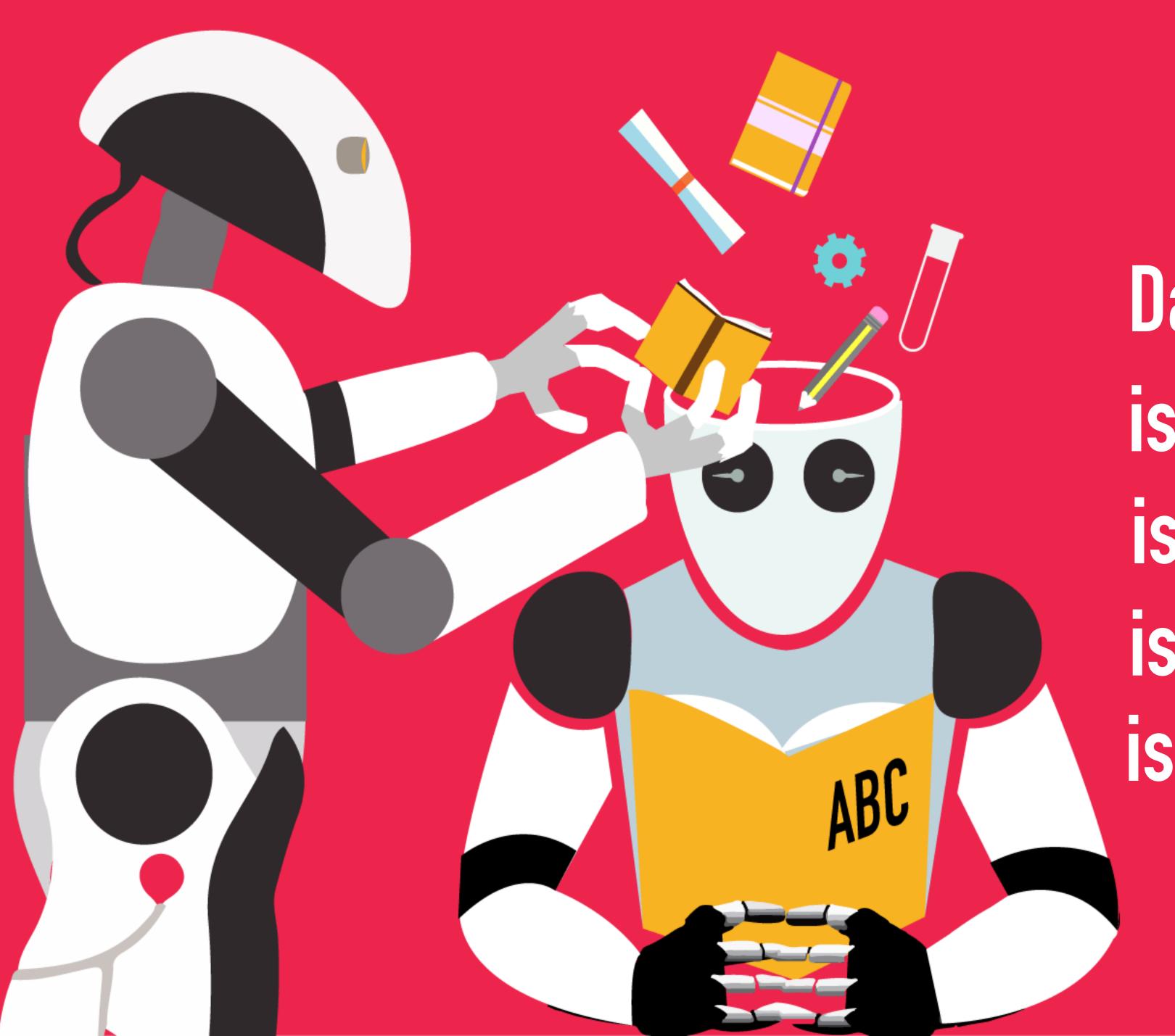


"We're least aware of what our minds do best"

"Whatever is very simple for a human is very hard for a computer, and whatever is very hard for a human is simple for a computer"

\*Moravec



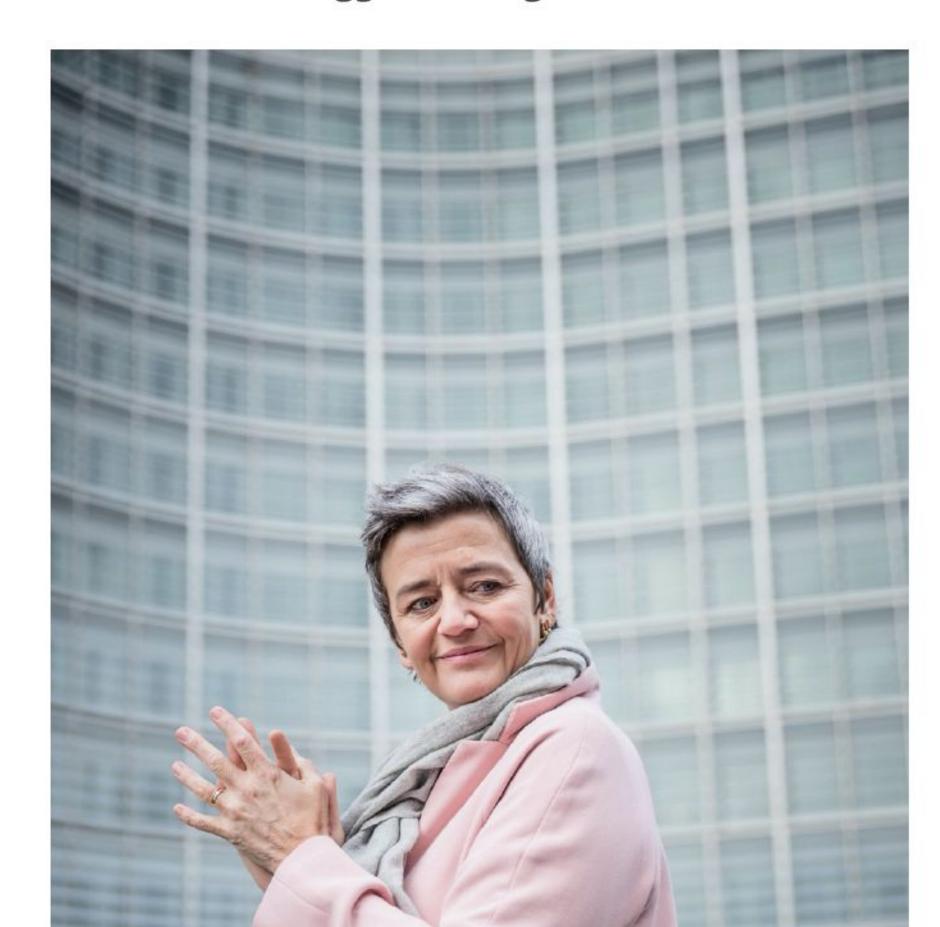


Data and Information is not Knowledge\* is not Understanding is not Wisdom is not Purpose

# "In the last five years, some of the darker sides of digital technologies have become visible"

#### Big Tech's Toughest Opponent Says She's Just Getting Started

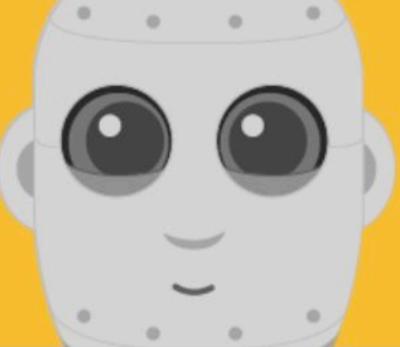
Margrethe Vestager won praise for her oversight of the tech industry. Now, with more authority from the European Union, she envisions a more aggressive agenda.

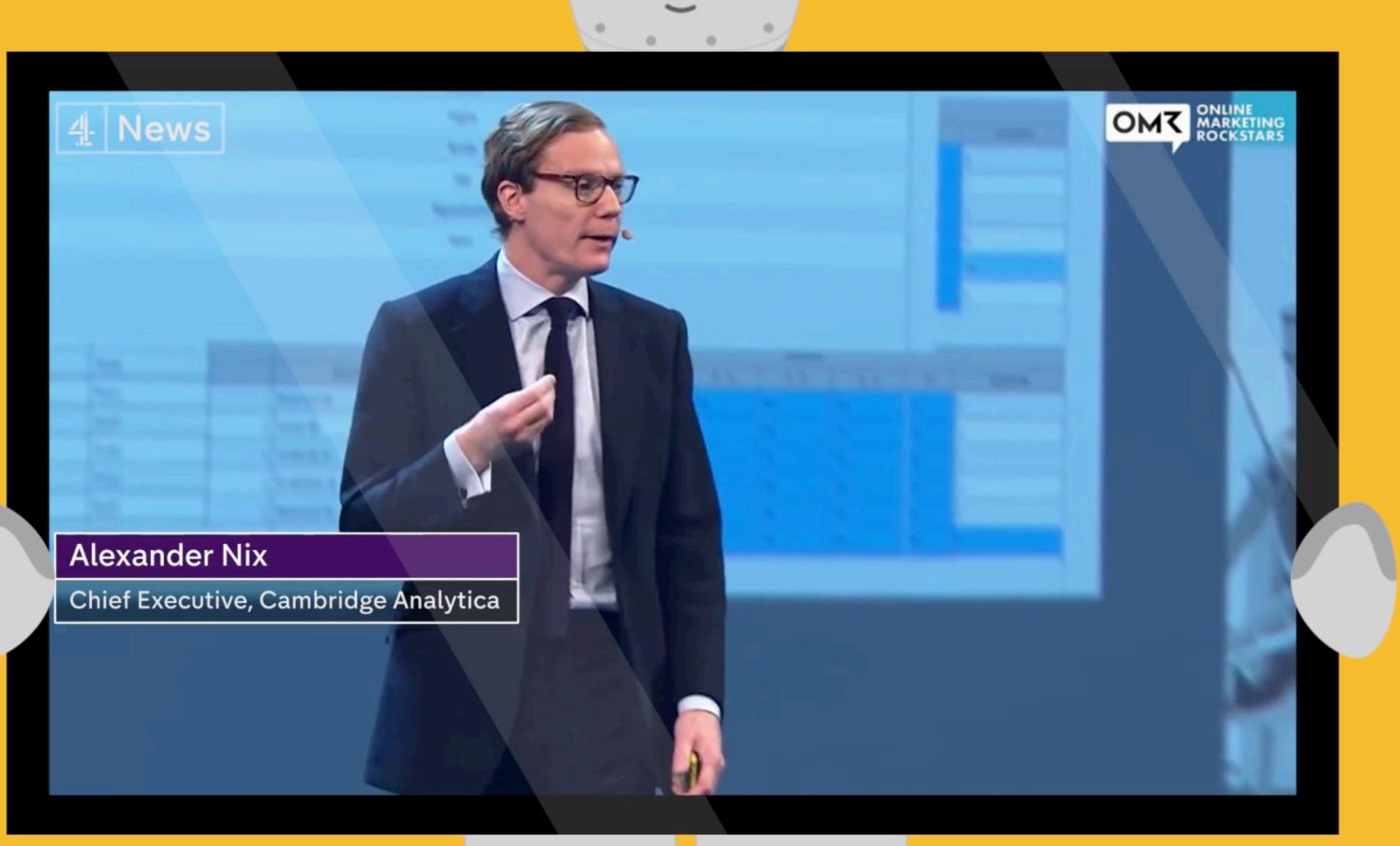












"The social-media meltdown results from optimizing the wrong objective on a global scale with fairly unintelligent algorithms"

Stuart Russell in 'Human Compatible'





Programmatic's new challenge: the most audacious technological schemes are actually possible now!





Programmatic's new challenge: the most audacious technological schemes are actually possible now!





#### The Platform Companies will need a LICENSE TO OPERATE TODIO INCOMO DI CONTROLO DI CO HOOMONON TO THE THE PART OF TH TORIO Noncondinonino de la contraction de la contracti Hambadon de la companio del companio de la companio del companio de la companio del companio de la companio del companio de la companio del companio del companio de la companio de la companio de la companio de la companio del comp TIOTHOO HOUSE THE TOTAL TO THE TOTAL Tomonomono de la composição de la compos Opposition of the state of the Octobrilla in Company of the Company Nonconstitution of the state of TOMORGO DO POR POR PARA DE LA COMORGO DE DEL COMORGO DE LA COMORGO DEL COMORGO DE LA COMORGO DE LA Ontonono de la composição de la composiç ROMONOGO POR PROPERTO DE LA COMO POR PARA DEL COMO POR PARA DEL COMO POR PARA DE LA COMO POR PARA DEL COMO POR PARA DEL COMO POR PARA DEL COMO POR PARA DEL COMO PORTA DEL COMO POR PARA DEL COMO PORTA DEL COMO POR PARA DEL COMO PORTA DEL COMO PORTA DEL COMO POR PARA DEL COMO PORTA DEL JIII COO DE LA PROPERTICA DE LA PORTICA DE LA PROPERTICA DE LA PORTICA DE LA PORTICA DEL PROPERTICA DEL PORTICA DE LA PORTICA DE LA PORTICA DEL PROPERTICA DEL Model College Sonogono de la composição de la composiç Shood of the state The second of th TO NOTICO TO THE PROPERTY OF T Jonnon Control of the NOODINGO NOO Ollowoologia de la composição de la comp Jidoo TOOO ON TO THE WAR THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO THE TOO ON TO THE TOO ON TO THE TOO ON TO THE TOO ON THE TO Thoromonion on the state of the Shomodiolognomodologn DOTOTOTOTOTOT TOTHOTOGOOD TOTOGOOD CONTROL DE LA CO SSAIRIDITIOOOTOK OOTOTOTITE 10010101 OTOTOTOT N. I. A. I. STOOTOTOTT 110011001010 OOTOTOTOOTT QQQTQQQTIQQQTQTQQQTIQQQT

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# #Techlash is real and becoming a global movement



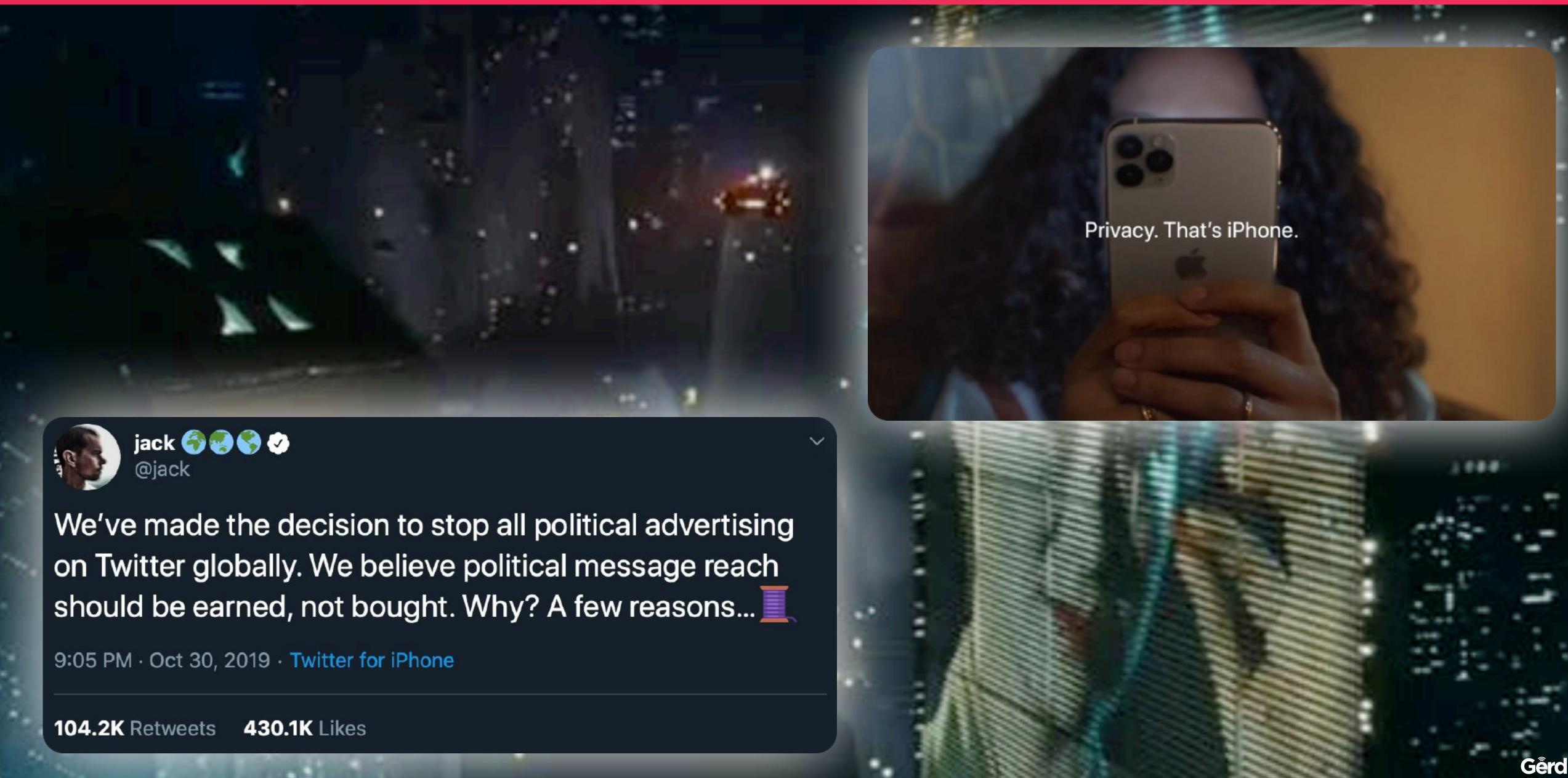
# Ethics is moving center-stage!



# TECHNOLOGY HAS NO ETHICS

### "Technology can do great things, but it doesn't want to great things. It doesn't want anything"

Tim Cook (Apple)





# Data for the Benefit of the People

#### Recommendations from the Danish Expert Group on Data Ethics



The Expert Group on

**DATA ETHICS** 

#### 9 recommendations on data ethics

#### The Expert Group recommends the following:

#### 1. COUNCIL FOR DATA ETHICS

The government needs to establish an independent Council for Data Ethics. The purpose of the council is to support an ongoing focus on data ethics.

#### 2. THE DATA ETHICS OATH

Company directors and employees actively address and take responsibility for questions and dilemmas around data ethics by taking a data ethics oath.

#### 3. DYNAMIC TOOLBOX

The dynamic toolbox for data ethics should support the oath and provide tools and aids to help raise awareness and for specific activities in Danish companies.

#### 4. DECLARATION OF COMPANIES' DATA ETHICS POLICIES

Denmark should be the first country in the world to demand that its biggest companies incorporate an outline of their data ethics policies in their management reviews as part of their annual financial statement.

#### 5. A DATA ETHICS SEAL

A data ethics seal should be introduced as proof that a product meets data ethics requirements. A data ethics seal would make it easier for consumers to navigate digital products, and for companies to identify responsible partners.

#### 6. NATIONAL KNOWLEDGE BOOST

The knowledge and insight into data ethics issues of the general population and the business community need to be boosted so that we as a society gain a greater understanding of the opportunities and consequences of using data.

#### 7. DENMARK AS A FRONTRUNNER

Denmark should be visible in and impact
European and global development in data
ethics by being a frontrunner
on the international scene.

#### 8. STIMULATING INNOVATION AND ENTREPRENEURSHIP

Innovation and entrepreneurship with a focus on new data ethics business models are stimulated through co-financing, earmarking of funds and innovation contests.

#### 9. DATA ETHICS IN PUBLIC SECTOR PROCUREMENT

It must be a requirement that digital solutions that are procured or developed by the public sector are data-ethical, so that the public sector drives demand for innovative and data-ethical solutions from companies.



European Data Sovereignty?

Digital economy

+ Add to myFT

Angela Merkel urges EU to seize control of data from US tech titans

German chancellor says bloc should claim 'digital sovereignty' in battle with Silicon Valley

**INTERNATIONAL • CLOUD** 

#### Europe Is Starting to Declare Its Cloud Independence

Digital summit in Dortmund

#### Data sovereignty is paramount

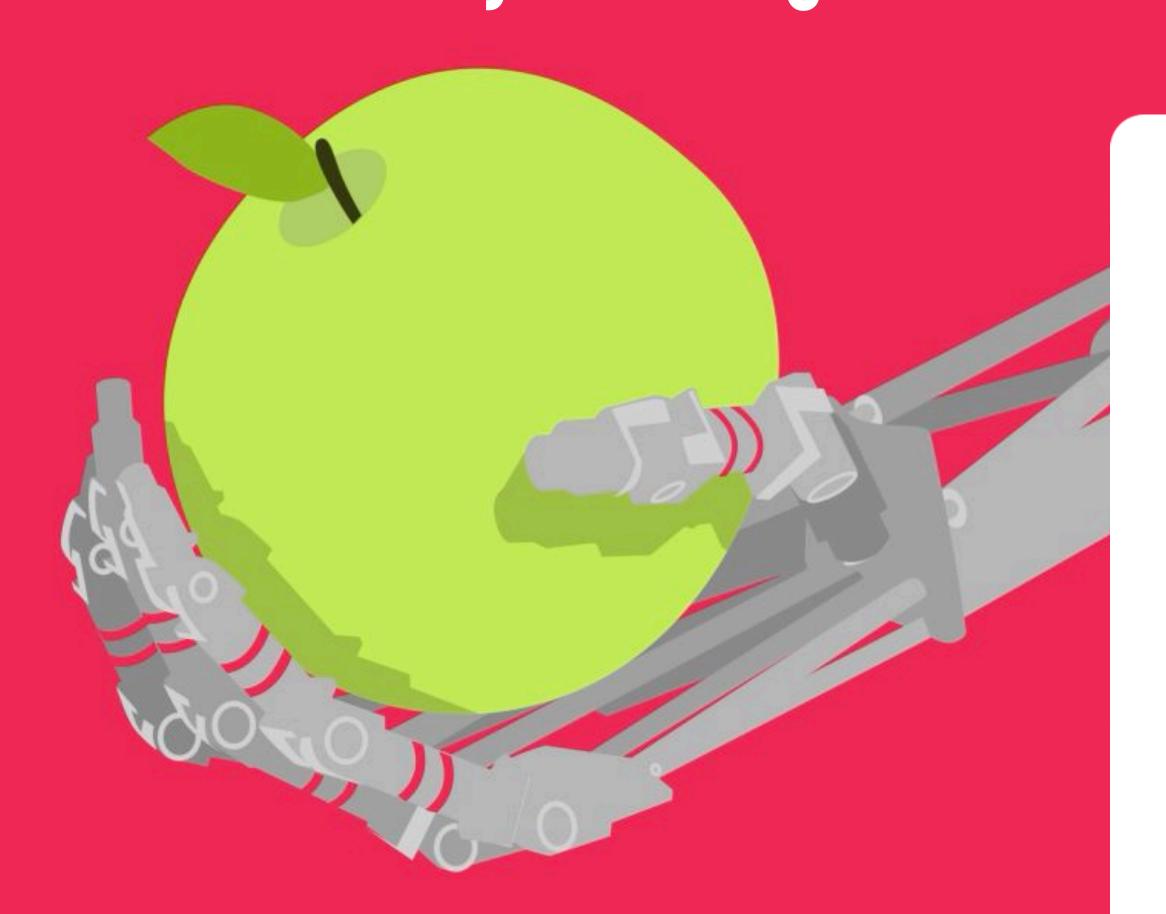
At the German government's digital summit in Dortmund, Chancellor Angela Merkel has advocated data sovereignty and called for European solutions in the field of digital infrastructure. The supranational cloud Gaia-X was presented.

#### Berlin, Paris want to create a European digital 'cloud'

Dubbed 'Gaia-X', the project 'aims at setting up a secure and trustworthy data infrastructure for Europe,' says the German economy ministry



"Lots of math, science, technology and business roles involve, say...running an ad campaign to minimize cost per click. And these are exactly the things that A.I. is best at"



# The Week in Tech: A.I.'s Threat to White-Collar Jobs

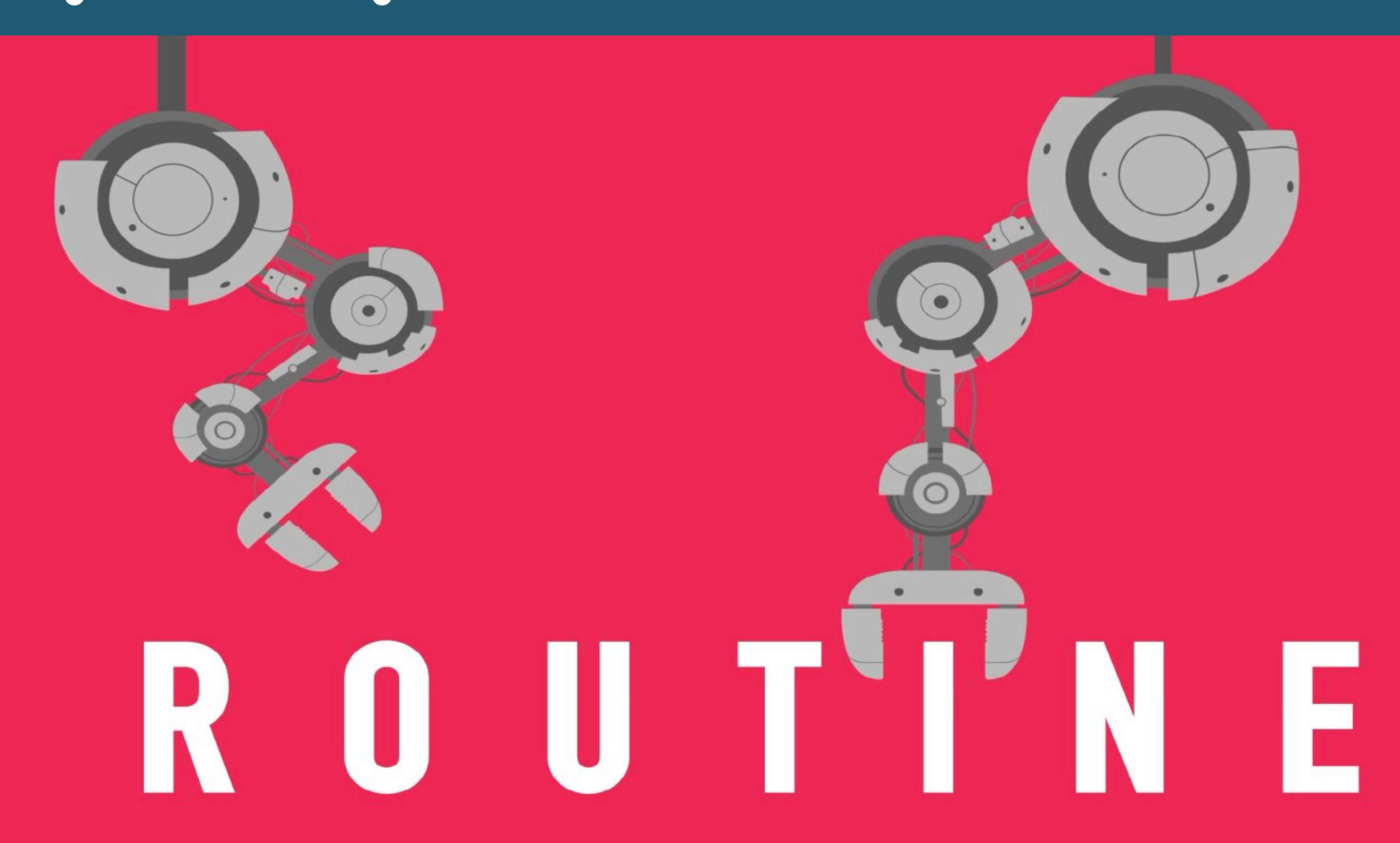
The New York Times

Some workers may be more exposed to artificial intelligence than previously thought. But worry more about automation's threat to less skilled employees.

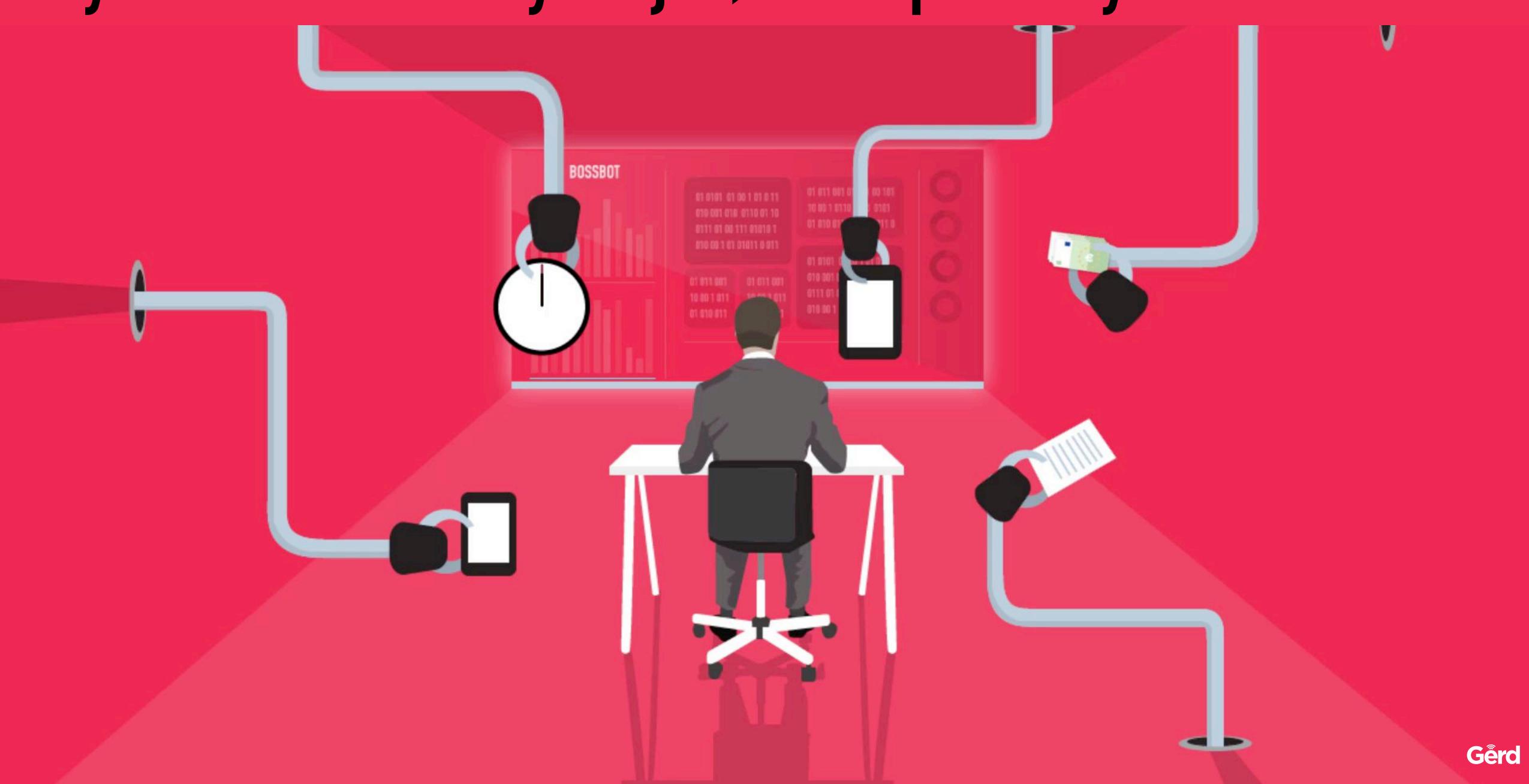


A robotic scanner at a Walmart Supercenter. A new Brookings Institution report looks at artificial intelligence's future impact on "relatively well-paid managers, supervisors and analysts." David J. Phillip/Associated Press

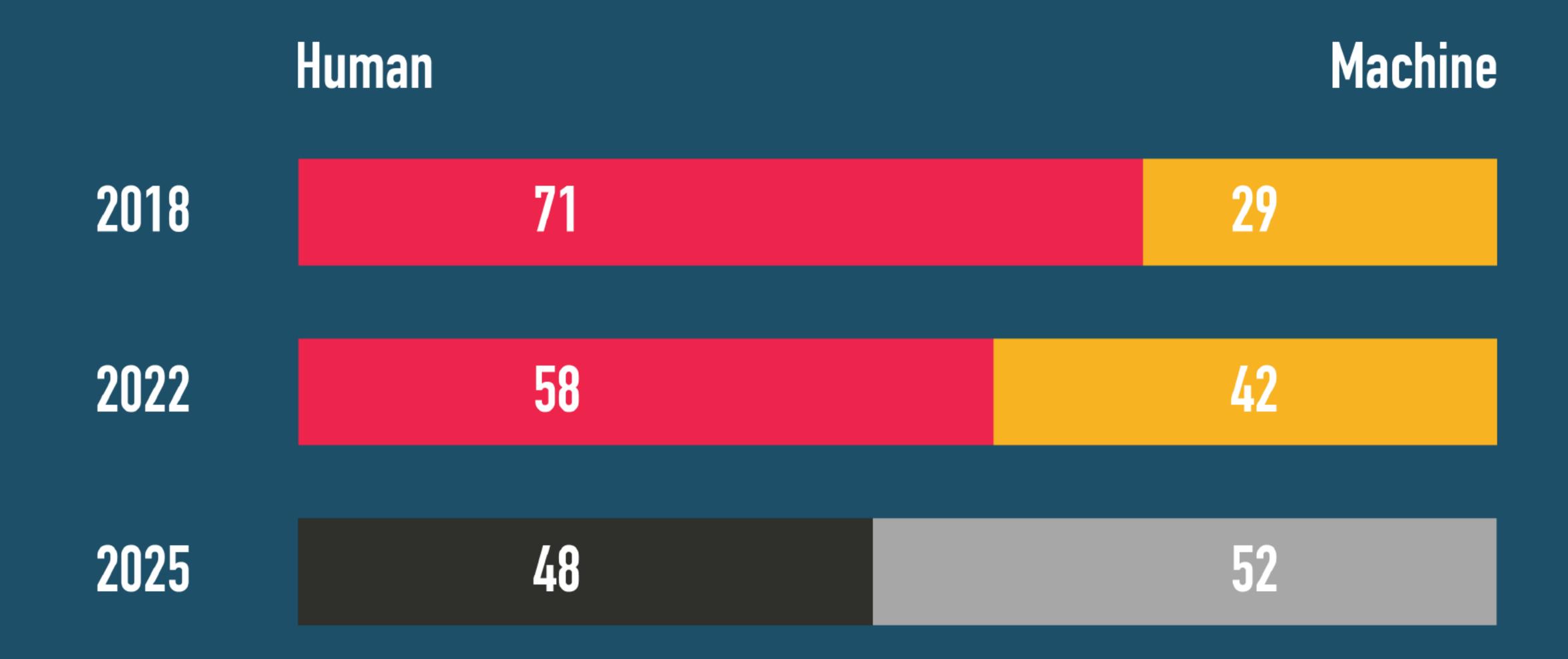
#### Anything that can be digitized, automated or virtualised, will be: the END OF ROUTINE



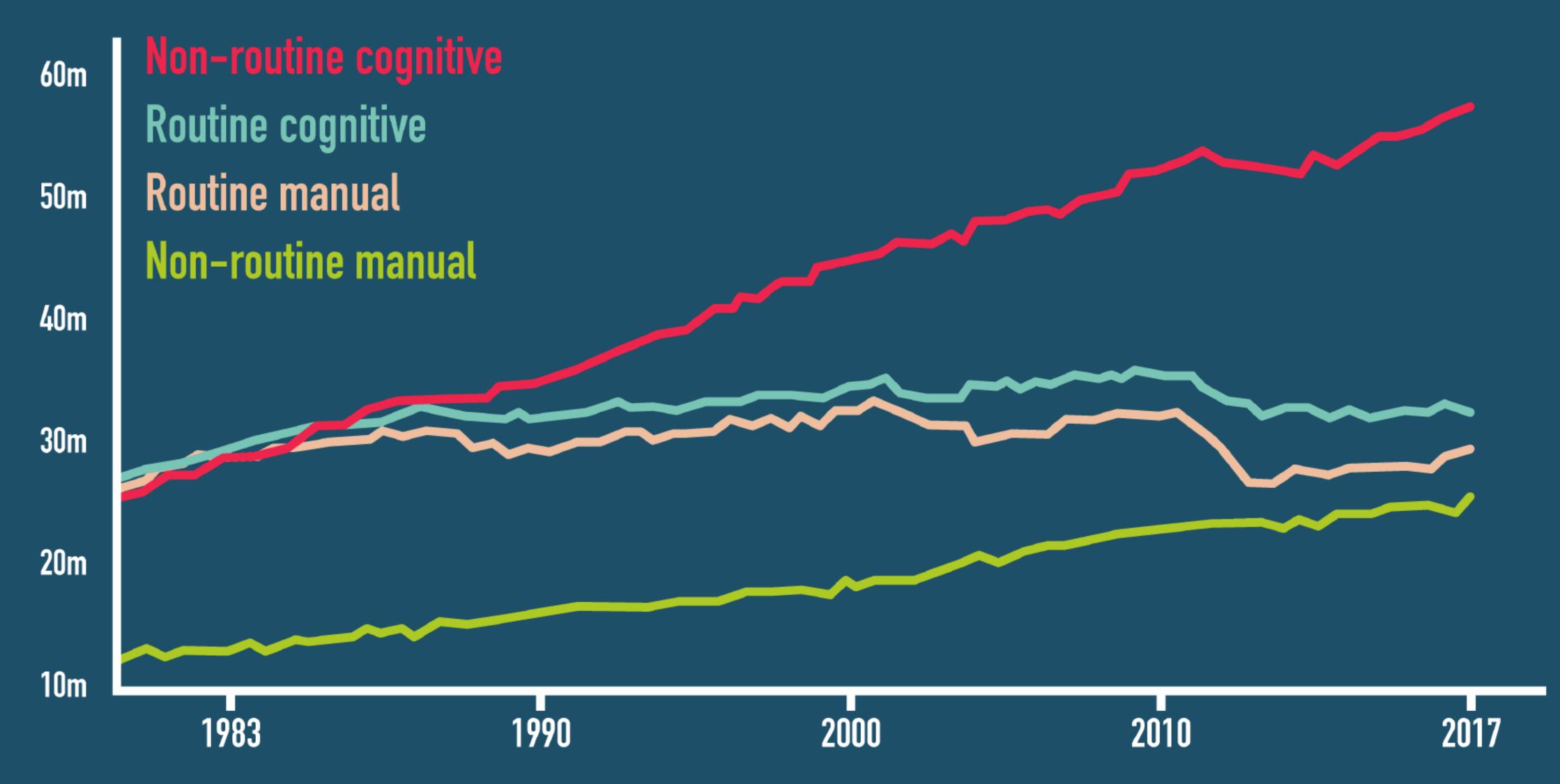
# If you can describe your job, it will probably be automated!



# MACHINES WILL INCREASINGLY DO THE ROUTINE WORK

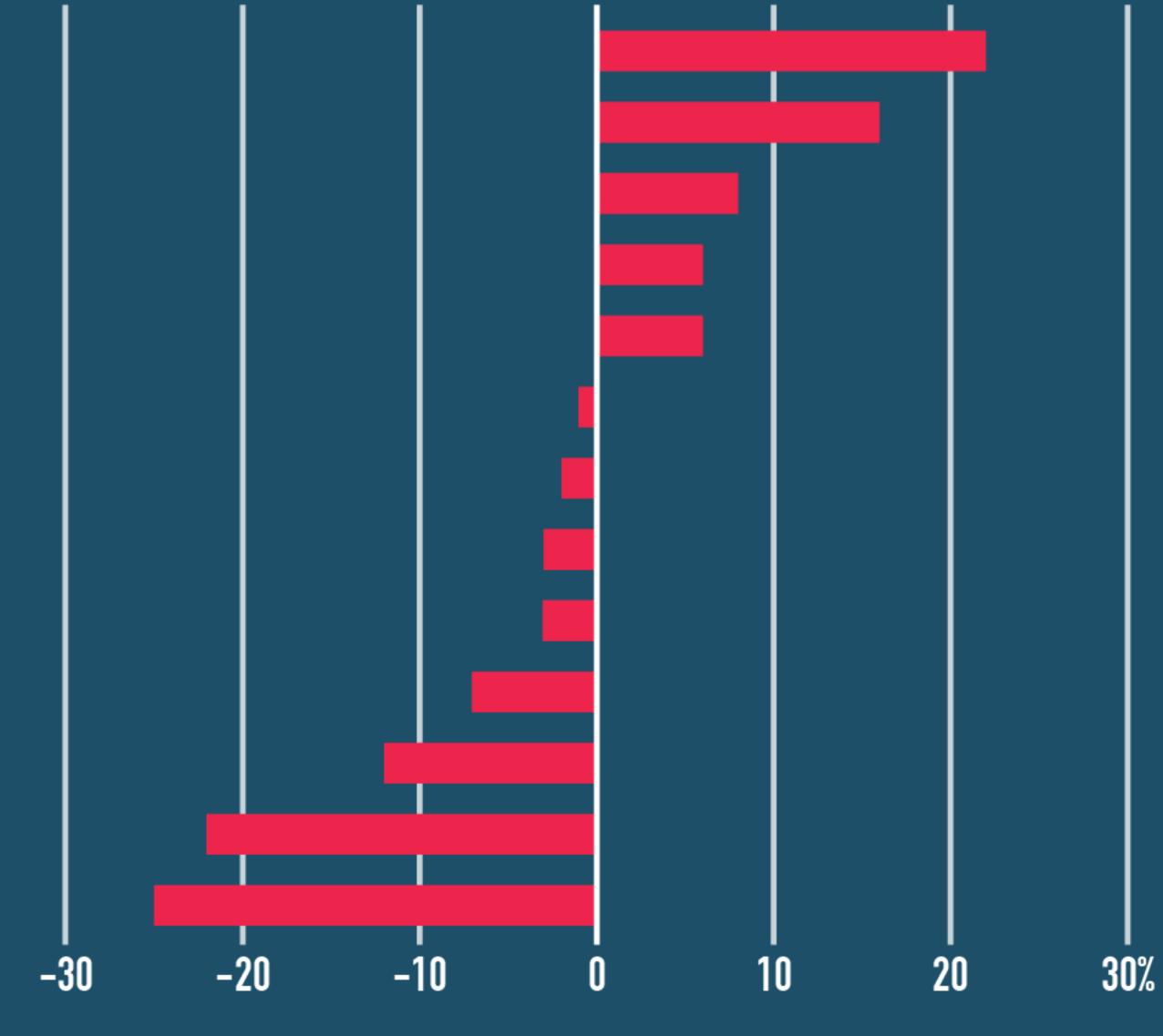


# NON-ROUTINE WORK IS THE FUTURE!

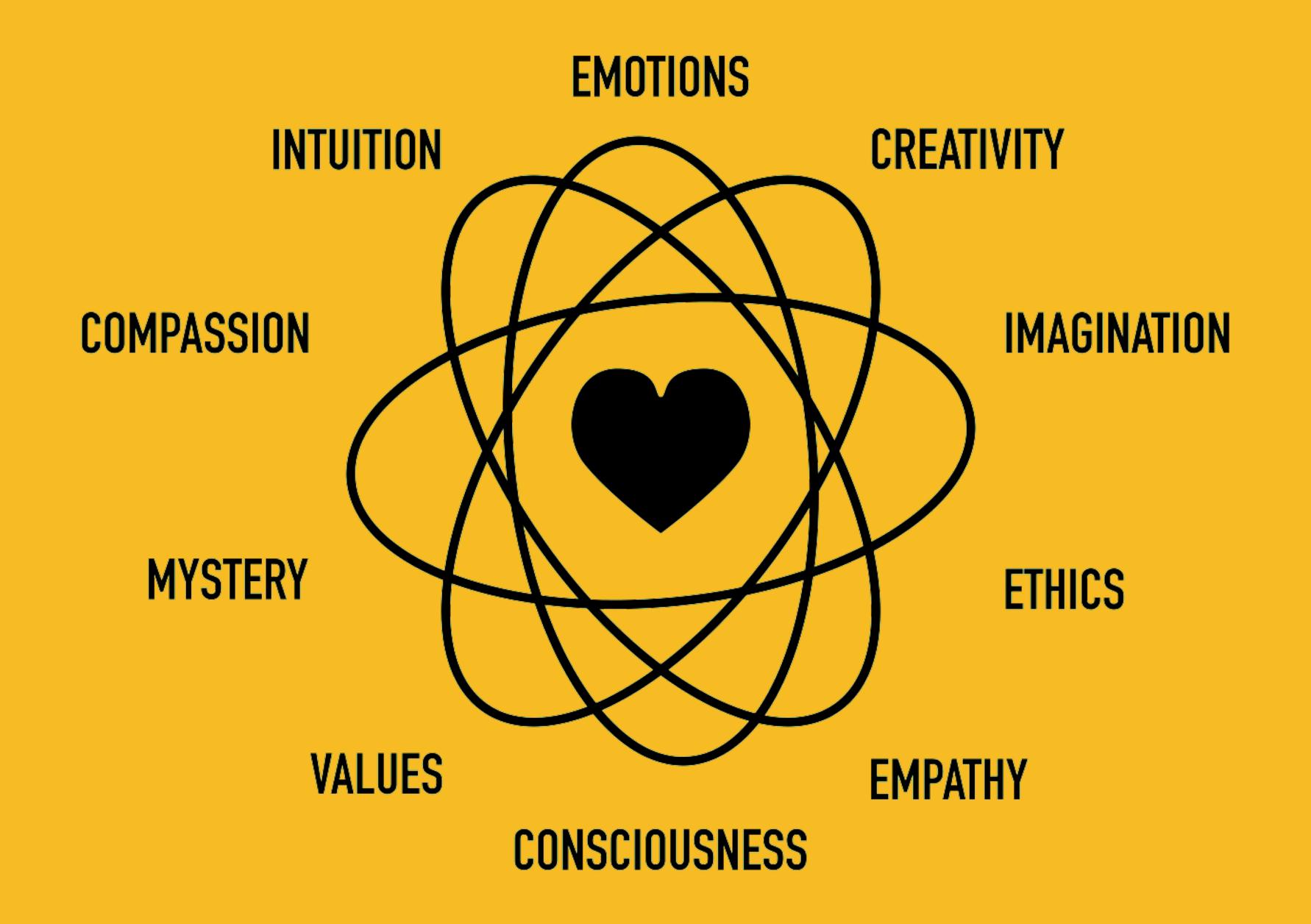


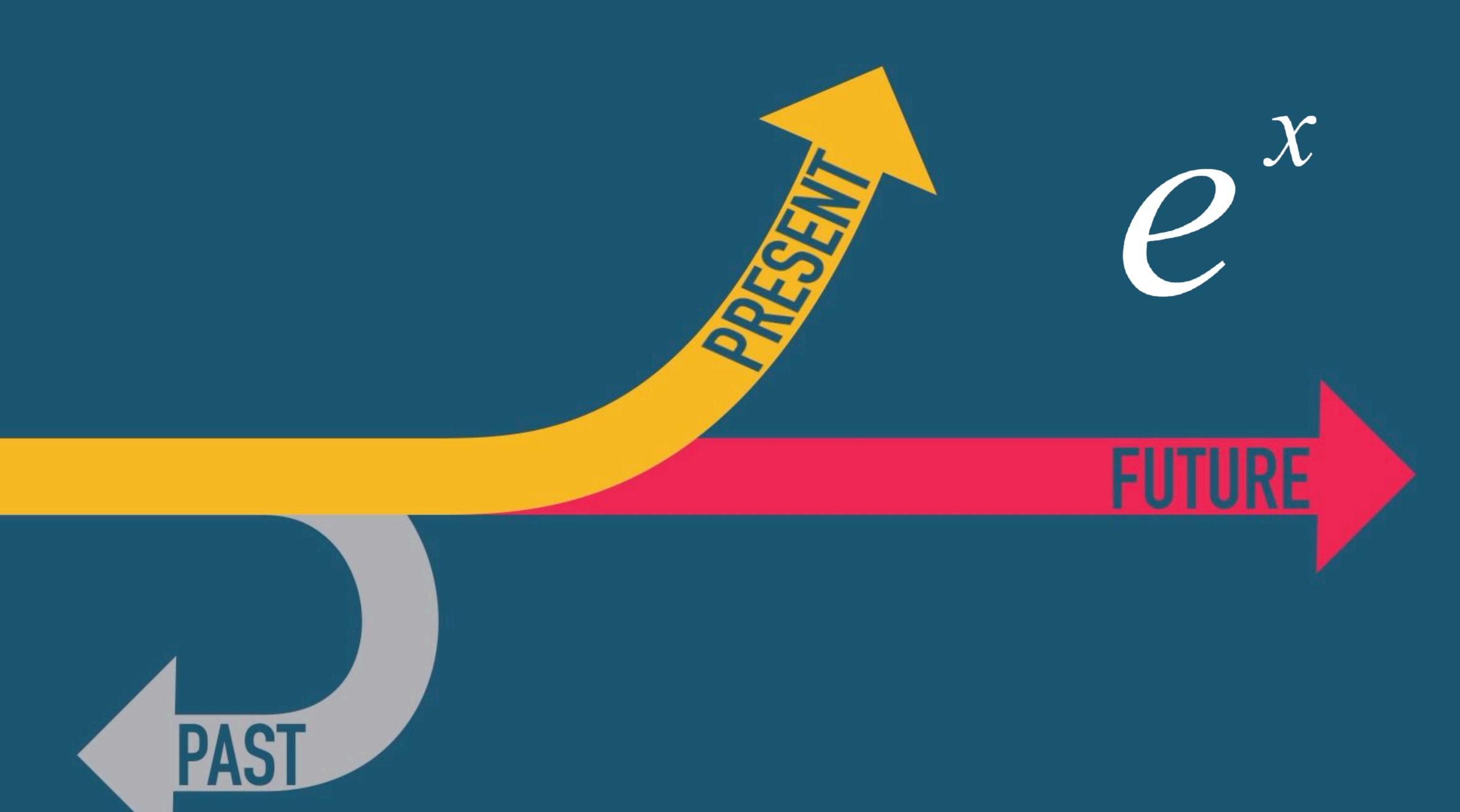
# Your ultimate job is to be ... HUMAN



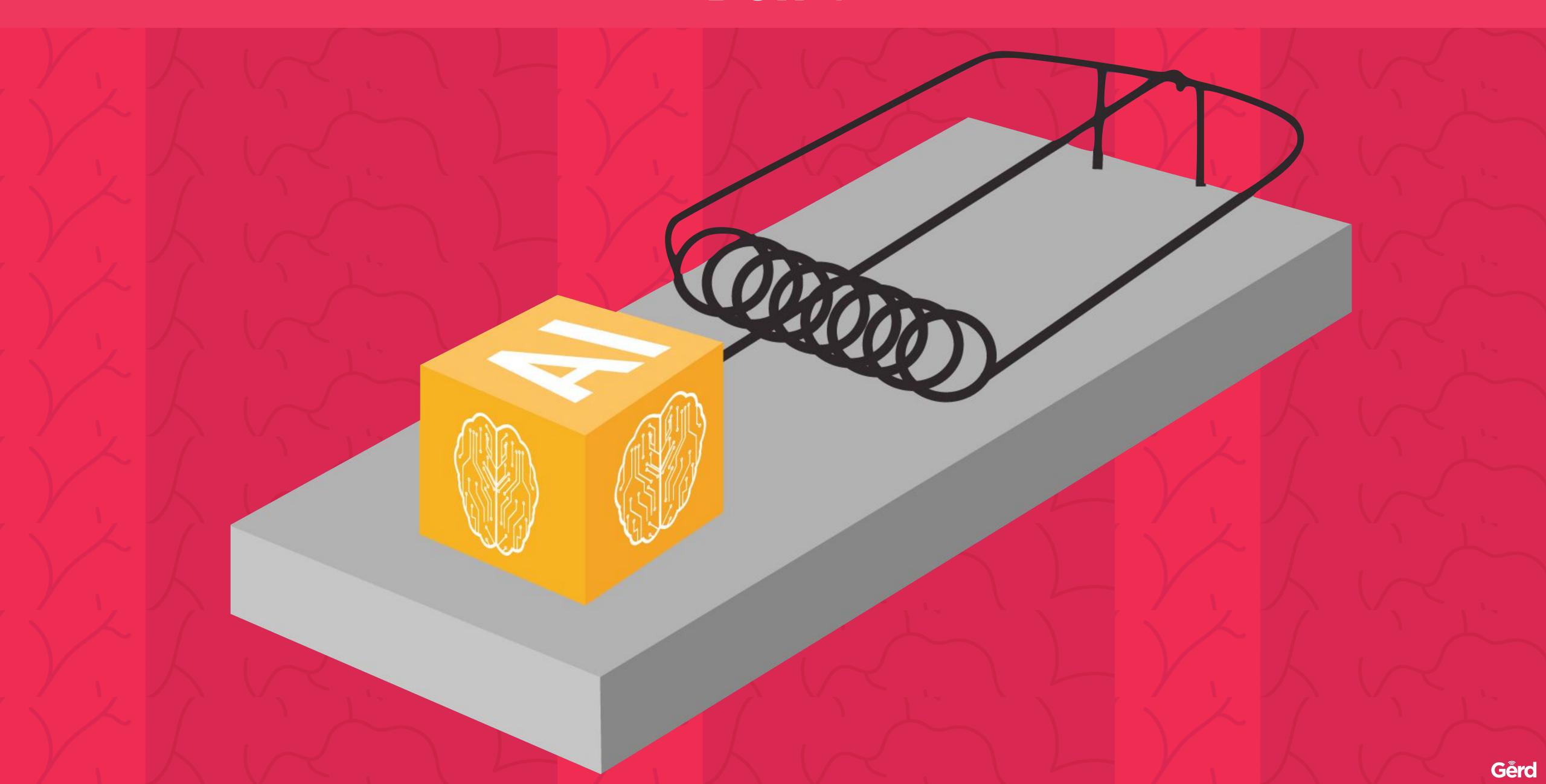


# Anything that CANNOT be digitised or automated becomes extremely valuable



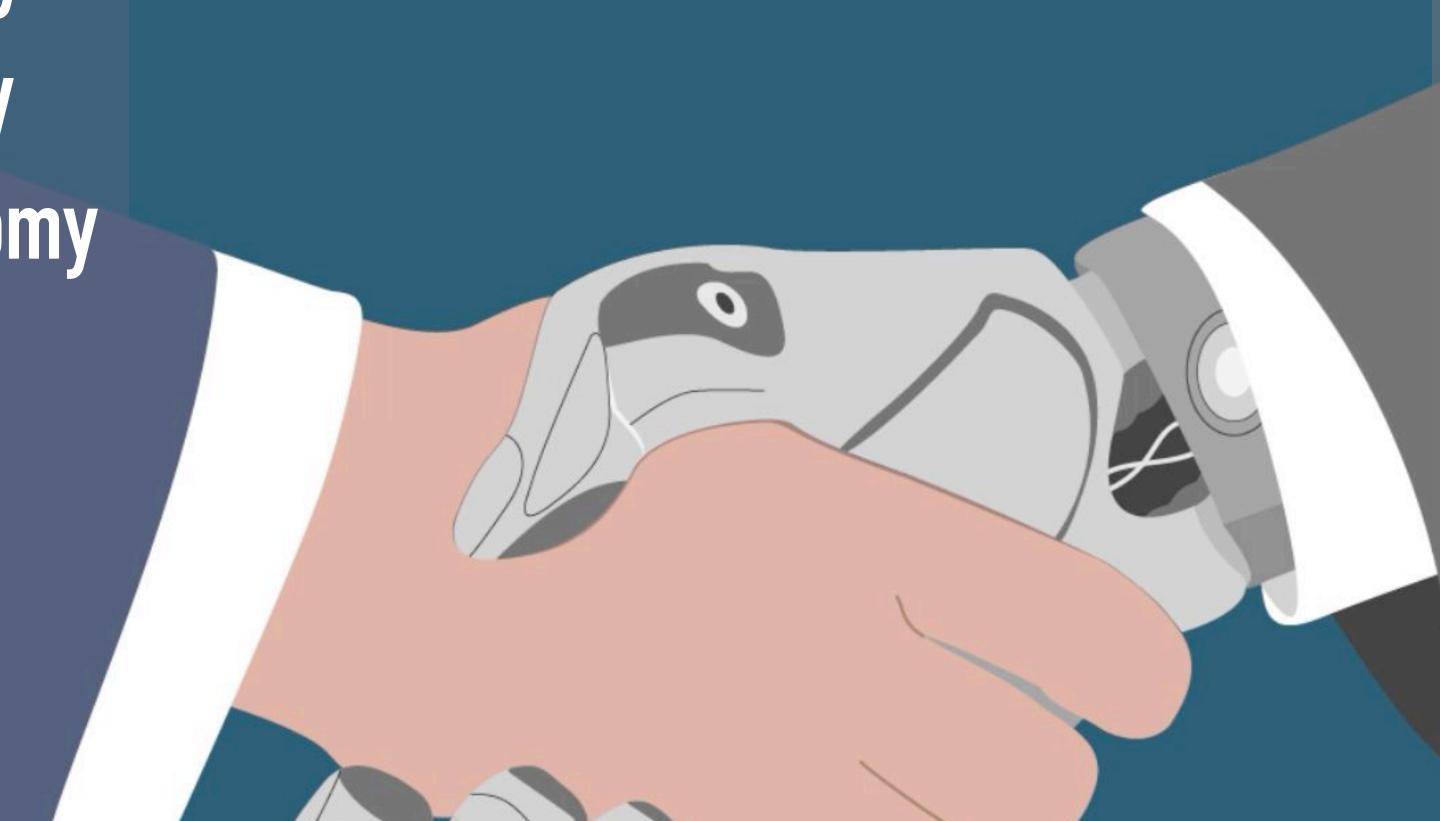


# Don't



# Getting this balance right is essential to the future of advertising





Liquidity & Speed
Efficiency & Ease
Reach and Pull
Network Effects
ECONOMIC VALUES



This is the biggest paradigm shift in digital advertising: #dataMYning

# DATA MYning

**MY Location** 



MY Health



MY Insurance



# Focus on magic, discourage manic, ban the toxic!









C O denmark







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@gleonhard



TECHN HUMA

The coming clash man and mach

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TECHNOLOGY Vs HUMANITY

> The coming clash between man and machine

By Gerd Leonhard