

TEACHING AND LEARNING FOR AN UNKNOWN FUTURE:

Educating for Change as a Constant

**Nobel Prize
Teacher Summit**

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**Teacher and
Learning for
Sustainability**

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The Greek philosopher, Heraclitus of Ephesus (500 BC)

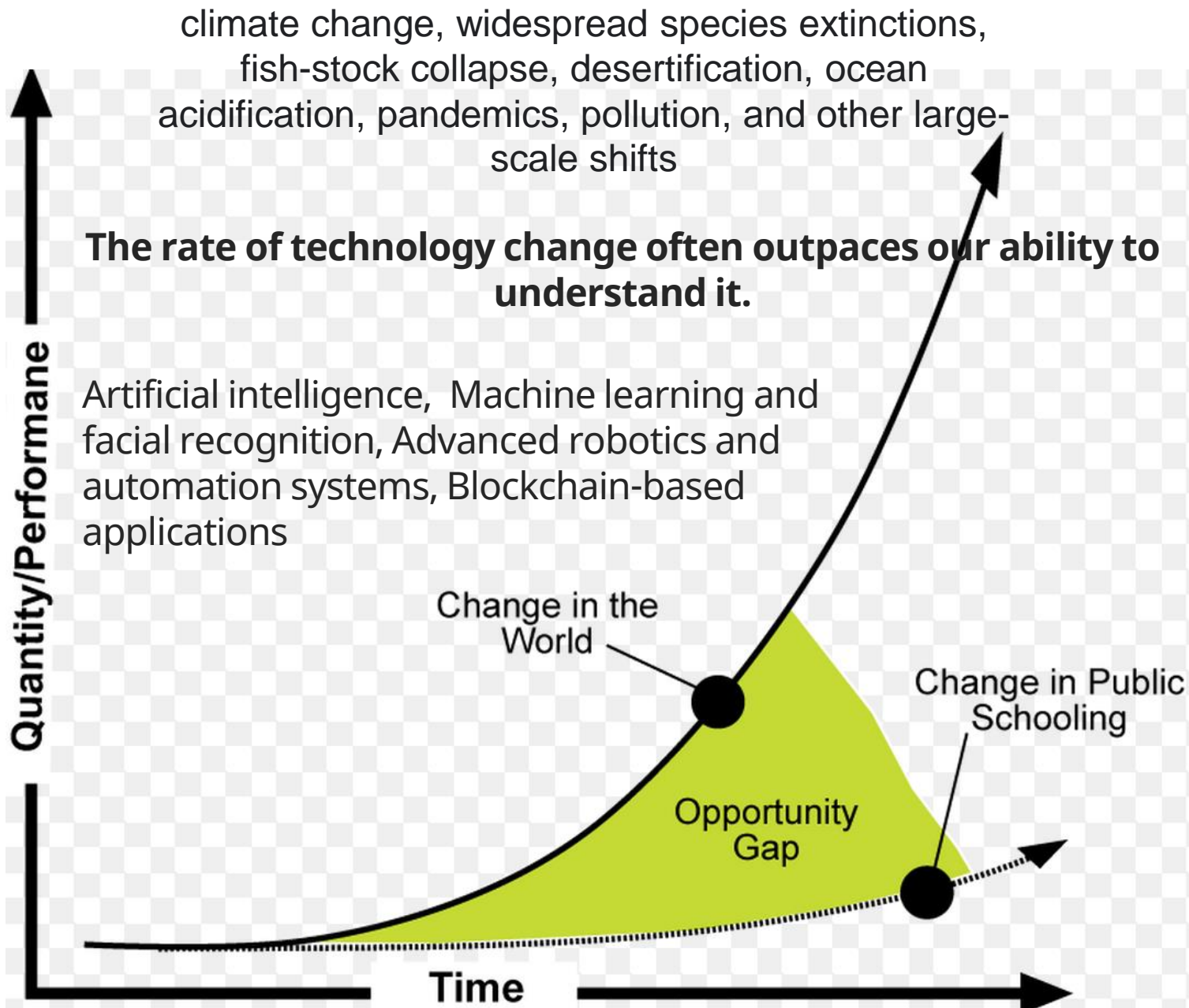
“the only constant in life is change”



Justin Trudeau, 2018

- On January 23, 2018, at Davos, Justin Trudeau said: “Think about it: The pace of change has never been this fast, yet it will never be this slow again.”
- The pace of change will never be as slow as it is today

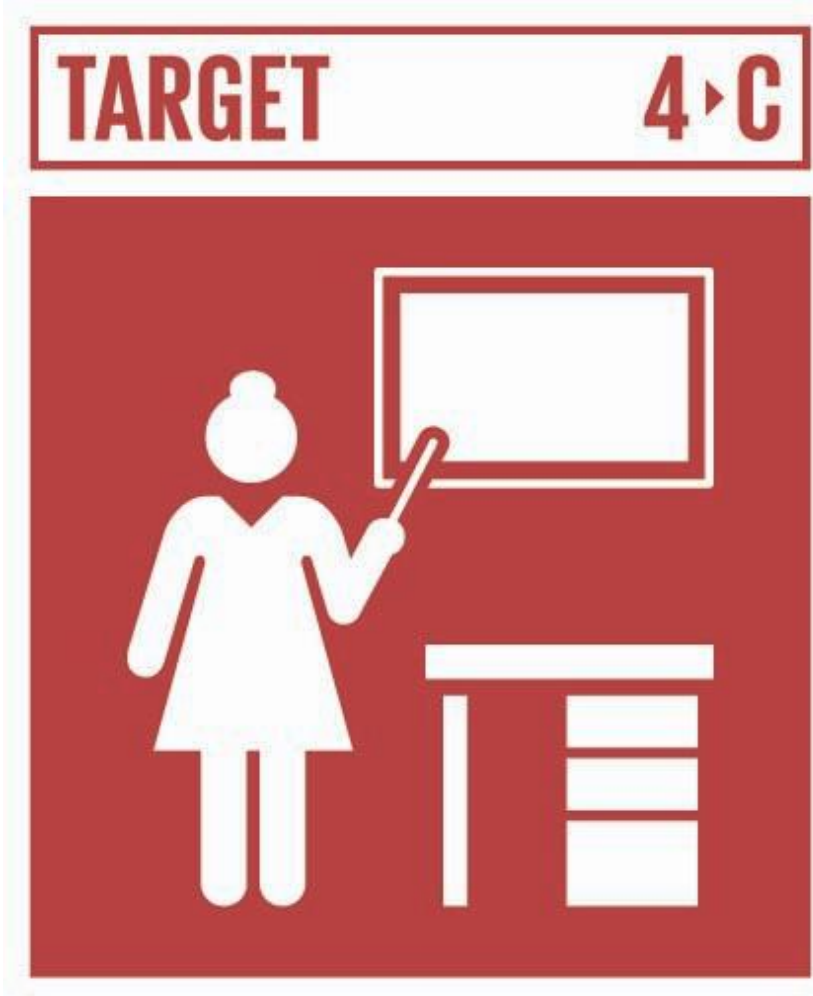




The rate of change in the world is far outpacing the rate of change in education

[Dr Justin Tarte, 2015](#)

Research alone does not change practice

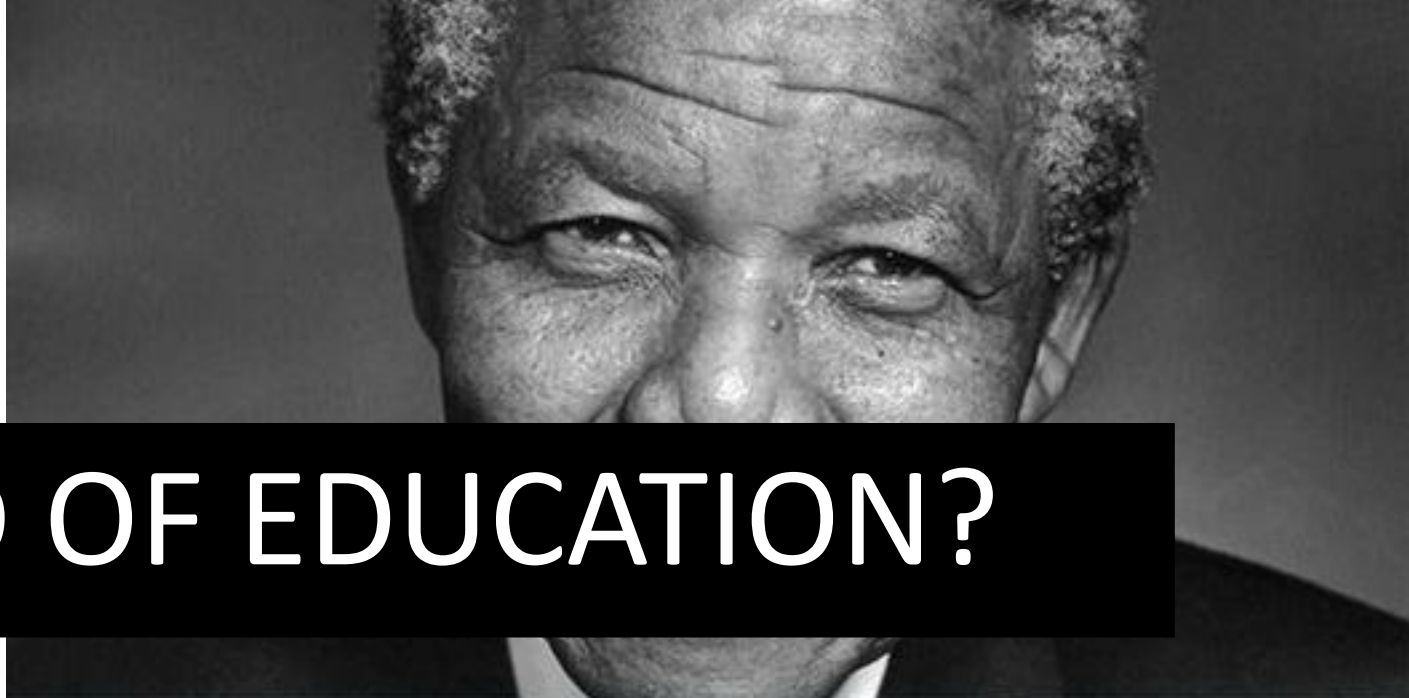


Increase the supply of
qualified teachers



“Education is the most
powerful weapon which
you can use to **change**
the world.”

Nelson Mandela
Nobel Peace Prize 1993



WHAT KIND OF EDUCATION?

“**Education** is the most powerful weapon which you can use to **change the world.**”

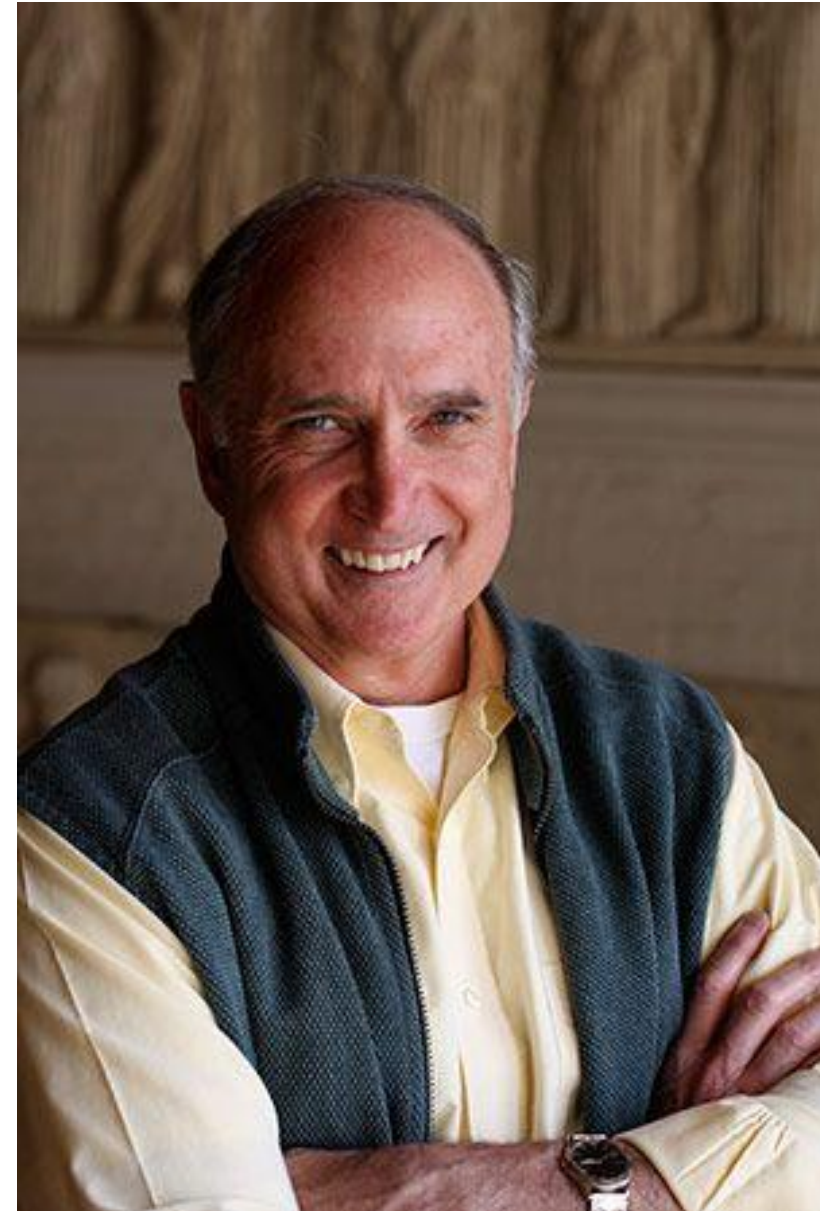
Increase the supply of
qual

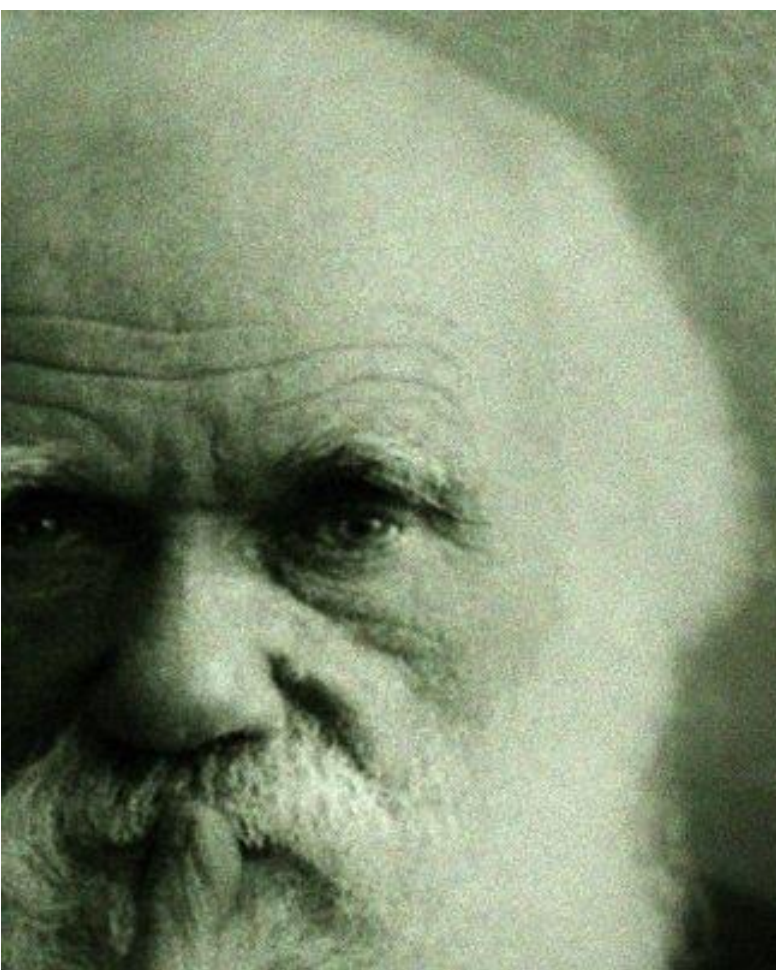
WHAT KIND OF TEACHERS?

THE CHALLENGE

“the knowledge, skills, aptitudes and values necessary to industrialise the earth are not necessarily the same as those that will be needed to heal the earth or build durable economies and good communities based on principles of equity and sustainability”

(David Orr, 2004)





“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to *change.*”

~Charles Darwin, 1809

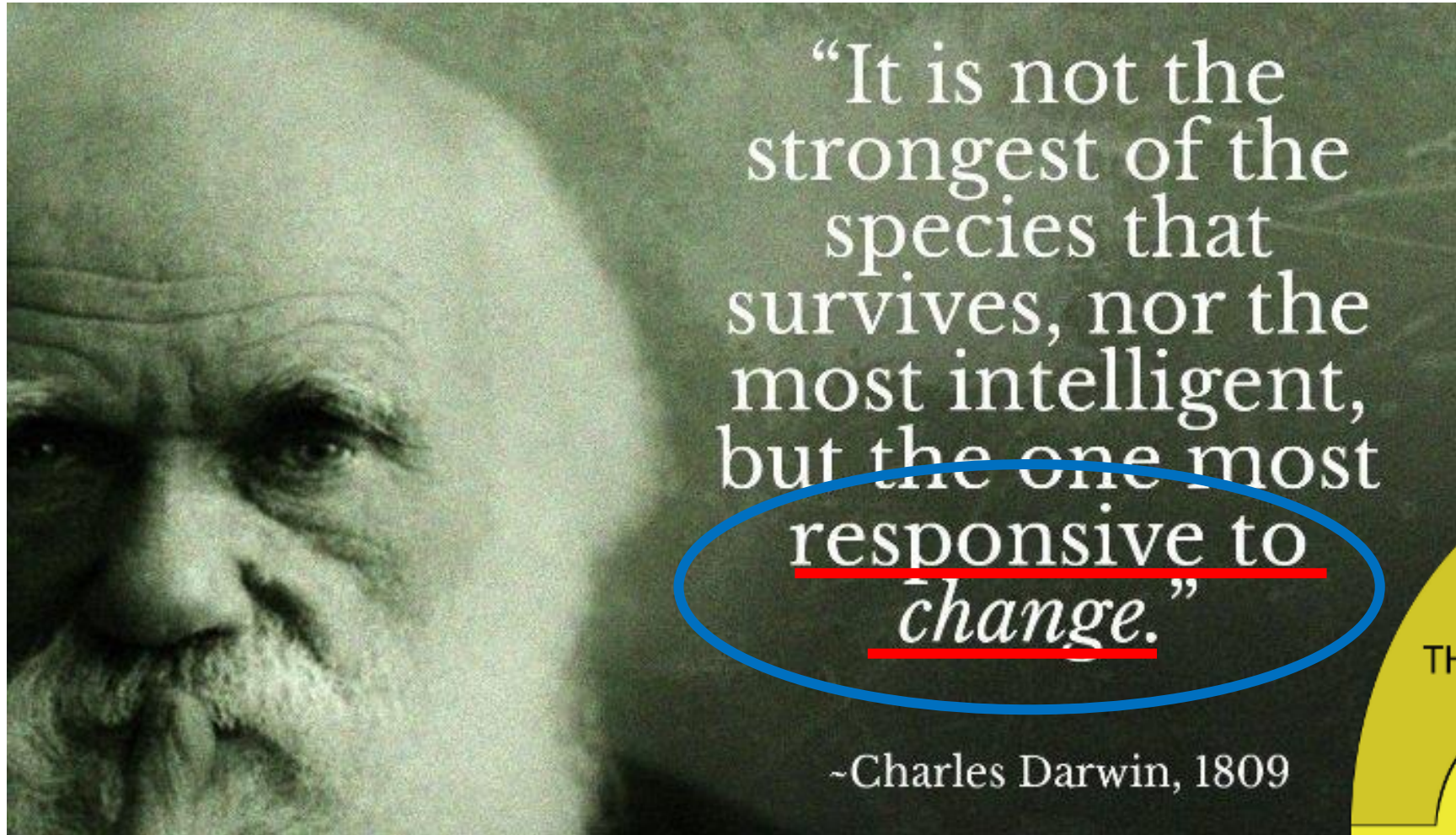
Sustainability
Competences for a
changing world:

Advancing quality learning
for vibrant societies

READINESS
For CHANGE

CHANGE
OR DIE.

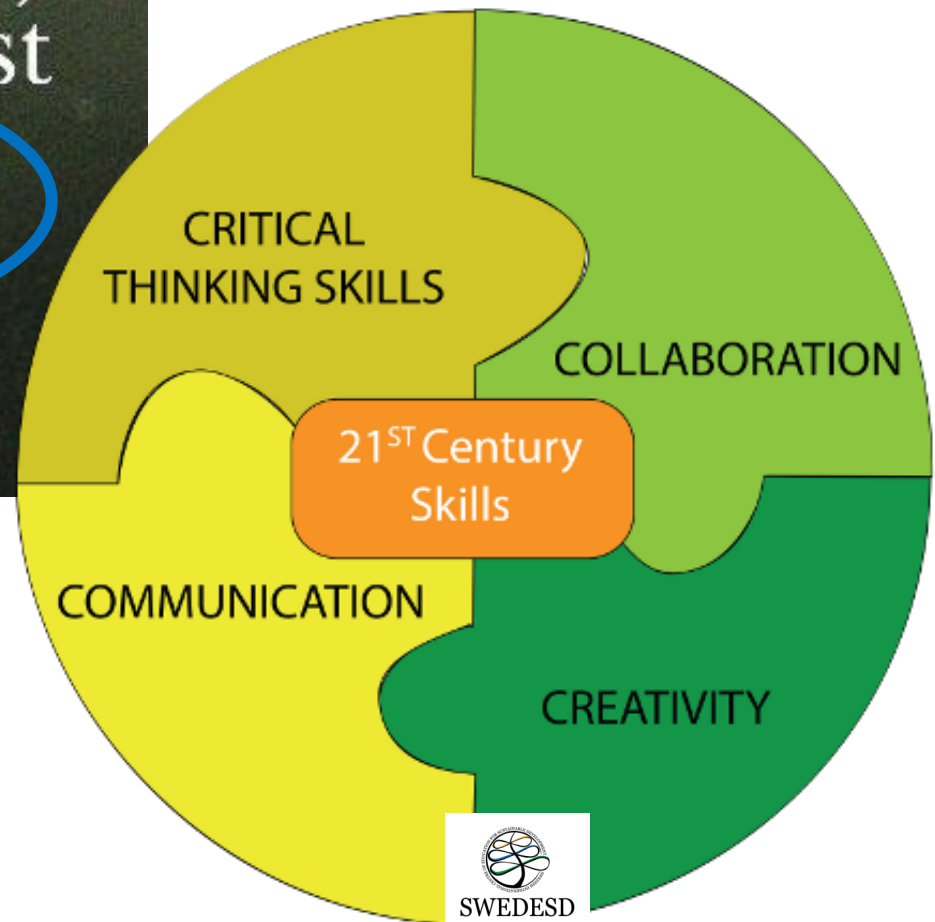




“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to *change.*”

-Charles Darwin, 1809

Responding to CHANGE? COMPNCES for 21st Century



CHANGE OR DIE.



WHAT ARE WE TRYING TO CHANGE?

From

Ways of thinking and acting

We are the students of today
attending the schools of yesterday
being taught by the teachers of the past-
with methods from the Middle Ages
to solve the problems of the future!

Classroom

You

Pedagogy



WHAT ARE WE TRYING TO CHANGE?

Introducing New ways of thinking and acting

To

We are the students of today attending the schools of yesterday being taught by the teachers of the past with methods from the Middle Ages to solve the problems of the future!

Classroom

You

Pedagogy

Discussion:

- Why is this important for Teacher (Re)Education?
- How can ESD achieve this ambition?



Teachers of tomorrow



The quality of education accessible to the majority has not empowered people to sustainably adapt to, mitigate and cope with the complexity of emergent issues in their environments.



**“The illiterate of
the 21st century
will not be those
who cannot read
and write, but
those who cannot
learn, unlearn,
and relearn.”**

— Alvin Toffler

[\[www.goodreads.com/quotes/8800-the-illiterate-of-the-21st-century-will-not-be-those\]](http://www.goodreads.com/quotes/8800-the-illiterate-of-the-21st-century-will-not-be-those)

ESD PROMISES
LEARNING UNLEARNING
AND RE-LEARNING
FOR A SUSTAINABLE
FUTURE

A DILEMMA OF SUSTAINABILITY COMPETENCES:

Do we know the kind of learning that will take us out of unsustainability?

Learning is important to respond to the challenges of unsustainability but,

- Do we know the type of learning needed and associated processes and qualities of learning?
- Are current challenges reflecting the type of learning that we have received?
- Is our ability to confront the challenges questionable?



Responding to the sustainability crisis - *confronting a global dysfunction -*

**BUT WHY COMPETENCES
FOR SUSTAINABILITY**



Current global trends suggest that our behaviours threaten our ability
“to meet the needs of the present generation **without compromising**
the ability of future generations to meet their own needs”

(Brundtland Report, 1987)



WICKED SUSTAINABILITY ISSUES

COMPLEX

CONTEXTUAL

CONTESTED

EMERGENT

UNCERTAIN

HOW CAN WE
PREPARE FOR THE
21ST CENTURY AND
BEYOND?

FUTURES
EDUCATION



EDUCATING FOR A
FUTURE WE DO NOT
KNOW??

WICKED ISSUES

COMPLEX

CONTEXTUAL

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HOW CAN WE
PREPARE FOR THE
21ST CENTURY?

COMPETENCES FOR SUSTAINABILITY

Systems thinking

Futures thinking

Values thinking

Strategic thinking

Collaboration competence

Critical thinking

Personal competence

*Integrated problem-solving
competence*

Creativity and Innovation

SDG 4.7 by 2030



- “ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture’s contribution to sustainable development”.
- Shifting the discourse from learning new skills to enabling the processes that create these skills and competences.

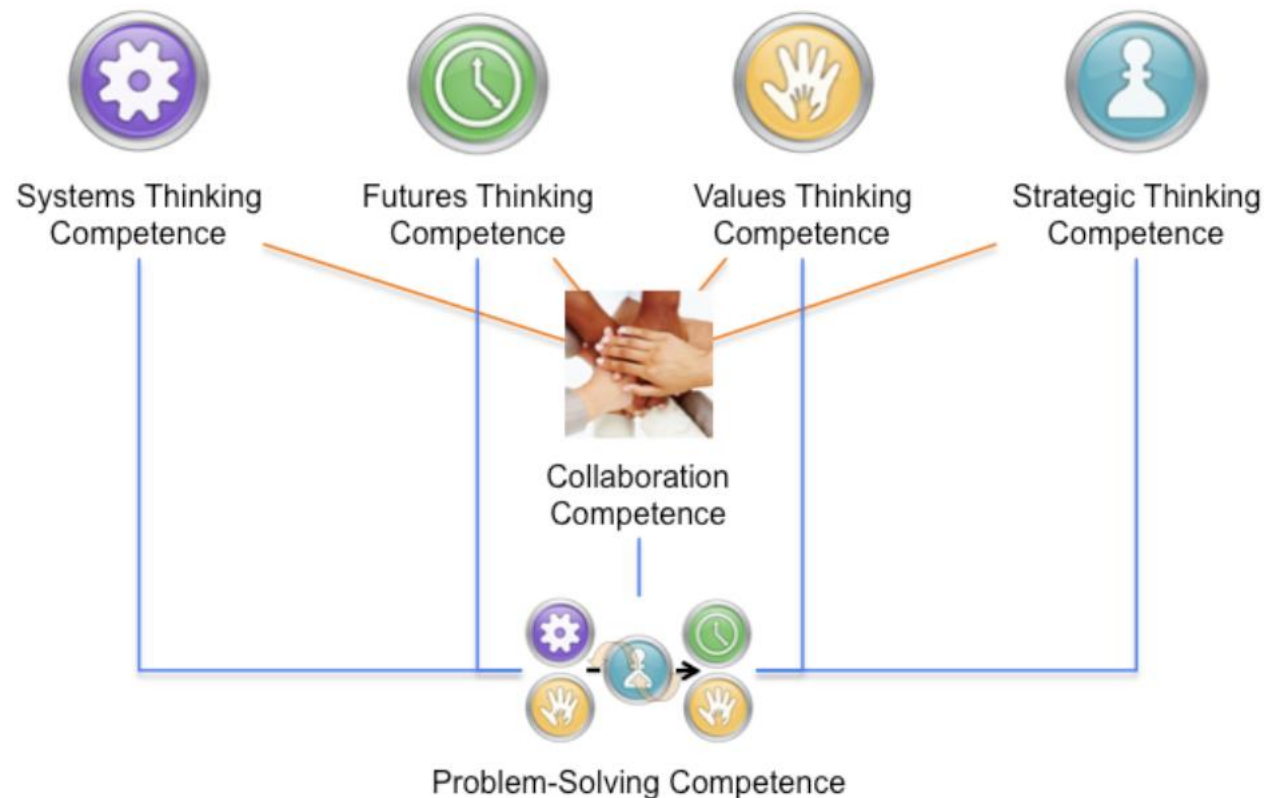
Education needs to keep up with our fast-moving world. Here's how change might happen

Learning for a future we do not know

- Systems thinking competence
- Anticipatory competence
- Normative (Values) competence
- Strategic competence
- Interpersonal competence
- Integrated problem solving

Increasing Relevance

- There is a wide variety of educational strategies to increase the relevance of what is taught and learned—a few examples include



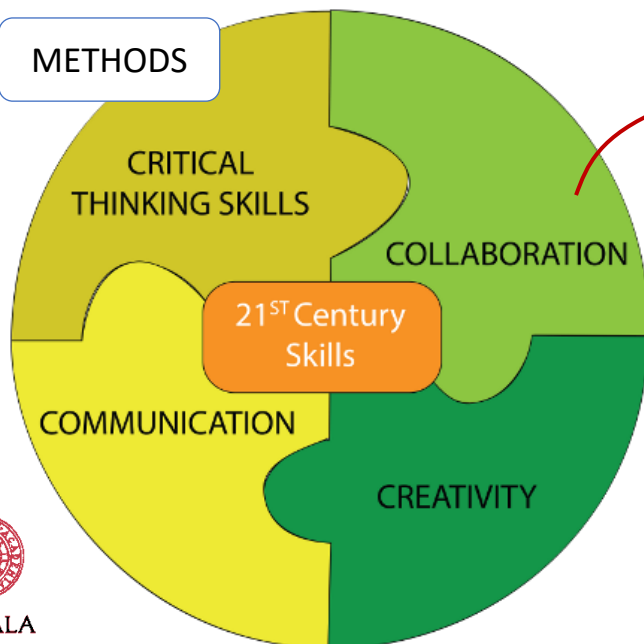
THE NAVIGATION TOOL

CONTENT



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METHODS



COMPETENCES FOR SUSTAINABILITY

Systems thinking

Futures thinking

Values thinking

Strategic thinking

Collaboration competence

Critical thinking

Personal competence

*Integrated problem-solving
competence*



QUALITY

Transformative Learning connects teaching with learning

Educating for a new way of thinking and doing



Thank you

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