“Education for Sustainable Development – are we doing the right thing?”

James Hindson
Sense&Sustainability, UK
Education for Sustainable Development – are we doing the right thing?

Shropshire
World changing ideas....
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And our current approach to ESD is not working!
Klaus Toepfer – previous Director General of UNEP

Messages from governments exhorting people to drive their cars less or admonishing them for buying products that cause environmental damage appear not to be working. People are simply not listening”
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Shellenger and Nordhaus

The Death of Environmentalism

Modern environmentalism is now long capable of dealing with the world’s most serious ecological crisis. Over the last fifteen years environmental organisations have spent hundreds of millions of dollars combating global warming. We have precious little to show for it.
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England – Sustainable Schools Strategy

- Energy and water
- Buildings and grounds
- Food and drink
- Purchasing and waste
- Inclusion and participation
- Travel and traffic
- Local well-being
- Global dimension
“ESD lacks visibility in the great majority of schools. Most remain unaware of linked initiatives such as ‘Sustainable Schools’.

Summary Report 2008
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So - WHERE are we going wrong?
We don’t understand
• the Seriousness
• the Source
• the Solutions

What we do now is Necessary but NOT Sufficient
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Ken Webster has suggested four approaches to ESD

A No, or token, change minimalist
B Cosmetic reform add-on
C Serious greening built-in
D Wholly integrative redesigned
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A note from Jonathan Porritt to start

The future will be decided in the next ten years
So anything we do in schools won’t help what happens!
The decisions will have already been made

So what role education?

Jonathan Porritt – previous chair of the UK Sustainable Development Commission.
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The SERIOUSNESS of the problem
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All the indicators are in the wrong direction
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There is a chance of global systems meltdown

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**Projected Impacts of Climate Change**

<table>
<thead>
<tr>
<th>Global temperature change (relative to pre-industrial)</th>
<th>0°C</th>
<th>1°C</th>
<th>2°C</th>
<th>3°C</th>
<th>4°C</th>
<th>5°C</th>
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<tbody>
<tr>
<td>Food</td>
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<td>Food</td>
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<td>Possible rising yields in some high latitude regions</td>
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<td>Falling yields in many developing regions</td>
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<td>Water</td>
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<td>Small mountain glaciers disappear – water supplies threatened in several areas</td>
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<td>Significant decreases in water availability in many areas, including Mediterranean and Southern Africa</td>
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<td>Sea level rise threatens major cities</td>
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<td>Ecosystems</td>
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<td>Extensive Damage to Coral Reefs</td>
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<td>Rising number of species face extinction</td>
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<td>Extreme Weather Events</td>
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<tr>
<td>Rising intensity of storms, forest fires, droughts, flooding and heat waves</td>
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<td>Risk of Abrupt and Major Irreversible Changes</td>
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<td>Increasing risk of dangerous feedbacks and abrupt, large-scale shifts in the climate system</td>
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</table>
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We are living way beyond our means
The human enterprise already exceeds global carrying capacity by 25-30%.
On 25 September, we passed ‘overshoot day’ for 2009. From now on we are Living on our natural capital not the interest
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And it is a HUGE problem

Billions of Tons Carbon Emitted per Year

Historical emissions

Flat path

16 GtC/y

Eight “wedges”
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The SOURCE of the problem?
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Here is one of the sources

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This is our current system of production – the linear economy

- We create wealth by digging up or cutting down natural resources and using our natural capital
- We produce in gigantic amounts of waste
- We produce billions of tons of toxic material and put them the air, water, and soil every year
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And there is more.....

• We throw valuable materials in holes all over the planet, where they can never be retrieved
• We require thousands of complex laws to keep people and natural systems from being poisoned too quickly
• We measure productivity by how few people are working
• We erode the diversity of species and cultural practices and destroy the beauty of our natural world
• We create systems that are fragile and can't adapt easily
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So this is how we do things

Traditional Industrial Ecology
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And we can see this all around us!
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And here is another – our desire for constant growth
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And here is another – our desire for constant growth
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A desire for constant growth measured by GDP will result in an exponential - use of resources
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And what SOLUTIONS do we suggest?
For the campaign against climate change is an odd one. Unlike almost all other public protests which have preceded it, it is a campaign not for abundance but for **austerity**. It is a campaign not for more freedom but for **less freedom**. Strangest of all, it is a campaign not just against other people, but also **against ourselves**.

George Monbiot, Environmental Campaigner
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And in education?

Children will be put on the **front line of the battle to save the planet** under radical proposals to shake up the way that geography is taught in schools. The plans will ensure that...issues such as climate change and global warming are at the heart of the school timetable ...education for sustainable development will be a compulsory part of the curriculum

Minister of Education in the UK
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What does this battle involve?
Largely the message is one of eco efficiency – or making the current system less bad.

Eco-efficiency: Dematerialisation
**Education for Sustainable Development – are we doing the right thing?**

**Eco effectiveness or eco efficiency?**

<table>
<thead>
<tr>
<th></th>
<th>Eco-efficiency</th>
<th>Eco-effectiveness</th>
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</thead>
<tbody>
<tr>
<td><strong>Principle</strong></td>
<td>Dematerialisation</td>
<td>Quality</td>
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<td><strong>Goal</strong></td>
<td>Perfection of reality</td>
<td>Realisation of a positive</td>
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<td></td>
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<td>environmental intention</td>
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<td><strong>Indicators,</strong></td>
<td>Regression of Problems</td>
<td>Progression towards</td>
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<td><strong>labels</strong></td>
<td>• Free of ...</td>
<td>Solutions</td>
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<td></td>
<td>• Reduction of ...</td>
<td>• Closing the loop</td>
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<tr>
<td><strong>Emotions</strong></td>
<td>Bad Conscience,</td>
<td>Hedonism and Optimism</td>
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<tr>
<td></td>
<td>Pessimism</td>
<td></td>
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<tr>
<td><strong>Communication</strong></td>
<td>You are bad</td>
<td>You are welcome</td>
</tr>
<tr>
<td><strong>Celebrates</strong></td>
<td>Monoculture</td>
<td>Diversity</td>
</tr>
<tr>
<td><strong>Result</strong></td>
<td>?</td>
<td>Innovation</td>
</tr>
<tr>
<td><strong>in brief ...</strong></td>
<td>From Cradle to Grave</td>
<td>From Cradle to Cradle</td>
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<tr>
<td></td>
<td><strong>C2†</strong></td>
<td><strong>C2C : Reincarnation</strong></td>
</tr>
</tbody>
</table>
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So we have **eco efficient** products - cars for example
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And we recycle (or really down cycle!)
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Consuming less – simple lifestyles
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But isn’t this really?

“Being less bad” rather than “being good”

And working towards a

“Slightly less bad world”
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And the approach has **two problems**

1. It’s not working and won’t work
2. It won’t help developing countries

So what is the way forward?
The thinking is all wrong. Frightening people does not lead to change. Giving hope does. Martin Luther King jr’s “I have a dream” speech is famous because it put forward an inspiring, positive vision that carried a critique of the current movement within it. Imagine how history would have turned out had King given an “I have a nightmare” speech instead.
Optimism is a strategy for making a better future. Because unless you believe in that future can be better, it’s unlikely that you will step up and take responsibility for making it so.

Noam Chomsky
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Why does this work?
George Lakoff
Frames are the mental structures that shape the way we see the world. As a result they shape the goals we seek, the plans we make, the way we act....In politics our frames shape our policies and how we carry them out
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SO
A negative view of the future
Means policies of “less” which to most people means “worse”
None of which are attractive to most people who have a frame that says “more” and “better”
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SO until ....

• We have a positive vision – bright green
• And understand how to match with people’s aspirations and frames of mind

Then we wont be as successful as we could be!!
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So what are the REAL SOLUTIONS?

Cradle to Cradle thinking
McDonough
Braungart
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To think like a tree – or an ant
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Air conditioned
Secure
Adaptable
Own Nurseries
Own ‘agriculture’
Waste ‘disposal’
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Learning from natures system where

- Waste equals food
- Only current solar income is used
- Air, water, and soil are purified
- Valuable materials are retained or perpetual, productive reuse
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• No regulation is required
• An abundance of cultural and biological diversity is celebrated
• Nature's capacity to thrive is enhanced
• Health, wealth, and useful resources all grow
• There is value and opportunity for all
• Systems are robust but flexible
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Imagine if we could develop systems for everything we do that followed these principles?

Is it possible?
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A Circular Economy
(where waste = food)

‘Nature as Natural Capital’

- ecosystems
- forests
- oceans
- soils etc
- species (biodiversity)

Biological Nutrients (b) return to biosphere to enhance natural capital

Technical nutrients (t) are metals, plastics and other non-compostable materials which circulate from user (consumer) to manufacturer.

After W. McDonough and M. Braungart

Source: ‘Sense and Sustainability - Educating for a low carbon world’, Ken Webster and Craig Johnson, TerraFirma, 2008

Richard Davies
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Eco-Effectiveness: Rematerialisation

Figure 3
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Such a system, modelled on the natural world's abundance, can solve rather than just manage the problems industry currently creates, allowing both business and nature to thrive and grow.

[www.greenblue.org](http://www.greenblue.org)
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"Wouldn't it be better to simply turn off the taps?"
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Clothing?

www.treehugger.com
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Solar energy
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And in the future?
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You never change things by fighting against the existing reality. To change something, build a new model that makes the old model obsolete. Buckminster Fuller
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Is it possible?
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I Phone
Stabilization Wedges

Billions of Tons Carbon Emitted per Year

16 GtC/y

Eight “wedges”

Goal: In 50 years, same global emissions as today

Historical emissions

Current path = “ramp”

Flat path →

1950 2000 2050 2100
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People can be divided into three groups –

Those who make things happen
Those who watch things happen
And those who as –
“What happened?”
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Thank you!!

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