

Welcome to this week's presentation and conversation  
hosted by the  
**Canadian Association for the Club of Rome,**  
a Club dedicated to intelligent debate and action on global issues.

## ***The Value Crisis: Re-visioning What We Know.***

Our speaker today is Andrew Welch, who has worked as a computer systems analyst, actor, educator, theatrical set designer, corporate facilitator, high-angle rescue professional, software manager, and official town crier. His renewable energy monitoring systems are now used on every continent, and he is a volunteer Disaster Management Lead with the Canadian Red Cross. His first book, *The Value Crisis*, was published in 2014. He questions whether our problems are really intractable or whether the answers are hiding in plain sight. He will introduce his unique values framework, with the following objectives:

- 1.** Derive some rational conclusions from what we already know
- 2.** Propose a powerful paradigm to explain why we got to where we are
- 3.** Use those to suggest what might come next, and what we might do to survive as a species.

The presentation will be followed by a conversation, questions, and observations from the participants.

CACOR acknowledges that we all benefit from sharing the traditional territories of local Indigenous peoples (First Nations, Métis, and Inuit in Canada) and their descendants.



2022 Sep 14

Zoom #114

# My Promise

You will be given a unique and exciting new approach to answering the most intractable questions that this group regularly wrestles with.

# Flight Path

## PART I - The Framework

- The core value fault
- Problems – why?
- Visualizing the issue

## PART II – Applying It

- What's stopping us?
- Some of 33 questions
- Solution strategies

# Information/History – What is or was happening

Climate in Paris  
Machine learning  
Climate of the Holocene  
Ottawa light-rail trains  
Scaling up urban low-carbon innovations  
AI opportunities and threats  
New gender lens for space tech. & exploration  
Green fund for municipal sustainability  
Making Ottawa the green capital of Canada  
Why we should care about geology  
Canada: from Rio to Paris  
Canadian Energy History  
Precolumbian Cultures of the Americas  
NRC's climate-resilient buildings  
Whistleblowing and CoViD-19  
Stockholm 1972 revisited  
Environment, Ethics & Sustainable Dev.  
Arms Control and Disarmament  
Food Security for humankind  
Sustainable living  
Travelogue through time  
Off-grid root cellar  
LEAP schools  
International Environmental agenda

Distance learning  
Novel viruses in the modern world  
Limits to growth at 50 years  
Behind the Montreal Protocol  
Automobiles in Canada  
Earth Day 2021  
Responsible banking  
How women deal with global issues  
Millview passive house  
Bhutan's journey towards GNH  
Path to Canada's future homes  
Sharing world environmental data  
eLearning: friend or foe  
Saving the bees & climate change  
Remediation Projects for Contaminated Sites  
Pathways to climate stability  
COP26  
Smart cities  
Canadian environmental protection act  
Health impacts of climate change  
Millennium seed bank  
Improving environmental protection  
Crimes against the planet



# Solutions – How to Fix

Bhutan is Carbon Negative  
Technical advances to cope with climate change  
Limits to growth was right – what we need to do now  
Microgrids  
Adaptations of tourism for a fragile planet  
Reducing building energy footprints  
Adaptation to climate change  
Canada's energy future  
Vertical solar and CoViD avoidance  
Scrubbing carbon from the atmosphere  
Industrial bioeconomy revolution  
Re-imagining nuclear energy  
Align Fossil Fuel Production with Paris Goals  
District energy systems  
Wellbeing for communities  
Relational values and policy mixes for sustainability  
Fast-spectrum SMR to combat climate change  
Expected policies of electric vehicle markets  
Sustainable cruise tourism  
The perfect storm: Canada's future  
A leap to an ecological economy  
Science for public health & environmental law

Scaling climate action  
Re-imagining nuclear energy  
Buildings for a post-petroleum world  
Dealing with adaptation deficit  
Canada's role in the climate emergency  
Climate change and the law  
Cities and climate change  
Treadmill of fossil fuel practices  
Circular economies  
The global water emergency  
Investing in the era of climate change  
Vehicle to grid integration  
The energy transition  
Money matters





# Problems – What we Face

Water, Climate, & Health in a Warming World

Cruise Tourism

Global warming impacts and implications

Transdisciplinary science for a sustainable earth

Overpopulation

Investigative journalism and climate change

Scientists not doing anything about global warming

Civilizational overshoot

Populism; rebuilding the national conversation

Canada's population policy

Politics of the climate crisis

Freedom of outer space

EnviroCentre's green room

Abrupt climate system change

What's going on in Alberta

Climate change: We're screwed

Global reset & the future of hope

Alberta's struggle with the future

World3, 50 years later

Climate crisis deceptions

More powerful insecticides

Climate, farms, food, emissions, and solutions

Climate healers: food is climate

Green growth in Canada

Our existential crisis



# Frameworks – New (and Old) Ways to Think about Things

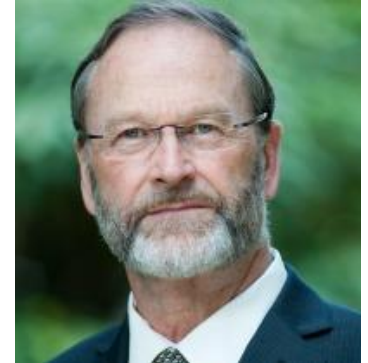
Living the limits to growth  
The role of religion in climate change  
Indigenous perspectives on the environment  
Critical reasoning & mobilizing values  
Indigenous perspectives on the environment  
Entanglement of these times and the future  
Orchestral music & social change  
BioPhysical economics  
Avoiding extinction of humans  
Inequality and Genuine wealth  
Too clever by half  
Land use planning & climate change  
Re-imagining the purpose of an economy  
Henry George economics  
Wellbeing economy  
Earth's view of climate change  
Self-delusion  
New paradigm for social change



# CACOR Talks Everyone Should Watch

(that this talk uses as foundational)

- <https://canadiancor.com/dr-william-rees-on-the-virtues-of-self-delusion-or-maybe-not/>
- <https://canadiancor.com/too-clever-by-half-bill-rees-2021-05-12-cacor/>
- What's necessary to avoid extinction of humans from failure to accept there are Limits to Growth  
<https://canadiancor.com/david-korten-usa-cor-cacor-and-eu-cor-joint-meeting-10-dec-2020/>





# The End(s) of Civilization?

- 6<sup>th</sup> extinction
- Resource scarcity
- Nuclear arms race
- Global heating
- Global poisoning
- Food failure
- Pandemic diseases
- Uncontrolled technologies
- Overpopulation
- False beliefs
- Water issues
- Failure of MTI society
- Populism
- Ecological overshoot
- Loss of biodiversity
- Untenable inequality
- ....
- (Unforeseen crisis)
- ....

# The Value Crisis

More is  
Always  
Worth More

# Number-based values

- Values that are measured quantitatively
- Have the same properties as numbers:
  - Linear                    e.g. 7 is always greater than 3...
  - Consistent                ...for everyone, everywhere...
  - Limitless                  ...and you can always add 10 more.
- **“More is always worth more”**

# A Sixth Mass Extinction - Why?

- Loss of habitable environment
  - physical habitat removal
  - poisoning of environments
  - crowding out - loss of diversity
- Over-harvesting of resources
- Ignoring interconnectedness & species inter-reliance



# A Sixth Mass Extinction - Why?

- Loss of habitable environment
  - physical habitat removal
    - extract more resources faster than replaced
    - more living and agricultural space
      - more people & costlier standard of living
  - poisoning of environments
  - crowding out - loss of diversity
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- Ignoring interconnectedness & species inter-reliance

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  - more people & costlier standard of living

- poisoning of environments

- attempt better solutions than nature offers

- produce more, faster, cheaper

- burning massive amounts of fossil fuels

- cheap and powerful energy

- crowding out - loss of diversity

- Over-harvesting of resources

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- crowding out - loss of diversity

- invasive species
- false efficiencies of monocultures
- ignoring external costs that don't impact profit

- Over-harvesting of resources

- Ignoring interconnectedness & species inter-reliance

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- Over-harvesting of resources

- convert resources to cash
- overpopulation

- Ignoring interconnectedness & species inter-reliance

More is  
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Worth More



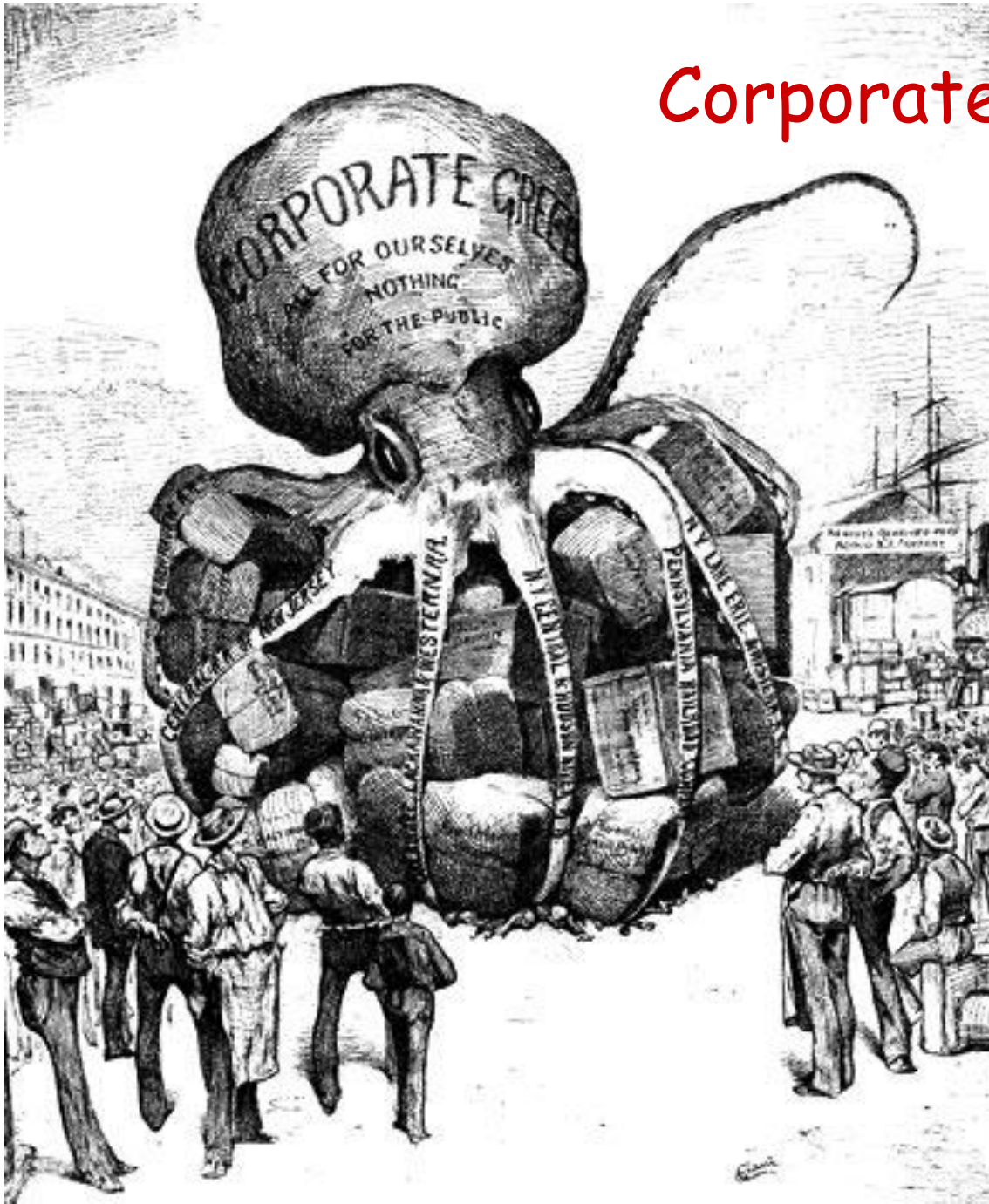
# COVID-19 Pandemic - Why?

- Millions crossing globe by air every day
- Crowded populations
- No community resilience for essentials of life
- Economic bailouts vs. humanitarian imperatives
- Cuts to healthcare, emergency planning, & social safety nets
- Decisions based on economics over healthcare
- Partisanship and leaders with zero credibility
- Marginalization of essential workers

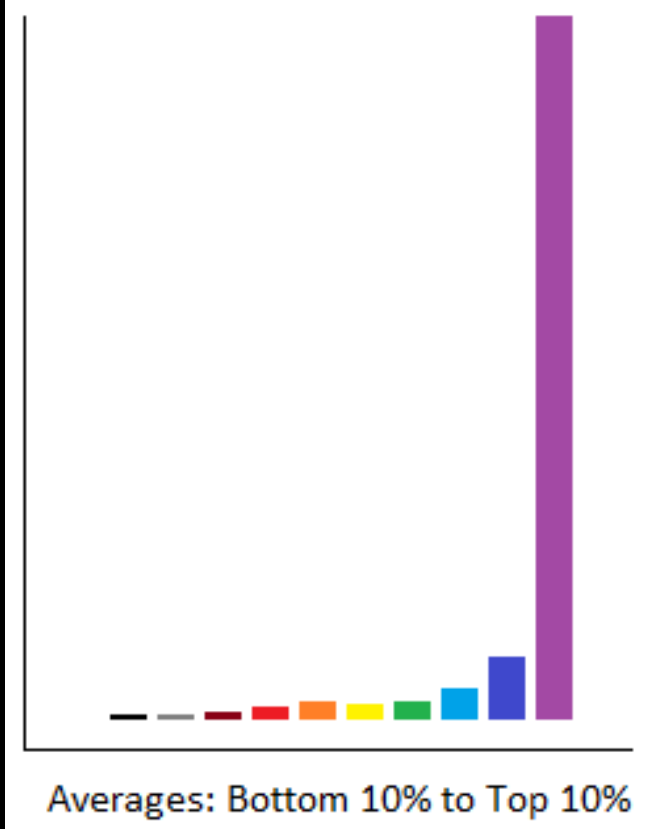
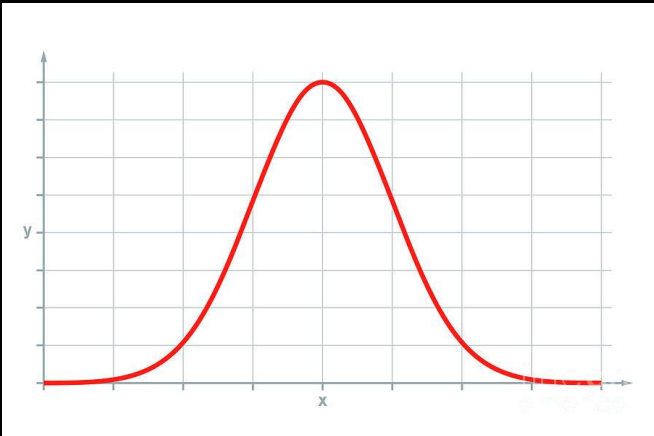
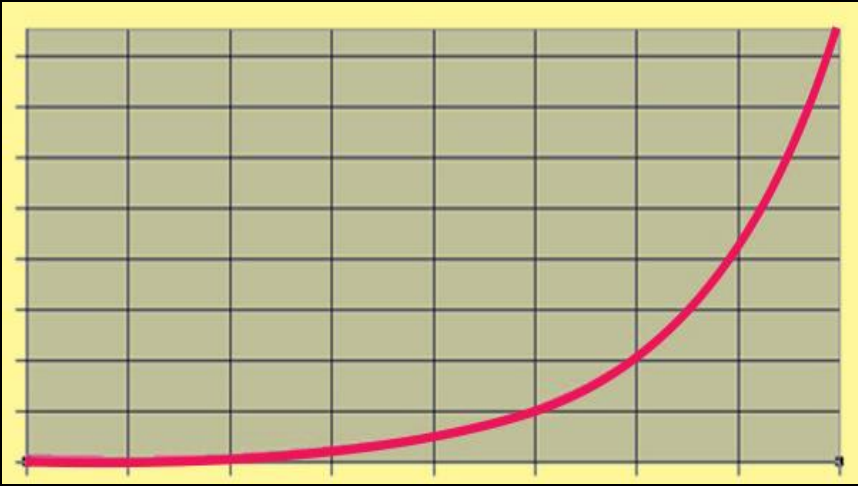
# The Value Crisis

Allowing number-based values to consistently override all other values is our greatest failing.

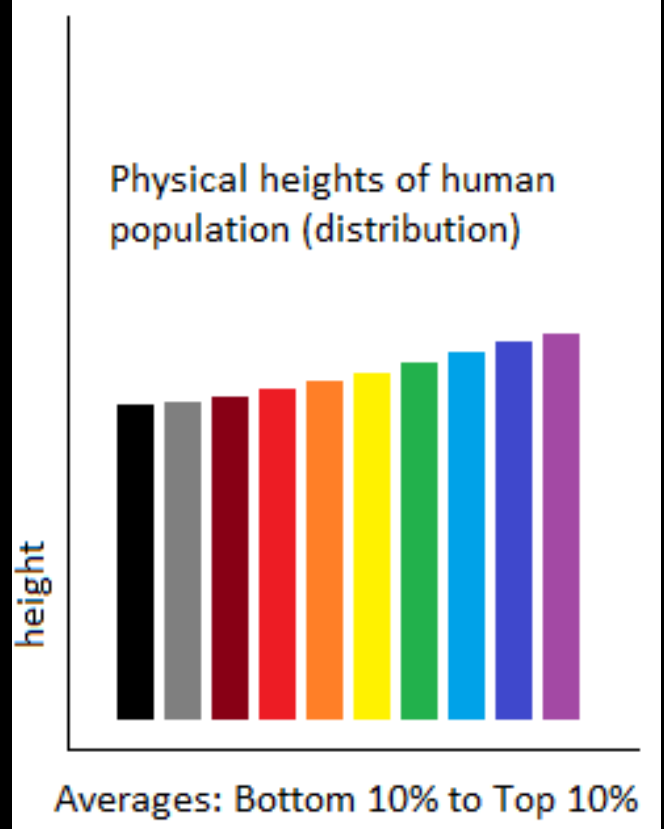
# Corporate Greed?



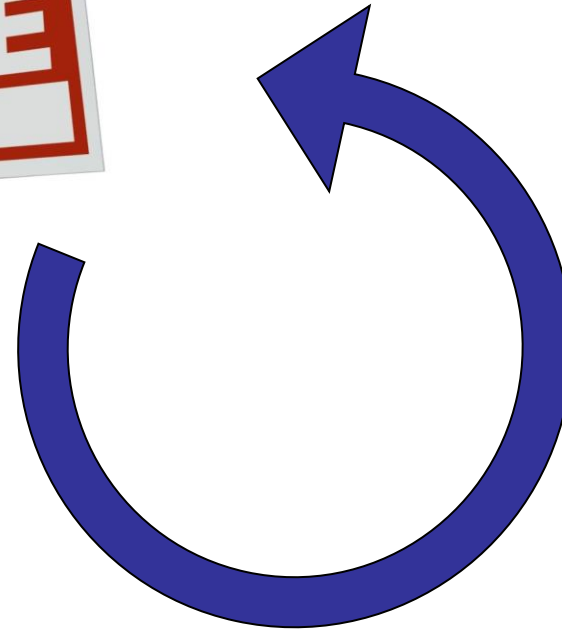
No Such Thing.



Nicholas Nassim Taleb, "The Black Swan"





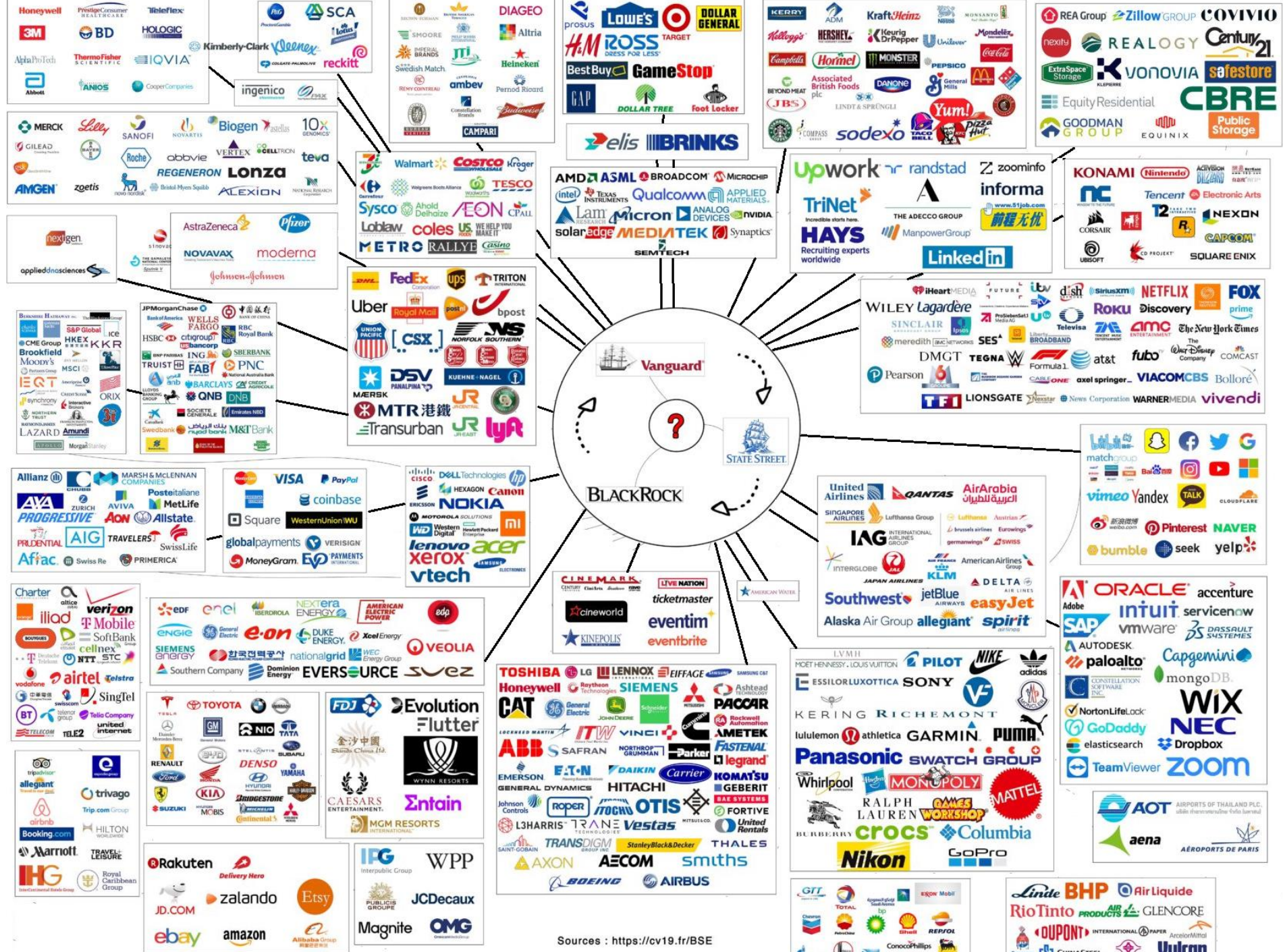


Fixed essential asset  
+ Generates income  
+ Income can buy more asset

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= Exponential growth

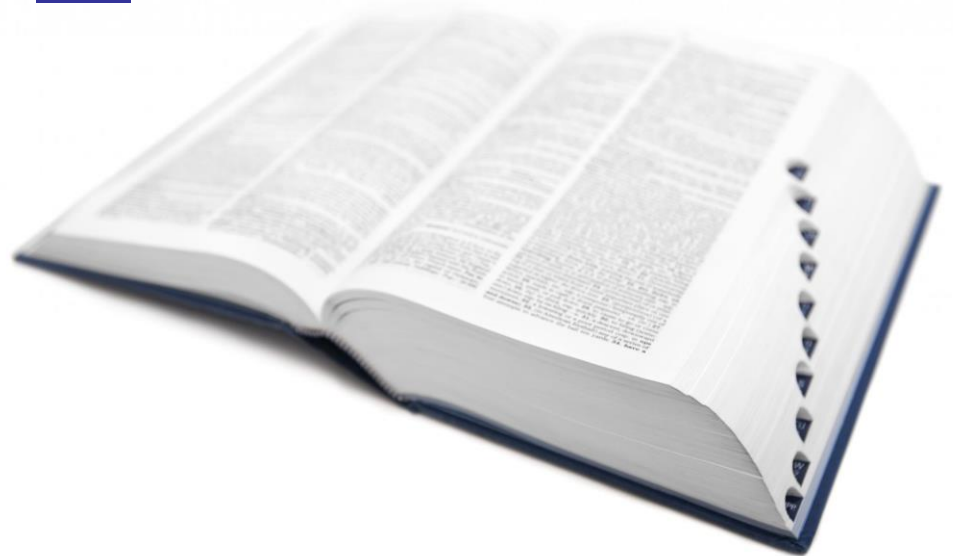




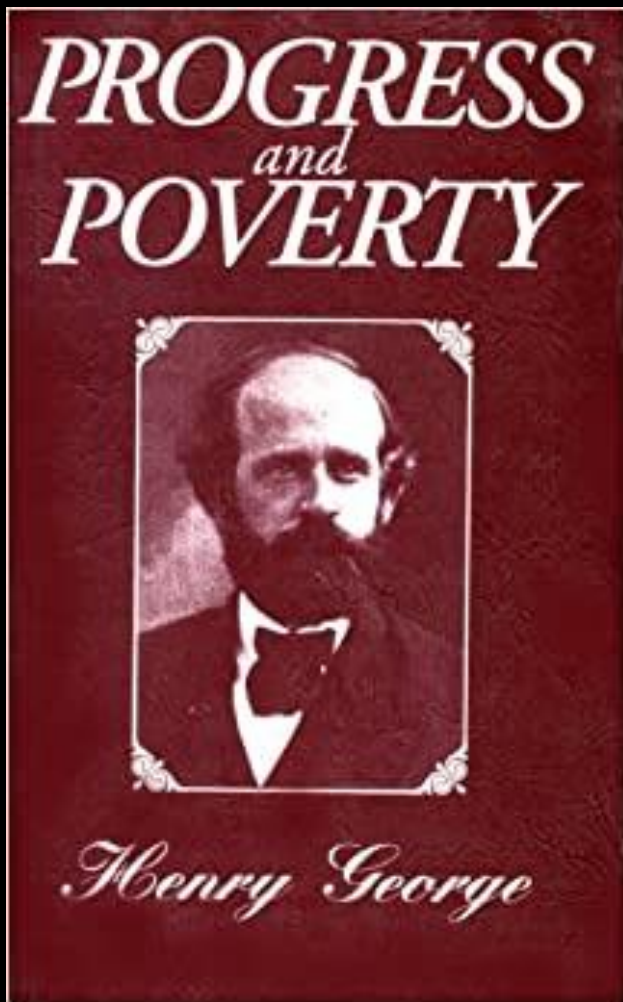
Sources : <https://cv19.fr/BSE>

# *Economic rentier*

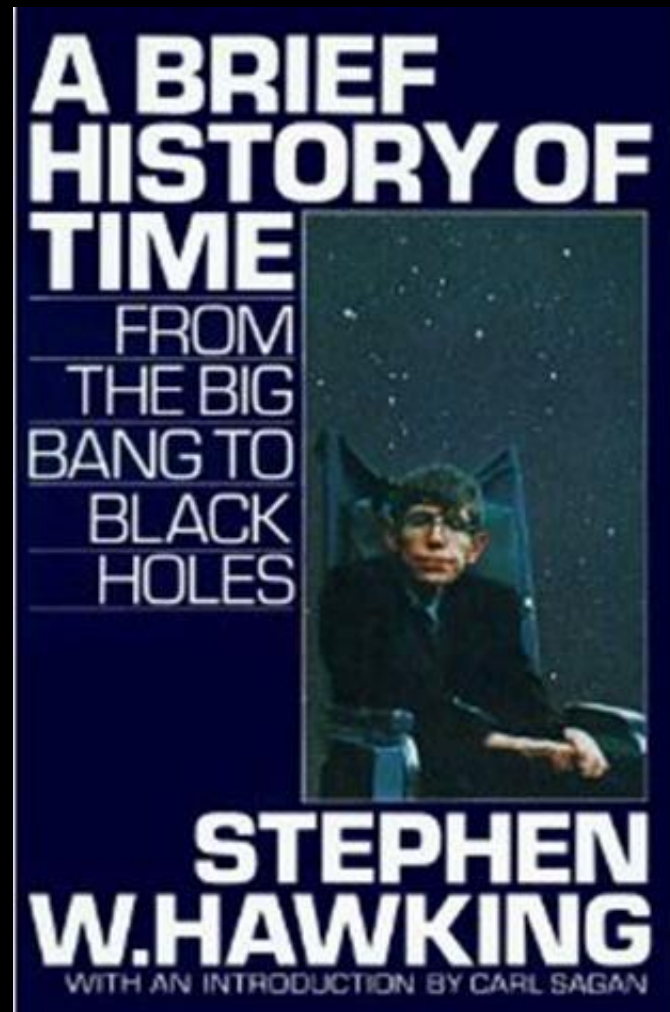
A person whose income is mainly derived by what they own, not what they do.







1879



1988

# Numbers



The only thing in  
existence that is  
limitless.

In a number-based value system, Efficiency is a positive feedback loop

- create more, not same in less time
- inspires efficiencies in related products
- focuses market on price, not quality



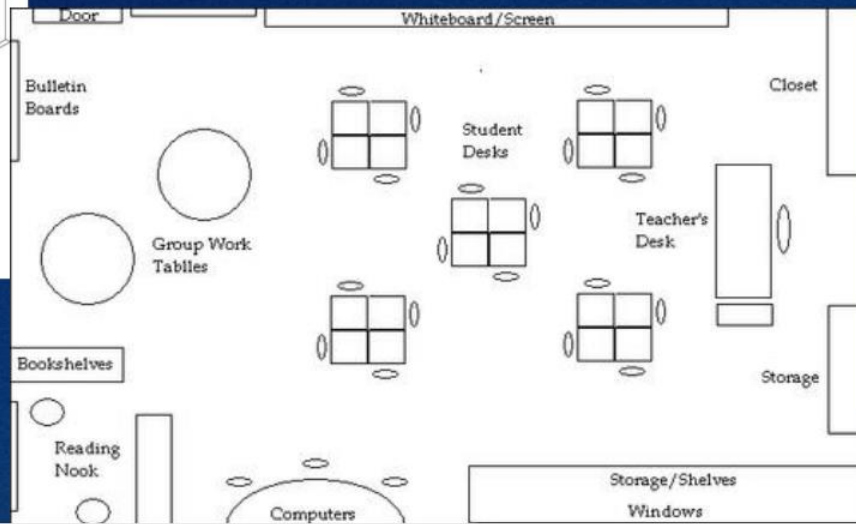
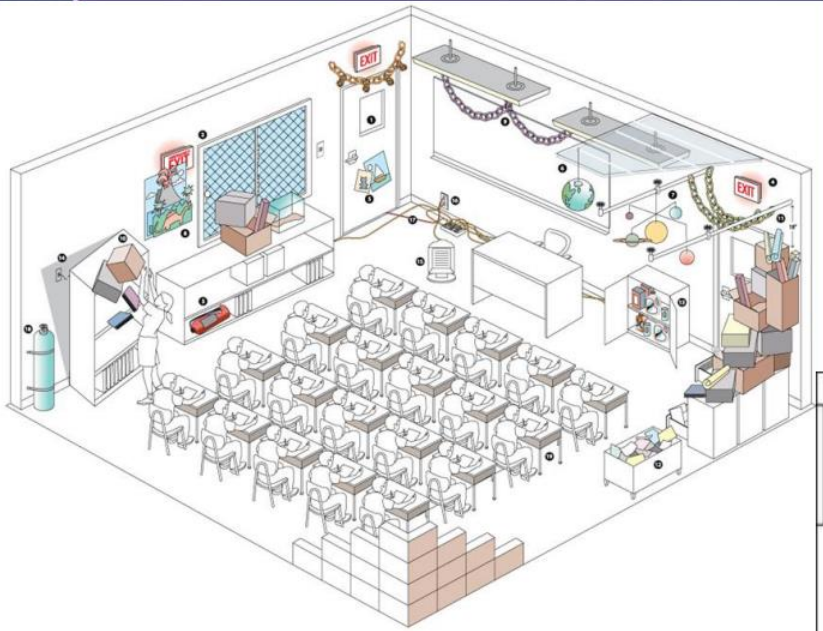
~~GDP = Gross Domestic Product~~

GNH = Gross National Happiness

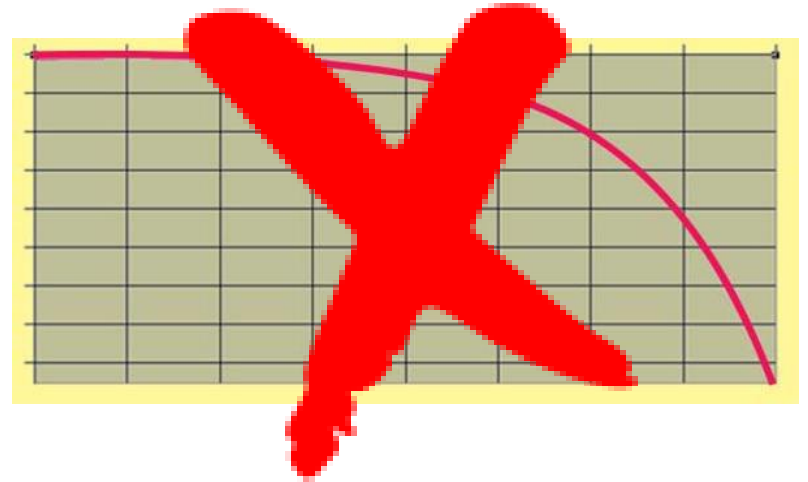
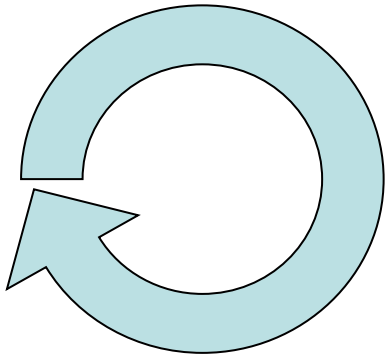
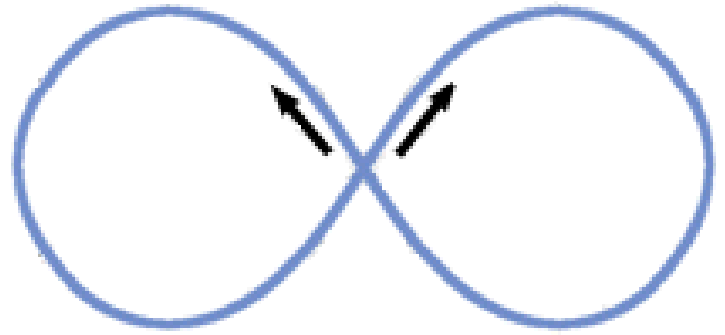
GPI = Genuine Progress Indicator

Wellbeing Economic Policy

# Consciousness Matters: Stuff as Embodied Consciousness



*from Rubin Nelson's CACOR talk*

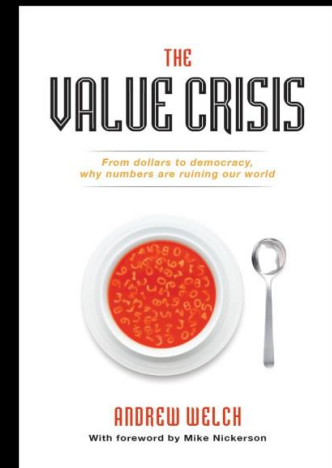


# Qualitative / Human Values

- Respect
- Appreciation
- Sanctity
- Friendship
- Diversity
- Wellbeing
- Compassion
- Happiness
- Spirituality
- Physiological needs
- Environment
- Creativity
- Relationships
- Love
- Honour
- Awe
- Beauty
- Justice
- Culture
- Health
- Morality
- Wisdom
- Freedom
- Integrity
- Duty
- Fairness
- Faith

# Number based Values

- Money
- Possessions
- Votes
- Likes
- Followers
- Utilitarianism



# Freedom?

*Succeeding*

Common ground rules

Relax controls  
and structure

ORDER

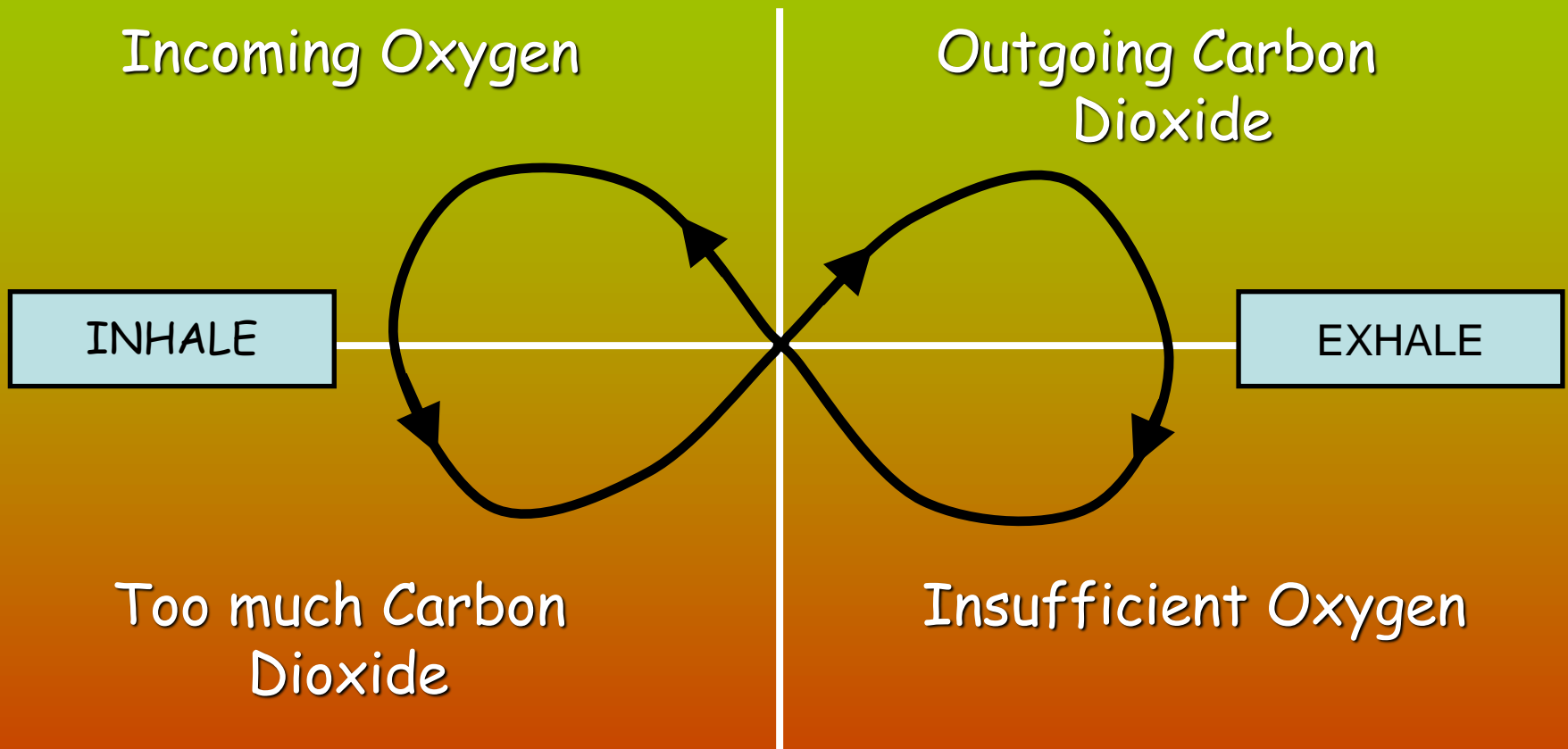
CHAOS

Authoritarian  
Regime

Lawless Anarchy

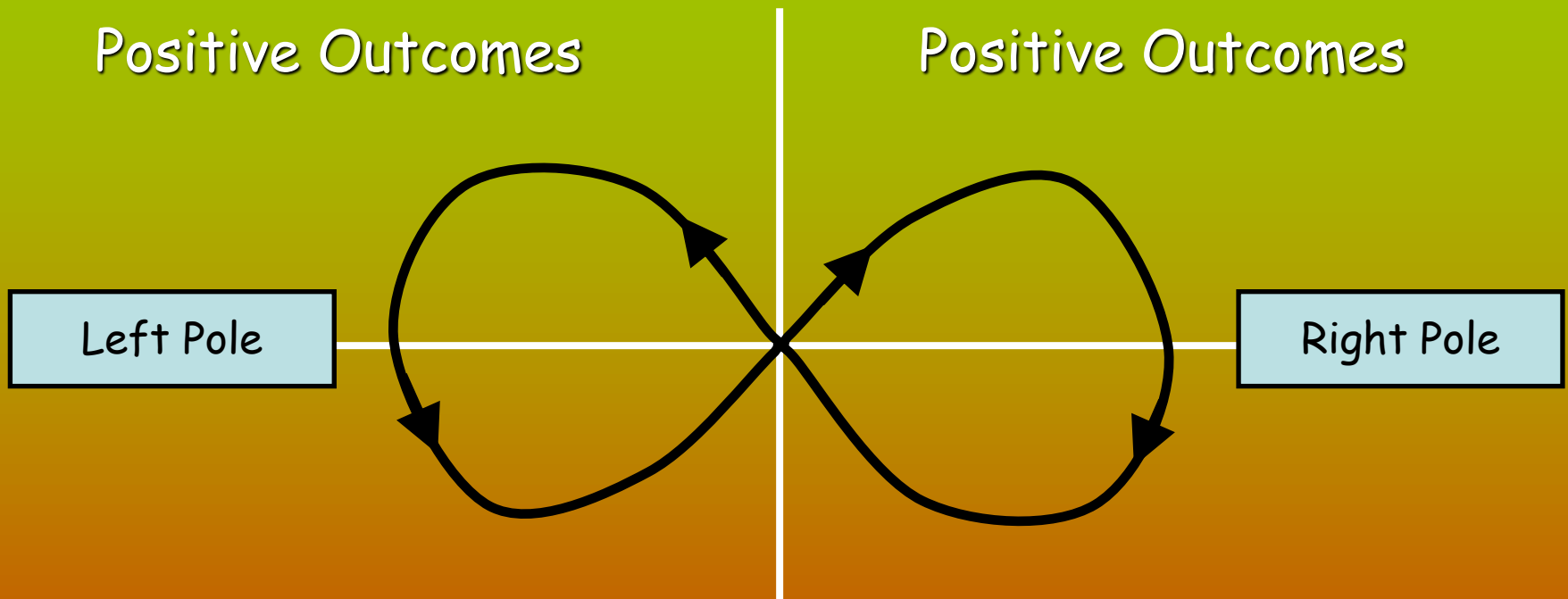
*Failing*

# Breathing

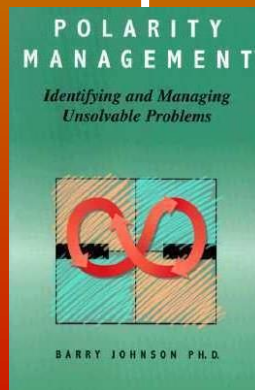




# Polarity Management



Negative Outcomes

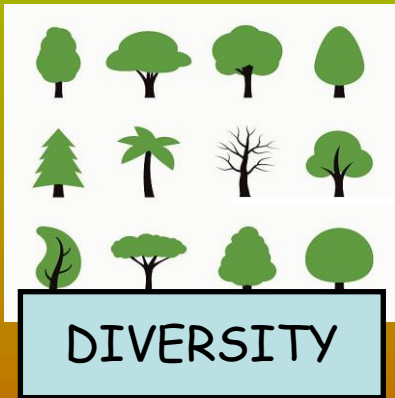


Negative Outcomes

Based on the work of  
**Barry Johnson, 1992**

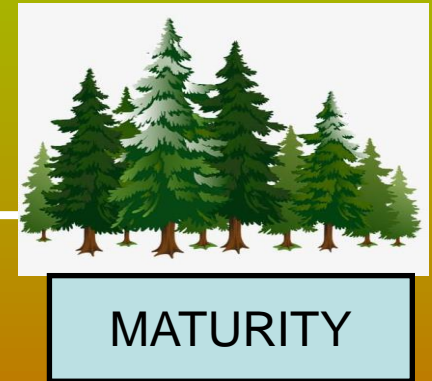
# Forest

- Rapid Growth
- Species Diversity

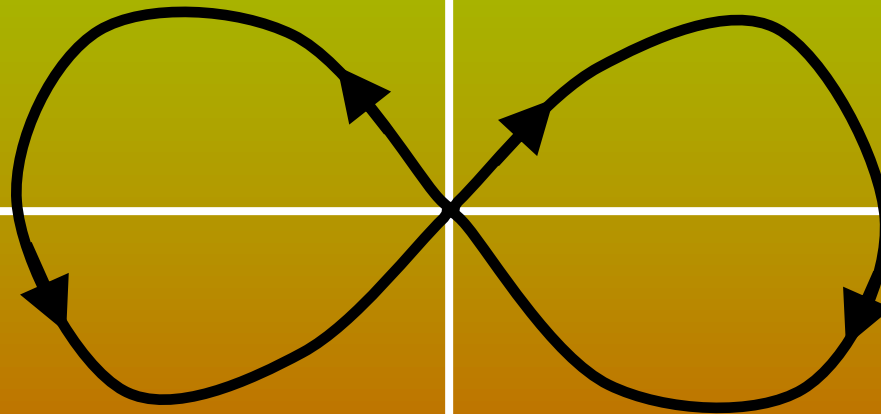


- Crowded
- Inefficient
- Competitive

- Slow Growth
- Species Dominance



- Disease susceptibility
- Fire hazard



**Freedom**

CHAOS

ORDER

**Justice**

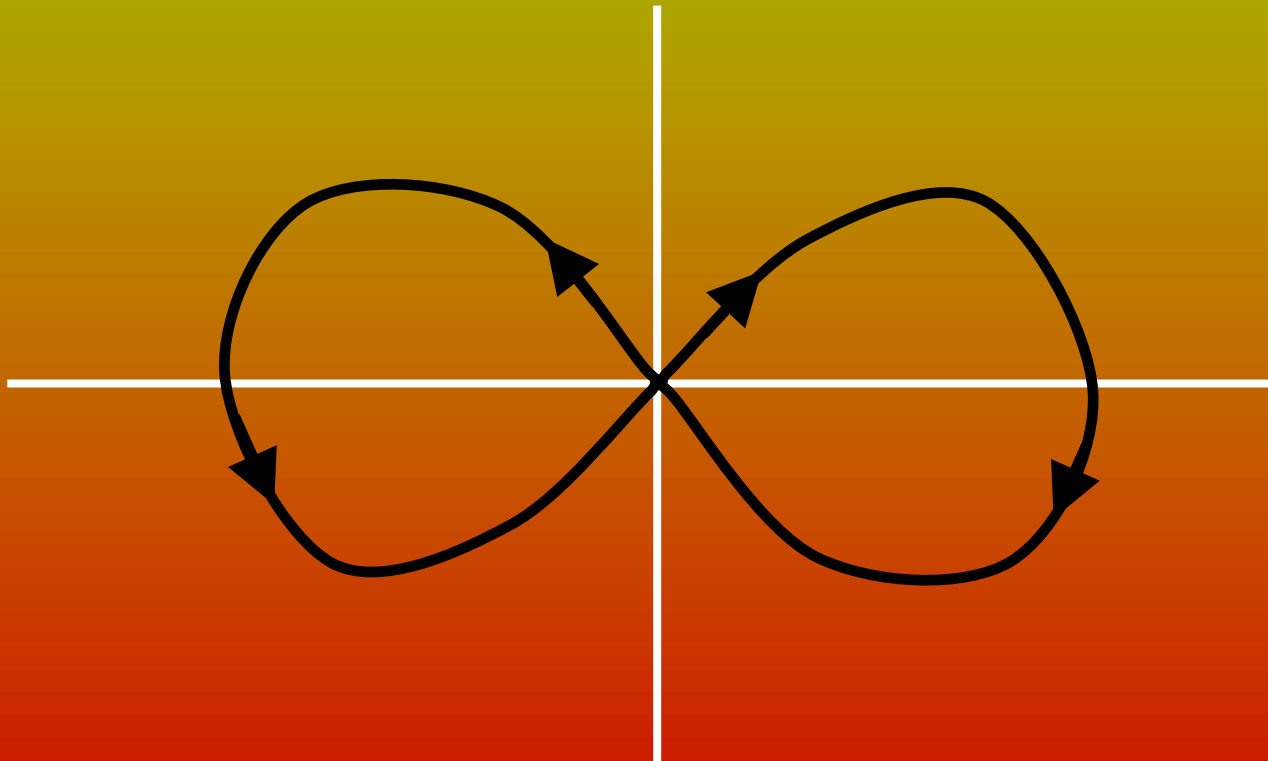
MERCY

STRINGENCY

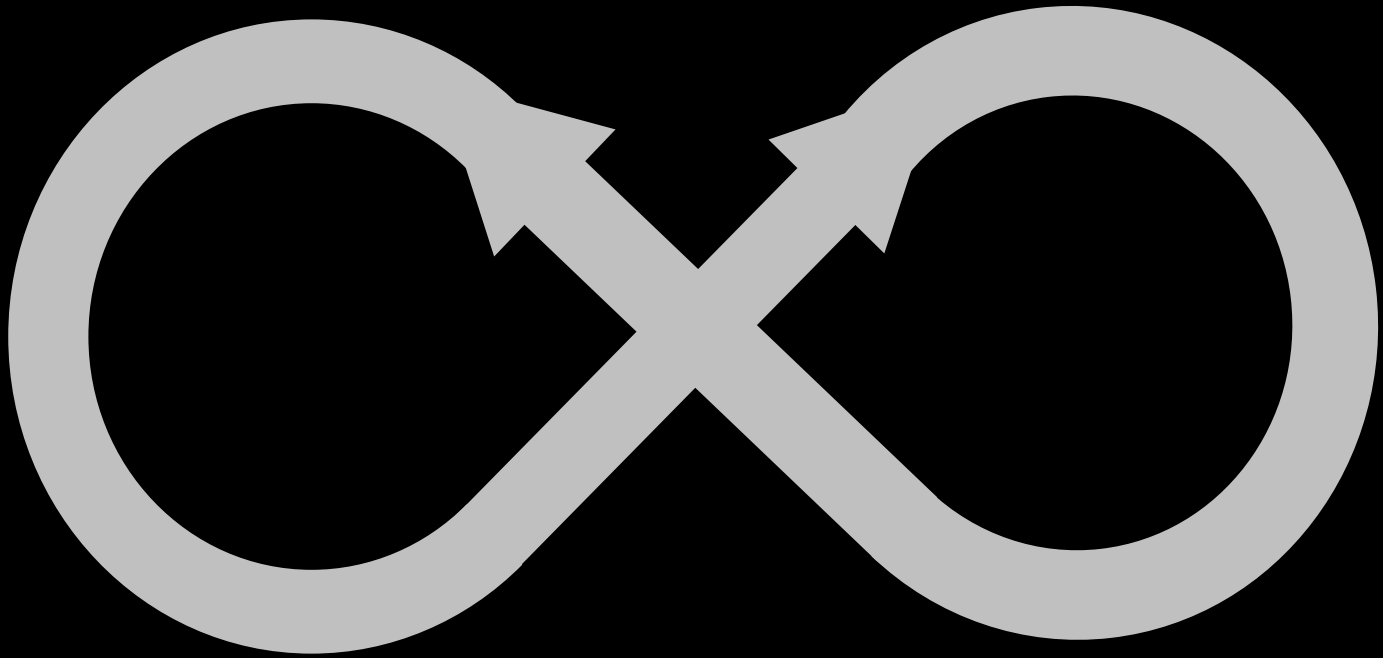
**Art**

SIMPLICITY

COMPLEXITY







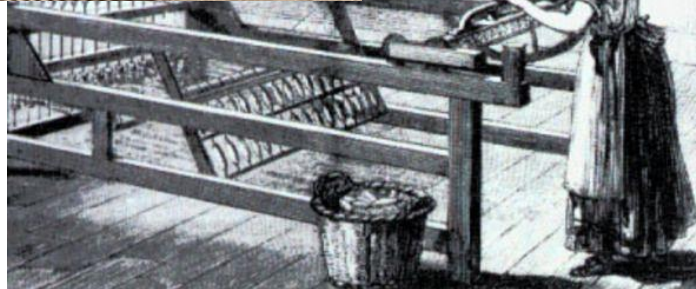
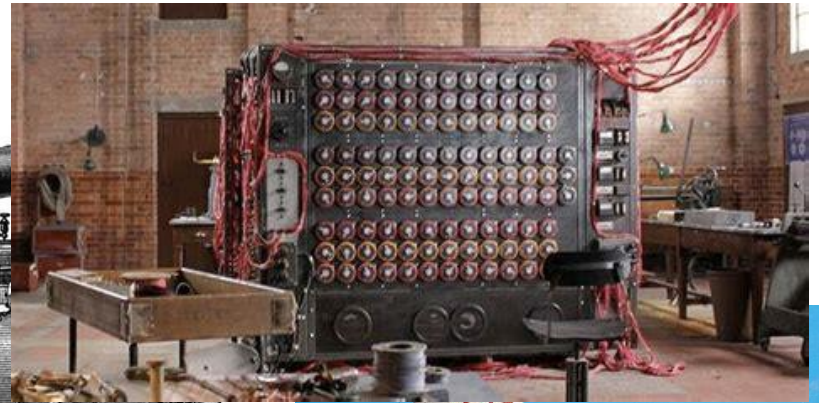
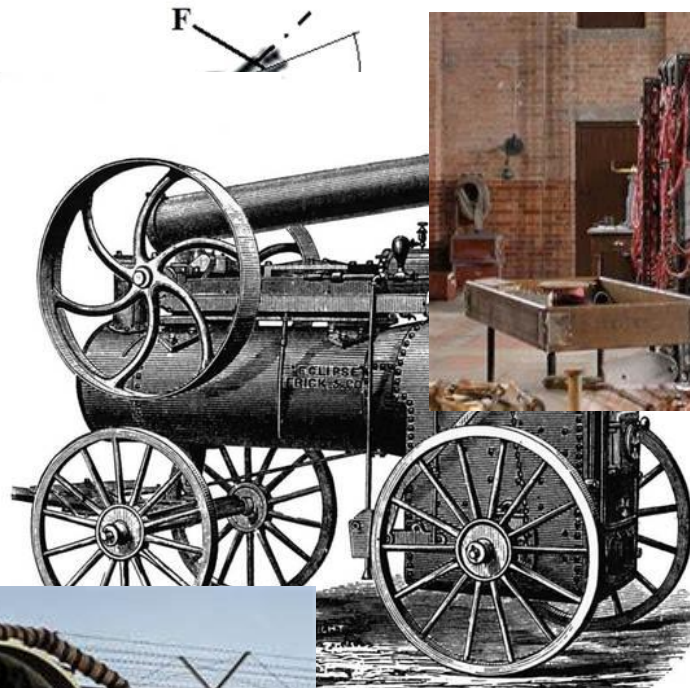
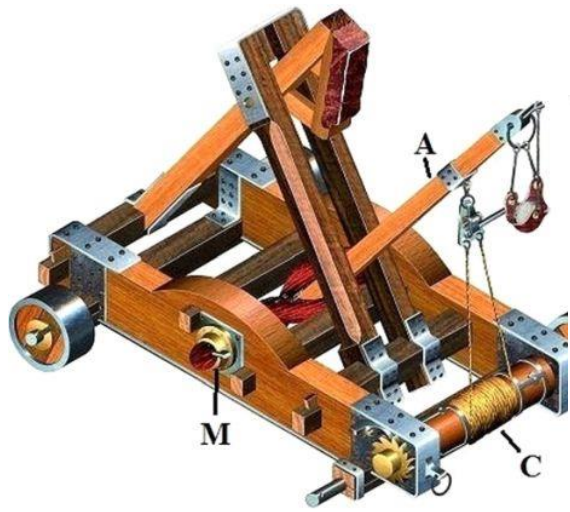
- Our greatest challenges are polarities – no one right answer
- Unidirectional strategies are doomed to fail
- Sufficiency must prevail
- Be prepared to eventually adopt opposing views
- Have to suffer the downside of A to enjoy the upside of B
- No such thing as More is Always Worth More

End of PART I - The Framework

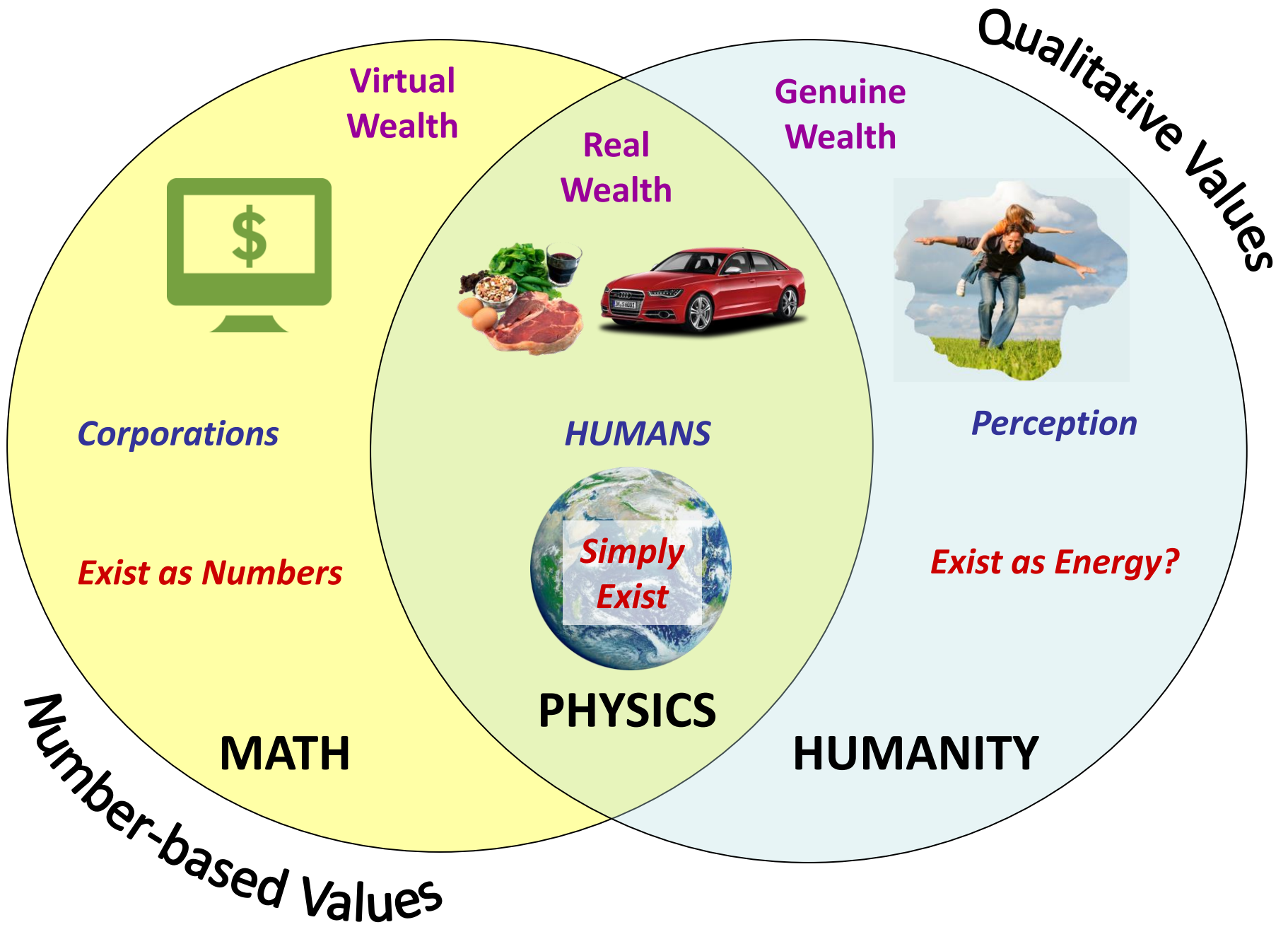
Now to PART II – Applying It

# Drivers of our MTI Society

- Number-based value systems
- Unable to accept any status quo
- Urge to control (and beat) nature
- Explore for profit, not curiosity
- Control conflict by superiority









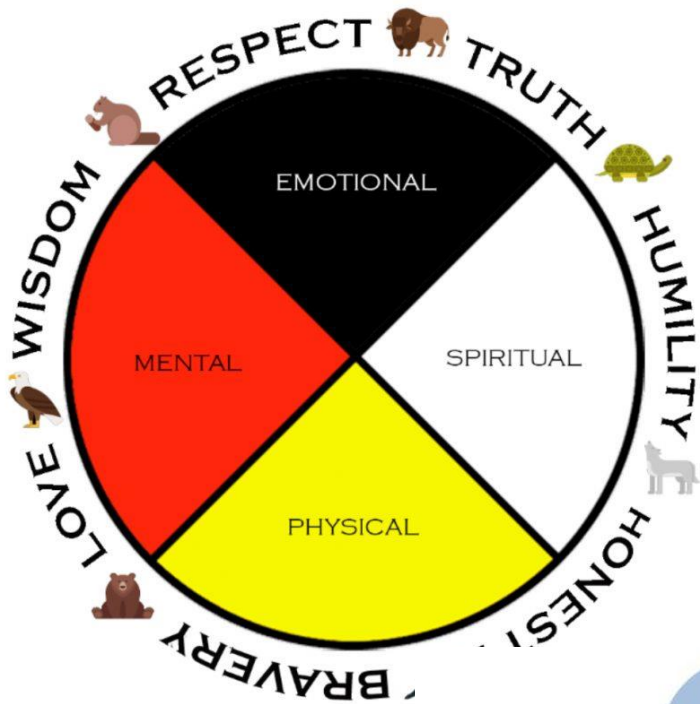




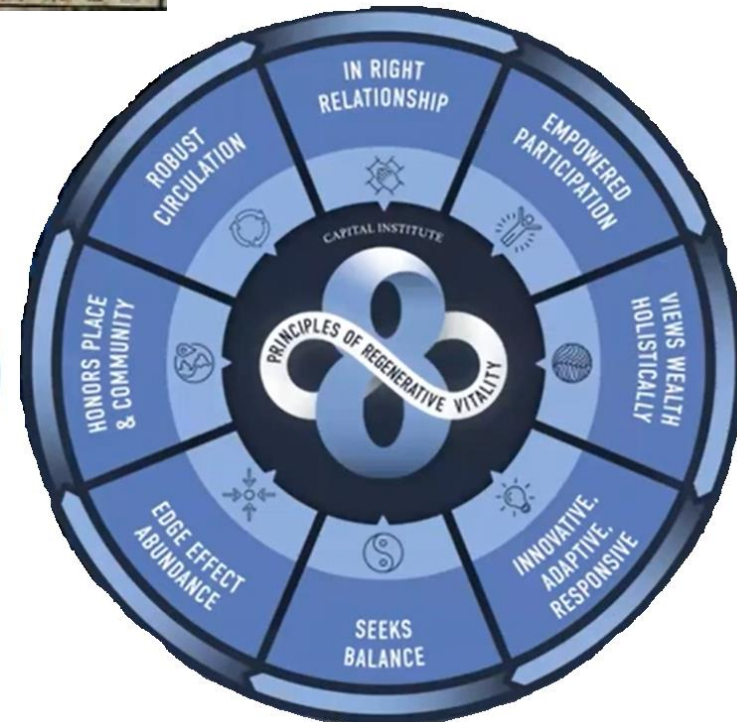


We'll have to let go, before it's too late.





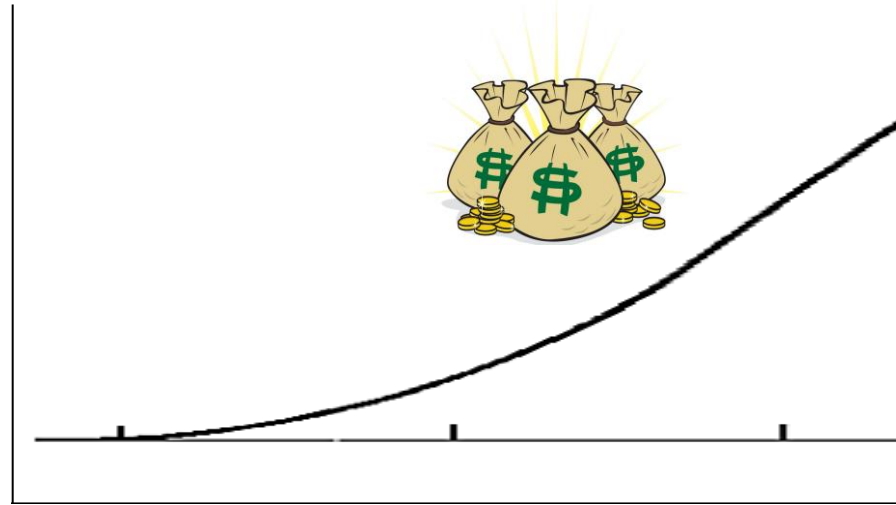
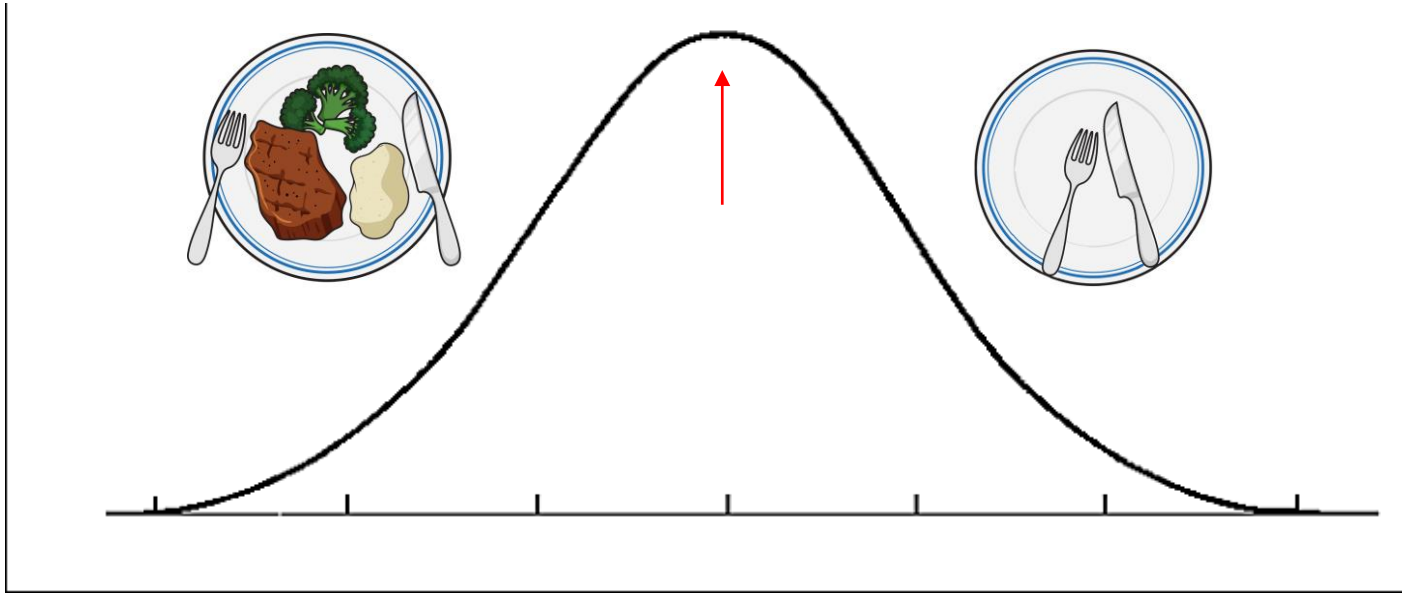
More!!











# Ecological Overshoot

The deadliest  
negative feedback  
is a positive  
feedback loop!



# EXPONENTIAL CURVE

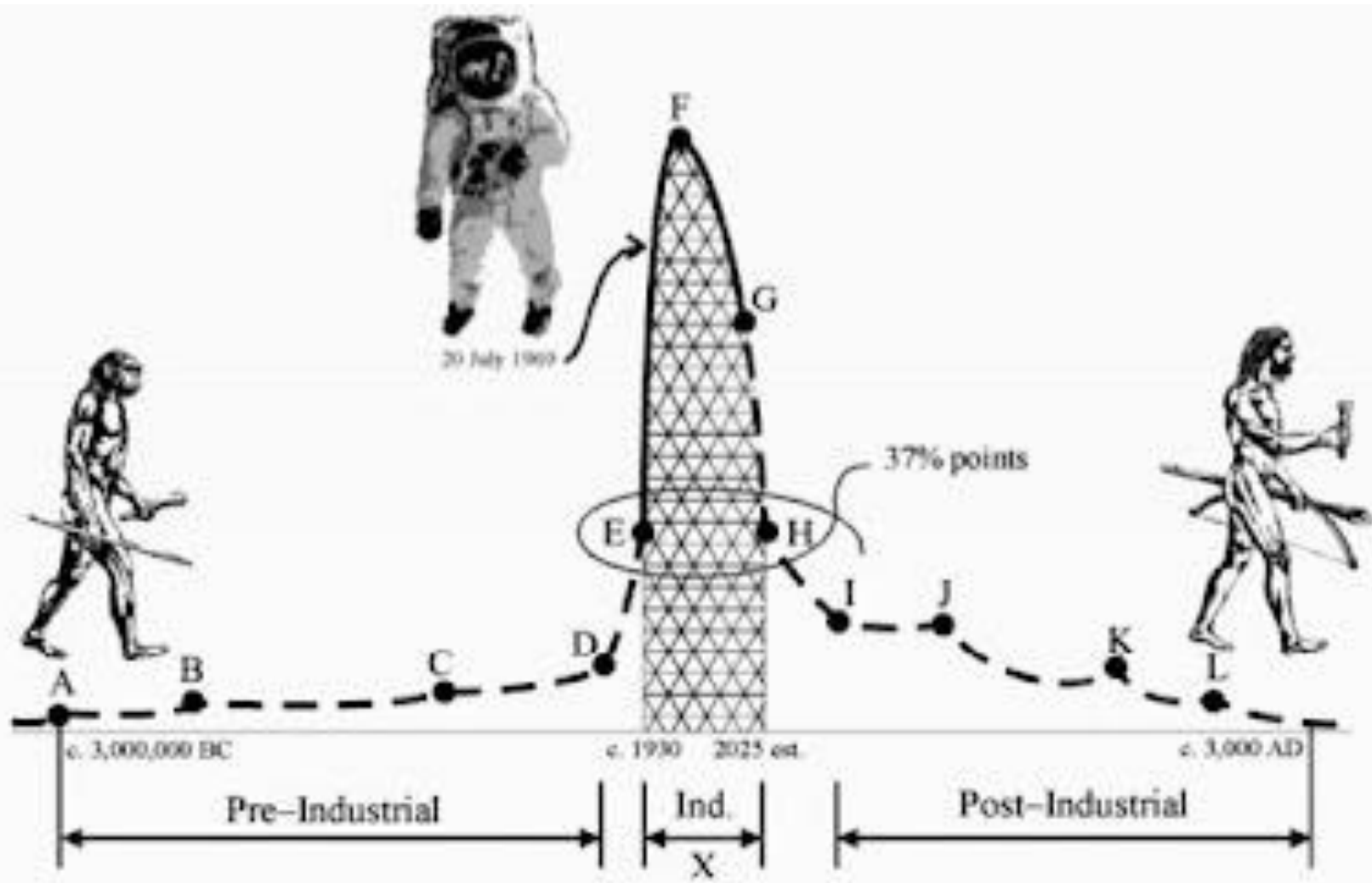
Exponential Growth



# EXPONENTIAL PEAK

Exponential Growth and Collapse





e. 3,000,000 BC

e. 1930 2025 est.

e. 3,000 AD

Pre-Industrial

Ind.

Post-Industrial

X

# Question 1

from C.R. (Buzz) Nixon, 1994

Why, with the best will and intention to achieve “a better life” have we, modern humankind, managed to create a “predicament” which is almost precisely what we have been trying to avoid?

Until we know, recognize, and accept the answer to that question, we are not likely to find ways to redress the situation.





# Question 2

from C.R. (Buzz) Nixon, 1994

Why, with all the widely disseminated knowledge of the global “predicament” that we have, and have had for so long, has there been such little progress in establishing activities to reduce, then stop the deterioration, and to follow with measure to redress the global “predicament”?



# Why no effective action?

- Timelines are too long
- Geographical separation
- Ignorance
- Wired for stories, not data
- NIMPLEs
- Number-based values reprogramming
- Intentional deflection and distortion
- Hopelessness
- Comfort in half-measures
- The Value Change Conundrum

# The Value Change Conundrum

You won't change your value system until you see the benefits of the new value system,  
...which you will only truly see when using the new value system.

“No problem can be solved  
from the same level of  
consciousness that created it.”

*- Albert Einstein*



“No value crisis can be solved  
from the same value system  
that created it.”

*- Andrew Welch*

# Questions 7 & 8 from C.R. (Buzz) Nixon, 1994

7. How can values, attitudes and behaviour be changed if such change is indeed fundamental to redressing the predicament?

8. What are the specific values, attitudes and behaviour which must be changed?



# Culture is Physically Encoded

“During individual development, sensory experiences and constructed cultural norms literally help shape the brain’s synaptic circuitry in patterns that reflect and embed those experiences.

Subsequently, people seek out compatible experiences and, when faced with information that does not agree with their [preformed] internal structures, they deny, discredit, reinterpret or forget that information.”

- *Bruce E. Wexler* (*Brain and Culture, 2006*)

“We have to acknowledge the imperative for deep change from the scale of a new civilization.”

*For example:*

“The power-maximizing trans-national corporation is an illegitimate institution and must ultimately be eliminated.”

*- David Korten*



“Why do we support disaster policy that is designed to serve the capitalist growth-based economy (treating the later as the solution to, instead of the cause of, the problem)?

Serious conservation, demand reduction, lifestyle changes, equitable distribution, etc. **HAVE** to be on the table!”

- *Clive Spash*

# Questions 28 & 29

(summarized)

We at CACOR (and the Club of Rome itself) have been studying this for decades. Why are our own actions not more effective?



*“Climate change is not a technological or political problem, as much as a crisis of consciousness.”*

*- John Verdon*

# Question 31

from C.R. (Buzz) Nixon, 1994

Can the Gordian knot be untied or the  
“Catch 22” syndrome be broken?

And if so, how can it occur?

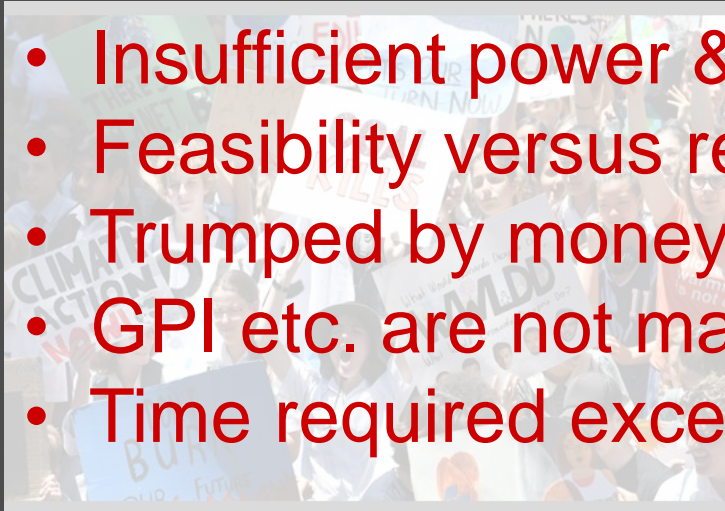




# How might this happen?



- Insufficient power & scope for required scale
- Feasibility versus relevance
- Trumped by money
- GPI etc. are not mainstream
- Time required exceeds term of office



# How might this happen?

- The Value Change Conundrum
- Neural programming to numeric value bias
- Level of organization and focus required
- Power of opposing forces
- Time and education needed





# How might this happen?



*“Is there some combination of fear  
and hope sufficient to dissolve our  
culture-wide conspiracy of denial  
or  
**must we rely on some ‘staggering  
ecological disaster’ to wake a world  
of sleep-walkers?”***

*- Bill Rees*



# The End(s) of Civilization?

- 6<sup>th</sup> extinction
- Resource scarcity
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- Uncontrolled technologies
- Overpopulation
- False beliefs
- Water issues
- Failure of MTI society
- Populism
- Ecological overshoot
- Loss of biodiversity
- Untenable inequality
- ....
- (Unforeseen crisis)
- ....

# Climate Change

A conceptual image illustrating climate change. A single tree stands on a horizon line. The left side of the tree is lush with green leaves, while the right side is a skeletal, brown structure. The ground below is split: the left is a vibrant green field, and the right is a parched, cracked, brown field. The sky transitions from a clear blue on the left to a hazy, orange-gold on the right, suggesting a sunset or sunrise over a changing environment.

*the PROBLEM*



# Climate Change

A conceptual image illustrating climate change. A single tree stands on a grassy hill. The left side of the tree is dead, with bare, brown branches reaching out against a hazy, orange-tinted sky. The right side of the tree is lush and green, set against a clear blue sky with a bright sun. The ground is split: the left side is cracked, dry earth, while the right side is vibrant green grass. The overall scene is a visual metaphor for the stark differences between a warming, drought-prone climate and a stable, healthy one.

*or the SOLUTION?*

Is a staggering ecological disaster really what we need in order to take effective action?

Assuming that's true, would that even work?



# Good News and Bad News

- Brain wiring
- Corporations & financial wealth
- Different ways of living
- Us versus Them

# A Revised Goal Proposal

To instil a better  
value balance in the  
next generation.

# Why this goal?

- Timelines are too long
    - Ignorance
  - Wired for stories, not data
    - NIMPLEs
    - Number-based values reprogramming
  - Intentional deflection and distortion
    - Hopelessness
  - Comfort in half-measures
  - Value Change Conundrum
- Prepared for the long haul
  - Education
  - Teach with stories
  - In perceived lifespan
  - Number-based values de-escalated
  - Defence against intentional deflection and distortion
  - Hope
  - Full-measures not needed
  - Start with qualitative values

Instil a better value balance in the next generation.

# How do we achieve this goal?

- Continue working on solutions
- Focus on the next generation
- Demonstrate non-numeric values
- Experience (and share) the joy of the non-numeric values
- Support a Guaranteed Basic Income

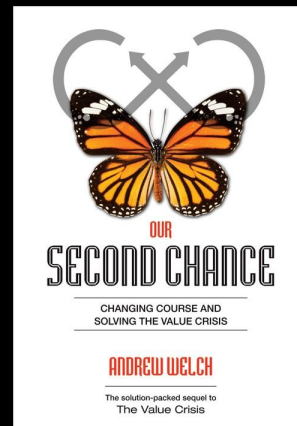
Instil a better value balance in the next generation.



# Topics for My Next CACOR Talk

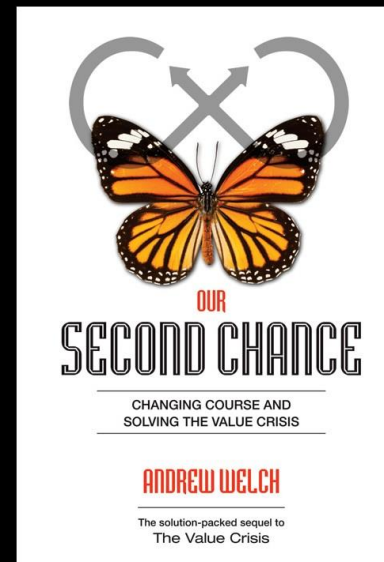
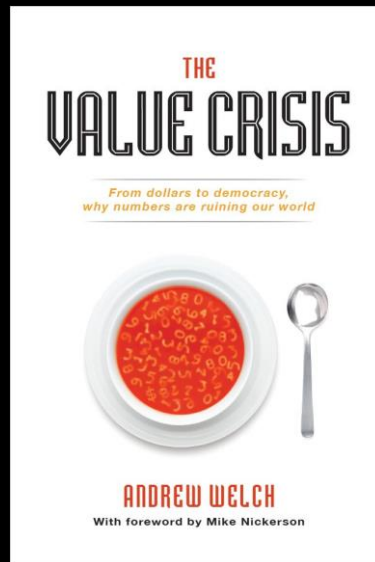
(Solutions with proven track records)

- Creating a Qualitative economy WITHIN our status quo one
- Understanding our individual value personae
- Wikiocracy - the next evolution of democracy
- Superiority of the parable and stories - Why
- Female leaders - WHY it makes a difference
- A monetary system that fits nature
- Understanding difference between eco-responsibility and value shift



# Thanks for watching!

- Andrew Welch



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[TheValueCrisis.com](http://TheValueCrisis.com)