

SYNERGY 4.0

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@ Aalto ARTS

A?



to act as society's
visionaries
and change agents

vision is the art of
seeing what is invisible
to others

Jonathan Swift (1667-1745)

discovery [creativity] is seeing what others see,
and thinking what others don't.

Dr. Albert Szent-Gyorgyi (Nobel Prize in Medicine 1937)

a world class university
in the fields of
technology, business
and design by 2020

Aalto University _ Founding Vision

innovation (n) is in essence about the
successful **implementation** and **adoption**
of **creative** and imaginative (i.e., new, novel, better)
insights and **ideas** that have **value**.

synergy

the whole being greater than the sum
of its individual constituent parts

the creation of a whole that is greater than the simple sum of its parts
 $2+2=5$ or more _ innovation effectiveness or $2+2=3$ or less _ innovation efficiencies

*The term **synergy** comes from the Attic Greek word συνεργία synergia from synergos, συνεργός, meaning "working together"*

significance

hi

success

hi



survival

synergy

2.0

3.0

4.0

SYNERGY 4.0 _ **CONTEXT**

The Fourth Industrial Revolution



www.wef.ch/4ir

to know

INDUSTRIAL REVOLUTION **1.0.**

the **first industrial revolution** brought mechanical innovations like the **steam engine**, **cotton spinning** and **railroads**.

INDUSTRIAL REVOLUTION **2.0.**

the **second industrial revolution** brought mass production through **assembly lines** and **electrification**.

INDUSTRIAL REVOLUTION **3.0.**

the **third industrial revolution** brought **mainframe computers**, **personal computing** and **the internet**.

to imagine

INDUSTRIAL REVOLUTION **4.0.**

the **fourth industrial revolution** will bring change at a **speed**, **scale** and **force** unlike anything we've experienced before. it will affect the very **essence** of our human **experience**.

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DAVOS 2024: **4** THINGS TO KNOW

Davos 2024: 4 things to know

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FORUM

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IMPROVING THE STATE
OF THE WORLD

Davos 2024: 4 things to know

1.

leaders need to pull together — — [global cooperation and security]

2.

projections are not destiny — — [a new model of growth]

3.

humans are going to have better tools — — [AI: opportunities and challenges]

4.

urgency is our new saviour — — [tackling climate change and building new energy systems]

Davos 2024: 4 things to know

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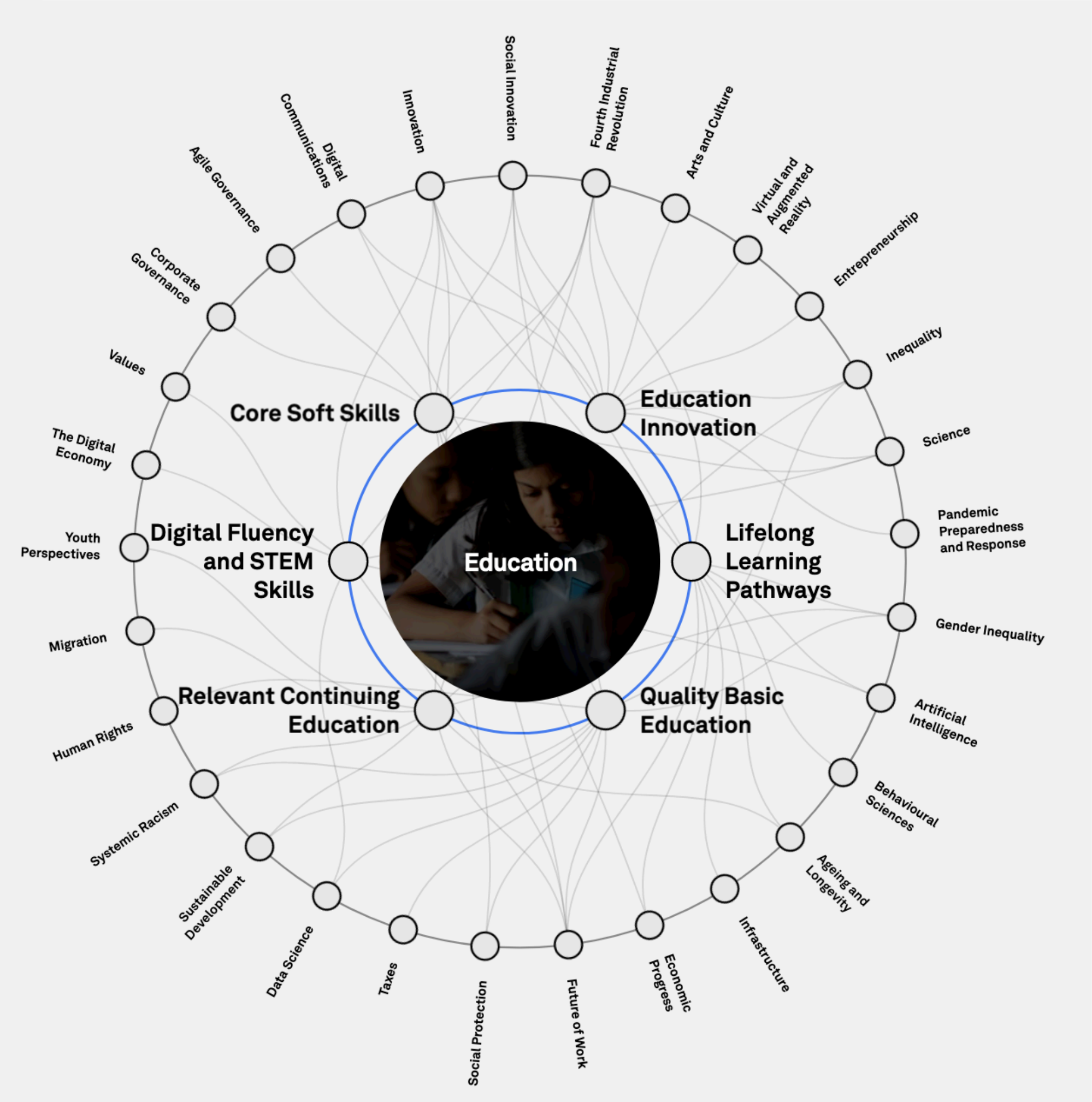
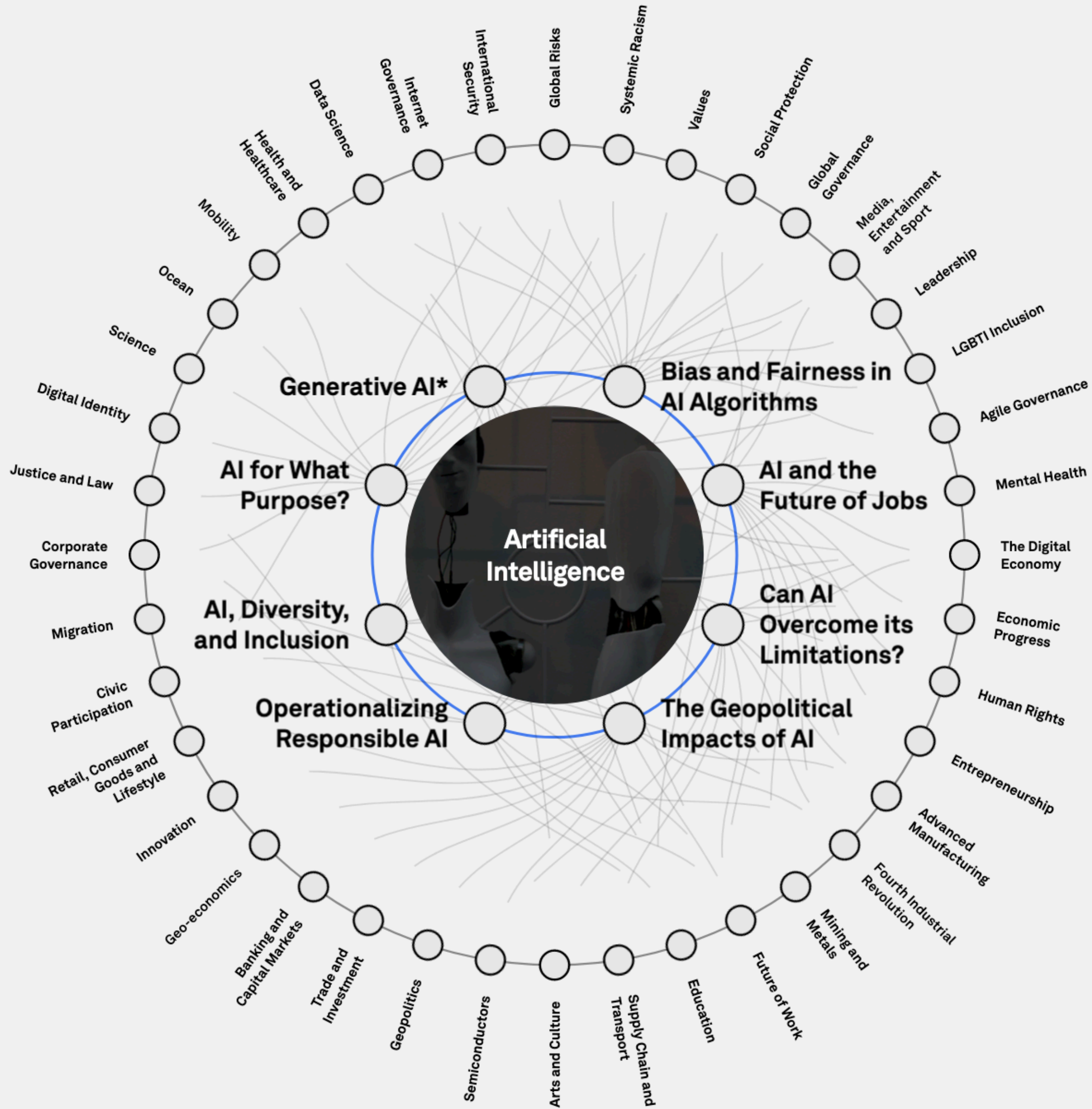
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back to the future



DAVOS 2016: **TECHNOLOGY** TAKES CENTRE STAGE

meeting of minds

technology and the role of the digital economy
sets the agenda for leaders at Davos

The European Magazine, March-April 2016
World Economic Forum

“everyone agreed that **technology**
would continue to **shape everything**,
although exactly how
seemed to divide the room”

Alex Katsomitros, The European Magazine,
World Economic Forum 2016

“there is a **win–win**
for **business** and **society** if we look beyond
immediate commercial gain in favour of
long-term **value creation**”

Mark Spelman, co-head, Future of the Internet Initiative,
World Economic Forum

“what we need is more **empathy**
we need it wired into our **systems**,
programmed into our brains”

Anand Mahindra, Chairman and Managing Director,
Mahindra & Mahindra,
World Economic Forum 2016.



DAVOS 2017

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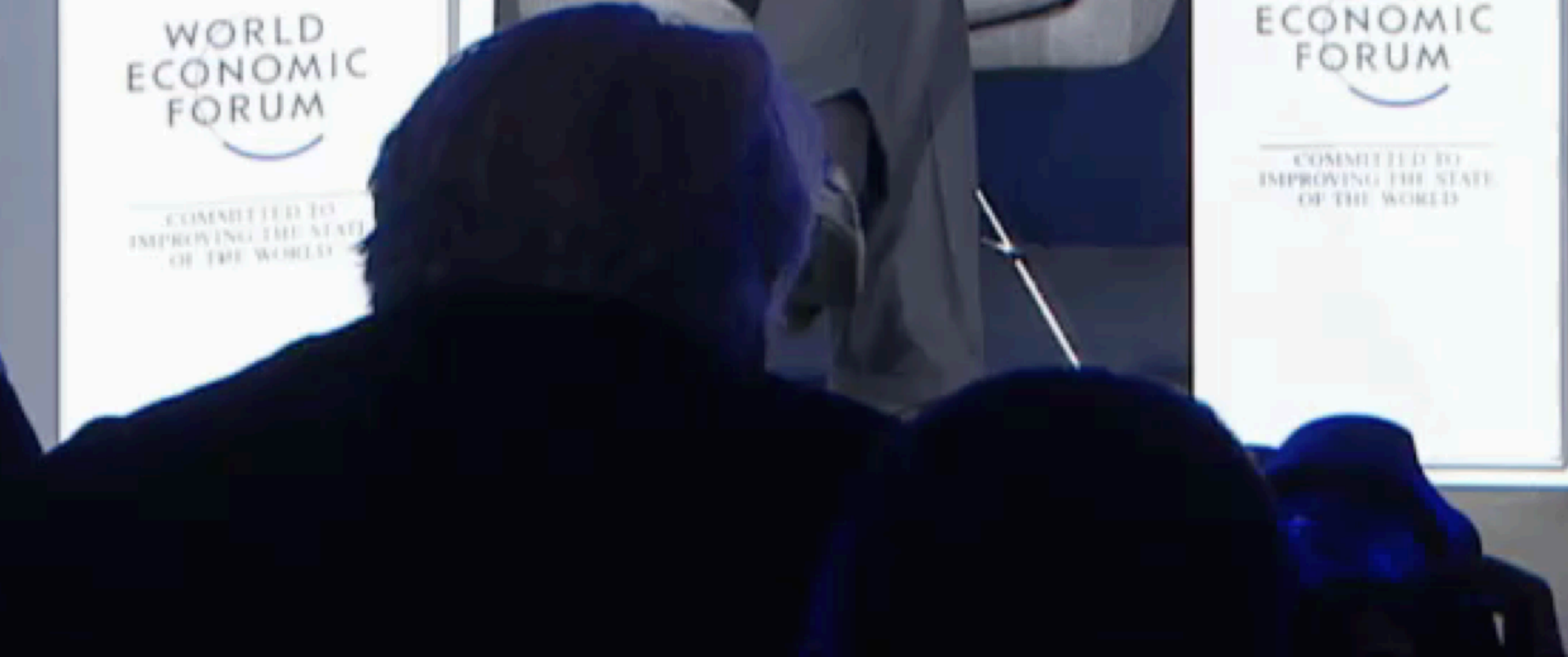


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DAVOS 2018

“we need to break the **cultural silos**.
too often people put **science** and the **humanities**,
or **science** and the **arts**, in **different silos**.
they are the **highest expression** of the **curiosity**
and **creativity of humanity**”

Fabiola Gianotti, Particle Physicist and the Director General of CERN
World Economic Forum 2018

“children
should be taught **soft skills** like
independent thinking, values
and teamwork.”

Jack Ma, Founder of the Alibaba Group (China's e-commerce giant).
World Economic Forum 2018

“we need to understand the **importance of soft skills, creative skills, research skills**, the ability to find information, synthesise it, and make something of it.”

Minouche Sharif, Director of the London School of Economics.
World Economic Forum 2018



DAVOS 2019



Davos 2019

Globalization 4.0

We're in a new economic era: Globalization 4.0. This is the theme of Davos 2019, which will bring together leaders from every sector and every part of the world to discuss how to cooperate on the challenges ahead. Find out more about the big ideas behind our Annual Meeting in this collection of articles by and about Davos participants.

“Our house is on fire.” 16 year-old Greta Thunberg wants action



Greta Thunberg has a message for world leaders

Image: Mattias Nutt

25 Jan 2019

James Workman

Official Writer at the World Economic Forum Annual Meeting 2019



This article is part of the [World Economic Forum Annual Meeting](#)

“I don’t want your hope. I want you to panic...and act.”

Greta Thunberg does not mince words when speaking truth to power, and her soft voice silenced a room full of global leaders from the financial, political and media sectors.



DAVOS 2020: **SYNERGY 4.0** TAKES CENTRE STAGE

to know

SYNERGY 1.0

disciplinary and intra-disciplinary perspective
dominant emphasis: co-ordination / knowledge intensification

SYNERGY 2.0

multi-disciplinary perspective
dominant emphasis: co-operation / knowledge amplification

SYNERGY 3.0

inter-disciplinary perspective
dominant emphasis: collaboration / knowledge integration

to imagine

SYNERGY 4.0

trans-disciplinary perspective
dominant emphasis: deep and transformative collaboration
and systemic integration of knowledge / collective imagination

‘trans-disciplinary
focuses on the organisation of knowledge around **complex**
heterogeneous domains
rather than the **disciplines** and **subjects**
into which knowledge is commonly
organised’

Lawrence, R.J. & Després, C., 2004. Futures of Trans-disciplinarity. *Futures*, 36 (4), pp.397–405.

synergy 4.0

is in essence **trans-disciplinary** and **transformative**
by nurture and intent.

transformational relating to a major change

generative learning

a style of learning that encourages
experimentation, risk-taking, openness,
and system-wide thinking.

people

within an

individual person _ T-shaped specialist (depth) + generalist (breadth / 'range')

within and between

people _ dyads e.g. CEO + CFO / CDO ... partners, teams, companies, organisations

synergies

within and between

people and things _ eco-systems, network platforms ... UI / UX / CX / BX

things

within and between

things and systems of things _ the IoT, big data, machine learning. Gen AI



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Google

The image shows the word "Google" in its signature multi-colored font. The letter 'o' is replaced by a Nest smart thermostat. The thermostat has a black circular face with a silver outer ring. The screen displays the word "nest" at the top, a temperature of "23" in the center, and "11:33 AM" below it. The thermostat is positioned in the middle of the word, between the blue 'G' and the yellow 'o'.



Control, when you want it.



A thermostat in your pocket.
Change the temperature from the
subway or the sofa.



See your home on your phone.
Keep an eye on things when you're gone.



Hush alarms from the app.
No more ladders. Silence alarms from
your phone.

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