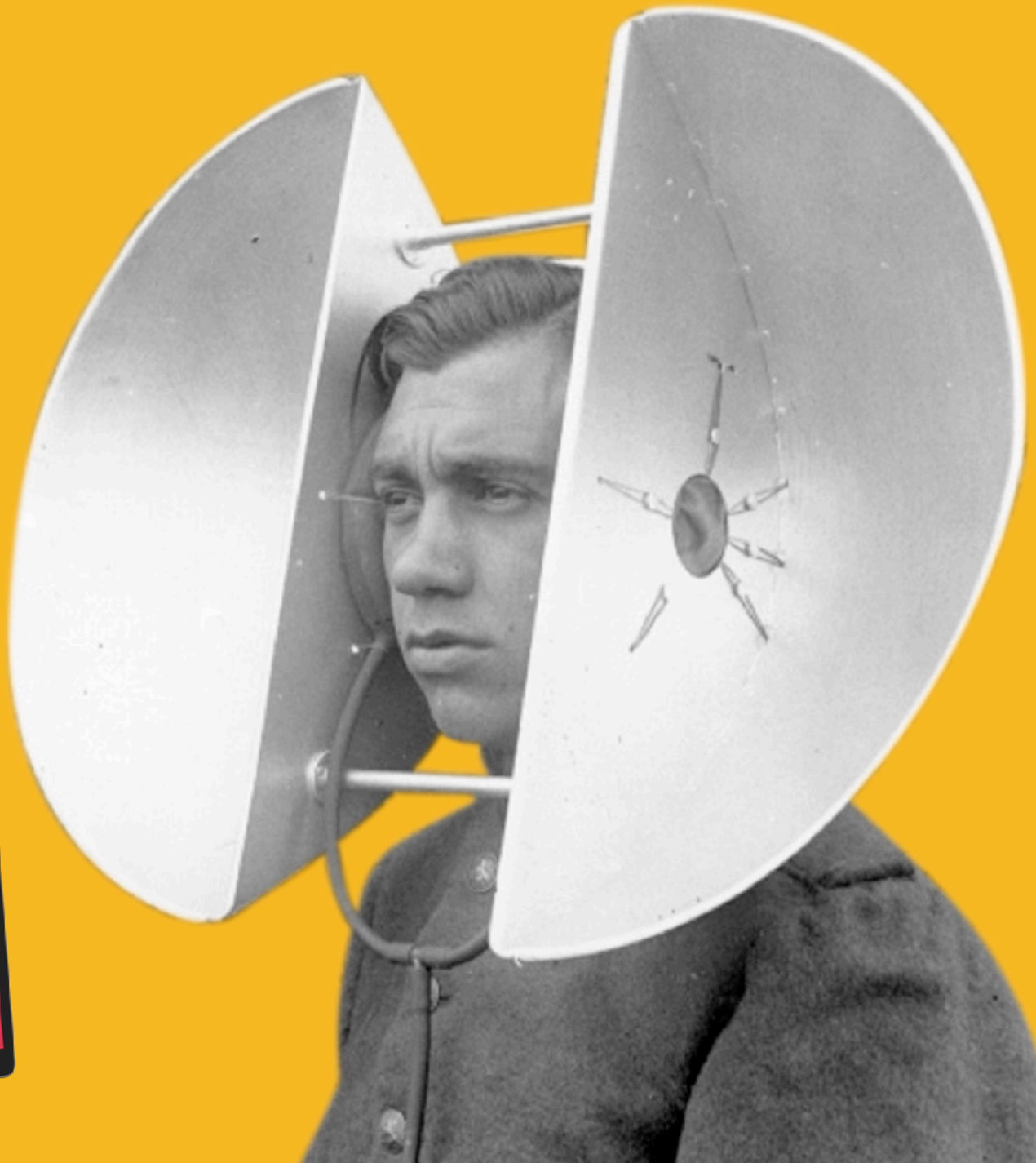
Technology and Humanity:
The Future
Durban, South Africa
techvshuman.com
gerd.cloud
gerdtube.com
@gleonhard
futuristgerd.com
Gerd



Gerd

The future is better than we think!

*we just need to maintain a sustainable balance between humans and machines

Gerd

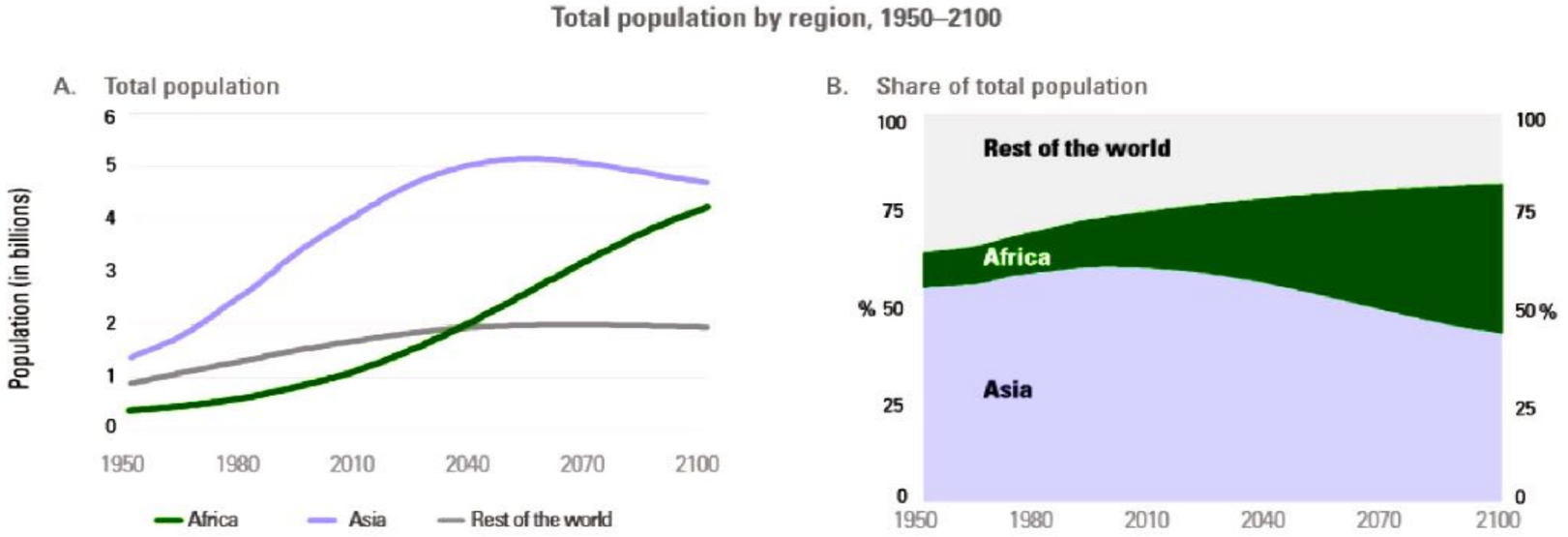
Humanity will change more in the next 20 years than in the previous 300 years

Gerd

Africa will account for more than half (54%) of the 2.4 billion global population growth in coming decades. The United Nations predicts that between 2015 and 2050, Africa will add 1.3 billion people, more than doubling its current population of 1.2 billion.

FIG. 1

Africa's population will double from 2015 to 2050



Source: UNICEF analysis based on United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2012 Revision (UN WPP), United Nations, New York, 2013.

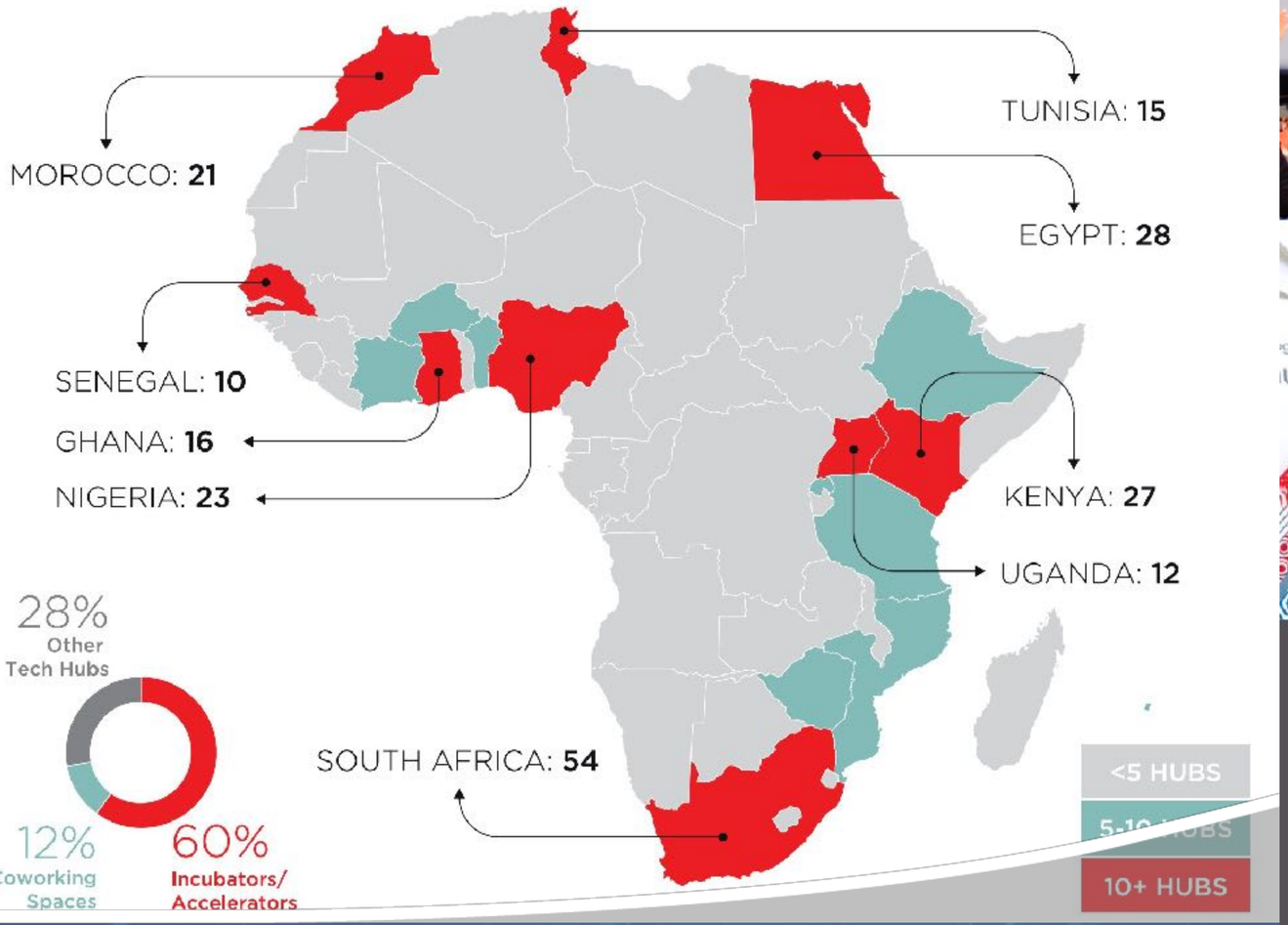
1 2 4 8 16 32 64 128

GSMA Ecosystem Accelerator

A few figures on tech hubs in Africa

AFRICA:

314 ACTIVE* TECH HUBS IN 93 CITIES IN 42 COUNTRIES



Five agritech startups that aim to take Africa into greener pastures

Stephen Timm: Editor

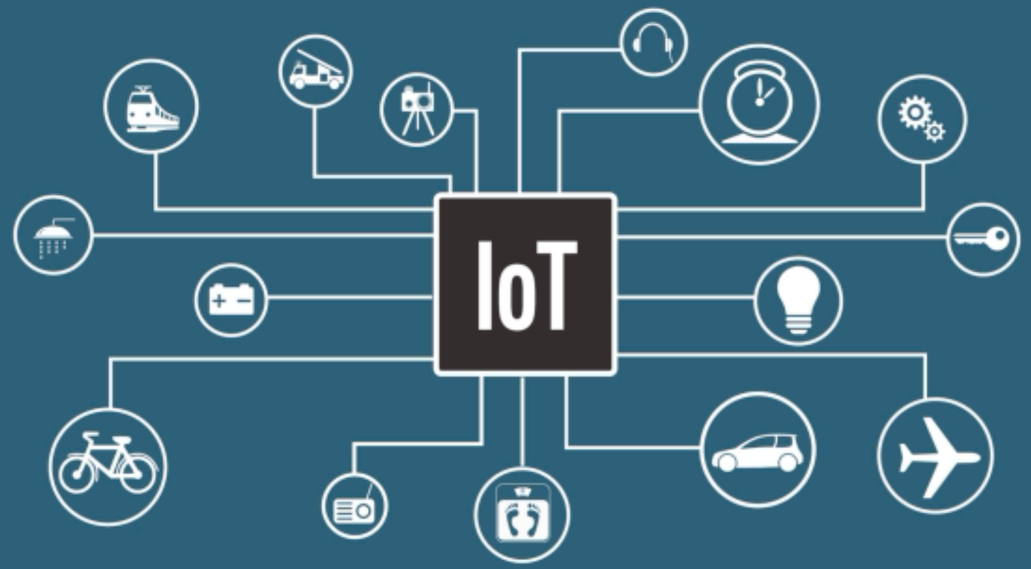
If Africa is to foster more efficient growth, agriculture technology (or agritech) is likely to have an increasing role to play. Already a number of startups across the continent are getting stuck in developing tech solutions to help boost the sector.

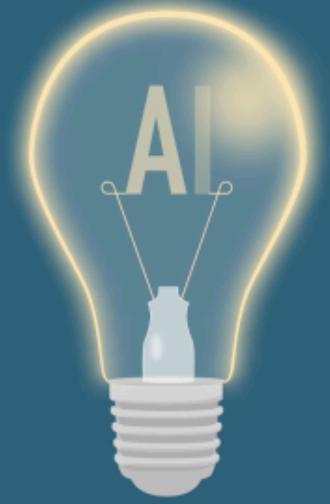
The agriculture sector employs over two thirds of the work force and contributes over third of gross domestic product according to the World Bank, in a recent report (opens as a PDF).

Gerd

The technological game changers: Data + Cloud, IoT, AI (IA), Quantum-Computing, Blockchain, 3D printing, and VR/AR/MR

TEAM HUMAN





Gerd

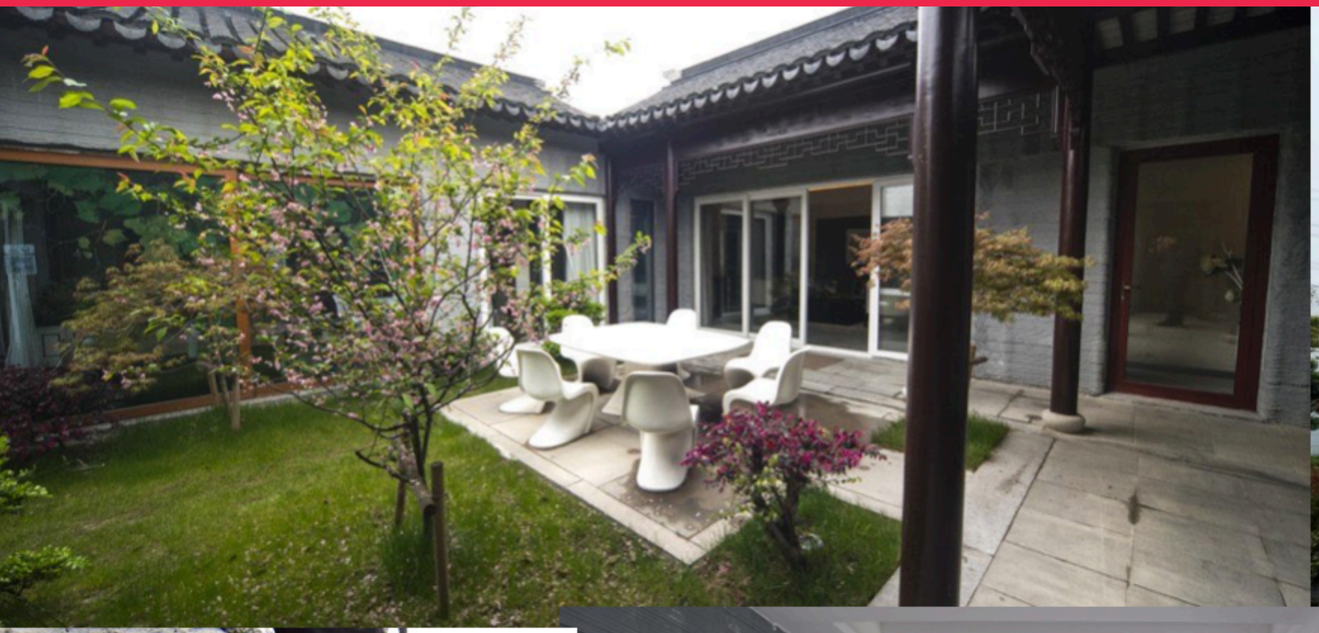
Humanity Technology

Gerd

Machines are no longer dumb

Gerd

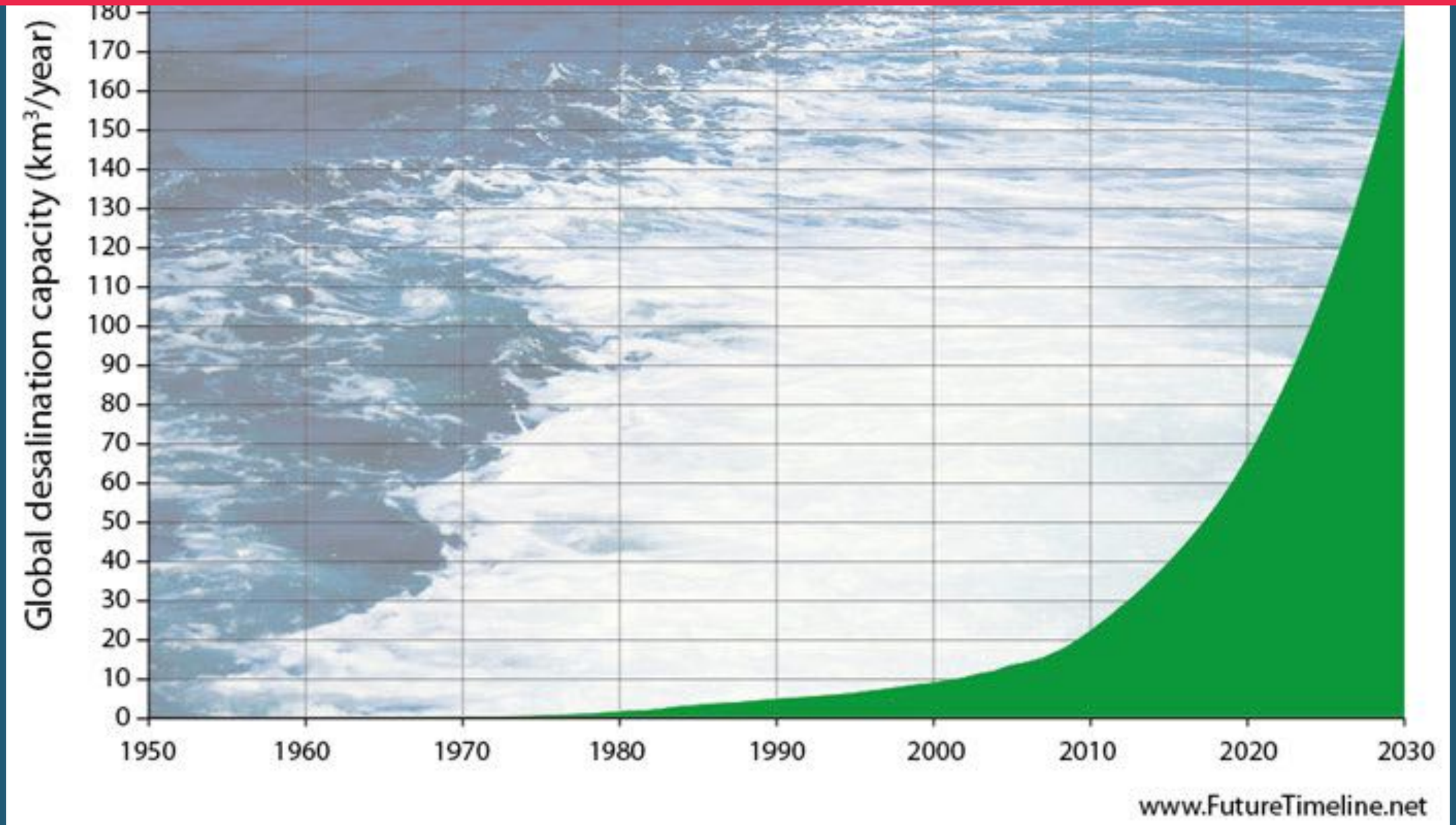
Science fiction is increasingly becoming science fact



Science fiction is increasingly becoming science fact

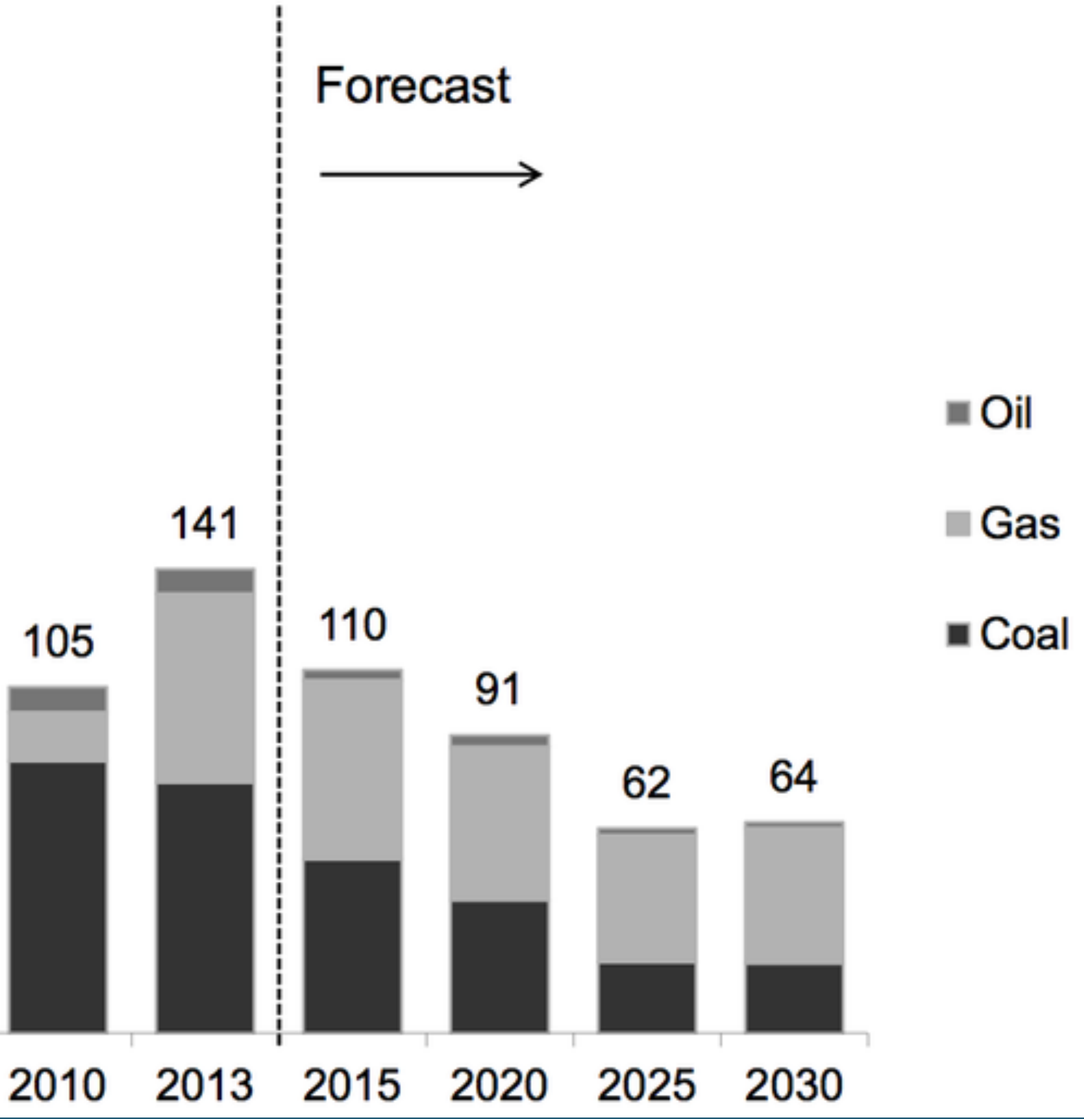
Science fiction is increasingly becoming science fact

Science fiction is increasingly becoming science fact

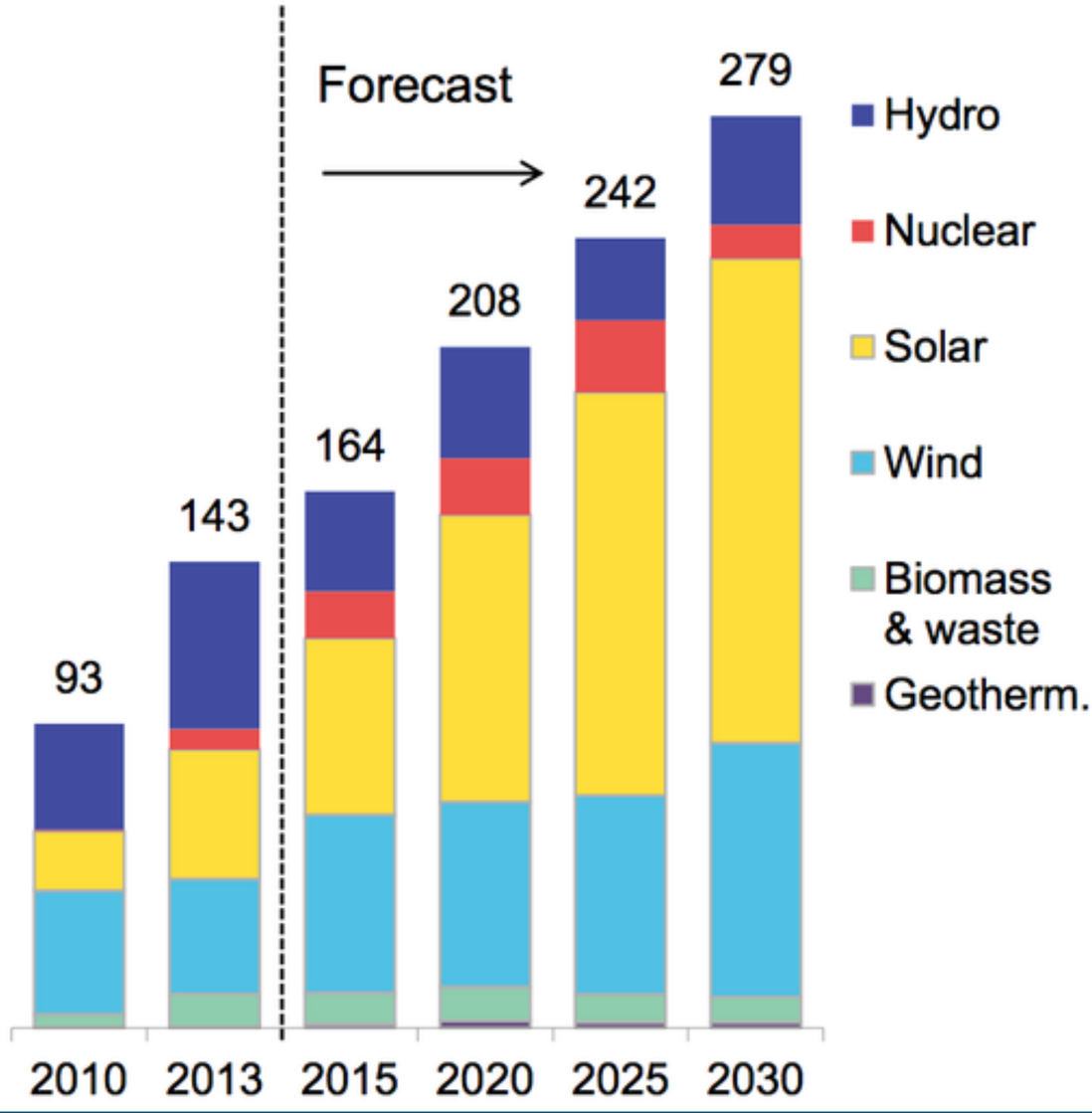


Science fiction is increasingly becoming science fact

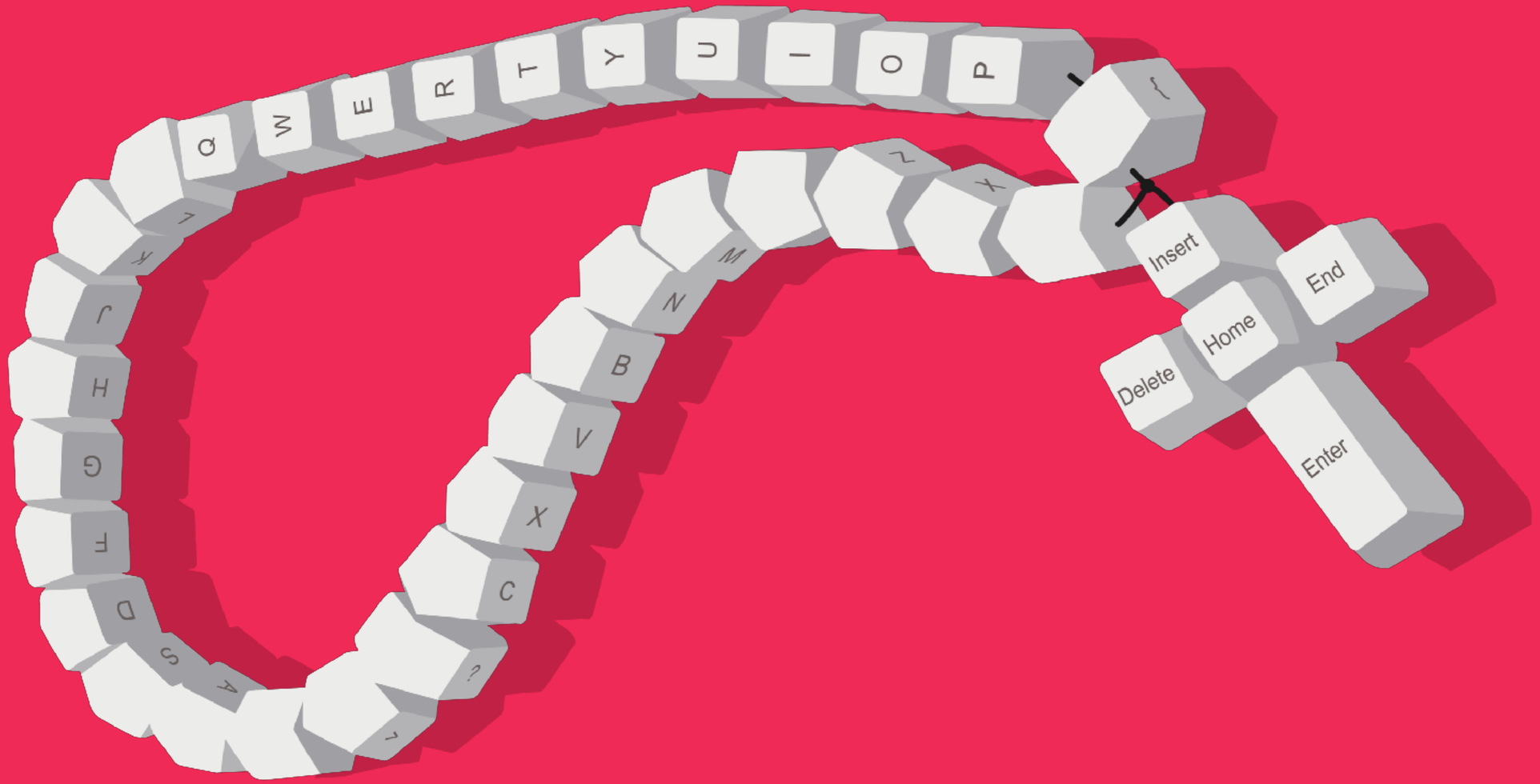
FOSSIL FUEL



CLEAN ENERGY



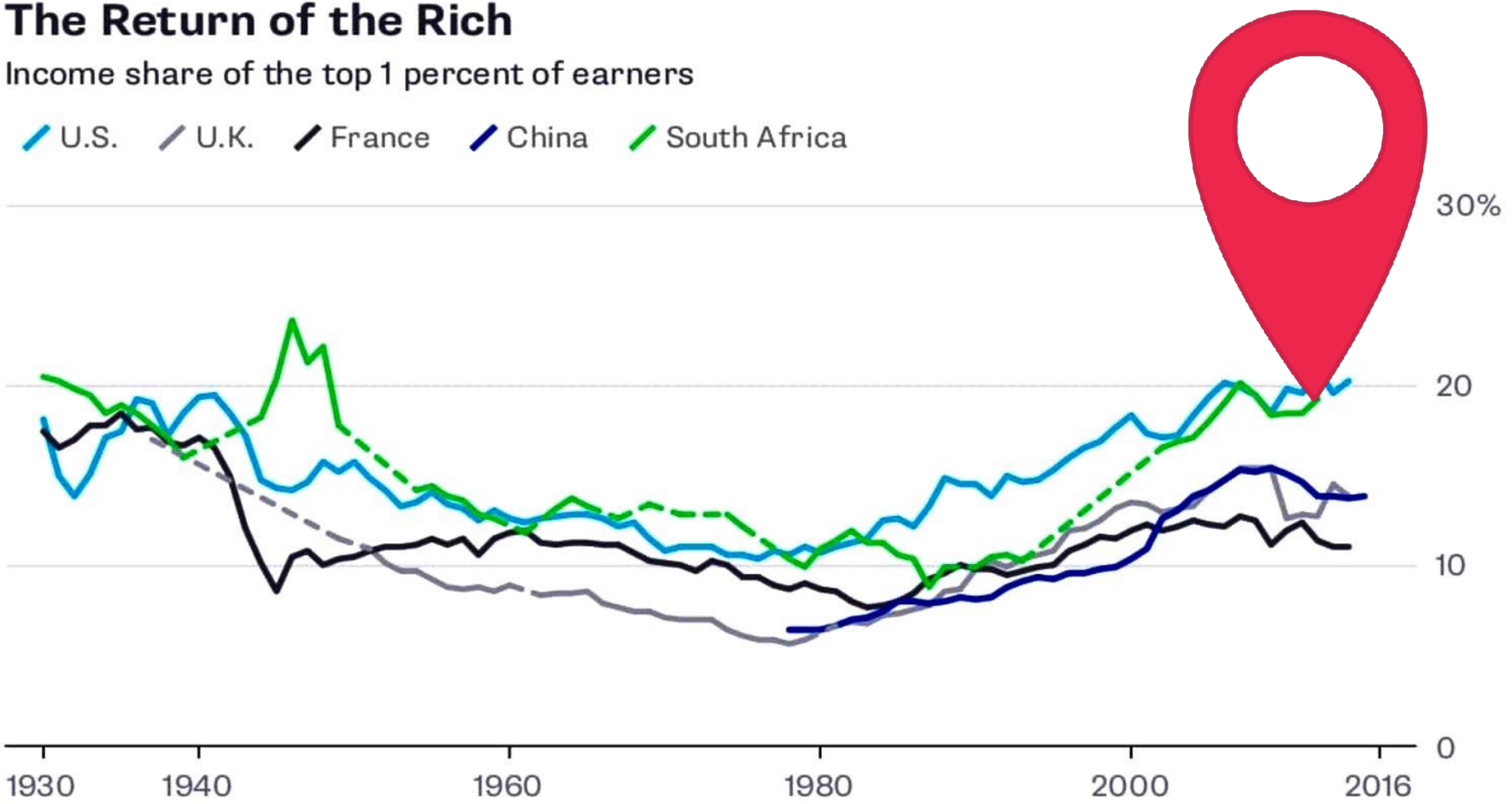
Reminder: technology will not solve political or societal challenges



Gerd

The Return of the Rich

Income share of the top 1 percent of earners

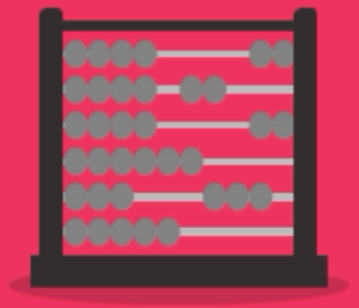


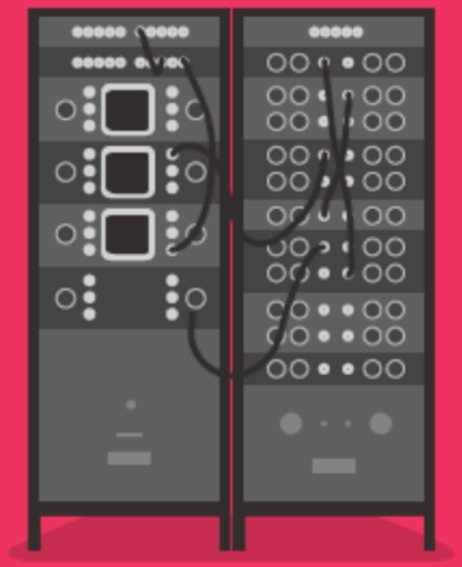
Source: World Inequality Database

BloombergQuickTake

AI: Computer systems that turn information and data into KNOWLEDGE

(Demis Hassabis, CEO, DeepMind)





Tabulating Systems Era

1900

Programmable Systems Era

1950

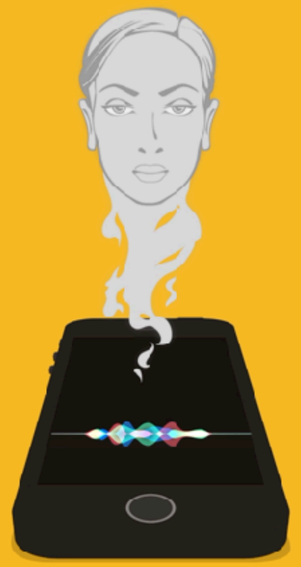
Cognitive Systems Era

2020

Gerd

Super-smart and networked machines

represent a much bigger challenge to society than electrification or even industrialisation



Gerd

Machines that are no longer programmed but TRAINED

VICE News | HBO

柯洁 KE JIE
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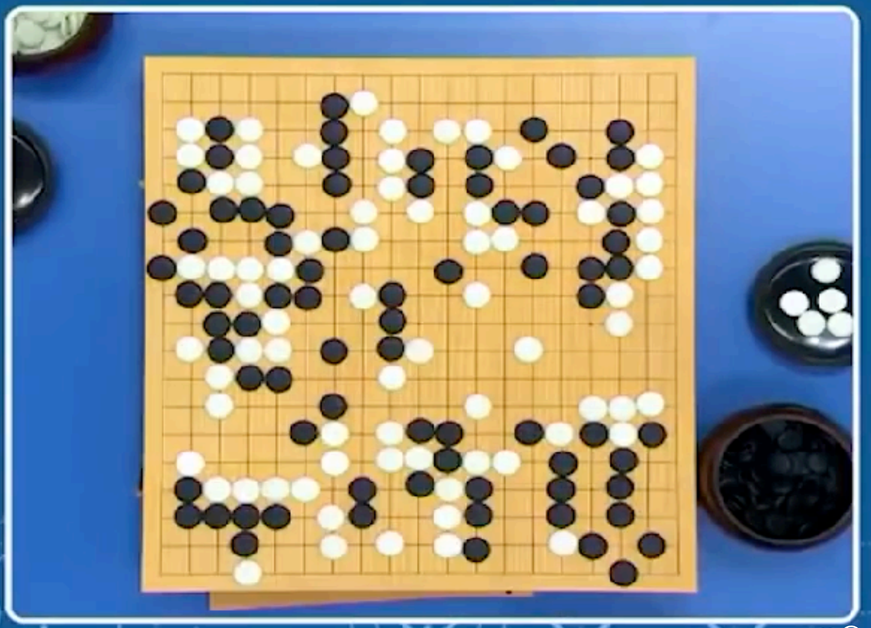
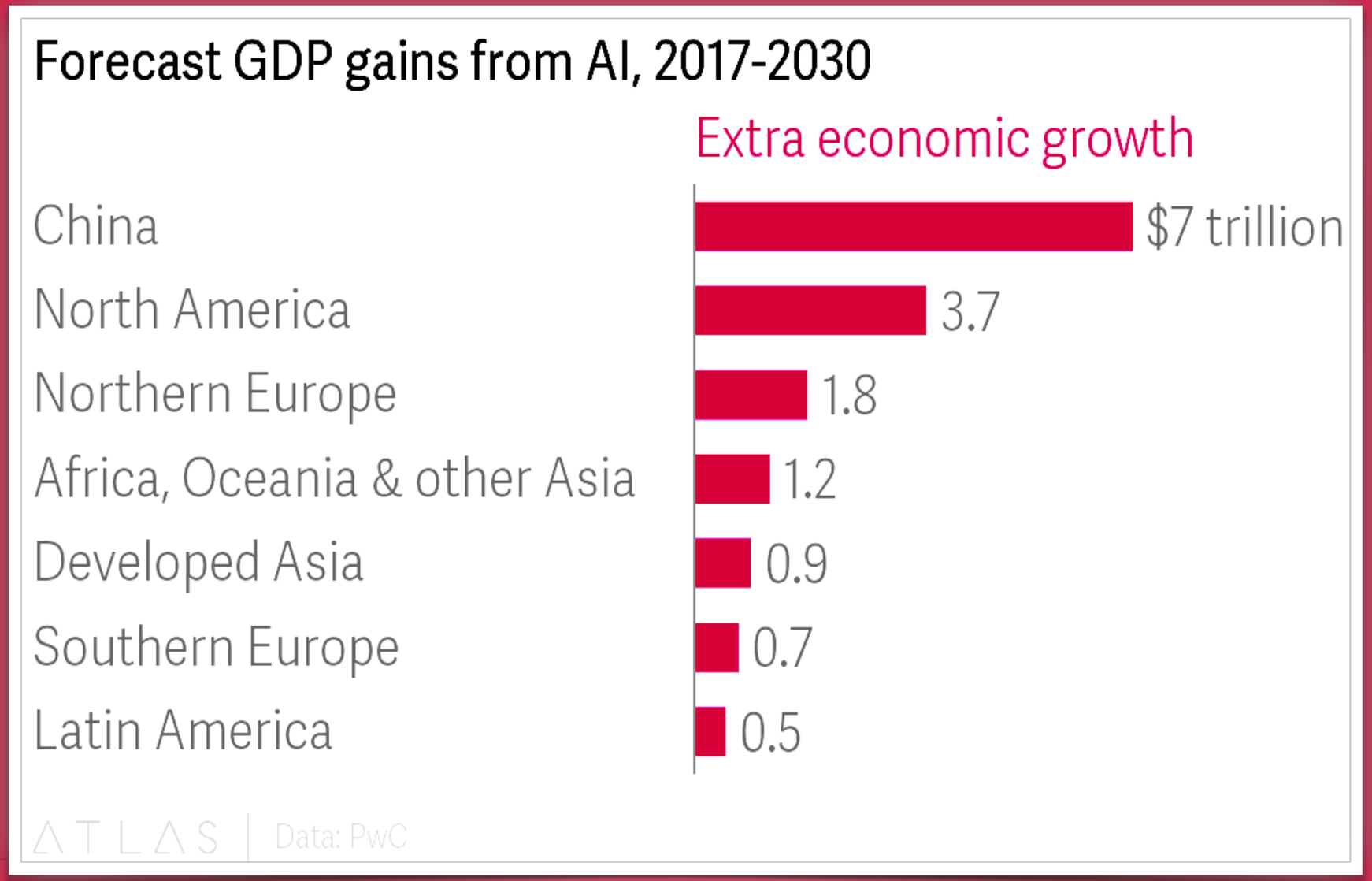
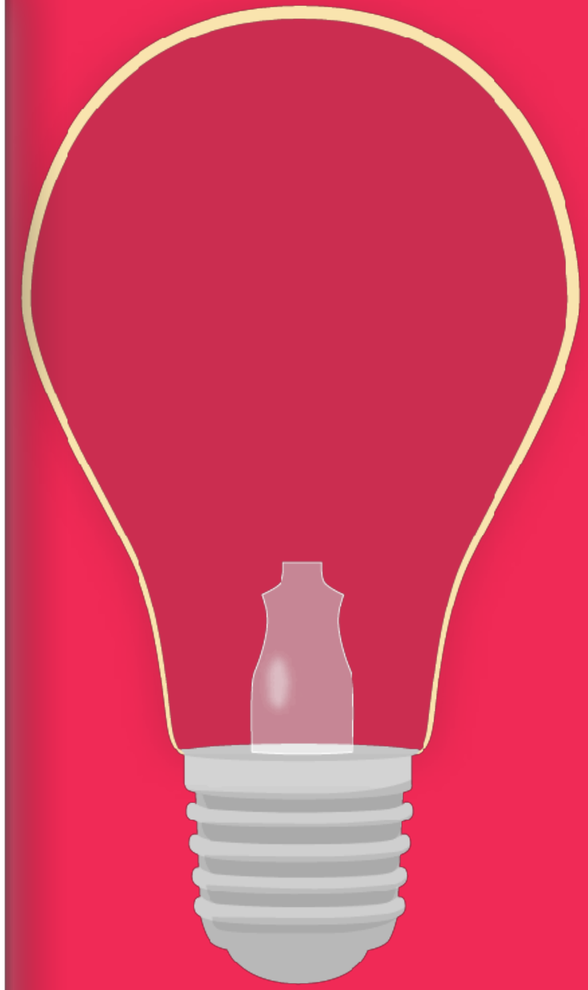
ALPHAGO
02:09:35



Gerd

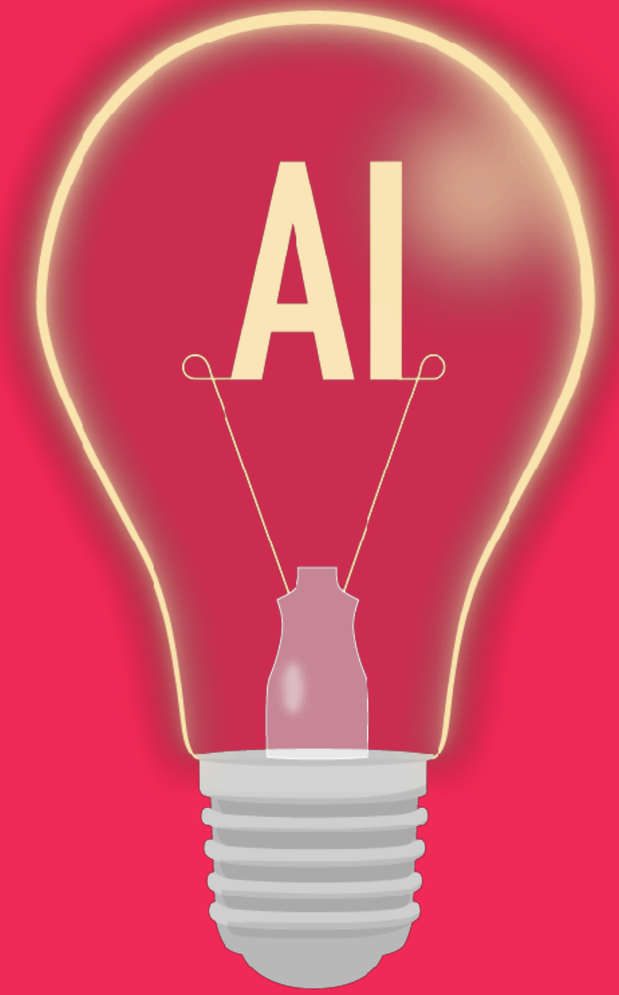
Data is the new oil, and AI is the new electricity: a huge economic gold-rush





Gerd

Data is the new oil, and AI is the new electricity: a huge economic gold-rush



Gerd

Art
Politics
Winograd Test
Fiction Writing
Invention
Science
Cinematography
Human Genome Editing
Humanoid Robots
Human Resources
Negotiation
Debating
Theorem Proving
Computer Vision
Poker
Call Center
2018
Go
Programming
Speech Recognition
Programmatic Advertising
Language translation
Social Media
Intelligent Assistants
Financial Services
Jeopardy!
Arithmetic
Mapping
Cloud Computing
Chess
1997

Politics

Fiction Writing

Invention

Science

Cinematog

Human Genome Editing

Human Resources

Negotiation

Debati

Theorem Proving

Computer Vision

Call Center

Programming

Speech Recognition

Programmat

Language translation

Social Media

Intelligent Assi

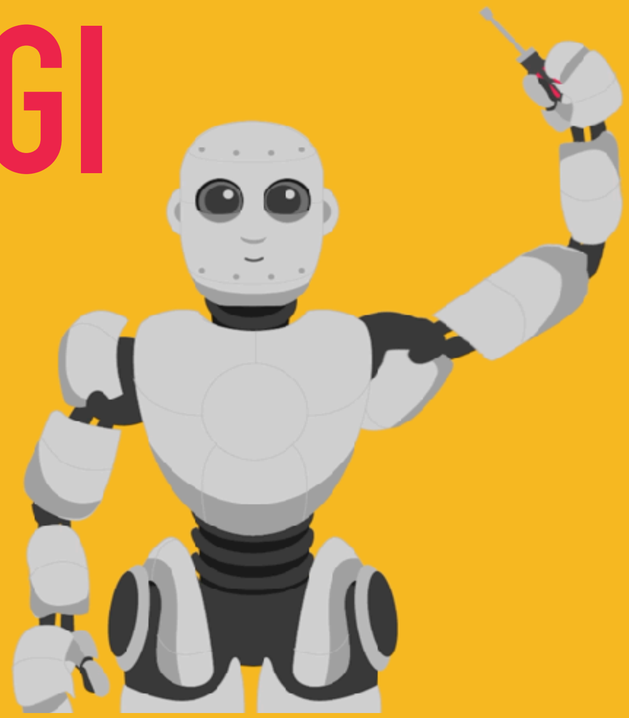
Financial Services

Arithmetic

Mapping

Cloud Comp

AGI



Intelligent Assistance (IA)

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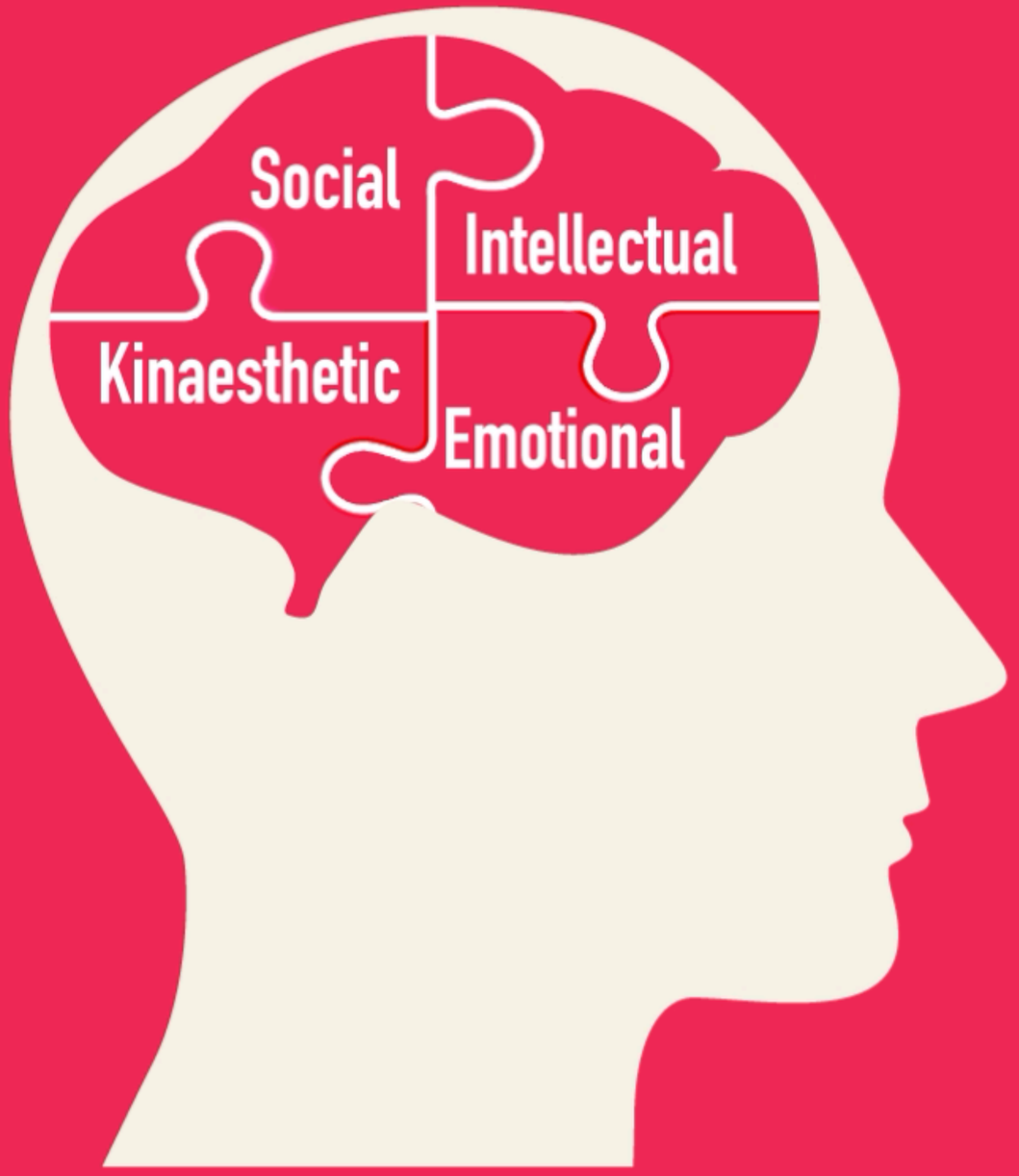
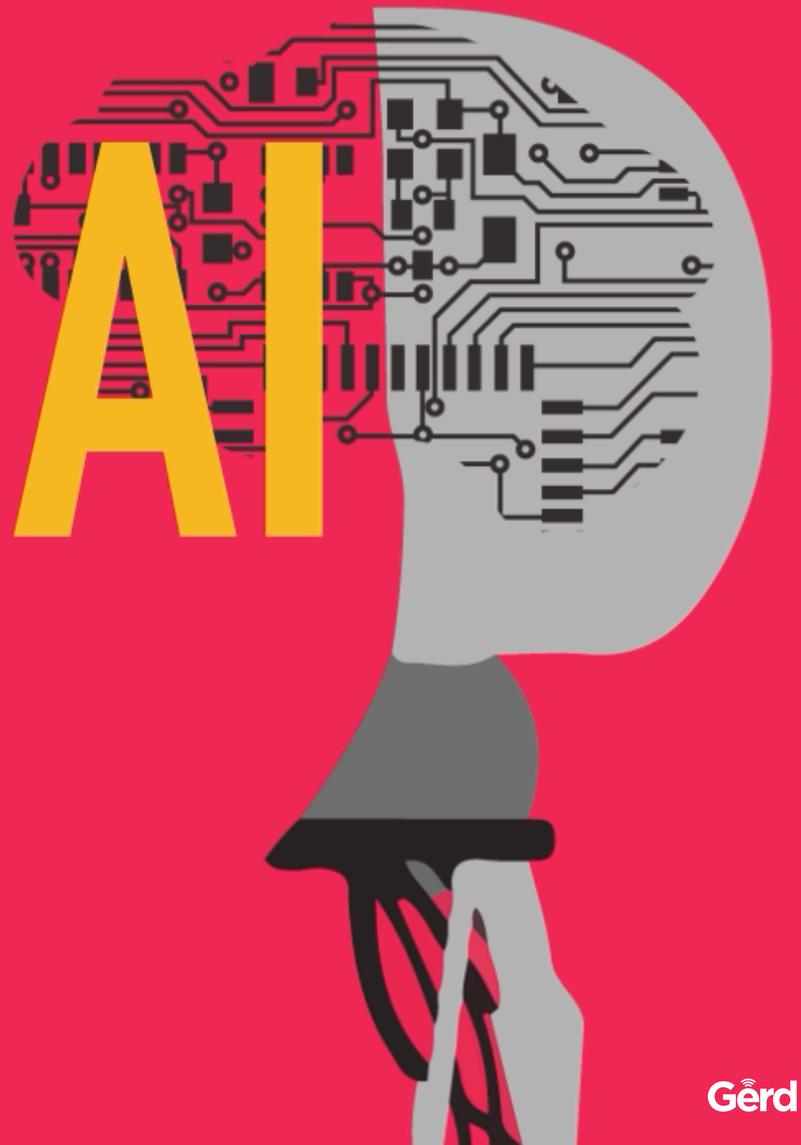
Reminder: Human Intelligence ≠ Machine Smartness





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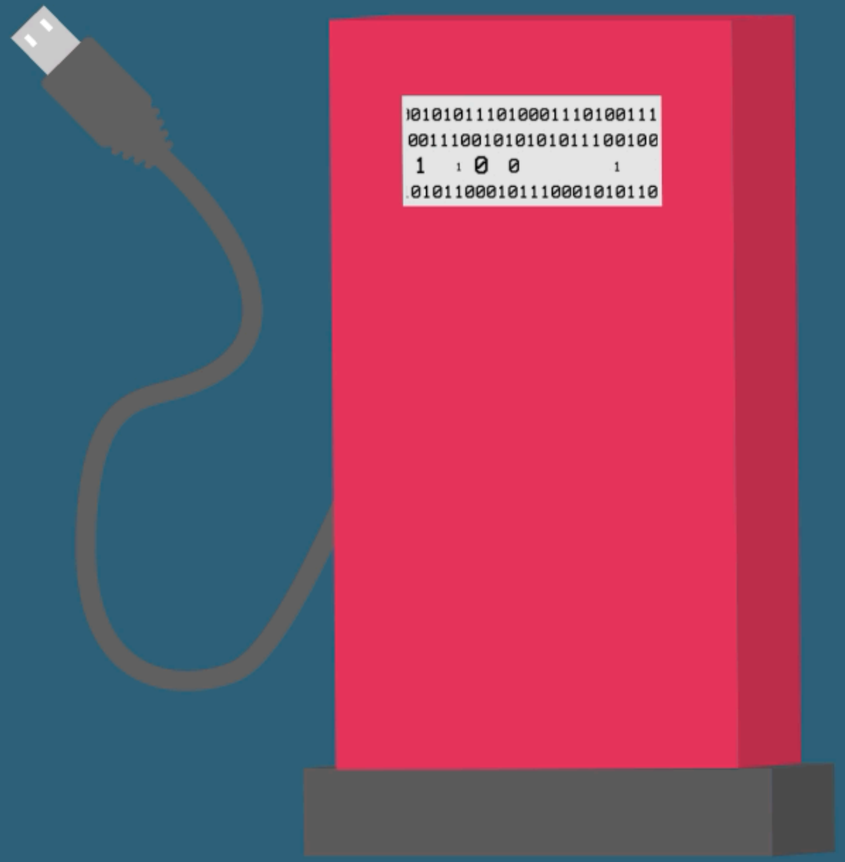
Binary



Multinary (Human)

PURPOSE

PASSION

CURIOSITY

IMAGINATION

FORESIGHT

CRITICAL THINKING

Gerd

If you torture data long enough it will confess to anything!

Machines don't do relationships!

Gerd

Happiness is not an algorithm, and humans aren´t code!

Gerd

Technology is not what we seek, but how we seek

POSITIVITY **E**NGAGEMENT **R**ELATIONSHIPS **M**EANING **A**CCOMPLISHMENT

Martin Seligman PERMA

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The biggest danger is not that machines will take over but that we become too much like them!

Gerd

TECHNOLOGY HAS NO ETHICS

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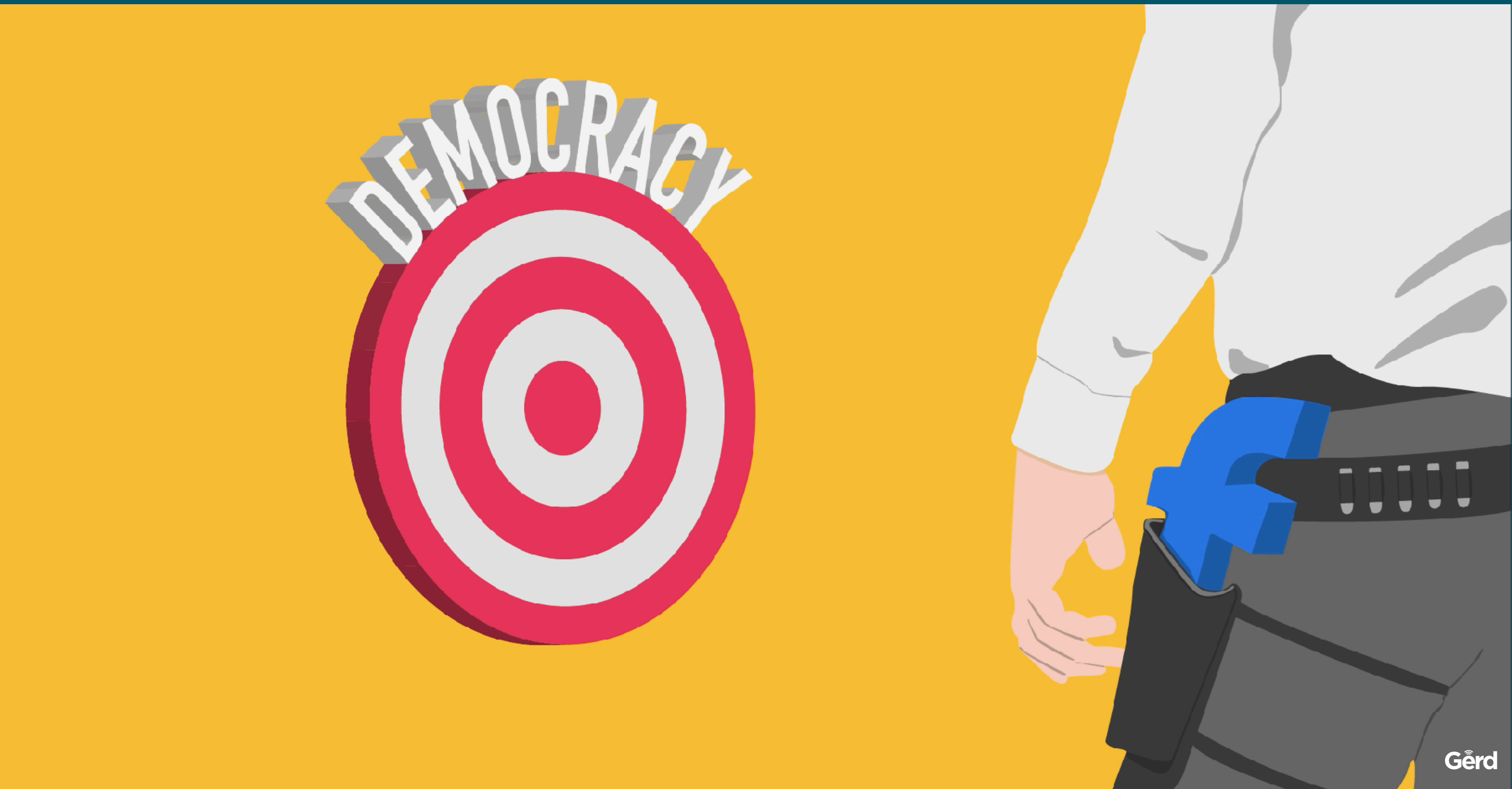
Ethics is knowing the difference between what you have a right (or the power) to do and what is the right thing to do



Europe is drawing fresh battle lines around the ethics of big data

First GDPR fines coming this year is just the start, says data protection supervisor Giovanni Buttarelli

1 week ago

Every technological gain should result in human flourishing

Humanly sustainable?

Gerd

Humanly sustainable?

Gerd

Humanly sustainable?

Soon, the question is no longer IF or HOW technology can do something, but WHY it should

Gerd

Soon, the question is no longer IF or HOW technology can do something, but WHY it should

Gerd

The more we engage with increasingly powerful technologies, the more we need to maintain and protect what makes us human

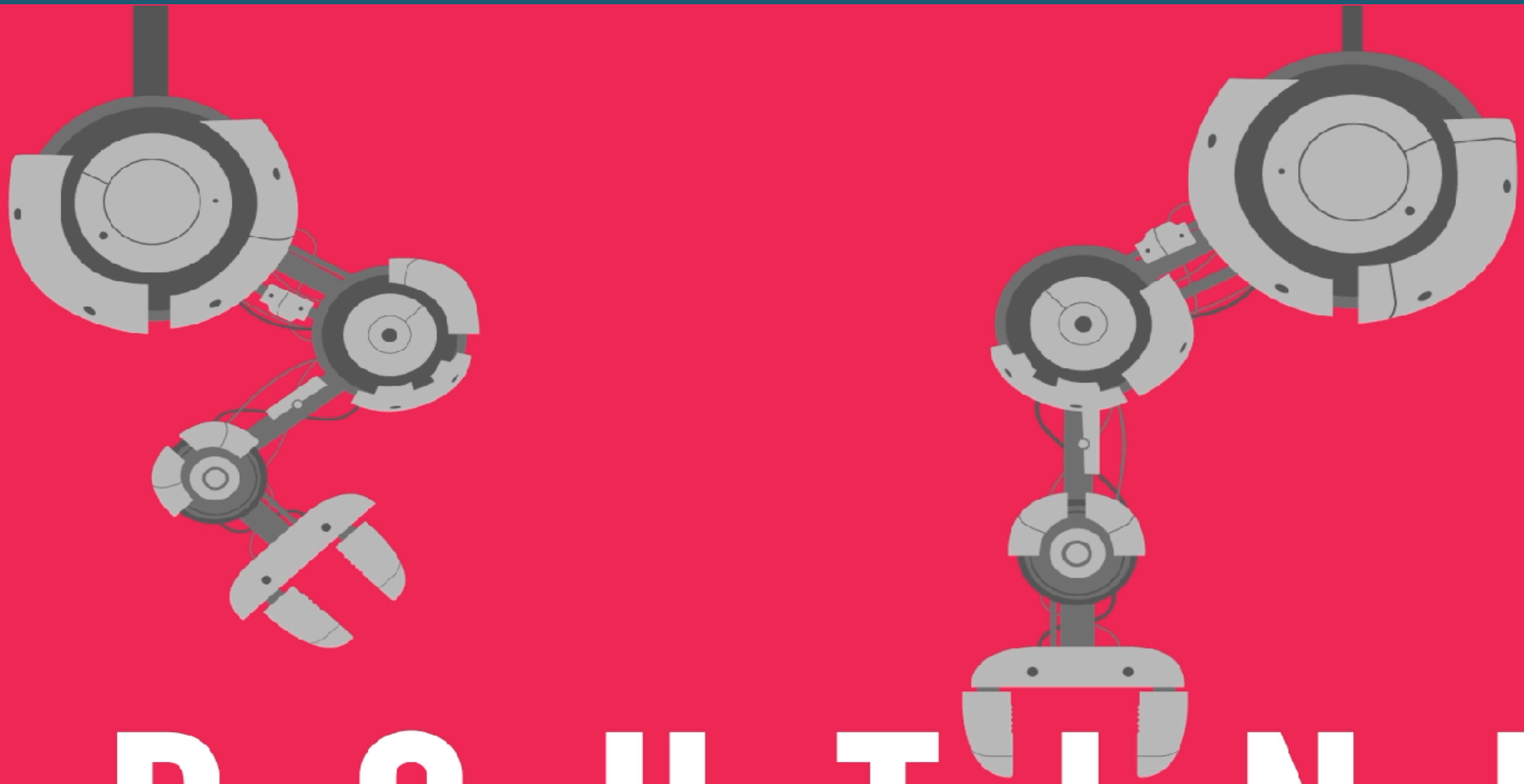
Gerd

Societies are driven by their technology but defined by their humanity

Gerd

The End of Routine is coming

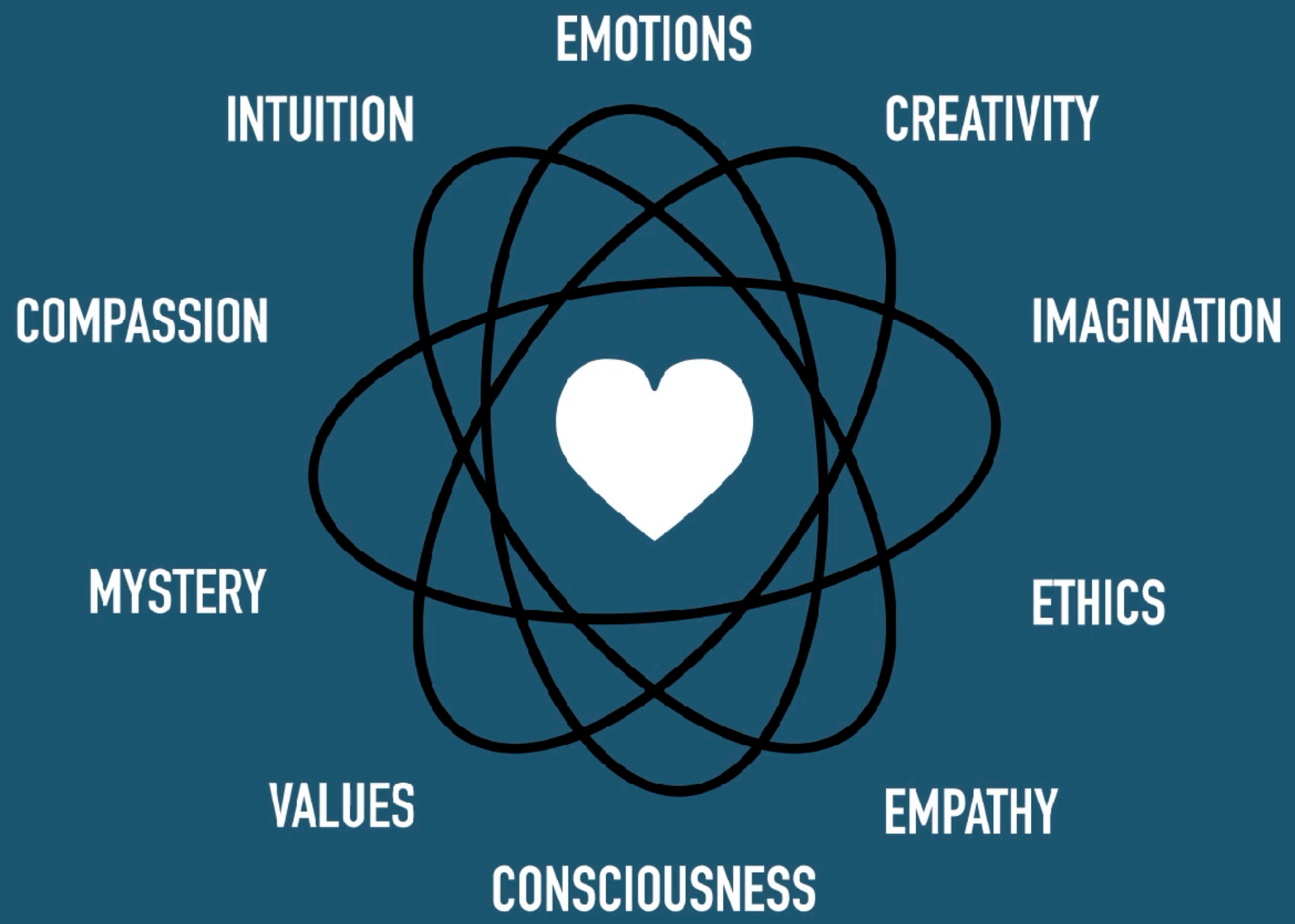
Gerd



ROUTINE

But the end of routine tasks does not mean the end of human work!

. . . because anything that cannot be digitized or automated will become even more valuable



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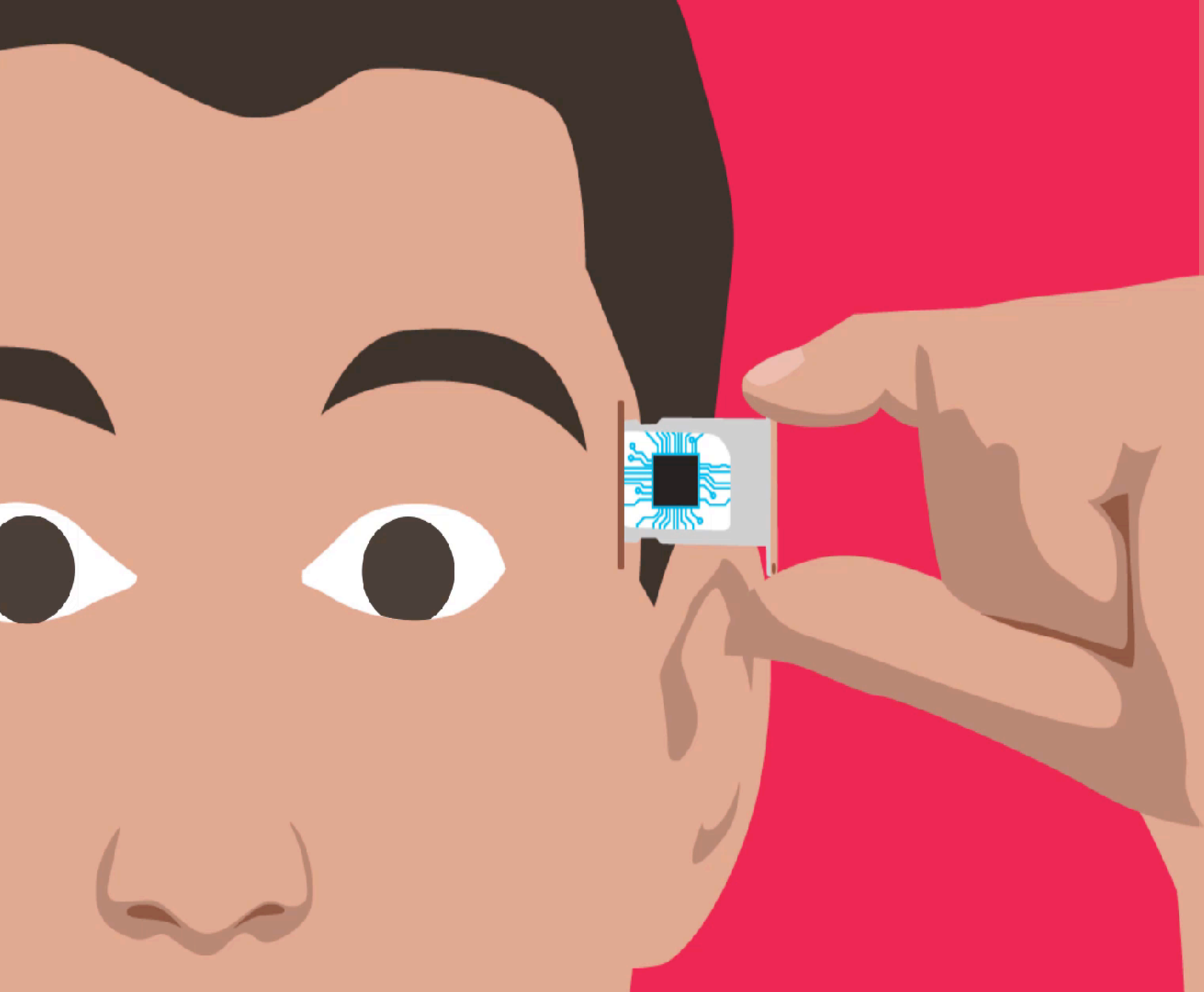
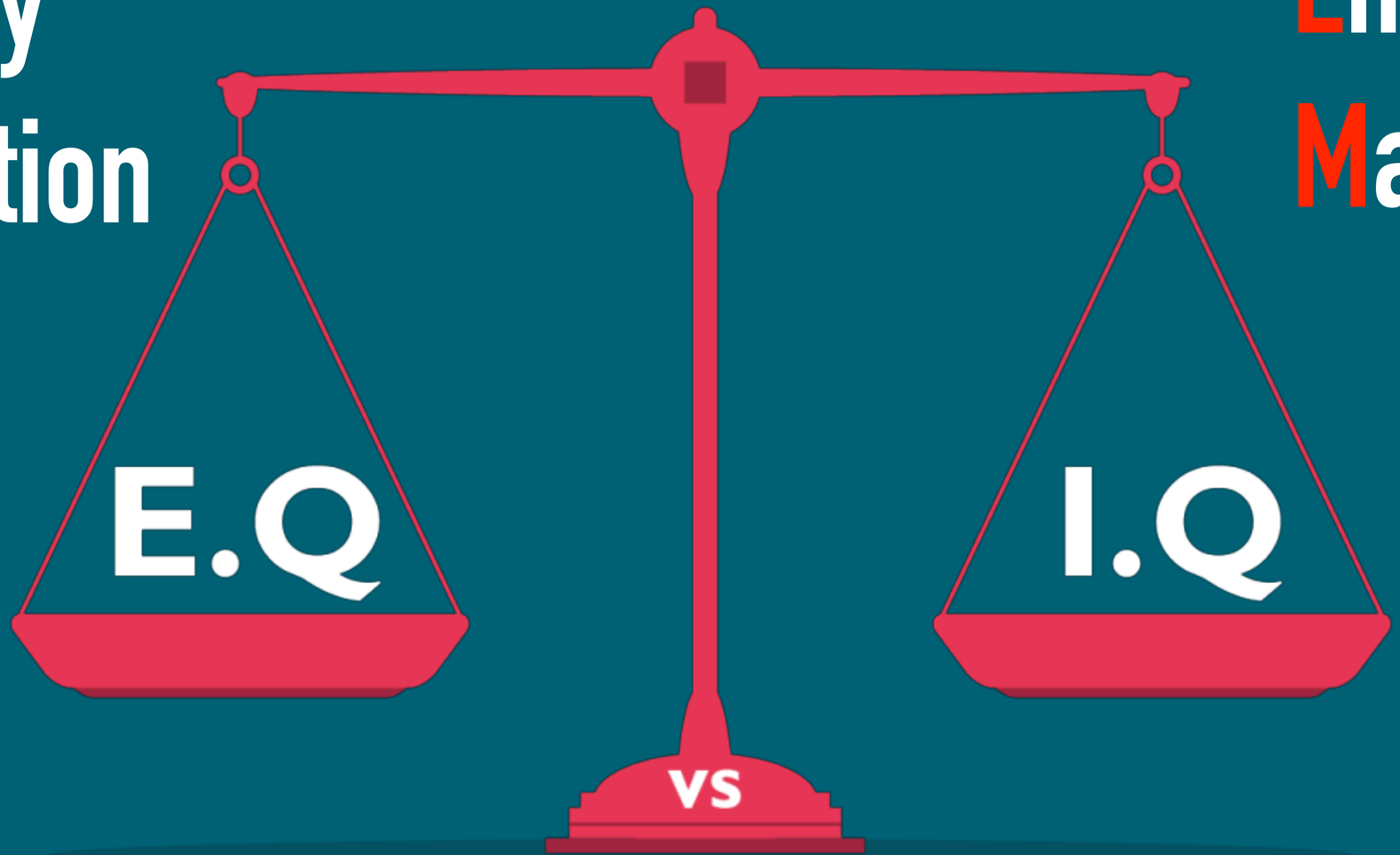


Teaching our kids to merely ‘download’ information, to fill up their ‘hard-drives’ for later retrieval, and to reproduce ‘best practices’ will be **detrimental**

Humanity
Ethics
Creativity
Imagination

Science
Technology
Engineering
Mathematics



Gerd

Unemployment is a FEATURE of the unrestrained digital economy

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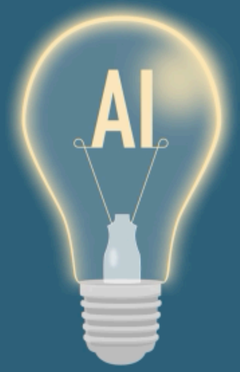
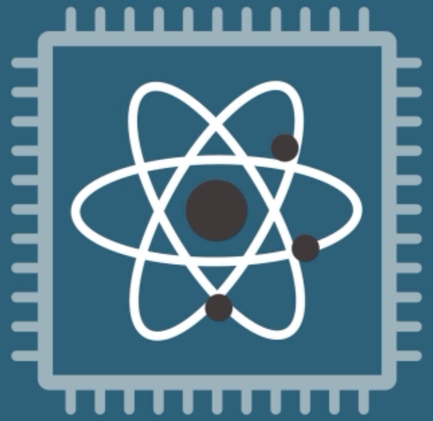
Every politician should have a ‘driver’s license for the future’!

Gerd

Imagine
CREATE
Spend at least 5% of your time on ‘what might be’
Understand
Observe
Gerd

THE FUTURE





Gerd

Brain sciences
Intelligence augmentation
Genetic engineering
Nanotech
Artificial Intelligence
Invest as much in humanity as you do in technology!
Morals
Values
Ethics
Humanity
Gerd

Embrace technology but don’t become it!

Gerd

SACSC
South African Council
of Shopping Centres

Thanks for your time!

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