



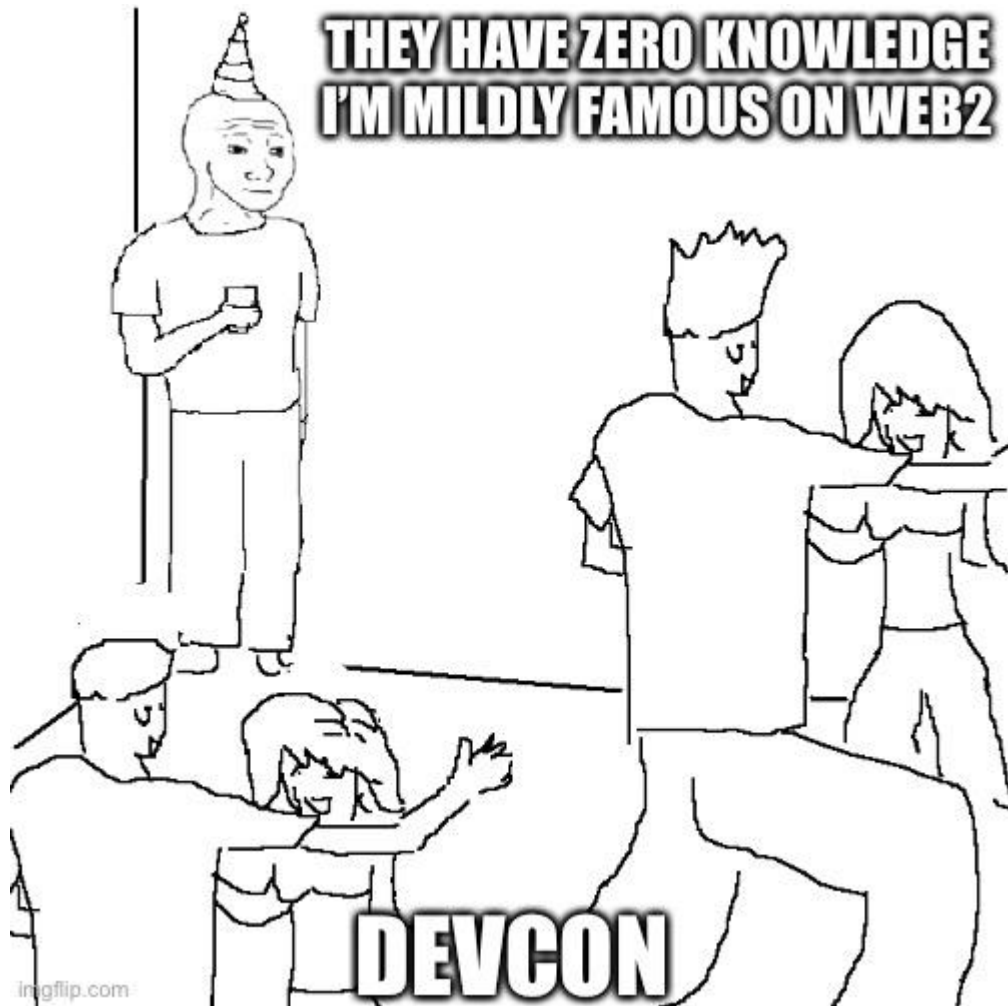
There Are Many Alternatives

Unlocking civilizational hypercomplexity with Ethereum

Venkatesh Rao

Blogger etc., venkateshrao.com

**THEY HAVE ZERO KNOWLEDGE
I'M MILDLY FAMOUS ON WEB2**



This is going to be an abstract talk, so proof of stake (and work) of my hands-on messing around



“There is no alternative” (TINA)

– Margaret Thatcher, ~1980

Short History Lesson

- TINA became the catchphrase of neoliberalism ~1980-2006
- Core of Washington **Consensus** (IMF/WB standard package)
- Leveled up from economics to history with end of Cold War
- Borrowed rigor through abuse of Fukuyama's *End of History*
- Many “alt-TINA” candidates emerged through 90s
 - “World Social Forum” (WSF) anti-globalization
 - Islamic terror movements
 - “Sovereign Individual” type Libertarianism
 - Chinese model

A TINA theory is a “maxi” thesis that one winner-take-all convergent future will dominate the rest of history

(Ironically, Fukuyama’s *End of History* theory is actually *not* a justification for TINAs... long story)

Bitcoin is the Libertarian alt-TINA theory
with extra steps

Ethereum is not a TINA theory. It seems to enable *many* divergent stories that don't even share an extended universe, seems capable of co-existing with non-Ethereum things, and doesn't claim to solve everything.

Let's give that property a name...

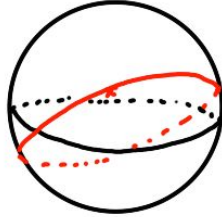
Definition: Hypercomplexity is the property of a system that allows it to sustain many mutually incommensurate,* divergent narrative futures at the same time

* Not from the same extended universe; cannot measure value in one by standards in another

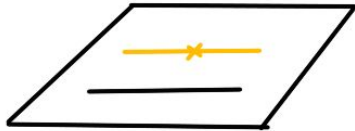
Why “hyper”? (instead of meta/post/sub/super...?)

1. Timothy Morton, “Hyperobjects” (eg “climate change”)
2. Adam Curtis, “Hypernormalisation”
3. Nick Land, “Hyperstition”
4. Computer science, “Hypervisor”
5. Aerospace engineer, Hypersonic (> Mach 5)
6. Non-Euclidean Geometry, **Hyperbolic**

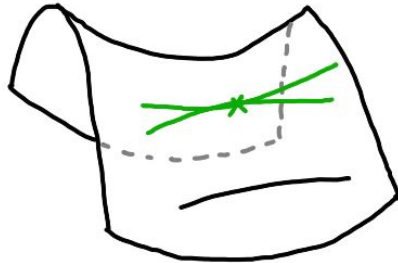
Why “hyper”...? Mnemonic Image



RIEMANN = TINA
(SPHERICAL, ELLIPTIC ETC)



EUCLIDEAN
(PLANE)



BOYLAI-LOBACHEVSKY
(HYPERBOLIC!)

Why this matters... open-ended evolution!

1. Increased hypercomplexity is characteristic of **civilizational advances**
2. TINA states approaching “perfection” are a sign of evolutionary bottlenecks and dead-ends
3. **Hypothesis:** Smooth TINA periods trigger discontinuous hypercomplexity leaps (in biology, “punctuated equilibria”)

Some justification

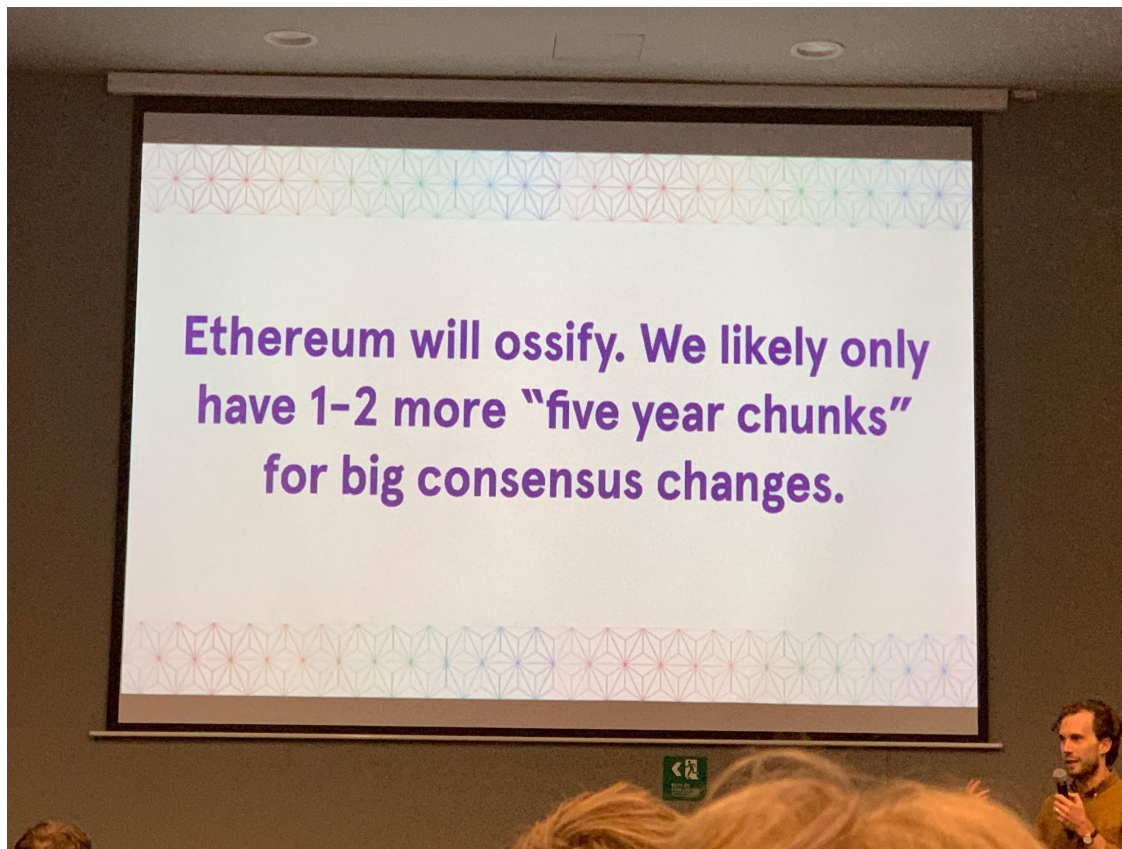
PARKINSON'S LAW

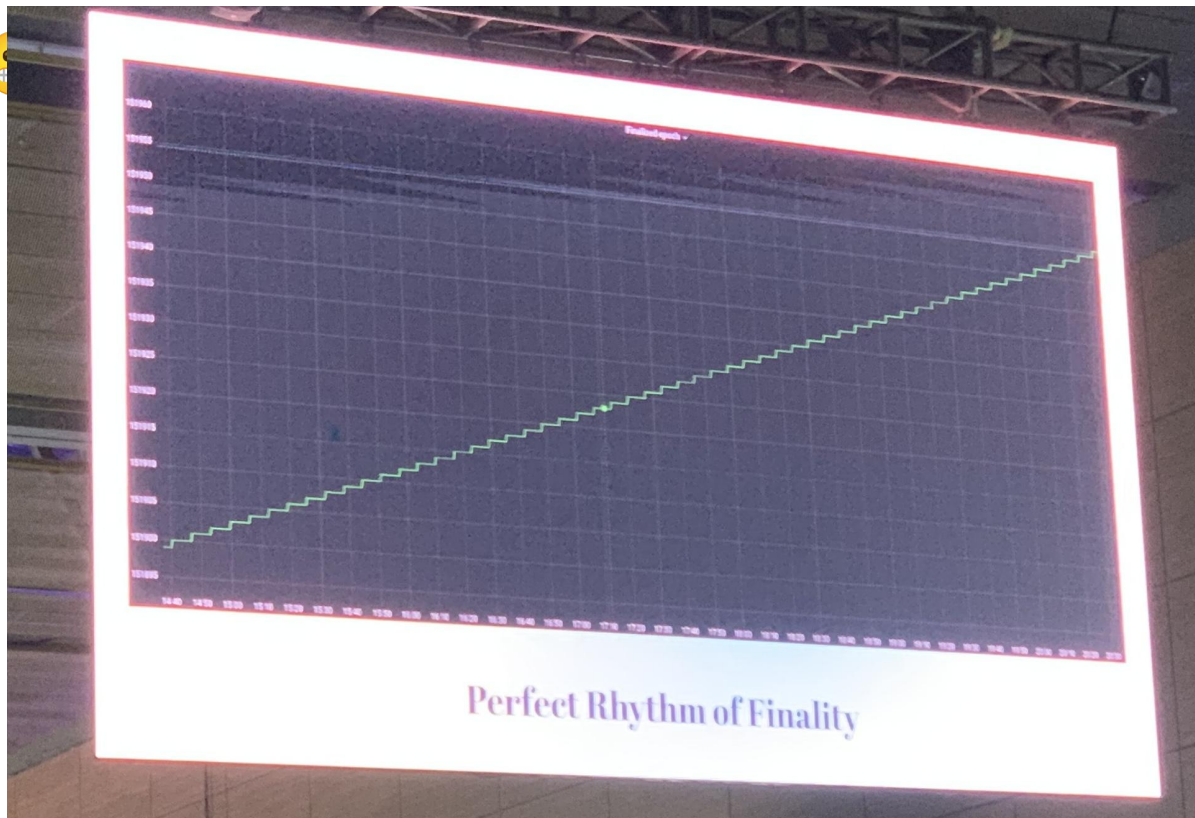
desk. Hypnotized by the chief's unwavering stare, cowed by the Matisse hung upon his wall, you will feel that you have found real efficiency at last.

In point of fact you will have discovered nothing of the kind. It is now known that a perfection of planned layout is achieved only by institutions on the point of collapse. This apparently paradoxical conclusion is based upon wealth of archaeological and historical research, with the more esoteric details of which we need not concern ourselves. In general principle, however, the method pursued has been to select and date the buildings which appear to have been perfectly designed for their purpose. A study and comparison of these has tended to prove that perfection of planning is a symptom of decay. During a period of exciting discovery or progress there is no time to plan the perfect headquarters. The time for that comes later, when all the important work has been done. Perfection, we know, is finality; and finality is death.



Ethereum will ossify. We likely only
have 1-2 more "five year chunks"
for big consensus changes.





A way out, maybe...

“Civilization advances by extending the number of important operations which we can perform without thinking about them.”

– A. N. Whitehead

**Maybe protocol perfection can also be a foundation
for an ecosystem hypercomplexity leap?**

- A major category of “important operations” is dealing with conflict among mutually incommensurate divergent narrative futures.
- **Example:** religions that compete for believers and promise different afterlives.
- “Freedom of religion” is a Whitehead advance that automates this particular “important operation,” replacing religious wars with pluralist peace.

Examples* of Whitehead Advances

1. Strong centralized state (China, ~300 BC)
2. Rule of Law > Rule by Law (Maybe Egypt??, India, ~100 AD?)
3. Accountable government (Europe, ~1000 AD, more than Greece)
4. Forgiveness (Christianity)
5. Separation of religion and state (~1670s? Spinoza...)
6. Modern markets (~1800-1900)
- 7. Jury still out: Crypto? ML?**

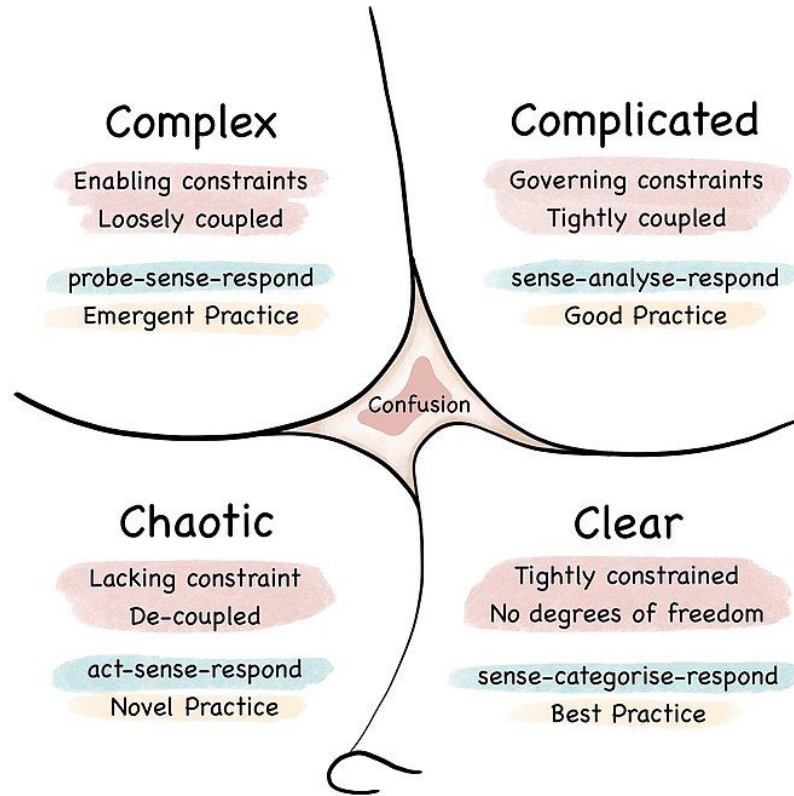
Each of these increased the number of narratives that could co-exist by automating relationships among them.

* For 1-3 see Fukuyama, *Origins of Political Order*. For 4, see Hannah Arendt, *The Human Condition*. For 5, see Matthew Stewart, *The Courtier and the Heretic*. For 6, see Edmund Phelps, *Mass Flourishing* and Brad DeLong, *Slouching Towards Utopia*.

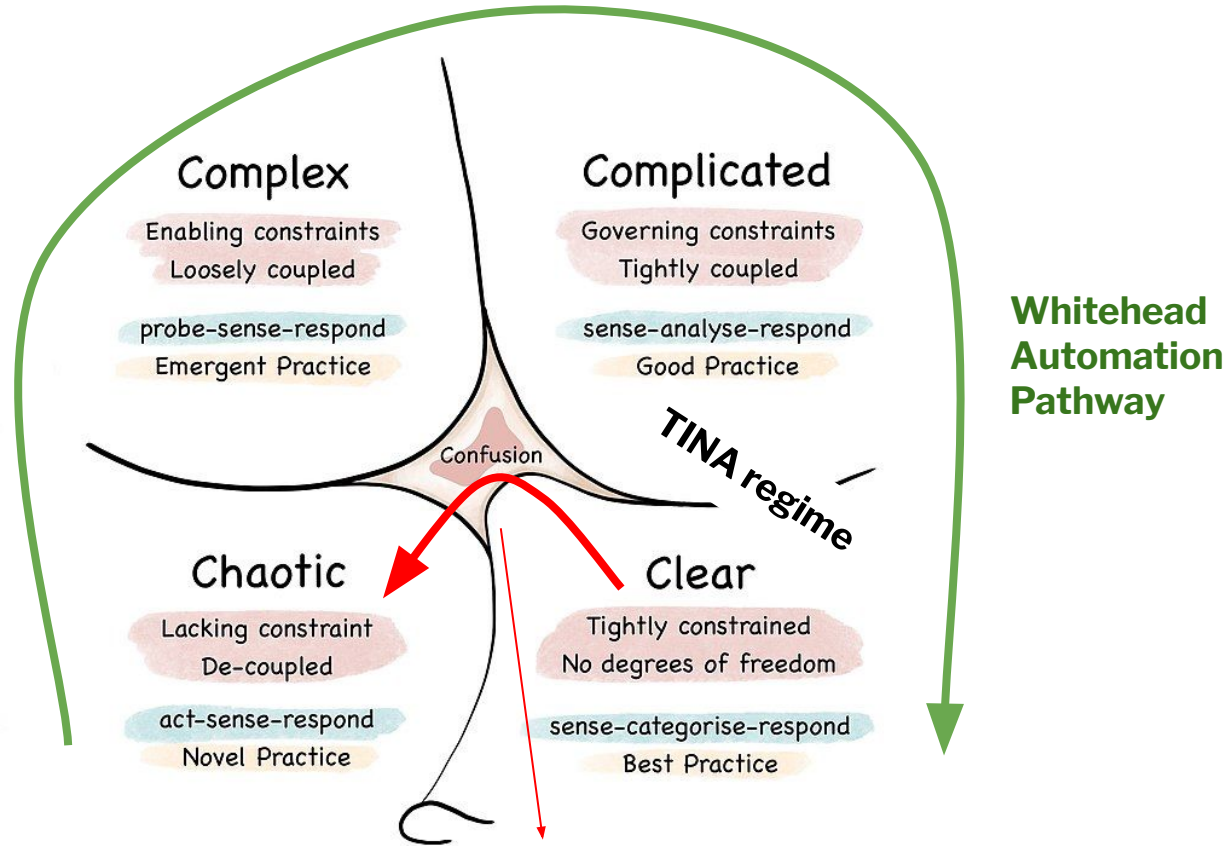
What is the connection between complexity, hypercomplexity, ossification, and civilizational advances?

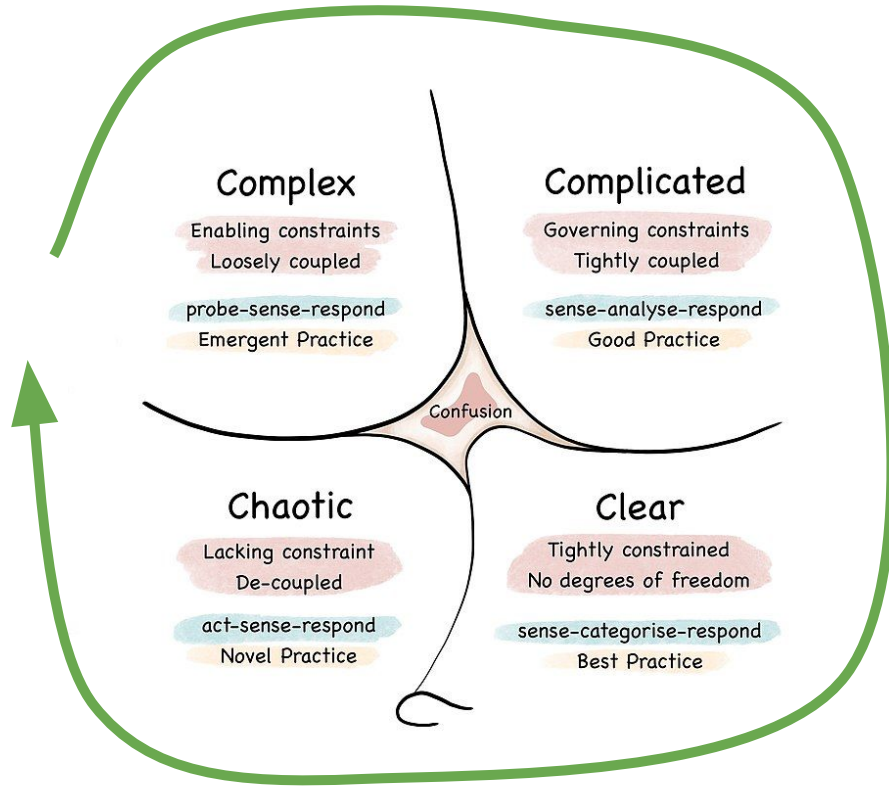
10 (technical) ways to think about complexity...

1. Systems theory (Ashby, Gall, Simon...)
2. Computational complexity (P/NP, theoretical and empirical)
3. Shannon information
4. Kolmogorov-Chaitin (Algorithmic complexity)
5. Turing Completeness
6. Von Neumann Automata (~= TC + noise input)
7. Maturana-Varela Autopoiesis
8. Vapnik-Chervonenkis dimension (classifier expressivity)
9. Internal model principle (control theory)
- 10. Cynefin regimes**



Dave Snowden's Cynefin framework (drawing by Thomas Cox, CC-BY SA 4.0)



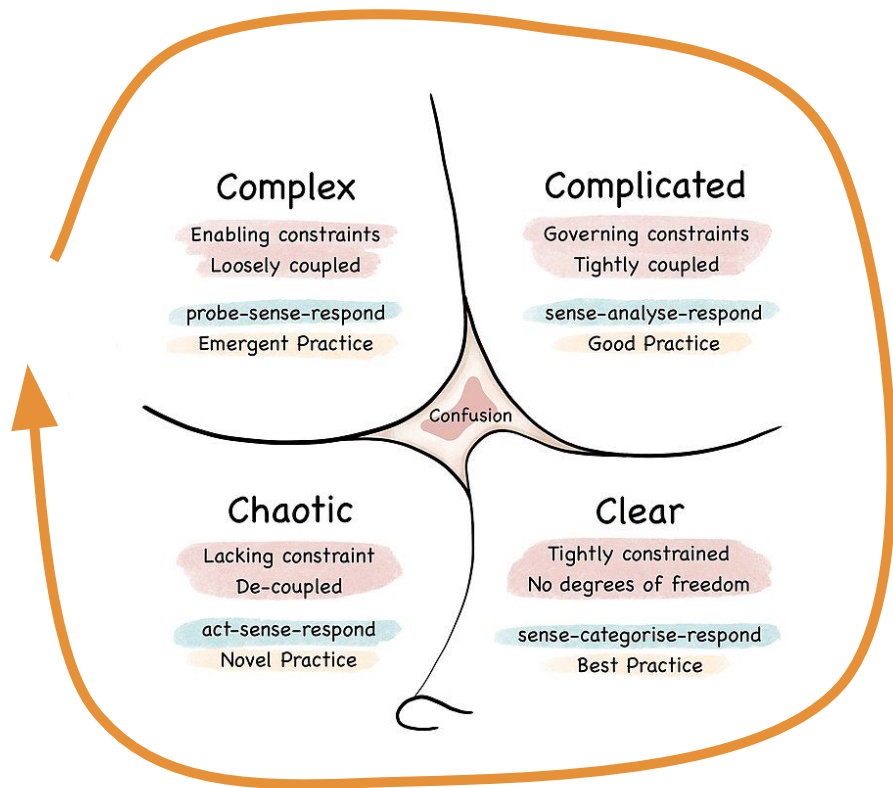


Can we eliminate crisis pathways?

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Can we have smoothly increasing hypercomplexity without TINA bottlenecks?

My belief: NO



Can we at least reshape
crisis pathways?

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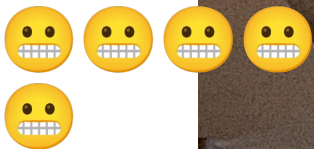
Can we do Asimovian
psychohistory?

My belief: MAYBE!

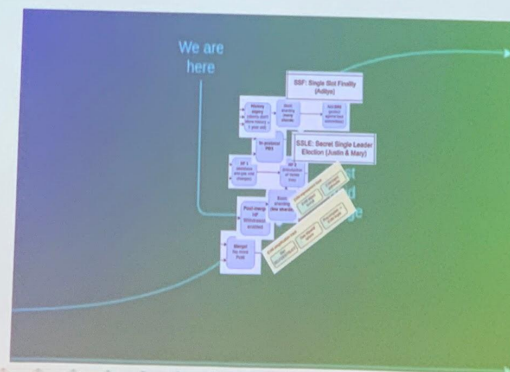
If you respond early to a looming crisis by tweaking the system at an axiomatic level, there's a chance it will transform into a smaller crisis or non-crisis and buy you a period of controlled hypercomplexity growth.

Examples: Y2K, Montreal protocol (well...), some corporate “self-disruptions”...the Merge?
Renewables? CCS?

This is NOT resilience or accelerationism



The road from here to ossification...



How do you design for this?

Spirit of the search for design principles...

1. Inferred from the historical examples of hypercomplexity leaps
2. NOT the TINA playbook
3. NOT any of the alt-TINA playbooks either
4. NOT the Silicon Valley (“breaking smart”) playbook either
5. Currently just phenomenology that seems important to me...
6. Needs theorizing
7. Subtraction over addition.
8. Infinite game over finite game.

12 Principles for Sustainable Hypercomplexity

1. Thoroughness over efficiency (ETTO principle)
2. Contextual porosity over paradigm purity
3. Mediocrity over excellence
4. Bureaucracy over monarchs, messiahs, and mobs
5. Fat systems over lean operations
6. Slouching towards utopia over marching towards utopia
7. Entangled fan-outs over fuck-you forks
8. Expressivity over explainability
9. Inconsistency over incompleteness
10. Exaptation over acceleration
11. Planetary mutualism over sovereign individualism
12. Carrier-bag lore over hero's journey epics

Acknowledgements

- Study groups at the Yak Collective (yakcollective.org) — join us :)
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 - Friday online governance study group (more social)
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Thank you!

Venkatesh Rao

venkateshrao.com

vgr@ribbonfarm.com



@vgr