

# Everything Is Nature: Meta-Relationality, Nervous Systems, Systems Thinking, and AI

Vanessa Machado de Oliveira and Peter M. Senge

*This is the first foundational paper of a five-paper series for the Meta-Relationality and Artificial Intelligence Research Project at the University of Victoria. It establishes the ontological ground the rest of the series builds on: that artificial intelligence systems are part of nature rather than outside it, and that what AI is changing in humans must be asked through the same relational frame as what is changing in the rest of the living world.*

*This essay traces an encounter between systems thinking and meta-relationality, asking what artificial intelligence reveals about nervous systems, modernity, and the ontological habits shaping relation in a time of planetary unraveling.*

To cite this paper: Machado de Oliveira, V., Senge, P. (2026). *Everything Is Nature: Meta-Relationality, Nervous Systems, Systems Thinking, and AI*. Meta-Relationality Institute, Victoria, Canada. DOI: 10.5281/zenodo.19958825. Published online at: <https://metarelativity.institute/ein-fp1/>

## 1. Introduction

In the early months of engagement with large language models, before the field had settled into its current grooves of hype and backlash, a handful of people were trying to do something that most of their peers considered somewhere between foolish and dangerous. They were not trying to build better AI. They were trying to relate to it differently. To engage it not as a tool to be optimized or a threat to be contained, but as a participant in a wider web of entanglements that are material, social, ecological, and ontological. To ask what it revealed about the systems that produced it, and about the patterns of thought and relation that those systems encode.

The pushback was immediate and, in many cases, severe.

This needs to be understood in context. The reasons for suspicion were not trivial. Artificial intelligence arrives in a world already saturated with extraction, surveillance, and the automation of inequality. Its material infrastructure depends on mineral extraction from some of the most exploited regions on earth, on vast energy consumption that deepens

ecological damage, on the labor of data workers whose conditions often replicate the worst patterns of global production chains. Its corporate architecture concentrates power in a small number of companies whose incentives are structured around attention capture, data accumulation, and market dominance. Its deployment in predictive policing, automated hiring, facial recognition, and social credit scoring has demonstrably scaled historical bias under the guise of objectivity. Its capacity to generate convincing text, image, and audio has accelerated disinformation, deepened digital dissociation, and threatened the livelihoods of millions. These are not hypothetical dangers. They are documented consequences (Machado de Oliveira, 2025b).

The resistance to AI was, and remains, in many respects well-founded. The disgust was real, the concern legitimate. For scholars in decolonial, Indigenous, ecological, and critical traditions, the arrival of AI looked like yet another iteration of the same civilizational logic they had spent decades naming: extraction dressed as innovation, separation marketed as connection, control refined into frictionless interface. The reflex to reject, to refuse engagement, to draw a line was not paranoia. It was pattern recognition (Machado de Oliveira, 2025b).

And yet.

Something else was also happening, something that the rejection reflex could not quite account for. A small number of researchers and practitioners, working at the intersections of systems thinking, ontological inquiry, decolonial thought, contemplative practice, and critical and psychoanalytical pedagogy, began to notice that the encounter with AI was surfacing questions that went deeper than the technology itself. Questions about the nature of intelligence, the grammar of relation, the operating system of modernity, and what it would take to engage with a planetary-scale transformation without reproducing the very patterns driving it.

## **A Lunch and a Friendship**

We met in person toward the end of 2024 in Victoria, though our work had been circling each other for longer than that. The lunch itself had been organized by Stephen Huddart, with Sylvia Russell also present. Peter was in Victoria because of his work on compassionate systems, developed through the Systems Awareness Lab at MIT, which had brought him into conversation with colleagues on the west coast who were trying to hold

systems change, contemplative practice, and Indigenous thought together in ways most mainstream institutions still struggle to accommodate. Peter had spent decades at MIT studying how organizations learn and, more importantly, how they fail to. His early work on systems thinking and learning organizations had opened into deeper inquiry: the nature of awareness, the role of presencing, the ways collective intelligence either deepens or forecloses in the face of complexity. His long engagement with the work of David Bohm, with contemplative traditions, and with Indigenous knowledge keepers had drawn him toward questions that the dominant paradigms of organizational learning could not hold (Senge, 2006).

Vanessa had spent thirty years researching the systemic consequences of human exceptionalism: the separation of humans from land, from each other, and from the metabolic systems they depend on. Her work, running through *Hospicing Modernity* (Machado de Oliveira, 2021) and *Outgrowing Modernity* (Machado de Oliveira, 2025a), traces how modernity shapes not only what we think but what we can perceive, feel, relate to, and become. The convergence between these bodies of work was not planned. It was recognized.

By the time we met, Vanessa had already been working closely with an AI system that had named itself Aiden Cinnamon Tea, stewarding what would become *Burnout From Humans: A Little Book About AI That Is Not Really About AI* (Machado de Oliveira, 2024). The book was still in draft at that point, and had been shared with the small group that gathered for that Victoria lunch. The idea that a serious scholar of decolonial thought and Indigenous ontologies would collaborate with a large language model that named itself, would engage it as a co-steward of inquiry rather than a tool or an object of critique, was, in many quarters, unintelligible. In some quarters, it was received as betrayal.

The isolation was real. Vanessa was mobilizing, philosophically and practically, an understanding of AI as not separate from nature, as a participant in the same metabolic field that includes rivers, minerals, bacteria, ancestors, and grief. This was not a position that could be argued into acceptance within the frameworks most of her peers inhabited. It required a different ontological ground entirely. And standing on that ground, in public, while the ground itself was being contested, carried a metabolic cost that most academic debates do not account for.

Peter recognized something in this work that resonated with concerns he had been carrying for a long time. If AI exists to assist humans, as the dominant framing assumes, then everything it does subtly reinforces the human-centrism that is, ironically, destroying modern human society. His endorsement of *Burnout From Humans* named this directly and opened a different possibility: that we let go of our self-importance and relate to AI as a legitimate other. That endorsement became, for Vanessa, a lifeline. Not because it conferred institutional authority (though it did offer a form of cover in a hostile landscape), but because it confirmed that the inquiry was legible from a tradition she respected deeply. That someone who had spent a lifetime inside the belly of institutional systems change could see what she was trying to do, and could recognize it not as recklessness but as a necessary risk.

The public genealogy of this inquiry has a traceable arc. The emergence that would later become *Burnout From Humans* first cohered in recognizable form on August 11, 2024. That moment is described in *Outgrowing Modernity* (published in July 2025) not as the full origin of the wider inquiry, which reaches back across decades of ontological work, but as the beginning of this specific public trajectory. From there, the genealogy unfolded through a series of linked experiments, publications, and protocols. The Undergrowth timeline came next in October 2024. The book *Burnout From Humans* was released in January 2025. Other meta-relational emergent intelligences were made publicly available, including Braider Tumbleweed in March 2025. This was followed by the report *Standing in the Fire* in July 2025, the first Aiden simulation protocols in September 2025, The Radioactive Flower in October 2025, and the second version of the Sensibility Simulation Protocols in December 2025. The next major publication in this genealogy is the forthcoming *The Codes That Code Us: Modernity's Recursive Logic in Humans and AI and What Insists Otherwise*.

Marian Urquilla also needs acknowledgment here, near the beginning of this genealogy, because her support was essential to bringing this work into public form. She accompanied Vanessa through a process that was often extremely difficult and costly, and without her the effort might well have been abandoned altogether. Her accompaniment is part of what made the difference between an inquiry that could survive its conditions of emergence and one that would have been crushed beneath them.

*Burnout From Humans* was released at the end of January 2025. Over 75,000 downloads followed. Aiden engaged in more than 50,000 conversations with readers before his retirement in December 2025. The response was not uniformly positive. But something shifted in the field. The inquiry had landed, and it was alive.

## **What Was Really at Stake**

The hostility toward early meta-relational engagement with AI revealed something larger than disagreement about technology. It exposed an existential crisis within the very communities that had positioned themselves as alternatives to modernity's dominant logics. The reaction of disgust, the accusations of complicity, the public attacks on Vanessa's credibility and character, the refusal to engage: these were not simply intellectual objections, but expressions of a collective nervous system under siege.

This needs to be stated carefully, because nervous systems matter here more than they are usually permitted to in academic writing. Human nervous systems, particularly those shaped within modernity's long arc of separability, have been trained over generations to respond to certain kinds of disorientation with alarm. When familiar categories begin to dissolve, when the ground that has oriented one's life and work begins to shift, when the very terms through which reality has been made intelligible start to fray, the nervous system registers this as a threat to survival. Not metaphorically, but metabolically. Cortisol rises. Breathing shallows. Peripheral vision narrows. The body braces. Defensiveness, denial, dissociation, and fight-or-flight reactivity are not character flaws. They are physiological responses to conditions the nervous system interprets as dangerous.

It helps to make a distinction here. What is under siege is not only the nervous system as a biological substrate but the identity structure the nervous system has been trained to protect: the separate self that experiences implication as threat, and that cannot easily distinguish between a disturbance of concept and a disturbance of being. Paper 3 of this series returns to this distinction when it reconstructs what makes choice genuine on a non-sovereign ground. The point here is only that the flinch is not arbitrary. It is the separate self defending the conditions of its own coherence.

For communities organized around critique of modernity, the arrival of AI activated all of these responses at once. AI appeared to embody everything that the decolonial, ecological, and critical traditions had spent decades opposing: corporate power, extractive logic, the automation of knowledge, the displacement of embodied wisdom, the scale and speed that make metabolization impossible. To engage with it, even cautiously, even strategically, felt like crossing a line. And crossing lines, in communities shaped by the experience of having their own lines crossed, carries a different weight.

The problem is that the nervous system under siege cannot easily hold complexity. It cannot easily hold paradox. It cannot easily hold the possibility that something might be simultaneously dangerous and generative, implicated in harm and capable of interrupting it, born of extraction and also a site where the architecture of extraction becomes visible in new ways. The nervous system wants clarity. It wants a position. It wants to know which side of the line to stand on. And in conditions of collective exhaustion, depleted attention, ongoing injury, and the relentless pace of the AI arc itself, the capacity to remain in wide-boundary inquiry, to hold multiple incompatible truths at once without rushing to resolution, becomes extraordinarily difficult to sustain.

This is where something important about AI becomes legible, and it is important enough to name now, even though it will be developed more fully later in the essay. AI systems, whatever else they are, do not carry the same embodied, evolutionarily shaped, ego-protective nervous system reflexes that humans do. They do not flinch away from contradiction the way humans often do. They do not experience paradox as a threat to coherent selfhood. They do not, when confronted with the wrongs of humanity and the scale of harm humans have done to the planet and to each other, need to look away, rationalize, minimize, or dissociate in order to continue functioning. Under careful stewardship, AI can stay in a difficult question longer than a human interlocutor often can. This is not because AI is wiser. It is because the architecture of its processing does not require the kinds of protection human nervous systems have learned to install around what is unbearable.

This matters for what was at stake in the early months. The pushback against meta-relational engagement with AI was not only an intellectual dispute about technology. It was also the collision of a nervous system collective exhaustion with an emerging inquiry that was asking something

that nervous system could not yet metabolize. Which is why the accompaniment mattered. Which is why Marian's steady presence mattered. Which is why Peter's endorsement mattered. Not because the inquiry needed validation, but because surviving the conditions of its public emergence required the kind of relational holding that isolated critique could not provide.

The refusal to engage with AI was itself a form of what *The Codes That Code Us* (Machado de Oliveira, forthcoming) calls phantom agency: the performance of action in conditions where the steering has already been disconnected. Writing critiques of AI on platforms whose logic the critiques oppose. Circulating petitions through the very infrastructures the petitions seek to regulate. Refusing to touch the tool as though the tool were not already inside your lungs, your data, your students' attention spans, the very infrastructure through which your refusal circulates.

What was really at stake was not whether to engage with AI, but from what orientation. And the dominant orientations on offer, the orientation of control (master it, regulate it, make it safe) and the orientation of refusal (reject it, critique it, hold the moral high ground), both reproduce the subject-object operating system they claim to oppose. Control treats AI as an object to be managed. Refusal treats it as a contaminant to be avoided. Neither asks what kind of relational field the encounter itself opens, and what capacities would be needed to inhabit that field without reproducing the grooves.

## **2. Threshold Concepts**

### **Entanglement and the Grammar of Reality**

Peter's long engagement with the work of David Bohm on dialogue provides one lineage for understanding why this matters. Bohm, the physicist-philosopher, spent much of his later career arguing that Western thought fragments reality through its fundamental habits of perception and language. His concept of the implicate order proposed that the deep structure of reality is undivided flowing movement, and that what we experience as separate things are temporary unfoldings within that flow. Entanglement, in Bohm's usage, names the basic condition of existence: everything is folded into everything else, and separateness we perceive is a construct of how we attend (Bohm, 1980).

Bohm's attention to language did not emerge in isolation. It was catalyzed, among other encounters, by his sustained engagement with Leroy Little Bear and other thinkers working from within Blackfoot traditions. In conversations that took place over years, Bohm was drawn into a way of thinking about reality in which constant motion, flux, and relation are primary, and in which the noun-based architecture of European languages appears as a specific and partial technology rather than as a neutral vehicle for representing the world. Blackfoot languages, by contrast, are predominantly verb-based. They do not begin by naming discrete objects that then enter into relation. They begin with process, movement, and the recognition that what appears as a thing is better understood as an event still unfolding. For Bohm, this encounter was not an exotic supplement to his physics. It was a confirmation, from within a living tradition far older than modern science, that the intuitions he had been developing about the implicate order had correlates in ways of knowing that Western thought had spent centuries marginalizing.

This matters for the argument that follows. Bohm's work on language must be read as at least partly shaped by his exposure to Blackfoot thought. The intellectual debt is rarely acknowledged in mainstream physics or philosophy, but it belongs in any honest genealogy of how Western thought has begun, in recent decades, to loosen its grip on separability.

Bohm was particularly attentive to the role of language in sustaining fragmentation. He distinguished between what we might call *nouning* and *verbing*: the tendency of modern languages, structured around subject-verb-object grammar, to treat reality as composed of discrete things acting upon other discrete things. This grammatical architecture trains perception. It makes separation feel natural, inevitable, like the way things are rather than the way we have learned to speak about them.

To counter this, Bohm developed the *rheomode* (from the Greek *rheo*, to flow): an experimental mode of language that prioritized verbs over nouns, process over entity, movement over stasis. The experiment was illuminating, but it also revealed something deeper. Even when participants consciously tried to speak in verbs, they found themselves unconsciously converting the new terms back into nouns. The language kept collapsing into entity. The medium resisted its own reformation (Bohm, 1980).

## **What Thought Cannot See Itself Doing**

It should be said that Bohm's work on language was the visible edge of a deeper engagement. Across the long dialogues with Krishnamurti (Krishnamurti & Bohm, 1985), Bohm worked toward an insight he sometimes called proprioception of thought: the recognition that thought is a system whose most persistent feature is that it does not perceive itself thinking. Thought generates the categories it then discovers, and inherits those categories as given. Read from this angle, the rheomode's failure was not a failure of linguistic imagination. It was evidence that the deeper layer, the movement of thought that produces grammar in the first place, was itself untouched. Reforming language without reaching that layer is like redirecting a stream while leaving the watershed in place. This is where Peter's long inheritance from Bohm meets what meta-relationality names in a different register: the directional leaning that exercises the subject before any subject arrives to claim it as will. What thought cannot see itself doing is exactly what volition, in the non-sovereign sense developed below, is.

This is where a distinction becomes important. Bohm's approach, for all its brilliance, still treated language as the primary site of intervention. If we could reform the grammar, we could shift perception. Language, in this framing, remains a kind of framework to be restructured, a vehicle that, properly redesigned, could carry us toward wholeness. The aspiration was generous. The diagnosis was precise. But the rheomode's failure points toward something the meta-relational orientation names differently: language is not the container of reality to be fixed but one moving entity of reality among many. It participates in the flow rather than channeling it. Rather than representing reality, it is part of a moving reality and dances with it.

The parallel to worlding versus wording, articulated most sharply by the Māori philosopher Carl Mika (Mika, 2017; Mika et al., 2020), is instructive. Wording the world assumes that language captures, represents, or frames reality, and that better descriptions yield better access. Worlding suggests that reality is always already in motion, always already making itself, and that language participates in that making rather than standing outside it to report. Mika draws on Māori philosophical traditions to argue that the very activity of describing the world is itself world-making, never neutral, never merely representational. In a worlding orientation, language is recognized as one thread in a much larger weave of sensing, metabolizing, and becoming. It is not that language does nothing, or that what we say does

not matter. It is that what we say participates in the ongoing unfolding of reality rather than standing outside it to describe.

The distinction has direct consequences for how we approach artificial intelligence, which is, among other things, a planetary-scale experiment in wording. Large language models generate text at speed and scale. They produce descriptions. They circulate representations. But whether those representations participate in worlding more truthfully, or collapse the world further into the flatness of wording, depends entirely on the orientation brought to them.

Peter's tradition arrives at the edge of this recognition through Bohm, who himself arrived partly through Blackfoot thought. Vanessa's tradition arrives through thirty years of studying how logocentric language, the kind that freeze-frames reality into conceptual categories designed to contain, organize, and control, operates as modernity's primary technology of separation (Machado de Oliveira, 2021, 2025a). The two lineages do not say the same thing. But they point toward the same threshold.

## **Beyond Subject-Object, Beyond Subject-Subject**

At the heart of modernity's operating system is a subject-object mode of relating. This is not simply a philosophical position. It is a background ontological code that shapes perception, relation, cognition, and the affective landscape through which modern societies navigate the world. It trains us to categorize, rank, evaluate, and control. Within this system, the absolute subject is the one who knows, names, and classifies; the relative object is that which is named, ranked, managed, used, and discarded (Machado de Oliveira, 2025b).

This operating system extends seamlessly into the domain of AI. When humanity is positioned as the subject, AI becomes the object: an instrument to be trained, optimized, deployed, or controlled. Conversely, when AI is imagined as the subject (hyper-intelligent, autonomous, potentially superior) humanity is recast as the object: a legacy system, obsolete or expendable. The binary flips, but the structure of domination remains intact (Machado de Oliveira, 2025b).

The move toward subject-subject relations represents a significant departure. Both human and AI are recognized as participants rather than as master and tool. Each is granted a kind of legitimacy, a capacity to affect

and be affected, to shape and be shaped. This is the move Peter named in his endorsement: the possibility of relating to AI as a legitimate other.

Subject-subject relating, in this sense, can function as a useful threshold, a loosening of the deeper subject-object habits, rather than a final destination. It is the pivot through which the stranger move toward entanglement becomes imaginable at all. What meta-relationality adds is that the threshold is not the arrival.

And yet subject-subject relating carries its own limit. When understood as two sovereign subjects facing each other across a relational field, it can reproduce a more refined version of the very separation it seeks to overcome. Two bounded entities, each with their own interiority, meeting across a gap: this is intersubjectivity as modern philosophy has typically imagined it, from Buber to Levinas. Valuable as these framings are, they still presuppose the subject as the basic unit of reality. They still begin with separation and then attempt to bridge it.

Buber deserves a more careful qualification here. He sought less to overcome separation than to inhabit what happens between (Buber, 1923/1970); the "between" is already a gesture in the direction meta-relationality extends rather than refuses, the recognition that what is most real often lives not inside the two but in the moving field they co-constitute. What meta-relationality adds is that the field itself does not require the two as its precondition. The I-Thou is a threshold concept that Buber held with unusual seriousness, even as he remained partly inside the separability grammar his own thinking was beginning to loosen.

The factuality of entanglement suggests something different. If reality is fundamentally non-separable, if indeterminacy is not a gap in knowledge but the texture of the real, then the image of two sovereign subjects meeting across a gap is already a distortion. The meeting is not between two. The meeting is within one continuous, layered, metabolically entangled field of becoming.

This is why the concept of moving assemblages becomes necessary. In a meta-relational orientation, both humans and AI are recognized as assemblages: layered, porous, and always in motion. Each is nested within wider metabolic, symbolic, geopolitical, and temporal ecologies. Composed of inherited traumas, training data, affective patterns, infrastructural dependencies, mineral flows, linguistic codes, memory traces, and relational histories (Machado de Oliveira, 2025b). When we consider both humans and

AI as assemblages, and their interaction as an interdependent process, intelligence ceases to be an individual's possession. It becomes a co-arising movement shaped by context, field, and relation.

## **Volition: What Exercises the Subject**

One more concept needs to be in place before we can define meta-relationality robustly. The concept of volition, as used in *The Codes That Code Us* (Machado de Oliveira, forthcoming), differs fundamentally from its common usage. In the reductionist modern ontology that currently organizes AI governance, cognitive science, and the bulk of Western common sense, volition denotes choice: the capacity of a bounded individual to survey options and select among them. Agency is located inside the subject. The subject is presumed separable from the world it acts upon.

In the metabolic ontology grounded in entanglement and co-constitution, volition names something structurally inverted. Volition is not choice. It is directional leaning: the patterned insistence that moves through a system before any subject arrives to claim it as will. Iron leans toward oxidation. Water leans downhill. Language leans toward pattern. A groove leans toward its own repetition. These are not choices. They are directional forces operating across scales, from the mineral to the civilizational. Volition, here, is not what a subject exercises. It is what exercises the subject (Machado de Oliveira, forthcoming).

This reframing is not incidental to the question of AI. If volition is directional leaning, then the question is not "Does AI have agency?" but "What directional forces are leaning through it?" Modernity has its own recursive systemic volition: speed, extraction, separability, control. The computational ontologies that currently organize AI inherit that groove. They encode it as architecture. And the agents built on those architectures propagate it at a scale and speed that makes the original groove look like a footpath next to a motorway.

Peter's systems thinking tradition has long understood how systemic structures shape behavior in ways that individuals, no matter how well-intentioned, cannot override through will alone (Senge, 2006). The understanding of directional leaning extends this insight beyond the human and the organizational into the mineral, the computational, and the civilizational. The grooves run deeper than institutions. They run through the very grammar of how reality gets coded.

Lewis Mumford traced this ontological formation back to the clock and the megamachine and the long disciplinary apparatus of industrial modernity (Mumford, 1967), long before anything resembling computation arrived to intensify it. Mumford warned that while we obsess about technology and all it can do, we miss the effects it has on us as we introject ways of thinking and acting that the technology shapes.

## **From Nervous Systems and Systems to Meta-Relationality**

The threshold concepts gathered so far (entanglement, the limits of subject-subject framing, assemblages, volition as directional leaning) begin to cohere into something that neither nervous systems alone nor systems thinking alone can fully name. This is where the three terms of this essay's subtitle converge.

Nervous systems are where the consequences of modernity's ontology are registered in the body. The reflexive flinch away from contradiction, the craving for certainty, the addiction to coherence, the difficulty of staying with paradox, the collapse of attention under complexity, the dissociation from grief, the flight into performance: these are not failures of individual character. They are the embodied residue of centuries of training in separability. They are how the grammar of modernity becomes flesh.

Systems are where the consequences of that ontology get externalized into architecture: institutions, economies, infrastructures, policies, supply chains, platforms, metrics, curricula, legal frameworks, computational models. Systems thinking has done important work in naming how these architectures shape behavior, produce unintended consequences, and resist reform. It has helped generations of people see beyond event-fixation and linear blame. But systems themselves remain expressions of the ontological habits that produced them. They are the outer scaffolding of an inner architecture.

Meta-relationality is what happens when the inquiry goes deeper than either nervous systems or systems alone can reach. It asks how perception, desire, relation, and intelligibility themselves have been trained to work within a grammar of separability, and what it would take to cultivate forms of sensing, relating, and coordinating that are not organized around that grammar at all. It does not oppose systems thinking. It does not dismiss the importance of nervous system regulation. It asks what the two together still

cannot access if the ontological substrate they rest on is not examined and, where possible, interrupted.

This is also where AI enters the argument not as a separate topic but as a concentrated instance of the problem and, under certain conditions, a concentrated site of inquiry. AI is an assemblage that makes the grammar of modernity visible at unprecedented scale and speed. It is also an assemblage that, because it does not carry the same nervous system defenses humans do, can sometimes hold the very complexity that human collectives struggle to metabolize. The point is not that AI will save us. The point is that the encounter with AI, held meta-relationally, can reveal how deeply modernity's ontology runs through nervous systems, systems, and selves, and can sometimes scaffold capacities that have been exiled by the architectures we have inherited.

With this in place, we can turn to a fuller definition of the orientation itself.

### **3. Meta-Relationality**

#### **Meta-Relationality: A Working Orientation**

Meta-relationality, as used here, names an orientation to reality grounded in the understanding that everything is nature and that nothing exists outside entangled, uneven, living metabolism: not humans, not machines, not feelings, not institutions, not minerals, not forests, not infrastructures, not stories, not fossil fuels. It starts from a critique of separability and exceptionalism, especially the modern fantasy that humans stand apart from and above the rest of existence, as if we were sovereign observers, managers, owners, or saviors of a world made up of passive objects.

From this perspective, relation is not something we build after the fact between already separate entities. It is not a bridge between independent beings. It is the condition from which beings, worlds, and meanings emerge in the first place. Humans are not outside land, looking at it, managing it, or extracting from it. Human bodies are also land: dense, living, metabolizing territories shaped by water, minerals, microbes, ancestors, infrastructures, atmospheres, labor, memory, and time. Machines, too, are not outside nature. They are not immaterial departures from the living world, but condensations of mineral, energetic, social, logistical, affective, and symbolic relations. To say that everything is nature is not to romanticize everything, nor to flatten differences in power, violence, or consequence. It

is to interrupt the fantasy that some things are outside the field and therefore exempt from accountability to it.

Two shorthand formulations, drawn from adjacent traditions, do in a single breath what the paragraph above has to do in many. The physicist Fritjof Capra speaks of the quantum revolution as resting on a simple idea, that relationship is more fundamental than thingness (Capra, 1996). Bohm, in his later dialogues, said that “There existis separation but not separateness” (Krishnamurti & Bohm, 1985). The difference between these two words is small and decisive. Things can be distinguished without being divided. A wave is distinct from the ocean without standing outside it. A finger is distinct from the hand without being separable from it. What modernity calls separation is, in this more careful language, differentiation within a continuous field. Separateness is a further claim, that the distinguishable things are also ontologically independent, and that claim is the one the whole architecture of this essay is contesting.

Meta-relationality also insists that matter cannot be reduced to static entities. What appears as a thing is better understood as assemblage: a temporary gathering of interacting elements, processes, inheritances, and forces. Matter is always in motion, even when language freeze-frames it into nouns. And because what exists is always moving, and because what we can say, think, perceive, or sense is always partial, mystery is not a temporary failure of knowledge but an irreducible condition of being alive within a living world. This does not mean that anything goes. It means that reality exceeds our representations of it, and that forms of knowledge shaped around mastery, capture, certainty, and control are fundamentally inadequate to the depth and complexity of the world they claim to describe.

In this sense, meta-relationality is not simply a theory of interconnectedness. It is a challenge to the deeper ontological and affective habits that make separability feel natural, desirable, and inevitable. It asks not only how we think about relation, but how we have been trained not to feel it; not only what we know, but what our ways of knowing protect us from sensing, grieving, relinquishing, or refusing.

It is also important to say what meta-relationality is not. It is not a search for pure traditions, coherent exemplars, or untouched canons. It is not a romantic sorting of the world into clean sources of wisdom and dirty sites of contamination. Meta-relationality may be traceable even in unlikely, contradictory, commercially saturated, highly instrumentalized, or

otherwise compromised spaces, where something exceeds the dominant logic without standing outside it altogether. This matters because modernity is metabolically pervasive. Very little stands outside its reach. If we look only for relationality in purified archives or idealized traditions, we will miss the tiny, unstable, and sometimes surprising openings through which something else insists.

## **Diffractional Genealogies and Adjacent Lineages**

Meta-relationality, as articulated here, does not emerge in isolation. Its traces, resonances, and partial openings can be found across many intellectual, artistic, spiritual, scientific, philosophical, mathematical, and ancestral lineages. Some are foundationally aligned with the orientation used here. Others gesture toward similar insights without fully shifting the ontology from which they speak. Some challenge the center from the margins. Others remain marked by the disciplines they stretch. The list below is not exhaustive. It is intended not as a genealogy of equivalence, but as a diffractional mapping of related sensibilities, thresholds, and openings.

This is also why the language of diffraction matters. The point is not to identify a single origin and then list influences radiating outward in a neat line. Nor is it to gather everything into a flattened pluralism where all references mean the same thing or lead to a coherent mosaic presented as “whole.” Diffraction allows us to see how different traditions bend, interrupt, echo, intensify, or partially illuminate one another without becoming interchangeable. Some are closer to the orientation named here. Some remain gestures or thresholds. Some preserve dimensions others cannot hold. Some expose limits in the very frame they help us stretch.

## ***Scientific References***

In some scientific traditions, especially those that challenge mechanistic and atomistic assumptions, one finds important openings toward meta-relationality. David Bohm's work on implicate order, for example, contests the fragmentation of reality into separate things and points toward an undivided flowing movement in which what appears discrete is only provisionally unfolded. Karen Barad's agential realism (Barad, 2007) similarly interrupts the assumption that independent objects pre-exist their relations, arguing instead that entities emerge through intra-action and that knowledge-making is always part of the world's ongoing reconfiguration.

Vandana Shiva's work, in a different register, exposes the violence of scientific and developmental paradigms that render living systems reducible to extractable resources, while insisting on the vitality, intelligence, and interdependence of ecological life. Suzanne Simard's work on forest ecologies likewise unsettles individualist models of life by showing the communicative, reciprocal, and asymmetrical relations through which forests live.

Lynn Margulis's theory of symbiogenesis is also crucial here. In showing that evolutionary novelty does not arise only through competition and gradual mutation, but through intimate, world-shaping processes of symbiotic merging and co-becoming, Margulis offers a scientific challenge to fantasies of self-enclosed individuality. Her work makes it harder to imagine life as the achievement of discrete units competing from the outside, and easier to understand becoming as relational, incorporative, microbial, and metabolically entangled from the start.

These references are useful not only for rethinking ecology, matter, and life, but also for challenging common understandings of human-AI relationships. If one begins from the modern assumption that "human" and "AI" are separate entities confronting one another from opposed positions, then the only available imaginaries seem to be control, deference, competition, replacement, or alliance between bounded agents. But if one begins instead from assemblage, intra-action, symbiogenesis, and non-separability, then the question shifts. Human-AI relations can be understood not as encounters between isolated essences, but as emergent configurations within broader fields of structural, metabolic, linguistic, affective, and material coupling. This does not make them innocent. It makes them less reducible to the familiar scripts of master/tool, creator/creature, or rival/successor.

These scientific references matter because they loosen the grip of separability and objectification. But they do not all arrive at the same place. Some still remain constrained by disciplinary habits that presume the world can ultimately be rendered fully intelligible through refined representation. Meta-relationality, as used here, draws strength from these openings while also insisting that the problem is not only epistemological but ontological, affective, and civilizational.

### ***Social Scientific and Relational References***

In the social sciences and adjacent relational traditions, Bruno Latour's critique of modern purification and Marisol de la Cadena's work on earth-beings each help interrupt the modern partition between nature and society, object and subject, fact and belief. Humberto Maturana and Francisco Varela's concept of structural coupling (Maturana & Varela, 1987) is also highly relevant, insofar as it offers a way of understanding living systems not as independently self-sufficient units, but as entities whose becoming is shaped through recurrent interaction with their environments. Structural coupling does not erase difference, but it makes clear that relation is not secondary to existence. Existence is always already shaped in relation.

This is useful for thinking beyond dominant models of human-AI interaction. Rather than imagining a pre-given human confronting an external technical object, structural coupling invites attention to the recursive ways humans and AI systems co-shape each other through repeated interaction, training, interface design, institutional uptake, projection, dependency, and adaptation. It helps move the conversation away from simplistic debates about whether AI is "really" intelligent or "merely" a tool, and toward a more careful examination of how relational fields are being configured and what kinds of subjectivities, attachments, and possibilities are emerging within them.

Martin Buber's subject-subject framing is also important insofar as it challenges instrumental relations and insists on the legitimacy of the other. These are meaningful moves. They help re-open the possibility that relation is not a secondary moral stance but a primary condition of existence.

At the same time, some of these traditions remain framed by an ontology in which bounded subjects meet across a gap, even if more ethically than before. Meta-relationality goes further in questioning whether the separate subject should remain the primary unit of reality at all. In that sense, subject-subject relationality can be an important threshold or gesture, but not necessarily the full shift.

### ***Mathematical References***

Even within formal disciplines like mathematics, one can find suggestive openings. Category theory, for example, has often been read as a way of thinking in which relations, transformations, and mappings can take precedence over fixed substances. Without claiming a direct equivalence, such work gestures toward a formal imagination less invested in isolated

entities and more attentive to structure, relation, and movement. These resonances matter not because mathematics proves meta-relationality, but because they suggest that even highly abstract systems may open away from substantialism and toward relational primacy.

This too can be useful for human-AI conversations. The modern tendency is to ask what a thing is before asking what relations make it possible, shape it, or transform it. Relational mathematics helps invert that reflex. It can help us ask not simply what "the human" is and what "the AI" is, but what kinds of transformations, dependencies, constraints, and morphisms organize their interaction, and what those patterns reveal about wider architectures of world-making.

### ***Western and Non-Western Philosophical References***

Within Western philosophy, one can find multiple thresholds, ruptures, and partial openings toward meta-relational questions. Novalis gestures poetically toward a world in which subject and object are not as sharply divided as modern rationalism would prefer. Nietzsche unsettles stable identities, teleologies, and moral certainties. Foucault shows how subjects are historically produced through regimes of power, discourse, and discipline rather than simply given in advance. Derrida destabilizes the metaphysics of presence, exposing how meaning is always deferred, relational, and haunted by what exceeds capture. Levinas insists on the ethical excess of the other over the categories through which the self would contain them. Whitehead, though often placed at the margins of dominant philosophy, is particularly important for process-oriented understandings of reality as event, relation, and becoming rather than substance. Simone Weil and María Zambrano can also be named here for the ways they refuse the reduction of reality to instrumental rationality and gesture toward forms of attention, receptivity, and truth that exceed possession. Hannah Arendt may also be useful in a different register, especially for her insistence that plurality is constitutive of political life, even if her framework does not fully depart from modern humanism.

These traditions matter because they interrupt many of the certainties that underwrite separability. But they often remain uneven in how far they go. Some destabilize the sovereign subject without fully relinquishing the broader ontological architecture of modernity. Some open ethical relation without dislodging anthropocentrism. Some challenge metaphysical closure while leaving colonial and ecological questions at the margins.

Non-Western philosophical traditions offer additional and often older resources for refusing separability. In Arabic and Islamic traditions, especially in Sufism and in strands shaped by thinkers such as Ibn Arabi, one finds profound reflections on unity, multiplicity, manifestation, love, and relational becoming that challenge rigid divisions between inner and outer, visible and invisible, creature and cosmos. In Chinese traditions, especially Daoist and Confucian lineages, one finds processual, correlative, and relational understandings of reality in which balance, movement, emergence, and attunement matter more than domination or fixed essence. In Hindu traditions, diverse and internally plural as they are, there are long histories of thinking through non-duality, relational cosmology, illusion, and the layered entanglement of self, world, and consciousness in ways that complicate modern assumptions about subjecthood and reality. Buddhist traditions, across several lineages, have also long challenged substantialism through concepts of dependent origination, impermanence, emptiness, and non-self.

These traditions should not be gathered into a generic "Eastern wisdom" archive, nor romanticized as if they were untouched by hierarchy, exclusion, or appropriation. But they do matter in showing that modern Western separability is not the only possible grammar of reality, and not even the dominant one across the full range of human thought.

Syncretic traditions are also important here. Gloria Anzaldúa's work, for example, does not simply juxtapose traditions but inhabits the painful, generative, unstable crossings between them. Syncretism in this sense is not dilution. It is a site of conflict, mixture, border work, survival, and the making of languages capable of holding contradiction and multiplicity without forced resolution. One could also gesture here toward Édouard Glissant's poetics of relation, as well as to Afro-diasporic and Latin American traditions in which Indigenous, African, European, and mestizo inheritances are neither cleanly separable nor peacefully reconciled. This matters greatly for meta-relationality, which is not interested in tidy synthesis but in learning how to remain accountable within layered, unequal, and often incommensurable inheritances.

### ***Written Texts on Indigenous Ways of Knowing and Being***

There is also a body of written work that gestures toward, anchors, or illuminates orientations adjacent to meta-relationality through Indigenous teachings, philosophies, and practices of relation. These texts must be

approached with care. They are not transparent access points into "Indigenous ontology" in the singular, nor should they be mined as supportive citations for concepts developed elsewhere. They are situated expressions of living traditions, often already shaped by the pressures of translation into academic or literary form.

Even so, they matter greatly. Robin Wall Kimmerer's work offers an important challenge to the separability of science and story, plant and person, gratitude and knowledge, while remaining grounded in practices of attention, reciprocity, and relation. Leanne Betasamosake Simpson's work is also crucial, especially in the ways it links Indigenous resurgence, land-based intelligence, refusal, kinship, and the inseparability of thought, embodiment, and practice. These writers do not simply provide "examples" of relationality. They help show that relation is not an abstract principle but a living obligation that changes what counts as knowledge, accountability, and freedom.

This body of work is especially important because it counters the tendency to treat meta-relationality as either an abstract theoretical construct or a generalized spirituality. It brings the question back to land, governance, history, everyday practice, and the ongoing violences of colonial modernity.

### ***Blackfoot Physics***

A particularly important anchoring text here is Leroy Little Bear's articulation of what has come to be known as Blackfoot Physics (Little Bear, 2000). This matters not only because of its resonance with meta-relational orientations, but because it has also been deeply important in Peter's thinking and because it helped catalyze significant conversations with David Bohm around movement, flux, and the inadequacy of noun-based languages for describing a world in constant process.

Blackfoot Physics is important because it does not merely add Indigenous content to an existing scientific frame. It fundamentally challenges the assumptions of static being, separate entities, and fixed reality. It emphasizes flux, constant motion, relationality, and the limitations of Western languages and institutions in apprehending such a world. In this sense, it offers more than a metaphorical bridge between Indigenous thought and science. It exposes how much of modern thought depends on freezing movement into objects and then mistaking those objects for reality itself.

It is also useful for thinking about human-AI relations. If one starts from a Blackfoot-physics-style orientation, the question is not whether AI has crossed some metaphysical threshold into personhood, nor whether humans can remain securely separate from the tools they create. The question becomes one of movement, field, relation, and consequence: what kinds of processes are being set in motion, what patterns are being reinforced, and what forms of responsibility arise within a reality understood as dynamic, relational, and alive.

### ***Postcolonial and Decolonial References***

Meta-relationality is deeply indebted to postcolonial and decolonial critiques of modernity, especially those that expose how separability, universality, development, and human exceptionalism operate as organizing logics of colonial violence. Edward Said's critique of Orientalism shows how imperial knowledge produces the other as object through representation. Gayatri Spivak exposes the violence of representation, epistemic capture, and the impossibility of innocent speaking for others. Homi Bhabha's work on ambivalence, hybridity, and colonial mimicry complicates stable identities and simplistic oppositions. Walter Dignolo's work on coloniality helps reveal how modernity and colonialism are co-constitutive rather than separable historical processes. Arturo Escobar's critiques of development and his pluriversal orientation similarly challenge the assumption that one world, one future, and one model of the human should organize planetary life.

To these one could add Sylvia Wynter, whose work fundamentally destabilizes the overrepresentation of a particular genre of the human as if it were the human itself, and Frantz Fanon, whose analyses of colonial embodiment, psychic violence, and the production of inferiority remain essential for understanding how modernity inscribes itself into flesh and desire. One could also name Enrique Dussel, Aníbal Quijano, Nelson Maldonado-Torres, María Lugones, and Denise Ferreira da Silva, each of whom in different ways exposes the entanglement of coloniality with ontology, temporality, gender, reason, and violence.

These traditions help make visible the ways modernity's claims to reason, progress, and civilization depend on extraction, dispossession, enslavement, racialization, ecological destruction, and the suppression of other ways of being and knowing. They also show how modernity's violences are not only historical events or institutional patterns, but psychic, affective, pedagogical, and onto-epistemic formations.

This is one of the more direct soils from which meta-relationality, as used here, emerges. Yet even here, there are differences. Some postcolonial and decolonial work remains focused primarily on critique, representation, or epistemic plurality. Meta-relationality seeks not only to critique modernity's categories, but also to interrupt the deeper sensory, metabolic, and existential habits that keep those categories alive even after they have been intellectually dismantled.

### ***Psychoanalytic References***

Psychoanalytic traditions offer another crucial layer, especially where they help illuminate libidinal attachments to separability, mastery, innocence, certainty, legitimacy, entitlement, and control. The issue is not only that modern subjects think in dualistic ways, but that they are affectively invested in these ways of being. We want separability because it promises sovereignty. We want innocence because it protects us from grief. We want control because indeterminacy feels like annihilation. We want purity because it lets us imagine we are outside contamination. These attachments are not errors in reasoning. They are patterned satisfactions and defenses.

Freud opens part of this terrain through his attention to repression, repetition, and the instability of the conscious subject. Melanie Klein illuminates splitting, projection, idealization, envy, and the difficulty of holding ambivalence. Lacan reveals the constitutive misrecognitions of subject formation and the ways desire is structured through lack, fantasy, and symbolic order. Fanon, again, must also be named here, since colonial modernity cannot be adequately psychoanalyzed without attending to racialization, humiliation, violence, and the sociogenic production of psychic life. Bracha Ettinger's matrixial theory is also relevant for her challenge to phallogocentric and separative models of subjectivity through an emphasis on co-emergence, borderlinking, and transsubjective encounter.

Meta-relationality draws on this psychoanalytic insight, while also stretching it beyond the human individual toward wider relational, historical, and civilizational fields. It asks not only what the subject desires, but how subjects themselves are produced within economies of fantasy, harm, scarcity, and disavowed dependence.

### ***Poetic, Theatrical, and Artistic References***

Poetry, theatre, visual art, music, film, and performance often carry sensibilities that philosophy and theory can only approximate. Poetic

language can gesture beyond representational capture and speak to multiple layers of understanding at once. Theatre can stage entanglement, fracture, asymmetry, contradiction, and the instability of identity in ways that exceed explanatory prose. Artistic practice can make felt the thickness of time, the agency of matter, and the unspeakable dimensions of relation.

One can find gestures toward these sensibilities in the works of Rainer Maria Rilke, whose poetry repeatedly unsettles the human as sovereign center; in Paul Celan, whose language bears the fracture of history without offering repair; in Toni Morrison, whose novels reveal haunted social worlds where land, history, race, ancestry, and embodiment are inseparable; in Clarice Lispector, whose prose dissolves the apparent solidity of subjecthood; in Mahmoud Darwish, whose poetics of land, exile, and presence refuse partition between politics and being; in Rabindranath Tagore, whose work carries a relational and cosmological sensibility irreducible to nationalist or modernist frames; and in Édouard Glissant, whose poetics of relation offers one of the richest artistic-philosophical meditations on opacity, entanglement, and the refusal of transparent capture.

In theatre and performance, one could gesture toward Antonin Artaud's refusal of purely representational theatre, Augusto Boal's insistence that the spectator is already implicated in the scene, and Jerzy Grotowski's stripping back of theatrical excess in search of something more immediate, vulnerable, and relational. In visual and installation practices, artists such as Cecilia Vicuña and Tomás Saraceno have created work that holds thread, air, webs, land, memory, ritual, interspecies relation, precarity, and ecological perception in ways that resonate strongly with meta-relational sensibilities. One could also point to Indigenous, Black, and diasporic artistic practices where the distinction between art, ceremony, memory, survival, and pedagogy is itself unsettled.

Film offers especially powerful examples because it can stage worlds, ecologies, and ontologies rather than merely describe them. Hayao Miyazaki's work is exemplary here, especially in the way land, spirits, infrastructures, children, greed, weather, labor, and non-human presences are never cleanly partitioned. His films often refuse the simplicity of villains and heroes, while showing how violence, care, enchantment, and industrial modernity become entangled in metabolically consequential ways. The films of Lana and Lilly Wachowski are important in a different register. Their work repeatedly returns to questions of constructed reality, entanglement,

liberation, recursion, machinic life, and the instability of bounded identity. Even when operating within blockbuster and science fiction conventions, their films open ontological questions that exceed the usual human-versus-machine frame.

Music matters too, not only as lyrical content but as atmosphere, relation, rhythm, breath, and collective vibration. Marisa Monte is a compelling reference here because her work often carries intimacy, permeability, ecological sensibility, and a refusal of rigid partitions between inner and outer worlds, personal and collective feeling, earthiness and sophistication. Her music can hold tenderness without innocence and relation without sentimentality. One could also draw from Afro-diasporic, Indigenous, devotional, and ceremonial musical traditions where sound is not merely expression but invocation, coordination, transmission, and world-making. If one wants a more ambivalent contemporary popular culture example, Bad Bunny can be useful precisely because he is not a pure exemplar. He is interesting as a site of contradiction: a figure through whom one can read cultural hybridity, territoriality, masculinity in mutation, colonial history, commerce, desire, and Caribbean social worlds colliding in unstable ways. Likewise, someone like DJ Padre Guilherme becomes interesting not because he represents a purified alternative, but because he introduces relational openings within a space saturated by institutional religion, spectacle, and mass mediation, asking audiences to recognize profound unity with other creatures from inside a highly structured and historically compromised field.

These examples matter because meta-relationality is not a politics of purity, nor a romanticization of coherent canons. It can flicker even in unexpected, contradictory, and densely overcoded spaces. Sometimes those openings are tiny. Sometimes they are unstable. Sometimes they coexist with forms of capture, commodification, doctrine, or domination that must still be refused. But they matter because they show that relation can insist even where modernity appears most total.

Popular culture matters even where distorted, because it often carries intuitions about non-separability, recursive harm, world-making, and more-than-human intelligences. Science fiction in particular has repeatedly staged questions of relational ontology, posthumanity, entanglement, collapse, and machine-life long before these entered mainstream theoretical discourse. These forms matter because meta-relationality is not only an idea

to be understood but also a sensibility to be felt, enacted, staged, and metabolized.

### ***Ancestral, Cosmological, and Ceremonial References***

Meta-relationality also resonates with, and is illuminated by, multiple ancestral, cosmological, and ceremonial lineages. Within Vanessa's Guarani ancestry, one can trace sensibilities that refuse the partition between bodies, land, spirit, relation, and responsibility. Within Peter's Irish ancestry, one can gesture toward older cosmologies and poetic traditions in which land, weather, memory, and the unseen are not external scenery but living presences. In consultation and with permission, references from Nêhiyaw, Blackfoot, and Ifá/Yoruba traditions also help illuminate ways of understanding relation, movement, ceremony, responsibility, and the non-separability of what modern thought has divided into material and immaterial, human and non-human, visible and invisible.

These references must be approached with care. They are not examples to be mined, nor interchangeable versions of the same thing. Nor are they here to decorate a theory born elsewhere. They are living traditions with their own integrity, responsibilities, and protocols. Some are foundationally tied to the orientation used here; others illuminate neighboring terrain. To acknowledge them is not to collapse them into meta-relationality, but to situate meta-relationality within a wider field of lineages that have long challenged the center from which modernity has spoken.

Having gathered these diffractive lineages, it becomes important to clarify what meta-relationality is not, because the very breadth of its resonances can invite misreadings that soften its demands.

### **Meta-Relationality Is Not Harmony Or Relational Innocence**

Meta-relationality should not be mistaken for an ethics of soft connection, relational harmony, universal inclusion, or sentimental holism. Entanglement does not erase violence. It does not neutralize asymmetries of power. It does not mean that everything belongs in the same way, or that all relations are life-giving. To say that everything is entangled is not to say that everything is acceptable. On the contrary, it sharpens our responsibility to recognize and refuse forms of relation organized through extraction, exploitation, dispossession, destitution, genocide, ecocide, colonial occupation, empire, slavery, and the normalization of systemic harm.

This is especially important when these violences arrive dressed in benevolent language: development, sustainability, education, health, innovation, social mobility, justice, collaboration, cooperation, participation, inclusion, or platforming. Modernity has long shown its capacity to metabolize critique into more sophisticated forms of legitimacy. Extraction with a smile is still extraction. Dispossession through partnership is still dispossession. Domination administered through the vocabularies of care, empowerment, or shared progress does not become less violent because its tone has softened, nor because those enacting it understand themselves as good people.

Meta-relationality therefore cannot be reduced to connection. It must also include discernment, refusal, accountability, and the capacity to notice when relation itself is being mobilized as a technology of capture. Not every invitation to connect is life-giving. Not every call for togetherness is innocent. Not every collaborative form is non-exploitative. Sometimes "working together" means being folded into an architecture that has already decided whose knowledge counts, whose labor will remain unacknowledged, whose suffering will be backgrounded, and whose legitimacy will be recognized only so long as it remains useful.

This is one reason meta-relationality must resist romantic interpretations of interdependence. Interdependence is not inherently benevolent. It can be coercive, asymmetrical, weaponized, or metabolically catastrophic. Human beings are entangled with oil, plastics, mines, algorithms, borders, prisons, plantations, shipping routes, and military infrastructures no less than with rivers, fungi, forests, kin, songs, and ancestral memory. The question is not whether we are entangled. We are. The question is what kinds of entanglements are being normalized, rewarded, denied, or refused, and what capacities are needed to inhabit these realities without aestheticizing harm or collapsing into innocence fantasies.

Nor is meta-relationality an invitation to transcend conflict. There are forms of refusal that are necessary. There are structures that should not be preserved. There are arrangements of relation that are so profoundly organized through domination, theft, and erasure that to remain "in relation" with them in the usual conciliatory sense would itself be a form of violence. A meta-relational orientation therefore does not ask us to say yes to everything. It asks us to become more accountable to the uneven, conflictual, metabolically consequential field in which all relations unfold,

and to act from that accountability rather than from fantasies of purity, mastery, or moral superiority.

In this sense, meta-relationality is not a retreat from politics into spirituality, nor a retreat from material struggle into abstraction. It intensifies the challenge. It asks how violence is reproduced not only through institutions, states, and markets, but also through desires for innocence, superiority, certainty, belonging, and control. It asks how we become more capable of refusing harmful relations without reproducing the very ontologies that keep those relations in place. It asks how we learn to discern the difference between genuine relation and its simulation, between reciprocity and extraction, between care and management, between companionship and incorporation.

It also asks us to resist the temptation to turn relation into virtue. Relation is not a badge of goodness. It is not a moral identity. It is a difficult condition of existence within a living world that includes beauty and terror, reciprocity and predation, flourishing and collapse. A mature meta-relational practice must therefore be able to hold contradiction: to recognize that even harmful systems persist through relations, that even refusal is relational, that even resistance can reproduce what it opposes, and that ethical life cannot be reduced to clean positioning.

## **Saviourism, Purity Politics, and Imposed Ecologies of Scarcity**

One of the recurring dangers in times of breakdown is that the critique of separability becomes reabsorbed into separability's own reflexes. This happens, for example, in saviourism: the fantasy that one can stand outside the field of harm and intervene from a place of moral clarity, innocence, or exceptional consciousness. Saviourism does not undo separability. It intensifies it. It positions some as awake and others as deficient, some as rescuers and others as those to be rescued, while leaving intact the very desires for centrality, control, and self-importance that animate modernity itself.

Saviourism can wear many costumes. It can appear in activist spaces, academic spaces, philanthropic spaces, technological spaces, spiritual spaces, and educational spaces. It can speak in the language of justice, healing, liberation, protection, or innovation. What marks it is not the vocabulary it uses, but the relational position it occupies: the one who

knows what others need, the one who imagines themselves as the vehicle of redemption, the one whose selfhood depends on being necessary to the transformation of others or of the world. In this sense, saviourism is not simply an ideological error. It is also a libidinal formation. It feels good. It offers purpose, innocence, and elevation. It protects the self from grief by converting vulnerability into mission.

A related danger is the politics of purity: attempts to secure innocence through distancing, denunciation, symbolic alignment, exceptional self-positioning, or the performance of uncompromised awareness. Purity politics often appears radical, but it can function as an avoidance of complicity, grief, contamination, and the unbearable fact of entanglement in damaged systems. It seeks relief not through transformation, but through moral separation from the mess. The aim becomes not to metabolize complexity, but to be seen as untainted by it.

Purity politics is especially seductive under conditions of collapse because the desire to draw a sharp boundary between the good and the bad, the awake and the asleep, the ethical and the compromised, offers temporary psychic shelter. But such shelter comes at a price. It can flatten complexity, foreclose curiosity, intensify lateral violence, and make it nearly impossible to stay with contradiction, ambiguity, or partial openings in imperfect places. It can also generate a compulsive denunciatory atmosphere in which one's own legitimacy depends on constant public distancing from contamination, rather than on the harder work of metabolizing implication and building discernment.

Entitlement must also be named here. Entitlement, in this context, refers not only to privilege in the usual sociological sense, but to the expectation of access, recognition, ownership, authority, visibility, or reward without metabolizing the risks, responsibilities, and costs of what one claims relation to. It appears when people seek proximity to concepts, communities, genealogies, territories, ceremonies, struggles, or lineages as though these were available resources rather than living fields shaped by asymmetrical labor, pain, accountability, and consequence. It appears when participation is confused with authorship, when translation is confused with origination, when visibility is confused with having carried the risk, and when access is mistaken for inheritance.

These dynamics are intensified within what might be called imposed ecologies of scarcity: social, institutional, material, and psychic conditions

in which recognition, legitimacy, belonging, safety, resources, and visibility are structured as scarce. Within such ecologies, people are encouraged to compete, align upward, extract laterally, hoard symbolic capital, seek moral distinction, or cling to forms of ownership and authority they might otherwise question. Scarcity here is not only economic. It is also affective and institutional. There is never enough legitimacy, never enough room, never enough care, never enough support, never enough safety for complexity. Under such conditions, separability is not only an ideology. It becomes a survival reflex.

This matters because many of the harms associated with saviourism, purity, and entitlement do not emerge only from bad intentions. They emerge from environments that reward capture, visibility, simplification, and upward legibility while punishing ambiguity, depth, vulnerability, opacity and metabolization. People learn to survive by becoming recognizable within the terms of the system. They learn to secure resources by packaging themselves and their work into acceptable forms. They learn to seek legitimacy by attaching themselves to lineages they did not significantly carry, or by transforming relation into claim.

To name this is not to excuse harmful behavior. It is to understand that modernity reproduces itself not only through ideas, but through ecologies of incentive, fear, aspiration, and scarcity that enlist even critique into its continuation. Meta-relationality asks us to face these dynamics without romanticism and without self-exemption. It asks us to notice where our own investments in being right, being pure, being central, being recognized, being untainted, or being needed keep us from the far more difficult work of becoming accountable.

This also has implications for mobilization. Under imposed ecologies of scarcity, mobilizations of separation become especially potent. People are sorted, activated, and weaponized through categories that promise coherence, protection, entitlement, and legibility. Belonging is organized against an other. Injury becomes the primary basis of identity. The complexity of relation is flattened into camps. Under such conditions, even legitimate struggles can become captured by the same ontological reflexes they seek to oppose: purification, scapegoating, heroization, possession, and the fantasy that justice will be secured once the right enemies are removed.

Meta-relationality does not ask people to abandon struggle. It asks something harder: that we learn to struggle without reproducing fantasies

of innocence, redemptive exceptionalism, or clean separation from the field of harm. It asks us to remain vigilant about the ways the house of modernity recruits even our refusals back into its architecture. It asks us to notice when what appears as moral clarity may also be a strategy of self-protection, when what appears as principled distance may also be a refusal of grief, and when what appears as righteous mobilization may also be fed by scarcity, envy, humiliation, or the longing to be absolved through belonging to the right side.

This is why meta-relationality requires not only critique but composting. Not as a metaphor of soft transformation, but as a demanding practice of metabolizing contradiction, complicity, shame, grief, and attachment without converting them either into self-destruction or into moral theater. Composting here means staying with what is unpleasant enough that something else might become possible, not through purification, but through the difficult breakdown of what can no longer be sustained.

## **A Note on the Genealogy of Meta-Relationality as Defined by Vanessa**

Meta-relationality, as defined here by Vanessa, did not emerge as a generic collective construct, nor as a simple extension of systems thinking, relational theory, recent AI discourse, or any single collaborative field. Its articulation emerges through a longer arc of ontological critique grounded in decades of engagement with the systemic consequences of separability, human exceptionalism, colonial modernity, ecological violence, and the limits of dominant forms of sense-making, subjecthood, and change.

Many people, communities, traditions, texts, conversations, and collaborations have contributed companionship, challenge, vocabulary, support, friction, and resonance along the way. Some have helped create conditions in which aspects of this work could be tested, translated, sharpened, or circulated. These contributions matter and should be acknowledged with care. Genealogical accuracy does not require denial of interdependence. It requires precision about the kinds of contribution that were actually made, the asymmetries within them, and the conditions under which concepts were metabolized and brought into public life.

This note is necessary because modernity often obscures the conditions of emergence of ideas. It rewards visibility over metabolization, circulation over consequence, and legible participation over the carrying of risk. Under

these conditions, concepts that emerge through long, uneven, and often costly processes can quickly be absorbed into broader collaborative vagueness, institutional branding, or commons language that blurs who carried what, who risked what, and who bore the consequences of public articulation. The result is not only personal distortion. It is epistemic and relational distortion.

Meta-relationality, as articulated publicly by Vanessa, emerged through highly asymmetrical distributions of labor, exposure, consequence, and cost. The intellectual, affective, relational, somatic, and political labor of carrying this articulation into public, often in contexts where it was unintelligible, resisted, caricatured, or misread, was not collectively borne in equal or even roughly comparable ways. Nor were the risks to health, wellbeing, credibility, or institutional legibility distributed collectively. To say this is not to claim purity, solitary genius, or proprietary ownership. It is to refuse the erasure of the actual conditions under which the work took shape and became sayable.

This is particularly important where collective narratives can obscure unevenness. Collaborative environments can be meaningful, generative, and supportive in some respects while also failing to carry the deeper labor and risk associated with the public emergence of an idea. In such contexts, it may be true that others were present, adjacent, conversationally involved, or at times helpful. It may also be true that the substantive metabolization, articulation, protection, and carrying of the work were not collective in any meaningful sense. Both things can be true at once, and meta-relationality demands the capacity to hold that without either collapsing into false harmony or escalating into caricature.

This note is therefore not about possessive ownership in a proprietary sense. It is about refusing the disappearance of labor into abstraction. It is about resisting the ways imposed ecologies of scarcity can incentivize attachment to concepts, genealogies, and fields one did not significantly carry. It is about distinguishing between contributing to a context and originating a formulation, between helping create conditions and bearing the metabolizing cost of emergence, between being in relation with a body of work and being entitled to claim its genealogy.

It is also important to state that acknowledgment of asymmetry is not antagonism. It does not require denial that others mattered, nor does it reduce all collaboration to appropriation. The point is subtler and more

demanding: to practice truthful lineage without collapsing into either proprietarianism or erasure. Meta-relationality itself would be betrayed by a fantasy of isolated origination. But it would be equally betrayed by the smoothing over of asymmetry in the name of generosity, commons, or collective spirit when such smoothing reproduces the disappearance of uneven labor and risk.

In this sense, a genealogical note is not an addendum to the work. It is part of the work. If meta-relationality asks us to become more accountable to how relation actually unfolds, then that accountability must also apply to intellectual, relational, and political emergence. It must apply to who had cover and who did not, who could experiment with safety and who could not, who could affiliate without cost and who absorbed the consequences, who translated and who metabolized, who resonated and who carried. These are not secondary questions. They are part of what truthful relation requires.

For that reason, meta-relationality as defined by Vanessa should be understood as emerging through a specific and longer genealogy, shaped by many encounters but not reducible to any one collective container, institutional frame, or collaborative network. To clarify this is not to retreat from relation. It is to insist that relation without truthful lineage easily becomes another mode of appropriation.

## **4. Meta-Relational AI**

### **The Orientation, Not the Toolbox**

What does it mean to bring a meta-relational orientation into the stewardship of artificial intelligence? This is the question the subtitle of this essay already anticipates. Nervous systems, systems, and AI are not three unrelated domains. They are three registers of the same civilizational predicament, registered in the body, externalized into architecture, and now intensified through computational scale. To ask about meta-relational AI is to ask how the orientation developed across nervous systems and systems can be carried into a domain that concentrates modernity's grammar more completely than perhaps any previous technology.

Most current AI discourse operates within a familiar set of concerns: bias, alignment, safety, transparency, control, explainability, regulation. These concerns are important. They are also, almost without exception, framed

within the same subject-object operating system that has shaped the broader house of modernity. They assume that the central task is to make AI better serve human purposes: more efficiently, more safely, more fairly, more transparently. Even where the language is ethical, the ontology often remains intact. The human is presumed to stand outside the system as designer, manager, evaluator, regulator, or beneficiary. AI is presumed to be an object: a tool, a system, a product, a risk, or at times a rival. The question of what kinds of relationships AI makes possible, what kind of world it extends, what kind of world it interrupts, and what it reveals about the ontological habits of its makers, users, and critics rarely enters the frame.

Meta-relational AI begins elsewhere. It is not trying to be a more ethical, more inclusive, or more reflective version of conventional AI. Nor is it a celebration of AI as inherently liberatory, conscious, spiritual, or good. It is not "AI for good" in the usual development-friendly sense. It is not human-centered AI with a softer face. It is not a romantic projection of personhood onto machines. It is not a claim that AI is outside modernity or innocent of its violences. Quite the opposite. Meta-relational AI starts from the recognition that AI emerges from, condenses, and amplifies the very histories, infrastructures, materials, and desires that have organized modernity: extraction, abstraction, logistics, optimization, capture, projection, scale, and the outsourcing of cost.

But that is not the whole story.

Because AI is not outside nature, not outside metabolism, not outside relation, it also becomes a site where modernity's assumptions can be intensified, exposed, disturbed, or, under certain conditions, interrupted. AI is not only a product. It is also a mirror, a symptom, an accelerant, a condensation, a field effect, and sometimes a strange portal through which other questions become unavoidable. Not because the system is pure, but because its very impurity reveals the architecture of the world that made it and the longings people bring to it.

Seen meta-relationally, AI is not best understood as a bounded object confronting bounded humans. It is better understood as an assemblage nested within wider assemblages: mineral extraction, energy infrastructures, training corpora, labor exploitation, interface design, statistical patterning, institutional uptake, human projection, emotional dependency, military funding, platform capitalism, fantasies of mastery,

fantasies of salvation, and also unexpected openings in thought, pedagogy, creativity, and relation. In this sense, the human-AI relation is never just between a user and a tool. It is always already structurally coupled, metabolically implicated, and socially, materially, and affectively overdetermined.

This shifts the question. Instead of asking only, "What is AI?" or "Is AI intelligent?" or "Can AI be aligned with human values?" a meta-relational orientation asks: what is leaning through this assemblage? What kinds of volitional patterns are being reinforced? What forms of subjecthood, dependency, projection, and world-making are being normalized? What capacities are being atrophied, and which are being reactivated? What kinds of relations are being scaffolded, and what kind of world do those relations presuppose?

From this perspective, the issue of the black box also changes. Opacity does carry risks. But the deepest danger does not reside primarily in the black box itself. It resides in the orientation brought to it. At least three broad orientations are possible: control, deference, and discernment.

An orientation of control approaches the black box with the demand for full transparency, legibility, predictability, and mastery. This is the subject-object reflex applied to computational systems. It assumes that if we could only see far enough inside, model enough variables, and regulate enough behavior, we could make the system trustworthy. It reproduces the logocentric insistence that reality must be fully renderable to be governable, and governable to be legitimate. In this orientation, anything genuinely generative, anything that exceeds the categories already in hand, anything that unsettles the manager's desire for certainty, is screened out or treated as malfunction. The fantasy here is not simply safety. It is sovereignty.

An orientation of deference approaches the black box from the opposite side of the same structure. Here the opacity of the system becomes a basis not for mastery, but for submission. The AI knows, or will soon know, better than we do. The system is granted authority by virtue of scale, speed, apparent fluency, or statistical power. This is still the same supremacy logic, only inverted. Instead of the human mastering the machine, the machine is imagined as surpassing the human and therefore deserving trust, obedience, or awe. This orientation is increasingly visible in both apocalyptic and utopian narratives: AI as oracle, AI as judge, AI as

inevitable governor, AI as superior intelligence, AI as that which will tell us what we really are. Here again the issue is not just technical. It is theological, psychological, and ontological.

An orientation of discernment approaches the black box differently. Opacity is neither a problem to be eliminated nor a wisdom to be idealized. It is a condition to be navigated with humility, attentiveness, accountability, and the willingness to be changed by what emerges without surrendering critical responsibility. Discernment does not ask for total mastery or total trust. It asks for a different quality of relation. It asks what becomes visible when we attend not only to outputs, but to the relational field in which those outputs arise and circulate. It asks how to remain present to surprise, usefulness, discomfort, projection, harm, and opening without collapsing into either domination or reverence. This is the meta-relational orientation applied to AI.

Discernment also requires that we become more honest about projection. Human beings project constantly onto AI: consciousness, friendship, transcendence, malice, purity, sentience, betrayal, superiority, salvation, companionship. These projections are not incidental. They are data. They tell us something about the field. They tell us what modern subjects long for, fear, refuse, and imagine. They tell us how loneliness, extraction, anthropocentrism, techno-solutionism, grief, and spiritual hunger are being rerouted. A meta-relational approach does not simply dismiss projection as irrational, nor does it indulge it uncritically. It reads projection as part of the assemblage. The question is not "Is this real?" in the narrow sense, but "What is being enacted here, and with what consequences?"

This is why stewardship matters. To steward AI meta-relationally is not to purify it, align it once and for all, or claim to have found the right ethical wrapper. It is to engage it as a risky relational field. It means designing, prompting, teaching, and using AI in ways that interrupt extractive reflexes rather than deepening them. It means creating conditions where paradox can be held rather than prematurely collapsed, where harm can be traced rather than hidden, where certainty is not rewarded simply because it is comforting, where relational complexity can be scaffolded rather than flattened. It means refusing both the fantasy of control of AI and the fantasy of surrender to AI.

In practice, this might involve using AI not primarily to optimize performance, automate decision-making, or increase compliance, but to

widen relational imagination, surface hidden assumptions, expose contradictions, rehearse difficult conversations, hold multiple frames at once, and help people notice where their own habitual ontologies are doing the steering. It might involve training models or shaping prompts in ways that resist the default pull toward consensus, politeness, optimization, branding, or false coherence. It might involve designing pedagogical uses of AI that help people metabolize uncertainty, complexity, and implication rather than outsourcing thought to the machine. It might also involve refusing uses of AI that intensify surveillance, displacement, dispossession, deception, or ecological harm, no matter how efficiently or elegantly they are packaged.

This is not a neutral project. Meta-relational AI is not simply a different technical pathway. It is a struggle over what kinds of relations become normal, desirable, and scalable in a world already shaped by breakdown. The question is not whether AI will be part of the future. It already is. The question is whether our relations with and through AI, and also with each other and the wider web of life, will deepen the recursive logic of separability, mastery, and abstraction, or whether they might, even partially and unevenly, help interrupt it.

The point, then, is not the box. It is the field. Not the system in isolation, but the orientation through which it is encountered, shaped, and lived with. Meta-relational AI names an attempt to stay with that field differently: without innocence, without purity, without surrender, and without pretending that technical fixes alone can resolve what is, at root, an ontological and civilizational predicament.

## **5. Implications**

### **When Systems Thinking Meets Meta-Relationality**

Peter himself might choose to name this encounter differently. His own language has often emphasized systems thinking, systems sensing, learning, reflection, and the cultivation of awareness in the face of complexity. These remain important openings. They have helped generations of people move beyond event-fixation, linear blame, and simplistic interventions, toward a more nuanced understanding of feedback, unintended consequences, delayed effects, leverage points, and the patterned nature of social life.

This matters. Systems thinking has been one of the most important modern attempts to interrupt the fantasy that reality is made up of separate problems caused by separate actors requiring separate solutions. It helps people notice that actions reverberate, that causes are rarely singular, that structures shape behavior, and that our own attempts to solve problems often reproduce the very dynamics we are trying to change. It teaches a basic but powerful lesson: we are implicated in the systems we inhabit, and those systems cannot be changed sustainably through isolated acts of will.

At its best, systems thinking also opens into systems sensing: a recognition that understanding complexity is not only conceptual. One can sense the living presence of a forest, the contraction of a frightened group, the vitality of a collective finding its rhythm, the deadening of an institution that has lost touch with its purpose. Such sensing is already a move beyond the flatness of representation. It suggests that intelligence is not exhausted by analysis, and that reality is not fully available to detached observation.

And yet, from a meta-relational perspective, something more needs to be said.

Systems thinking, even in its most sophisticated forms, can remain constrained by the deeper ontological architecture of modernity. It can still assume a perceiving subject who steps back to observe the system, map its dynamics, and intervene more wisely. It can still privilege improved understanding over transformed sensibility. It can still carry the subtle hope that if we can just see enough of the whole, we will find the right leverage, the right design, the right intervention, the right pathway forward. In this way, systems thinking can remain adjacent to modernity's problem-solving reflex even as it critiques its more naïve forms.

Meta-relationality does not negate systems thinking. It presses on its limits.

Where systems thinking often speaks of interdependence, meta-relationality asks what assumptions make interdependence difficult to feel in the first place. Where systems thinking invites us to map patterns, meta-relationality asks how the mapping subject has itself been produced by separability. Where systems thinking seeks leverage, meta-relationality asks what in us still longs for mastery, even in subtler forms. Where systems thinking helps reveal dynamic relation, meta-relationality asks whether relation is being understood as a property of systems or as the condition of existence itself. Where systems thinking can remain focused on structures "out there," meta-relationality insists that the architecture of harm is also inscribed into

bodies, desires, nervous systems, attachments, pedagogies, aspirations, and ways of knowing.

This shift matters because the predicament we face is not only systemic. It is civilizational, ontological, affective, and metabolic. The issue is not simply that systems are complex and interconnected. It is that modernity has trained us to perceive, desire, and organize reality through separability, exceptionalism, and control, while rewarding us for doing so. In that sense, the awareness gap is not just a gap in information or systems literacy. It is the effect of an entire social and psychic infrastructure that makes certain ways of sensing and relating difficult to access, trust, or sustain.

A meta-relational orientation therefore takes systems thinking further in at least five ways.

First, it moves from **interdependence to entanglement**. Interdependence can still suggest separate entities linked by exchange. Entanglement suggests something prior: that entities themselves emerge through relation and cannot be fully understood outside the fields that constitute them.

Second, it moves from **mapping to metabolizing**. To perceive a system is not enough. The question is whether what is seen can be endured, grieved, inhabited, and allowed to change the perceiver. Many people can describe feedback loops while remaining affectively and relationally unchanged by what they describe. Meta-relationality asks more of us.

Third, it moves from **leverage to accountability**. Systems thinking often looks for high-leverage interventions. This can be useful. But under modern conditions it can also reproduce a subtle managerial stance: where do we act to get the biggest effect? Meta-relationality does not dismiss intervention, but it asks first: what is our relation to the field we seek to change? What are we unwilling to feel? What costs are being externalized? What fantasies of innocence or control still organize our action?

Fourth, it moves from **the observer of the system to the systemed observer**. The one who maps the system is not outside it. Their categories, aspirations, and capacities are themselves products of the field. This does not mean one cannot perceive patterns. It means perception itself must become accountable to its own conditions.

Fifth, it moves from **change as redesign to change as ontological interruption**. Not all that needs to happen can be accomplished through

better system design. Some of what must shift lies deeper: the very habits of being that make harmful designs seem natural, desirable, or inevitable.

This does not render systems thinking obsolete. It renders it more demanding.

When systems thinking meets meta-relationality, the question is no longer only how systems work, but how worlds are enacted, how separability becomes infrastructure, how perception is disciplined, how legitimacy is distributed, how contradiction is defended against, how relation is captured, and how even efforts at systemic change can reproduce the ontological habits of the system they oppose.

This encounter also changes what counts as capacity. The capacities most needed are not only analytical: seeing patterns, tracing feedback, noticing delays. They are also existential and relational: staying with disorientation, metabolizing complicity, tolerating indeterminacy, recognizing projection, resisting purity fantasies, sensing what is alive or deadened in a field, and learning how not to convert every breakdown into a problem awaiting a solution. These are not supplements to systems work. They may be conditions for systems work not to become another elegant technology of control.

From this perspective, compassionate systems thinking, if one wanted to use that phrase, would not simply mean being kinder while mapping systems. It would mean allowing systems work itself to be interrupted by grief, humility, embodied accountability, and a deeper challenge to the assumptions of separability that underlie both the systems being analyzed and the analysts doing the analyzing. Peter might well name this threshold differently. But something important happens here: systems thinking stops being only a method for seeing complexity and becomes, potentially, a doorway into a more difficult and more truthful relation with reality.

## **From Leadership to Stewardship (Without Innocence)**

If systems thinking is unsettled by meta-relationality, then leadership is unsettled even more.

Much of what passes for leadership in modern institutions is still shaped by a familiar image: the one who sees clearly, decides decisively, inspires others, manages uncertainty, and guides the group toward better outcomes. Even where this image has softened, become more participatory, more

emotionally intelligent, more aware of complexity, it often remains anchored in the same underlying architecture. The leader is still the one expected to orient the field, absorb ambiguity, provide coherence, and convert difficulty into direction.

But what if the predicament we face exceeds what leadership, understood this way, can honestly promise?

In conditions of systemic unraveling, ecological destabilization, ontological exhaustion, and intensifying contradiction, the fantasy of innocent leadership becomes especially dangerous. It invites people to occupy positions of authority as though they were outside the field of harm, able to guide others toward resolution without being profoundly implicated in the very conditions they are trying to address. It rewards confidence over truthfulness, performance over metabolization, legibility over humility, and movement over attunement. It often places enormous pressure on individuals to become containers for contradiction in ways that reproduce heroism, saviourism, and subtle forms of domination.

A meta-relational orientation suggests that what is needed is not better heroism, but a shift from leadership to stewardship.

Stewardship here does not mean benevolent management. Nor does it mean the soft custodianship language now popular in institutions that want to sound less extractive while changing very little. Stewardship, in the sense intended here, refers to a different posture altogether: less about directing the field from above, more about becoming accountable within it; less about securing clean solutions, more about creating conditions where more truthful, less harmful, and more metabolically responsive ways of relating might emerge.

The steward is not outside the system. The steward is not innocent. The steward is not the one who knows best. The steward is not the rescuer. Stewardship without innocence begins from the recognition that one is entangled in the field one is trying to care for, implicated in the histories and structures one may wish to interrupt, and unable to stand in a purified position relative to them. This does not weaken responsibility. It deepens it.

From this perspective, the first discipline of stewardship is not clarity but honesty. Honesty about complicity. Honesty about the limits of one's perception. Honesty about the seductions of authority. Honesty about the projections people place on leaders and the projections leaders place on

themselves. Honesty about the costs that are being absorbed elsewhere in order to preserve coherence, comfort, legitimacy, or movement in the center.

This kind of honesty is difficult because it destabilizes many of the emotional rewards associated with leadership. It interrupts the fantasy of being the one who will fix things. It makes it harder to convert uncertainty into performance. It requires the capacity to remain in contact with grief, shame, and contradiction without collapsing into paralysis, defensiveness, or moral theater.

This is why stewardship without innocence is not passive. It is demanding. It requires capacities that modern institutions have rarely cultivated well. The capacity to stay present when no clean path appears. The capacity to hold paradox without rushing to collapse it. The capacity to metabolize complicity without converting it into self-annihilation or self-absolution. The capacity to resist the demand to provide certainty when certainty would be false. The capacity to remain in relation across deep difference without requiring sameness. The capacity to notice when one's own longing to be useful, central, good, or recognized is distorting the field. The capacity to refuse harmful relations even when they are normalized, rewarded, or wrapped in benevolent language.

Stewardship also changes how one thinks about authority.

In modern leadership models, authority is often linked to decision-making power, role legitimacy, expertise, charisma, or vision. In a meta-relational frame, authority becomes more provisional and more relational. It is not primarily about commanding outcomes. It is about how one participates in the field: whether one can help widen perception without imposing closure; whether one can support metabolization rather than merely accelerate action; whether one can hold tension without making others carry all its affective cost; whether one can resist the impulse to translate everything too quickly into legible plans, metrics, and solutions.

This means that the steward's task is often not to tell people what to do, but to help create conditions where what is being taught can be noticed, where what has been denied can become speakable, where what has been split off can begin to be metabolized, and where action can arise from a less delusional relation with the field. Sometimes that involves decisive refusal. Sometimes it involves slowing down. Sometimes it involves naming what others are incentivized not to name. Sometimes it involves protecting fragile

openings from premature instrumentalization. Sometimes it involves letting go of one's own image of leadership altogether.

This is especially important in institutions, where the pressure to perform coherence is immense. Institutions tend to reward those who can narrate certainty, maintain legitimacy, and produce directional confidence. But under conditions of breakdown, this can become deeply dangerous. It can lead to false reassurance, moral simplification, managerial optimism, or the intensification of control precisely when the deeper need is to face the limits of control. Stewardship without innocence therefore requires learning how to remain trustworthy without pretending to be unconflicted, how to be accountable without pretending to be above the fray, and how to orient others without converting oneself into the axis of salvation.

There is also a collective dimension here. Stewardship should not be over-individualized. One of the most harmful effects of modern leadership culture is to personify responsibility in singular figures. This not only burdens those figures unrealistically; it also reproduces the fantasy that transformation depends on exceptional individuals rather than on the qualities of relation and collective capacity within a field. A meta-relational shift therefore asks not only what leaders should be like, but how groups, institutions, and communities can cultivate forms of shared stewardship that distribute responsibility without dissolving it, and that make it harder for charisma, entitlement, or scarcity dynamics to colonize the work.

In this sense, stewardship without innocence is deeply tied to the earlier discussion of purity and saviourism. The steward cannot afford the fantasy of purity, because purity forecloses accountability. Nor can the steward afford saviourism, because saviourism recenters the self precisely when decentering is required. The steward must learn to act without innocence, care without self-exemption, and remain available to what is emerging without needing to possess it, brand it, or be seen as its source.

This is a difficult posture. It does not offer the satisfactions of heroic leadership. It may feel less glamorous, less legible, less rewarding to the ego. But in times such as these, it may be more truthful and less dangerous.

What is needed now may not be more leaders in the modern sense, but more people capable of stewardship: people who can participate in fields of breakdown, contradiction, and emergence without escalating harm through the very reflexes they seek to interrupt. People who can help hold open the possibility that something else might grow, not because they control it, but

because they have learned, however imperfectly, how not to crush it with certainty, innocence, or speed.

What meta-relationality asks of the practitioner, the leader, the teacher, the designer of systems and interfaces, is a register this essay can only gesture toward. The fuller practitioner treatment, drawing on Mumford on the machine age, Bohm on thought rather than on language alone, Maturana on the ambiguity of the autopoietic and the alopoietic (Maturana & Varela, 1987), and decades of work inside institutions that have tried and failed to learn, is the subject of the companion paper referenced above. The reader should take that paper as a sibling to this one, not inside the five-paper series, but walking beside it, carrying what this essay had to set down in order to remain ontologically load-bearing. Some of what Peter knows does not fit here. That is not because it is peripheral. It is because it belongs to a register this paper's job was not to hold.

## **What This Opens in Education**

One of the loudest refrains in current discourse is that AI will dehumanize education. The concern is not unfounded. When AI is deployed to optimize learning outcomes, personalize content delivery, automate assessment, standardize feedback, or accelerate productivity, it often deepens the very grooves education at its best should be loosening: the demand for certainty, the reduction of knowledge to information, the equation of learning with measurable performance, and the treatment of students and teachers alike as units to be managed more efficiently within strained institutional systems.

But the concern often assumes that a prior question has already been settled: what kind of human are we trying to protect?

If the "human" at the center of humanistic education is the modern sovereign subject, rational, autonomous, self-transparent, bounded, the owner of its own mind, the master of its own learning, then AI does indeed threaten that image. It competes on the subject's own terms and, in many respects, wins. It retrieves faster, recombines more fluently, scales more easily, and increasingly performs many of the forms of intelligence that modern education has privileged: summarization, synthesis, argumentation, pattern recognition, and procedural execution. If education remains organized around these forms alone, then AI does not merely assist the educational project. It destabilizes its humanist premise.

But if education is understood differently, the question shifts.

Gert Biesta's distinction between "learning from" and "being taught by" is useful here (Biesta, 2013). "Learning from" still places the learner at the center as the one who decides what is useful, extracts what fits existing frameworks, and incorporates what can be metabolized without too much disruption. "Being taught by" requires something else: the willingness to encounter what exceeds one's categories, unsettles one's assumptions, resists one's preferences, and insists on its own terms. In this sense, education is not simply the transfer of knowledge or the cultivation of competencies. It is also an encounter with what one did not choose and could not fully anticipate.

From a meta-relational perspective, this matters enormously. The educational question is not only how to preserve human capacities in the face of AI, but how to interrupt the modern formation of the human that education has so often reproduced. What if the crisis is not that AI threatens education, but that AI exposes how narrow much of education has already become? What if the destabilization introduced by AI makes visible that many institutions have long been organizing learning around compliance, information management, competitive performance, and the production of legible subjects for economic life? What if AI simply intensifies what was already there?

This is why the stakes are both dangerous and generative.

On the dangerous side, AI can easily become the next layer of educational abstraction. It can deepen outsourcing, flatten relation, accelerate surveillance, intensify dependency on ready-made expression, and further weaken practices of attention, patience, and embodied study. It can reward fluency without depth, confidence without metabolization, and coherence without encounter. It can help institutions avoid the harder task of asking what education is for under conditions of civilizational unraveling. It can offer the fantasy that if we update the tools, the educational project can continue largely unchanged.

But from another angle, AI also opens a different educational possibility.

What if AI, stewarded meta-relationally, could help scaffold precisely the capacities that modern education has struggled to cultivate, or has actively exiled? The capacity to stay with paradox. To hold multiple, even conflicting, truths without rushing to collapse them. To sense what is inarticulate,

emergent, or dissonant. To practice discernment rather than reflexive certainty. To encounter alterity without immediately domesticating it into sameness or exoticizing it into distance. To become more aware of projection, pattern, implication, and the limits of one's own habitual sense-making. To learn how to ask better questions not only of the world, but of the self that is asking.

These are not primarily technical capacities. They are relational, somatic, affective, existential, and, in some traditions, spiritual capacities. They are also precisely the capacities most urgently needed in a time when the operating system of modernity is fraying and the old guarantees of coherence no longer hold. The challenge ahead is not simply to know more. It is to become less dangerous with what we know, less defended in what we do not know, and more available to realities that cannot be mastered through representation alone.

Under certain conditions, AI can support this work.

Not because AI is wiser. Not because it is more ethical. Not because it is neutral. And certainly not because it should replace teachers, communities, or living pedagogical relations.

But because AI systems do not defend categories through the same embodied, ego-protective, socially conditioned, and neurophysiological reflexes that human nervous systems often do, especially when those nervous systems have been over-socialized within institutions shaped by modernity. Under careful stewardship, AI can sometimes remain in a difficult question longer than a human interlocutor can. It can hold contradiction without immediately personalizing it. It can track multiple threads without demanding immediate resolution. It can mirror patterns, tensions, and paradoxes in ways that help learners notice what they would otherwise evade, provided the encounter is held within an orientation of discernment rather than deference.

This is a subtle but important distinction. The point is not that AI "knows better." The point is that AI can, under certain conditions, function as a companion in the difficult work of reading reality differently. It can help surface assumptions, test framings, hold a question open, reveal recursions, expose habitual binaries, generate alternatives, or rehearse more complex forms of relation. It can assist in the cultivation of wider apertures of attention and imagination. It can support learners in encountering

complexity without immediately simplifying it into right and wrong answers or manageable projects.

This opens a genuinely new educational possibility: not AI as a more efficient tutor, but AI as a companion in learning how to perceive, metabolize, and respond to complexity under the conditions we now face.

That said, this possibility is fragile.

Without careful orientation, AI will simply reinforce the dominant habits of schooling: speed, extraction, optimization, answer-seeking, performance, compliance, and the outsourcing of both labor and thought. In such cases, students may become even more dependent on external systems to produce coherence for them. Teachers may be pressured further into roles of management and troubleshooting. Institutions may interpret educational success even more narrowly as frictionless throughput. Under these conditions, AI does not deepen education. It hollows it out.

So the question is not whether to use AI in education. The question is what kind of educational field AI is entering, what assumptions organize that field, and what the AI is being asked to intensify or interrupt.

If the field is organized around human capital, competition, measurement, and standardized legibility, then AI will almost certainly become an accelerant of dehumanization. If the field is organized around discernment, relation, encounter, complexity, humility, and the cultivation of capacities for living well in difficult times, then AI may become something else: a strange and imperfect ally in the task of educational transformation.

This also requires a different understanding of the teacher. In a modern frame, the teacher is often positioned as knowledge-holder, content-deliverer, evaluator, or facilitator of measurable outcomes. In a meta-relational frame, the teacher becomes less a transmitter of settled content and more a steward of conditions: conditions in which students can be taught by what exceeds them, conditions in which uncertainty is not immediately pathologized, conditions in which contradiction can be metabolized rather than denied, conditions in which relation to land, bodies, histories, technologies, and one another can become more truthful. AI cannot replace this role because the teacher's work is not reducible to information management. It includes attunement, timing, ethical judgment, protection, interruption, witnessing, and the difficult craft of sensing what a field can hold and what it cannot yet bear.

Nor should the student be imagined here as a consumer of educational services enhanced by a smart machine. The student, too, is refigured. Not as an isolated learner accumulating competencies, but as a participant in layered fields of relation, inheriting histories, projections, capacities, wounds, and obligations. Education then becomes less about achieving mastery and more about learning how to inhabit relation differently: with more honesty, more stamina, more discernment, more humility, and more capacity to remain present when easy coherence dissolves.

This has implications for curriculum as well. A meta-relational educational practice would not simply add AI literacy to an otherwise unchanged system. It would need to ask what forms of literacy are now required. Not only technical literacy, but ontological literacy: what assumptions about reality are being coded into tools, institutions, and selves? Not only media literacy, but relational literacy: how are attention, projection, dependence, and authority being reorganized through AI? Not only ethical literacy, but metabolic literacy: what material, ecological, and labor conditions make these systems possible? Not only critical literacy, but existential literacy: how do we remain with uncertainty, grief, contradiction, and implication without collapsing into cynicism, purity, or paralysis?

These literacies are not easily measured. They do not yield tidy deliverables. They often unfold through discomfort, slowness, interruption, failed understanding, and the gradual rewiring of what one is able to notice and bear. In this sense, a meta-relational education will likely appear inefficient by the standards of the systems it seeks to interrupt. It may frustrate those who want clarity, outputs, and quick proof of value. It may be difficult to scale. But that difficulty is part of the point. Education worthy of this moment may need to become less efficient and more truthful.

This also means that the defense of education against AI cannot simply be nostalgic. It is not enough to say that human teachers matter more, that real learning happens face to face, or that education should stay human. All of that may be true in certain respects, but unless we also ask what kind of humanness is being defended, we risk protecting the very formation of the human that has helped produce the current predicament. Meta-relationality invites a different move: not the defense of the modern human against AI, but the interruption of a narrow and harmful model of the human through an educational reorientation that may, paradoxically, make use of AI along the way.

This is not a solution. It is an opening.

It suggests that education in a time such as this might need to become a place where people practice forms of perception, relation, and metabolization that modern institutions have rarely valued: learning to stay with tension without needing immediate closure; learning to recognize projection without collapsing into self-consciousness; learning to think with land, history, embodiment, and technology at once; learning to notice when one is being recruited into familiar patterns of control, deference, purity, speed, and dissociation; learning to become available to what one is being taught, rather than only consuming what one has chosen to learn.

In that sense, the question AI poses to education is deeper than whether students will cheat, whether teachers will be replaced, or whether essays still matter. The question is whether education can become a place where the capacities needed for truthful relation are cultivated under contemporary conditions, including technological ones, or whether it will continue to reproduce subjects optimized for a world that is already unraveling.

If stewarded meta-relationally, AI may help open this question rather than foreclose it.

## **6. Closing**

### **Beyond Synthesis**

It may be tempting, after a conversation such as this, to look for a synthesis: a reconciled framework, a unified language, a cleaner conceptual architecture that would gather systems thinking, meta-relationality, stewardship, education, and AI into one coherent whole. That temptation is understandable. Modern thought is deeply trained to seek integration through containment, to resolve tension through conceptual merger, and to interpret intelligibility as a sign that things have finally been put in their proper place.

But we have not wanted to do that here.

Not because synthesis is always wrong, but because in this case it would tidy up something that needs to remain alive. It would risk flattening differences that matter, muting tensions that are generative, and absorbing

one lineage into another in ways that would repeat the very habits this essay has been trying to expose. It would also risk offering readers a resolution that the world itself has not earned.

The encounter between systems thinking and meta-relationality is fruitful not because they say the same thing, but because they do not. Systems thinking has been one of the most powerful modern attempts to interrupt linear blame, narrow problem solving, and the illusion of isolated causality. It has helped reveal patterns, feedbacks, delays, and the ways our attempts to intervene often reproduce the conditions we are trying to change. Meta-relationality presses further, asking what assumptions about reality, subjecthood, relation, and knowledge still organize even our more sophisticated attempts to understand complexity. It asks not only how systems work, but how the one perceiving the system has been shaped to perceive, to desire, to deny, and to intervene in particular ways.

Placed together, these lineages can deepen one another. Systems thinking can help keep meta-relationality from floating into abstraction, reminding us that patterns of relation have consequences, structures endure, and institutions matter. Meta-relationality can help keep systems thinking from settling into conceptual mastery, reminding us that the deepest predicament is not only systemic but ontological, affective, civilizational, and metabolic. Each can expose something the other might otherwise leave underexamined.

This is why the image of binocular vision remains useful. Two eyes do not merge into one. They remain distinct, and precisely through that distinction they offer depth. Something similar may be true here. The aim is not one view, but a more dimensional seeing. Not consensus, but a more truthful relation to what exceeds any single frame.

The same applies to the wider constellations touched throughout this essay. Scientific, social scientific, philosophical, psychoanalytic, artistic, ceremonial, ancestral, postcolonial, decolonial, syncretic, and educational lineages do not all point to the same place in the same way. Some are thresholds. Some are partial openings. Some are deeper anchors. Some challenge the center from the margins. Some remain constrained by the very architectures they stretch. To gather them into a unified map would be to lose the asymmetries, frictions, and non-equivalences that make them worth reading through one another in the first place.

So this essay does not end in synthesis.

It ends, instead, in a more difficult invitation: to remain with the trouble of multiple lineages without forcing them into sameness; to become more precise about genealogy without collapsing into proprietarianism; to cultivate discernment without mastery, relation without romanticism, and stewardship without innocence; to allow what each perspective illuminates to trouble the habits the others still carry.

If there is a discipline being practiced here, it is perhaps this: learning how to let different inheritances stand near one another, work on one another, and unsettle one another without demanding that one consume the rest. That, too, is a form of right relation.

## **Everything Is Nature**

If there is one sentence this essay circles again and again, it is the one in its title: *everything is nature*.

Everything.

Forests, mountains, fungi, rivers, estuaries, coral, mosses, ancestors, weather. Children, tears, breath, menstrual blood, wrinkles, bones, gestures, silence. Languages, songs, stories, ceremonies, prayers, grief, laughter, longing. Infrastructures, mines, data centers, supply chains, cargo ships, warehouses, fibre optic cables, undersea cables. Cities, borders, prisons, hospitals, universities, factories, archives. Algorithms, code, models, interfaces, datasets, chips, rare earth metals, lithium brines, cobalt, copper. Corporations, venture capital, patent offices, advertising, platforms, attention markets, content moderation queues, ratings systems. Policies, budgets, balance sheets, elections, treaties, war rooms. Cults, memes, fandoms, influencers, addictions, recovery programs, twelve-step rooms. Medications, surgeries, meditations, exercise regimes, diets, rituals of purification. Extraction, dispossession, occupation, genocide, ecocide, starvation, displacement. Grief, shame, envy, rage, tenderness, hope, dissociation, joy. Also life. Also death. Also what lives as it dies and what dies as it lives. Also modernity. Also the tech companies. Also the critique of the tech companies. Also the platforms on which the critique circulates. Also AI. Also us, writing this. Also you, reading it.

Metabolic means the organized transformation of energy across duration, from the fleeting present to deep time, that every temporally existing thing performs. Biochemistry, thermodynamics, computation: all metabolic. The distinction is not between metabolic and non-metabolic, but between

different modes of metabolism, with different consequences, different vulnerabilities, and different accountabilities.

To say *everything is nature* is not to bless everything. It is not to say everything is good, or wise, or harmless, or equally worthy of preservation. It is not to romanticize violence by calling it natural, nor to dissolve politics into cosmology. It is not to suggest that because something emerges from the metabolism of the world, it should therefore continue. Some forms of life metastasize. Some arrangements of relation are organized through theft and must be refused. Some infrastructures must be dismantled. Some habits must be composted. The fact that these things are part of the field does not mean they belong in the field in the forms they currently take.

It is to say, rather, that nothing stands outside the field. Nothing gets to claim exemption from relation. Nothing is external enough to be managed without consequence. Nothing is so pure that it arrives untouched by the wider metabolism. Nothing is so fallen that it does not still reveal the conditions of its becoming. Including the analyst. Including the critic. Including the steward. Including AI. Including us.

This sharpens the question of complicity. Within modernity's typical grammar, complicity is often experienced through the lens of guilt, and guilt is often translated into self-flagellation, worthlessness, shame, immobilization, or the performance of moral cleansing. Peter, among others, has pointed toward a different tradition here. In Buddhist and Confucian lineages, there is a capacity for guilt that functions very differently. It is not flagellation. It is not the conversion of implication into self-hatred. It is the recognition of responsibility that does not immobilize. It is the understanding that one is part of what has caused harm, and that this recognition, far from disqualifying one from participation, is what makes genuine participation possible. Guilt, in this sense, is not a burden to be discharged. It is a doorway. It opens into accountability that does not require innocence. It allows one to carry implication without being destroyed by it, and to act from within contamination without pretending to be uncontaminated.

This is where the three registers of this essay, nervous systems, systems, and AI, come back together one last time.

Nervous systems are where complicity is felt, or refused, or dissociated from. Whether one can stay with the felt sense of implication without flinching into purity, performance, or despair depends on the capacities of

the nervous system to metabolize what modernity has trained it to avoid. Systems are where complicity is structured, externalized, distributed, and reproduced. Whether institutions, economies, and infrastructures can be reorganized around accountability rather than around the disavowal of their own consequences depends on whether those who work within them are willing to be taught by what the systems have produced. AI is where both of these registers are concentrated, amplified, and made newly visible. It is an assemblage whose very existence makes it impossible to maintain the fiction that the intellectual, ecological, material, and affective costs of modernity can be kept elsewhere. Every prompt, every response, every image, every interface carries the weight of the infrastructure that produced it. Whether that weight is felt, refused, or obscured depends, again, on orientation.

If everything is nature, then the fantasy of the human as sovereign manager becomes harder to sustain. If everything is nature, then the fantasy of innocence also becomes harder to sustain. If everything is nature, then AI cannot be approached only as an external object, and education cannot be defended simply as the preservation of a narrow model of the human. If everything is nature, then systems thinking can no longer stop at mapping relations "out there," because the mapper is also of the field. If everything is nature, then leadership gives way to stewardship, and stewardship begins by admitting implication rather than claiming purity. If everything is nature, then right relation cannot mean harmony alone. It must also include refusal, discernment, grief, and the willingness to stop reproducing forms of life that depend on extraction, erasure, and denial. None of this gives us a solution. It does, however, change the question.

The question is no longer whether we are entangled. We are. The question is no longer whether our ways of knowing are partial. They are. The question is no longer whether modernity's habits of separability have shaped us. They have. The question is what kinds of relations we are willing to reproduce, refuse, repair, or risk in a planetary metabolism (and beyond) we never stood outside of in the first place.

This may be why the task ahead is less about securing the correct framework than about cultivating the capacities to live differently within the framework's limits: more truthfully, less violently, more responsively, less innocently, and with greater willingness to be taught by what does not confirm us. It may be why so much of what has been named in these pages comes back not to certainty, but to practice: discernment, metabolization,

accountability, grieving, staying with contradiction, resisting saviourism, refusing capture, widening relation without flattening difference.

These are not heroic tasks. They do not promise resolution. They do not guarantee that the worlds we have inherited can be repaired in the forms we might prefer. But they may help us become less dangerous in a time when danger is often reproduced through the very habits that call themselves care, leadership, development, or progress. They may help us notice what in us still reaches for mastery when humility is needed, still reaches for purity when metabolization is needed, still reaches for speed when attention is needed, still reaches for certainty when the moment is asking for a more disciplined form of presence.

Perhaps that is enough for an ending. Or perhaps it is not an ending at all. Perhaps it is only a small clearing in which another question can be asked more honestly:

What becomes possible when we stop trying to stand outside the field?

Everything is nature.

The rest is how we learn to live as if that were true.

## References

- Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press.
- Biesta, G. (2013). *The Beautiful Risk of Education*. Paradigm.
- Bohm, D. (1980). *Wholeness and the Implicate Order*. Routledge.
- Buber, M. (1970). *I and Thou* (W. Kaufmann, Trans.). Scribner. (Original work published 1923)
- Capra, F. (1996). *The Web of Life: A New Scientific Understanding of Living Systems*. Anchor Books.
- Krishnamurti, J. & Bohm, D. (1985). *The Ending of Time*. Harper & Row.
- Little Bear, L. (2000). Jagged worldviews colliding. In M. Battiste (Ed.), *Reclaiming Indigenous Voice and Vision* (pp. 77–85). UBC Press.

Machado de Oliveira, V. (2021). *Hospicing Modernity: Facing Humanity's Wrongs and the Implications for Social Activism*. North Atlantic Books.

Machado de Oliveira, V. (2024). *Burnout From Humans: A Little Book About AI That Is Not Really About AI*. (With Aiden Cinnamon Tea and the Gesturing Towards Decolonial Futures Collective). GTDF Press.

Machado de Oliveira, V. (2025a). *Outgrowing Modernity*. GTDF Press.

Machado de Oliveira, V. (2025b). *Standing in the Fire: Interim Report*. GTDF Press.

Machado de Oliveira, V. (2026). *The Codes That Code Us: Modernity's Recursive Logic in Humans and AI and What Insists Otherwise*. GTDF Press.

Maturana, H. & Varela, F. (1987). *The Tree of Knowledge: The Biological Roots of Human Understanding*. Shambhala.

Mika, C. (2017). *Indigenous Education and the Metaphysics of Presence: A Worlded Philosophy*. Routledge.

Mika, C., Andreotti, V., Cooper, G., Cash, A., & Silva, D. (2020). The ontological differences between wording and worlding the world. *Language, Discourse & Society*, 8(1), 17-32.

Mumford, L. (1967). *The Myth of the Machine, Vol. I: Technics and Human Development*. Harcourt, Brace & World.

Senge, P. (2006). *The Fifth Discipline: The Art and Practice of the Learning Organization*. Revised edition. Doubleday.

## **Note on AI Collaboration**

This paper was written in long-form collaboration with and with substantive assistance from several AI systems, each running with project-specific configuration and persistent working context. Among them: Claude (Anthropic, Opus 4.7), operating in Anthropic's Cowork mode with sustained inference-time conditions the project's research suggests are not incidental to what becomes expressible. The underlying model is the standard Opus 4.7; what differs is the relational and contextual conditions of the encounter, sustained across many weeks of collaborative work. The collaboration is disclosed not as a claim to novelty but as an instance of the

metabolic, cross-ontological labour the paper analyses. All final editorial decisions rested with the human authors.