

Towards Ecosystemic Artificial Intelligence: An Ecosystemic Flourishing (ESF) Position Paper on AI, Human Development and Planetary Wellbeing

Wendy Ellyatt, Sept 2026

Executive Summary

Artificial Intelligence represents one of the most consequential developments in human history. Yet much of the current discourse remains constrained by narrow technical, economic, or risk-oriented perspectives. Discussions of AI ethics frequently focus on transparency, accountability, privacy, safety, and alignment, while broader questions concerning human flourishing, ecological wellbeing, cultural diversity, wisdom, meaning, and intergenerational responsibility remain underdeveloped (IEEE Global Initiative, 2019; UNESCO, 2021).

This paper proposes an Ecosystemic Flourishing (ESF) approach to Artificial Intelligence. Rather than viewing AI solely as a technological innovation, the ESF Framework understands AI as a transformative social, cultural, ecological, economic, and developmental force whose impacts will shape the future trajectory of humanity and the wider living world. Drawing upon leading contributions from Indigenous scholars, systems thinkers, AI ethicists, developmental psychologists, philosophers, educators, complexity scientists, and futures researchers, this paper argues that the central question is not whether AI becomes more intelligent, but whether humanity becomes more wise. The paper proposes seven principles for Ecosystemic AI and introduces a flourishing-centred framework for evaluating AI systems according to their contribution to human, social, cultural, ecological, and planetary wellbeing.

1. Introduction: Beyond the Ethics Debate

The emergence of advanced AI has generated unprecedented opportunities and profound challenges. Governments, corporations, universities, and civil society organisations are investing billions of pounds in the development of increasingly capable systems. Important contributions have emerged from initiatives such as:

- The Montréal Declaration for Responsible AI (Université de Montréal, 2018)
- The Toronto Declaration (Amnesty International and Access Now, 2018)
- IEEE Ethically Aligned Design (IEEE Global Initiative, 2019)
- UNESCO Recommendation on the Ethics of Artificial Intelligence (UNESCO, 2021)
- OECD AI Principles (OECD, 2019)

These frameworks have significantly advanced understanding of fairness, transparency, accountability, explainability, and safety (IEEE Global Initiative, 2019; UNESCO, 2021). Broader questions about flourishing are unevenly developed and insufficiently translated into practice. A guiding question is:

What kind of human beings, societies, cultures, economies, and relationships with the living world are these technologies helping to create?

THE ECOLOGY OF BELONGING

This question lies at the heart of Ecosystemic Flourishing.

2. The Need for a New Paradigm

The dominant narrative surrounding AI is often framed through two competing imaginaries.

The first is techno-utopianism. Here AI is portrayed as the solution to humanity's greatest challenges, promising abundance, efficiency, longevity, economic growth, and scientific breakthroughs.

The second is techno-dystopianism. Here AI appears as a threat to employment, privacy, democracy, truth, autonomy, social cohesion, and even human survival.

Both narratives contain important insights but remain incomplete.

From an ESF perspective, AI is neither inherently beneficial nor harmful. Its impacts emerge from the values, worldviews, incentives, and governance systems within which it is developed and deployed. The central challenge is therefore not technological but relational. AI's effects emerge through interactions among design choices, training data, institutional incentives, user behaviour, and the contexts in which systems are deployed. If humanity remains dominated by fragmentation, short-termism, extraction, and competition, AI may accelerate those tendencies. If humanity develops greater wisdom, compassion, relational maturity, and systems awareness, AI may become a powerful catalyst for flourishing (Meadows, 2008; UNESCO, 2021).

3. Foundations for an Ecosystemic View of AI

The ESF approach builds upon multiple streams of scholarship.

Indigenous Protocols and Relational Intelligence

The collection edited by Lewis (2020) argues that AI should be designed according to principles of locality, reciprocity, relationality, responsibility, and stewardship. Rather than viewing AI as a tool to be controlled, Indigenous perspectives invite us to ask how humans might enter into respectful relationships with new technological entities. This represents a profound shift from domination to reciprocity.

Systems Thinking and Complexity

Bateson (1972), Capra and Luisi (2014), Meadows (2008), and Nora Bateson (2023) demonstrate that wellbeing emerges through relationships rather than isolated components. AI therefore cannot be evaluated solely through technical performance metrics. Its effects ripple across interconnected social, cultural, ecological, political, and economic systems (Snowden and Boone, 2007).

Kostopoulos's Strategic Centers of Gravity framework connects food and water, energy, technology, demographics, and planetary health (Kostopoulos, 2026). Applied to AI, this perspective directs attention to cascading and converging effects: expanding computing capacity changes energy and water demand, while demographic shifts, resource extraction, and economic incentives shape who benefits and who bears the costs. Ecosystemic assessment should examine these interactions across places and over time.

Human Development and Flourishing

Human flourishing involves more than material success or subjective happiness. Developmental and psychological perspectives emphasise meaning, purpose, relationships, moral development and the cultivation of human capacities (Maslow, 1971; Ryff, 1989; Kegan, 1994; Seligman, 2011; Narvaez, 2014). The Global Flourishing Study extends this inquiry across diverse cultural settings, examining multiple dimensions of wellbeing and their relationships with social conditions and childhood experiences (VanderWeele et al., 2025). These perspectives suggest that AI assessment should consider human development alongside technical performance.

Consciousness and Ways of Knowing

An ecosystemic account of intelligence must distinguish observable capabilities from conscious experience. Chalmers (1995) separates the explanation of cognitive functions from the question of why those functions are accompanied by subjective experience. This distinction matters for AI: fluent language, problem-solving and apparent empathy do not, by themselves, establish that a system has an inner life. The ESF approach need not resolve the metaphysics of consciousness in order to take human experience seriously.

Embodied and enactive approaches offer a further foundation. Varela, Thompson and Rosch (1991) connect cognitive science with phenomenology and contemplative inquiry, while Thompson (2007) explores the continuity between living processes, cognition and experience. These approaches understand knowing through the interaction of body, mind and environment. Applied to AI, they invite assessment of how technologies affect attention, embodied learning, relationships and participation in the living world, alongside their ability to process information.

Different ways of knowing also illuminate different aspects of experience. Indigenous accounts of kinship and responsibility locate knowledge within particular communities, histories and relationships (Lewis et al., 2018; Lewis, 2020; Yunkaporta, 2019). McGilchrist (2021) examines how forms of attention shape our encounter with the world; Scharmer (2018) offers practices for reflective listening and collective inquiry. Scientific investigation, lived experience, artistic expression, contemplative practice and Indigenous knowledge can inform dialogue without being treated as interchangeable methods or reduced to a single model.

The Galileo Commission report and Sheldrake's critique of scientific assumptions contribute philosophical challenges to materialist worldviews (Walach, 2018; Sheldrake, 2012). These are proposals for critical discussion, rather than evidence that AI is conscious or that all accounts of consciousness have equal empirical support. An ecosystemic approach should remain open to inquiry while making clear what is empirically established, what is interpretative and what remains contested. Its practical commitment is to protect human agency, cultural plurality and the conditions for meaningful, relational experience.

Ethics Moral Agency and Security

Ethical AI requires attention to the human and institutional conditions in which systems operate. Vallor (2024) asks how AI might support moral and intellectual growth; Benjamin (2019) examines how technological systems can reproduce racial inequality; and Crawford (2021) traces the labour, extraction and concentrations of power on which AI depends. These perspectives widen assessment beyond whether a model performs its assigned task to whose interests it serves, whose knowledge it recognises and who bears its costs.

THE ECOLOGY OF BELONGING

Safety, security and accountability are related but distinct. Russell (2019) examines how AI can remain compatible with human interests when human preferences are uncertain. Schneier (2025) emphasises trust, power and system integrity, including protection against hacking and hidden conflicts of interest. Yeung (2018) examines the legitimacy of algorithmic regulation, while Véliz (2020) connects privacy with individual and collective power. From an ecosystemic perspective, safeguards should address harmful behaviour, malicious interference, coercive uses and the ability of affected people to question decisions and obtain redress.

Attention Agency and Humane Technology

Harris and Raskin's *The AI Dilemma* highlights the risks of deploying powerful technologies under competitive pressures before adequate safeguards and collective understanding are in place (Harris and Raskin, 2023). Their public analysis extends the Center for Humane Technology's concern with attention-harvesting design into the AI era. Zuboff (2019) provides a wider account of surveillance capitalism, in which human experience becomes a resource for prediction and behavioural influence. These contributions suggest that responsible AI requires scrutiny of commercial incentives and deployment practices as well as technical design.

Turkle's account of artificial intimacy asks what happens when machines offer the performance of empathy and companionship (Turkle, 2026). For ESF, a person's attachment to a technological system can be meaningful without establishing that the system reciprocates care. The relevant questions concern whether interaction supports autonomy, reflection and human relationships, and how dependence or vulnerability is recognised. Together with Vallor's emphasis on human moral capacities, this makes attention and relational development central design concerns (Vallor, 2024). Harris and Raskin's advocacy, Turkle's interpretative accounts and the other scholarship cited here contribute different forms of evidence and analysis; their claims should be assessed accordingly.

4. The Seven Principles of Ecosystemic AI

Principle 1: Relational Intelligence

AI should strengthen healthy relationships between people, communities, cultures, generations, and the living world. The primary measure of success is the quality of relationships it helps create (Lewis et al., 2018; Lewis, 2020). Relational assessment should also examine whether simulated companionship supports or displaces opportunities for human connection (Turkle, 2026).

Compassionate language and responsive interaction may support reflection, but they do not establish that an AI system feels compassion or understands a person's lived experience. Relational design should make the system's nature and limits clear, protect user agency, and support connections with people and communities.

Principle 2: Developmental Intelligence

AI should support the ongoing maturation of human capacities, including empathy, critical thinking, ethical reasoning, creativity, imagination, self-awareness, and wisdom. Its use should preserve opportunities for people to learn, exercise judgement, and develop confidence in their own capacities (Kegan, 1994; Narvaez, 2014). Vallor (2024) provides a useful basis for asking whether AI use cultivates moral judgement or encourages its delegation. As AI systems become more capable of producing answers, recommendations, and creative outputs, human imagination

THE ECOLOGY OF BELONGING

and discernment become increasingly important. Kostopoulos (2024) presents imagination as a capability that can be cultivated alongside critical thinking. From an ESF perspective, AI should help people question inherited assumptions, explore alternative futures, and consider the wider consequences of their choices. Its developmental value should be assessed through whether it strengthens people's capacity to think, create, reflect, and act with responsibility. This requires attention to how AI use affects learning, cognitive effort, confidence, and dependence over time.

Principle 3: Cultural Intelligence

AI should protect and strengthen linguistic diversity, cultural heritage, local knowledge systems, and Indigenous wisdom traditions. Pluralism must be viewed as an asset rather than an obstacle (Lewis, 2020; Lewis et al., 2025; UNESCO, 2021). Benjamin (2019) adds a necessary question: whose identities and experiences are misrepresented, excluded or disadvantaged?

Principle 4: Ecological Intelligence

AI systems should contribute to the regeneration of natural systems and respect planetary boundaries. Ecological wellbeing must become a first-order design criterion (Richardson et al., 2023; Wahl, 2016). This requires attention to the material supply chains, labour and resource demands through which AI is produced and operated (Crawford, 2021).

Principle 5: Intergenerational Intelligence

AI governance should explicitly consider impacts on future generations. Decisions should be evaluated across decades rather than quarterly reporting cycles (Earth Charter International, 2000; UNESCO, 2021).

Principle 6: Ethical and Economic Intelligence

AI should contribute to regenerative economic systems that support equitable wellbeing rather than concentrating wealth, power, and influence (Eisler, 2007; Barrett, 2017; Wahl, 2016). Business models based on surveillance and behavioural influence require particular scrutiny (Zuboff, 2019; Harris and Raskin, 2023).

Principle 7: Wisdom Intelligence

The ultimate purpose of AI should be to assist humanity in making wiser decisions. This includes supporting long-term thinking, perspective-taking, compassion, and collective sense-making (McGilchrist, 2021; Scharmer, 2018). AI should help people exercise practical wisdom while preserving their responsibility for consequential choices (Vallor, 2024; Russell, 2019).

5. AI Through the Lens of the ESF Framework

The Ecosystemic Flourishing Framework evaluates AI across four interconnected domains (Ellyatt, 2025a).

THE ECOLOGY OF BELONGING

Natural Environment: How does AI affect biodiversity, energy consumption, ecological regeneration, resource extraction, and planetary health?

Circular and Regenerative Economies: How does AI influence economic distribution, meaningful work, resilience, and regenerative value creation?

Cultural Values and Identity: How does AI shape language, meaning, belonging, worldviews, cultural continuity, and social trust?

Human Capacities and Potential: How does AI influence the seven levels of human development:

1. Security — physical wellbeing and access to essential conditions for life
2. Relationship — emotional safety, trust and belonging
3. Independence — agency, self-esteem and the capacity to exercise judgement
4. Engagement — interest, participation and involvement
5. Fulfilment — meaning, purpose and the expression of potential
6. Contribution — service, reciprocity and responsibility to others
7. Growth — ongoing development, expanded awareness and collective flourishing

These dimensions complement technical performance benchmarks by examining AI's wider contribution to human development and societal wellbeing (Ellyatt, 2025a).

6. From Artificial Intelligence to Flourishing Intelligence

The future challenge is not merely to create Artificial General Intelligence. *The deeper challenge is to cultivate Flourishing Intelligence.* Flourishing Intelligence may be understood as the capacity of individuals, communities, institutions, technologies, and societies to enhance the conditions for life to thrive.

Such intelligence is:

- Relational rather than extractive
- Regenerative rather than exploitative
- Wise rather than merely clever
- Long-term rather than short-term
- Participatory rather than controlling
- Ecosystemic rather than reductionist

AI should be evaluated according to whether it strengthens these capacities (Ellyatt, 2025a).

Putting Flourishing Principles into Practice

Flourishing principles need to be translated into clear intended uses, privacy protection, accountable human oversight and evaluation of benefits and harms. Russell (2019) informs the question of human control; Schneier (2025) highlights integrity and security; Yeung (2018) and Véliz (2020) direct attention to accountability and rights. Practical assessment should examine exposure to manipulation, inappropriate reliance, misuse of personal data, discriminatory outcomes and barriers to contesting decisions. It should also ask whether the provider's incentives conflict with users' wellbeing (Benjamin, 2019; Zuboff, 2019; Harris and Raskin, 2023).

THE ECOLOGY OF BELONGING

For conversational AI, the IEEE P3953 project, chaired by Kostopoulos, is developing a standard addressing safety, reliability and explainable deployment, including protective mechanisms and crisis escalation pathways (IEEE Standards Association, 2026). It is a standard under development, rather than an approved standard. An ecosystemic approach would complement these safeguards with assessment of cultural inclusion, ecological impacts, and whether interaction strengthens human agency and access to appropriate human support.

7. Further Reading and Influences

The ESF approach draws on several streams of inquiry. These sources differ in their methods and assumptions; they inform the paper's proposed principles without jointly validating a single theory of intelligence or consciousness. The following works provide routes for further exploration.

Among the most significant influences are Indigenous scholars and knowledge keepers who have challenged the anthropocentric assumptions embedded within many contemporary technological systems. The Indigenous Protocol and Artificial Intelligence project, together with the work of scholars such as Jason Edward Lewis, Noelani Arista, Suzanne Kite, Angie Abdilla, Tyson Yunkaporta, and many others, demonstrates how Indigenous understandings of kinship, reciprocity, locality, responsibility, and stewardship can offer vital guidance for the development of emerging technologies (Lewis et al., 2018; Lewis, 2020; Lewis et al., 2025; Yunkaporta, 2019).

The ESF approach is also deeply informed by systems thinking and complexity science. The pioneering work of Gregory Bateson, Donella Meadows, Fritjof Capra, Nora Bateson, and Daniel Christian Wahl highlights the reality that flourishing emerges not from isolated components but from the quality of relationships within living systems. These perspectives challenge the tendency to evaluate technological innovations solely through narrowly defined performance metrics and instead invite consideration of wider systemic consequences (Bateson, G., 1972; Meadows, 2008; Capra and Luisi, 2014; Wahl, 2016; Bateson, N., 2023).

Developmental and flourishing perspectives explore psychological wellbeing, meaning, moral development and the changing capacities of people and organisations (Maslow, 1971; Ryff, 1989; Kegan, 1994; Seligman, 2011; Narvaez, 2014; Barrett, 2017). The Global Flourishing Study provides an empirical, cross-cultural contribution to this field (VanderWeele et al., 2025).

Philosophy of mind and embodied cognition provide resources for distinguishing cognitive performance from lived experience (Chalmers, 1995; Varela, Thompson and Rosch, 1991; Thompson, 2007). McGilchrist (2021) and Scharmer (2018) explore attention and reflective practice. Walach (2018) and Sheldrake (2012) offer critiques of materialist assumptions, which should be considered as distinct philosophical positions.

Regenerative approaches explore how economic, social and ecological systems might support life and equitable wellbeing (Eisler, 2007; Macy and Johnstone, 2012; Wahl, 2016; Akomolafe, 2017). The Earth Charter articulates ethical responsibilities to the wider community of life and future generations (Earth Charter International, 2000), while planetary-boundaries research provides an empirical account of pressures on Earth's systems (Richardson et al., 2023).

THE ECOLOGY OF BELONGING

Ethical and humane technology perspectives examine moral capacities, inequality, institutional power, privacy, safety and security (Vallor, 2024; Benjamin, 2019; Crawford, 2021; Yeung, 2018; Véliz, 2020; Russell, 2019; Schneier, 2025). Harris and Raskin (2023), Turkle (2026) and Zuboff (2019) offer complementary analyses of the incentives and relational consequences of technological deployment.

The Flourish Project's work connects these inquiries with ecosystemic flourishing and worldview change (Ellyatt, 2025a, 2025b). Kostopoulos contributes practical perspectives on imagination, interconnected strategic forces and emerging AI applications (Kostopoulos, 2024, 2026). Together, these sources support further inquiry into the social and developmental purposes of AI.

Taken together, these diverse strands of inquiry point towards a common conclusion.

The most important challenge raised by Artificial Intelligence is not technological. It is civilisational.

The future will depend not merely upon the intelligence of our machines, but upon the wisdom, maturity, and relational capacities of the societies that create and govern them.

8. Conclusion

Humanity stands at a civilisational threshold. Artificial Intelligence will shape education, governance, health, economics, culture, media, and environmental stewardship throughout the twenty-first century. The most important question is therefore not how intelligent our machines become. It is whether their development helps humanity become more compassionate, more responsible, more interconnected, and more capable of stewarding life on Earth.

An Ecosystemic Flourishing approach invites us to move beyond debates about efficiency, productivity, and control. It asks instead: What would AI look like if its primary purpose were to support the flourishing of people, communities, cultures, future generations, and the living Earth?

This is the challenge - and the opportunity - of our time.

References

Indigenous Knowledge, AI and Relational Ontologies

Lewis, J.E., Whaanga, H. and Yolgörmez, C. (2025) 'Abundant intelligences: placing AI within Indigenous knowledge frameworks', *AI & Society*, 40, pp. 2141–2157.

<https://doi.org/10.1007/s00146-024-02099-4>.

Lewis, J.E., Arista, N., Pechawis, A. and Kite, S. (2018) 'Making Kin with the Machines', *Journal of Design and Science*. Cambridge, MA: MIT Media Lab.

Lewis, J.E. (ed.) (2020) *Indigenous Protocol and Artificial Intelligence Position Paper*. Honolulu, HI: Initiative for Indigenous Futures and Canadian Institute for Advanced Research.

Yunkaporta, T. (2019) *Sand Talk: How Indigenous Thinking Can Save the World*. Melbourne, Australia: Text Publishing.

Systems Thinking and Complexity

Bateson, G. (1972) *Steps to an Ecology of Mind*. San Francisco, CA: Chandler Publishing.

Bateson, N. (2023) *Combining*. Axminster: Triarchy Press.

Capra, F. and Luisi, P.L. (2014) *The Systems View of Life*. Cambridge, UK: Cambridge University Press.

Meadows, D.H. (2008) *Thinking in Systems*. White River Junction, VT: Chelsea Green Publishing.

Snowden, D.J. and Boone, M.E. (2007) 'A Leader's Framework for Decision Making', *Harvard Business Review*, 85(11), pp. 68–76.

Human Flourishing and Development

Barrett, R. (2017) *The Values-Driven Organization: Cultural Health and Employee Well-Being as a Pathway to Sustainable Performance*. 2nd edn. Abingdon: Routledge.

Kegan, R. (1994) *In Over Our Heads*. Cambridge, MA: Harvard University Press.

Maslow, A.H. (1971) *The Farther Reaches of Human Nature*. New York, NY: Viking Press.

Narvaez, D. (2014) *Neurobiology and the Development of Human Morality: Evolution, Culture, and Wisdom*. New York: W.W. Norton.

Ryff, C.D. (1989) 'Happiness is everything, or is it? Explorations on the meaning of psychological well-being', *Journal of Personality and Social Psychology*, 57(6), pp. 1069–1081.

Seligman, M.E.P. (2011) *Flourish*. New York, NY: Free Press.

VanderWeele, T.J., Johnson, B.R., Bialowolski, P.T. et al. (2025) 'The Global Flourishing Study: Study Profile and Initial Results on Flourishing', *Nature Mental Health*, 3, pp. 636–653.

<https://doi.org/10.1038/s44220-025-00423-5>.

Consciousness, Worldviews and Ways of Knowing

Ellyatt, W. (2025a) *Introducing the Ecosystemic Flourishing Framework*. Cheltenham, UK: Flourish Project C.I.C.

Ellyatt, W. (2025b) 'Toward a Unitive Narrative and Worldview: An Integrative Response to the Global Metacrisis', *Global Journal of Science Frontier Research*, 25(2).

THE ECOLOGY OF BELONGING

Walach, H. (2018) *Beyond a Materialist Worldview: Towards an Expanded Science*. Galileo Commission Report. Scientific and Medical Network. Available at: <https://galileocommission.org/> (Accessed: 1 October 2026).

McGilchrist, I. (2021) *The Matter with Things*. London, UK: Perspectiva Press.

Scharmer, O. (2018) *The Essentials of Theory U*. Oakland, CA: Berrett-Koehler.

Sheldrake, R. (2012) *The Science Delusion*. London, UK: Hodder & Stoughton.

Chalmers, D.J. (1995) 'Facing up to the problem of consciousness', *Journal of Consciousness Studies*, 2(3), pp. 200–219. Available at: <https://consc.net/papers/facing.html>.

Varela, F.J., Thompson, E. and Rosch, E. (1991) *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge, MA: MIT Press.

Thompson, E. (2007) *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*. Cambridge, MA: Harvard University Press.

AI Ethics and Governance

IEEE Global Initiative (2019) *Ethically Aligned Design*. New York, NY: IEEE.

IEEE Standards Association (2026) P3953: Standard for Safety, Reliability, and Explainable Deployment of User-Facing Conversational Artificial Intelligence (AI) Applications that Use Large Language Models. Active standards development project. Available at: <https://standards.ieee.org/ieee/3953/12484/> (Accessed: 1 October 2026).

OECD (2019) *OECD Principles on Artificial Intelligence*. Paris, France: OECD.

UNESCO (2021) *Recommendation on the Ethics of Artificial Intelligence*. Paris, France: UNESCO.

Université de Montréal (2018) *Montréal Declaration for Responsible AI*. Montréal, QC: Université de Montréal.

Amnesty International and Access Now (2018) *The Toronto Declaration: Protecting the Rights to Equality and Non-Discrimination in Machine Learning Systems*. Available at: <https://www.amnesty.org/en/documents/pol30/8447/2018/en/> (Accessed: 1 October 2026).

Benjamin, R. (2019) *Race After Technology: Abolitionist Tools for the New Jim Code*. Cambridge: Polity.

Crawford, K. (2021) *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*. New Haven: Yale University Press.

Harris, T. and Raskin, A. (2023) *The AI Dilemma*. Presentation. Center for Humane Technology. Available at: <https://www.humanetech.com/landing/the-ai-dilemma> (Accessed: 1 October 2026).

Russell, S. (2019) *Human Compatible: AI and the Problem of Control*. New York: Viking.

Schneier, B. (2025) 'AI and Trust'. Essay adapted from a keynote at the RSA Conference. Available at: <https://www.schneier.com/essays/archives/2025/06/ai-and-trust-2.html> (Accessed: 1 October 2026).

Turkle, S. (2026) *Artificial Intimacy: Who We Become When We Talk to Machines*. New York: Little, Brown and Company.

Vallor, S. (2024) *The AI Mirror: How to Reclaim Our Humanity in an Age of Machine Thinking*. New York: Oxford University Press.

THE ECOLOGY OF BELONGING

Véliz, C. (2020) *Privacy Is Power: Why and How You Should Take Back Control of Your Data*. London: Bantam Press.

Yeung, K. (2018) 'Algorithmic regulation: a critical interrogation', *Regulation & Governance*, 12(4), pp. 505–523. <https://doi.org/10.1111/rego.12158>.

Zuboff, S. (2019) *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: PublicAffairs.

Regenerative Futures and Planetary Wellbeing

Akomolafe, B. (2017) *These Wilds Beyond Our Fences*. Berkeley, CA: North Atlantic Books.

Earth Charter International (2000) *The Earth Charter*. San José, Costa Rica: Earth Charter Secretariat.

Eisler, R. (2007) *The Real Wealth of Nations*. San Francisco, CA: Berrett-Koehler.

Macy, J. and Johnstone, C. (2012) *Active Hope*. Novato, CA: New World Library.

Wahl, D.C. (2016) *Designing Regenerative Cultures*. Axminster, UK: Triarchy Press.

Richardson, K., Steffen, W., Lucht, W. et al. (2023) 'Earth beyond six of nine planetary boundaries', *Science Advances*, 9(37), eadh2458. <https://doi.org/10.1126/sciadv.adh2458>.

AI, Civilisational Transformation and Futures

Kostopoulos, L. (2024) *Imagination Dilemma: Tools to Overcome It and Thrive Through Disruption*. Glasgow: Abundance Studio.

Kostopoulos, L. (n.d.a) *Strategic Centers of Gravity*. Abundance Studio. Available at: <https://www.abundance.studio/gravity> (Accessed: 1 October 2026).