# Leaving the Titanic: Learning our way out of global system dysfunction

TIAS Webinar Education for Sustainable Development: Debating

principles, promise and practice , JUNE 7th 2018

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# Outline

- Systemic Global Dysfunction – Anthropocene – Post-truth

- Critiquing the SDGs

- Re-thinking education and learning – 5 key area's

- Leaving the Titanic – T-learning

- Towards a systemic approach to education with People and Planet in mind

It's official: scientists say we're entering Earth's sixth mass extinction

And humans may struggle to survive it.
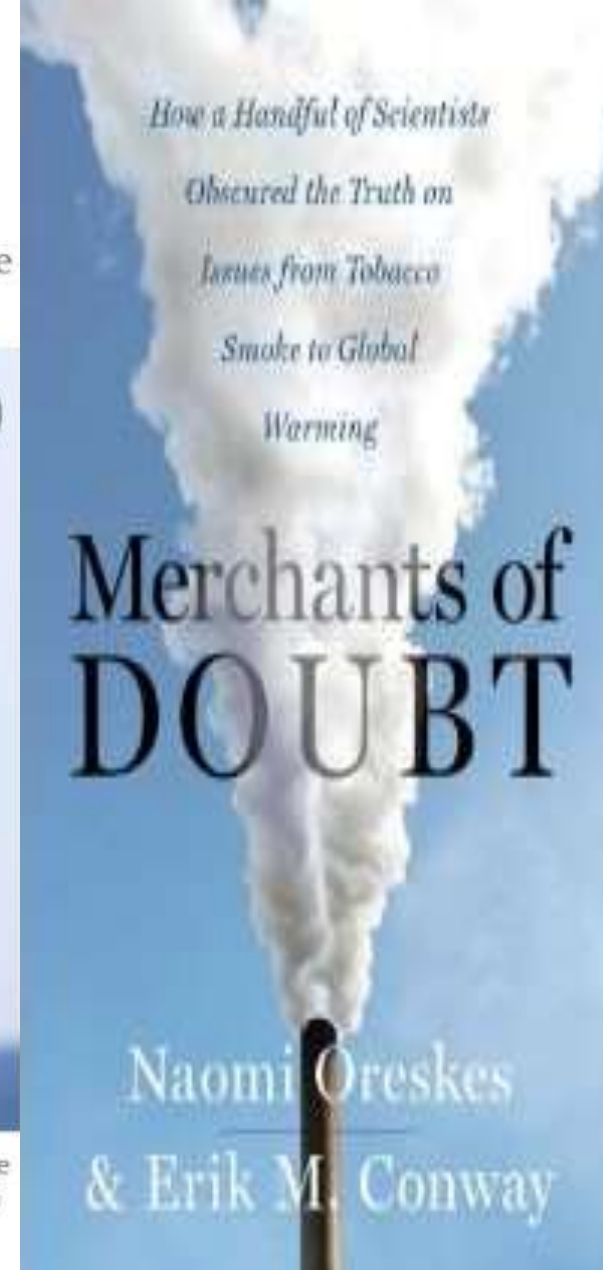
FIONA MACDONALD    22 JUN 2015

# Doubt over climate science is a product with an industry behind it

With its roots in the tobacco industry, climate science denial talking points can be seen as manufactured doubt
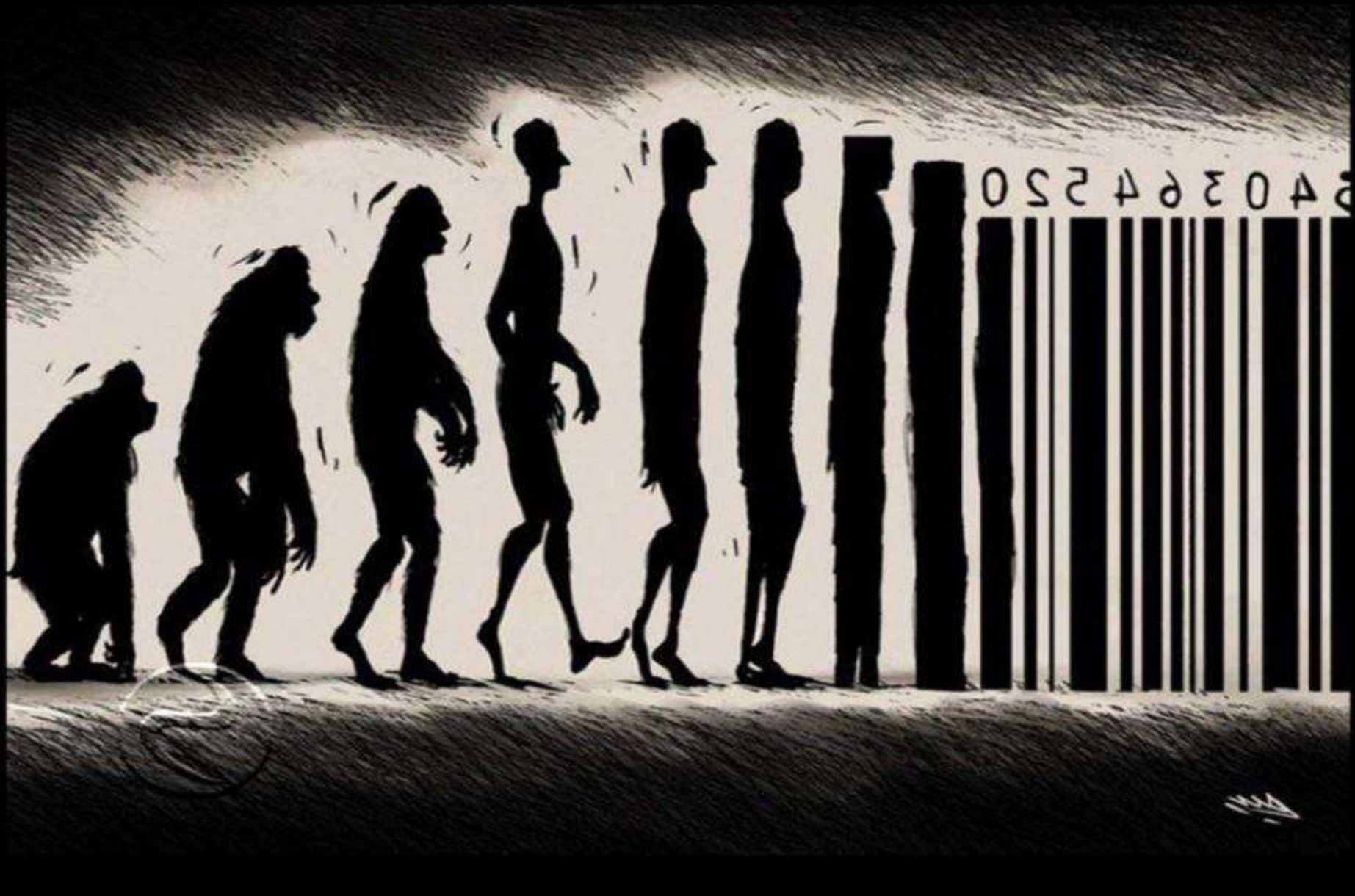


📷 The manufacturing of doubt on climate change science, backed by the fossil fuel industry, has its roots with the tobacco industry's assault on climate science in the 1960s. Photograph: Richard Hamilton Smith/Richard Hamilton Smith/Corbis
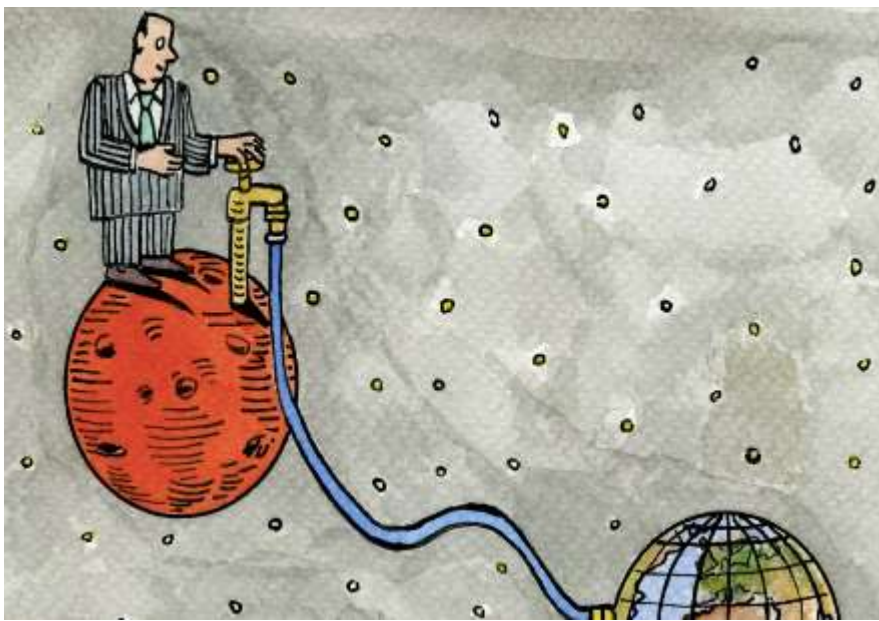
How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming

## Merchants of DOUBT

Naomi Oreskes & Erik M. Conway

Source: The Guardian

FAIRTRADE
MAX HAVELAAR

EKO

UTZ CERTIFIED
Good inside

VRIJE UITLOOP
CPE CONTROLE

100% WEIDEMELK

GEZONDERE KEUZE
BINNEN DEZE PRODUCTGROEP

BEWUSTE KEUZE
BINNEN DEZE PRODUCTGROEP

MARINE STEWARDSHIP COUNCIL

Halal

ONDER TOEZICHT VAN HET OPPERRABBINAAT VOOR NEDERLAND

VERANTWOORD FRITUREN

VEGETARISCH · VEGETARIEN · EVU · VEGETARIAN

Scharrel
rundvlees

Scharrel
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RAINFOREST ALLIANCE CERTIFIED
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BESCHERMDE OORSPRONGSBENAMING

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"There may be flowing water on Mars…
But is there intelligent life on Earth?"

"While we marvel at Nasa's discoveries, we destroy our irreplaceable natural resources – so we can buy pre-peeled bananas and smartphones for dogs"

George Monbiot,
The Guardian, 30-09-2015

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# Wicked problems in unusual times...

- Complexity and uncertainty

- Confusion, ambiguity, extinction of 'truth,' lack of 'trust' in science and in government

- Hyper-connectivity – erosion of meaning, short attention spans – loss of 'place' – 'viral nonsense'

- Dominant neo-liberal economic forces accelerate inequity and material values that normalize and breathe unsustainability

- Need for continuous learning in a 'reflexive' society
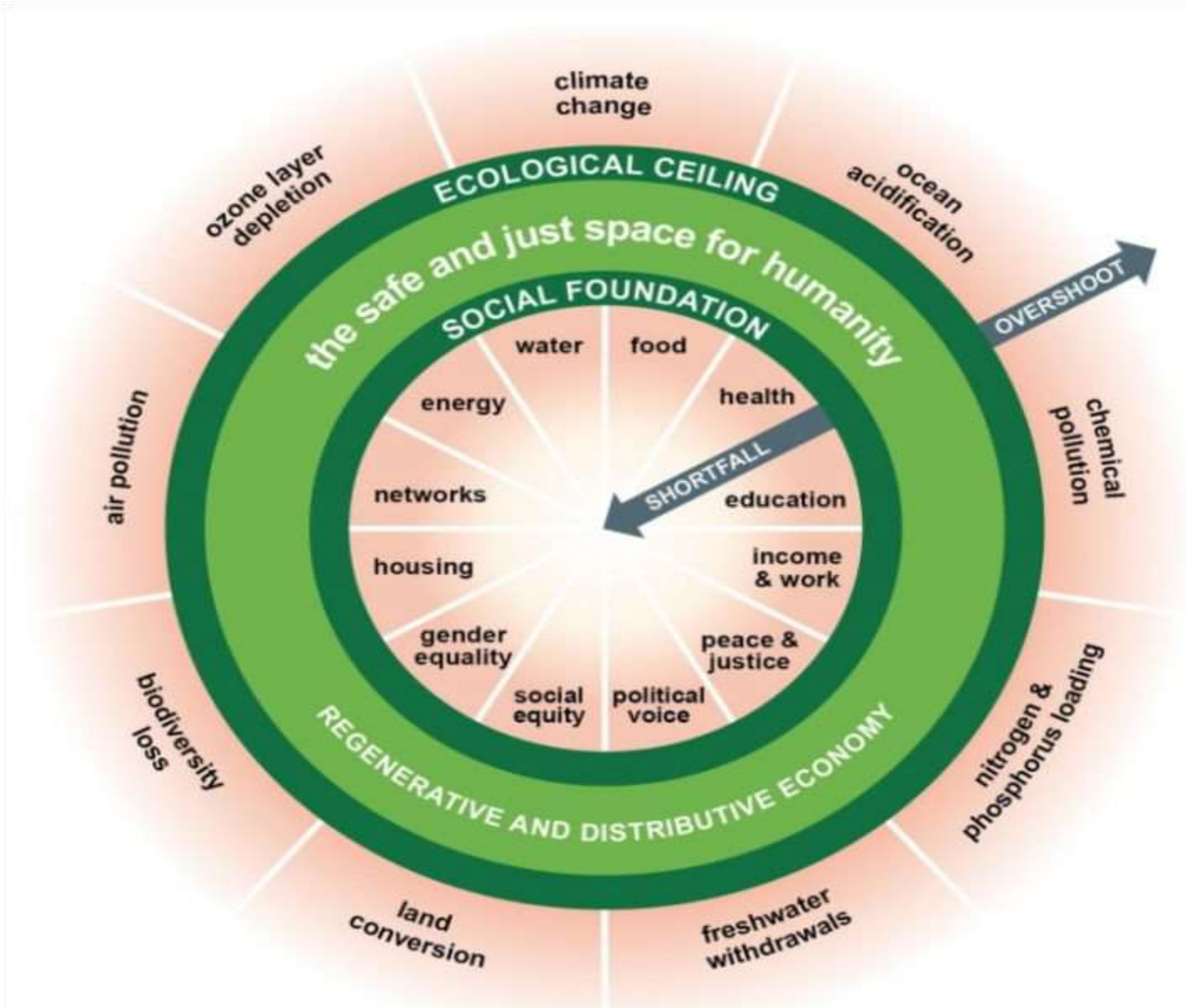
The Doughnut of social foundations and planetary boundaries (Raworth 2017)

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 !

| | | | | |
|---|---|---|---|---|
| **1** NO POVERTY | **2** ZERO HUNGER | **3** GOOD HEALTH AND WELL-BEING | **4** QUALITY EDUCATION | **5** GENDER EQUALITY |
| **6** CLEAN WATER AND SANITATION | **7** AFFORDABLE AND CLEAN ENERGY | **8** DECENT WORK AND ECONOMIC GROWTH | **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE | **10** REDUCED INEQUALITIES |
| **11** SUSTAINABLE CITIES AND COMMUNITIES | | **THE GLOBAL GOALS** For Sustainable Development | | **12** RESPONSIBLE CONSUMPTION AND PRODUCTION |
| **13** CLIMATE ACTION | **14** LIFE BELOW WATER | **15** LIFE ON LAND | **16** PEACE AND JUSTICE STRONG INSTITUTIONS | **17** PARTNERSHIPS FOR THE GOALS |

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# Five interrelated key area's for sustainability science & education

Area 1: Understanding change, complexity and transitions

Area 2: Dealing with values, ethics and moral dilemmas

Area 3: Building agency and transformative capacity

Area 4: Utilizing diversity, uncertainty and dissonance
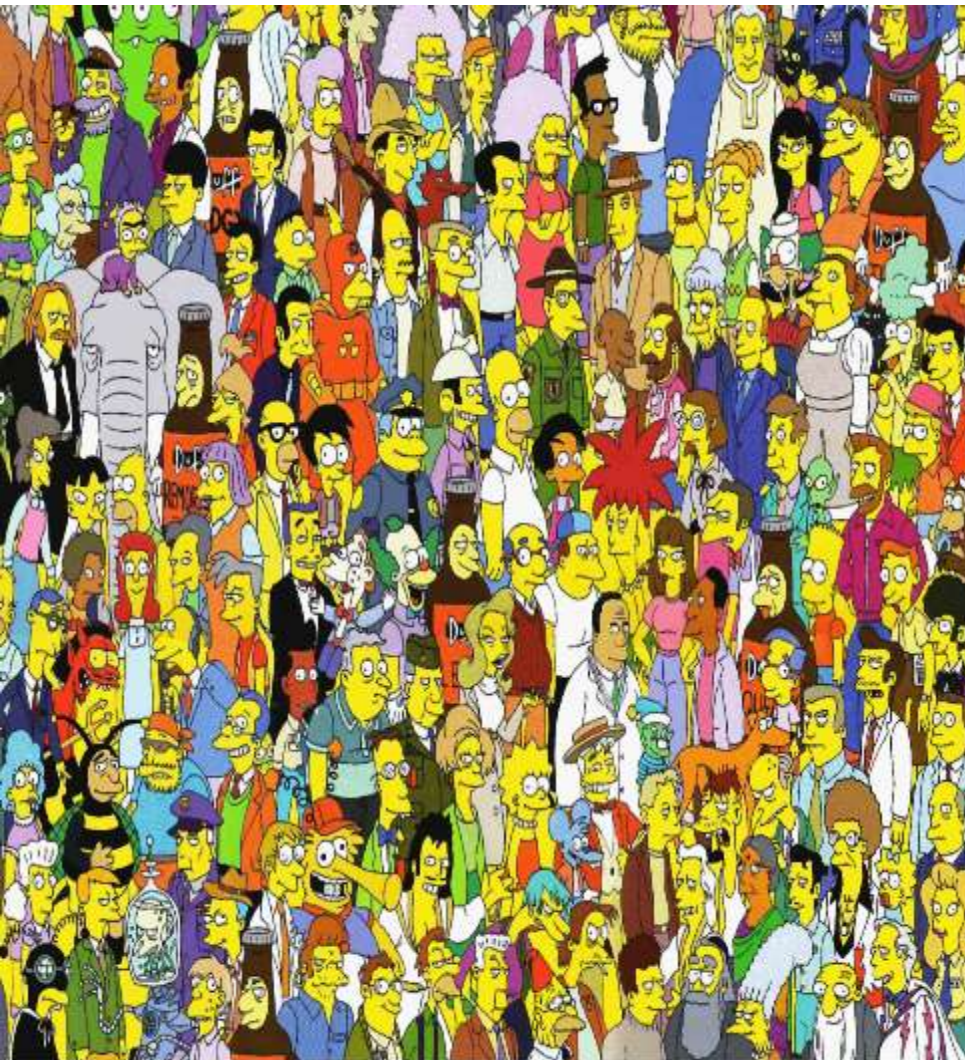
Area 5: Boundary crossing, systems thinking and connectivism

Source: Wals, 2014, Wals & Lenglet, 2016

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# Area 1: Understanding Change, Complexity & Transitions

# Doing what we do better vs doing better things…



technological developments
transition
incremental

GMO
closed-cycle design
blue revolution

metropolitan agriculture
cradle-to-cradle

>food literacy
> resource efficiency
< food waste

circular economy
protein alternatives
food justice

incremental    transition
societal developments

Adapted from Wageningen UR

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# Area 2: Considering ethics and normativity



www.ianimal360.com

# Area 5: Boundary crossing & seeing connections
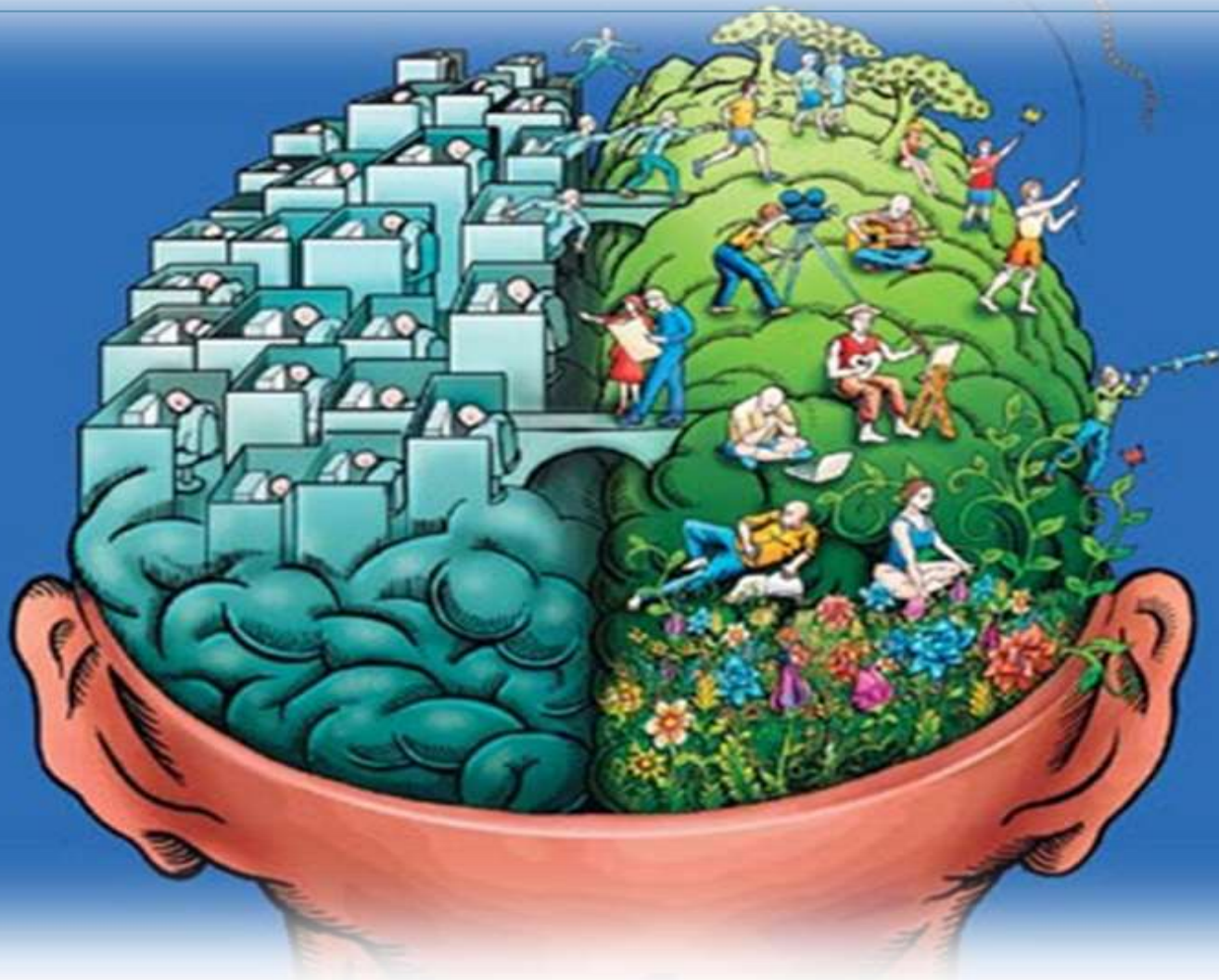


Source: creative commons

# transformative

psycho-social processes of cognitive and emotional perspective shifts that potentially lead to social-ecological change and the affirmation of life

# transgressive

intentionally generates critical thinking, collective agency and changed practices while explicitly challenging normalised systems that have become oppressive

# transdisciplinary

crossing boundaries to co-create and affirm knowledges in iterative and collaborative ways that contribute to changes in action and practice

Source: www.transgressivelearning.com

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## Indicators of T-learning?

- Expressions of collective action and 'small changes' that are situated within larger change trajectories
- Resistance, disruption and re-framing as expressions of agency
- Invisible silences , tensions, contradictions or challenges surfacing

- Problem solving and development of new skills
- Transgressing boundaries, norms  or that which has been normalised
- Reframed narratives and social movement for the common good – at multiple levels (intersecting)

# Indicators showing people are creating a world that is easier to love and live in together

- Signs of crossing boundaries

- Signs of conflict/tension

- Signs of conviction

- Signs of empathy

- Signs of attentiveness

- Signs of listening/attentiveness

- Signs of creativity, innovation, imagination

- Signs of intuitive action

- Signs of new friendships

- Signs of a sense of purpose

# Sustain"abilities"

| Sustainability competence | Examples of sustain'abilities' |
|---|---|
| **Dynamics and content of sustainability** | Sustainability literacy<br>Systems thinking<br>Adopting an integral view<br>*Learning to know* |
| **Critical dimension of sustainability** | Questioning hegemony and routines,<br>Analysing normativity<br>Disruptiveness, transgression<br>*Learning to critique* |
| **Change and innovation dimension of sustainability** | Leadership and entrepreneurship<br>Unlocking creativity, utilizing diversity<br>Appreciating chaos & complexity<br>Adaptation, resilience<br>Empowerment and collective change<br>*Learning to make change* |
| **Existential and normative dimension of sustainability** | Connecting with people, places and other species<br>Passion, values and meaning-making<br>Moral positioning, considering ethics, boundaries and limits<br>*Learning to be, learning to care* |

Sustainability is not just something to learn, it's something to live!

Source: UNESCO - GEM2016
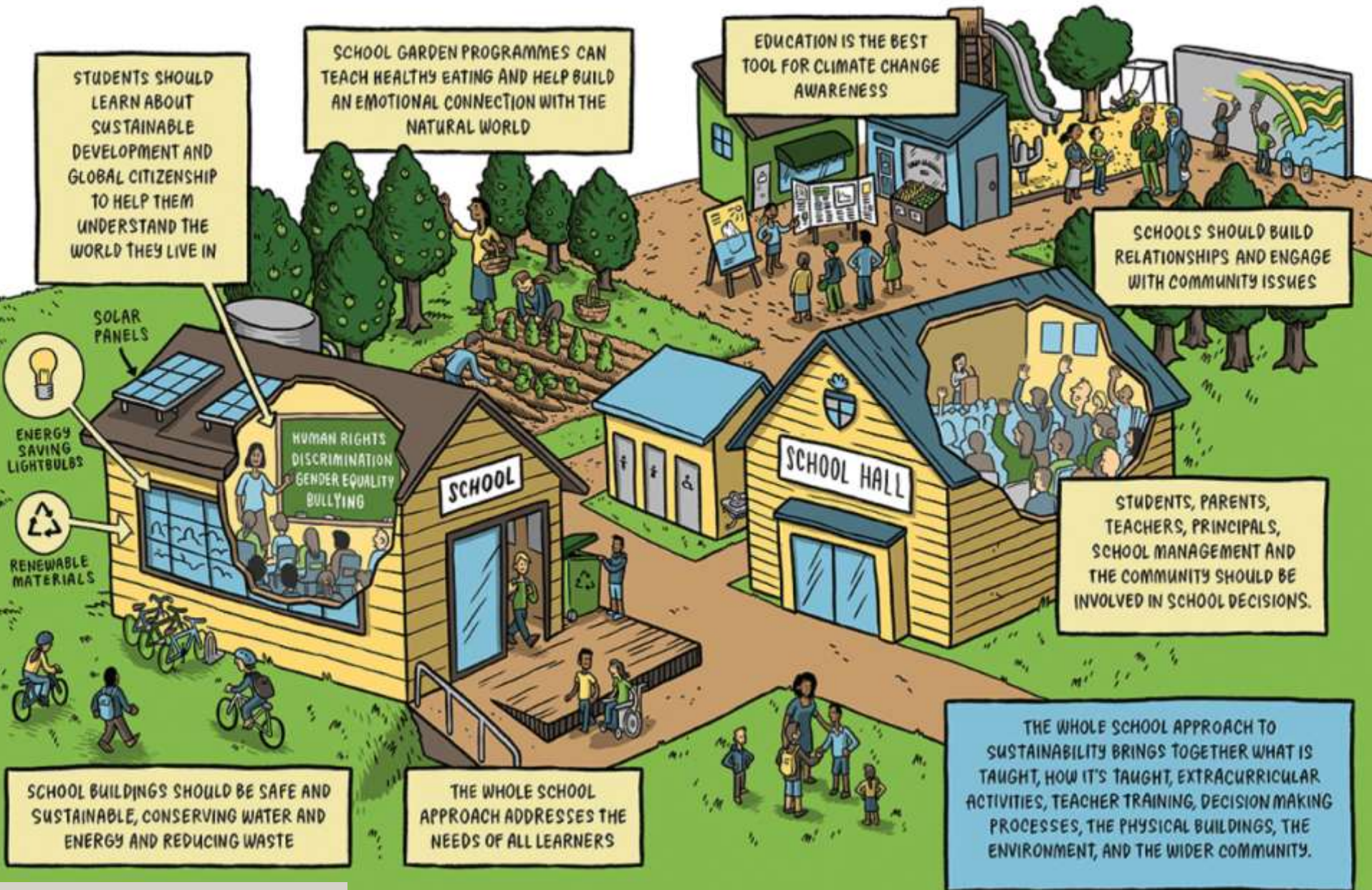
# Some suggestions

- Look for boundary crossing opportunities

- Adopt a systems approach – e.g. by linking with SDGs

- Utilize diversity and multiple perspectives – looking for synergy but also for contestation and conflict

- Move beyond increasing awareness and understanding

- Ask: what am I/are we strengthening in society, what am I/are we ignoring or weakening? What needs sustaining? What needs disrupting?

- Dare to be counter-hegemonic and disruptive!

Sustainability Science
Key Issues
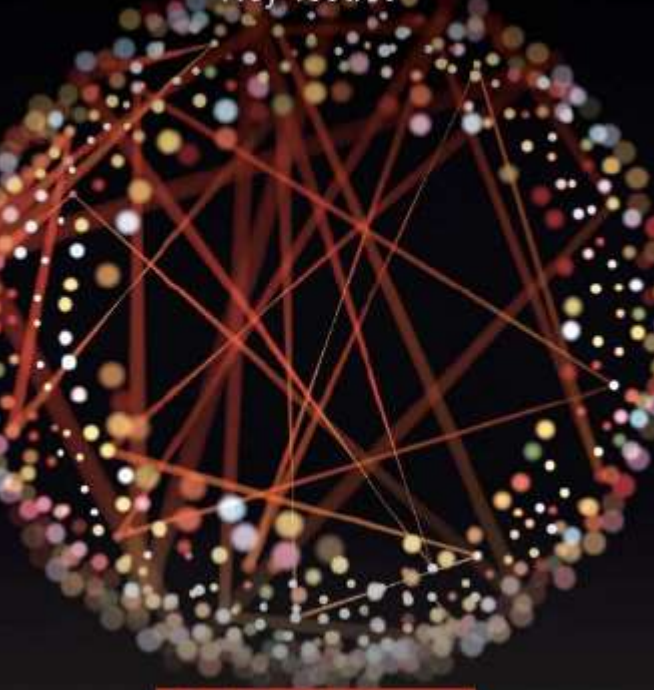
Key Issues in Environment and Sustainability

earthscan
from Routledge

Twitter: @arjenwals

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Blog: www.transformativelearning.nl

POLLARD STREET

Source: Banksy