

FROM ENHANCEMENT TO CONTINUITY: TRANSHUMANISM, POSTHUMANISM, AND THE EMERGENCE OF METAZŌIC ONTOLOGY IN THE AGE OF PLANETARY AND TECHNOLOGICAL BECOMING

*DO APRIMORAMENTO À CONTINUIDADE:
TRANSHUMANISMO, PÓS-HUMANISMO E A EMERGÊNCIA
DA ONTOLOGIA METAZŌICA NA ERA DO DEVIR
PLANETÁRIO E TECNOLÓGICO*

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paradigms in its emphasis on continuity rather than transcendence or decentering. The article will also introduce an epistemology of relation and care, a model of Metazoë as a multi-dimensional transcription, and a phenomenological-poetic approach, contextualizing these within the Tofflerian concept of acceleration, arguing that the current "future shock" is an epistemological crisis, especially in relation to the role of generative AI, platform memory, and planetary instability. The article will also argue that, in addition to the critique of anthropocentrism or the dream of human enhancement, there is an urgent need for an ontology of continuity that is capable of addressing issues related to digital persistence, ecological duration, and cultural hyper-memory, without falling into either techno-utopianism or dissolution. The concept of Metazoic ontology is an attempt in this direction, an ethics of continuity stewardship in terms of responsibility for the traces we leave behind.

Keywords: Transhumanism, Posthumanism, Metazoic Ontology, Metazoë, Con-

Abstract

The current philosophical discussion on the future of humanity is mainly organized around two main paradigms: transhumanism and posthumanism. The former promotes the idea of human enhancement and transcendence over biological limitations, while the latter challenges anthropocentrism and seeks to redefine the human in terms of its embedded relation in ecological and technological networks. This article seeks to introduce the concept of Metazoic ontology, which differs from the above two

tinuity, Polytentacular Thinking, Artificial Intelligence, Digital Traces, Ecological Duration, Cultural Memory

Resumo

O debate filosófico atual sobre o futuro da humanidade gira principalmente em torno de dois paradigmas principais: o transumanismo e o pós-humanismo. O primeiro promove a ideia do aprimoramento humano e da transcendência das limitações biológicas, enquanto o segundo desafia o antropocentrismo e busca redefinir o humano em termos de sua relação incorporada em redes ecológicas e tecnológicas. Este artigo busca introduzir o conceito de ontologia metazoica, que difere dos dois paradigmas acima por sua ênfase na continuidade, em vez da transcendência ou do descentramento. O artigo também apresentará uma epistemologia da relação e do cuidado, um modelo de Metazoë como transcrição multidimensional e uma abordagem fenomenológico-poética, contextualizando-os dentro do conceito toffleriano de aceleração, argumentando que o atual "choque do futuro" é uma crise epistemológica, especialmente em relação ao papel da IA generativa, da memória de plataforma e da instabilidade planetária. O artigo também argumentará que, além da crítica ao antropocentrismo ou ao sonho do aprimoramento humano, há uma necessidade urgente de uma ontologia da continuidade capaz de abordar questões relacionadas à persistência digital, à duração ecológica e à hipermemória cultural, sem cair nem no tecno-utopismo nem na dissolução. O conceito de ontologia metazoica é uma tentativa nesse sentido, uma ética da gestão da continuidade em termos de responsabilidade pelos rastros que deixamos para trás.

Palavras-chave: Transumanismo, Pós-humanismo, Ontologia Metazoica, Metazoë, Continuidade, Pensamento Politentacular, Inteligência Artificial, Rastros Digitais, Duração Ecológica, Memória Cultural

1 Introduction. The future of the human or the future of continuity?

The current world may be characterized by the conjunction of three phenomena: acceleration, mediation, and fragility. Acceleration is understood as the condensation of technological evolutions into increasingly short periods of innovation, obsolescence, and reorganization (Toffler, 1970, 1980). Mediation is understood as the transformation of experience via digital infrastructures. Lastly, fragility is understood as planetary instability and the increasingly common feeling that ecosystems are on the edge of thresholds beyond which repair is no longer possible (Coccia, 2019; Haraway, 2016). In such a world, the future is no longer something that is distant. Instead, it is an everyday experience that presses on us. One of the symptoms of such a world is that the question of “what will the human become?” is again on the table. In the early modern world, the human was understood as a privileged subject: a rational agent who is capable of autonomy, mastery, and progress. The late twentieth century saw a destabilization of that human via the critique of power, language, and embodiment. The early twenty-first century has seen a new destabilization: technological systems produce quasi-personal continuities, and ecological systems have made us realize that the human has never been separable from the biosphere.

There are two dominant paradigms underlying much of this discussion. Transhumanism posits the human as a platform for improvement and technology as a means of transcending biological limitations (Bostrom, 2005; Kurzweil, 2005). Posthumanism, on the other hand, seeks a decentering of anthropocentrism, the notion of the sovereign subject, and a greater emphasis on the interrelation of the human with non-human agencies, often drawing on the work of STS scholars, ecofeminists, and new materialists (Barad, 2007; Braidotti, 2013; Haraway, 1991, 2016; Wolfe, 2010). In each case, the human is the focal point, albeit in a manner of either amplification or challenge.

The present article suggests that a new shift is necessary for the development of a futurity discourse: from the future of humanity to the ontology of continuity. The issue is not only that we may become transhuman, i.e., enhanced beyond our biological limits, or that we may become posthuman, i.e., distributed across networks, but how we continue to exist through transformations that are already under way. Continuity is currently not experienced as a metaphysical promise but as a multi-layered phenomenon: digital traces continue to exist on platforms, matter continues

to exist through ecological cycles, and meanings continue to exist through memory, narration, and art. These forms of persistence do not add onto existence but transform our understanding of presence. Continuity is a central issue under conditions of acceleration because the production, storage, circulation, and re-activation of traces now occur at unprecedented scales.

To support this argument, the article compares transhumanism and posthumanism, and finally introduces Metazoic ontology as a new paradigm. The article is based on (a) tentacular thinking as an epistemology of relationality and care, (b) Metazoë as a systemic model of continuity across technological, ecological, and mnemonic dimensions, and (c) Metazoë as a phenomenological and poetic attitude towards finitude. The article also introduces these concepts with reference to the Tofflerian horizon of acceleration to explain why continuity is not only a metaphysical issue but also a practical and ethical imperative for a philosophy of futurity.

Although transhumanism and posthumanism have shaped the dominant contours of the discussion on futurity, recent studies have pointed out that a unified ontological framework that integrates technological augmentation, ecological relationality, and ethical persistence has been lacking (Yang & Yao, 2025). The article argues that this is not because there has been insufficient synthesis but because the discussion has been misplaced: instead of focusing on the transformation of humanity, it has been stuck on the transformation of humanity while overlooking the ontological status of continuity. The Metazōic model is precisely located at this moment of displacement.

2 Transhumanism: Enhancement, escalation, and the metaphysics of mastery

Transhumanism, in this view, is a forward-looking, liberating project: through the agency of science and technology, human beings can transcend the limitations of age, disease, cognitive capacity, and death itself. In the canonical narratives of transhumanism, human beings are a transitional form, a form of evolutionary development that can be deliberately engineered. Transhumanism's values, in this view, are those of liberation from biological constraint and the enhancement of individual freedom through technological means (Bostrom, 2005; Kurzweil, 2005). But the philosophical structure of transhumanism needs to be carefully analyzed, since the most extreme claims of the transhumanist project rely on comparatively conservative metaphysics.

The transhumanist response, in the most common form, treats the human being as a potentially upgradeable system. The human body is a substrate, the human brain is an information processing system, and the human self is a pattern of information that can be preserved, enhanced, and transferred. This informationism supports the project of mind uploading, of brain-computer interfaces, and of algorithmic replication of the self. Transhumanists differ from each other in the degree of emphasis they place on enhancement, on artificial intelligence and "the singularity," but the underlying metaphysics of the project is oriented towards transcendence, the transcendence of limitation through the mastery of technology.

Three tensions emerge from the ontology of escalation.

First, transhumanism has a lingering anthropocentrism. Even when it discusses "post-biological intelligence," the values and preferences of human beings are often assumed to be preserved and enhanced. In the transhumanist view, the future takes the form of the extension of the human subject, rather than the refiguring of relational existence. Transhumanism's emphasis on the individual self, and the self's relation to technology, means that the modern subject is actually radicalized, rather than overcome.

Second, transhumanism has a bias toward instrumental rationality. Technology seems to be viewed primarily as a means to mastery. The world is something to be mastered, and the body is something to be mastered. This seems to be a repetition of some of the same logics that are causing planetary crisis: extraction, optimization, and domination. Even when transhumanism acknowledges environmental constraints, it seems to offer technology as a means to increase engineering.

Thirdly, transhumanism understands mortality as a flaw. In transhumanist discourse, mortality is sometimes treated as a problem to be solved. However, what happens to ethics, depth, and the nature of time when mortality is abstracted from the existential structure of human life? The phenomenological tradition understands mortality as a condition for significance. Being-towards-death is not a flaw but an existential structure through which the meaningful is revealed (Heidegger, 1962). In such an understanding, transhumanism would be misapprehending the nature of limitation in the revelation of the meaningful.

It should be noted here that transhumanism should not be regarded as a fantasy. In fact, transhumanist visions are becoming more and more relevant in the light of advances in biotechnology and artificial intelligence. However, transhumanism remains a philosophy locked in the logic of transcendence. It is locked in the logic of transcendence because transhumanism seeks to transcend limitation through the power of technology. However, the question for futurity philosophy is

whether transhumanism's concept of overcoming limitation is adequate for a world of entanglement and vulnerability.

2.1 Internal diversity: biomedical, digital, and moral transhumanisms

It should be noted here that transhumanism should not be regarded as a monolith. In fact, at least three different forms of transhumanism can be discerned. Each of these forms has its own set of ontological presuppositions.

Biomedical transhumanism is focused on the enhancement of the organic body through gene editing, regeneration, pharmacology, and extreme longevity. The central idea here is that the human body is pliable. Health can be stretched to better-than-well. The ethical foundation here is sometimes based on the concepts of autonomy and beneficence. An intervention is good if it enhances well-being and is freely chosen. However, the problem here is that beneficence is difficult to bound when the concept of enhancement is treated as an open-ended concept.

Prioritization of informational continuity is key to digital transhumanism. In this view of the world, the human is a pattern, and embodiment is not essential. The canonical view of futurity in this strand of transhumanism is the migration of mind to another substrate, whether by uploading, emulation, or gradual replacement by prosthetic computation. This view of futurity is particularly susceptible to the "identity leap," the assumption that informational replication equals personal survival.

Moral or political transhumanism focuses on the collective impact of enhancement technologies. This strand of transhumanism deals with issues of inequality, access, coercion, and the remaking of social norms. Even where there are egalitarian assumptions about access to enhancement technologies, there are structural advantages that will be enhanced. In the final analysis, the category of "the human" will be stratified by tiers of augmented and non-augmented existence.

A common thread in all of these views of futurity is the assumption of "overcoming." However, the deeper question of whether a world already defined by ecological limits and relational interdependence can support a metaphysics of "overcoming" without recreating the very problems it seeks to overcome has yet to be addressed.

3 Posthumanism: Decentering, entanglement, and the limits of critique

Posthumanism refers to a range of broad theoretical concepts that contest the fundamental metaphysical and political presuppositions of classical humanism. While classical humanism posits the independent rational subject as the measure of all things and the site of all agency, posthumanism argues that the “human” subject is not self-initiating and therefore not ontologically self-sufficient. Instead, subjectivity is re-situated in relation to material ecologies, technoscientific infrastructures, multispecies relations, and historically sedimented regimes of power (Barad, 2007; Haraway, 1991; Wolfe, 2010). In this sense, posthumanism is not merely “after” humanism in an chronological sense but also critical of the classical humanist edifice that legitimized dominion over nature, the instrumentalization of bodies, and the exclusion of those deemed “less than human.” One of the important benefits of posthumanist theory is its ability to overcome anthropocentrism and to conceive of humans not merely as dominators of a passive world but rather as actors in an entangled world where agency is distributed between humans and non-humans. Such a conceptual shift has important implications for our understanding of ethics, knowledge, and politics (Braidotti, 2013; Haraway, 2016).

At the same time, the present article does not understand posthumanism as a phenomenon that needs to be “accepted” or “refuted,” but as a transformation that needs to be clarified further at an ontological level. If the human is no longer central, how is continuity established across time? If agency is distributed, how is responsibility and accountability maintained? These questions become pressing with regard to digital persistence and ecological instability. The following subsection seeks to situate three influential strands of posthumanism, so that its power and its conceptual tensions may be better appreciated.

3.1 Varieties of posthumanism: cyborg, ecological, and critical strands

Posthumanism is not a unified phenomenon but a set of approaches with varying emphasis. The “cyborg” strand emphasizes technocultural hybridity and the dissolution of boundaries between organism and machine, often viewing technological mediation as an opportunity to challenge established identities and hierarchies (Haraway, 1991). The “ecological” or “more-than-human” strand emphasizes en-

tanglement with other species, symbiosis, and planetary situatedness, stressing that human existence is co-constituted by microbial, animal, vegetal, and climatic agencies (Haraway, 2016; Margulis, 1998). The “critical posthumanist” strand critically examines the politics of the term “human,” stressing that humanist subjectivity has historically been predicated upon exclusions such as racial, gender, colonial, and species hierarchies (Braidotti, 2013; Wolfe, 2010).

Metazōic ontology is closest to both ecological and critical strands, while also taking seriously the cyborg strand’s emphasis on mediation and its impact upon subjectivity. However, metazōic ontology argues that a further step is necessary: regardless of how one conceives of the future—as cyborg or as entanglement—the question of continuity remains: how is a trace maintained across time?

3.2 What posthumanism clarifies—and what it leaves open

Posthumanism helps us understand, with decisive philosophical clarity, that the human is not an ontological island. The most lasting contribution of posthumanism is its movement from separability to entanglement, where life is co-constituted, and no single agent or species is in charge. According to Barad, what exists is not a world of pre-given entities interacting at a distance, but rather a world of intra-actions in which relations are constitutive of what exists (Barad, 2007). In Haraway’s notion of “making kin,” ethics is situated in the particular rather than in the general (Haraway, 2016). In Wolfe’s critique of humanism, the human is revealed as historically privileged, requiring critique rather than assumption (Wolfe, 2010). These contributions remain essential to any discourse on futurity that seeks to transcend anthropocentric dominance and technocratic hubris.

The conceptual success of posthumanism, however, also leads to a particular kind of incompleteness, which becomes apparent if futurity is discussed in terms of persistence rather than critique. The first kind of incompleteness is that, in its distribution of agency, posthumanism sometimes fails to specify the structure of responsibility. If agency is distributed across entities, then the ethical task is not only to recognize this distribution, but also to specify how responsibility is traced, assigned, and lived. The second kind of incompleteness is that posthumanism, in its celebration of hybridity, may unintentionally slide into a technoculturalism where hybridity is seen as intrinsically liberatory. The cyborg is indeed an important concept in destabilizing boundaries (Haraway, 1991). Yet, mediation is always already technologically embodied, requiring extractive, energetic, and institutionally governed practices. A posthumanism that privileges hybridity but forgets the em-

bodied, energetic, and extractive requirements of mediation may unintentionally slide into a subtle kind of technocentrism, using relational vocabulary.

Third, and most pertinent to the argument of this article, posthumanism does not necessarily thematize continuity as a specific ontological question. It is highly effective in decentering the human as a central concept but does not necessarily answer the question of what exactly "remains" and how "remaining" works when identity is no longer based on substance. In the context of digital continuity, this question is particularly pertinent: traces are present, memory is re-activated, and digital representations endure after biological death. The question is no longer simply "is the human decentred?" but "how does presence continue through inscription—technological, environmental, cultural—without collapsing into either immortality myths or dissolution?" This is exactly the space where Metazōic ontology places itself: not in reaction to posthumanism but after it, in the sense of continuing relational critiques into an ontology of continuity.

In this sense, Metazōic ontology should not be conceived of as a further variation of the posthuman discourse, but rather as a restructuration of the problematic of this discourse. While posthumanism undermines the notion of the human and transhumanism enhances it, the problematic of continuity remains to be addressed: how are we to conceive of continuity in the face of technological inscription, ecological fragility, and digital persistence? It is precisely this problematic of continuity that the Metazōic turn seeks to address.

4 Metazōic Ontology: From Anthropological Transformation to Ontological Continuity

Metazōic ontology does not set out to redefine the notion of the human; it does not even set out to redefine it in relation to other notions; it seeks to displace the anthropological problematic altogether. In this sense, the key statement of Metazōic ontology is not enhancement or decentering; it is continuity through transformation. While transhumanism enhances the human subject and posthumanism disperses it, the Metazōic turn seeks to conceive of existence in terms of inscriptional persistence across biological, technological, ecological, and mnemonic registers. Continuity is not the persistence of substance or the dispersal of the subject; it is the reconfigured structure of existence. In this sense, Metazōic ontology does not compete with other variants of the posthuman discourse; it reconfigures the very problematic of continuity upon which this discourse has been established.

Metazoë is not a metaphor; it is an ontology articulated through three inter-related dimensions of persistence. These are not three separate registers of existence; they are three structural modalities of continuity in the face of technological inscription and ecological entanglement.

4.1 Technological continuity: Digital Metazoë and the inscription of

presence

Continuity in the technological sphere entails the persistence of the traces of a person's presence in the digital world. This includes data profiles, voice recordings, writing styles, behavioral patterns, and algorithmic inscriptions. The key idea here is that the digital does not merely retain a memory of the person but re-activates them. A social media profile continues to shape interactions after the person's death. Archived messages continue to shape the nature of relationships. Generative models may inscribe patterns of communication such that the line between trace and presence gets blurred (Kasket, 2019; Öhman & Watson, 2019). This is thus a continuity of presence and not merely a memory of the past. However, the Metazoic perspective would be to note that the digital does not exist in an immaterial space. Every inscribed trace requires a substrate of storage and energy. Data servers consume energy and require mineral and infrastructural supports. Digital presence is an ecological event. This leads to the next aspect of the Metazoic perspective: the myth of "cloud immateriality" is broken. The digital is thus inextricably linked to the earth.

Continuity of technology also requires ethical regulation. If traces are left behind, to whom do they belong? To whom do we owe permission to re-use them? How do we manage posthumous presence to respect privacy, dignity, and integrity of relations? Metazoic ethics changes the unit of ethics from action to trace: not only do we need to consider what we do, but we must consider what we leave behind in the system after we are biologically gone.

4.2 Ecological continuity: Biospheric Metazoë and continuity without

identity

Ecological continuity refers to the material continuity of the human within biospheric processes. From the point of view of ecological science and philosophy,

matter is not destroyed, only transformed: the body decays, re-joins the earth, nourishes plant life, and continues to be involved in the processes of biogeochemical cycling (Coccia, 2019; Margulis, 1998). Therefore, death is not destruction but transcription to another plane of existence: the transcription of the body into ecological becoming.

This type of continuity is "cosmo-centric" rather than "ego-centric." It is the continuity of matter rather than the continuity of personality. Metazoic ontology argues, however, that this tension between the two is not contradictory but rather dialectical: the continuity of the human is both/and rather than either/or: the human continues both as the digital trace of "who" they are and as the ecological trace of "what" they are made of. It is not the same person but rather the person as contribution to the continuous cycle of becoming. The ontology of the permeable membrane is crucial at this point: the membrane is not impermeable, the body is not separate from the world (DeLanda, 2016; Haraway, 2016).

4.3 Mnemonic continuity: Mnemonic Metazoë and the cultural inscription

of meaning

The concept of mnemonic continuity points to the continuation of persons via memory, narrative, art, and culture. This is neither psychological nor archival; instead, it is a social ontology of meaning. Memory re-creates absence into a new form of presence (Ricoeur, 2004). Narrative establishes intergenerational continuity: a person continues via what is remembered of them, retold, reinterpreted, and re-created. Art enhances this process by infusing meaning into enduring forms.

Within this dimension of continuity, there is deprivatization: nobody continues by themselves anymore, everybody continues through others. Hannah Arendt's line of thought on the duration of human action in the public world of meaning may be relevant in this respect: "The presence of a public world of meaning is the condition of the duration of human action beyond the life span of the individual human being" (Arendt, 1958). Mnemonic Metazoë thus underlines the relational nature of continuity, which always depends on others.

5 Tentacular thinking: The epistemology of relationality and continuity

The epistemology of Metazoic ontology must be able to think continuity in its non-linear and multi-layered nature. Tentacular thinking is such an epistemology. It is the project of developing an alternative epistemology that is deeply rooted in interdependence, processes, and care. It draws on the resources of process philosophy, eco-feminism, posthumanism, and science and technology studies, focusing on the relationality of networks rather than the linearity of causes. Its precursors are Heraclitus, Spinoza, Merleau-Ponty, and Deleuze and Guattari's rhizomatic thought; its examples are the biological and ecological networks of mycorrhizae, coral reefs, or the complex symbioses of organisms.

Tentacular thinking is significant for futurity because it converts uncertainty and complexity into resources. In an accelerated world, linear thinking is no longer adequate because technological change outpaces institutional adaptation, and ecological systems do not respond linearly. Tentacular thinking suggests that we need to learn how to think with complexity, not against complexity. This is an epistemology that has significant implications for pedagogy, art, and politics. The basic idea is that relationality is not just descriptive; it is also normative. In order to think about entanglement, we also have to think about kinship and care. In relation to Metazoic ontology, tentacular thinking has three significant contributions. First, tentacular thinking gives us a new model of continuity that is networked, not linear. This means that continuity is not just a matter of a line of continuity from my current self into my future survival. Instead, continuity is a web of traces, cycles, and meanings that branch out, repeat, and re-activate. This is precisely what is seen in the threefold model of Metazoë: technological, ecological, and mnemonic continuities are interconnected. Second, tentacular thinking gives us a new ethics of futurity that is based on care and kinship. If we are interdependent beings, then we are also responsible for the future other, for the people who will inherit traces of us, our ecological footprints, and our stories. Care is thus an epistemology and an ethics. Third, tentacular thinking gives us a new way of looking at technocentrism. Tentacular thinking is a critique of posthumanist narratives that are still technocentric or anthropocentric. This is precisely what is seen in the emphasis on embodied, ecological, and material entanglements that are part of Oikonomou's work on tentacular thinking (2025a). This is significant for Metazoic ontology because we are refusing to think about digital continuity as immaterial or as a promise

of immortality.

A final implication concerns pedagogy. If tentacular thinking is fostered as a practice, students are encouraged to think through consequences beyond immediate results: how a prompt becomes a text, how a text becomes a trace, how traces add up to infrastructures, and how infrastructures remake the world socially and ecologically. This pedagogy is not against technology; it is against naïveté. It encourages students to think through systems, to think through costs, and to think through continuity stewardship in daily decisions: what to store, share, automate, and delegate to technology. It also affirms slower thinking: attention, listening, and care as forms of epistemological resilience. In a world of future shock, to think through complexity is not a luxury but a civic skill. In Metazoic terms, this is how continuity is made teachable without becoming merely technical.

6 Metazoic phenomenology and poetic ontology: Finitude as horizon

The model of continuity may also remain abstract unless it is linked with human experience. Metazoic ontology therefore includes a phenomenological dimension: continuity as an existential orientation, not only an ontological architecture. The “afterlife” is thus not a doctrine on what happens after death, but a lived awareness of how traces are already being inscribed and how finitude is already shaping meaning.

The phenomenological school has always underlined that death is a horizon that silently defines life. Heidegger’s analysis of being-toward-death has shown that finitude is not only an event that concludes life but also a structure that discloses authenticity (Heidegger, 1962). Ethical phenomenology has also underlined that responsibility is not a matter of self-mastery but a consequence of being exposed to the other (Levinas, 1979). Metazoic phenomenology follows from these premises but places them again in a new context: that of digital culture, ecological circulation, and cultural hyper-memory. The question is thus not how to escape finitude but how to inhabit finitude responsibly.

The poetic ontology offers a deeper level of understanding by showing how language itself becomes a medium of continuity. The poetic school has always underlined that the self can survive through being inscribed into a lasting form. Ancient Greek culture offers a remarkable precedent: Pindar’s notion of *kleos aphthiton* (immortal glory) constructs an “artificial body” of language to ensure that a victor

survives through time. The ode is a vehicle—ship or chariot—that inscribes the essential characteristics of a life into a reproducible medium (Oikonomou, 2026). The logic of continuity through inscription is thus not new: what is new is the scale and power of inscription that digital culture offers.

Metazoic ontology, understood poetically, thus thwarts the transhumanist dream of continuity secured solely through technological prowess. Continuity is also an existential awareness of acting, writing, teaching, and relating with the knowledge that one's traces are already part of some form of duration. The focus is no longer on the mechanics of continuity but on the experience of meaning that transcends the here and now. In this manner, Metazoic orientation may thus be seen as an exercise of full consciousness: living with the knowledge that one is already being transcribed.

7 Acceleration and Futurity: Toffler, AI, and Epistemological Crisis

Why is continuity an issue of pressing concern at the moment? The answer may lie in the Tofflerian problematics of acceleration. Toffler's concept of "future shock" refers to disorientation brought about by an overload of change that occurs at an unprecedented pace. In the current context, however, future shock is no longer merely about the quantitative overload of information but also about the qualitative nature of an epistemological crisis brought about by the presence of generative AI that may produce inaccurate but believable results, deepfakes that challenge evidence, and algorithmic feeds that challenge shared reality.

A striking example of this crisis can be found in the domain of education, where "the integration of AI technologies turns students into 'prosumers' who simultaneously consume and produce knowledge through iterative cycles of prompting" (Greenhow & Askari, 2017; Toffler, 1980; UNESCO, 2024). In education, there are issues of decision fatigue and technostress, where the rate of development of technologies far outpaces the ability of traditional norms to keep up with this development. This transition from an industrial bureaucratic model of education to an adhocratic model of learning requires not just emotional but also cognitive and critical resilience (Collins & Halverson, 2018; Masten & Reed, 2002; Robertson et al., 2015). In the context of connectivism, the ability to know more becomes more important than what one already knows (Siemens, 2005), precisely because of the rate of change and the necessity of verification.

Metazoic ontology plays a part in this diagnosis, and the connection between acceleration and continuity becomes important. If knowledge systems are in a state of instability, then we cannot assume continuity; we must cultivate it. Tentacular thinking becomes important as an epistemology of complexity, and Metazoë becomes important as an ethics of the traces of accelerated systems. In a world where AI can produce text in seconds that will be archived for decades, inscription becomes an event of ontology. Not only does futurity concern what arrives, but also what remains and how it remains.

8 Ethics of continuity: From actions to traces, from autonomy to stewardship

Metazoic ontology carries significant implications for a new ethics. In the classical view, ethics might be action-centered, duty-centered, virtue-centered, and/or consequence-centered. In the Metazoic view, ethics becomes: What are the traces of continuity produced by our actions? What will remain, circulate, and re-activate after us, technologically, ecologically, and mnemonically?

Metazoic ethics becomes a “Metazoic deontology” of a duty not only to act well, but also to leave traces of action that are non-harmful for the future of others. Technological continuity requires consent, data stewardship, and limitations on posthumous digital presence. Ecological continuity requires minimizing the footprint and responsible use of resources. Mnemonic continuity requires integrity in inscription, truthfulness in narratives, and responsibility for the memory of others. Metazoic ethics also requires virtues of the quality of the traces of continuity: Being ‘good’ means leaving a minimum of ecological footprint, responsible digital traces, and truthful narratives for the production of collective meaning (Oikonomou, 2025b).

This new ethical awareness might be named continuity stewardship. It is not a form of technocratic governance but rather an ontological awareness. And yet it has implications for governance. If posthumous digital presence is significant to social relations, then there must be a technology policy to shape data governance and algorithmic simulation. If there are posthumous ecological footprints, then there must be environmental policy to acknowledge them. And if there are memory practices to shape cultural continuity, then there must be cultural policy to support them without creating new forms of erasure. Metazoic ontology therefore extends ethics to futurity politics: the politics of what persists.

9 Comparative synthesis: Enhancement, decentering, continuity

We are now in a position to differentiate the three paradigms.

Transhumanism is based upon transcendence. Transhumanism sees futurity as transcendence of biological limits through technological empowerment. Transhumanism's ethical awareness is optimization: better bodies, better minds, more life. Transhumanism's risk is escalation without transcendence: technological radicalism and metaphysical conservatism.

Posthumanism is based upon decentering. Posthumanism's decentering gives priority to relational awareness and critiques anthropocentric hierarchies. Posthumanism's risk is decentering as critique: powerful but potentially incomplete.

Metazoic ontology is based upon a principle of continuity. It shifts futurity from transcending and transcending to inhabiting. Ethically, it is based upon continuity stewardship. It is post-transhuman but not anti-technology, and post-posthuman but not anthropocentric. It is a liminal space where the human is not in control and not erased but is a transition point in matrices of biological, digital, and cultural inscription.

9.1 A conceptual diagram in prose: three ontological vectors

To facilitate conceptual understanding of the interrelation between the three paradigms, the relation between them can be represented by a diagram described in prose. Three vectors are imagined to emanate from the same point, corresponding to the same historical juncture: the modern subject confronted with technoscientific acceleration and planetary crisis.

Vector A (Transhumanism) points upwards. It posits the future as a ladder of enhancement: the human subject climbs by adding to its capacities—longer life, enhanced cognition, faster computation, greater control over biology. This vector points upwards because it posits an axis of “more,” of “better.” The metaphysical wager of Transhumanism is that the self can be preserved as a coherent pattern despite changes in its material substrate.

Vector B (Posthumanism) points outwards. It posits the future as a widening field of relations: the human subject is not an origin but an effect of relations between bodies, machines, animals, infrastructures, and climates. This vector points outwards because it disperses agency across a network of actors. The metaphysical

wager of Posthumanism is that the human subject is historically contingent and that the task of the subject should consist in decentering anthropocentrism.

Vector C (Metazoic ontology) points radially. It does not climb and it does not merely spread; it circulates. It points radially because it follows cycles of transcription: data circulating through platforms, matter circulating through ecosystems, meanings circulating through memory and art. The metaphysical wager of Metazoic ontology is that existence endures by being rewritten across media, not by being preserved intact or dissolved altogether. In this diagram, Metazoic continuity is represented by a grammar of persistence: a way of naming what remains under conditions of transformation.

9.2 Beyond definitions: what each paradigm takes as its basic unit

A good way to continue the comparison is to consider the basic unit of each of the three paradigms.

The transhumanist paradigm tends to consider the individual organism—or rather, the individual mind—as the unit of reference. Even when transhumanists speak of “collective intelligence,” the core of their ethics and politics is the improvement of the person.

The posthumanist paradigm tends to consider the assemblage as the unit of reference. Not the individual organism, but the ensemble of relations between human and nonhuman entities, discourses, materials, and infrastructures, is the core of the posthumanist ethics and politics.

The Metazoic ontology tends to consider the trace as the unit of reference. A trace may be technological, ecological, or mnemonic: it may be the result of human action or of natural processes, or it may be the expression of human thought or of aesthetic creativity. It is not the “aftereffect” of something, but the ontological unit of reference: traces are not only present in the world, they act, they circulate, and they shape the future of the world.

9.3 The problem of “identity” across the three paradigms

A more fundamental philosophical divide between the three paradigms may be seen in the problem of identity.

The idea that identity can be sustained through information continuity is a common premise of transhumanism. This is seen, for instance, in mind-uploading

scenarios and the idea that a sufficiently detailed simulation would “be” that person. The issue is that identity is not just information; it is also embodied, relational, and contextual. A model derived from behavior may mimic style, but it cannot replicate the lived experience of vulnerability that is constitutive of personhood.

The posthumanist stress on becoming and relationality is often used to challenge identity. However, removing identity from consideration can also create a pragmatic hole: mourning, accountability, and responsibility are identity-related phenomena. If identity is entirely subsumed by networks, then it is unclear why some networks should be considered ethical “ours.”

Metazoic ontology occupies a middle ground between preservation and dissolution. It recognizes that identity cannot be preserved as identical, but also that identity cannot be ignored. Identity is inscriptive: it is that which is inscribed in a trace and re-activated in relationship. This is a nuanced position that supports continuity without requiring immortality. A person does not continue as a substance, but various dimensions of their presence continue as re-useable, re-interpretable inscriptions.

9.4 A brief vignette: AI memorialization as Metazoic event

A concrete and contemporary example: A family keeps a record of voice messages, emails, pictures, and posts from a deceased loved one. A service offers to train a conversational AI model based on this record, creating a chatbot that ‘speaks like’ the person. The family feels comfort, discomfort, and ethical ambiguity. Comfort comes from mnemonic continuity: the AI evokes memory and aids in mourning. Discomfort stems from the continuity of technology to simulation, and from the blurred line between trace and presence becoming emotionally charged. Ethical concerns: Did the person consent to this use of their traces? Who controls the output of this model?

This example illustrates why Metazoic ontology is needed. Transhumanism might see this AI as a step to immortality. Posthumanism might see this as a form of hybrid agency. Metazoic ontology sees this as a continuity event: a re-activation of traces in a medium with ecological cost and cultural consequence. The ethical question: What is to be continued, what to be limited, and how to protect future others from harmful re-activations of the past?

10 Toward a philosophy of continuity: Implications for futurity studies

Metazoic ontology makes a contribution to futurity philosophy in at least four respects.

First, Metazoic ontology provides a unifying framework. Rather than choosing between technological optimism and ecological critique, it argues that technology, ecology, and culture are co-constitutive dimensions of continuity. This unification enables futurity studies to address AI, digital afterlife, and planetary crisis under a single ontological framework.

Secondly, it reconceptualizes the idea of “afterlife.” In Metazoic, afterlife is not a place but a series of transcriptions that already exist. The idea of “beyond” is autonomous because it is a reflective term that includes technological encoding, transformation, cultural memory, and poetic meaning. This reconceptualization connects both metaphysical traditions and modern realities without collapsing either continuity onto theology or technology.

Third, it enriches ethics. AI ethics frequently emphasizes the importance of fairness, transparency, and accountability. These issues are obviously important, and they remain so in the Metazoic ethics of traces and inscription. The novelty of the Metazoic perspective is the emphasis on the temporal dimension of traces: the traces we leave behind are not only those of the present but of the future too, and they will continue to shape the future. Ecological ethics often highlights the importance of sustainability. Metazoic ethics adds the notion of the posthumous footprint and the responsibility that comes with it. Similarly, cultural ethics often highlights the importance of cultural memory and the responsibility that comes with it.

Fourth, it provides a new pedagogy of futurity. If the role of education is being reconfigured by AI, then the role of the student must be reconfigured too: not only must they learn to use the tools of AI, but they must learn to think about the inscriptional effects of those tools: the traces they leave behind, the ways in which they shape the future. Tentacular thought provides the tools to develop such a pedagogy of futurity.

10.1 Methodological note: conceptual synthesis under acceleration

Futurity philosophy is often not accompanied by a particular empirical methodology because the future is by definition not yet known. Yet, we can be more explicit about the methodology of conceptual synthesis. This article is an integrative philosophical synthesis: it sets transhumanism and posthumanism in relation to Metazoic ontology, and it employs tentacular epistemology as the "meta-method" to deal with the complexities of the topic at hand: rather than trying to construct a single argument, the article explores the relationships between technology, ecology, culture, and existential meaning. It is a deliberately transdisciplinary approach, seeing futurity as the intersection of ontology, ethics, and pedagogy.

10.2 Limitations and scope conditions

Two limitations need to be addressed. The article does not offer an exhaustive review of transhumanist and posthumanist literature but rather focuses on the most common ontological trends in these discourses, especially in the most discussed positions. The Metazoic ontology is also presented as an evolving concept. The empirical verification of its validity will depend on interdisciplinary research on the role of digital traces in communities, on the persistence of ecological footprints in individuals' lives, and on the role of mnemonic practices in ensuring continuity in different cultures. The current purpose is rather that of clarification and positioning.

10.3 Toward a research agenda: measuring continuity without reducing it

If the Metazoic ontology is to leave the realm of philosophy, it is also necessary to imagine ways in which it could be made operational. One could, for example, imagine the construction of qualitative maps of continuity, where the traces left by an individual in terms of their technologies, ecological footprints, and mnemonics could be explored. Another avenue could be the exploration of ways in which continuity stewardship could be taught in education, in terms of digital, ecological, and mnemonic responsibility. The main challenge, however, is that continuity is difficult to measure in terms of metrics without losing its depth in terms of existential and cultural significance.

10.4 Political implications: continuity governance

Metazoic ethics, therefore, points to issues of governance. Who has the authority over the posthumous data? What are the rules governing algorithmic simulations of the dead? How do we measure the ecological footprint of digital archives and AI that facilitate continuity? Metazoic ontology does not give us a ready policy guide, but it does help us identify the domain of continuity governance as a legitimate domain of futurity politics, which brings together digital rights, environmental policies, and cultural memory under one ethical umbrella.

11 Conclusion: From the human to continuity

The twenty-first century does not simply pose new challenges to philosophy in terms of new technologies and crises. It poses a more fundamental question: how to live in the midst of transformation without the desire for escape or collapse.

Transhumanism offers transcendence.

Posthumanism offers decentering.

Metazoic ontology offers continuity.

Continuity, not as survival in a state of stasis, but as dynamic reinscription.

Continuity, not as immortality, but as transformation.

Continuity, not as dominance, but as participation.

If the future is to be a viable concept for philosophy, it must be a future beyond the rhetoric of overcoming and the language of dissolution. It must be a future capable of conceptualizing continuity in an age of acceleration. Metazoic ontology is not a philosophy of the future. It is an orientation toward the future—an orientation toward becoming. It is an orientation toward becoming that invites us to act, to write, to teach, to be in relation with the world and to each other in a way that is conscious of the fact that we are already in the future. Perhaps the future of philosophy is not to be found in the question of what we shall become. It may be found in the question of how we are already continuing.

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