

Can we move from unintended global warming to climate by design?

(in an overheated, fast-forward communication climate)

All of history: climate > humans

Now: climate <> humans

This is not a climate issue

A host of fields are trying to get ahead of inevitable public debates.

Many failed... GMOs. Fracking... Nuclear... (PEW: nuclear fears are rising along with climate concerns)





*High dwellings are the peace and harmony of our descendants....
Remember the calamity of the great tsunamis. Do not build any homes
below this point.*

1985



1988



With Deadline Near, Florida Recount

TREATY TALKS FAIL TO FIND CONSENSUS IN GLOBAL WARMING

U.S. and Europe Still at Odds
After Two-Week Battle on
Greenhouse Gas Issues

By ANDREW C. REVKIN

THE HAGUE, Nov. 25 — High-stakes negotiations aimed at finalizing a treaty to curb global warming collapsed today after a tense all-night bargaining session founded on fundamental disputes between European and American negotiators.

The breakdown, after two weeks of intensive talks here, stunned many participants, environmental groups and observers, even though they had recognized from the start the enormity of trying to find common ground on ways to cut the greenhouse gases emitted by every automobile, factory and airplane from Boston to Bratislava.

"I'm gutted," said John Prescott, Britain's deputy prime minister, as he left the hall this morning after failing to negotiate a compromise between the United States and some of its allies and the European Union.

But Jan Franck, the conference president and Dutch environment minister, did not concede defeat, and instead proposed that the meeting be suspended, with another session perhaps as soon as May.

The top American negotiator, Frank R. Loy, visibly tired and rubbing his forehead, said the negotiations the effort should continue, even if he and the Clinton administration would be handling over the task to a new administration.

"We will not give up," Mr. Loy said. "The stakes are too high, the science too decisive and our planet and our children too precious."

Jennifer Morgan, Clinton campaign director for the World Wildlife Fund, which joined a weekly Euro-



Steve Delal of the Palm Beach County fire department is seen leaving the counting center yesterday. The sheriff's deputies, and two Republican and two Democrat delegates.

Inquiries on Mortgage Crimp Harlem's Real Estate

Harlem's real estate market is being hit hard by the Federal Reserve's decision to raise interest rates. The market is expected to be in a slump for some time.

C.O.D. DROPS A SUIT

Bush's Florida

"All the News
That's Fit to Print"

REPORT BY E.P.A. LEAVES OUT DATA ON CLIMATE CHANGE

EDITING BY WHITE HOUSE

Members of Agency Staff Say
They Made Cuts in Draft to
Avoid a Partisan Tone

By ANDREW C. REVKIN
with KATHARINE Q. SEELYE

The Environmental Protection Agency is preparing to publish a draft report next week on the state of the environment, but after editing by the White House, a long section describing risks from rising global temperatures has been whittled to a few noncommittal paragraphs.

The report, commissioned in 2001 by the agency's administrator, Christine Whitman, was intended to provide the first comprehensive review of what is known about various environmental problems, where



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AC-130
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flow of
in Iraq
but summer's
has not yet
turned
surfaces into
knee-deep slush.
The northward
rush has been
simplified by
satellite photos
and global-
positioning devices
that allow pre-

At the Bustling North Pole, Here Today, Gone Tomorrow

By ANDREW C. REVKIN

CAMP BORNHO, in the Arctic Ocean, April 27 — Most things about the top of the world are as they have been for ages. It remains a frigid realm where swirling fumes of ice form a white cap atop an ocean that is two miles deep.

Unlike the South Pole, where 29 countries have set up bases for research and hegemony on snow-dusted terra firma, up here all is as fleeting as the particles from the fine ice crystals — "diamond dust," some visitors call it — that coat surfaces and float in shadows.

On a globe or map the geographic prize may be a dot, but up close it is a shifting ice sea covered like glaciers, where any visitor is granted only a short stay. If you camp at the pole today, you will be four or five miles away tomorrow.

But the North Pole is rapidly becoming busy. Humans, ever the adaptive, inquisitive, risk-taking species, are circumpolar, probing and camping out in increasing numbers on the ice veneer, particularly in the window from mid-March to early May, when winter's cold has ebbed but summer's thaw has not yet turned surfaces into knee-deep slush.

The northward rush has been simplified by satellite photos and global-positioning devices that allow pre-

Continued on Page A9

Continued on Page A8



Andrew C. Revkin/The New York Times
A mock pole hints at how the sea ice shifts several miles a day.

NEWS SUMMARY	
Arts	E4
Business Day	C1-30

Today: Cloudy, afternoon showers, high 53. Tonight, an early shower, low 46. Tomorrow, continued mild, cloudy, high 56. Yesterday, high 58, low 37. Details and weather map, Page 33.

\$4.50 beyond the greater New York metropolitan area.

\$3.50

Leader Change Israelis

to Disarm
or Fatah

RLANGER

n. 28 — The ex-f radical is-said Saturday in that the group realistic ap-prising the Pales-would work with ent, Mahmoud stipable political

Khaled Meshal, said not "to submit prize Israel, be-nis illegitimate adon our rights," but would work a Palestinian army. assistance is a le-we will practice he defended at-ilians, which in-bombings until a year ago. Then "ready to work ven the United

conference was the mixture of from Hamas. Wednesday, an erupted over be able to mod-e in power, dis-terrorist and the existence of Israel. Europe-es say they will in Hamas until it

Palestine Liber-inated by the movement, ar-it might. The of its own tenets early 1990's, un-ne United States, tern terrorism, ight to exist and late solution.

CLIMATE EXPERT SAYS NASA TRIED TO SILENCE HIM

GLOBAL WARMING AT ISSUE

Space Agency Says Limits
Apply to All Employees
on Policy Issues

By ANDREW C. REVKIN

The top climate scientist at NASA says the Bush administration has tried to stop him from speaking out since he gave a lecture last month calling for prompt reductions in emissions of greenhouse gases linked to global warming.

The scientist, James E. Hansen, longtime director of the agency's Goddard Institute for Space Studies, said in an interview that officials at NASA headquarters had ordered the public affairs staff to review his coming lectures, papers, postings on the Goddard Web site and requests for interviews from journalists.

Dr. Hansen said he would ignore the restrictions. "They feel their job is to be this censor of information going out to the public," he said.

Dean Acosta, deputy assistant administrator for public affairs at the space agency, said there was no effort to silence Dr. Hansen. "That's not the way we operate here at NASA," Mr. Acosta said. "We promote openness and we speak with the facts."

He said the restrictions on Dr. Hansen applied to all National Aeronautics and Space Administration personnel. He added that government scientists were free to discuss scientific findings, but that policy statements should be left to policy makers and appointed spokesmen.

Mr. Acosta said other reasons for requiring press officers to review interview requests were to have an orderly flow of information out of a sprawling agency and to avoid sur-

CLIMATE CHANGE

Can Humans Go From Unintended Global Warming to Climate By Design?

BY ANDREW C. REVKIN OCTOBER 18, 2016 5:32 PM 68

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Andrew C. Revkin

[Geoengineering](#) is in the wind more and more these days, particularly the use of [sun-blocking aerosols](#) as a cheap, temporary counterweight to greenhouse-gas-driven global warming.

TECHNOLOGY

A Fresh Look at Iron, Plankton, Carbon, Salmon and Ocean Engineering

BY ANDREW C. REVKIN JULY 18, 2014 7:55 AM 69

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Video of the 2012 Haida iron fertilization effort

Two years ago this month, an [edge-pushing environmental entrepreneur](#) and a company formed by a Native Canadian village set off a wave of international protest by [dispersing a pink slurry of 100 tons of iron-rich dust](#) over one of the [60-mile-wide ocean eddies](#) that routinely drift across the salmon feeding grounds of the Gulf of Alaska.

Old media environment: a few authorities (Cronkite - "That's the way it is.")

Comfort food for all.

New media environment: self-assembled filter bubbles

Now audience has to seek reality.

That means it has to want reality.

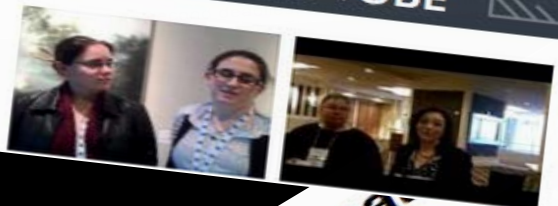
Climate Audit
by Steve McIntyre

350.org What is 350?

Dot  Earth

Dr. Jeff Masters' WunderBlog
Last Updated: 6:42 PM GMT on June 07, 2010
Most tornado of 2010 kills 7

AMS ON YOUTUBE



Watts Up With That?
Commentary on puzzling things

 **Climate CoLab**

CLIMATE PROGRESS
warming-type deluge
while "China spends big to counter
climate change"

NOAA HOME WEATHER OCEANS FISHERIES MARINING SATELLITES CLIMATE RESEARCH COASTS CAREERS

NOAA CLIMATE SERVICES Prototype

Explore: ClimateWatch Magazine

Articles

Snowstorms & Global Warming Coexist?
Featured Article, March 25, 2010
by David Herring, Wayne Higgins, and Mike Halpert
We can have record-setting blizzards and global warming at the same time. NOAA scientists explain climate variability, how it influenced our weather this winter, and how it differs from climate change.
[Read More](#)

[Browse ClimateWatch Articles](#)

Images
Browse images, photos, and visualizations of Earth's climate system

CLIMATE DEPOT
CENTRAL

here home about data sources RC wiki contributors index archive

RealClimate
Climate science from climate scientists



Today's words...

engineering...management...design
...intervention...control...

Words matter...

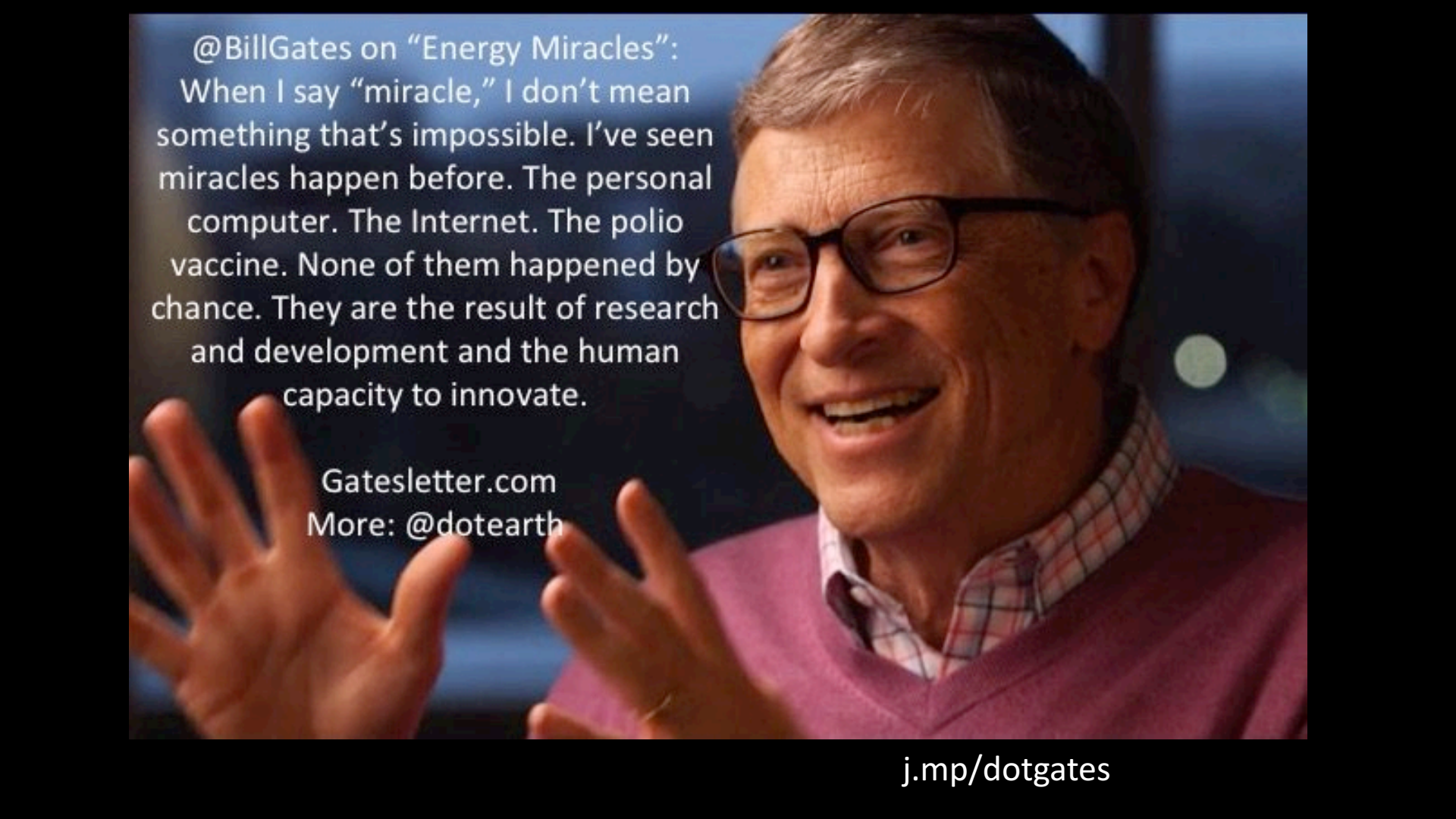
(I used to hate the notion of “framing”)

Alka Seltzer for the seas.....

Solar Radiation Management...

Regenerative farming...

Energy miracles

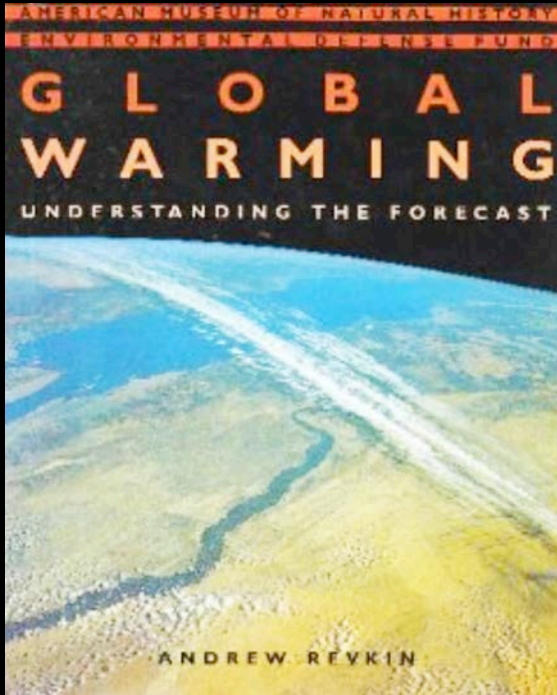
A close-up photograph of Bill Gates. He is wearing his signature black-rimmed glasses and a maroon V-neck sweater over a plaid shirt. He is smiling and gesturing with both hands, palms facing forward, as if explaining something. The background is dark and out of focus, with a few bokeh light spots.

@BillGates on “Energy Miracles”:
When I say “miracle,” I don’t mean
something that’s impossible. I’ve seen
miracles happen before. The personal
computer. The Internet. The polio
vaccine. None of them happened by
chance. They are the result of research
and development and the human
capacity to innovate.

Gatesletter.com
More: @dotearth

j.mp/dotgates

“Management”...



j.mp/92warmbook

Matthew Fontaine Maury, ~1855: “[T]o the right-minded mariner, and to him who studies the physical relations of earth, sea, and air, the atmosphere is something more than a shoreless ocean, at the bottom of which he creeps along.... It is an inexhaustible magazine, marvellously adapted for many benign and beneficent purposes.

“Upon the proper working of this machine depends the well being of every plant and animal that inhabits the earth; **therefore the management of it, its movements, and the performance of its offices, cannot be left to chance.**”

Me, 1992: Now we have arrived at a time when, voluntarily or involuntarily, humans are indeed "managing" the atmosphere. We had better manage it well.



Is Global Sustainability Possible?

Heriberto Cabezas, Ph.D., FAIChE

*Senior Science Advisor
Sustainable Technology Division, U.S. EPA*

*&
Associate Professor
Department Computer Science and Systems Technology
University of Pannonia, Hungary*

**2015 Blouin
Creative
Leadership
Summit
New York City**



Lessons from Model

- **Results from model study are scenarios and not predictions of the future.**
- **Time-frame for major model system changes is of the order of 100 years or so ... not 500 years.**
- **Increasing human population mainly depresses per capita GDP.**
- **Increasing human population plus increasing per capita consumption tends to make system unstable.**
- **System can not be managed by manipulating any one variable or policy ... there is no magic bullet.**
- **Coordinated manipulation of at least six variables is necessary to maintain stability for 200 years or so.**

“Coordinated manipulation of at least six variables is necessary to maintain stability for 200 years or so.”

“Coordinated manipulation of at least six variables is necessary to maintain stability for 200 years or so.”

We lack a cultural narrative that says sustainability is really important. We have a cultural narrative that says murder is wrong. We don't have a cultural narrative that says managing our planet in a way that allows us to live on it as long as we can is probably the most important thing.

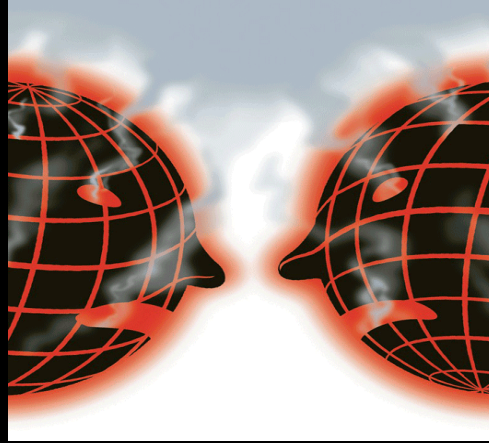
There is no “we” ...
Who sets the thermostat?







Girding for a climate fight?
Pick your
physics Nobelists.



Dan Kahan, Yale Law: “What you ‘believe’
about climate change doesn't reflect what
you know; it expresses *who you are*

Culturalcognition.net

Engineering an uncertain, complex system:

A disconnect or case for policy innovation?

- Think about Tapio Schneider's uncertainty discussion with the "fixing the sky" approach or carbon disposal at scale...
- How hot, how soon? Known Unknowable?
- David Keith's "risk to risk" calculus



As longtime readers know, a prime focus on Dot Earth has been testing ways to [clarify disputes over consequential science](#) — a need that's amplified in complex arenas laden by persistent uncertainty. It's not quite a law of physics yet, but there's a consistent pattern in such cases in which **a paucity of evidence leads to an overabundance of assertion.**

Lately, I've come to frame the challenge as a question: Can we foster an online (and real-life) culture in which [veracity is cool](#)? You'll see more on this here in the coming months.

Super Wicked Problem

SUPER WICKED PROBLEMS AND CLIMATE
CHANGE: RESTRAINING THE PRESENT
TO LIBERATE THE FUTURE

Richard J. Lazarus†

#

#

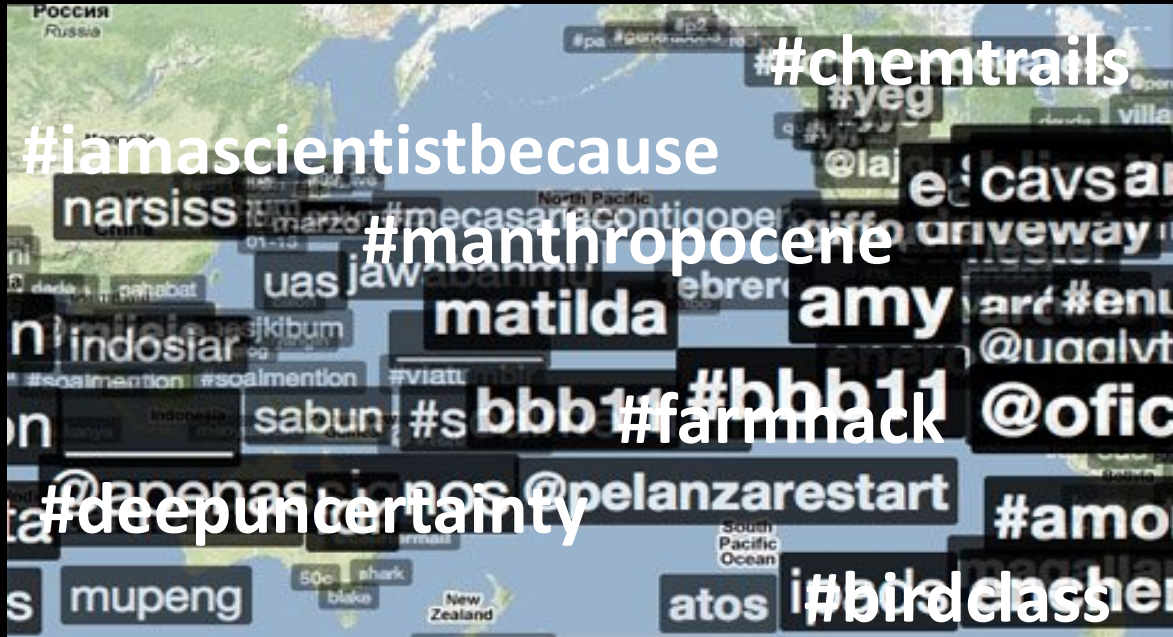
how do you feel about using # (pound) for groups. As in #barcamp [msg]?

12:25 PM August 23, 2007 from [PocketTweets](#) 🌟 🗒



Mr Messina

Noise



Signal



#chemtrails

#iamascientistbecause

#manthropocene

matilda amy

#farmhack

#deepuncertainty

#birdclass

Reach

DESIGN | April 5, 2013, 8:40 am | 6 Comments

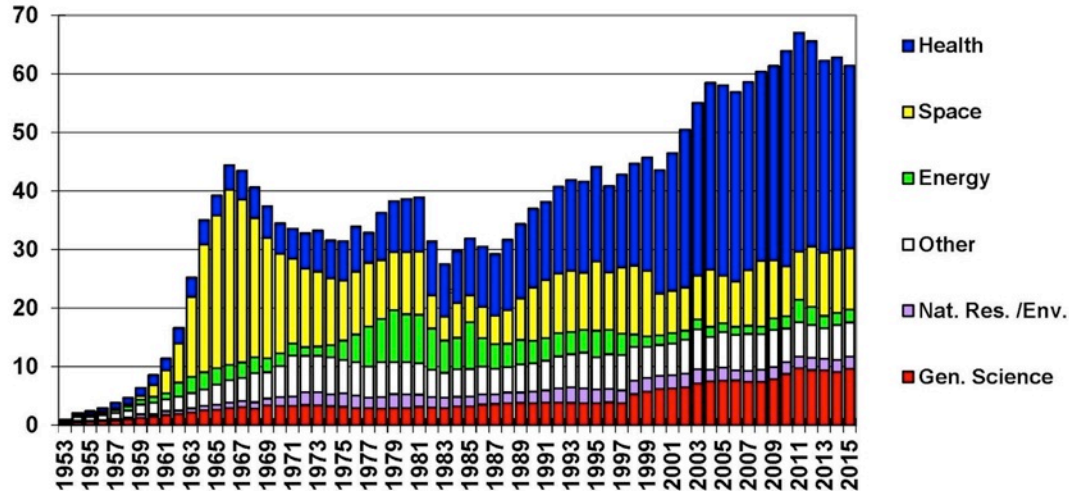
Knowosphere at Work: Farmer-to-Farmer Video Advice Boosting Yields

By ANDREW C. REVKIN



A communication need?

Trends in Nondefense R&D by Function, FY 1953-2015
outlays for the conduct of R&D, billions of constant FY 2014 dollars



Conduct of R&D excludes R&D facilities and capital equipment. Outlays include allocations of Recovery Act dollars. Note: Some Energy programs shifted to General Science beginning in FY 1998.

MARCH '14 OSTP

IPCC to its authors

Finally ... avoid scientific jargon.

Below is a list of words that mean one thing to scientists and something else entirely to the public and reporters. To lower the risk of being misunderstood, avoid them. Ask a media expert for alternatives.

Aerosol

Uncertainty

Literature

Enhance

Risk

Disruptive

Ozone

Bias

Unlikely

Feedback

Organic

Regime

Radiation

Enrichment

Sign

Theory

Exploitation

Significant

Escape from the “Nerd Loop”



Randy Olson @abtagenda

Beyond the shouting match

WARMIST!



DENIER!

Communication and the classroom

NATURE | Vol 461 | 29 October 2009

NEWS FEATURE



RISK SCHOOL



Can the general public learn to evaluate risks accurately, or do authorities need to steer it towards correct decisions? **Michael Bond** talks to the two opposing camps.

A group of eight-year-olds sits around a classroom table, playing with coloured, plastic boxes called tinkercubes and linking them into chains. It could be playtime at almost any primary school in the world. But in this classroom, located in

Germany, and tested in a number of German schools — is that earlier is better. Teaching schoolchildren how to deal with frequencies and probabilities helps to prepare them for the complexities and uncertainties of the modern world, and will help them make sound decisions.

Capital and a teacher of risk communication at the University of Cambridge, UK, Gigerenzer and his team of five scientists have a twofold aim. First is to do basic research on how people perceive risk and second is to improve people's statistical and decision-making skills through

© NATURE

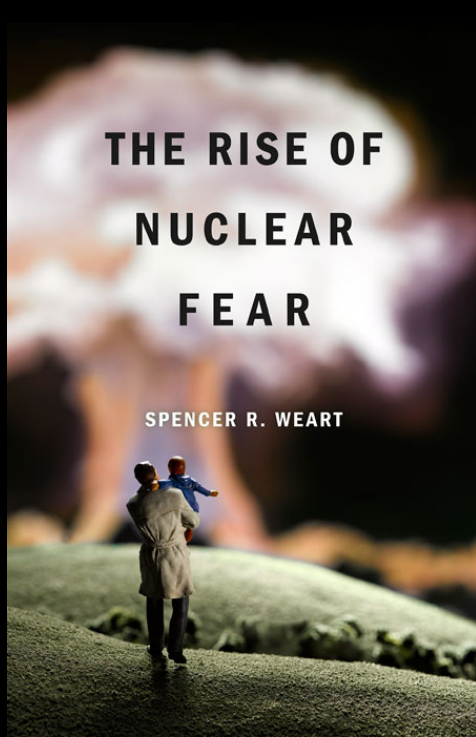
Nature: j.mp/riskschool

Communication and the classroom

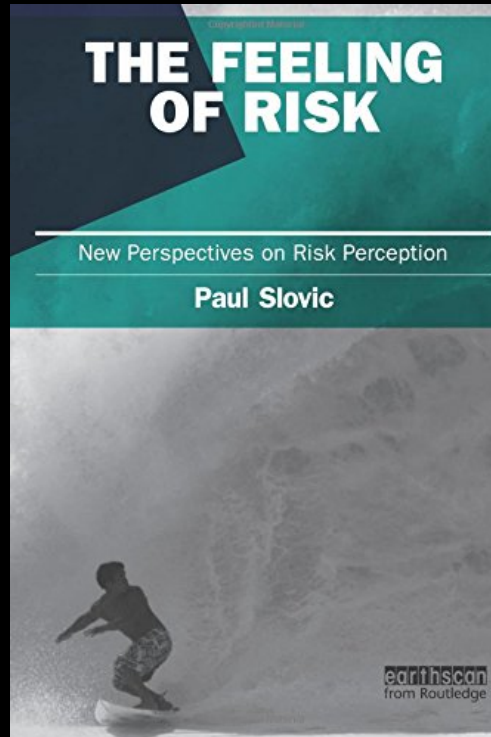


Data & Values: “You can’t get an ought from an is.”

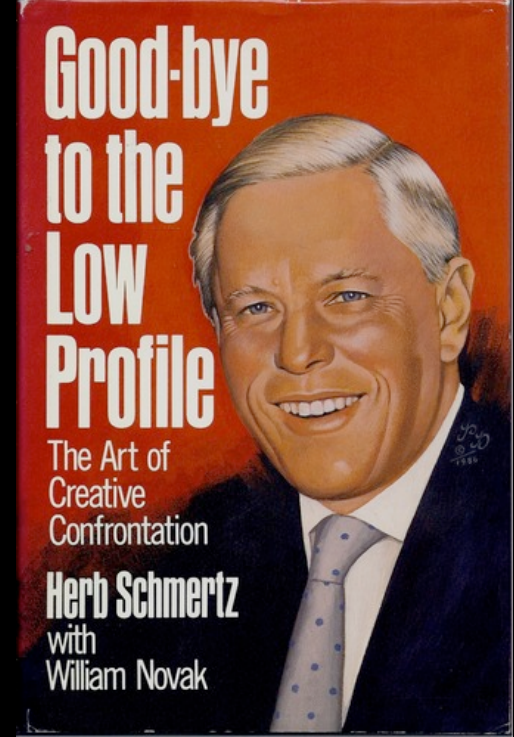




Spencer Weart



Paul Slovic



Herb Schmertz




Gavin Free / Slow Mo Guys



John Brandon Miller



We are here



I am here:
@revkin
revkin@gmail.com
nytimes.com/dotearth
j.mp/revkinmusic !

