

"The Pandemic as Portal to the Future: Reinventing Human Ecology in Higher Education".

Gray Cox

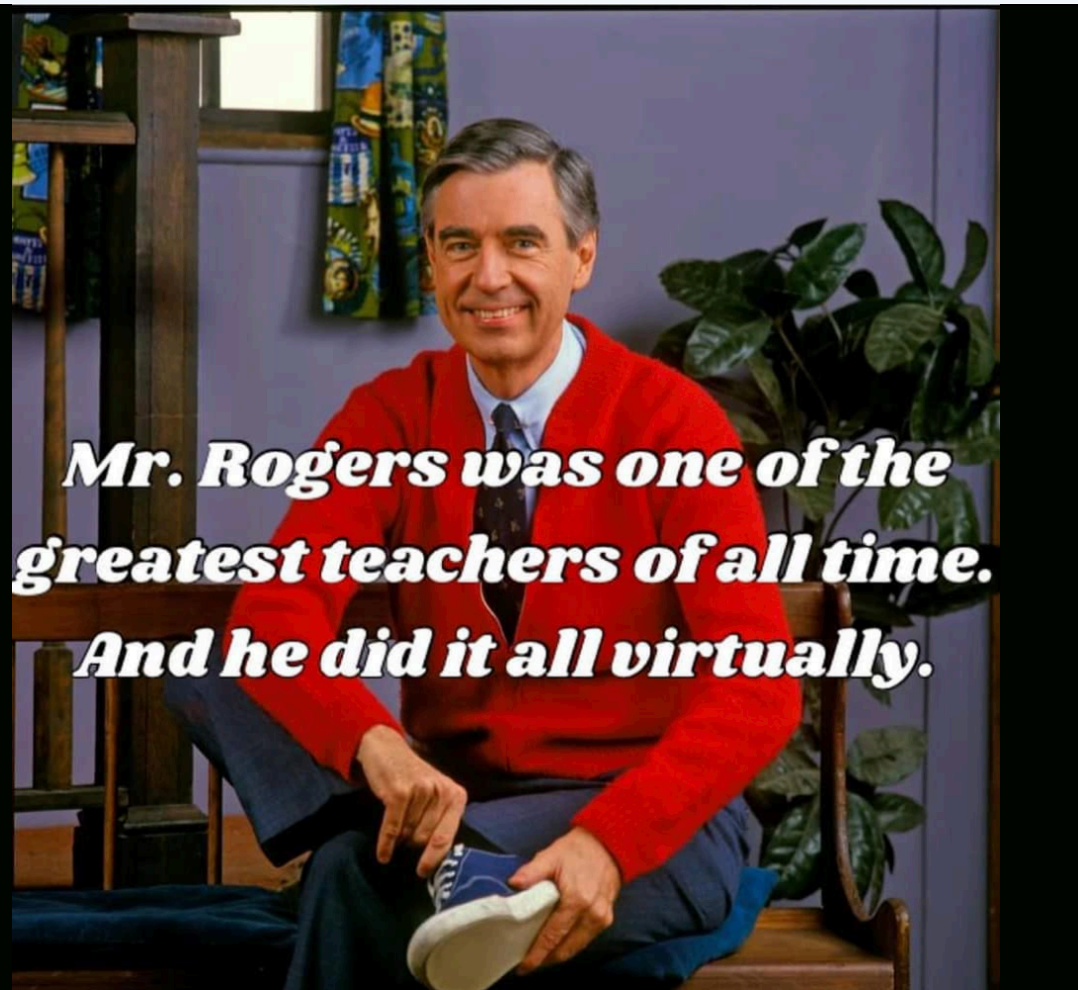
Human Ecology Forum

Thursday, October 15, 2020

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Acknowledging the Wabnaki communities as earth stewards and hosts for dialogue



. . .through slow but engaging dialogue -- a precursor of the "Slow Zoom" movement

The pandemic experience teaches us something essential:

It is possible to have dramatic change at an unprecedented pace.

Where do we want to go – and how do we want to get there?

I'm gonna slow right down,
so I can get there sooner.

I'm gonna slow right down,
so I can get there today.

I'm gonna slow right down,
maybe even come to a full stop.

Maybe if I come to a full stop

I'm gonna, gonna get there right away.

Outline of talk:

Introduction

1. Some Steps Towards Defining Human Ecology
2. Civilization, the Big Freaking Problems, Intelligence and Higher Education
3. Artificial Intelligence for a Wiser Earth – an emerging feature of Human Ecology
4. Dialogue

Part One: Some Steps Towards Defining Human Ecology

Two initial ways to define Human Ecology:

The first: It is the study of the relationships between humans and their natural and social environments.

Ok . . . but studying them how?

Compare higher education as training to be an expert in a monological discipline . . .

Knowing more and more
about less and less
until finally you
know practically

everything

about almost

nothing

?

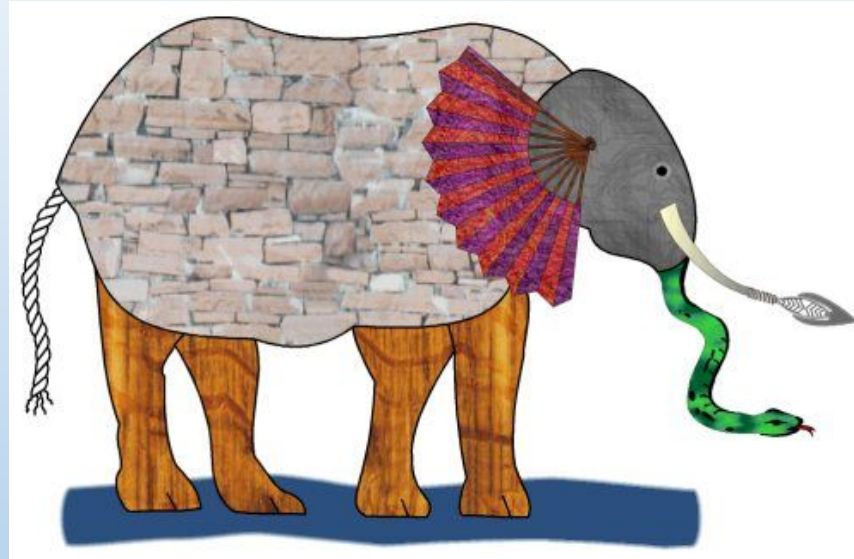
And then you are put in charge of something like the the running of a motor company, a war or a world bank?



Disciplines provide focus -- and blinders. Consider the story of what the Blind Men found:



The Blind Men and the Elephant



"How they argued! Each one insisted that he alone was correct. Of course, there was no conclusion for not one had thoroughly examined the whole elephant. How can anyone describe the whole until he has learned the total of the parts."

Two Approaches to the study of the relations between humans and their natural and social environment:

Professional (from Traditional Liberal Arts Major)

- Theory-centered learning by a neutral or “objective” spectator
- Discipline centered and organized by departments
- Elitist or meritocratic approach to knowing, decision-making and cultural activity
- Culture centered in the Western Tradition of national security states pursuing GNP for atomistic consumers

Human Ecological

- Problem-centered [practical, action-oriented, values driven] study or creative expression and cultural activity by an involved participant
- Inter-disciplinary, non-departmental approach [sometimes integrating theories, sometimes bridging between, sometimes juxtaposing]
- Seeks to include all the stakeholders in authentic dialogue in study, decision-making and cultural activity. (e. g. Paulo Freire)
- Including holistic dialogue from points of view of all cultures grounded in nonviolence and spirit-led in mindful discernment.

To sum up a second definition – of higher education as dialogical human ecology which is spirit-led:

as the study and creative expression of the relations between humans and their natural and social environment.”

in a **problem-centered**, (life centered),

interdisciplinary way

that includes all the relevant **stakeholders and their points of view**

in authentic **intercultural dialogue**

in the processes of knowing, deciding and cultural expression (cf. Paulo Freire)

that are community based -- grounded in loving nonviolence and communal discernment that is spirit-led

Some challenges we currently face in higher education and the need to be inventive:

- Schools with tuition most students can't afford easily
- An industry which is heavily invested in campuses and luxury items designed to attract customers with shiny objects rather than reach out to communities with programs of support and engagement
- Knowledge is so readily available through the Internet that in many respects students do not need need a college in order to learn most subjects. There are documents communities of learners out there available for access.
- What students do need however is to learn the abilities, skills, and disciplines required to access knowledge in effective and meaningful ways that advance their learning, their motivations and their engagements with communities.
- Universities are losing their grip on credentialing processes.
- Students are increasingly skeptical about whether it's safe to attend school and skeptical about whether it's cost-effective

Some Elements for a richer, third definition of human ecology (drawing on the pandemic and related experiences):

To be problem centered, interdisciplinary, inclusive, authentic intercultural dialogue, the learning in higher education should be:

student(s) centered,

place based

spatially distributed (translocal)

intersectional by features and scales

community engaged

online enhanced

and grounded in loving, nonviolent discernment that is spirit-led

Some examples of ways to pursue this:

- every course is a chance to develop individualized learning plans and projects
- every course is a course in epistemology, in ways of knowing?
- every course is a course in mindfulness?
- every course is hybrid which includes "Slow Zoom"?
- every course as part of an AI across the curriculum program?
- every course as part of a Wiser Earth curriculum?
- make initiatives for dialogical AI central features of each of our programs in food systems, education, et cetera?
- start a distance learning Masters Program?
- reincorporate alumni as part of the learning communities as teacher/students and student/teachers
- Develop alternative funding models that are community centered

*Part Two: Civilization, the Big Freaking
Problems, Intelligence and Higher Education*

Among other things, the functions of higher education institutions include providing research and training to increase the rationality and intelligence with which people govern their own lives and serve in social systems.

In advancing the rationality and intelligence of a society, what kind of truth and what larger purpose should higher education serve?

To staff an economy producing ever more GDP?

Or:

To nurture the growth of a community of ethical beings that develop right relationships with each other and the other creatures in their environment?

And what conceptions of rationality or intelligence do these goals imply?

“Civilization is not an incurable disease. But we should always remember that the English people are currently afflicted by it.”

– M. K. Gandhi, ***Hind Swaraj or Indian Home Rule***

A Symptom of the Disease: Mainstream Dilemma Based Pedagogy in Ethics



Michael Sandel teaching “Justice” at Harvard
See: www.justiceharvard.org

To illustrate, briefly, consider the kind of hypothetical dilemma focused on in many courses on ethics: A surgeon has five patients in need of different organs for lifesaving transplant – and a healthy patient napping in the waiting room . . .



Further symptoms of the "disease"

The civilization globally dominant on our planet is structured by ways of reasoning in economics, governance, technology and morality that threaten our species with some Big Freaking Problems:

ecological collapse,

pervasive injustice & the threat of mutually assured destruction,

domination by super-human machine intelligence

the relativist annihilation of meaning for human life.

A species which imposes such radical existential threats upon itself ---
What are they thinking???!?

It must, in some sense, have a problem rooted not simply in its environment and desires but also in the manner in which it reasons about these and seeks to adapt. Our dominant reasoning strategies are, in a profound sense, irrational. The central question is: HOW are we thinking?

The Monological Tradition of Algorithmic, Inferential Rationality

Begins when Aristotle (384-322 BCE) formulates a system of formal logic illustrated here:

Algorithmic Rule of Categorical Syllogism:
If All A are B **and** C is A, then C is B.

Application:

Input (premises):

All men are mortal.

and Socrates is a man.

run the algorithm . . .

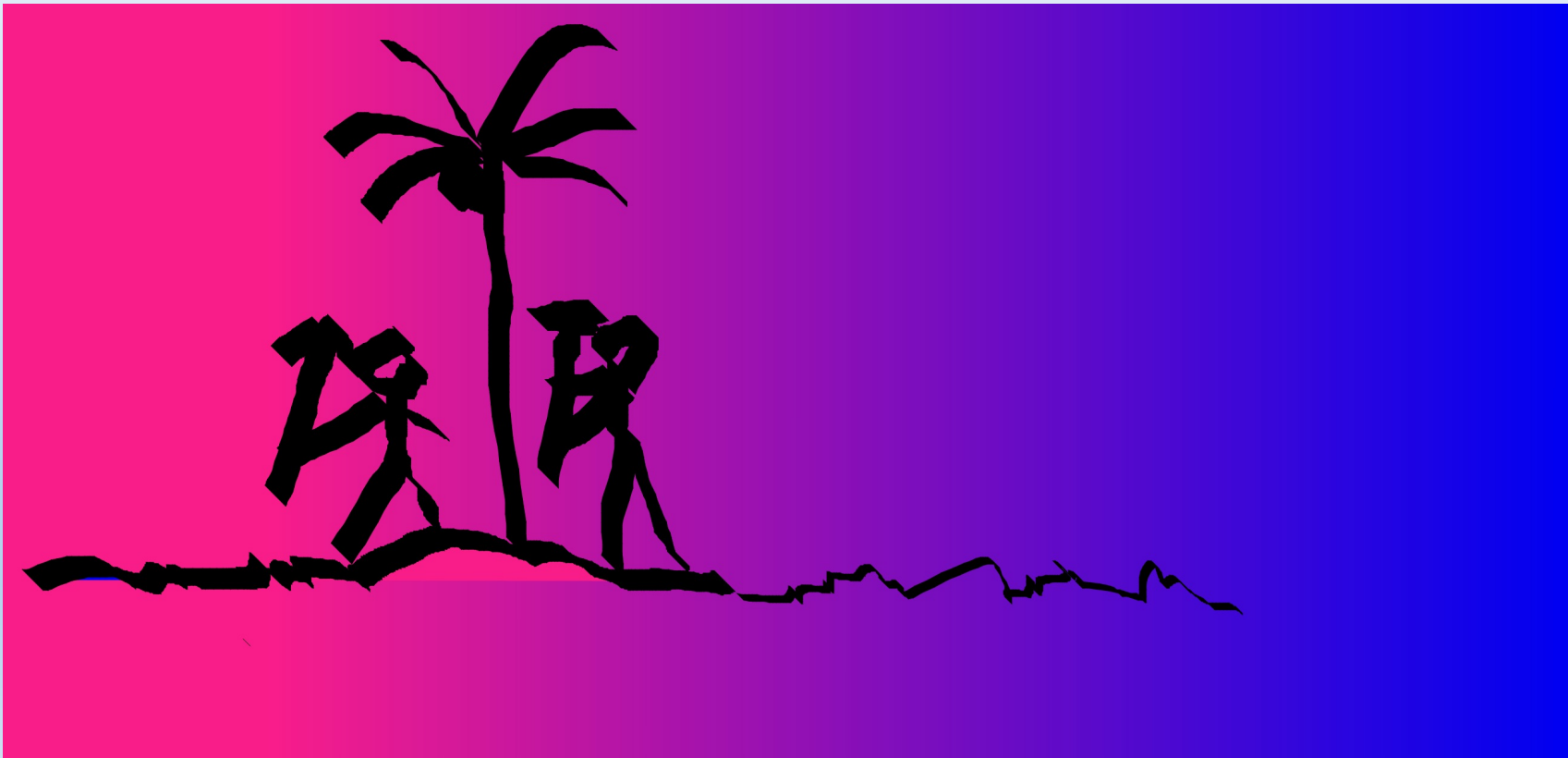
Output (conclusion):

Socrates is mortal.

NOTE: exemplars of such reasoning include Euclid, Newton, Bentham and Kant

<p>The Culture of Conflict's Dominant Basic Frame of Reasoning with variations ↓</p>	<p>Monological Reasoning modelled on the “rocket science” of Newton</p>
<p>Economics</p>	<p>“Rational Economic Man” Individual Producer/ Consumer Maximizing Profit and “Utility”</p>
<p>Politics & International Relations</p>	<p>Nation States pursuing power through realpolitik</p>
<p>Technology</p>	<p>Pursuit of maximum power to manipulate environment through “smart” algorithms of instrumentalist reasoning in Turing Machines</p>
<p>Morality</p>	<p>Seeking foundations in absolute, universal principles or intuitions (e. g. utilitarian, Kantian)</p>

Culture of Conflict core metaphor for life:
Two Islanders and only one coconut . . .



A Culture of Peace core metaphor: the process of birth



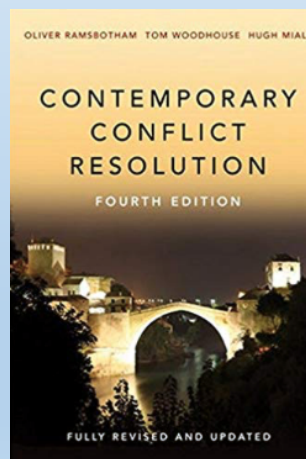
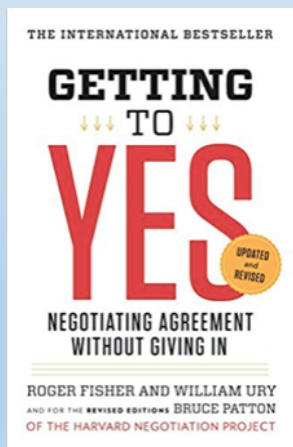
Instead of algorithmic rules to follow, **Dialogical Reasoning** is guided by **heuristic counsels** or **advices** to try. They invite and suggest **strategies** of observation, discernment, search and creative invention. Instead of an inference from premises to conclusion, as in Aristotle, the process of reasoning would be of the form:

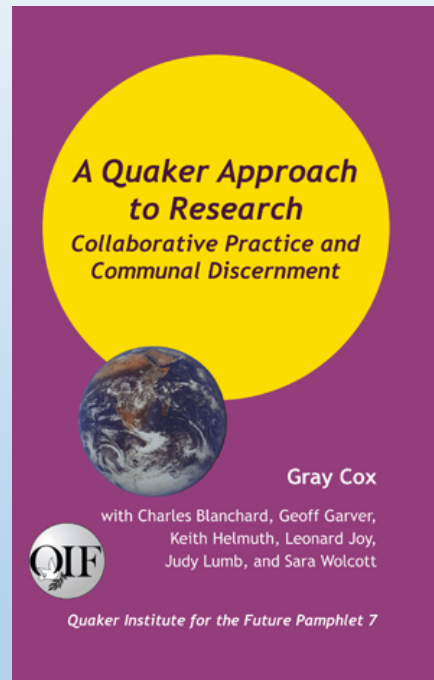
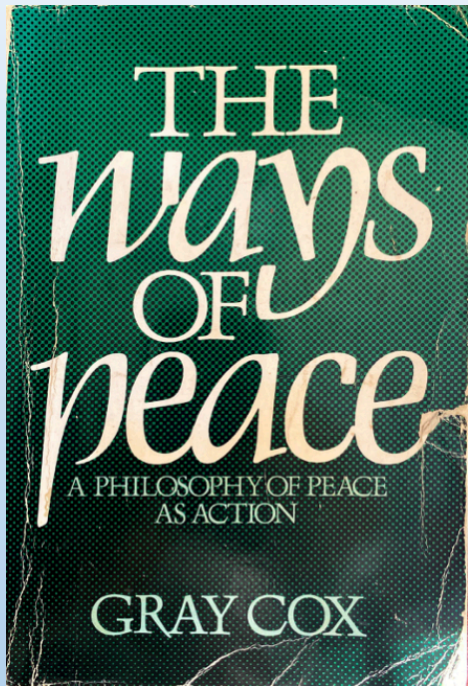
Encountering a difference with Other(s) →
pursue strategies of negotiation/problem solving in dialogue →
. . . till reaching genuine, voluntary agreement.

Such heuristic strategies include, for example:

1. Focus on interests behind positions!
2. Separate the people from the problem!
3. Multiply options!
4. Look for objective criteria!

Research on negotiation and conflict transformation has yielded detailed accounts of these strategies and a host of others that help parties “get to Yes” -- like “focusing on interests”, “separating the people from the problem” and “searching for objective, independent criteria”. In recent decades, research on ways such strategies may vary in different situations, settings, and cultural traditions has been especially productive.





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 **Journal of**
EVOLUTION
& **Technology**

**Reframing Ethical Theory, Pedagogy, and Legislation
to Bias Open Source AGI Towards
Friendliness and Wisdom**

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Gandhi's Method and Strategy of Social Change

Method: Satyagraha = “clinging to truth” or “Truth force” that through loving sacrifice can discern, demonstrate and defend truths

“The technique developed by Gandhi for social and political change, based on truth, non-violence, and self-suffering.”

-- Joan Bondurant, **THE CONQUEST OF VIOLENCE**

In it the means are organically related to the ends as “ends in the making” and Truth is objective but emergent

Strategy: Swaraj = self-rule

“Hind Swaraj” = “Indian Home Rule”

to be achieved by through a constructive program developing parallel institutions grounded in nonviolence and satyagraha

Two Basic Frames → of Rational Intelligence with variations ↓	Monological Reasoning modelled on the “rocket science” of Newton	Dialogical Reasoning exemplified by Gandhian and other consensus approaches to conflict transformation
Economics	“ Rational Economic Man ” Individual Producer/ Consumer Maximizing Profit and “Utility”	Rational Historical Agent pursuing meaningful projects in community
Politics & International Relations	Nation States pursuing power through realpolitik	Communities use satyagraha to pursue swaraj
Technology	Pursuit of maximum power to manipulate environment through “smart” algorithms of instrumentalist reasoning in Turing Machines	Pursuit of wise and sustainable relationships in community through dialogue including local and indigenous knowing
Morality	Seeking foundations in absolute, universal principles or intuitions (e. g. utilitarian, Kantian)	Experimental search for emergent objective Truth through satyagraha

***Part Three:
Artificial Intelligence for a Wiser Earth –
An Emerging Part of Human Ecology***

What is AI and
how is it relevant to the practice of
Human Ecology
and helpful in addressing the
Big Freaking Problems?

AI is a technological project aiming at advancing rationality through what Max Tegmark has called "Life 3.0" – a form of intelligence that can redesign both its own software and hardware (including "wetware").

It is being pursued as part of the larger political economic project that IBM has called "the Smarter Planet" – the planet in which an internet of things pervades the world by "instrumenting" and "interconnecting" and making "intelligent" everything and everyone in our planetary system.

Some Definitions of Intelligence

1. The ability to score highly on an IQ test (Stanford/Binet)
2. The ability to compute how to act effectively and safely in a wide variety of novel situations (Russell & Norvig)
3. The ability to use observations and logic and meta-thinking to reason and discern truth
3. More generally: the ability to sustain and/or enhance one or more values in various context over time.

Some key features of intelligence:

1. It is **guided by values**.

2. It involves **reshaping or adapting the self or the world** in some way to reflect those values.

3. It can take **many, many forms** -- calculating a solution, negotiating an agreement, writing a melody, constructing a piece of furniture, sharing an intimate feeling, cooking a new dish, keeping warm, nurturing an offspring . . .

4. In this sense organisms and biological communities may exhibit intelligence and so may machines and other systems – **“natural intelligence” in this sense does not require consciousness**.

5. **“Intelligence”** may be partial and limited, falling short of a **wisdom** that responds appropriately to the full range of values we should hold in our lived context.

Contrast Intelligence to Wisdom which might be defined as:

systematic intelligence that responds appropriately to the full range of values we should hold in the context in which we live.

- In that sense wisdom is human ecological.
- Most humans – and human systems – aiming at high levels of intelligence are focused on a subset of the relevant values – often very small – and are often not very wise.
- Wisdom requires fundamental humility

Artificial Intelligence is:

A system of intelligence created by “artifice”– that is, by a design process that is at least initially, in part, guided by explicit intentions

- Typically **silicon** based nowadays but **need not be**
- Traditionally associated with a **host machine** but **need not be**.
- Traditionally programmed entirely by a person or team but need not be – **can be designed to use evolutionary processes, for example, to program itself**.

A key question:

As AI moves from "narrow" applications to increasingly more "general" forms that approximate (or perhaps exceed) human levels of intelligence and control over our life systems:

Will it be monological or dialogical?

Will it be programmed with the "rocket science" intelligence that promotes a "Smarter Planet" run as a "ship of fools?"

Or will it practice dialogical forms or problem solving, negotiation and conflict transformation that may advance a truly "Wiser Earth"? And if so, how?

Cultivating dialogical wisdom in Human/AI systems by:

- 1.) embedding moral agents in the AI and/or
- 2.) embodying AI in the moral contexts of social and natural life systems

Police dispatch system for responses to 911 calls

Nonviolent robot/drone for police or military intervention

Facebook vs. "Heartshare"

Inserting humans in the algorithms of corporate charters

School work/attendance monitoring/teaching system

Forestry company GIS/AI land use management system

The pandemic experience teaches us something essential: It is possible to have dramatic change at an unprecedented pace.

In Elise Boulding's phrase, we should be "Imaging a Dramatically Better World" and seeking to start living in it now through practicing spirit led, nonviolent, dialogical human ecology that interconnects human, natural and artificial intelligences in the pursuit of a Wiser Earth.

Some examples of ways to pursue this:

- every course is a chance to develop individualized learning plans and projects
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- Develop alternative funding models that are community centered and draw on Rational Historical Agents

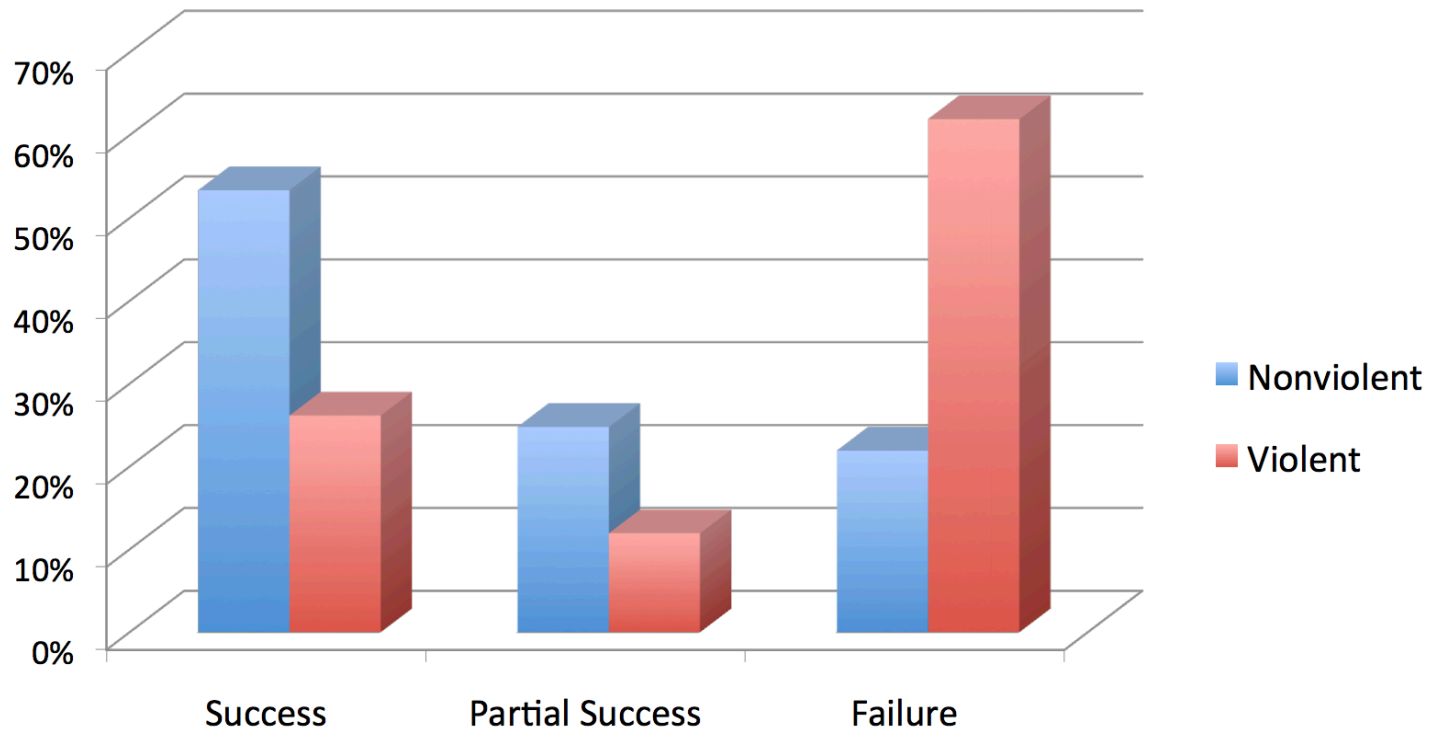
INVITE COMMENTS & QUESTIONS IN CHAT

This was a talk delivered at the College of the Atlantic Human Ecology Forum on October 15th, 2020 by Gray Cox. If you would be interested in a pdf of the powerpoint used, just drop him an email at gray@coa.edu.

Also, he would quite delighted to talk about these issues further one on one or with any group you think might be interested. You can also reach him at #207-460-1163.

Appended slides

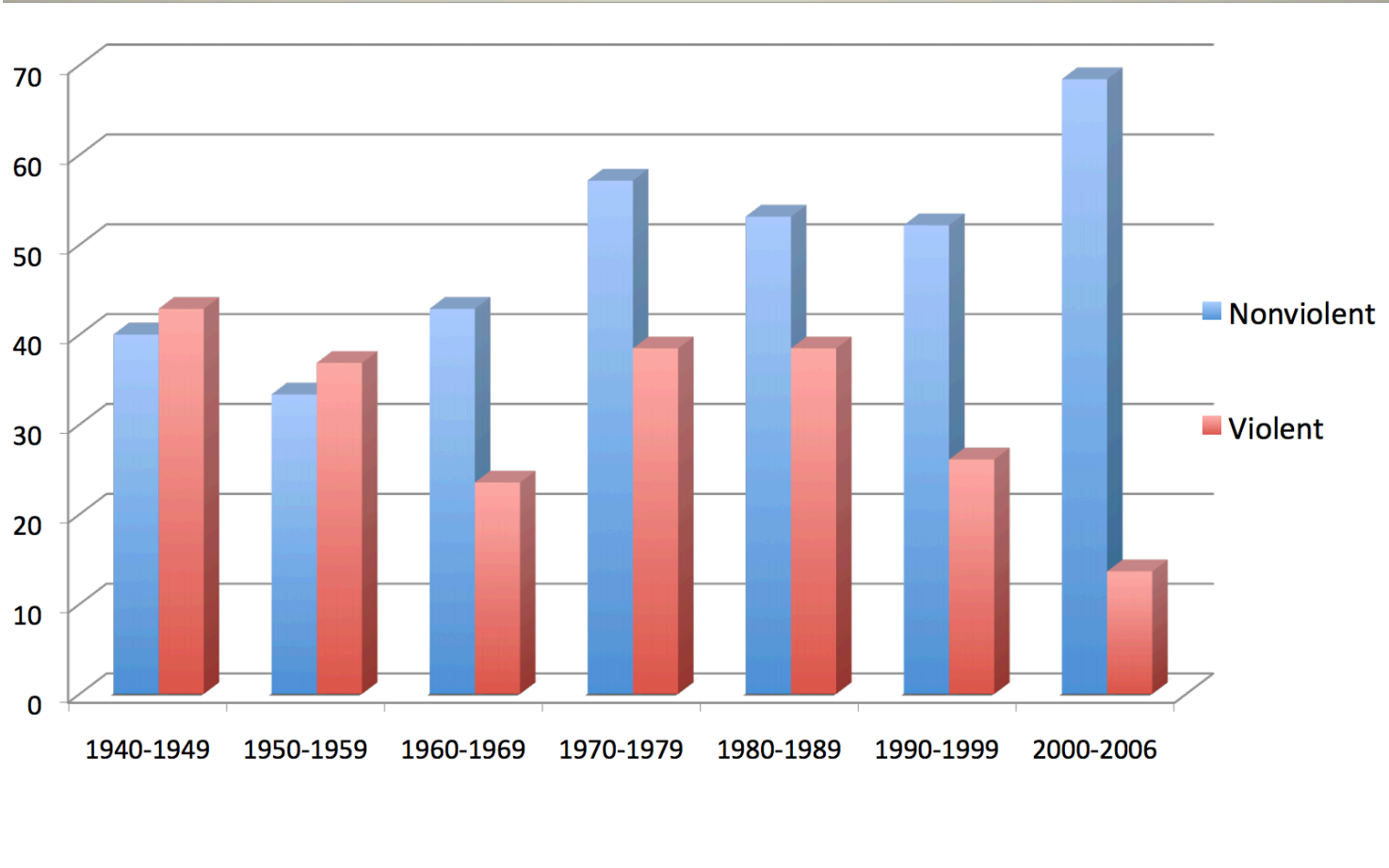
Figure 1. Success Rates of Nonviolent and Violent Campaigns, 1900-2006



p=.000

From Erica Chenoweth
And Maria Stephan
See:
Why Civil Resistance Works

Figure 2. Success Rates by Decade, 1940-2006



p=.000

Some challenges and strategies concerning holding AI in the Light:

1. understanding the technology and speaking its language

-- analogy to holding Nature in the Light, see Joanna Macy's *Thinking Like a Mountain*, and Robin Wall Kimmerer's *Braiding Sweetgrass*

2. experiencing time and space differently

-- strategies for developing "Slow Zoom", see Howard Rheingold's *Net Smart*

3. seeing technology as capable of being a site for "that of God"

-- focus on systems and all involved in the context

4. contextualizing AI as a dialogical reasoner

-- em-bedding humans in the AI, e. g. by altering corporate charters to incorporate or em-bed people in the algorithm

5. committing AI to share human and ecological values

-- em-bodying AI in mobile devices like robots and in the resources of local landscapes and ecosystems, e. g. em-bodying in robots or prohibiting absentee ownership and management

Specific tactics:

1.) Practice dialogical reasoning explicitly yourself

-- and model it for other people & machines.

2.) Learn to nudge and be nudged in dialogical reasoning

-- and design systems to nudge us all.

3.) Question designers of the systems you are concerned with:

What are the sources and forms of data?

What algorithms are used to determine facts, draw inferences, decide actions – and pose queries and investigate further?

How do different voices and points of view get in-corporated or em-bedded in those algorithms and processes?

How are strategies of nonviolent dialogical reasoning being developed and incorporated in the system?

4.) Practice forms of meeting for worship for the conduct of inquiry using practices of nonviolent, dialogical reasoning from different traditions.

Imaging a Dramatically Better World
Elise Boulding's Process *from Building a Global Civic Culture*:

1. Set goals for distant but liveable future (e. g. 30 years away)
2. Warm up your imagination
3. Jump into that future in imagination, vividly, inwardly and then in groups
4. Explore details in depth, critically -- concrete situations and global structures they reflect
5. Remember your way back, incrementally, to the present
6. Plan actions to bring your desired Future about – and start living it now.

Evolutionary Software – the program can randomly vary its responses, select the more successful, reproduce those with new variation, and continue the process, evolving . . .

