From *Homo Faber* to *Homo Entangled*: A Posthuman Renaissance of Co-existence

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Abstract

This paper addresses the core Existential Posthumanist questions—*How should we live? How do we co-exist? How can we bring these insights into practice?*—by challenging the myth of the autonomous, unassisted human. Utilizing a Big History framework, this paper argues that humans have been natural-born cyborgs since the Stone Age, an existence fundamentally defined by an ontological entanglement with technology. This historical perspective refutes the fundamental dualism separating the natural self from technological tools, framing technology (from axes to algorithms) as an inseparable part of our evolutionary and ontological becoming (*re-nasci*). Then this paper also examines how contemporary technologies is utilised in projects like Earth Species Project to eliminate the communication barriers with non-humans and Brain-Computer Interfaces (BCI), which provide practical means for closer co-existence by bridging humans and computers, which enables the technological rebirth to entangle with non-humans and to learn how to live not just *with* technology, but through it, as a relational node in the planetary web. To bring the complex insight into practice, this paper argues for the novel role of speculative fiction to bring the insights into collective practice. Following the model of oral literatures teaching cultural values and modes of existence (e.g., respect for a river god, fear of a forest spirit). Speculative fiction has now taken this role to teach people posthuman values, with films like Mickey 17 guiding by enabling the imagination and ethical navigation required for a truly post-anthropocentric co-existence and global Posthuman Renaissance.

Keywords: Existential Posthumanism, Natural-Born Cyborg, Technological Entanglement, Speculative Fiction, Big History, Multispecies Co-existence

Introduction: The Philosophical Challenge

The 21st century presents humanity with a radical ontological crisis that necessitates a shift from Homo Faber, the maker the artitect of his own destiny toward an entangled notion of homo entangled, a being defined by radical relationality. Existential posthumanism challenges the humanist subject of autonomous agency and embraces the relationality and coexistence. The traditional humanism ideals are fortified by the tenets that the human has traditionally been treated as male and universal. It is always treated in the singular (the human) and as a set of features or conditions: rationality, authority, autonomy, and agency. (Nayar 2014, pp. 15–16). This view of superior humans had demonstrated the consequence of the entangled existence of species with eliminating the balance among them and building the humanist ideal of the central species of the universe. For centuries this idea was predominant with the myth of "autarkic self" the humanist notion that the human is a self-sufficient, unassisted entity, ontologically distinct from others. The "human" is not a fixed universal but a historical construction that has privileged specific iterations of the species while dehumanizing others. However, this view is untenable. As Rosi Braidotti argues, the Vitruvian ideal of “Man” as the measure of all things in the universe has drastically exploded in the present age of technological advancements, revealing that a human has never been a solitary actor but rather a “relational subject constituted in and by multiplicity” (Braidotti, 2013, p. 49).

This paper posits a shift towards Homo Entangled, a subject that is not defined by boundaries but rather by “intra-action,” a concept Karen Barad introduces to signify that distinct agencies do not precede their interaction but emerge through their entanglement, which rejects the dualism of interaction, which assumes that there are separate individual agencies that precede their interaction (Barad, 2007, p. 33). The framework of *Homo Entangled* rejects the binary agential cuts such as nature/culture, man/animal, and mind/body that serve as the byproducts of humanist ideals. Instead, it positions tools from the earliest stone axes to contemporary algorithms as constitutive elements of our ongoing process of becoming. This Posthuman Renaissance is not the rebirth of humans as masters of universe, with reflecting the same humanist ideals, but rather re-nasci (rebirth) into the awareness that we are, and always been, assemblages collections of biological, geological, and technological agents interacting in a continuous flow of becoming with also challenging the myth of human autonomy by

demonstrating, through the case studies of cyborgs, speculative narratives, and multi-species interaction with positioning technology, that it is not a tool of separation but rather a medium of connection, paving the way for a post-dualistic future of coexistence.

Big History: The Natural-Born Cyborg

Humanist narratives of evolution often present the human as a singular species that gradually acquires technology as an external add-on. Posthuman theory fundamentally questions this notion of pure human and states humans have never existed in isolation; instead, humans are embedded within networks of material, biological, and technological relations of entanglement. To understand the posthuman condition, one must adopt a "big history" perspective that refutes the notion of a pristine, pre-technological human nature. Adopting the big history framework allows us to situate the posthuman condition within deep evolutionary time rather than as the product of the contemporary era. As Andy Clark famously stated, we humans are “natural-born cyborgs.” We have always been "natural-born cyborgs," a concept Andy Clark utilizes to describe humans as "thinking and reasoning systems whose minds and selves are spread across biological brains and nonbiological circuitry" (Clark, 2003, as cited in Nayar, 2014, p. 35). With these notions, this article extends this claim backward in time, arguing cyborgian hybridity characterizes life itself, long before the emergence of Homo sapiens.

From the perspective of Big History, humans did not originate as discrete, autonomous entities; instead, the earliest protocells arose from intricate assemblies of lipids, nucleic acids, minerals, and environmental factors such as temperature and pH. The emergence of eukaryotic cells through endosymbiosis (Margulis, 1970) provides the biological precedent for the cyborg. This event, where free-living bacteria became integral organelles, destabilizes “biological purity” and serves as the primary cyborg moment in deep time; these early life forms were not independent beings but rather delicate systems that developed through their interactions with their environment, highlighting Barad's concept of intra-action. This relational origin of life challenges humanist assumptions by emphasizing that life begins not with individuality, but with entanglement and cyborg embodiment, which should be viewed as an ancient evolutionary condition rather than a modern technological aberration. Where “A cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (Haraway, 1991, 149). The Protocells are considered as Proto-cyborg of biological

assemblage with the environment with a non-linear time in becoming rather a technological enhancement of time, placing it on the posthuman framework instead of transhuman enhancement of cyborgs with technology as a tool, and Francesca Ferrando argues that "Posthumanism does not contemplate a linear notion of time; today, yesterday, and tomorrow are not separated" (Ferrando, 2019, p. 154).

Humans as Assemblage

To grasp the posthuman condition, we must embrace the concept of the human as an assemblage of complex, continuous process of becoming with the interaction of external and internal factors. As Alaimo argues through her concept of "trans-corporeality," the human body is always intermeshed with the more-than-human world (Alaimo, 2010). The very substance of the self is interconnected with vast biological, economic, and industrial systems. We are permeable; the environment runs through us. This phenomenon is evident in the "proletarian lung" affected by industrial silica dust (Alaimo, 2010) or in the presence of microplastics and chemicals in our bloodstreams. We are multispecies assemblages, hosting a symbiotic relationship with trillions of bacteria and viruses that constitute our microbiome, and we are literally a "we" rather than "I." As assemblages from proto-cells to truecells, humans agency is distributed and constantly interacting. "Posthumanism sees the assemblage of organic, machinic, natural, and other circuits as producing subjectivity. There is no subjectivity that predates the circuit because there is no body that is not always techno-social" (Nayar, 2014, p. 364). The stages of human assemblage posists the techno cyborg as modern assemblage of current epoch, with the human machine assemblage finds its archetypal expression in Mary shelly's Frankenstein, in which the Frankenstein creation can be considered as the assemblage of proto cyborg successor, where the protocells took the truecells forms after multiple stages and numerous influence of external influences, which reflects on the precarious body of the "monster" created by the human, Frankenstein reflects his ambition to control over life but the notion of entanglement is left underviewed by him in which he is the catalyst, part of the assemblage in the process of creating the modern cyborg of techno assemblage as we are "chimeras, theorized and fabricated hybrids of machine and organism" (Haraway, 1991, p. 150). We are not entering a post-biological era, as some transhumanists claim; rather, we are deepening our awareness that we have never been "purely" biological. The recognition of

humans as assemblage is the first step towards the recognition of entangled existence and deconstructing the autonomous human. The modern techno assemblage paves the way for entanglement with intelligent machines, AI, sentient machines, and non-humans.

Technological Bridges: BCI and Interspecies Communication

Tracing the theoretical shift from homo faber to homo entangled, the contemporary cyborgs provides the machine and human integration, assemblage more precisely through artists and scientists who create and implant new senses to perceive reality beyond the human spectrum, thus becoming closer towards the environment. Artists like Moon Ribas implanted seismic sensors in her feet and arms to feel the tectonic activity of the planet in real time. Crucially, Ribas notes that becoming a cyborg did not make her feel closer to robots but closer to nature and animals. "I feel closer to nature because I can feel my planet... and I feel closer to other animals that can perceive earthquakes too" (TEDx Talks, 2017). This approach challenges the transhumanist stereotype of escaping biology; instead, Ribas uses technology to deepen her biological connection to the geo (Earth). She even extended this capability to "moonquakes," allowing her to be physically on Earth but sentiently on the Moon, a concept she calls "sensor-naut" (TEDx Talks, 2017).

Neil Harbisson, born with total color blindness (achromatopsia), implanted an antenna in his skull, which gives him the ability to hear the colours as sound frequencies. Harbisson posits a collapse of the tool/user distinction; he does not wear technology but rather *is* technology (BBC News, n.d.). The antenna functions not as a peripheral device but as a synthetic organ that facilitates new modes of intra-action with the electromagnetic spectrum. Like Ribas, this enhancement connects him to the non-human: "I feel closer to insects that have antennae... sensing UltraViolets and Infrareds makes me feel closer to all those insects that can sense these colors" (Thoughtworks, n.d.). Harbisson's experience as a cyborg expands his perception towards the entanglement of the human and machine boundary, as the cyborg is defined by the three crucial boundary breakdowns, including the blurring of the physical and non-physical (Haraway, 1991, p. 151).

The posthuman destabilizes the limits and symbolic borders posed by the notion of the human. Dualisms such as human/animal, human/machine, and, more in general,

human/nonhuman are reinvestigated through a perception which does not work on oppositional schemata" (Ferrando, 2019, p. 148). In the same way, the posthuman deconstructs the clear division between life/death, organic/synthetic, and natural/artificial. So the dissolution of the subject is further accelerated by Brain computer interfaces, which paved the way for brain-to-machine communication. Professor Kevin Warwick, often called the "first human cyborg," conducted pioneering experiments connecting his nervous system directly to a computer and the internet. Warwick implanted a "BrainGate" array (100 electrodes) into the median nerve of his arm. This allowed his neural signals to control a robotic hand across the Atlantic Ocean (from New York to the UK) via the internet (TEDx Talks, 2016). Crucially, the system included feedback: sensors on the robot hand sent signals back to Warwick's brain, allowing him to "feel" how much force the robot was applying. Even more profoundly, Warwick linked his nervous system electronically to that of his wife, Irena. When she moved her hand, his brain received a pulse. He describes this as "telegraphic communication directly from nervous system to nervous system" (TEDx Talks, 2016). This experiment suggests a future of "brain-to-brain" communication, bypassing the clumsy, serial coding of language (pressure waves) for a direct transmission of emotion, thought, and color (TEDx Talks, 2016). BCI represents a shift where "the border between individuals becomes permeable," allowing for a "social brain" that ties minds together in an organic-technological fabric (Keysers, 2011, as cited in Nayar, 2014, p. 61). This is the technological realization of the posthuman. It realizes the assemblage not just within one body, but between bodies, mediated by the technosphere.

The Role of Speculative Fiction and Posthuman Pedagogy

To encapsulate these ontological shifts, a new cultural narrative is needed to be embraced as the oral literature in the past, which had developed fear, respect, and reverence towards non-humans and nature through myths and folktales to regulate humans as part of the entanglement. Shifting towards speculative fiction, which offers a new window to guide humans to coexistence. Speculative fiction functions as "design fiction," prototyping possible futures and rehearsing the human implications of technological advances (Stivers, 2020, as cited in DeFalco & Dolezal, 2024, p. 126). Speculative fiction guides us through the possibility of mutual existence and consequences of anthropocentrism more effectively through the plots in mediums like novels and films. Through "speculative fabulation," SF allows us to "stay with the trouble" of living on a

damaged planet, offering myths that do not promise salvation but rather the capacity to live inside complex, multispecies entanglements (Haraway, 2016, p. 2). Speculative films such as Bong Joon-ho's *Mickey 17* (Bong, 2025) function as more than mere entertainment; they serve as ontological laboratories. By portraying the life of an expendable clone, the narrative exposes the fallacy of the unique, autonomous soul and situates agency within a manufactured, iterative existence. This mirrors what Haraway (2016) calls "staying with the trouble," as the protagonist must navigate a world where his survival is inextricably linked to the sentient environment of Niflheim. As depicted in the film, the protagonist Mickey Barnes is an "expendable," a clone reprinted with his memory intact after every time he dies in a mission to explore the ice world Niflheim to colonize it, but the planet consists of other species like creepers with sentience, which eventually wanted to be exterminated by the expedition leader-politician Kenneth Marshall, which signifies the humanist notion of control over co-existence contrasting the creepers, which embrace mutuality. The theme of the film is reflected in *Avatar* (Cameron, 2009), which offers the most explicit cinematic articulation of posthuman entanglement. Pandora functions as a networked planetary system, where humans, animals, plants, and neural pathways are biologically interconnected. In James Cameron's *Avatar*, the neural bonding (Tsaheylu) acts as a cinematic manifestation of intra-action. The Na'vi do not merely use their mounts; they co-constitute a single biological-technological circuit. This exemplifies Braidotti's (2013) relational subject, where the boundaries between self and other—biological and neural—dissolve into a functional assemblage: embodied, relational, and non-sovereign (pp. 49–51). Also the film *Predator: Badlands* (Trachtenberg, 2025) reflects the life of Dek, a Yautja who came to the death planet to hunt Kalisk, with Dek positioned as a symbolic representation of the humanist ideal, but the planet changes him towards co-existence for survival. This shift similarly deconstructs the hunter/prey dualism. As the protagonist Dek shifts from a position of humanist mastery to one of survival-based cooperation, the film illustrates that entanglement is not a choice made in comfort but a fundamental necessity for planetary survival. This narrative arc reinforces the paper's argument that we are transitioning from the age of the solitary predator (*Homo Faber*) to the entangled kin (*Homo Entangled*).

Thus, the literature and speculative fiction function as "laboratories" for ethical navigation for posthuman pedagogy to teach the coexistence not only with the living but also with the nonliving. By engaging with these narratives, we can mentally simulate the experience

of being a cyborg, a clone, or a multispecies community, expanding our capacity for empathy and preparing us for the strange realities of the posthuman future. To prepare the future generation, we must prepare the pedagogies more towards mutual coexistence with respecting the boundaries and alienating the humanist ideals in the posthuman future.

Conclusion

The transition from Homo Faber to Homo Entangled represents a profound shift in embracing the relation. It is the realisation that we are not autonomous agents standing outside nature but nodes in a vast, vibrant network of entanglement. As Stacy Alaimo stated, "The human is [a]lways intermeshed with the more-than-human world, [which] underlines the extent to which the substance of the human is ultimately inseparable from "the environment." (Alaimo, *Bodily Natures* 2). This Posthuman Renaissance is not about leaving the human behind in the transhuman quest of immortality, which often mirrors the Cartesian dualism that treats mind and body as separate entities. In contrast, this Posthuman Renaissance is defined not by the mastery of the world, but by the cultivation of a relational existence. Rather, it's about realising we are never just humans to begin with but assemblages of different entanglements with environment and technologies. As demonstrated by Moon Ribas sensing seismic shifts and Neil Harbisson perceiving the light spectrum through sound, the unheard and unseen agency of the non-human becomes visible. This paves the way for a posthuman renaissance defined not by the mastery of the world but by the cultivation of a truly relational existence.

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