

Facing the Future

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Rationally, it seems clear that the world is headed for a train wreck.

Yet, about the only thing that one can be certain of when predicting the future in too much detail is that one will be wrong. So, given current trends, here are a few things that seem very likely:

1. Increased droughts, floods, typhoons and hurricanes, causing famine.
2. Economic turmoil, if not collapse.
3. Political turmoil, if not collapse.
4. Increased violence, at least locally, if not globally.
5. Epidemics brought on by famine and exacerbated by environmental stress.

I do not want to speculate as to the exact timing of any of these events, but I also cannot avoid the knowledge that astrologically 2010 looks like 1930; or more accurately, the last configuration of the outer planets like 2008-2012 was the Saturn-Uranus-Pluto T-cross of 1929-1933. These astrological patterns are archetypally rather than concretely predictive, and history never repeats itself exactly, but a coherent pattern has been documented throughout history and based on that insight a wide variety of sudden challenging events would be consistent with this configuration, including massive (Pluto) difficult (Saturn) sudden revolutionary change (Uranus).¹

Here are some of the key drivers:

Carbon dioxide and other greenhouse gas levels are still increasing, if not accelerating. Even if we were able to instantly stabilize them today, the temperature forcing effect of the current CO₂ level is already accelerating warming, especially at the poles, far more than is widely recognized. This is already causing the rapid loss of Arctic ice, which is in turn reducing reflection of heat and thereby warming Arctic Ocean water in a positive feedback loop that threatens to go out of control. Increased forest fires also represent another dangerous self-perpetuating feedback loop. Thus, it appears that the climate is already set to spiral out of control if we do not intervene to reduce or prevent additional temperature increase, probably within five years, or less.

Biodiversity on Earth would be irrevocably compromised due to the effects of climate change over the next several decades if the warming predicted due to even current CO₂ levels were allowed to occur. But even without climate change, it is projected that a quarter of all biodiversity on Earth could be lost within a matter of decades under business as usual if the growth based economic system were to continue on its current course.

Peak oil will occur sometime within the next decade or two, and more likely within the next five years, if we are not already at peak now. Even if we were not hitting the peak in conventional oil and gas production, the consequences of carbon emissions constrain us more than oil supplies. Fossil alternatives such as coal, tar sands and oil shale are all far worse for carbon emissions, even as they appear to some to offer an expedient way to extend carbon-based energy.

Solar, wind and renewables are projected to become the dominant source of energy by mid-century even at current growth rates, but even with a crash program to implement both energy efficiency and renewables as quickly as possible, we cannot reduce carbon emissions fast enough to avoid climate catastrophe. It is not yet clear how the growth in renewables, which largely produce electricity, will work for transportation that currently relies on liquid fuels.

The missing piece of the puzzle in all of this is the possibility of temporarily holding back the temperature increases due to current and projected greenhouse gas levels for a period of decades while efficiency and renewables displace fossil fuels. It now appears that this could be possible through a variety of geo-engineering schemes. However, most do so at the expense of increasing ocean acidity, which is already dangerously high. The oceans have been absorbing CO₂, holding back the increase, but thereby creating carbonic acid. The acidity level has already increased to the point where the food web in the oceans could be close to collapse.

The one geo-engineering approach that appears to be both benign, and potentially effective, would increase the reflectivity of low ocean clouds by spraying a fine mist of seawater into them from small unmanned wind powered ships. It is estimated that this could counteract the effect of as much as twice the warming we have already seen, and do so at a cost of less than \$100M/year.²

If we could temporarily stabilize the temperature increase due to CO₂ that has already been emitted and more that will be while we transition to renewables, the next question would become how to go back and remove all of that excess carbon from the atmosphere. Nature removes a small amount each year, but those mechanisms are already near their limits and we need to take the pressure off ocean acidity, not increase it. The only benign and even beneficial method of removing net carbon from the atmosphere appears to be agricultural biochar made from plant waste as a co-product of biomass energy production. If fully deployed at a global scale this might remove one or two billion tons of carbon per year from the atmosphere. At that rate we could bring the atmosphere back to pre-industrial CO₂ levels in 50 to 100 years, maybe less, as nature regains its own strength and capacity at lower CO₂ levels and we re-grow more total forest cover.

Thus, it becomes possible to imagine that climate change could represent an acute short-term crisis that we must address and stabilize within our lifetimes, indeed most likely over the next decade, but then fully correct the CO₂ level over a period of many decades while warming effects are temporarily counteracted. However, climate change is just one threat among many, all apparently converging in a perfect storm sometime in the near future. It is possible that this multifaceted global crisis is somehow not only inevitable, but necessary.

To understand the situation in this way would require, and constitute, a new redemptive narrative, a reframing of the global predicament that at once embraces the coming singularity not only as a death, but also as a birth, and ultimately as a global spiritual rebirth; as an event so profound that it has cast a shadow backward in time into the collective zeitgeist where it has come down to us in the form of prophecies from virtually every culture around the world. Our task may be to understand and articulate how all of these could be woven into a redemptive story, one in which the world traverses a collective global near death experience and yet emerges from it physically intact and spiritually transformed.

To do so convincingly will require not only the mythos, but also all of the material and scientific pieces of the puzzle that will allow us to see in detail how it would be possible for humanity to live in sustainable peace and prosperity in a state of sufficient abundance. In many ways the only thing that prevents us from doing so are our social game rules that we call economics and our own psychological patterns and expectations. And yet to achieve a truly sustainable technological state for 6 to 10 billion people, or even half that number, will require the development and deployment of a level of technology that only our current frenetic growth based system seems capable of bringing into being rapidly enough.

Thus, we are caught in the paradox of our unique moment in history where it is only through the last gasp of logarithmic growth that the renewable high efficiency energy technology can be developed and deployed, and yet were that growth based economic system to continue too long the system would consume so much of the biological capacity of the planet that it would cause the extinction of the matrix of life itself necessary for the continued physical and spiritual well being of the self-regulating biosphere. This is the cosmic game of chicken that we find ourselves embedded in at the dawn of the new millennium.

What can we do?

For our own wellbeing as individuals – Prepare to shelter in place, harvest and store water, grow and store food, build community and find security in local resiliency.

Build examples of the future now – Show what could be possible, and soon essential for survival.

Develop the new high efficiency sustainable technology – As fast as we can, while we still can.

Prepare the key pieces we will need – Intentionally create the seeds that will only take root and blossom in the fertility of crisis and collapse.

Articulate a story of global redemption – Create a new mythos and a new meta-narrative as an attractor to act as a compass in the times of greatest darkness.

Help those holding pieces of the solution to see how they can self-organize – Even in the midst of apparent chaos.

Create conditions to catalyze a self-organizing index to map solutions online – To do so,

Each individual, and entity, needs to be able to:

Identify itself

Declare its intention and purpose

Describe its offerings and needs

Document them in a format that allows them to be

Searched, crawled, indexed and

Situated, both conceptually, and geographically

in relation to others in the global matrix of solutions.

In many ways this is the Planetnetwork vision that goes back to 1998. In ten years the technology of both digital identity based social networking and geospatial mapping, have evolved to the point where we can describe how this could work in great detail, and we could be within striking distance of catalyzing a truly self-organizing global network. However, we have also learned that this will not happen by itself, to deploy the key infrastructure requires walking a fine line between chaos and order, seeded with enough resources and staff to guide and support the process, but without veering over into the error of trying to be THE center; as the center of the distributed global network must ultimately, like Einstein's universe, be everywhere and nowhere.³

¹ Cosmos & Psyche, by Richard Tarnas, Viking 2006 <http://www.cosmosandpsyche.com>

² Global Cooling, a fiscal project of Planetnetwork NGO, Inc., directed by Dr. John Latham at NCAR <http://www.planetwork.net/climate/cooling>

³ The Augmented Social Network - white paper <http://asn.planetwork.net>