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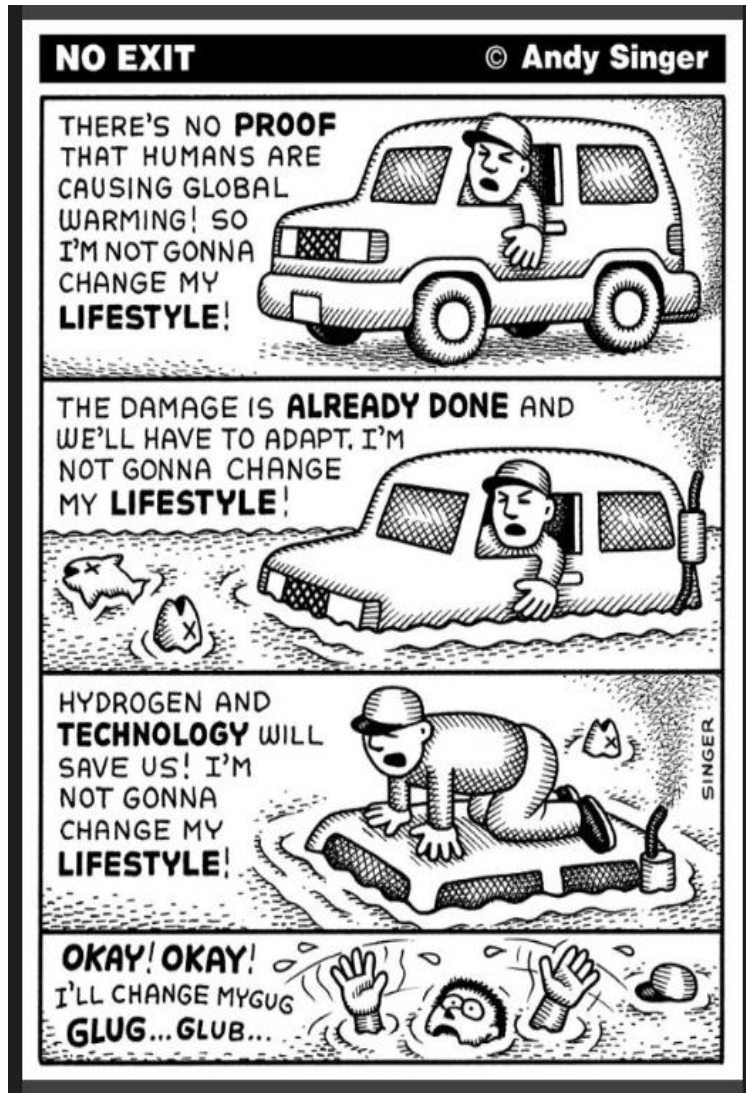
United Nations
Educational, Scientific and
Cultural Organization

UNESCO Chair in Social Learning and Sustainable Development

Education, Learning and Capacity-Building in Times of Climate Change: towards and integrated strategy

By Arjen Wals





Source: www.climateaccess.org,
 Rosemary Randall: Carbon Conversations



MOST USED Climate Myths











and what the science really says...

- 1 - Climate's changed before
- 2 - It's the sun
- 3 - It's not bad
- 4 - There is no consensus
- 5 - It's cooling
- 6 - Models are unreliable
- 7 - Temp record is unreliable
- 8 - Animals and plants can adapt
- 9 - It hasn't warmed since 1998
- 10 - Antarctica is gaining ice

[View All Arguments...](#)

BEYOND 'FAKE NEWS'

10 TYPES OF MISLEADING NEWS

propaganda 	<ul style="list-style-type: none"> adopted by governments, corporations and non-profits to manage attitudes, values and knowledge appeals to emotions can be beneficial or harmful 	partisan 	<ul style="list-style-type: none"> ideological and includes interpretation of facts but may claim to be impartial privileges facts that conform to the narrative whilst forgoing others emotional and passionate language 	IMPACT <ul style="list-style-type: none"> neutral low medium high MOTIVATION <ul style="list-style-type: none"> money politics/power humour/fun passion (mis)inform
clickbait 	<ul style="list-style-type: none"> eye catching, sensational headlines designed to distract often misleading and content may not reflect headline drives ad revenue 	conspiracy theory 	<ul style="list-style-type: none"> tries to explain simply complex realities as response to fear or uncertainty not falsifiable and evidence that refutes the conspiracy is regarded as further proof of the conspiracy rejects experts and authority 	
sponsored content 	<ul style="list-style-type: none"> advertising made to look like editorial potential conflict of interest for genuine news organisations consumers might not identify content as advertising if it is not clearly labeled 	pseudoscience 	<ul style="list-style-type: none"> purveyors of greenwashing, miracle cures, anti-vaccination and climate change denial misrepresents real scientific studies with exaggerated or false claims often contradicts experts 	
satire and hoax 	<ul style="list-style-type: none"> social commentary or humour varies widely in quality and intended meaning may not be apparent can embarrass people who confuse the content as true 	misinformation 	<ul style="list-style-type: none"> includes a mix of factual, false or partly-false content intention can be to inform but author may not be aware the content is false false attributions, doctored content and misleading headlines 	
error 	<ul style="list-style-type: none"> established news organisations sometimes make mistakes mistakes can hurt the brand, offend or result in litigation reputable orgs publish apologies 	bogus 	<ul style="list-style-type: none"> entirely fabricated content spread intentionally to disinform guerrilla marketing tactics; bots, comments and counterfeit branding motivated by ad revenue, political influence or both 	

DIG DEEPER...

false attribution	authentic images, video or quotes are attributed to the wrong events or person	misleading	content does not represent what the headline and captions suggest
counterfeit	websites and Twitter accounts that pose as a well-known brand or person	doctored content	content, such as statistics, graphs, photos and video have been modified or doctored

eavi
 MEDIA LITERACY
 for CITIZENSHIP
www.eavi.eu

N.B. The impact and motivation assignments are not definitive and should just be used as a guide for discussion.



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



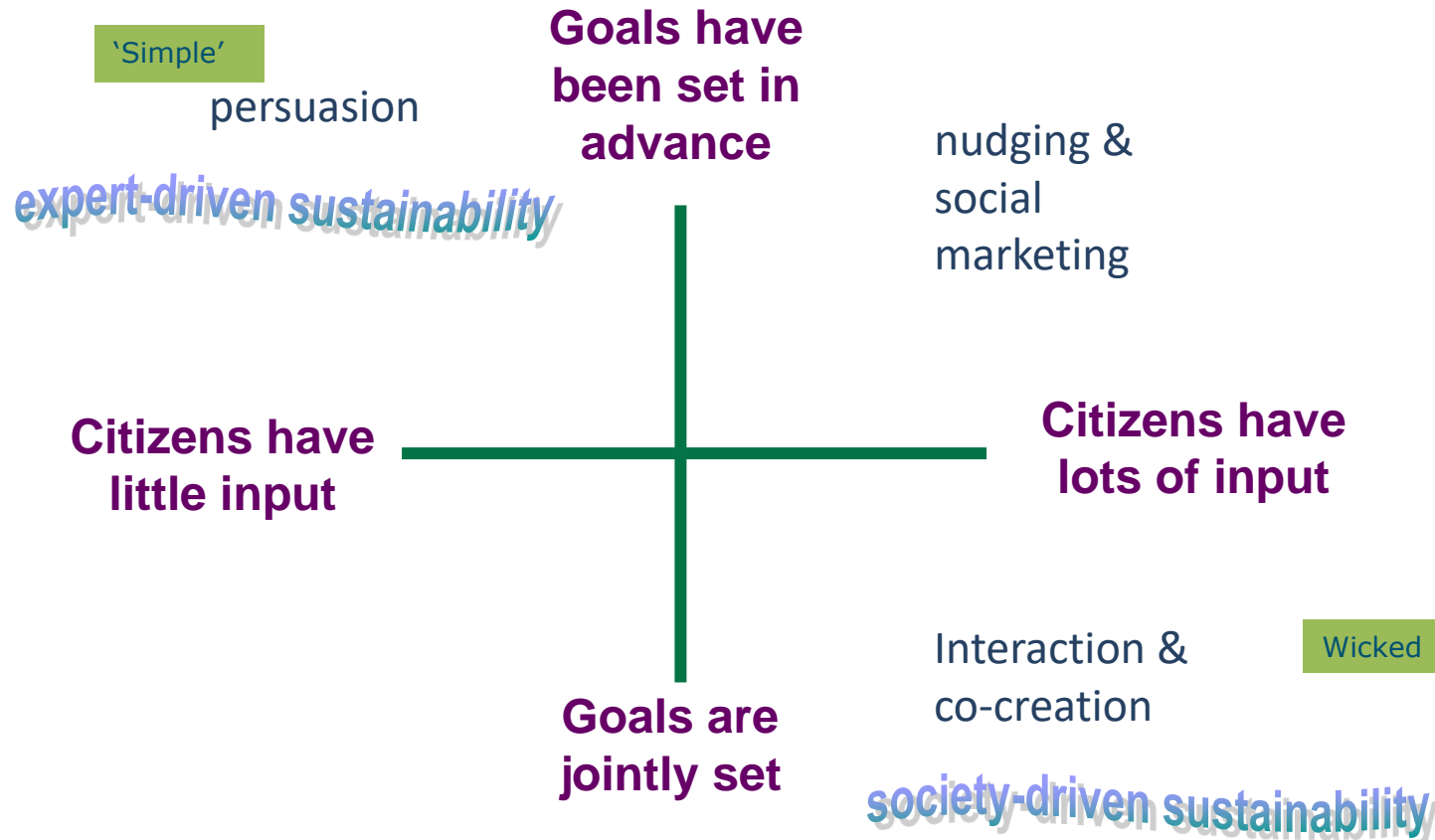
Mix of strategies to change and engage citizens

- Co-creative



cost of this.

money...



Based on Wals & Jickling, 2002;
Jickling & Wals, 2008

Educating for Climate Action (goals)

Table 1.2.13. Learning objectives for SDG 13 “Climate Action”

Cognitive learning objectives

1. The learner understands the greenhouse effect as a natural phenomenon caused by an insulating layer of greenhouse gases.
2. The learner understands the current climate change as an anthropogenic phenomenon resulting from increased greenhouse gas emissions.
3. The learner knows which human activities – on a global, national, local and individual level – contribute most to climate change.
4. The learner knows about the main ecological, social, cultural and economic consequences of climate change locally, nationally and globally and understands how these can themselves become catalysing, reinforcing factors for climate change.
5. The learner knows about prevention, mitigation and adaptation strategies at different levels (global to individual) and for different contexts and their connections with disaster response and disaster risk reduction.

Educating for Climate Action (goals)

Socio-emotional learning objectives

1. The learner is able to explain ecosystem dynamics and the environmental, social, economic and ethical impact of climate change.
2. The learner is able to encourage others to protect the climate.
3. The learner is able to collaborate with others and to develop commonly agreed-upon strategies to deal with climate change.
4. The learner is able to understand their personal impact on the world's climate, from a local to a global perspective.
5. The learner is able to recognize that the protection of the global climate is an essential task for everyone and that we need to completely re-evaluate our worldview and everyday behaviours in light of this.

Educating for Climate Action (goals)

Behavioural learning objectives

1. The learner is able to evaluate whether their private and job activities are climate friendly and – where not – to revise them.
2. The learner is able to act in favour of people threatened by climate change.
3. The learner is able to anticipate, estimate and assess the impact of personal, local and national decisions or activities on other people and world regions.
4. The learner is able to promote climate-protecting public policies.
5. The learner is able to support climate-friendly economic activities.

Educating for Climate Action (goals)

Box 1.2.13a. Suggested topics for SDG 13 “Climate Action”

Greenhouse gases and their emission

Energy, agriculture and industry-related greenhouse gas emissions

Climate change-related hazards leading to disasters like drought, weather extremes, etc. and their unequal social and economic impact within households, communities and countries and between countries

Sea-level rise and its consequences for countries (e.g. small island states)

Migration and flight related to climate change

Prevention, mitigation and adaptation strategies and their connections with disaster response and disaster risk reduction

Local, national and global institutions addressing issues of climate change

Local, national and global policy strategies to protect the climate

Future scenarios (including alternative explanations for the global temperature rise)

Source: Source: UNESCO, 2016

Citizen Science can help...

Citizens become more meaningfully engaged when they are empowered and equipped to monitor data about their own environment

Citizens come to understand the nature of scientific knowledge, the meaning of data (validity & reliability) better when actively engaged in scientific inquiry.

Citizens discover how easy and quickly one can become an expert in a specific issue in their own local environment.

Citizens self-monitor the impact of one's own actions, help them become more reflexive and effective in bringing about change.

→ Access to cheap ICT with enormous monitoring and storing capacity makes 'doing science' easier and more affordable.

Content

Resilience, Disruption,
Alternative Dev., SDG-
themes, Closed cycle
design, Cradle-to-
cradle, Place & identity

Pedagogy & learning

Systems thinking
Social learning
Transformative
learning
Values & ethics

Capacity-building

Professional development,
Competence-based
assessment
Reflexive praxis,
Civic science

Leadership,
Coordination,
Visioning, Governance

Place-based institutional practices

Walking the talk:
experimenting with
and learning from
creating sustainability
on location

Society

World of work, citizens
and governance
Operating within multi-
stakeholder environments
Societal impact

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



UNESCO, 2016 /GEM2016 Report

Conclusions

- A mix of education, communication and learning-based approaches is available
- The 'nature' of the climate change challenge determines which approaches are most effective
- Heart, hands and head need to all be engaged to have a deeper response
- Citizen science can empower and engage people through active monitoring of climate change impact
- The structures and spaces around people need to make sustainability easier so that climate sensitive behaviour is 'invited' and becomes the new normal

Thank you

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