



Humans and Machines: Heaven or hell?

The next 10 years in HR



techvshuman.com



[@gleonhard](https://twitter.com/gleonhard)



gerdtube.com



gerdcloud.com



futuristgerd.com

The future is awesome... *



... if we make the right choices



Technology is a great servant but but a terrible master #hellven



#digitaletics



Technology is rapidly transforming every single sector of our society: now, HR is about thought-leadership!



HR is where Humans and Machines meet

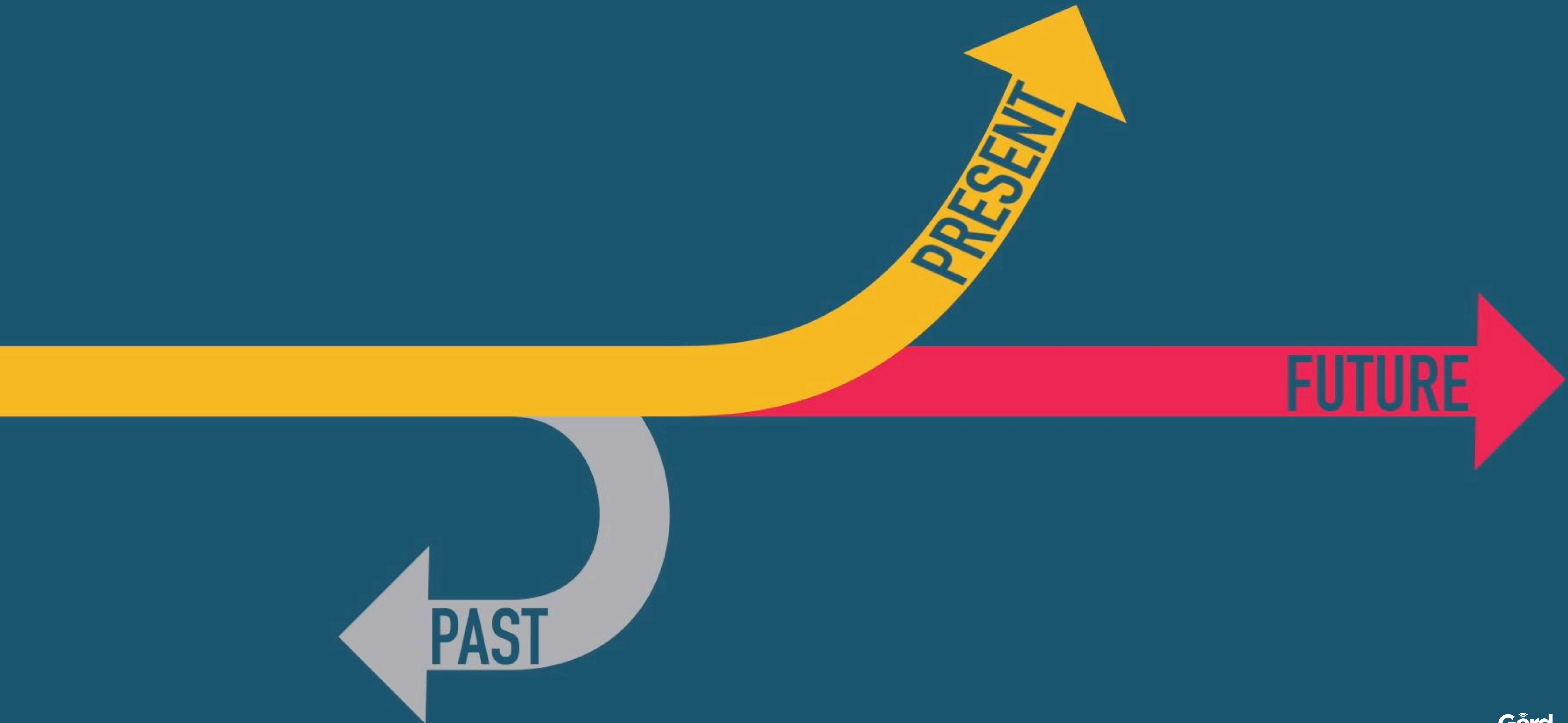


Androrithms

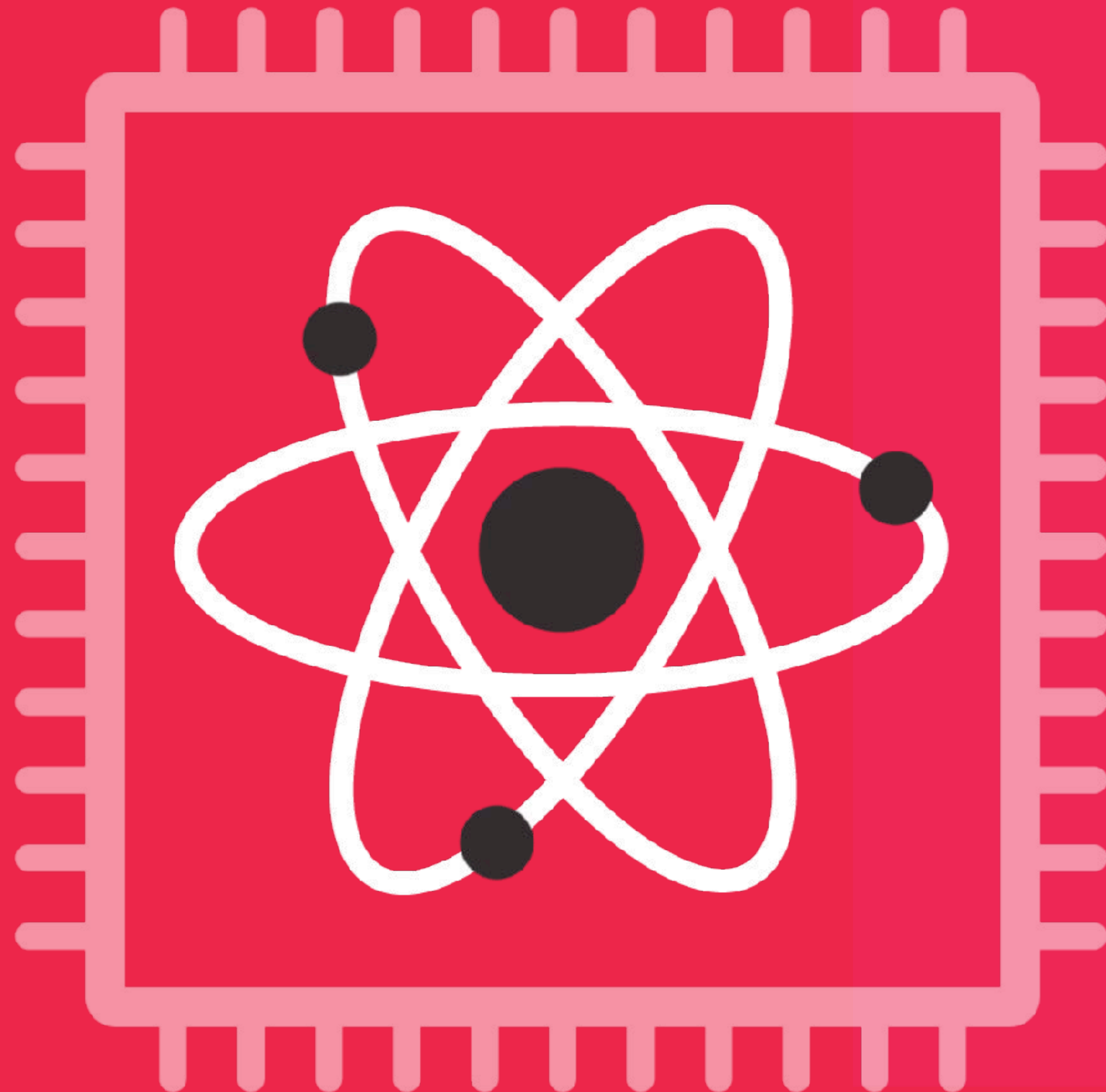


Algorithms

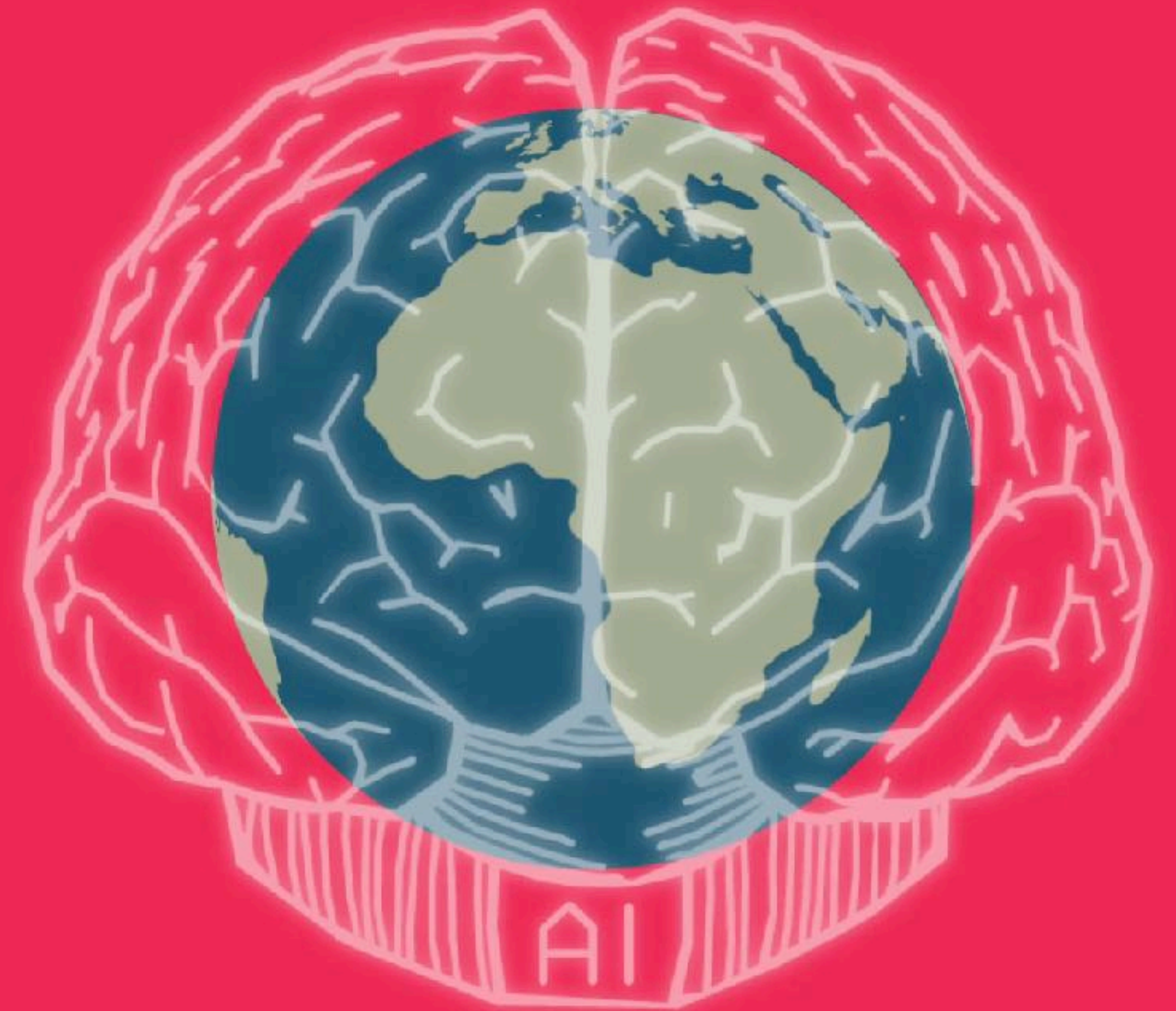
The future is no longer an extension of the present



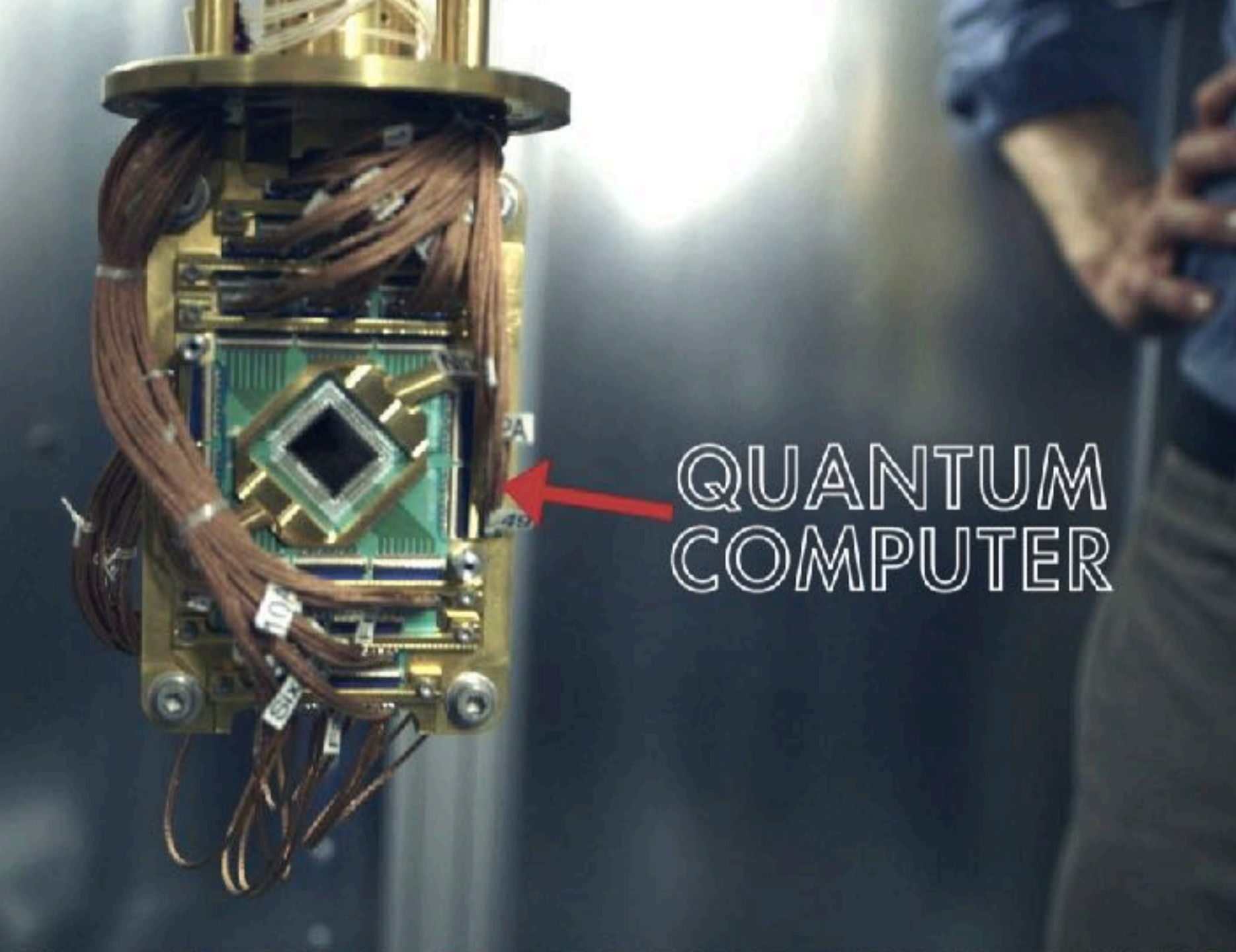
Science fiction is increasingly becoming science fact



Super/Quantum Computing



The Global Brain (AI)



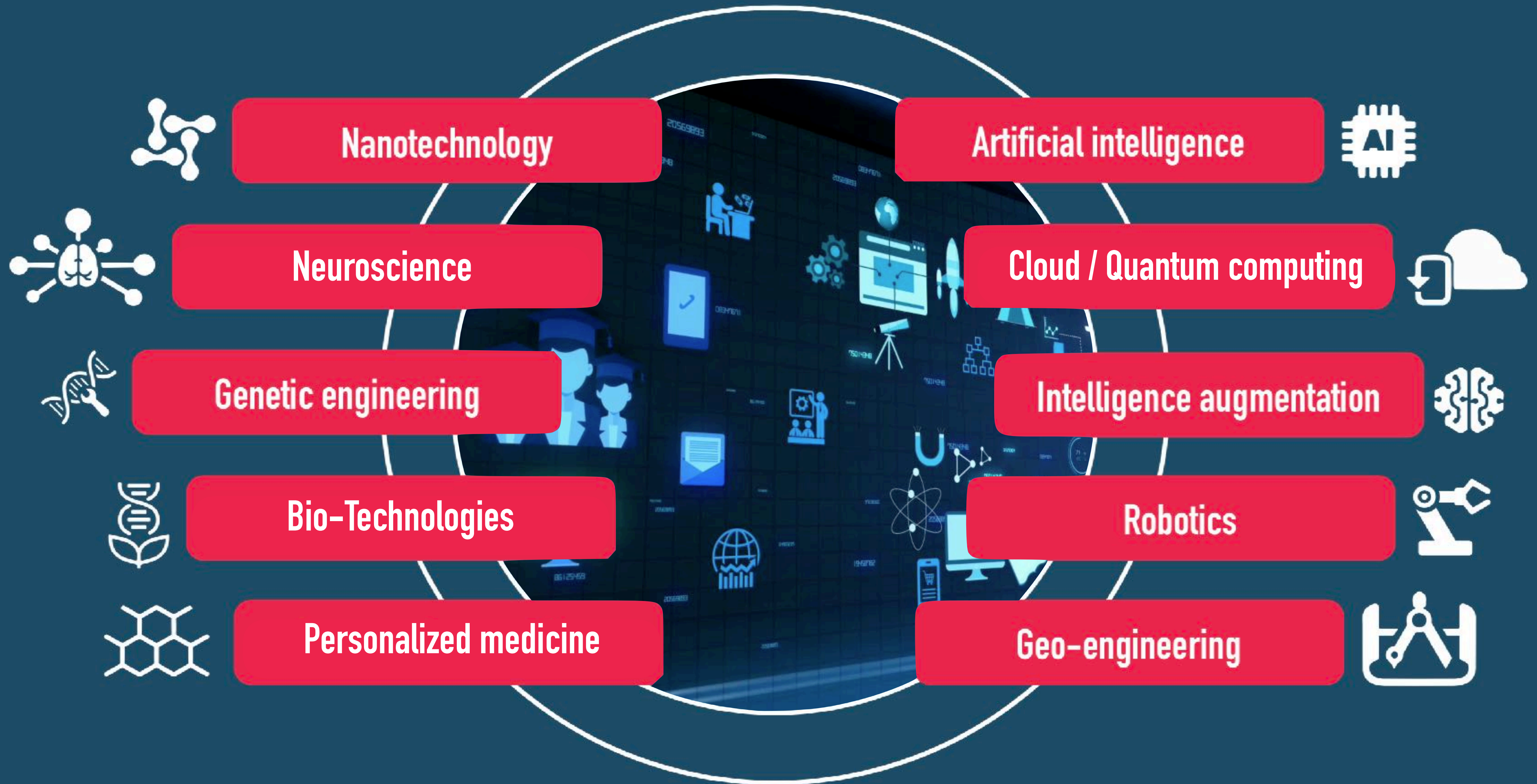
IBM's quantum computing center at the Thomas J. Watson Research Center in Yorktown Heights, New York, holds quantum computers in large cryogenic tanks (far right) that are cooled to a fraction of a degree above absolute zero.







The end of 'Business as usual': Convergence and Interdependence

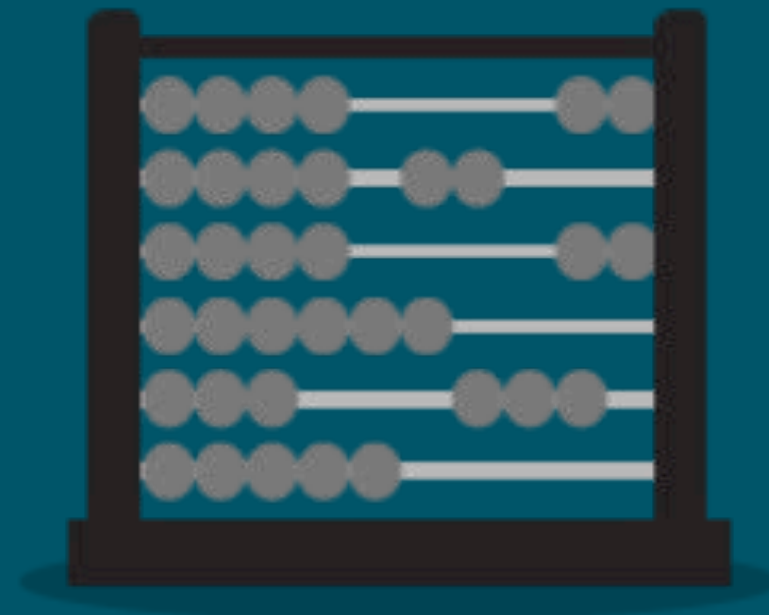


So, tell me more
about your fear
of AI....



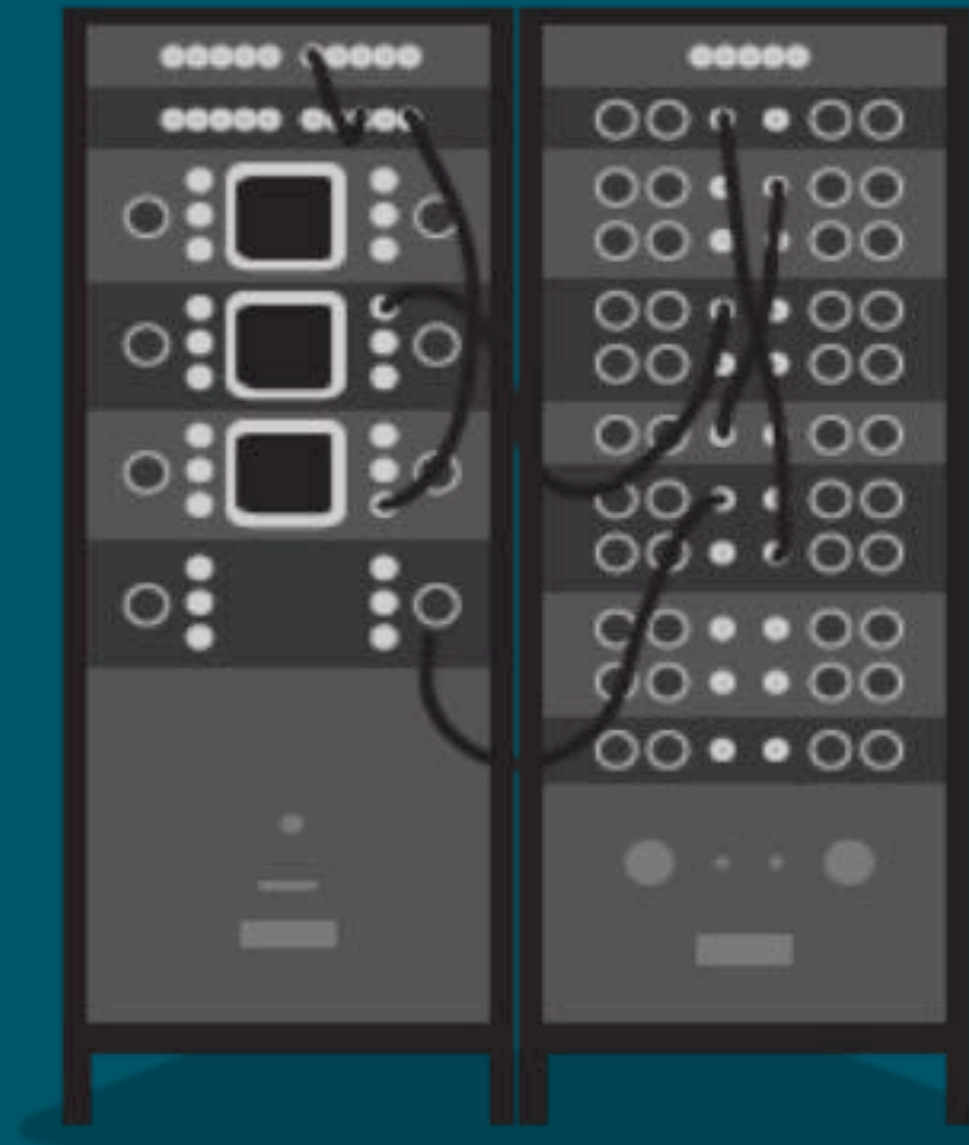
Artificial Intelligence: Computer systems that turn information and data into KNOWLEDGE

(Demis Hassabis @ DeepMind)



*Tabulating
Systems Era*

1900



*Programmable
Systems Era*

1950



*Cognitive
Systems Era*

2020

Artificial Intelligence: Computer systems that turn information and data into KNOWLEDGE

(Demis Hassabis @ DeepMind)

Tacit Knowledge?
Implicit Knowledge?
Intuition & Imagination ?
Consciousness/Agency ?
Serendipity?



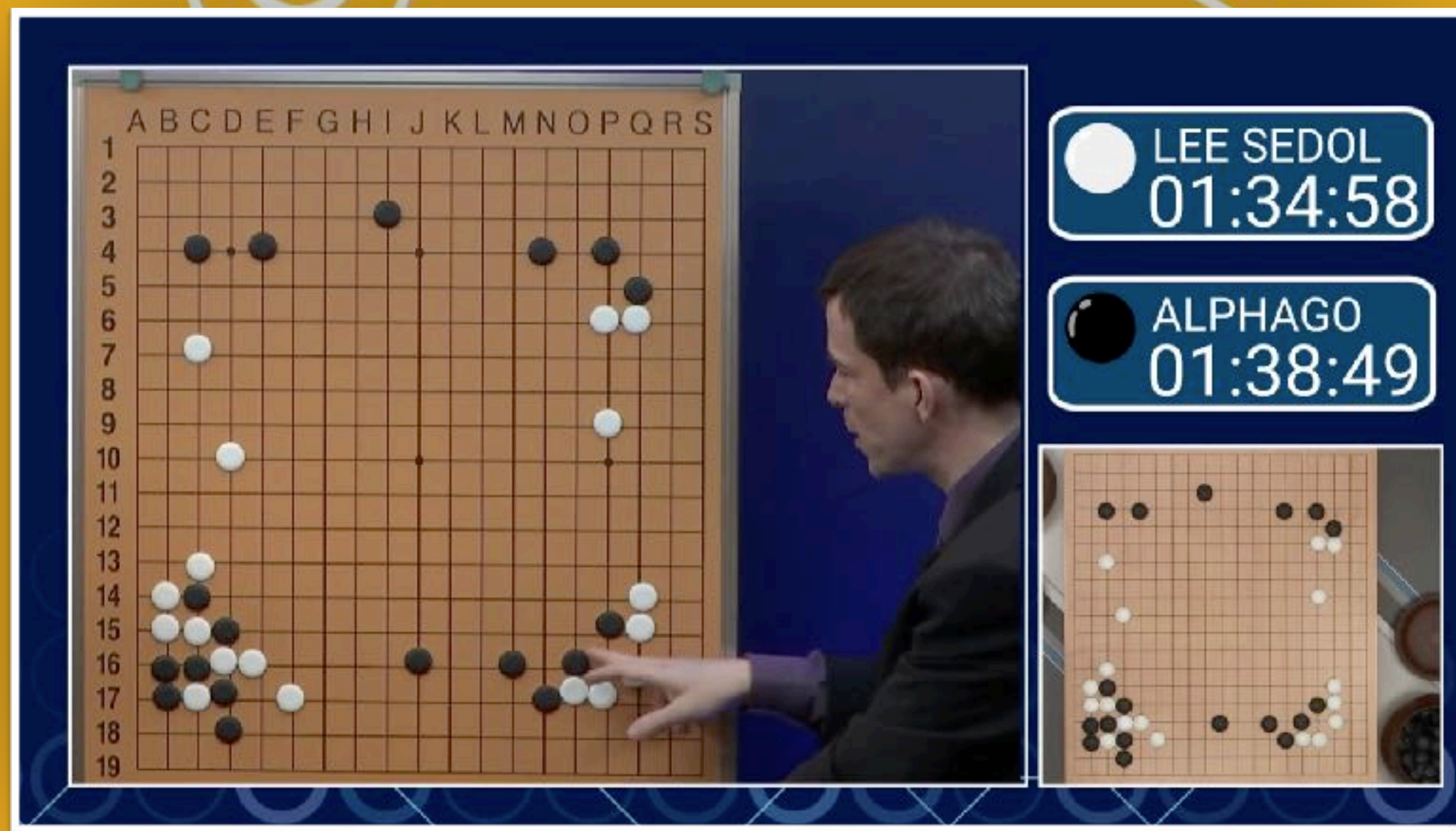
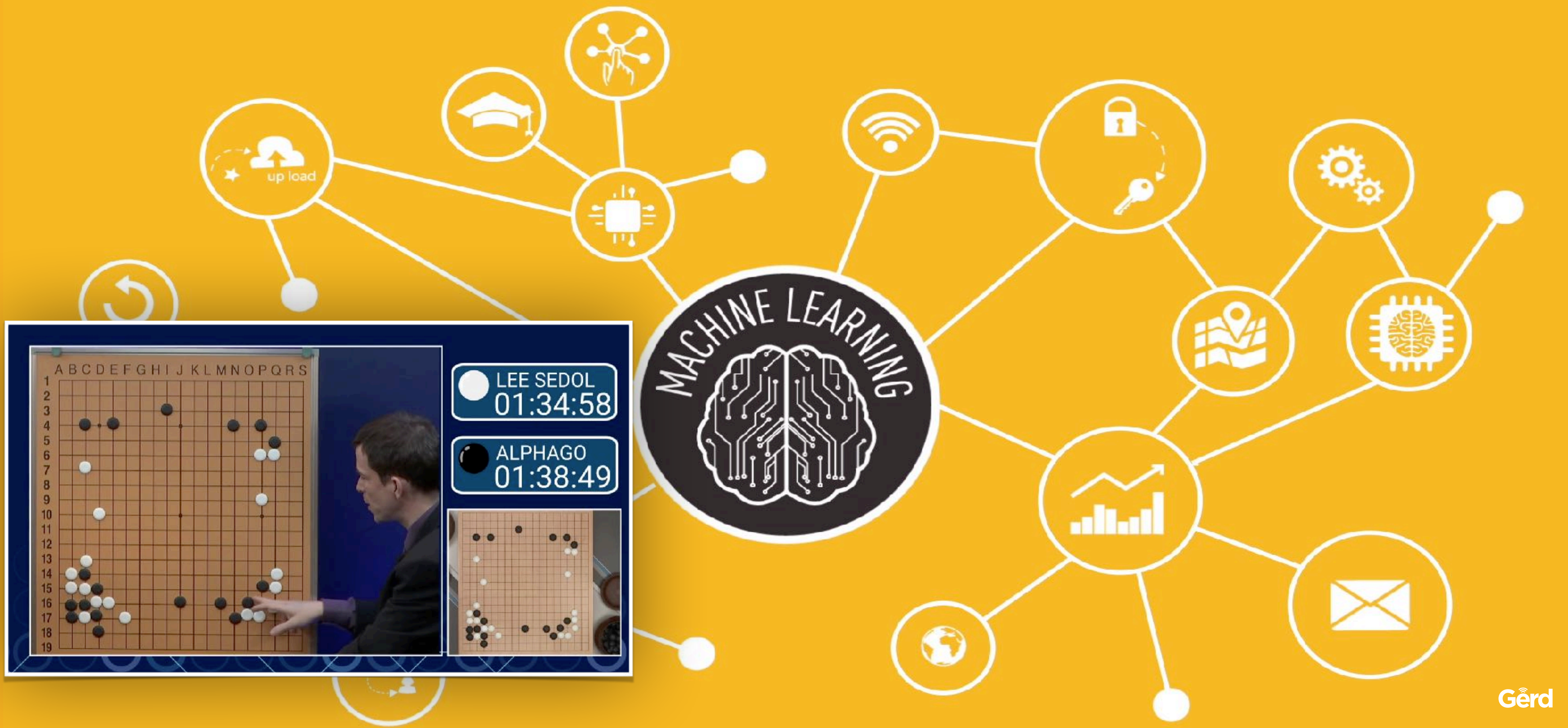
*Cognitive
Systems Era*

1900

1950

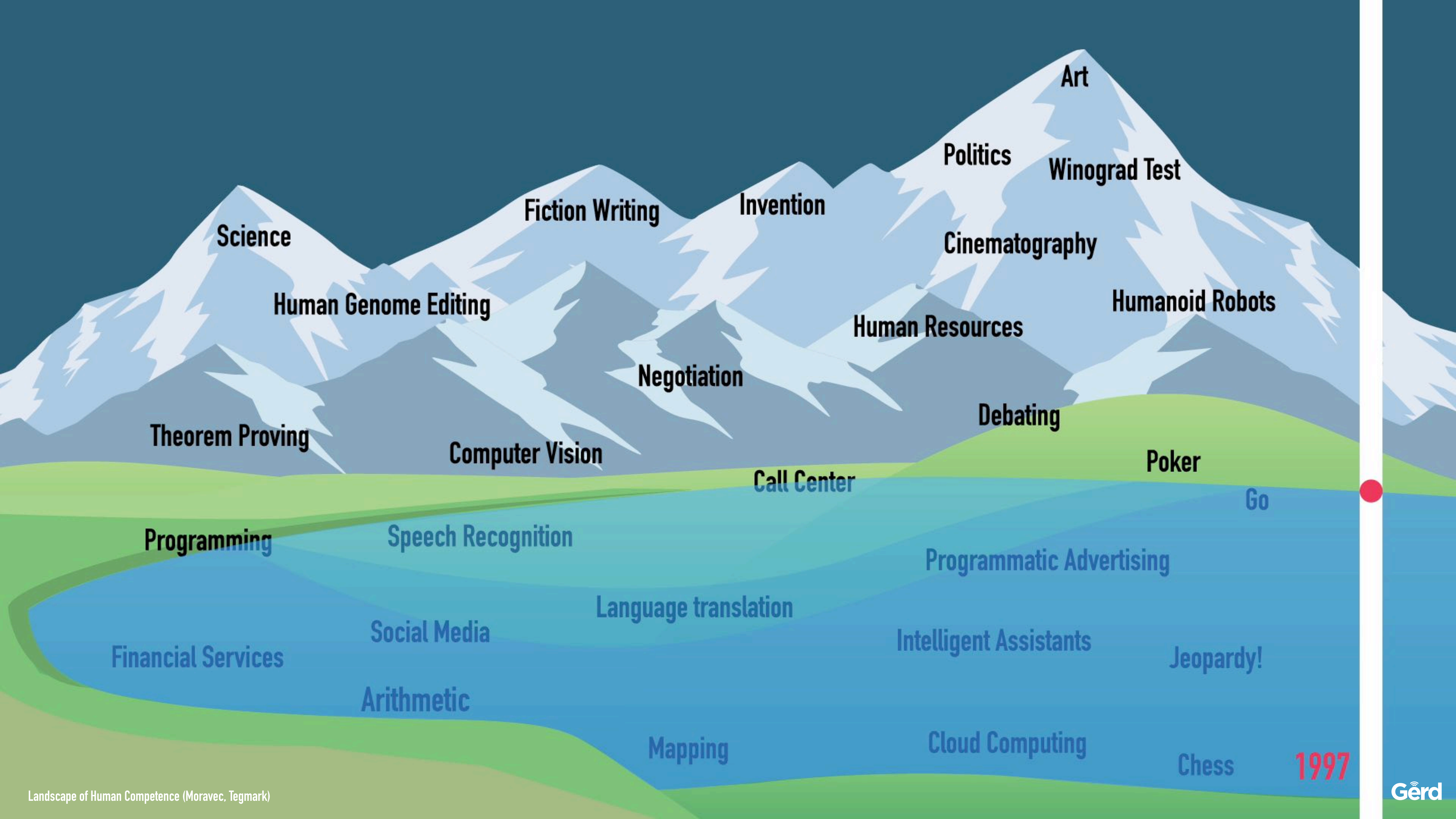
2020

“Machine learning is the science of giving computers the ability to learn and find insights without explicitly programming the machines on what to do”



We think with the body not just with the brain! (Seligman, Feldenkrais et al)







The Future Of A.I.

Forecasted cumulative global artificial intelligence revenue 2016-2025, by use case (U.S. dollars)



The
immediate
future:
Intelligent
Assistance
(IA – not AI)

Here, soon: speaking to machines 'like speaking to a friend'





Alright, I'll call to book under your name and phone number, and I'll update you in the next fifteen minutes. Is that okay?

El Cocotero
Reservation details

June 12, 7:00 PM (or 7:00 to 8:00 PM)
2 People
228 W 18th St #1, New York, NY 10011

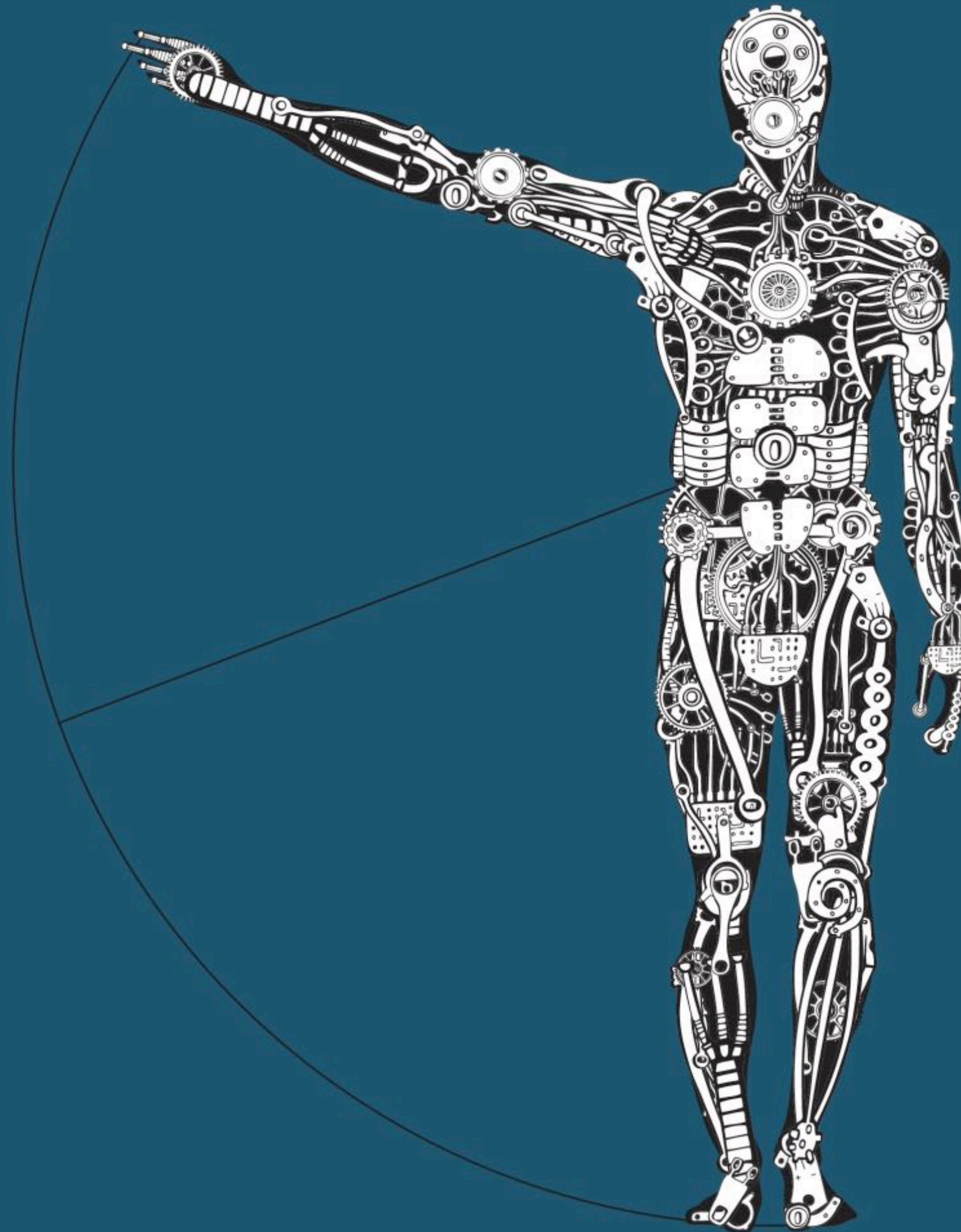


Under Anna Davis
tel: (650) 273-7808



**“Organisms
are
Algorithms” ?**

**“Organisms
are
Algorithms” ?**



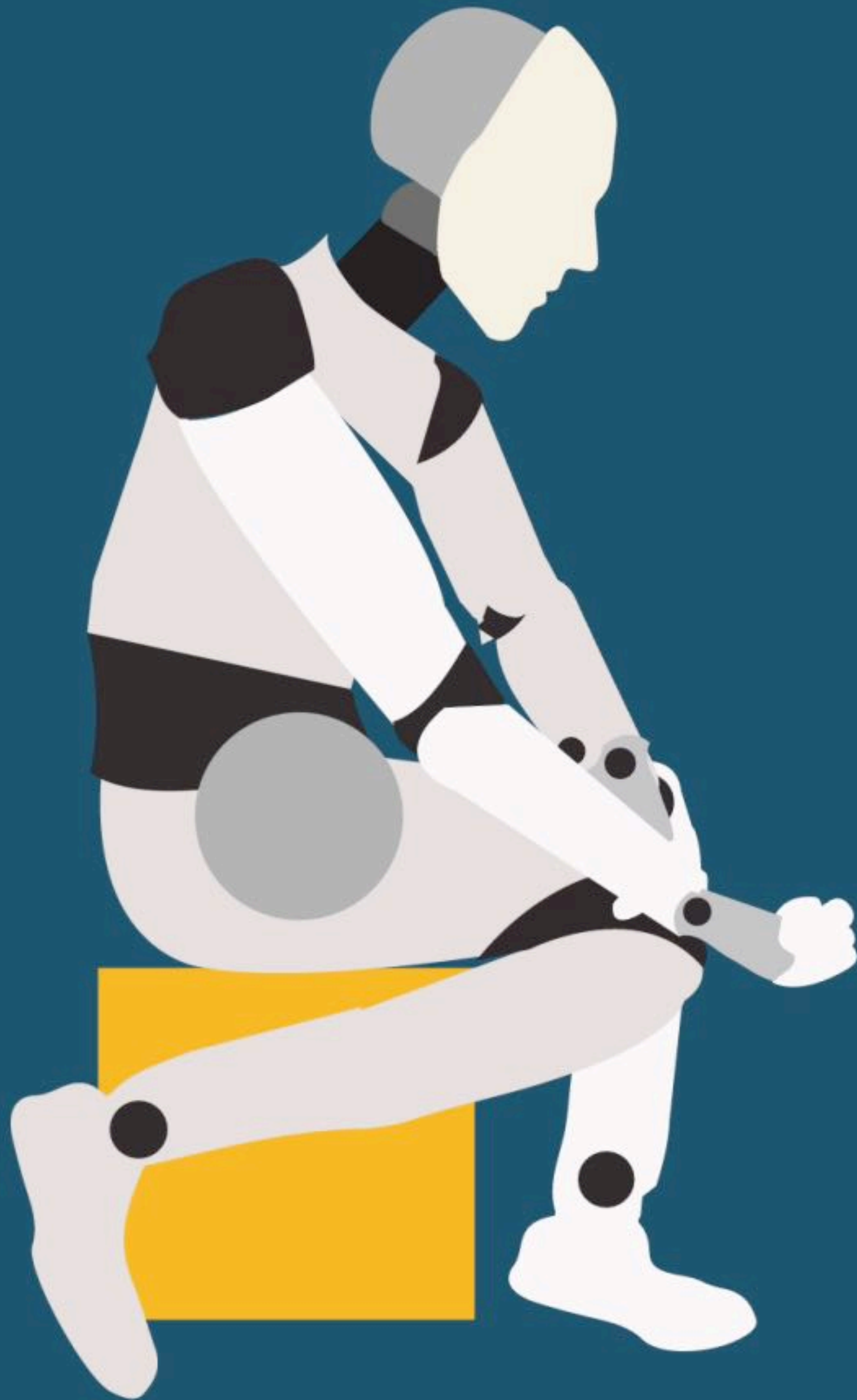
“Big business decisions will be made not by experts or intuition but by big data and predictive analytics”



 **CBS THIS
MORNING**

GOOD THINKING

IBM CEO ON USING TECHNOLOGY TO TACKLE CHALLENGES



**Machines
don't do
relationships!**

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



#dataism

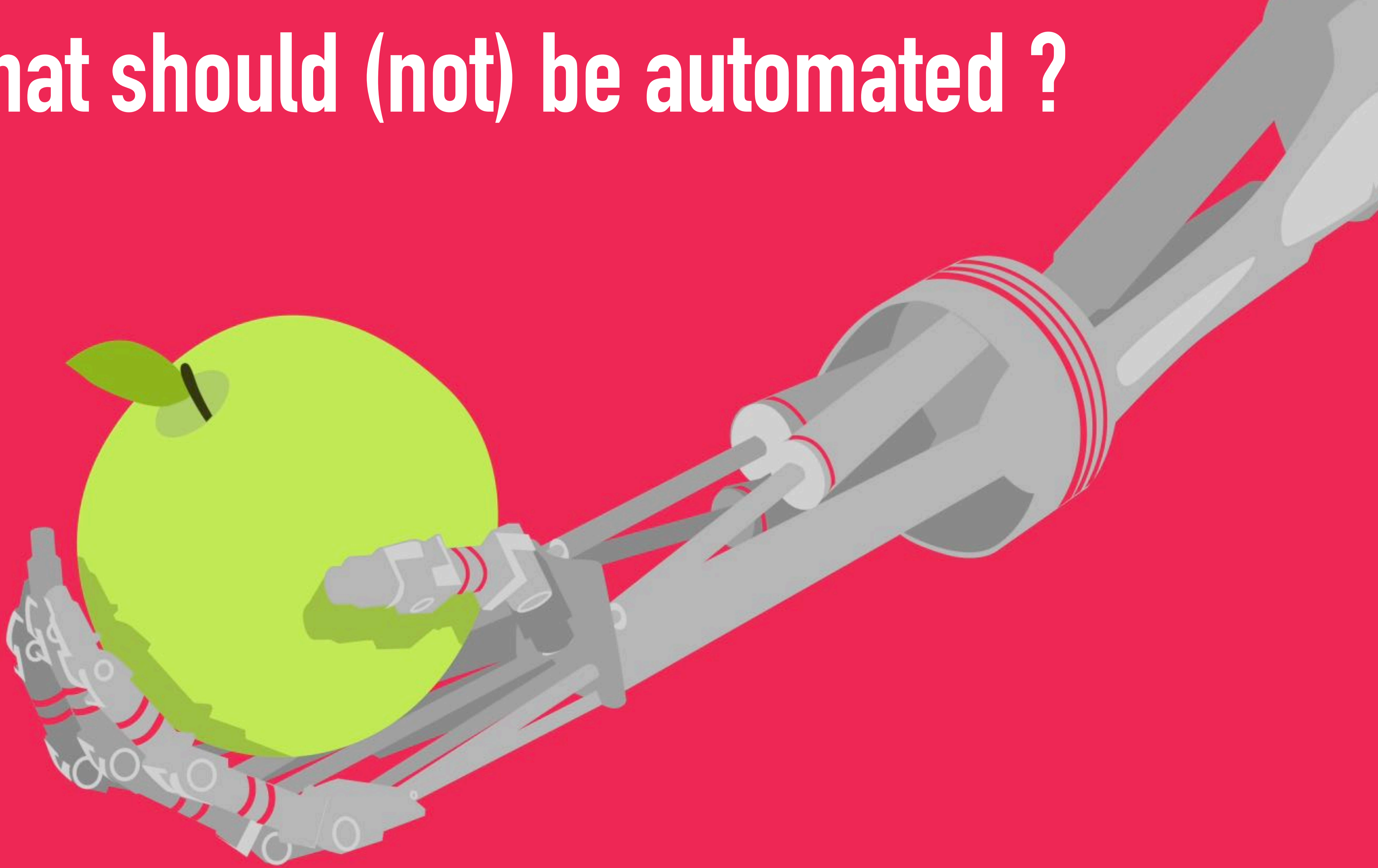


“We are least aware of what our minds do best. The most difficult things for machines to emulate are those that are unconscious” (Moravec, Minsky et al)

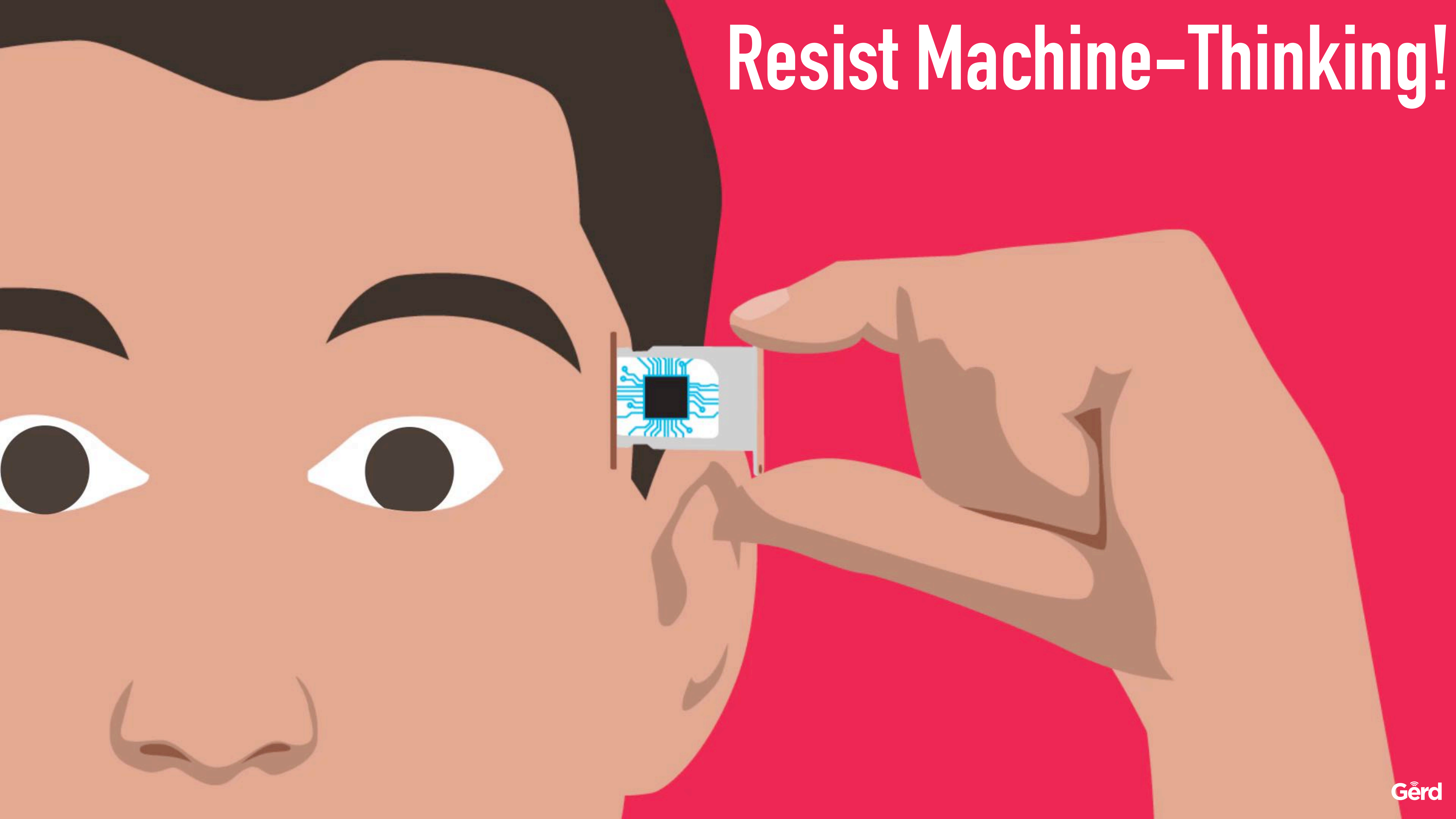
“Computers are already vastly superior to us at certain specialized tasks. Human beings may not be best at much, but we’re second-best at an impressive range of things” (NYT)

“Algorithms outperform human intelligence when it is NOT about understanding emotional states, intentions, interpretations, deep semantic skills, consciousness, self-awareness and flexible intelligence*” (Luciano Floridi)

Ask: what should (not) be automated ?



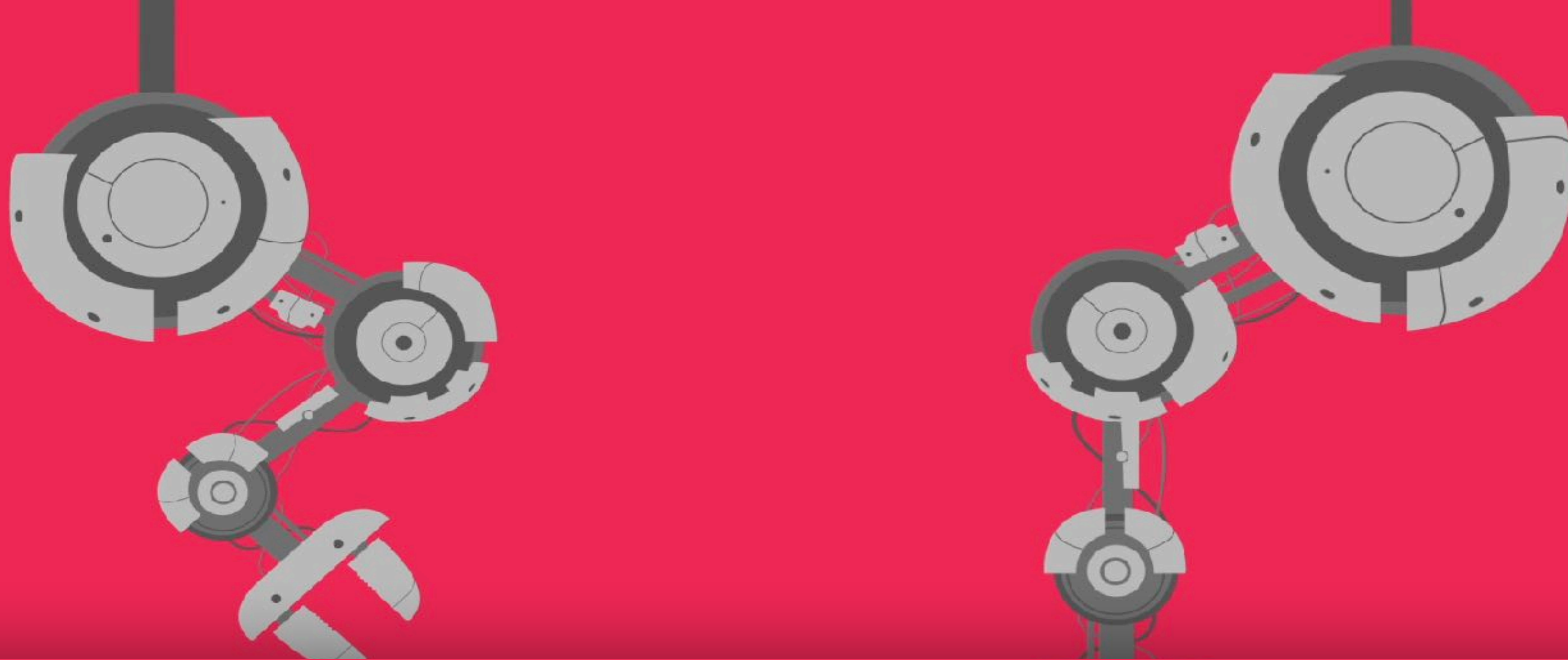
Resist Machine-Thinking!



(Not really)



The End of Routine is coming



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

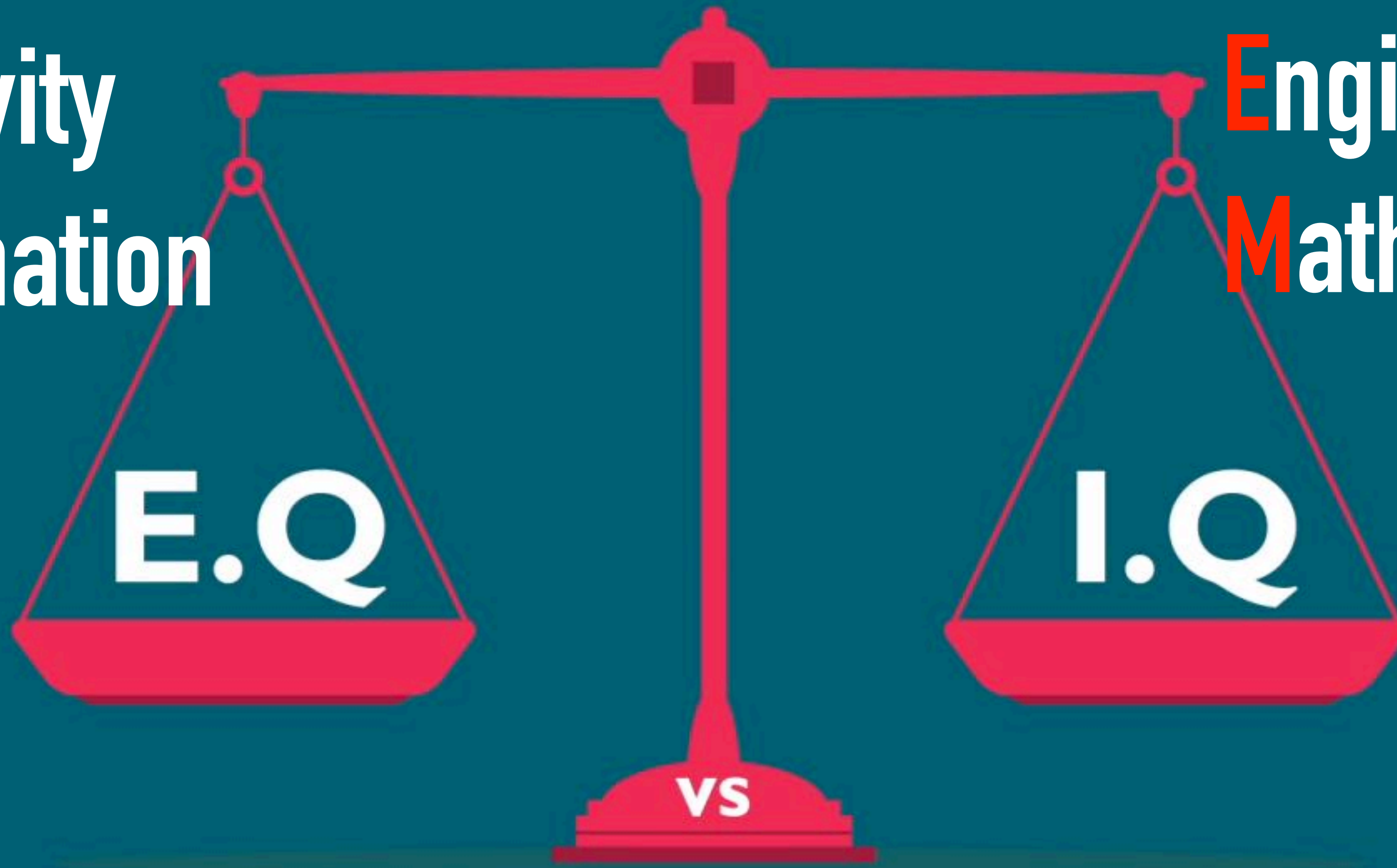
ROUTINE

Humanity

Ethics

Creativity

Imagination



Science

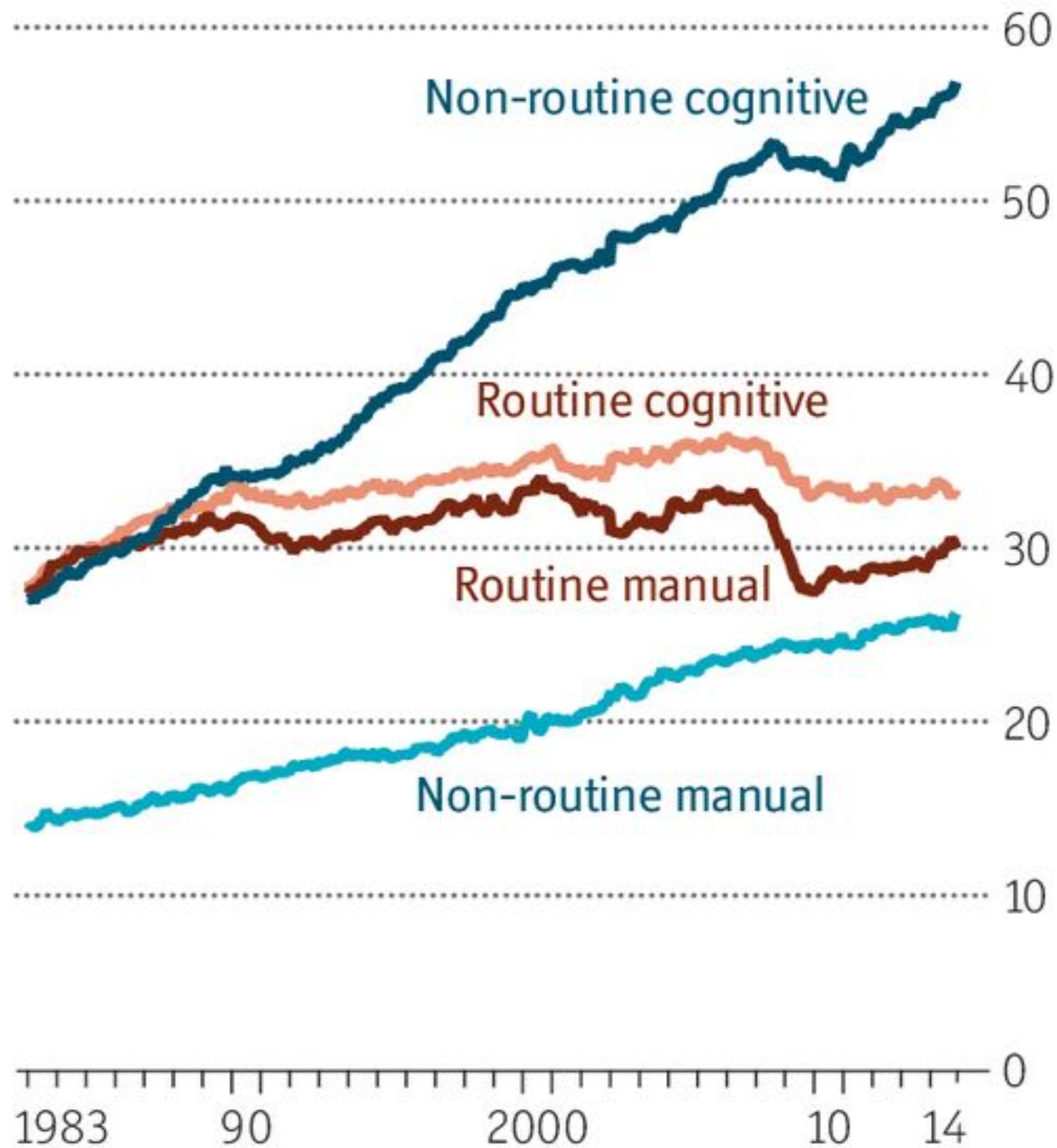
Technology

Engineering

Mathematics

Think

United States employment, by type of work, m



Sources: US Population Survey; Federal Reserve Bank of St. Louis

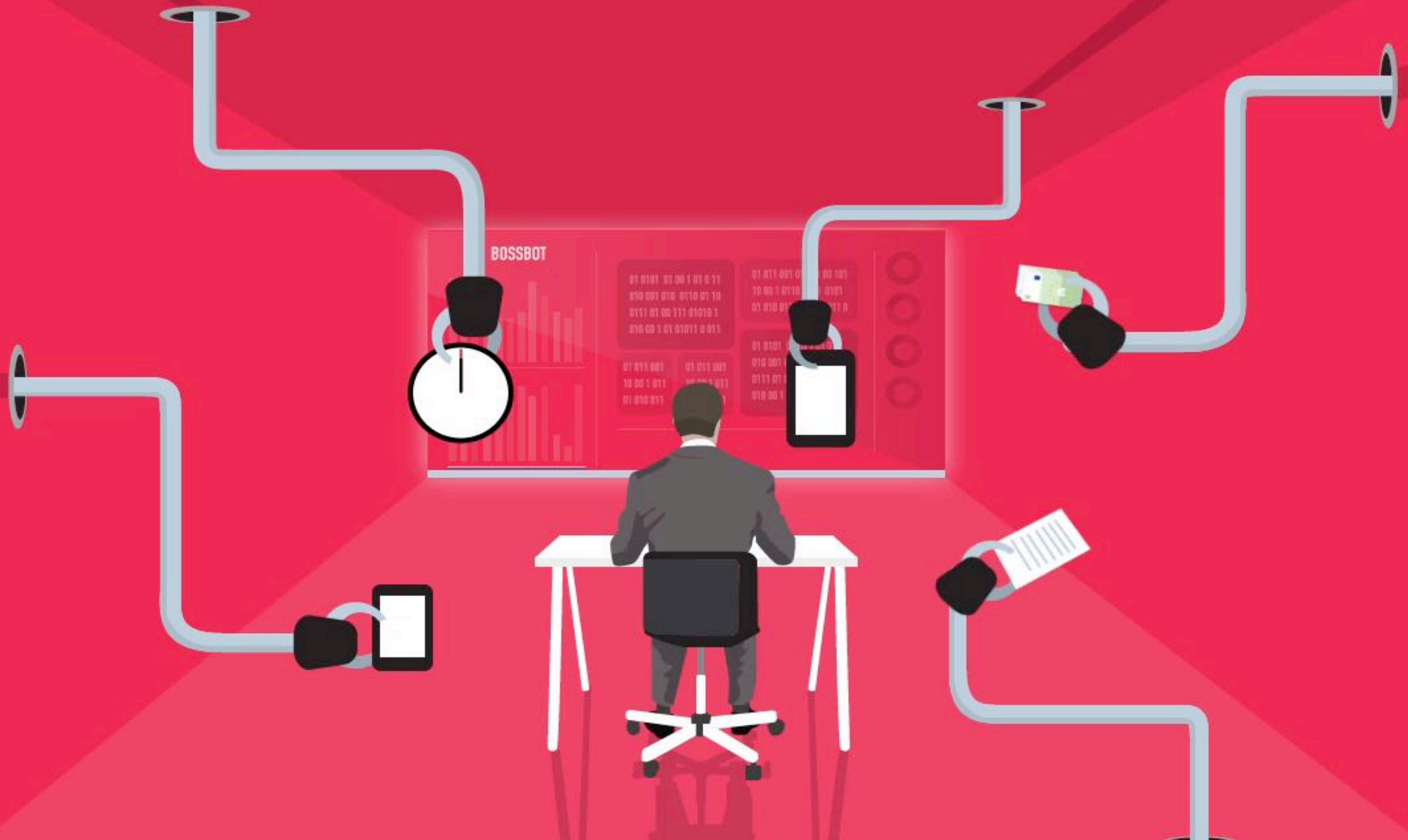
Marks & Spencer replacing call centre staff with AI

[Full screen](#)

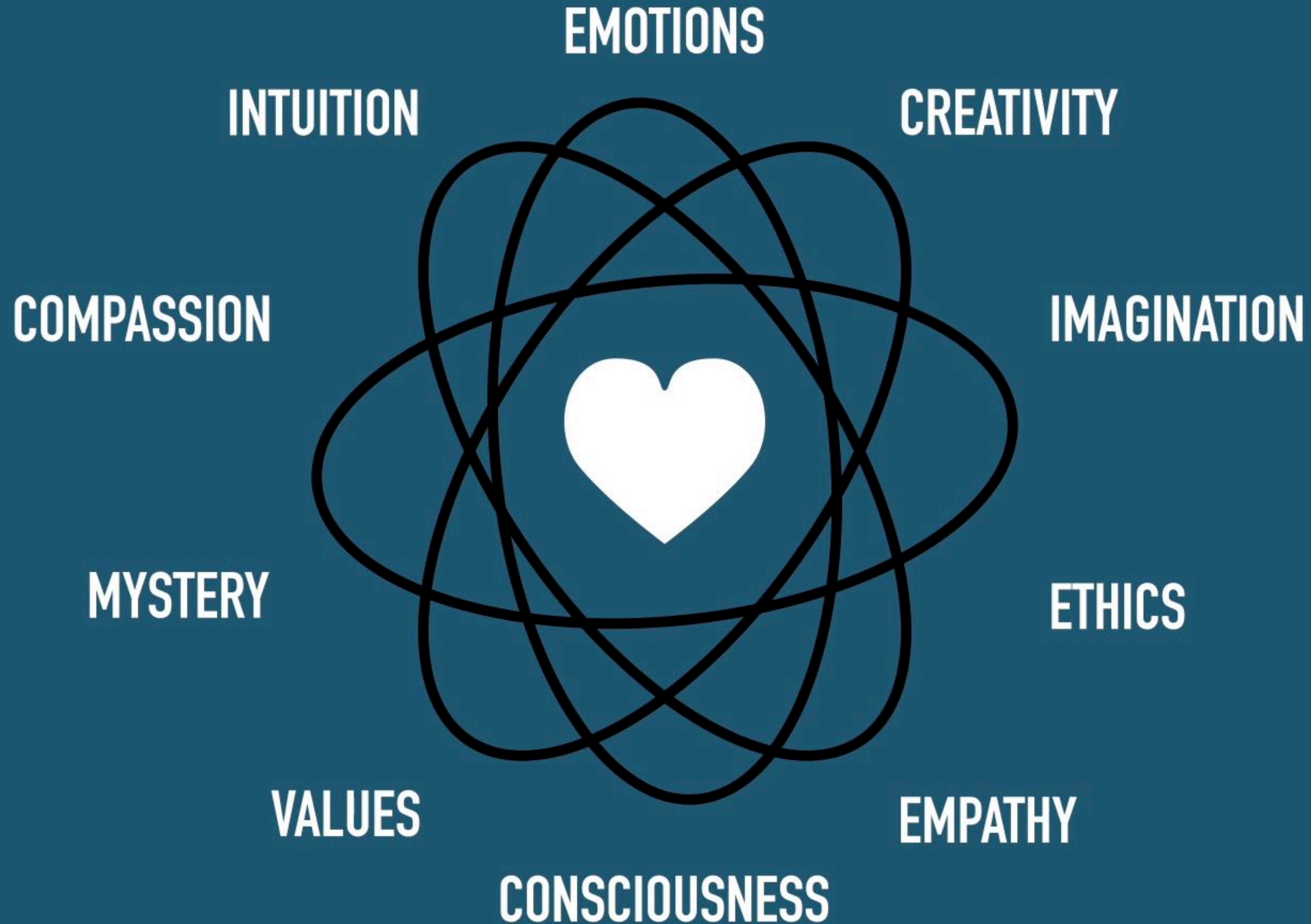


Marks & Spencer is replacing switchboard staff with artificial intelligence to increase the speed it deals with customer complaints and queries.

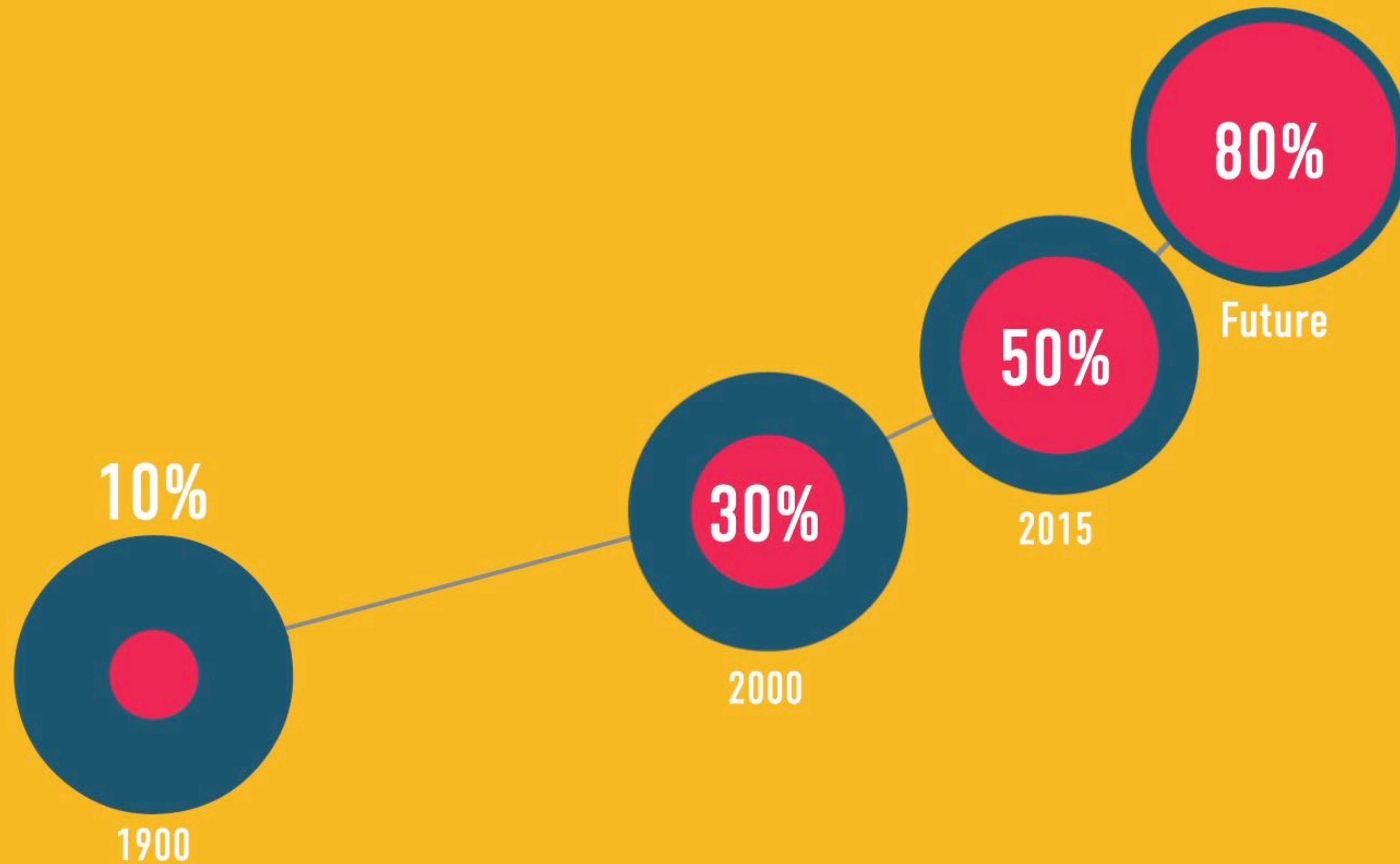
(Not the future of work)



Anything that cannot be digitized or automated will become extremely valuable



The percentage of our tasks that is 'human-only' will dramatically increase



Huge transition challenges but ultimately a promising future

- 70% of the new jobs in 2030 haven't even been invented yet (Oxford)
- Only 5% of all routine jobs can be fully automated (Mc Kinsey)
- In the last 10 years, 94 % of totally new kinds of jobs have appeared outside of traditional employment (Cornell study)
- By 2030 we are likely to see the first countries where more than 50% of people will work 'gigs' i.e. do freelance, on-demand, entrepreneurial work (Gerd)
- Within 20 years, we may be able to detach money from work (and purpose!)

The coming shift in economic logic: the basic income (UBI)



Abundance image via Peter Diamandis

Elon Musk Thinks Automation Will Lead to a Universal Basic Income

David Z. Morris • November 6, 2016, 1:14 PM EST



"I'm not sure what else one would do."

Smart everything

Cloud everything

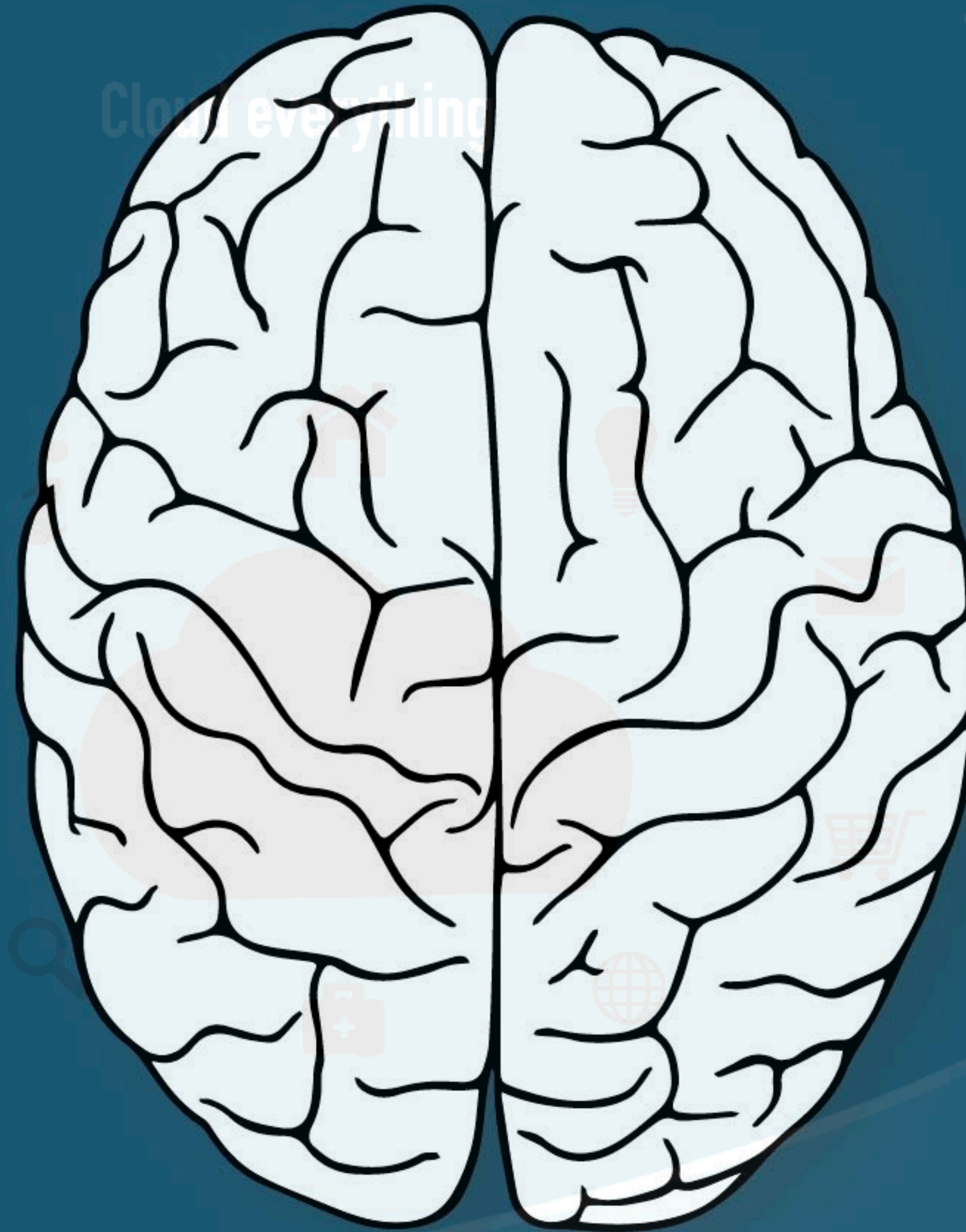
Data everything



Smart everything

Cloud everything

Data everything



Technology is exponential but humans are not



Machine 'smartness' will become abundant but humanness will become even scarcer

Focus less on efficiency, and more on purpose, experience and transformation



Up-skill for exponential change: adopt a 'Future-Mindset'

EXP
COMBINATORIAL
NE
CONVERGENT
INTERDEPENDENT
I
HUMAN-CENTRIC
HOLISTIC



Imagine

Create



The Atlantic

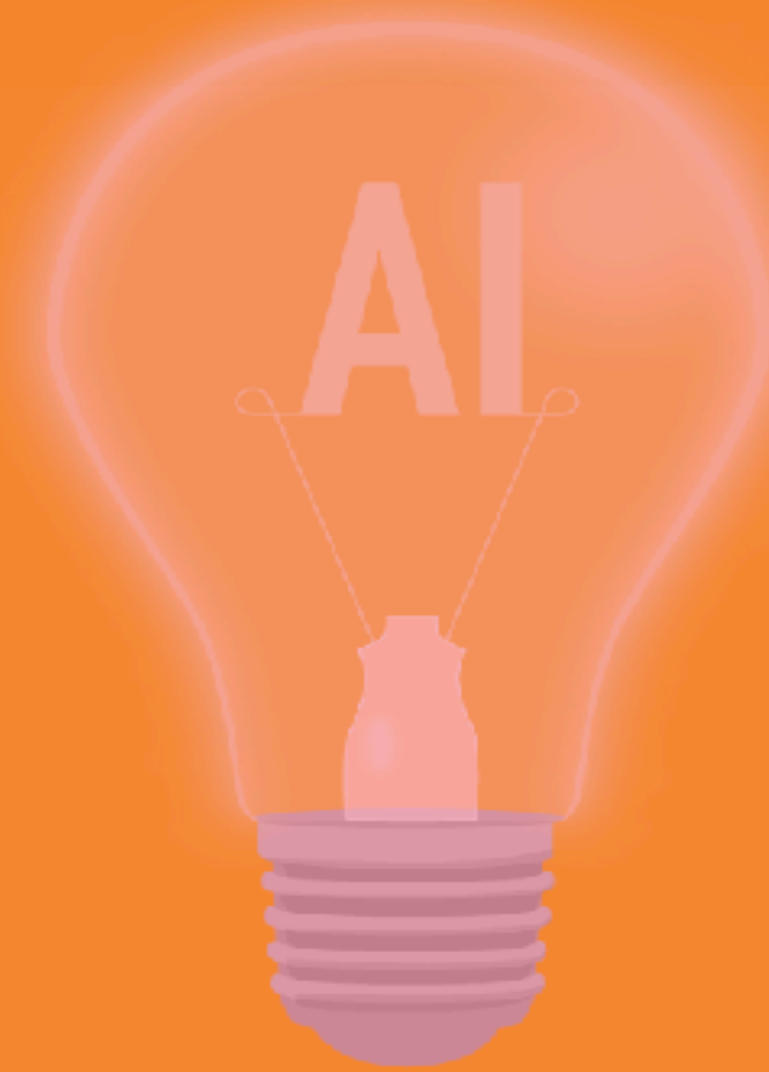
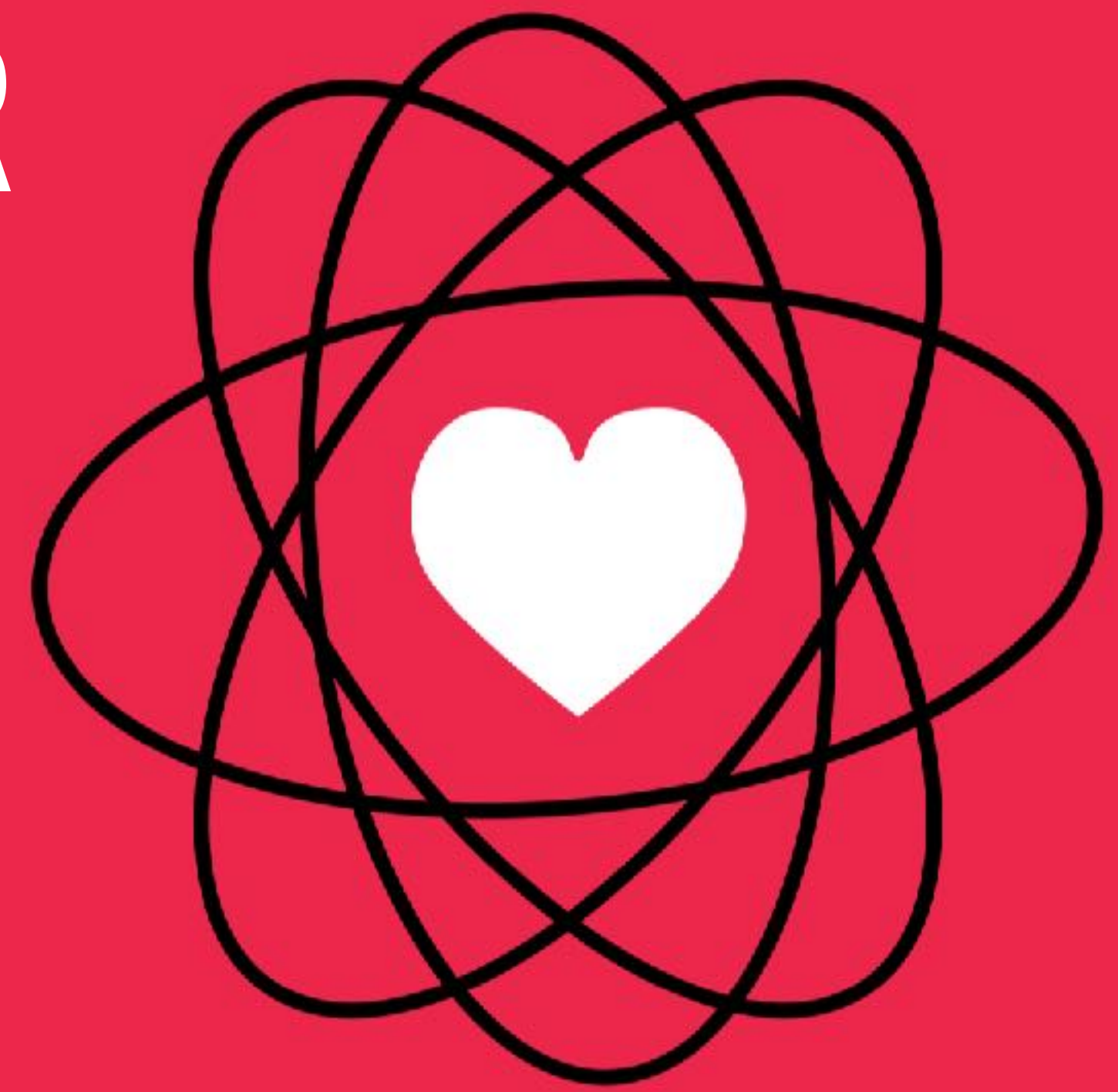
Focus on practical wisdom (phronesis) and foresight!

Understand

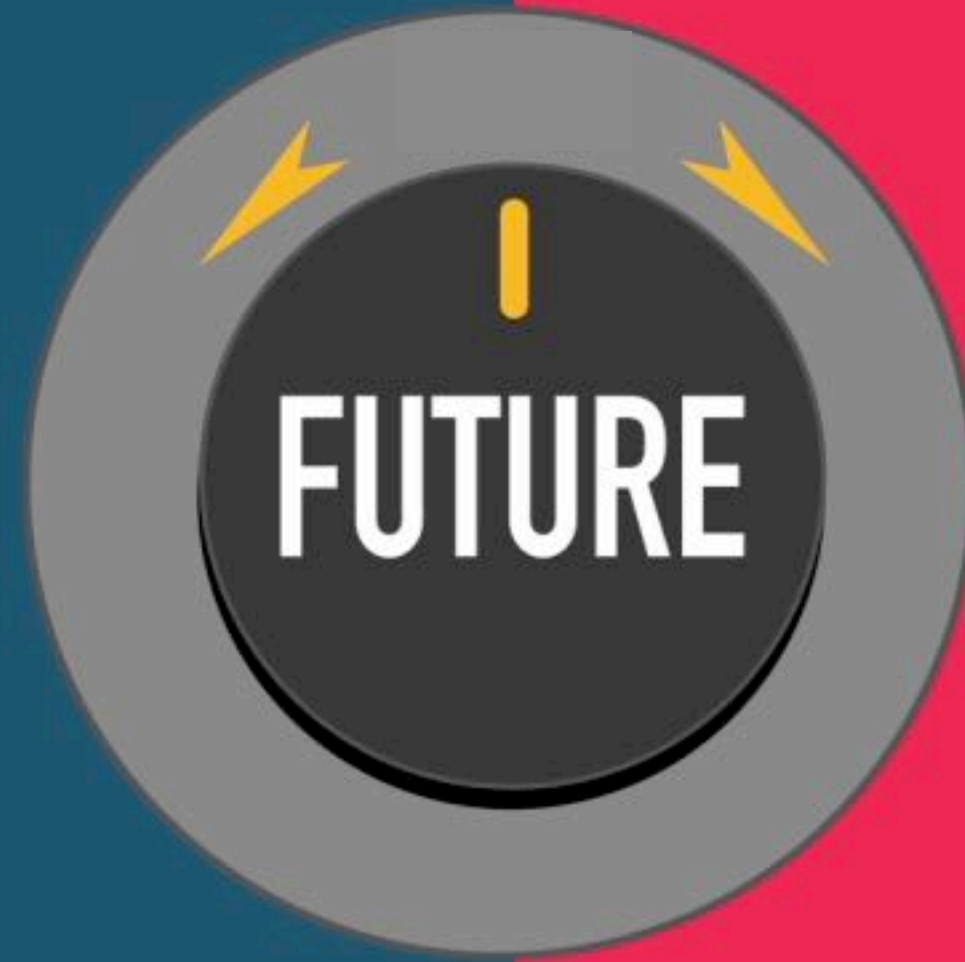
Observe



THE FUTURE OF WORK and HR



Embrace technology but don't become it!





Thanks for
your time!



techvshuman.com



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futuristgerd.com