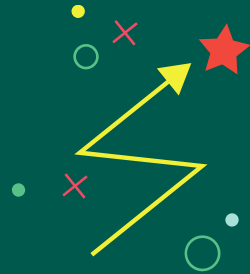




Cambridge Assessment
International Education



What will “**success**” mean in
our transforming world?

VALERIE HANNON
Cambridge September 2018

Everything starts with
the story we tell
ourselves about
ourselves

We need a new
narrative for education,
one that starts with
our **purpose**



WHAT IS LEARNING FOR?

Should this be our explicit purpose?

Today, education has to be about
learning to thrive in a transforming world



Thrive

SCHOOLS REINVENTED
FOR THE REAL
CHALLENGES WE FACE

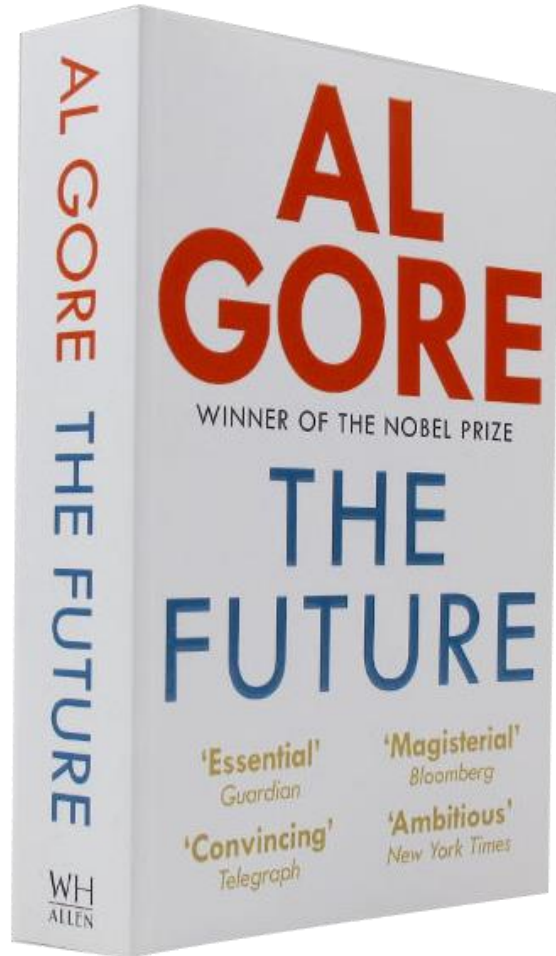
Valerie Hannon
with Amelia Peterson

"Thrive offers a compelling analysis that should inspire and deepen the public conversation about education for all our children, here and now, and for the future."

SIR KEN ROBINSON



What good evidence do we have
about the coming 30 years?



The Future

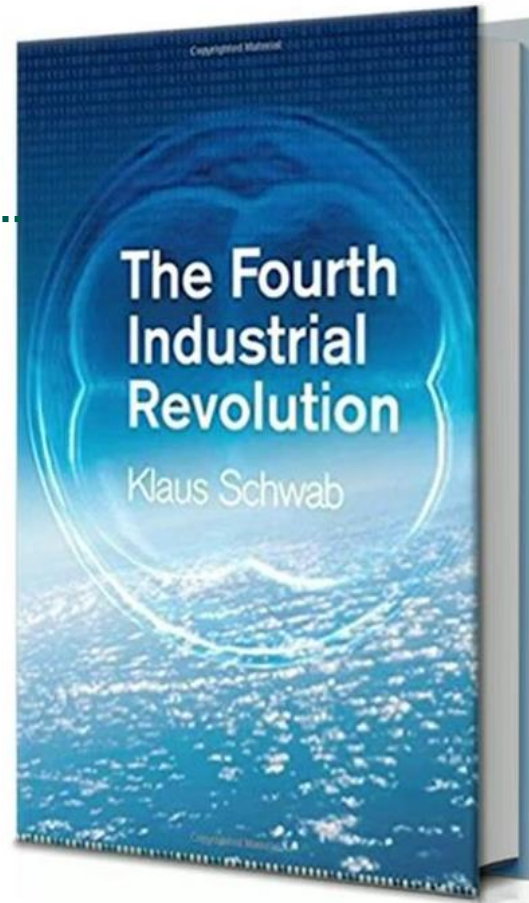
Al Gore

“There is a clear consensus that the future now emerging will be extremely different from anything we have ever known in the past. It is a difference, not of degree, but of kind”

The Future
Al Gore, 2013

The Fourth Industrial Revolution

Klaus Schwab



“The changes are so profound that, from the perspective of human history, there has never been a time of greater promise or potential peril. My concern, however, is that decision makers are too often caught in traditional, linear (and non-disruptive) thinking or too absorbed by immediate concerns to think strategically about the forces of disruption and innovation shaping our future.”

World Economic Forum Founder
and Executive Chairman

Professor Klaus Schwab, Jan 2016



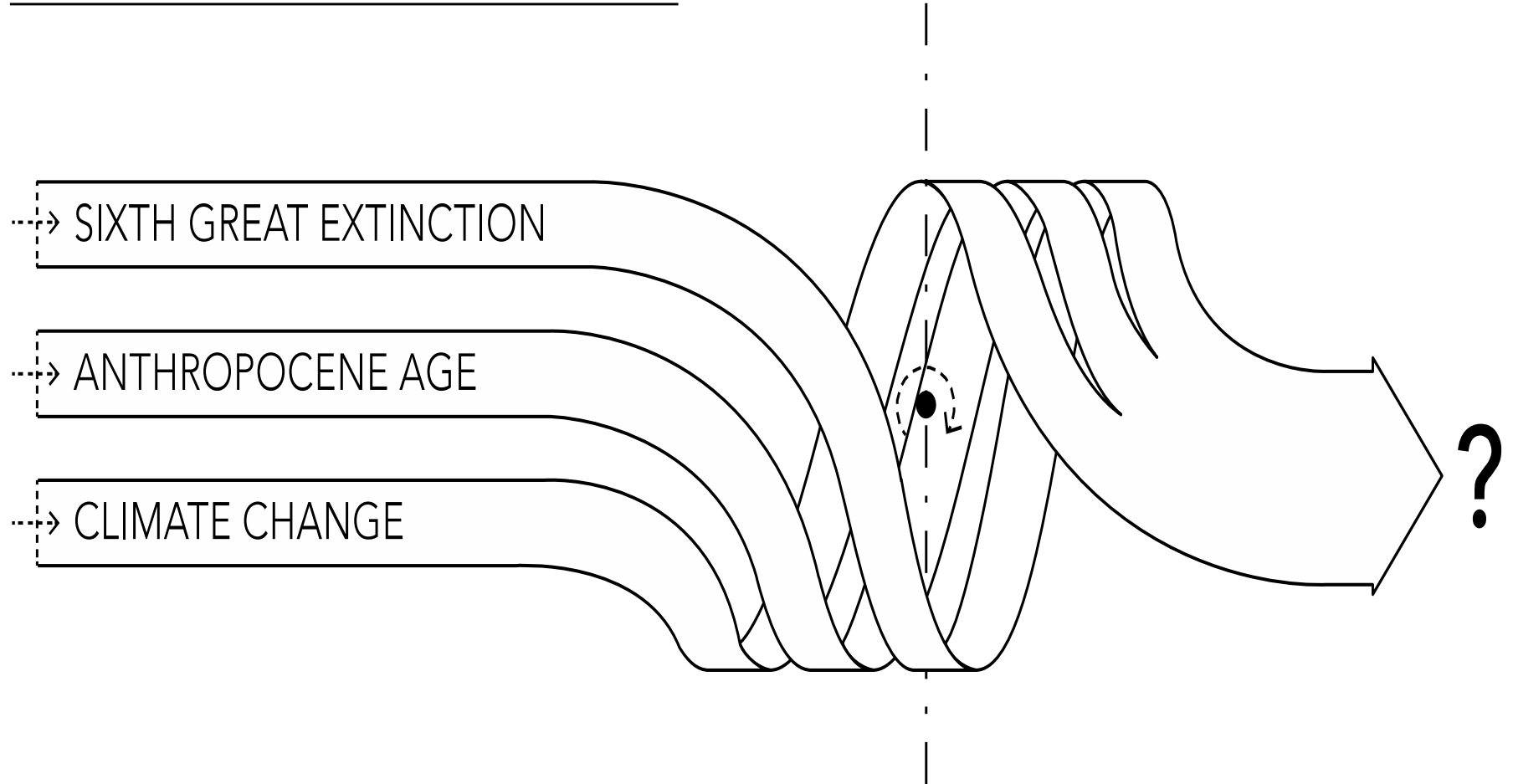
The evidence suggests that 3 major tipping points, or 'pivots' will distinguish the C21st:

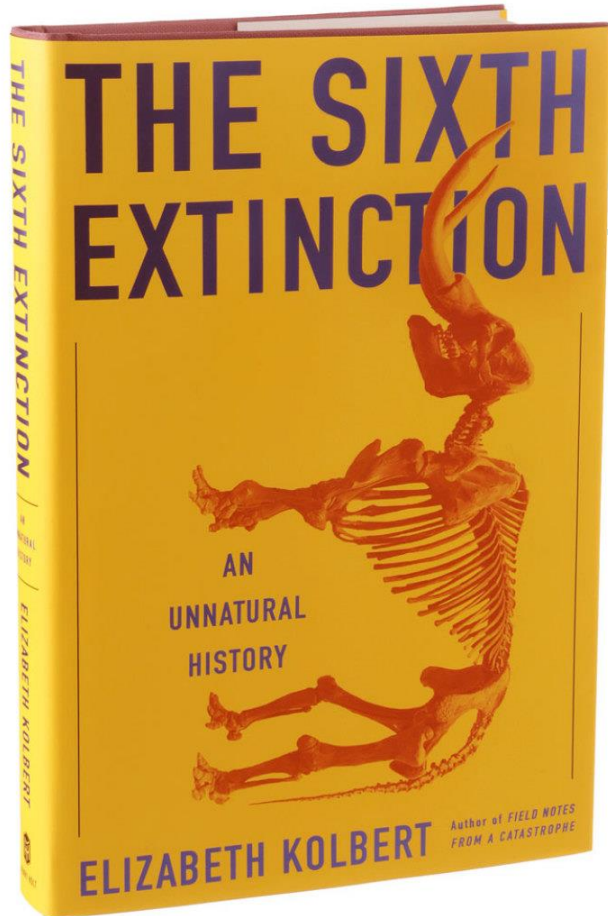
***our planet**

***apothecosis of technology**

***our evolution**

OUR PLANET AT A TIPPING POINT?



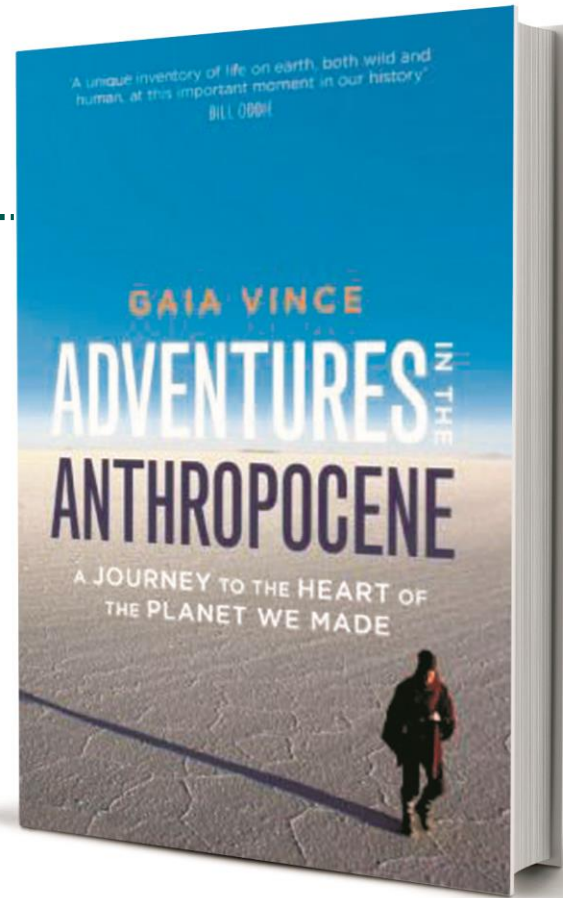


The Sixth Extinction

Elizabeth Kolbert

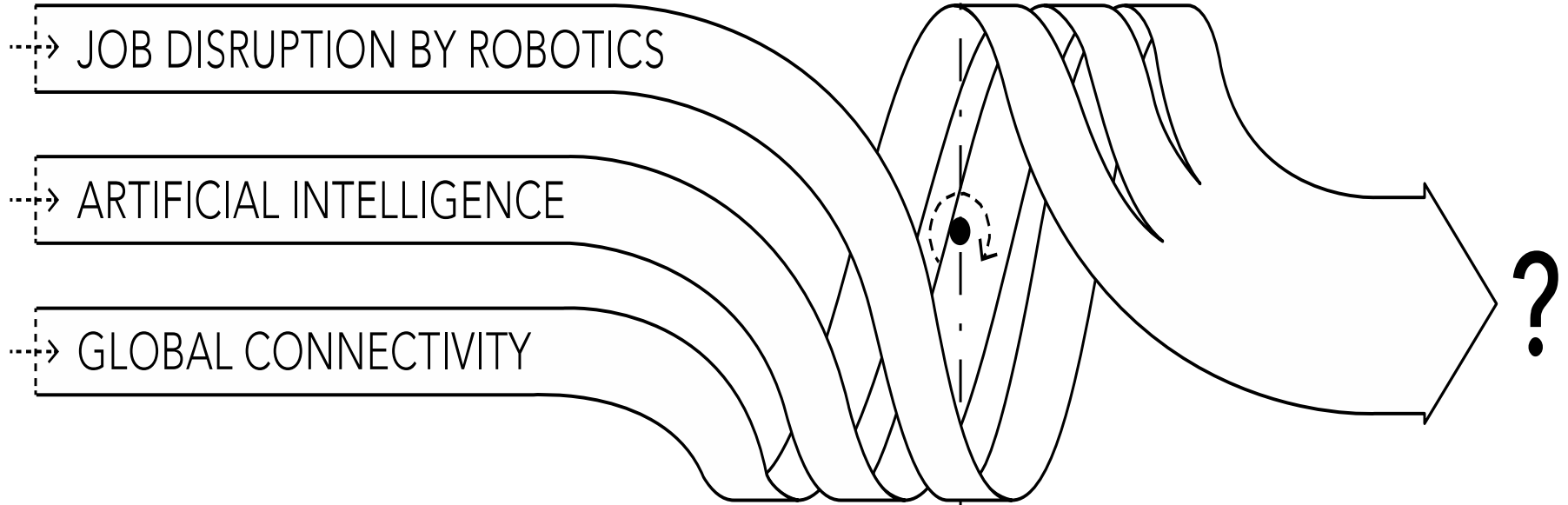
Adventures in the Anthropocene

Gaia Vince

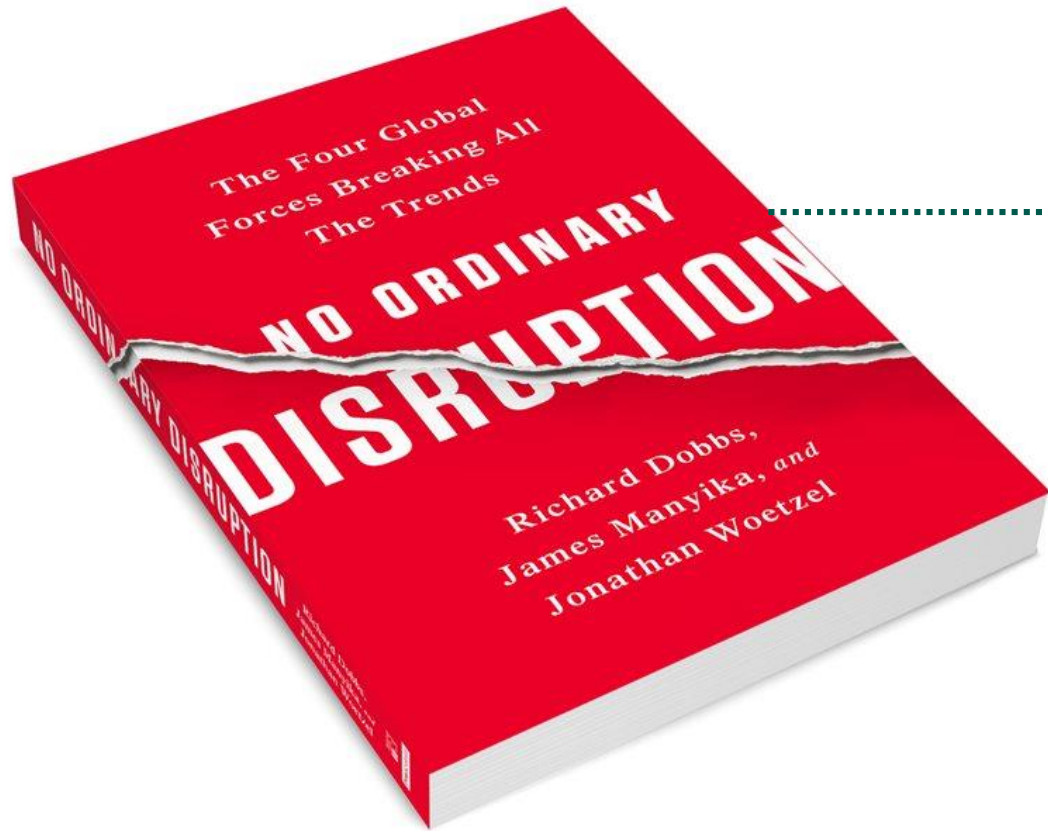




TECHNOLOGY IN CONTROL?







No Ordinary Disruption

*Richard Dobbs,
James Manyika and
Jonathan Woetzel*

Robots will steal your job

Federico Pistono

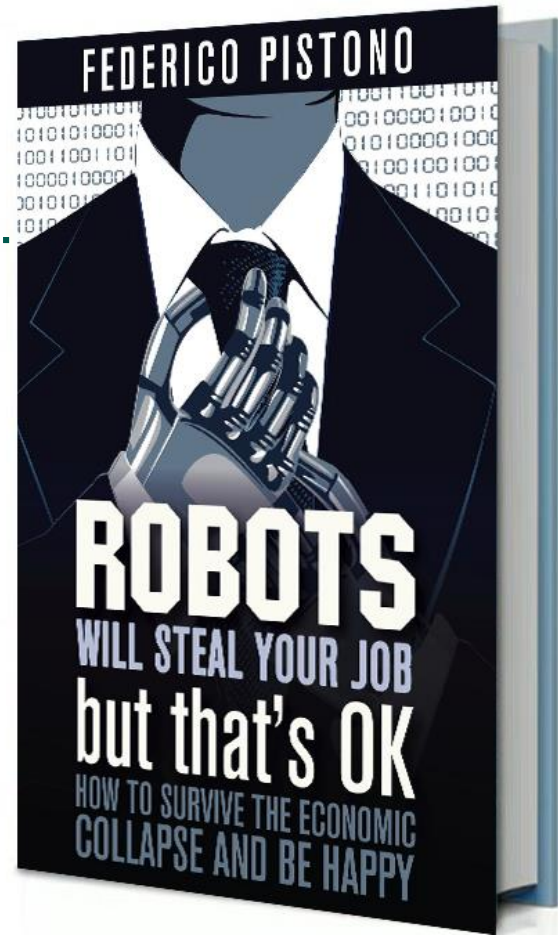
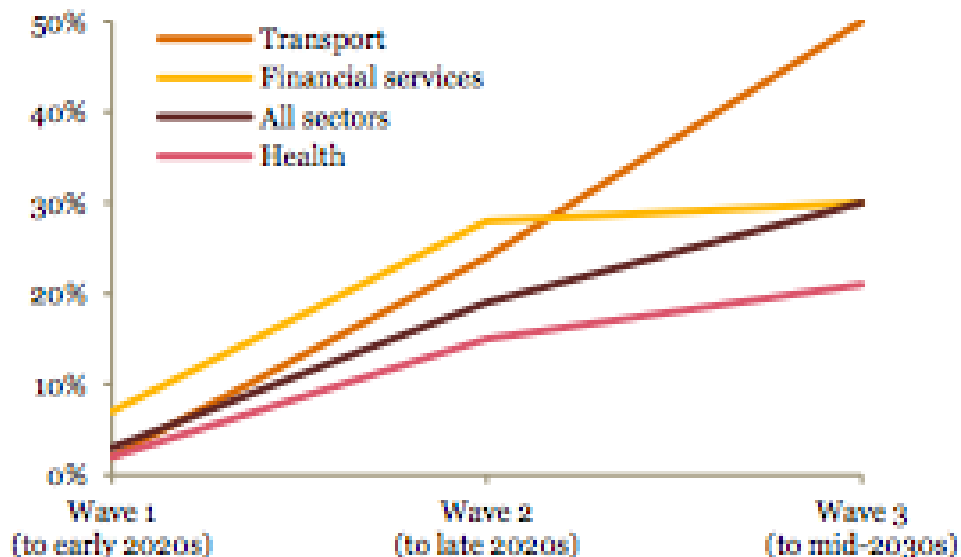


Figure 1 – Potential job automation rates by industry across waves

% of existing jobs at potential risk of automation



Source: ProC estimates based on OECD PIAAC data (median values for 29 countries)



\$15tn

Potential boost to global GDP from AI by 2030

3%

of jobs at potential risk of automation by early 2020s

30%

of jobs at potential risk of automation by mid-2030s

44%

of workers with low education at risk of automation by mid-2030s



Nao meeting
customers







Project Debater

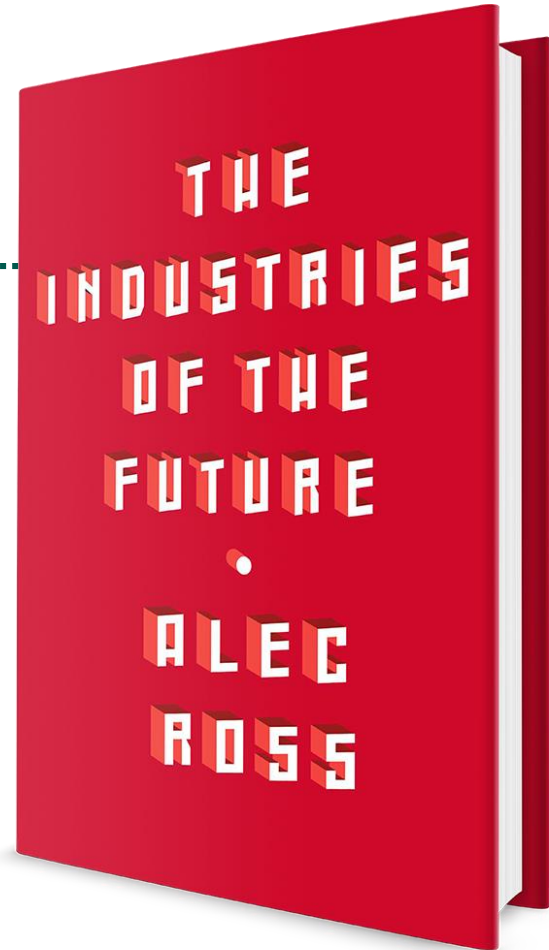
Dan Zafrir





The Industries of the Future

Alec Ross



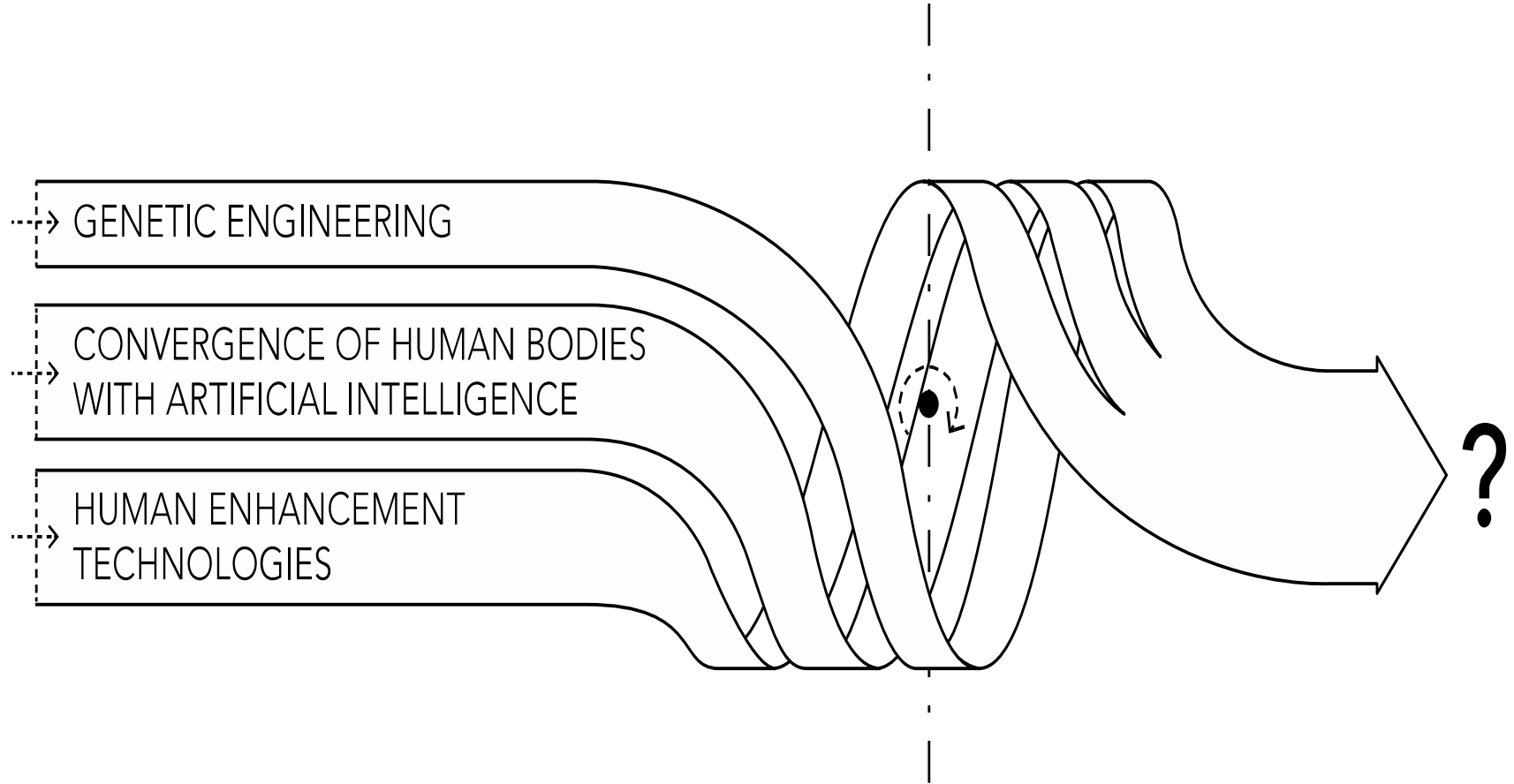


The Industries of the Future

Alec Ross

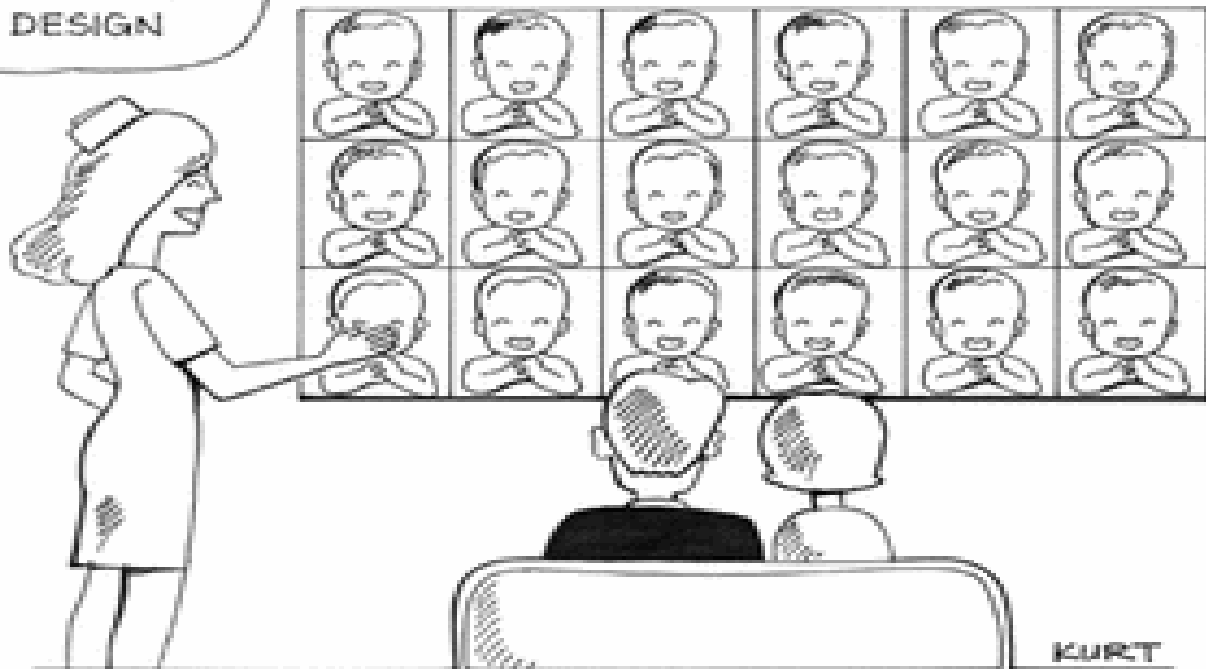
- ▶ Robotics
- ▶ Genomics
- ▶ Code-ification of new arenas – e.g. money
- ▶ Cybersecurity
- ▶ Big Data

EVOLUTION IN OUR HANDS?





THESE ARE
THE SAMPLES
OF DESIGN



The Artificial Human of Today (below 5mio.\$)



stents



artificial skin



bio engineered ear



artificial blood
(oxyocyte can carry 5 times more oxygen than hemoglobin)



RFID implant
neurostimulator/
implanted drug
delivery system

portable
dialysis



bionic liver
machine



artificial lung



intelligent leg
prosthesis



windpipe with stem
cell technology



windpipe with stem
cell technology



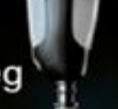
artificial heart



implantable
insulin pump



bionic hand



hip replacement



artificial foot



bionic arm



“intelligence-augmentation”

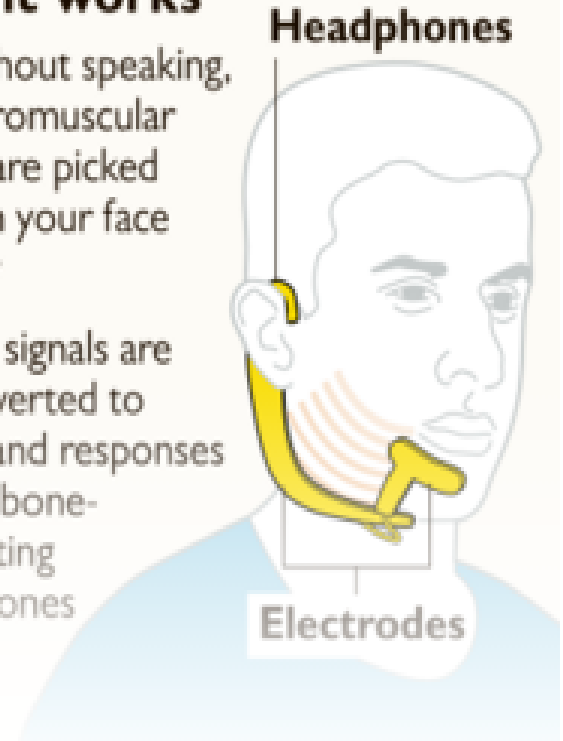
Coming up.....

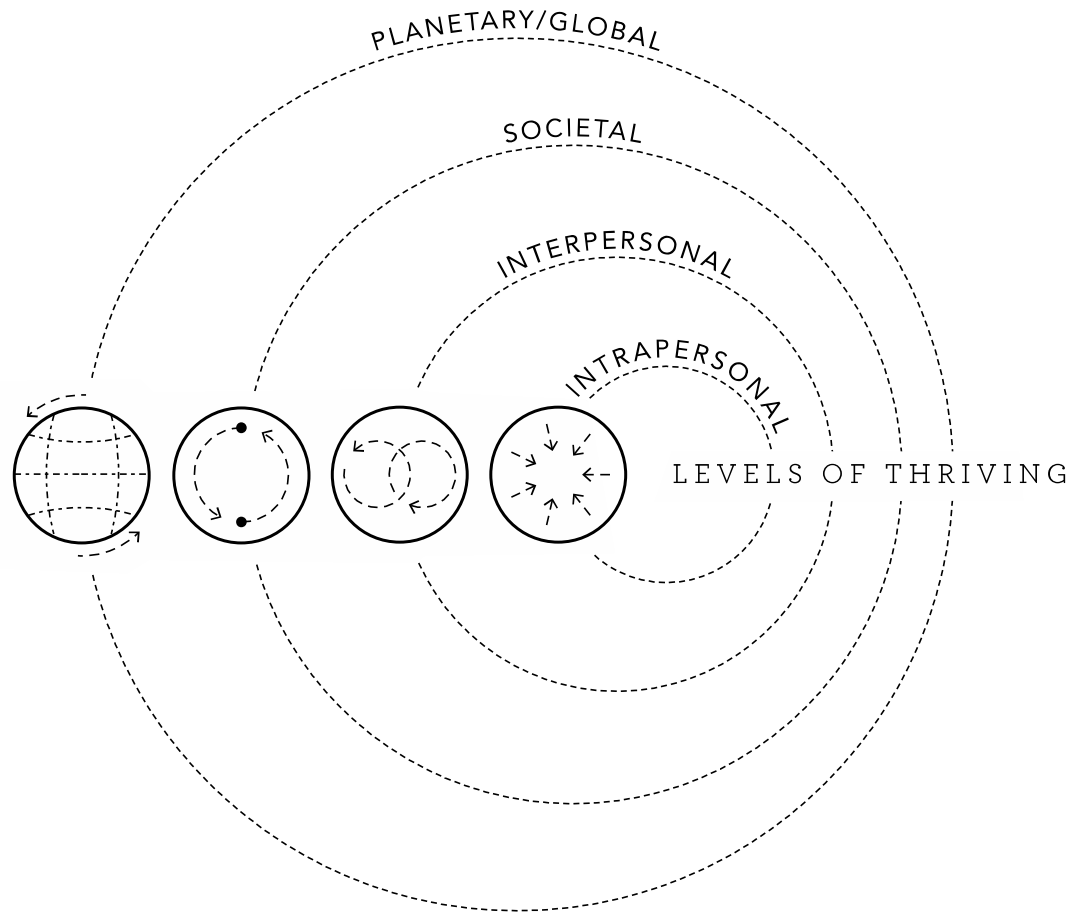
- Facebook’s *mind-computer interface*
- Elon Musk: *implanted electrodes*

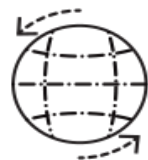
How it works

1 Without speaking, neuromuscular signals are picked up from your face and jaw

2 The signals are converted to words and responses sent to bone-conducting headphones







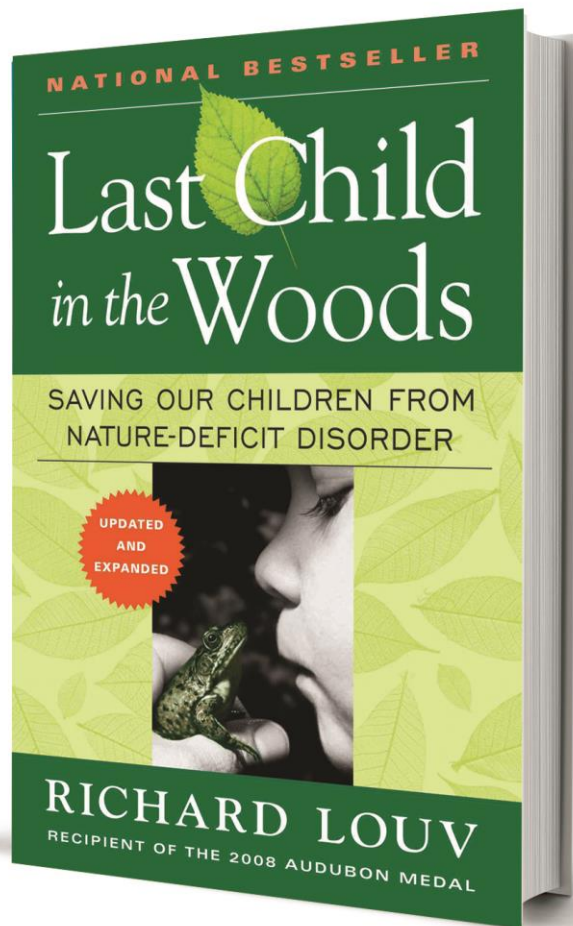
PLANETARY/GLOBAL

Live sustainably

Protect the Earth's
eco-system

Acquire global
competence





Last Child in the Woods

Richard Louv



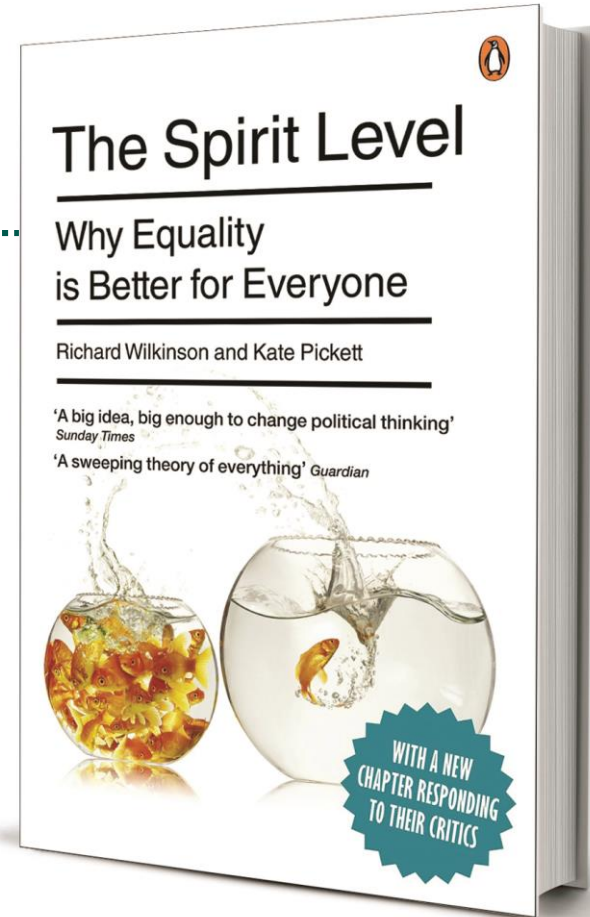
SOCIETAL

Navigate a
disrupted &
uncertain
landscape of work

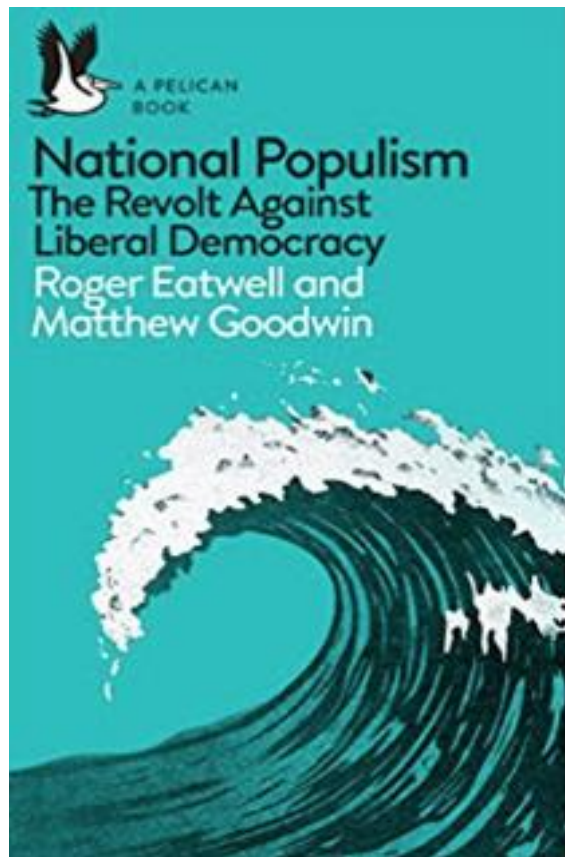
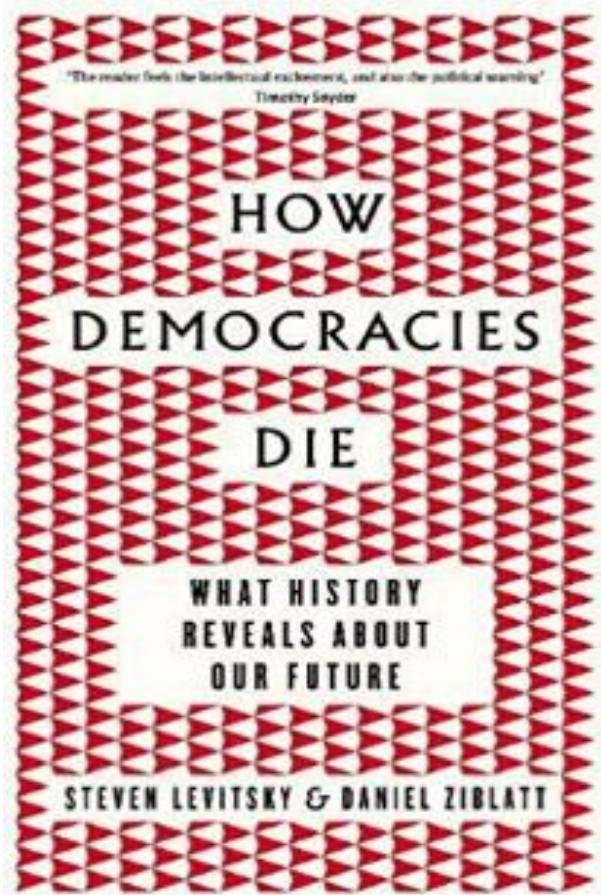
Reinvent a
participative,
authentic and
meaningful
democracy

The Spirit Level

*Richard Wilkinson
and Kate Pickett*



Are we in an age of
“democratic disappointment”?



“To find ways of creating democratic processes and institutions that are fit for the 21st century, locally, nationally and internationally is a daunting, complex, long term challenge. But shouldn't we at least be looking?”

Chief Executive, RSA
Matthew Taylor, 2016



SOCIETAL

Navigate a
disrupted &
uncertain
landscape of work

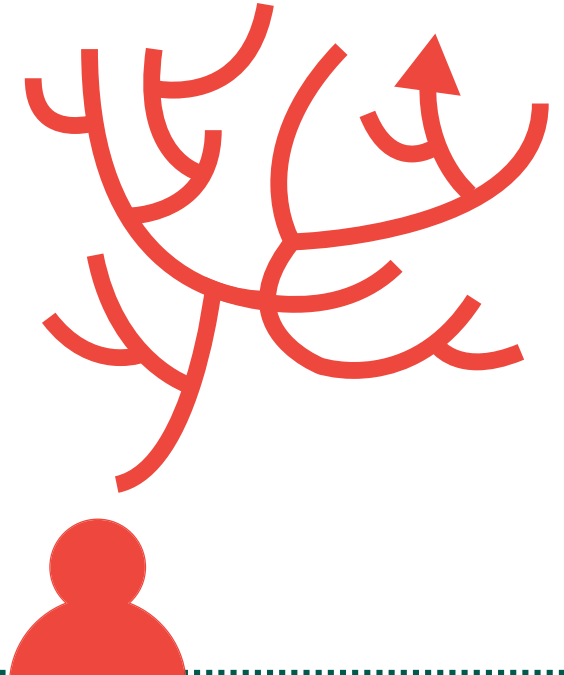
Reinvent a
participative,
authentic and
meaningful
democracy

CAREER PATHS ARE CHANGING.



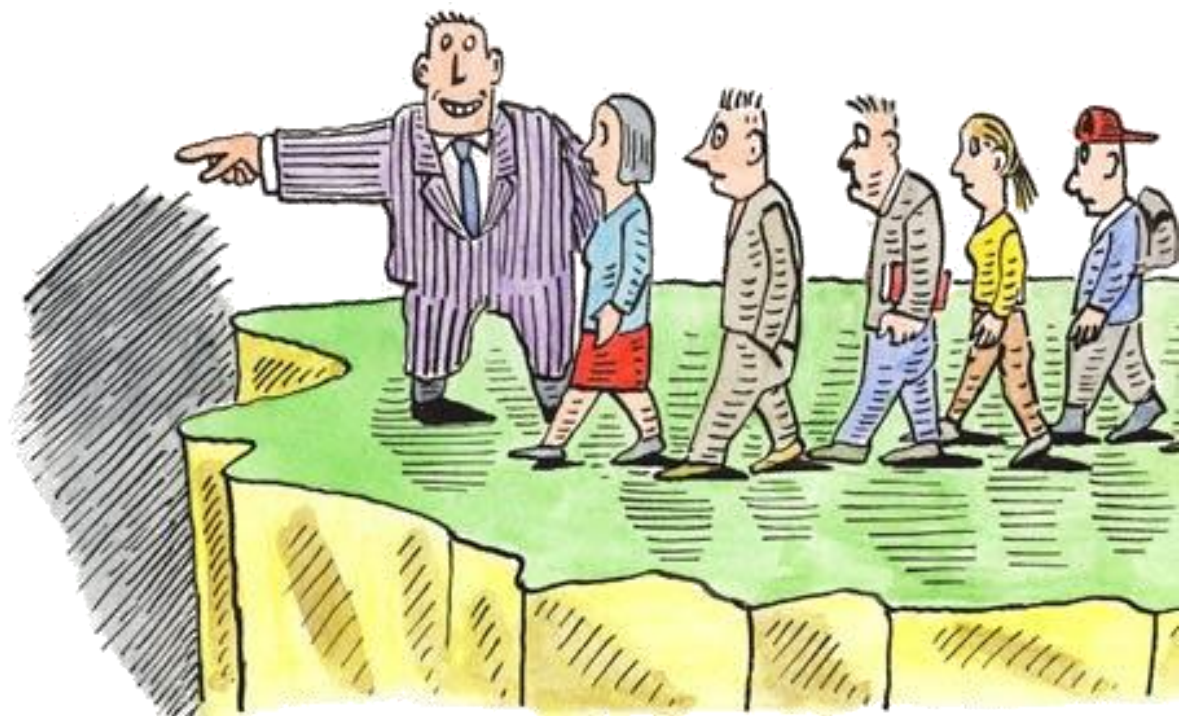
20TH CENTURY

1-2 jobs, mastery of one field



21ST CENTURY

Predicted to work 17 jobs, 5 careers



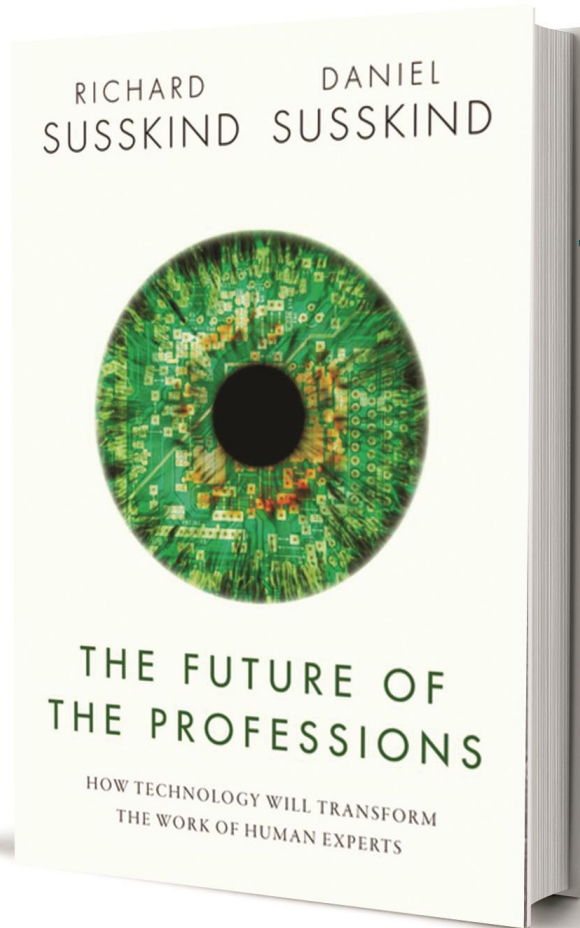


UNIVERSITY
CAREERS DEPT.

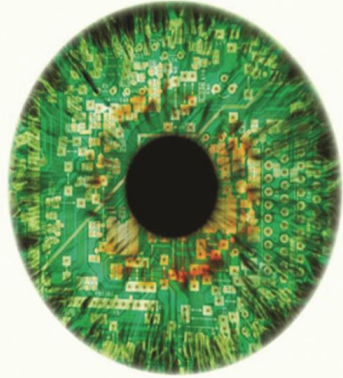
TRIGGER WARNING:

MAY CONTAIN
UPSETTING
INFORMATION
ABOUT HOW USEFUL
YOUR DEGREE
REALLY IS

RGJ



RICHARD DANIEL
SUSSKIND SUSSKIND



THE FUTURE OF
THE PROFESSIONS

HOW TECHNOLOGY WILL TRANSFORM
THE WORK OF HUMAN EXPERTS

The Future of
the Professions
*Richard Susskind and
Daniel Susskind*



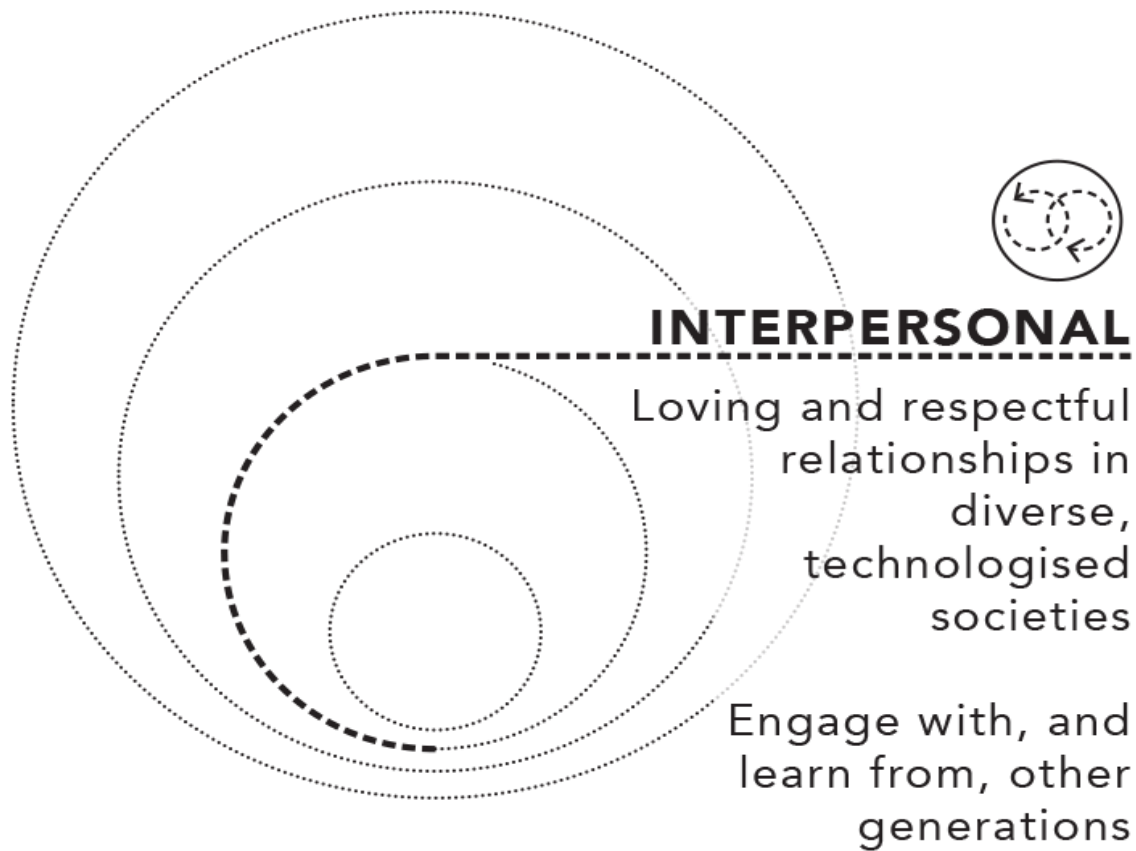
most professional jobs can be '*unbundled*'

- ▶ Can we rely on 'human exceptionalism'?
It will not lie in our cognitive functions...
- ▶ The Susskinds offer *empathy*
- ▶ But many people prefer interacting with machines – and would you look for empathy in your tax lawyer or surgeon?

Let's write the future
with robots that have what
it takes to collaborate.



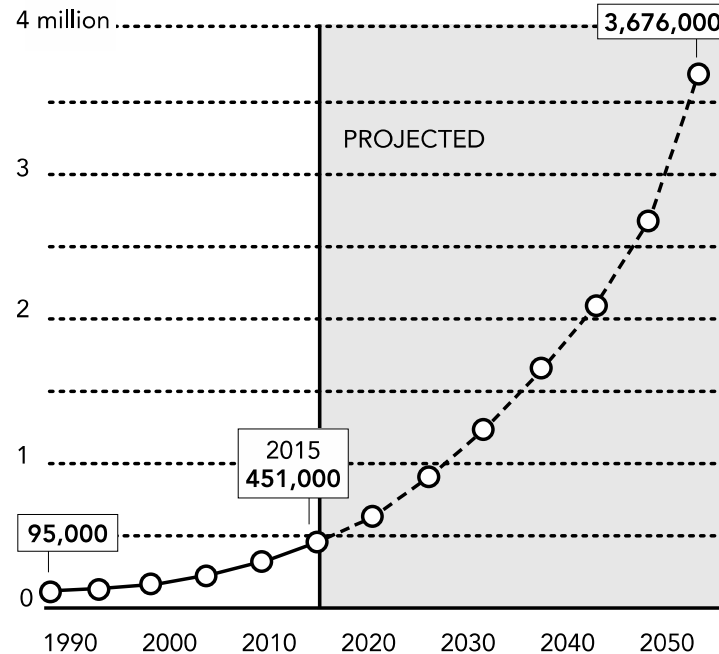
abb.com/future





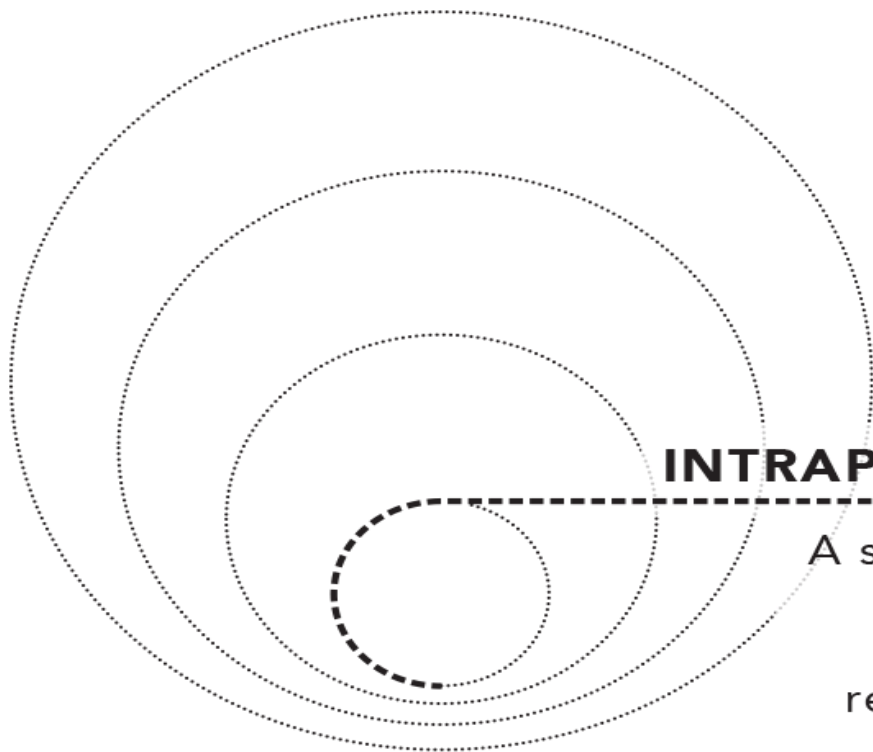


The world's population of centenarians is set to grow 8-fold



Source: United Nations, Department of Economics and Social Affairs 'World Population Prospects: 2015 Revision'

PEW RESEARCH CENTRE



INTRAPERSONAL

A secure sense
of self

responsibility
for personal
health, fitness
and well-being

Time
Magazine



SEPTEMBER 22, 2014

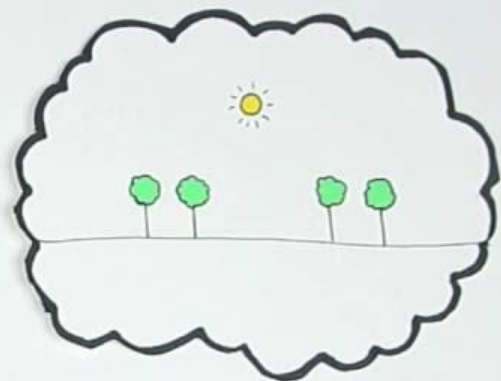
TIME

Never Offline.

The Apple Watch is just the start. How wearable tech will change your life—like it or not

BY LEV GROSSMAN
AND MATT VELLA

time.com



mind full or mindful ?

To create the ‘conditions for success’, we must understand what ‘success’ really is and will be.

Thriving is the true goal.