

## [The Oil Drum: Campfire](#)

### Discussions about Energy and Our Future

#### How Will Knowledge of Collapse Impact Collapse?

Posted by [Nate Hagens](#) on June 21, 2009 - 10:00am in [The Oil Drum: Campfire](#)

Topic: [Environment/Sustainability](#)

Tags: [collapse](#), [joseph tainter](#), [noah raford](#), [panarchy](#) [[list all tags](#)]

I just watched an excellent and thought provoking lecture by Noah Raford at London School of Economics (hat tip Jason Bradford): (*Note: you can play around with these models on Netlogo online [HERE](#)*)

#### [Collapse Dynamics](#)

The lecture was about various examples in nature, financial markets and civilizations where previously correlated patterns were eventually sharply disrupted by small critical changes leading to phase transitions. We've had essays on the [failure of networked systems](#), the [ecological framing of collapse](#), and similar topics on TOD before, but while watching the 2 video lectures, I started to wonder: *what impact does detailed knowledge of collapse dynamics have on collapse dynamics?* This is the topic of tonight's Campfire.

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Some summarizing points from the lecture itself (little new to readers here but if pressed for time, I'd rather you watch the video than read this post):

==>The more complicated a system, especially one involving automation, optimization, and human oversight, the more likely it is to fail (tight optimization in a dynamic environment is bad).

==>(From Didier Sornettes "Why Stock Markets Crash"):

"...stock market crashes are caused by a slow build-up of long range correlations leading to global cooperative behaviour of the market eventually ending in a collapse in a short time interval.

1. Individual behavior percolates throughout the system
2. Successful traders set examples for non-successful ones, who then imitate their actions and behaviour
3. Imitative behaviour then intensifies as markets become more connected.
4. Leading to a crash"

*(I think the above is interesting if we substitute 'society' for 'market' and 'citizens' for 'traders'.)*

==>Complexity comes at a cost, it's hard to turn back once you've got it, and it's value decreases the more of it you have (Tainter).

==> (Based on Panarchy - Gunderson/Holling)

- \* Multiple states are common in many systems
- \* It is impossible to predict where tipping points are until it's too late (interactive complexity)
- \* Functional diversity builds resistance
- \* Management must cope with surprise and uncertainty

==> Take Home Message:

- \* Stay light
- \* Stay smart
- \* Experiment
- \* Learn quickly
- \* Keep multiple options open

Though all these are topics worthy of discussion themselves, I'd like to throw the following line of questions to tonight's Campfire:

By definition, all previous ecosystem and non-human collapses were not 'understood as collapse' by those organisms alive during the collapse. Similarly, during historical human social collapses, (Rome, Easter Island, Anasazi, Maya, etc.), people might have known they were in the middle of some unpleasant trajectory, but they didn't have the knowledge, historical record, technology or communication that modern society possesses in understanding/explaining what was transpiring. As such, when this civilization 'collapses', (which in the opinion of this writer is inevitable - the timing, direction, and severity of which remain the salient unknowns), it will be the first to have at least some portion of its inhabitants anticipate and understand its own collapse in a systems dynamics sense.

How will this odd 'collapse trivia' manifest in steering/pulling/resisting actual collapse, if at all?

Let's presume that ~95% of humans will be unaware of or unable to synthesize the idea of collapse into their existing belief systems. I would put the remaining ~5% in the following groups:

1. Academics tweaking the academic aspects of systems theories out of academic interest (i.e. non-applied)
2. Those following collapse dynamics for unexpected reward (e.g. novelty without intent to change)
3. Individuals and groups accelerating their own localities move towards more durable built/human/social capital. (i.e. resilience and redundancy over efficiency and financial profit)
4. Government/corporate/BAU entities anticipating how to best defend their own power/advantage
5. Other - individuals/groups that history will show as black swans, either purposeful or accidental.

Off the top of my head on this muggy Saturday afternoon, I would guess that groups 1 and 2 (and the aforementioned 95%) are along for the ride. Group 3 (where many TOD readers reside) will mirror the 'multiple strategies' from Noah's lecture - some strategies will work better than others but relocalization, more simplicity, substitution of time and labor for technology, etc. will likely make a portfolio of these groups more resilient to any number of future scenarios, almost exclusively out of self-interest in the medium term (as opposed to long term, e.g. beyond their

The Oil Drum: Campfire | How Will Knowledge of Collapse Impact Collapse? <http://campfire.theoil Drum.com/node/5511> own lives). Group #4, via ostensibly trying to avert collapse will actually accelerate it because by and large their definition of 'collapse aversion' is embedded in the long-term correlated behavior that is squeezing us further into the chinese finger trap. Group #5 then is the wild card - those whose actions, advertent or otherwise will shift initial conditions enough so that reasonably predictable future events will now have different trajectories and speeds. This group is also probably the tiniest minority (perhaps as tiny as n=1).

### TONIGHT'S CAMPFIRE QUESTIONS

1. Will knowledge of upcoming collapse (or at least the possibility of such) change behaviour in anything other than self-interested, intermediate term (5-15 year) preparation?
2. Will spreading knowledge of collapse dynamics (such as Noahs video linked up top) meaningfully change the initial conditions of future real-life iterations? If so, how?
3. Could educating our current leaders about collapse/system dynamics result in their adoption of behaviours outside of the current business as usual system? Or would it require new leaders and/or a different system?

We know so much, yet are careening forward....How to go beyond knowledge and synthesis into integration and implementation?



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