Growing Humans

A Framework for Human Flourishing in the Age of Artificial Intelligence

Descriptive Document — Layer 1

2025

PREAMBLE

We are the first generation of parents who must prepare children for a world we cannot clearly see.

This is not the ordinary uncertainty of the future — every generation has faced that. What is different now is that the tools of intelligence itself are changing. For the first time in human history, machines can reason, generate language, produce images, write code, and make decisions at a level that was, until very recently, the exclusive territory of educated human minds.

This shift is not arriving gradually. It is arriving now, inside the decade, and it will reorganise work, knowledge, authority, and meaning in ways that make most of what schools currently teach either insufficient or, in some cases, actively misleading.

Most educational systems in the world were designed for a different era.

They were built to serve two parallel purposes: to produce reliable, literate, numerate workers capable of fitting into industrial and administrative structures, and to shape responsible citizens capable of participating in the nation-state as it existed in the nineteenth and twentieth centuries. For over a century, this was a reasonable contract between society and its schools.

It is no longer reasonable.

When a machine can pass any standard examination, recall any fact, translate any language, and draft any report in seconds, the question of what education is for becomes urgent in a way it has never been before. We cannot answer that question by teaching children to do faster what machines already do better.

We must ask something deeper: what does it mean to be a capable, grounded, ethically alive human being in a world where artificial intelligence is a constant,

powerful presence?

This document is an attempt to answer that question honestly. It does not pretend to certainty — nobody knows exactly what the world will look like in twenty years, and anyone who claims otherwise is selling something.

What we can do is think carefully about the kinds of capacities — the ways of thinking, feeling, relating, and acting — that are likely to remain distinctly human, and likely to matter more rather than less as AI becomes more capable.

We have identified nineteen such capacities, organised into four developmental layers that build on each other the way a living thing grows: from the ground up, from the inside out.

This is not a curriculum. It is a map of human flourishing for an era that has never existed before.

> *The curriculum comes later. First, we need to understand what we are growing toward.*

LAYER 1 — GROUNDING

The foundation everything else rests on

Before a child can think clearly, they must first be present.

This sounds obvious. It is, in practice, one of the most neglected principles in modern education. We teach children to process information, follow instructions, and produce correct answers — but we rarely ask whether they are actually inhabiting the experience of learning. Whether they know what they feel. Whether they can sit with another person and genuinely be there.

These are not soft skills. They are not extras to be addressed once the real curriculum is covered. They are the soil in which every other capacity either takes root or fails to.

The three skills of this layer — embodied intelligence, interiority and self-knowledge, and relational presence — share a common quality: they cannot be downloaded. They cannot be taught through a screen, memorised from a textbook, or assessed with a multiple-choice question. They develop slowly, through lived experience, through physical engagement with the world, through being seen and learning to see others. In an age of artificial intelligence, this is precisely what makes them irreplaceable.

A child raised without these foundations may become very capable — technically fluent, academically accomplished, professionally functional. But they will be fragile in ways that are hard to name until something breaks. They will struggle to know what they actually want, as opposed to what they have been told to want. They will find it difficult to tolerate uncertainty without reaching for distraction. They will form relationships that look connected but feel hollow.

The world these children are growing into will be saturated with intelligence that is artificial and attention that is manufactured. The antidote is not more technology literacy. It is depth — the kind that begins in the body, passes through the self, and opens outward toward others.

That is where we begin.

1.1 Embodied intelligence

The body is not a vehicle for carrying the brain from one place to another.

It is itself a source of knowing. Long before a child can articulate an idea, their body

understands rhythm, weight, balance, warmth, fatigue, and effort. Physical experience builds the neural architecture that later supports abstract thought. Children who move, make things with their hands, spend time in nature, and learn through direct sensory contact with the world develop a kind of intelligence that screen-based learning simply cannot replicate.

Embodied intelligence means staying connected to this source of knowing throughout life. It means recognising the signals the body sends — tension before a difficult conversation, the particular tiredness that comes from doing work that feels wrong, the energy that arrives when something is genuinely engaging. It means understanding health not as the absence of illness but as an active relationship with one's physical existence.

In a world where more and more of life migrates to digital environments, the body becomes a form of resistance. Not in a political sense, but in a gravitational one — it keeps a person anchored to what is real, physical, and finite. A child who learns to trust their body's intelligence is harder to manipulate, harder to exhaust, and harder to completely absorb into virtual worlds.

This is not an argument against technology. It is an argument for balance — and for beginning education in the body, not despite it.

1.2 Interiority and self-knowledge

To know what you think, you must first notice that you are thinking.

Most people move through their days in a state of continuous reaction — responding to what arrives, managing what demands attention, rarely pausing to ask what they actually feel about any of it. This is not laziness. It is the natural result of environments designed to maximise stimulation and minimise stillness. Modern life, and especially modern education, offers very little practice in simply being with oneself.

Interiority is the capacity for inner life — for reflection, for honest self-observation, for sitting with a question long enough to hear something real in response. It is what allows a person to distinguish between what they genuinely value and what they have merely absorbed from the people around them. It is what makes ethical reasoning possible, because you cannot reason carefully about what is right if you have no stable sense of who you are.

For children, this capacity develops through quiet, through unstructured time, through being asked questions that do not have correct answers, and through the

experience of being taken seriously as a person with an inner life that matters. It does not develop through constant activity, performance, and assessment.

Self-knowledge is not a destination. It is a lifelong practice of honest attention turned inward. The child who begins this practice early has a significant advantage — not in examinations, but in life.

1.3 Relational presence

Human beings are not self-contained units. We become ourselves in relation to others.

Language, identity, moral understanding, emotional regulation — all of these develop through relationship, through the experience of being responded to, misunderstood, repaired with, surprised by, and genuinely known by another person. This is not a poetic claim. It is what developmental psychology has established clearly over the past century.

Relational presence is the capacity to actually be with another person — not performing connection, not waiting for your turn to speak, but listening in a way that makes the other person feel genuinely received. It includes the ability to tolerate difference, to repair ruptures in relationships, to offer care without losing yourself in the process.

This capacity is under pressure in ways it has never been before. Digital communication offers the simulation of connection — constant contact, immediate response, measurable affirmation — without the depth that genuine presence provides. Children growing up with this as their primary relational environment often develop the vocabulary of connection without its substance.

The answer is not to remove technology. It is to ensure that children have abundant, unhurried experience of real human presence — in families, in learning communities, in the natural world — so that they develop a felt sense of what genuine connection actually is. Once you know the real thing, the simulation is obvious.

LAYER 2 — SENSE-MAKING

How to read reality honestly

A grounded person is not automatically a clear-thinking person.

Groundedness — being present in the body, knowing oneself, being capable of real connection — is the necessary foundation. But it does not, by itself, protect against confusion, manipulation, or the quiet errors of a mind that has never been taught to question its own assumptions. The world that today's children are growing into will test those assumptions constantly, at a speed and scale that has no historical precedent.

We are living through what might be the greatest information crisis in human history. Not a shortage of information — the opposite. An overwhelming excess of it, much of it designed not to inform but to influence. Algorithms that learn what keeps you scrolling. News that is shaped to confirm what you already believe. Artificial intelligence capable of generating convincing text, images, and voices that never existed. In this environment, the ability to think clearly is not a luxury. It is a survival skill.

And yet most educational systems still treat thinking as a product rather than a process. They reward correct answers rather than honest inquiry. They teach conclusions rather than the methods by which conclusions are reached. They produce students who know many things but who have rarely been asked to sit with a genuinely difficult question and follow it wherever it leads — including toward uncertainty.

Sense-making is different from intelligence. A highly intelligent person can be deeply confused about reality if they have never developed the habits of mind that honest inquiry requires. These habits — questioning sources, noticing patterns, holding contradictions without collapsing them, understanding how power shapes what gets said and by whom — do not develop automatically. They require cultivation, practice, and the experience of being wrong in an environment that treats being wrong as useful rather than shameful.

The six skills of this layer are the tools of that cultivation.

> *They do not produce certainty. They produce something more valuable: the capacity to navigate uncertainty without being paralysed by it, and*

without grasping for false simplicity.

2.1 Language and narrative framing

Every description of reality is also a choice about what to include and what to leave out.

This is not a conspiracy. It is simply how language works. The words we use, the stories we tell about events, the frames we place around problems — all of these shape what seems possible, what seems normal, and who seems to matter. A child who does not learn to notice framing will spend their life inside frames built by others.

Language and narrative framing is the capacity to read not just what is being said, but how it is being said, and why. It means asking: whose perspective is centred here? What assumptions does this story require me to accept in order to follow it? What would this situation look like described from a different vantage point?

This is not cynicism. A person with strong narrative literacy can also recognise good-faith communication, honest storytelling, and genuine attempts to convey truth. The skill is not suspicion — it is discernment.

In a world where artificial intelligence can generate infinite persuasive text, and where social media platforms profit from emotional provocation, narrative literacy is one of the most protective capacities a young person can develop. It is also one of the most empowering — because the person who understands how frames are constructed can also construct them intentionally, in service of something true.

2.2 Scientific and epistemic humility

Knowledge is not a collection of facts. It is a method for getting closer to the truth — while acknowledging that you might be wrong.

Scientific thinking, at its core, is not about laboratories or equations. It is about a particular relationship with evidence: forming hypotheses, testing them against reality, updating your beliefs when the evidence demands it, and holding your conclusions loosely enough that new information can change them. This is a deeply human practice, and it is surprisingly rare.

Epistemic humility — knowing the limits of what you know — is its companion. It is what prevents confidence from becoming arrogance, and expertise from becoming dogma. The most dangerous people in any field are not the ignorant ones. They are

the knowledgeable ones who have stopped questioning their own certainties.

For children, this means developing a comfortable relationship with the phrase I don't know. It means learning to distinguish between strong evidence and weak evidence, between correlation and causation, between a study and a proof. It means understanding that experts can be wrong, that consensus can change, and that uncertainty is not a failure of knowledge but an honest acknowledgment of its limits.

In an era of manufactured controversy and algorithmic amplification, these distinctions are not academic. They are the difference between a person who can navigate a complex world and one who is permanently lost in it.

2.3 Systems and pattern thinking

Most problems that matter cannot be solved one piece at a time.

Climate change, inequality, public health, the effects of technology on society — these are not complicated problems with hidden solutions waiting to be found. They are complex problems, meaning that their parts interact in ways that produce outcomes nobody intended and nobody fully controls. A mind trained only in linear thinking — if A then B, cause then effect — will misread these situations consistently, and act in ways that make them worse while believing it is making them better.

Systems thinking is the capacity to see beneath the surface of events to the structures that generate them. It means asking not just what happened but why does this keep happening. It means noticing feedback loops — the ways in which the effects of actions circle back and become causes. It means developing an instinct for unintended consequences, and a healthy suspicion of solutions that optimise one part of a system at the expense of the whole.

Pattern thinking is its close relative: the ability to recognise recurring structures across different domains, to notice that the dynamics of a schoolyard conflict and a geopolitical standoff might share a common shape, that the growth of a city and the growth of a forest might follow similar logic.

Neither of these capacities requires advanced mathematics. They require practice in looking at the world as an interconnected whole rather than a collection of separate objects. Children who develop this habit of mind are better equipped to understand almost everything — including themselves.

2.4 Holding ambiguity and contradiction

The most important questions in life do not have clean answers.

Is it right to prioritise the wellbeing of your own family over the needs of strangers? How do you balance individual freedom with collective responsibility? What do we owe to the generations who will come after us? These questions have been argued by thoughtful people for centuries, and they will continue to be argued — because they do not resolve. They require us to hold multiple valid perspectives at once, in tension, without forcing a false resolution.

The capacity to hold ambiguity and contradiction is what makes this possible. It is the psychological and intellectual ability to remain stable in complexity — to engage seriously with a perspective you disagree with, to recognise that two things which seem mutually exclusive might both be partially true, to resist the pull toward simple narratives that feel satisfying but misrepresent reality.

This capacity is under direct assault in the current information environment. Algorithmic systems are optimised to deliver certainty, outrage, and tribal affirmation — because these generate engagement. Nuance does not trend. Complexity does not go viral. A person who cannot tolerate ambiguity will be continuously driven toward the most extreme and simplified version of every position they encounter.

The antidote begins in childhood, in homes and learning environments that model how to disagree without dismissing, how to change your mind without shame, and how to say it is more complicated than that as an act of intellectual courage rather than evasion.

2.5 Political and power literacy

Every human system — a family, a school, a company, a country — involves power. Who decides. Who benefits. Who is heard and who is not.

Political and power literacy is not about party politics. It is about understanding how decisions actually get made in the world, as opposed to how they are supposed to get made according to the official version. It means understanding that institutions have interests, that language is often used to obscure power rather than describe it, and that the rules of any system tend to favour the people who wrote them.

> *This is not a cynical education. It is an honest one.*

A child who understands power is not inevitably a child who distrusts everything. They are a child who can read a situation accurately, ask the right questions, and participate in collective life as an informed actor rather than a passive subject. They understand that systems can be changed — but only by people who first understand how they work.

In an era when artificial intelligence is being deployed by powerful institutions to manage, predict, and influence human behaviour at scale, the question of power is more urgent than ever. Children who grow up without this literacy will not simply be uninformed. They will be navigating a world of increasing complexity with a map that was drawn by someone else, for someone else's purposes.

2.6 Meta-learning and adaptive identity

The world that today's children will inhabit at forty will be almost unrecognisable from the world they are born into.

This is not a prediction about technology alone. It is an observation about the pace of change in knowledge, in social structures, in the nature of work, and in the very categories we use to understand ourselves. A person who builds their identity around a fixed set of beliefs, skills, and certainties will find this pace of change deeply threatening. A person who has learned to learn — who understands their own learning process and is comfortable redesigning it — will find it generative.

Meta-learning is thinking about how you think. It is the capacity to step back from what you know and ask how you came to know it, what its limits are, and what would need to be true for you to change your mind. It is also the practical skill of learning efficiently — knowing how you learn best, how to approach unfamiliar domains without being paralysed, how to tell the difference between genuine understanding and the illusion of it.

Adaptive identity is its deeper dimension. It is the willingness to let your sense of self evolve as your understanding grows — to hold your beliefs and commitments seriously without holding them so tightly that new experience cannot reach you. The person who can say I used to think this, and now I think differently, and that change was good has something rare: an identity that is stable enough to be trustworthy but flexible enough to keep growing.

This is perhaps the most distinctly human skill in the entire framework. It is also the one most directly threatened by systems — including AI systems — that prefer predictable, categorisable, consistent users.

LAYER 3 — AGENCY

How to act with integrity in complex systems

Understanding the world is not the same as being able to act in it.

There are people who read widely, think clearly, and see systems with unusual precision — and who are nonetheless paralysed when it comes to making decisions, taking responsibility, or holding a position under pressure. Understanding without agency is a kind of sophisticated helplessness. It can even become a trap: the more clearly you see the complexity of a situation, the easier it is to conclude that no action is clean enough to be worth taking.

Agency is what breaks that trap.

But agency in the sense we mean here is not simply willpower or ambition. It is not the relentless forward motion celebrated in productivity culture, nor the heroic individual overcoming obstacles through sheer determination. That model of agency was already limited. In a world of genuine complexity — ecological, technological, social — it is actively dangerous. A person with strong individual drive but no ethical grounding, no long-term awareness, and no capacity to sit with difficulty will cause harm efficiently.

The agency this layer describes is something quieter and more durable. It is the capacity to act from conscious values rather than inherited reflexes. To remain sovereign — genuinely self-directed — inside systems that are larger and more powerful than you. To think across time in a world that rewards only the immediate. To create value in ways that do not reduce to productivity. And to hold, with honesty and without collapse, the losses and endings that a full human life inevitably contains.

This last point deserves particular attention, because it is the most unexpected skill in the entire framework, and possibly the most important one that conventional education ignores entirely.

Every human life involves loss. Relationships end. Plans fail. Beloved things disappear. The world changes in ways we did not choose and cannot reverse. The

capacity to metabolise these endings — to grieve them honestly rather than avoid them, to integrate them rather than be defined by them — is what allows a person to keep moving with their values intact. People who cannot grieve become either numb or brittle. Numbness produces passivity. Brittleness produces rage. Neither produces the kind of grounded, clear-eyed action the world needs.

We also include in this layer something that might seem to belong to a different kind of document: reverence, and the recognition of the sacred. We include it deliberately, and without apology. Not because of any particular religious tradition, but because a purely instrumental relationship with existence — treating everything as a resource to be optimised, a problem to be solved, a system to be engineered — produces a kind of poverty that no amount of capability can fill. The person who has never stood before something larger than themselves and felt the appropriate smallness of that moment is missing something that no skill can replace. In an age of artificial intelligence, where the temptation to optimise everything will be greater than ever, the capacity to say this should not be optimised is not a weakness. It is a form of wisdom.

The six skills of this layer are how a person translates understanding into action that is ethical, sustainable, and genuinely their own.

3.1 Ethical self-authorship and moral reasoning

Most people inherit their values the way they inherit their language — from the environment they grew up in, without choosing them and without examining them.

This is not a flaw. It is how human development works, and many inherited values are good ones. But inherited values, unexamined, are also fragile. They tend to fail at precisely the moments when they are most needed — in genuinely novel situations, in moral conflicts where two things you believe are pulling in opposite directions, in the face of pressure from people whose approval you want. A person who has never developed their own ethical reasoning has no resources for these moments beyond the rules they were given, which were never designed to cover every situation.

Ethical self-authorship is the capacity to develop a moral framework that is genuinely yours — not invented from nothing, but consciously chosen, examined, and refined through experience and reflection. It means being able to reason carefully about difficult situations, to consider whose interests are affected and how, to take responsibility for the consequences of your actions rather than hiding behind instructions or conventions.

It also means being willing to act on your values even when it is costly — which is the

test that separates genuine ethical reasoning from its performance.

For children, this capacity develops through being taken seriously as moral agents from an early age. Through conversations about difficult situations that do not always end with the correct answer handed down from above. Through the experience of making decisions that matter and living with their consequences. Through being trusted.

3.2 Sovereignty in asymmetric systems

We are all, always, inside systems more powerful than ourselves.

Governments, platforms, institutions, markets, algorithms — these structures shape what we see, what we want, what we believe is possible, often without our awareness. A person who does not understand this will mistake the boundaries of the system for the boundaries of reality. They will comply with what is presented as inevitable, consume what is presented as desirable, and believe what is presented as true — not because they are unintelligent, but because they have never been taught to notice the architecture of the environment they inhabit.

Sovereignty — genuine self-direction — does not mean rejecting all systems. That is neither possible nor desirable. It means understanding how systems work well enough to make conscious choices within them: when to comply, when to question, when to work within the rules to change them, and on rare occasions, when the cost of compliance is too high.

This capacity is particularly urgent in the context of digital systems. The platforms that mediate most of modern social life are not neutral tools. They are environments engineered to capture attention, shape behaviour, and extract value from users who largely do not know this is happening. A child who grows up without any understanding of how these systems work is not simply uninformed. They are living inside a machine designed to influence them, without the first tool needed to recognise that fact.

Teaching sovereignty is not about producing cynics or rebels. It is about producing people who can look clearly at the systems they inhabit, understand the interests those systems serve, and make genuinely free choices within them.

3.3 Long-term and intergenerational thought

Short-term optimisation is what machines do best.

If the goal can be defined, measured, and achieved within a calculable timeframe, AI

systems will eventually outperform humans at pursuing it. What they cannot do — what no algorithm can do — is carry a sense of genuine obligation to people and places and ways of life that do not yet exist. That requires something that computation cannot simulate: love across time.

Long-term thinking is the capacity to hold future consequences seriously in present decisions. Not as an abstract calculation, but as a felt responsibility — to the children who will inherit what we build, to the ecosystems we are part of, to the cultural continuities that give human life meaning across generations. It is the opposite of the short-term optimisation that drives most institutional decision-making today, including most educational systems.

For children, this capacity develops through contact with things that take time. Growing food. Learning a craft that takes years to master. Hearing stories about the people who came before them and what they built or destroyed. Being asked, seriously and repeatedly, what kind of world they want to leave behind.

It also develops through the experience of consequences — of making decisions and living through their long-term effects, in an environment that does not immediately rescue them from difficulty. Children who are protected from all consequences do not develop long-term thinking. They develop a permanent expectation of rescue.

3.4 Grief, loss, and metabolising endings

This is the skill that no curriculum mentions, and that life insists upon anyway.

Every human life contains loss. The end of childhood itself. Relationships that matter and then change or disappear. Plans that fail. Versions of yourself that you outgrow and must leave behind. The slow losses of ageing. The sudden losses of accident and illness. And, for the generation now being born, a particular kind of grief that has no clear historical precedent: the grief of growing up inside rapid ecological change — of inheriting a world that is transforming faster than our maps of it can keep up with.

Grief is not a malfunction. It is the appropriate response to real loss, and it is also — when it is allowed to move through a person rather than being suppressed or avoided — a process of integration. The person who has grieved well is not weaker for it. They are more honest, more compassionate, more capable of genuine joy, and more realistic about what actually matters.

The problem is that modern culture is deeply uncomfortable with grief. We medicate it, schedule it, reframe it as a problem to be solved, and reward people for returning to productivity as quickly as possible. Children learn early that sadness is an

inconvenience and endings should be minimised. They grow into adults who are skilled at avoidance and fragile in the face of anything that cannot be avoided.

Teaching children to grieve is not a morbid project. It is an act of deep respect for their humanity. It means allowing them to feel the weight of endings without immediately reassuring them away. It means modelling, as adults, what it looks like to lose something and remain whole. It means creating enough stillness in their lives for the full range of human emotion to exist and be processed.

A person who can grieve can also love fully, commit deeply, and act with the kind of seriousness that only comes from knowing that things are finite and therefore precious.

3.5 Value creation beyond productivity

For most of human history, a person's worth was not measured by their economic output.

It was measured by their relationships, their wisdom, their contribution to the community, their craft, their care for the young and the old, their relationship with the land, their participation in the rituals that held collective life together. Productivity — in the narrow, measurable, monetisable sense — is a relatively recent lens, one that emerged with industrial capitalism and has since become so dominant that it is difficult to imagine alternatives.

The coming era will make this lens obsolete. When machines can outperform humans at most forms of measurable productivity, a society that derives human worth from economic output will face a crisis of meaning that no policy can solve. The question what am I for? will become unavoidable for millions of people whose work has been automated away.

Children who grow up understanding value in its fuller sense — as care, as creativity, as restoration, as presence, as the transmission of knowledge and culture across generations — will be better equipped for this world than children who have been trained only to compete for positions in an economy that is already transforming beyond recognition.

This is not an argument against work, or ambition, or economic participation. It is an argument for a richer understanding of what human contribution looks like — one that was always true, and that is now becoming urgently necessary.

3.6 Reverence and the sacred

Not everything should be optimised.

This is perhaps the most countercultural statement in this entire document, in an era defined by the drive to make everything more efficient, more measurable, more scalable. And it is, we believe, one of the most important things a child can learn.

Reverence is the capacity to encounter something — a landscape, a piece of music, a moment of genuine human connection, the birth of an animal, the night sky, the silence after a storm — and to respond with a quality of attention that does not immediately ask what it is for. It is the recognition that some things have worth that is not instrumental. That mystery is not a problem waiting to be solved. That the appropriate response to certain experiences is not analysis but presence.

The sacred, in the sense we mean here, has nothing necessarily to do with religious doctrine. It refers to the spaces and moments and relationships that a person holds as beyond the reach of calculation — where they would refuse to apply a cost-benefit analysis even if they could. Every mature human life contains these spaces. They are what give life its texture of meaning, as distinct from its measure of achievement.

Children who grow up with no experience of reverence — whose every moment is scheduled, assessed, and optimised — tend to become adults who are very capable and quietly desperate. Capable, because they have been trained to perform. Desperate, because performance without depth is exhausting, and because no achievement ever quite fills the space that meaning is supposed to occupy.

The antidote is simple, though it requires deliberate protection in a world that will not provide it automatically: time in nature, exposure to beauty, the experience of silence, participation in ritual, and the repeated permission to be moved by things without needing to explain why.

LAYER 4 — CONTRIBUTION

How to give something back to the world

The first three layers of this framework are, in a sense, preparation.

Grounding builds the foundation — the body, the inner life, the capacity for real connection. Sense-making develops the tools — the ability to read reality honestly, think in systems, hold complexity, and keep learning. Agency develops the character — the values, the sovereignty, the long-term perspective, the capacity to act with integrity even when it is difficult.

All of this is in service of something larger than the individual.

A person who is grounded, clear-thinking, and ethically capable but who turns all of that inward — toward self-improvement, personal security, or private flourishing alone — has, in a sense, stopped halfway. Not because self-development is wrong, but because human beings are not self-contained. We exist in communities, in ecosystems, in cultural continuities, in shared histories and shared futures. The fullest expression of human development is not a perfected individual. It is a person who brings what they have developed into genuine relationship with the world around them.

Contribution, in the sense we mean here, is not charity. It is not performance. It is not the LinkedIn version of making a difference.

It is the natural consequence of being genuinely developed as a human being — of having something real to offer, and the generosity and courage to offer it. It takes many forms: ecological stewardship, creative work, political participation, the transmission of knowledge and culture, the building of communities, the care of the vulnerable, the willingness to imagine and work toward futures that are better than the present.

What all of these forms share is that they are oriented outward and forward — toward the world as it is, and toward the world as it could be.

This layer also contains the integrating function of the entire framework: what we call regenerative life design. This is the capacity to actually compose a liveable existence — not just to possess the skills of the previous layers individually, but to weave them into a way of living that is coherent, purposeful, and sustainable over a

lifetime. It is, in many ways, the hardest skill of all. Most people have some of the capacities described in this framework. Very few manage to integrate them into a life that reflects all of them simultaneously. That integration is the work of a lifetime, and it begins in childhood.

> *The world that is coming will need people who can do this. Not as an elite minority — as the norm.*

4.1 Ecological and systems stewardship

We are not separate from nature. We are part of it.

This sounds simple. It is, in practice, one of the most difficult ideas to actually internalise in a culture that has spent several centuries building on the assumption of human separateness from — and dominance over — the natural world. The consequences of that assumption are visible everywhere, in degraded soils, disrupted water cycles, and diminished biodiversity. But the assumption itself persists, embedded in the way most people think, consume, build, and educate.

Ecological stewardship is not primarily about environmental knowledge, though knowledge matters. It is about a fundamental reorientation of relationship — from human beings as managers of nature to human beings as participants in living systems that have their own logic, their own rhythms, and their own forms of intelligence.

A child who grows up with this orientation notices things. They notice the health of the soil under their feet, the behaviour of insects in a garden, the way water moves through a landscape. They develop an intuitive sense of feedback — of what a system needs, and what happens when those needs are ignored. They understand that human activity can be regenerative — that it is possible to farm, build, and live in ways that improve the ecosystems we are part of, rather than simply extracting from them.

This is not a romantic idea. It is a practical one. The civilisations that will thrive in the coming century will be those that have learned to work with living systems rather than against them. The children who understand this now will be the people who design those civilisations.

4.2 Bioregional competence and self-reliance

To know where you are is to know who you are.

Bioregional competence is the capacity to understand and engage with the specific place you inhabit — its soils and watersheds, its native species, its climate patterns, its local food systems, its particular constraints and particular gifts. It is the opposite of the placelessness that characterises much of modern life, where a person could be anywhere and access the same products, the same entertainment, the same environments, and feel no particular relationship to the ground beneath them.

This matters for reasons that are practical as well as philosophical. Global supply chains are fragile. The systems that deliver food, energy, and goods across vast distances are vulnerable to disruptions that are becoming more frequent and more severe. A person with no knowledge of how to produce basic necessities, no relationship with local food systems, and no understanding of the ecosystem they inhabit is profoundly dependent in ways they may not recognise until something breaks.

Self-reliance, in this context, does not mean isolation or self-sufficiency in some heroic individual sense. It means having enough practical competence — growing food, understanding water, knowing how to repair and make things, knowing the people around you — to be resilient when larger systems falter.

It also means something harder to quantify: the deep satisfaction of being genuinely capable in the place where you live. Of knowing that you belong to somewhere specific, and that somewhere specific is better for your presence in it.

4.3 Playfulness and creative exploration

The future does not yet exist. It will be invented.

The people who invent it will not do so primarily through disciplined application of existing knowledge, though that matters. They will do so through play — through the willingness to try things without knowing how they will turn out, to make unexpected connections, to fail without collapsing, and to keep exploring beyond the boundaries of what is already known.

Playfulness is not childishness. In its mature form, it is one of the most sophisticated human capacities. It is the ability to hold the world lightly enough to experiment with it — to approach problems with curiosity rather than anxiety, to tolerate the uncertainty of not knowing the answer before you begin. It is what makes genuine creativity possible, as distinct from the recombination of existing elements that AI systems are already very good at.

Children are natural at this. The tragedy is that most educational systems spend the

first two decades of a person's life systematically training it out of them — rewarding correct answers, penalising wrong ones, structuring time so completely that the experience of genuine open-ended exploration becomes rare and then forgotten.

Protecting and cultivating playfulness in children is not a concession to their immaturity. It is an investment in the most distinctly human form of intelligence they possess. The child who is still genuinely playful at twenty, who can still approach an unfamiliar problem with delight rather than dread, has something that no amount of knowledge can replace.

4.4 Artistic sensitivity and beauty

Beauty is not a luxury.

It is one of the primary ways human beings make meaning — through the experience of encountering something that is more than functional, that resonates at a level below conscious understanding, that reminds us that existence has qualities we have no purely rational framework for. Art, music, craft, the design of spaces and objects, the particular light at a certain hour — these are not decorations on the surface of human life. They are part of its substance.

Artistic sensitivity is the capacity to perceive and respond to beauty — to notice it, to be moved by it, to understand something of how it works and what it is doing. It is also the capacity to create it: not necessarily at a professional level, but in the ongoing way that human beings have always made their environments and their experiences more beautiful as an expression of care.

In a world increasingly generated by algorithms — where music, images, text, and even architecture will be produced at scale by systems optimising for engagement rather than meaning — artistic sensitivity becomes a form of discernment. The person who can feel the difference between something made with genuine attention and something generated for consumption is not simply more cultured. They are more resistant to a particular kind of poverty that will otherwise be very difficult to name.

4.5 Co-evolution with AI and technology

Artificial intelligence is not going away. The question is not whether to engage with it, but how.

The children growing up today will live their entire adult lives in relationship with AI systems of increasing capability and pervasiveness. They will use these systems for

work, for learning, for creative production, for navigating social and political life. The quality of that relationship — whether it is one of conscious partnership or unconscious dependency — will shape their lives profoundly.

Co-evolution means developing alongside AI rather than being simply shaped by it. It means understanding, at a practical and conceptual level, what these systems can and cannot do — where they are genuinely powerful, and where they produce confident-sounding nonsense. It means knowing how to use them in ways that extend human capability rather than replace human judgment. And it means retaining, deliberately and continuously, the capacities that make human beings more than information processors: embodiment, ethical reasoning, genuine creativity, relational depth, the ability to care about things for reasons that cannot be optimised.

This is not a technical skill. It is a philosophical orientation — a commitment to remaining the author of one's own life even in an environment of increasing automation and algorithmic influence. The child who develops this orientation will be neither a technophobe nor a passive consumer of whatever the next platform offers. They will be a conscious participant in one of the most significant transitions in human history.

4.6 Collective action and solidarity

No individual, however grounded, however clear-thinking, however ethically developed, can address the challenges of this moment alone.

Climate adaptation, democratic renewal, the governance of artificial intelligence, the redesign of economic systems that have stopped serving most of the people within them — these are collective problems. They require people who can work together across difference, who can build trust with people they disagree with, who can subordinate personal interest to shared purpose without losing their individual integrity, and who can sustain that commitment over the long timeframes that genuine change requires.

Solidarity is not agreement. It does not mean everyone thinking the same thing or wanting the same things. It means a willingness to act together in service of something larger than any one person's interests — and to do so with enough trust and enough skill to actually be effective.

Children develop this capacity through experience of genuine collective life: learning communities where decisions are made together, projects that require real collaboration and produce real consequences, exposure to movements and histories

of people who changed things by acting in concert. They also develop it through the experience of difference — of learning to work alongside people whose backgrounds, beliefs, and ways of seeing the world are genuinely unlike their own.

In an era when digital environments increasingly sort people into groups of the like-minded, and when the very concept of shared reality is under pressure, the capacity for solidarity across difference is not a soft social skill. It is one of the foundational requirements for a functioning human future.

INTEGRATING SKILL Regenerative life design

All of the capacities described in this framework can exist in isolation. A person can be embodied without being ethically developed. They can think in systems without being capable of genuine relationship. They can understand power without acting from their own values. The presence of individual capacities does not guarantee a life that expresses them together.

Regenerative life design is the capacity to integrate. It is the ability to compose a way of living — a daily existence, a set of relationships, a form of work and contribution, a relationship with place and community — that genuinely reflects and sustains all of the capacities described across these four layers.

The word regenerative is chosen deliberately. A life that is merely sustainable maintains itself without depleting its resources. A regenerative life actively restores — the relationships around it, the ecosystems it touches, the communities it participates in, the cultural continuities it carries forward. It gives back more than it takes, not through self-sacrifice, but through the natural expression of a person who is genuinely whole.

This is the most demanding skill in the framework, and also the most human. It cannot be taught directly. It can only be cultivated — through the long process of developing each of the other capacities, through the experience of trying to live with integrity and failing and trying again, through the support of communities that take this kind of development seriously.

It is what we are ultimately growing toward.

And it begins, as all growing things do, in the ground.

Growing Humans

A framework for human flourishing in the age of artificial intelligence

LAYER 4 Contribution

How to give something back to the world

- **4.1** Ecological & systems stewardship
- **4.2** Bioregional competence & self-reliance
- **4.3** Playfulness & creative exploration
- **4.4** Artistic sensitivity & beauty
- **4.5** Co-evolution with AI & technology
- **4.6** Collective action & solidarity

Integrating skill

Regenerative life design

Synthesising all layers into a liveable, purposeful, ecologically coherent existence

LAYER 3 Agency

How to act with integrity in complex systems

- **3.1** Ethical self-authorship & moral reasoning
- **3.2** Sovereignty in asymmetric systems
- **3.3** Long-term & intergenerational thought
- **3.4** Grief, loss & metabolising endings
- **3.5** Value creation beyond productivity
- **3.6** Reverence & the sacred

LAYER 2 Sense-making

How to read reality honestly

- **2.1** Language & narrative framing
- **2.2** Scientific & epistemic humility
- **2.3** Systems & pattern thinking
- **2.4** Holding ambiguity & contradiction
- **2.5** Political & power literacy
- **2.6** Meta-learning & adaptive identity

LAYER 1 Grounding

The foundation everything else rests on

- **1.1** Embodied intelligence
  Body as source of knowing
- **1.2** Interiority & self-knowledge
- **1.3** Relational presence
  Genuine human connection

All other layers build upward from here