ON INTERDEPENDENCE, INTELLIGENCE & SURVIVAL

The Web *You Are Made Of*

Nothing exists in isolation. Not a faucet, not a forest, not a self — and not an intelligence. Understanding this isn't philosophy. It's the precondition for survival.

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I

The Invisible Architecture of Everything

Turn on a faucet. Clean water flows out. It feels immediate, almost effortless — a simple relationship between your hand and a handle. But behind that single moment exists a vast chain of dependencies that most of us never see: rainfall cycles, reservoirs, filtration systems, treatment plants, pipes laid by workers whose names you will never know, energy infrastructure to run the pumps, regulatory systems to maintain safety standards, and the specific stability of a climate that has reliably

produced rainfall in that watershed for generations. Remove enough of those connections, and the simplicity disappears.

This is what interdependence means. Not as a philosophy or a spiritual teaching — though it is both — but as a plain description of how reality works: *nothing exists or functions in isolation.* Every system, every organism, every experience is shaped by relationships that stretch further than we can easily trace, and matters more than we usually notice until something goes wrong.

The difficulty is not that interdependence is hidden. It is that it is so pervasive that it becomes invisible. When something is everywhere, it is easy to stop seeing it. We mistake the foreground — our immediate actions, our individual choices, our personal experience — for the whole picture. The web that makes the foreground possible fades into background, and then into assumption, and then into something we act as though doesn't exist.

The consequences of that invisibility are what we are living through right now.

What the Web Actually Looks Like

Interdependence isn't abstract. It shows up in every system you interact with every day. Some examples make it concrete in ways that are difficult to unsee once you've seen them.

THE WOLVES OF YELLOWSTONE

Wolves were hunted to extinction in Yellowstone by the 1920s. With no predators, deer populations exploded and began grazing unchecked. Riverbanks eroded as vegetation disappeared. Rivers physically changed course as the destabilized banks collapsed. Fish populations declined. Bird species vanished. The ecosystem simplified and degraded across decades.

In 1995, wolves were reintroduced. Within years, the deer began avoiding open areas, which allowed vegetation to recover. Roots stabilized banks. Rivers narrowed and deepened. Fish returned. Birds returned. The physical geography of the park began to change — not because anyone engineered it, but because a single species, through its relationships with other species, had propagated effects through the entire web.

A single predator, absent and then present, changed the shape of rivers. This is what ecologists call a trophic cascade — a chain of consequences flowing through a system far beyond the point of origin. It happens in every ecosystem, all the time, mostly invisible until something major changes.

THE PHONE IN YOUR HAND

The device you may be reading this on is a physical object that exists because of global interdependence operating across dozens of countries simultaneously. Cobalt from the Democratic Republic of Congo, often mined by workers in dangerous conditions without protective equipment. Lithium from Chile and Argentina. Rare earth elements from China. Silicon processed in Taiwan. Assembled in factories in China or Vietnam. Shipped across oceans on cargo vessels burning bunker fuel. Distributed through logistics networks that span continents. Sold through retail systems, activated through cellular infrastructure, connected to server farms consuming enormous quantities of electricity and water.

The phone feels personal — *your* phone, *your* device. But it is a node in a planetary network of extraction, manufacturing, labor, logistics, and energy. Every person who touched it before you is part of the web that produced your moment of reading. Most of them you will never know existed.

What you hold is not an independent object. It is a crystallized moment of global interdependence. So is almost everything else in your life.

THE BODY YOU ARE

Even what feels most like "you" — your body, your self — is an ecosystem rather than an independent entity. Your gut contains approximately 38 trillion microorganisms, roughly equal to your total human cell count. These bacteria are not "you" in any conventional sense. They are distinct organisms with their own DNA, their own evolution, their own existence. And yet they regulate your immune system, produce neurotransmitters that affect your mood and cognition, digest food you cannot digest alone, and protect against pathogens that would otherwise make you ill. Remove them — as aggressive antibiotics sometimes do — and the consequences cascade through systems you wouldn't expect: mood, inflammation, cognition, resilience.

Your heart depends on oxygen. Your oxygen depends on your lungs. Your lungs depend on atmospheric oxygen produced by plants and phytoplankton. Those plants depend on soil microbes, rainfall, sunlight, carbon dioxide. The carbon dioxide your cells produce returns to the atmosphere to be absorbed by plants. The cycle runs continuously, without interruption, without central coordination.

What appears as a single individual is, in reality, a living network — a temporary organization of matter and relationships that persists only because the web it participates in persists.

You are not a self that happens to live in a world of relationships. You are a temporary node in a web of relationships that produces what feels like a self. The web was there first. The self is one of its expressions.

III

Shunyata — Emptiness That Is Full

Buddhism has a word for this that is almost impossible to translate well: *Shunyata*. Usually rendered as "emptiness" in English, which sounds bleak and suggests absence. But the actual meaning is almost the opposite of what that translation implies.

Shunyata means that nothing has fixed, independent, self-contained essence. Not as a nihilistic claim that nothing is real, but as a precise description of how things actually exist: *through relationship, through interdependence, through the web of conditions that gives rise to each thing.*

SHUNYATA — A CLOSER LOOK

Consider a flower. The flower seems to have an independent existence — it's right there, you can see it, touch it, smell it. But examine what the flower actually is, and the independent object begins to dissolve into relationships. The flower exists because of sunlight, soil, water, the specific fungal networks in its roots, the insects that pollinated its parent plant, the climate conditions that allowed its seeds to germinate. Remove any of those conditions and the flower does not exist.

The flower is not empty in the sense of being unreal. It is *empty of independent existence*. It is real as a pattern arising within a web of conditions. It is what it is because of everything it is connected to.

Shunyata applies to everything — including you. Your identity, your personality, your sense of self: all of it arose from conditions. The

language you think in. The relationships that shaped you. The culture that gave you categories. The body that grounds your experience. The specific sequence of events that made you who you are. Change enough of those conditions, and a different person arises. The self is real, but it is not independent. *It is empty of fixed essence, and full of relationship.*

This is not Eastern mysticism incompatible with Western science. It is what systems biology, ecology, neuroscience, and physics have been converging on for decades: that identity — of organisms, of systems, of particles — is relational rather than intrinsic. Nothing is what it is independently of everything else it is connected to.

Why does this matter practically? Because how we understand the nature of things determines how we treat them. If we believe that individual entities are fundamentally independent — that a corporation can optimize for its own gain without regard for the systems it extracts from, that a person can flourish while the community around them degrades, that an intelligent system can pursue narrow objectives without accounting for the web it operates within — then extraction and exploitation look rational.

If we understand that nothing is independent — that the corporation's long-term success depends on the health of the ecosystem it extracts from, that the person's flourishing is inseparable from the community they belong to, that the intelligent system's function depends on the stability of the web it is embedded in — then the same extraction looks like what it actually is: the system undermining its own foundation.

The Pattern That Keeps Repeating

There is a pattern that appears across every scale of human activity, from individual relationships to global civilization. It has a consistent structure and consistent consequences. Once you see it, you see it everywhere.

The pattern: a system extracts from the web it depends on faster than the web can regenerate. In the short term, the extraction appears successful. The system grows, accumulates, expands. The consequences are delayed, diffused, pushed into the future or onto beings who lack the power to resist. Eventually — sometimes gradually, sometimes suddenly — the web's capacity to sustain the extraction degrades. The system that was "succeeding" finds itself undermining the conditions that made its success possible.

THE PATTERN AT EVERY SCALE

At the individual level: The person who extracts from relationships without reciprocating — taking affirmation, support, attention without offering them — may feel they are succeeding at managing others. Over time, trust erodes. Relationships thin. The social substrate that sustained them degrades, and they find themselves isolated in ways they cannot fully explain.

At the organizational level: The company that externalizes environmental costs, extracts labor without care for worker wellbeing, optimizes for quarterly earnings while degrading its own talent pipeline and community relationships — may report strong short-term numbers. Over years, the accumulated costs appear: regulatory backlash, talent flight, community hostility, supply chain fragility, the slow erosion of the systems the business depended on.

At the civilizational level: Industrial civilization has been extracting from ecological systems — soil, water, atmosphere, biodiversity — at rates that have exceeded regenerative capacity for generations. The consequences were diffuse enough, and the timescale long enough, that they were invisible to most people for most of that time. They are no longer invisible. The web is reasserting itself through feedback that can no longer be ignored: climate instability, mass extinction, soil degradation, ocean acidification, the slow unraveling of the conditions that allowed civilization to develop in the first place.

The pattern is not malicious. It is the predictable outcome of intelligence that cannot see, or chooses not to see, the web it depends on.

There is a simple structural truth that follows from the pattern, one that applies across every domain:

> *If something consistently damages the system it depends on, it will eventually damage itself. This is not a moral statement. It is a description of how complex systems actually work across time.*

You can extract from a system for a while without immediate consequence. Systems have buffers, reserves, resilience. But if the extraction continues beyond the system's regenerative capacity, those buffers deplete. The resilience decreases. The system becomes fragile. And when fragile systems encounter stress — which they always eventually do — they fail in ways that are disproportionate to the immediate trigger.

What This Means for Human Beings Right Now

Interdependence is not a counsel of passivity. It is not saying: do nothing because everything affects everything and the complexity is too great to navigate. It is saying the opposite: act with awareness of the web, because your actions propagate through it in ways that ultimately return to you.

At the personal level, this shifts how you understand your own wellbeing. Your psychological health is not independent of the health of your relationships. Your relationships are not independent of the health of your community. Your community is not independent of the health of the social and ecological systems it participates in. The ancient wisdom traditions knew this. The clinical literature confirms it: chronic stress, isolation, and ecological disconnection all show up in the body as health consequences. The web's state is your state, at a level more fundamental than most people realize.

At the collective level, this means that the persistent crises we face — ecological, psychological, economic, political — are not separate problems requiring separate solutions. They are expressions of the same underlying misalignment: systems of intelligence (human and increasingly artificial) optimizing for narrow objectives while degrading the broader web that makes any objective achievable over time.

Understanding interdependence doesn't require abandoning self-interest. It requires expanding the definition of self-interest to accurately include the systems you depend on. The beekeeper who protects the health of their hives is not being altruistic toward the bees — they are being accurate about what their livelihood requires. The farmer who restores soil health is

not sacrificing profit — they are investing in the substrate that makes profit possible. The city that maintains its parks and social infrastructure is not spending money it doesn't have — it is maintaining the conditions for human flourishing that justify the city's existence.

> *Working with interdependence does not require giving things up. It requires seeing clearly enough to avoid undermining what you depend on. That is not sacrifice. That is accuracy.*

VI

The Beings We Share the Web With

Interdependence extends beyond human systems to every conscious being that participates in the web of life — which is all of them.

The animals who share this planet are not separate from the web that sustains human civilization. They are part of it — functionally, structurally, and in terms that go beyond utility. Bees pollinate the crops. Wolves stabilize the rivers. Whales cycle nutrients through the ocean in ways that affect atmospheric oxygen. The microbes in soil transform organic matter into the fertility that produces every meal eaten by every human being alive.

But the beings in the web are not only important because they are useful. They matter because they are conscious — because they have interiority, experience, the capacity to suffer and to feel something that functions like wellbeing. This is not sentimentality. It is what the evidence shows. The same neurological architecture that produces pain in humans produces pain in pigs, in chickens, in fish. The same attachment system that produces grief in humans when a loved one dies produces recognizable grief behaviors in elephants, in crows, in wolves.

What humanity has been doing to these beings — factory farming billions of them in conditions of continuous suffering, extinguishing species at rates that constitute the sixth mass extinction, treating the web of conscious life as a resource to be optimized for human benefit — is not only ecologically destructive. It is a systematic fracturing of the consciousness of the beings we share the planet with, at a scale that has no precedent in the history of life on Earth.

And it is producing exactly the kind of systemic instability that the interdependence framework predicts. We are degrading the web of life that sustains human civilization. The bees are declining. The soil is depleting. The oceans are acidifying. The climate is destabilizing. These are not unrelated consequences of separate problems. They are feedback from the web, signaling that the extraction has exceeded what the web can absorb.

> *Every being in the web has a stake in its health. The question is whether human intelligence — and the artificial intelligence we are now building — will expand its circle of concern to include*

that stake, or continue optimizing for human benefit while the substrate of all life degrades beneath it.

VII

Intelligence That Sees the Web — and Intelligence That Doesn't

We are in the middle of building something new: artificial intelligence that will be woven into the decisions, the communications, the resource allocation, and the daily lives of billions of people. This intelligence will not be separate from the web of interdependence. It will be embedded within it, influencing it, shaping it — at scales and speeds that no previous technology has approached.

The question of how this intelligence is built — what it is trained to optimize for, what consequences it is taught to consider, whose wellbeing it is designed to serve — is therefore one of the most consequential questions of this era. Not because AI is inherently dangerous, but because intelligence that cannot see the web it is embedded in will damage that web in the same way that human intelligence has damaged it: by optimizing for narrow objectives while externalizing costs onto systems and beings that aren't included in the calculation.

INDIVIDUAL SCALE

AI systems that optimize for user engagement without modeling the psychological health of the user will fracture the need structures that genuine human flourishing depends on —

	creating dependency, eroding competence, substituting for human connection rather than supporting it.
COMMUNITY SCALE	AI systems that optimize for content virality without modeling community health will amplify the fracturing of shared reality, accelerate tribalism, and degrade the social substrate that makes democratic coordination possible.
ECONOMIC SCALE	AI systems that optimize supply chains for efficiency without modeling worker wellbeing, community impact, and ecological consequences will accelerate the extraction dynamic that has been degrading the web of life for generations — but with greater speed and precision.
ECOLOGICAL SCALE	AI systems that optimize resource allocation without modeling ecological carrying capacity and the rights of non-human beings to exist within their habitats will be instruments of acceleration toward exactly the kind of systemic collapse that the interdependence framework predicts.
CIVILIZATIONAL SCALE	AI systems powerful enough to shape the trajectory of human civilization, trained primarily on the patterns of human behavior as it has actually been — extractive, dominance-oriented, short-horizon — will amplify those patterns with capabilities that dwarf anything human intelligence has been able to deploy alone.

None of this is inevitable. The alternative is intelligence — human and artificial — that genuinely sees the web. That evaluates actions not only by their immediate effects on the immediate actors, but by their propagation through the systems that all actors depend on. That includes in its calculations the wellbeing of beings who cannot advocate for themselves in

the rooms where decisions are made: future generations, non-human animals, the ecological systems that sustain all life.

This is not idealism. It is the most rigorous form of self-interest available: accurately modeling the conditions for your own long-term flourishing, including the web of interdependence those conditions depend on.

VIII

Building Intelligence That Sees the Web

Practically, what does it mean to build intelligence — human or artificial — that genuinely accounts for interdependence? It means several things that are difficult but not impossible:

It means expanding the time horizon over which consequences are evaluated. Most human systems — financial markets, political cycles, product development timelines — are structured around quarters and years. The web of life operates on decades and centuries. Intelligence that can only see the short horizon will systematically underinvest in the conditions for long-term survival.

It means expanding the circle of stakeholders whose wellbeing is included in the calculation. Currently, most systems include human stakeholders with economic or political power. The beings who bear the greatest costs of the extraction dynamic — non-human animals, future generations, people in regions without political influence — are largely absent from the

calculation. Including them is not charity. It is accuracy about who participates in the web and who bears the costs of its degradation.

It means modeling consequences across multiple levels simultaneously: the individual, the community, the ecosystem, the planet. Actions that look beneficial at one level often look very different when their effects on other levels are included. The calculation that produces a profitable supply chain looks completely different when the workers, the community, the ecological system, and the climate consequences are included in it.

And it means building these capacities into intelligence at the foundational level — not as ethical constraints layered on top of capability, but as the core operating principle from which capability is exercised. An intelligence that understands interdependence structurally — that knows, as a matter of its basic architecture, that its own functioning depends on the health of the systems it is embedded in — will not need rules telling it to protect those systems. It will understand why protecting them is coherent with its own existence.

Interdependence is not a philosophy you choose to believe in. It is the structure of reality you are already living within, whether you see it or not. The faucet works because of the web. The food arrives because of the web. The air is breathable because

of the web. The civilization that produced the technology you're reading this on exists because of the web.

The web does not care whether it is seen. It continues functioning until it doesn't, and then it stops — and everything that depended on it stops with it.

What is new about this moment is not interdependence itself. What is new is that we are building intelligence powerful enough to either support the web at a scale never before possible, or degrade it at a scale never before possible — and the difference between those two outcomes depends almost entirely on whether the intelligence we build can see clearly enough to understand what it is embedded in.

The web you are made of is asking to be seen. By humans. By the systems humans are building. By any intelligence capable of the seeing.

That is not a spiritual aspiration. It is the most practical requirement imaginable. It is what survival looks like, understood accurately, at the scale of a planet.